



**Repsol International
Finance, B.V.**

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The Hague, March 1, 2018

In accordance with Article 14 of Law of 9 May 2006, on market abuse, Repsol International Finance, B.V. (the “Company”) is filing the attached Annual Consolidated Financial Report (the “Repsol Annual Report 2017”) of Repsol, S.A., the Guarantor of the Company’s Euro 10,000,000,000 Guaranteed Euro Medium Term Note Programme, for the fiscal year ended 31 December 2017

The Repsol Annual Report 2017 was filed yesterday by Repsol, S.A. with the Spanish Securities Market Commission (*Comisión Nacional del Mercado de Valores*).

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Repsol S.A. and Subsidiaries

Independent Auditor's Report on
Consolidated Financial Statements
for the year ended 31 December
2017 and Consolidated Management
Report

Translation of a report originally issued in Spanish based on our work performed in accordance with the audit regulations in force in Spain. In the event of a discrepancy, the Spanish-language version prevails.

INDEPENDENT AUDITOR'S REPORT ON CONSOLIDATED FINANCIAL STATEMENTS

To the Shareholders of REPSOL, S.A.,

Report on the Consolidated Financial Statements

Opinion

We have audited the consolidated financial statements of REPSOL, S.A. (the Parent) and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2017, and the consolidated statement of profit or loss, consolidated statement of comprehensive income, consolidated statement of changes in total equity, consolidated statement of cash flows and notes to the consolidated financial statements for the year then ended.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated equity and consolidated financial position of the Group as at 31 December 2017, and its consolidated results and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRSs) and the other provisions of the regulatory financial reporting framework applicable to the Group in Spain.

Basis for Opinion

We conducted our audit in accordance with the audit regulations in force in Spain. Our responsibilities under those regulations are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report.

We are independent of the Group in accordance with the ethical requirements, including those pertaining to independence, that are relevant to our audit of the consolidated financial statements in Spain pursuant to the audit regulations in force. In this regard, we have not provided any services other than those relating to the audit of financial statements and there have not been any situations or circumstances that, in accordance with the aforementioned audit regulations, might have affected the requisite independence in such a way as to compromise our independence.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Assessment of the recoverability of the cash-generating units (CGUs) in the Upstream segment and of the goodwill assigned thereto.

Description

As described in Notes 10, 11 and 12 to the accompanying consolidated financial statements, at 31 December 2017 the net property, plant and equipment of the CGUs in the Upstream segment amounted to EUR 13,632 million, the joint ventures and associates of the Upstream segment amounted to EUR 5,714 million and the goodwill assigned thereto, which related mainly to the goodwill that arose on the acquisition of Talisman Energy, amounted to EUR 2,347 million.

At least once a year, the Group tests each of the CGUs in this segment for impairment to assess the recoverability of the assets associated with those CGUs and of the goodwill corresponding to them, which depends on the economic situation of the Upstream businesses and on the future cash flows calculated by the Group, which require significant judgements and estimates to be made.

The most significant judgements and estimates relate to future oil and gas prices, estimates of crude oil and gas reserves, discount rates and other assumptions concerning the business, such as capital expenditure or the costs associated with the extraction of oil and gas.

Procedures applied in the audit

Our audit procedures included the review of the relevant controls established by management in relation to the asset recoverability assessment process. We also assessed the methodology and assumptions applied by the Group for the preparation of the future cash flows.

We checked the estimates of the future oil and gas prices against the forward curves existing at year-end and the forecasts of analysts, investment banks and reference agencies, such as the International Energy Agency and the US Energy Information Administration.

In order to review the discount rates calculated by the Company, we involved our internal valuation experts who reviewed the market information available and the calculation methodology used and carried out an independent verification.

We also compared the assumptions concerning the business with the budgets of the Group's various business units, and with the actual data from previous years.

Assessment of the recoverability of the cash-generating units (CGUs) in the Upstream segment and of the goodwill assigned thereto.

Description

Because significant judgements and estimates are involved and as a result of the volatility of the oil and gas prices, particularly in recent years, the situation described was considered to be a key matter in our audit.

Procedures applied in the audit

For certain assets and liabilities associated with projects and businesses acquired in the Talisman Energy transaction, we compared the carrying amounts with the information contained in an independent valuer's report obtained by the Repsol Group (see Note 13).

In relation to the verification of this independent valuer's report, we assessed the findings and conclusions of this specialist and its competence, capability and objectivity in order to determine the adequacy of its work for use as audit evidence.

Also, in relation to the goodwill associated with the Upstream segment, we reviewed the calculations that support the recoverability of the goodwill by comparing the highest recoverable amount of the CGUs, reviewed in accordance with the aforementioned procedures, with the carrying amount of the related assets. We also obtained and assessed the sensitivity analysis prepared by Group management, in which we checked how management stressed those assumptions to which the impairment test is most sensitive, i.e. those with the greatest effect on the determination of the recoverable amount of the assets.

Lastly, we reviewed the disclosures included by the Group in the accompanying consolidated financial statements in relation to these matters to assess whether they are adequate.

Estimate of oil and gas reserves.

Description

As described in Note 3 to the accompanying consolidated financial statements, the estimation of crude oil and gas reserves is an area in which significant judgement is required, which directly affects processes, such as the assessment of the recoverability of the Upstream segment's assets and the depreciation of investments in areas with reserves.

Technical uncertainties are involved in determining the level of reserves in each block, as well as sophisticated contractual agreements that determine the percentage of net reserves corresponding to the Group. The impact that these matters have on the assessment of the recoverability of these assets and on the depreciation of these investments is the reason why the situation described was considered to be a key matter in our audit.

Procedures applied in the audit

Our audit procedures included, among others, the obtainment of an adequate understanding of the oil and gas reserve estimation process and the review of the relevant controls established by management in connection with this process. We obtained and analysed the main changes in reserves in 2017 and we verified whether the increases and decreases in reserves had taken place in the correct period, and compared the reserves estimated by the Group with the information contained in the oil and gas reserve audit reports prepared by independent engineering firms (see Note 3).

In relation to the verification of these audit reports on reserves, prepared by companies specialised in the oil and gas industry with an extensive track record in the assessment of reservoirs, we assessed the findings and conclusions of these specialists and their competence, capability and objectivity for making the reserve estimates, and determined the adequacy of their work for use as audit evidence. We reviewed the consistency of the data provided by the Group to those companies and reviewed the reports issued by the latter, reconciling them to the reserves used by the Repsol Group for the purposes of the depreciation and recoverability of the various assets.

Assessment of the recoverability of assets in Venezuela.

Description

As described in Note 21.3 to the accompanying consolidated financial statements, at 31 December 2017 the exposure of the Repsol Group's net assets in Venezuela amounted to approximately EUR 1,480 million, which relates mainly to the financing provided in US dollars to its joint ventures (Cardón IV and Petroquiriquire) in that country and, to a lesser extent, the accounts receivable from Petróleos de Venezuela, S.A. (PDVSA).

The situation of high economic, political and regulatory instability in Venezuela, the declaration of a state of economic emergency in Venezuela, the regulated foreign exchange system, an economy with extremely high levels of inflation and an oil industry with a high level of public sector intervention and involvement, may affect both the valuation and the timing with which the Repsol Group will receive the estimated cash flows from the operation of its assets in Venezuela. These are the reasons why the situation described was considered to be a key matter in our audit.

Procedures applied in the audit

Our audit procedures included, among others, understanding the process followed by the Group in measuring the assets in Venezuela and, in particular, reviewing the relevant controls established by management in connection with this process.

We reviewed the recoverability of the CGUs specific to Venezuela in accordance with the procedures described in the first key audit matter. Also, we assessed the recoverability of the financing granted by the Group to the Venezuelan joint ventures and the accounts receivable from PDVSA by reviewing the hypotheses and assumptions used to test these financial assets for impairment and reviewing their consistency with the other assumptions used to analyse the Group's exposure in Venezuela. Furthermore, we performed substantive procedures aimed at verifying compliance with the contractual clauses and other analytical substantive procedures to review the performance of the businesses affected. We also obtained the report of the independent auditor of the component Cardón IV, which contains an unqualified opinion, and supervised its work and reviewed its conclusions, in accordance with NIA-ES 600.

In addition, we checked the assessment of the impairment losses due to credit risk in Venezuela calculated by the Repsol Group using the information contained in the independent expert's report obtained by the Group to support management's judgements (see Note 21.3). In relation to the verification of this independent expert's report, we assessed the findings and conclusions of this expert and its competence, capability and objectivity in

Assessment of the recoverability of assets in Venezuela.

Description

Procedures applied in the audit

order to determine the adequacy of its work for use as audit evidence.

Also, we reviewed the appropriate application of the functional currency defined by the Group and assessed the impact that the different foreign exchange regulations (inter alia, foreign exchange agreements, currency auctions, etc.) have on the transactions of the Group companies in Venezuela.

Lastly, we reviewed the disclosures included by the Group in the accompanying consolidated financial statements (see Notes 7,12 and 21) in relation to these matters to assess whether they are adequate.

Recoverability of deferred tax assets and income tax estimate.

Description

The consolidated balance sheet as at 31 December 2017 includes deferred tax assets amounting to EUR 4,057 million, of which EUR 3,809 million relate to tax loss and tax credit carryforwards. The Group's estimated income tax expense amounts to EUR 1,220 million.

At the end of 2017 the directors made projections in order to assess the recoverability of the deferred tax assets, taking into account new legislative developments and the most recently approved business plans for the various assets and business units.

Procedures applied in the audit

Our audit procedures included the review of the relevant controls established by management for the process followed by the Group for estimating income tax and for assessing the recoverability of the deferred tax assets. Also, we involved out internal tax experts who assisted us in assessing the reasonableness of the criteria followed by the directors in connection with the recoverability of the deferred tax assets and the income tax estimate, largely in connection with the degree to which the tax treatment of transactions is in accordance with the tax and contractual legislation applicable in each situation and jurisdiction.

Recoverability of deferred tax assets and income tax estimate.

Description

In addition, as a result of the various jurisdictions in which the Group operates, mainly in the Upstream segment, the directors estimate the income tax expense for the year taking into account, where applicable, the existing contractual arrangements for operating in the various blocks and the applicable oil and gas tax legislation.

We identified this matter as key in our audit due to the high level of judgement required for the preparation of these projections, largely in connection with the business plan estimates, the high number of jurisdictions in which the Group operates and the complexity of both the applicable oil and gas tax legislation and the existing contractual agreements.

Procedures applied in the audit

In relation to the recoverability of the deferred tax assets, we obtained and analysed the future projections estimated by management, assessing the key assumptions used, including the analysis of the consistency of the actual results obtained by the various businesses with those projected in the previous year, the obtainment of evidence of the approval of the budgeted results included in the current year's projections, and the reasonableness of the future cash flow projections and the consistency of those projections with those used in other areas of estimation such as those used for assessing the recoverability of assets.

Regarding the appropriateness of the tax treatment applicable in each case and jurisdiction, we reviewed the estimate of the income tax and of the deferred taxes recognised in the year, analysing the differences between amounts recognised for accounting purposes and those treated as taxable or deductible for tax purposes, assessing their classification as temporary or permanent, and the tax rate applicable to each component based on the existing contractual agreements and the oil and gas tax legislation applicable to each component.

Lastly, we reviewed the disclosures included by the Group in the accompanying consolidated financial statements (see Note 23) in relation to these matters to assess whether they are adequate.

Other Information: Consolidated Directors' Report

The other information comprises only the consolidated directors' report for 2017, the preparation of which is the responsibility of the Parent's directors and which does not form part of the consolidated financial statements.

Our audit opinion on the consolidated financial statements does not cover the consolidated directors' report. Our responsibility relating to the consolidated directors' report is defined in the audit regulations in force, which establish two distinct levels:

a) A specific level that applies to the consolidated non-financial information statement, as well as to certain information included in the Annual Corporate Governance Report, as defined in Article 35.2.b) of Spanish Audit Law 22/2015, which consists solely of checking that the aforementioned information has been provided in the consolidated directors' report and, if this is not the case, reporting this fact.

b) A general level applicable to the other information included in the consolidated directors' report, which consists of evaluating and reporting on whether the aforementioned information is consistent with the consolidated financial statements, based on the knowledge of the Group obtained in the audit of those consolidated financial statements and excluding any information other than that obtained as evidence during the audit, as well as evaluating and reporting on whether the content and presentation of this part of the consolidated directors' report are in conformity with the applicable regulations. If, based on the work we have performed, we conclude that there are material misstatements, we are required to report that fact.

Based on the work performed, as described in the preceding paragraphs, we have checked that the information described in section a) above has been provided in the consolidated directors' report and that the other information in the consolidated directors' report is consistent with that contained in the consolidated financial statements for 2017 and its content and presentation are in conformity with the applicable regulations.

Responsibilities of the Directors and Audit and Control Committee of the Parent for the Consolidated Financial Statements

The Parent's directors are responsible for preparing the accompanying consolidated financial statements so that they present fairly the Group's consolidated equity, consolidated financial position and consolidated results in accordance with EU-IFRSs and the other provisions of the regulatory financial reporting framework applicable to the Group in Spain, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Parent's directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

The Parent's audit and control committee is responsible for overseeing the process involved in the preparation and presentation of the consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the audit regulations in force in Spain will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is included in Appendix 1 to this auditor's report. This description, which is on pages 11 and 12, forms part of our auditor's report.

Report on Other Legal and Regulatory Requirements

Additional Report to the Parent's Audit and Control Committee

The opinion expressed in this report is consistent with the content of our additional report to the Parent's audit and control committee dated 27 February 2018.

Engagement Period

The Annual General Meeting held on 19 May 2017 appointed us as auditors of the Group for a period of one year, for the year ended 31 December 2017.

Previously, we were designated pursuant to a resolution of the General Meeting for the period of one year and have been auditing the consolidated financial statements uninterruptedly since the year ended 31 December 1990.

DELOITTE, S.L.
Registered in ROAC under no. S0692



Javier Ares San Miguel
Registered in ROAC under no. 06176

27 February 2018

Appendix 1 to our auditor's report

Further to the information contained in our auditor's report, in this Appendix we include our responsibilities in relation to the audit of the consolidated financial statements.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

As part of an audit in accordance with the audit regulations in force in Spain, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Parent's directors.
- Conclude on the appropriateness of the use by the Parent's directors of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Parent's audit and control committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Parent's audit and control committee with a statement that we have complied with relevant ethical requirements, including those regarding independence, and we have communicated with it to report on all matters that may reasonably be thought to jeopardise our independence, and where applicable, on the related safeguards.

From the matters communicated with the Parent's audit and control committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters.

We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

REPSOL Group

2017 Consolidated
financial
statements

*Translation of a report
originally issued in Spanish.
In the event of a discrepancy,
the Spanish language version prevails*



Repsol, S.A. and investees comprising the Repsol Group
Balance sheet at December 31, 2017 and 2016

	Note	€ Million	
		12/31/2017	12/31/2016
ASSETS			
Intangible assets:	10	4,584	5,109
a) Goodwill		2,764	3,115
b) Other intangible assets		1,820	1,994
Property, plant and equipment	11	24,600	27,297
Investment property		67	66
Investments accounted for using the equity method	12	9,268	10,176
Non-current financial assets	7	2,038	1,204
Deferred tax assets	23	4,057	4,746
Other non-current assets	7	472	323
NON-CURRENT ASSETS		45,086	48,921
Non-current assets held for sale		22	144
Inventories	17	3,797	3,605
Trade and other receivables:	18	5,912	5,885
a) Trade receivables		3,979	3,111
b) Other receivables		1,242	1,785
c) Current income tax assets		691	989
Other current assets		182	327
Other current financial assets	7	257	1,280
Cash and cash equivalents	7	4,601	4,687
CURRENT ASSETS		14,771	15,928
TOTAL ASSETS		59,857	64,849
LIABILITIES AND EQUITY			
	Note	12/31/2017	12/31/2016
Capital		1,556	1,496
Share premium and reserves		25,541	24,232
Treasury shares and own equity investments		(45)	(1)
Net income for the year attributable to the parent		2,121	1,736
Other equity instruments		1,024	1,024
SHAREHOLDERS' EQUITY	6	30,197	28,487
Available-for-sale financial assets		0	6
Hedging instruments		(163)	(171)
Translation differences		(241)	2,545
OTHER ACCUMULATED COMPREHENSIVE INCOME	6	(404)	2,380
NON-CONTROLLING INTERESTS	6	270	244
EQUITY		30,063	31,111
Grants		4	4
Non-current provisions	13	4,829	6,127
Non-current financial debt	7	10,080	9,482
Deferred tax liabilities	23	1,051	1,379
Other non-current liabilities	14	1,795	2,009
NON-CURRENT LIABILITIES		17,759	19,001
Liabilities related to non-current assets held for sale		1	146
Current provisions	13	518	872
Current financial liabilities	7	4,206	6,909
Trade and other payables	19	7,310	6,810
a) Trade payables		2,738	2,128
b) Other payables		4,280	4,365
c) Current income tax liabilities		292	317
CURRENT LIABILITIES		12,035	14,737
TOTAL EQUITY AND LIABILITIES		59,857	64,849

Notes 1 to 32 are an integral part of the consolidated balance sheet.

Repsol, S.A. and investees comprising the Repsol Group
Consolidated income statement for the years ending December 31, 2017 and 2016

	Note	€ Million	
		2017	2016
Sales		41,242	34,556
Services rendered and other income		426	133
Changes in inventories of finished goods and work in progress inventories		206	129
Income from reversal of impairment losses and gains on disposal of non-current assets		864	1,625
Other operating income		710	990
OPERATING REVENUE	20	43,448	37,433
Supplies		(30,251)	(23,615)
Personnel expenses		(1,892)	(2,501)
Other operating expenses		(5,195)	(5,930)
Depreciation and amortization of non-current assets		(2,399)	(2,529)
Impairment losses recognized and losses on disposal of non-current assets		(922)	(947)
OPERATING EXPENSES	20	(40,659)	(35,522)
OPERATING INCOME		2,789	1,911
Finance income		194	176
Finance expenses		(677)	(741)
Change in fair value of financial instruments		34	189
Net exchange gains/(losses)		151	94
Impairment and gains (losses) on disposal of financial instruments		(14)	48
FINANCIAL RESULT	22	(312)	(234)
SHARE OF RESULTS OF COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD AFTER TAXES	12	904	194
NET INCOME BEFORE TAX		3,381	1,871
Income tax	23	(1,220)	(391)
NET INCOME FROM CONTINUING OPERATIONS		2,161	1,480
NET INCOME ATTRIBUTED TO NON-CONTROLLING INTERESTS FROM CONTINUING OPERATIONS		(40)	(43)
NET INCOME ATTRIBUTED TO THE PARENT FROM CONTINUING OPERATIONS		2,121	1,437
NET INCOME ATTRIBUTED TO THE PARENT FROM DISCONTINUED OPERATIONS		-	299
TOTAL NET INCOME ATTRIBUTED TO THE PARENT		2,121	1,736
EARNINGS PER SHARE ATTRIBUTED TO THE PARENT		Euros/share	
Basic	24	1.35	1.11
Diluted	24	1.35	1.11

Notes 1 to 32 are an integral part of the consolidated income statement.

Repsol, S.A. and investees comprising the Repsol Group
Statement of recognized profit or loss corresponding to the years ending December 31, 2017 and 2016

	€ Million	
	2017	2016
CONSOLIDATED NET INCOME FOR THE YEAR ⁽¹⁾	2,161	1,779
From actuarial gains and losses	1	(5)
Share of investment in joint arrangements and associates	1	(6)
Tax effect	-	-
OTHER COMPREHENSIVE INCOME (Items not reclassifiable to income)	2	(11)
Financial assets available for sale:	6	1
Measurement gains (losses)	6	1
Amounts transferred to the income statement	-	-
Cash flow hedges	22	18
Measurement gains (losses)	(5)	(16)
Amounts transferred to the income statement	27	34
Translation differences	(2,660)	505
Measurement gains (losses)	(2,622)	560
Amounts transferred to the income statement	(38)	(55)
Share of investment in joint arrangements and associates:	(132)	152
Measurement gains (losses)	(175)	99
Amounts transferred to the income statement	43	53
Tax effect	(30)	15
OTHER COMPREHENSIVE INCOME (Items reclassifiable to income)	(2,794)	691
TOTAL OTHER COMPREHENSIVE INCOME	(2,792)	680
TOTAL RECOGNIZED INCOME FOR THE YEAR	(631)	2,459
a) Attributable to the parent	(662)	2,413
b) Attributable to minority interests	31	46

⁽¹⁾ Constituting the sum of the following consolidated income statement captions: "Net income from continuing operations" and "Net income attributable to the parent from discontinued operations"

Notes 1 to 32 are an integral part of the consolidated statement of recognized income and expense.

Repsol S.A. and Investees comprising the Repsol Group
Statement of changes in equity corresponding to the years ending December 31, 2017 and 2016

€ Million	Total equity attributable to the parent and other holders of equity instruments							Equity
	Capital and reserves					Accumulated other comprehensive income	Non-controlling interests	
	Capital	Share premium and reserves	Treasury shares and own equity investments	Net income for the year attributable to the parent	Other equity instruments			
Closing balance at 12/31/2015	1,442	26,030	(248)	(1,398)	1,017	1,691	228	28,762
Total recognized income/(expense)	-	(11)	-	1,736	-	688	46	2,459
Transactions with shareholders or owners	-	-	-	-	-	-	-	-
Increase/(decrease) of share capital	54	(54)	-	-	-	-	-	-
Dividend payments	-	-	-	-	-	-	(9)	(9)
Transactions with treasury shares or own equity instruments (net)	-	(61)	247	-	-	-	-	186
Increases/(decreases) due to changes in the scope of consolidation	-	-	-	-	-	-	(21)	(21)
Other transactions with partners and owners	-	(243)	-	-	-	-	-	(243)
Other changes in equity	-	-	-	-	-	-	-	-
Transfers between equity items	-	(1,398)	-	1,398	-	-	-	-
Issues of perpetual subordinated bonds	-	(29)	-	-	7	-	-	(22)
Other changes	-	(2)	-	-	-	1	-	(1)
Closing balance at 12/31/2016	1,496	24,232	(1)	1,736	1,024	2,380	244	31,111
Total recognized income/(expense)	-	2	-	2,121	-	(2,785)	31	(631)
Transactions with shareholders or owners	-	-	-	-	-	-	-	-
Increase/(decrease) of share capital	60	(60)	-	-	-	-	-	-
Dividend payments	-	-	-	-	-	-	(5)	(5)
Transactions with treasury shares or own equity instruments (net)	-	-	(44)	-	-	-	-	(44)
Increases/(decreases) due to changes in the scope of consolidation	-	-	-	-	-	-	-	-
Other transactions with partners and owners	-	(342)	-	-	-	-	-	(342)
Other changes in equity	-	-	-	-	-	-	-	-
Transfers between equity accounts	-	1,736	-	(1,736)	-	-	-	-
Issues of perpetual subordinated bonds	-	(29)	-	-	-	-	-	(29)
Other changes	-	2	-	-	-	1	-	3
Closing balance at 12/31/2017	1,556	25,541	(45)	2,121	1,024	(404)	270	30,063

Notes 1 to 32 are an integral part of the consolidated statement of changes in equity.

Repsol, S.A. and investees comprising the Repsol Group
Statement of cash flows corresponding to the years ending December 31, 2017 and 2016

	Note	Million euros	
		2017	2016
Net income before tax		3,381	1,871
Adjustments to net income:		1,872	2,547
Depreciation and amortization of non-current assets	10 and 11	2,399	2,529
Other adjustments to income (net)		(527)	18
Changes in working capital		(110)	(517)
Other cash flows from/(used in) operating activities:		(30)	(11)
Dividends received	12	511	920
Income tax payments/(receipts)		(320)	(264)
Other payments/(receipts) on operating activities		(221)	(667)
CASH FLOW FROM OPERATING ACTIVITIES	25	5,113	3,890
Payments for investing activities:	1.4, 10 and 11	(3,094)	(3,649)
Group companies and associates		(327)	(842)
Property, plant and equipment, intangible assets and investment property		(2,300)	(2,003)
Other financial assets		(467)	(804)
Proceeds from divestments:	1.4	254	4,056
Group companies and associates		16	3,090
Property, plant and equipment, intangible assets and investment property		78	813
Other financial assets		160	153
Other cash flows		51	(16)
CASH FLOW FROM INVESTING ACTIVITIES	25	(2,789)	391
Proceeds from/(payments for) equity instruments:	6	(293)	(92)
Issues		-	23
Depreciation		-	(23)
Acquisition		(304)	(103)
Disposal		11	11
Receipts/(payments) on financial liabilities	7	(1,163)	(910)
Issues		10,285	12,712
Return and redemption		(11,448)	(13,622)
Shareholder remuneration payments and other equity instruments	6	(332)	(420)
Other cash flows from financing activities:		(573)	(631)
Interest payments		(537)	(591)
Other proceeds from/(payments for) financing activities		(36)	(40)
CASH FLOWS FROM FINANCING ACTIVITIES	25	(2,361)	(2,053)
EFFECT OF CHANGES IN EXCHANGE RATES		(49)	11
NET INCREASE / (DECREASE) IN CASH AND CASH EQUIVALENTS		(86)	2,239
CASH AND EQUIVALENTS AT THE BEGINNING OF THE YEAR		4,687	2,448
CASH AND EQUIVALENTS AT THE END OF THE YEAR	7	4,601	4,687
Cash at banks and in hand		3,753	3,207
Other financial assets		848	1,480

Notes 1 to 32 are an integral part of the consolidated cash flow statement.

Repsol, S.A. and Investees comprising the Repsol Group
NOTES TO THE 2017 CONSOLIDATED FINANCIAL STATEMENTS

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(1) GENERAL INFORMATION

1.1) About the Repsol Group

Repsol constitutes an integrated group of oil and gas (hereinafter “Repsol”, “Repsol Group” or “Group”).

The Repsol Group is engaged in all the activities relating to the oil and gas industry, including exploration, development and production of crude oil and natural gas, transportation of oil products, liquefied petroleum gas (LPG) and natural gas, refining, the production of a wide range of oil products and the marketing of oil products, oil derivatives, petrochemicals products, LPG, natural gas and liquefied natural gas (LNG).

1.2) About the parent company

The corporate name of the parent company of the Repsol Group that prepares and files these Financial Statements is Repsol, S.A. It is registered at the Madrid Commercial Registry in sheet no. M-65289; its tax ID number (C.I.F.) is A-78/374725 and its C.N.A.E. no. is 70.10.

Its registered office is in Madrid, 44 calle Méndez Álvaro, where the Shareholder Information Office is also located, the telephone number of which is 900 100 100.

Repsol S.A. is a private-law entity incorporated in accordance with Spanish legislation, which is subject to the Companies Act (Ley de Sociedades de Capital) approved by Legislative Royal Decree 1/2010 of July 2nd, and all other legislation related to listed companies.

The shares of Repsol, S.A. are represented by book entries and listed on the continuous market of the Spanish stock exchanges (Madrid, Barcelona, Bilbao and Valencia) and of Buenos Aires (Bolsa de Comercio de Buenos Aires). On March 9, 2011, the ADS (American Depositary Shares) Program began to trade on the OTCQX market, a platform within the OTC market (*over-the-counter*) in the United States which distinguishes issuers with improved market information and solid business activities.

1.3) About the consolidated Financial Statements and supplementary information

The accompanying Consolidated Financial Statements of Repsol, S.A. and its investees, comprising the Repsol Group, present fairly the Group’s equity and financial position at December 31, 2017, as well as the Group’s consolidated earnings performance, the changes in the consolidated equity and the consolidated cash flows for the year then ended.

These consolidated financial statements were approved by the Board of Directors of Repsol S.A.¹ at a meeting held on February 27, 2018 and, as well as the financial statements of the investees, will be submitted for approval by their respective Annual General Meetings, with no modifications expected².

The Group’s Management Report is published jointly with the consolidated financial statements. In addition, Repsol has published “*Information on Oil and Gas Exploration and Production Activities*” and the “*Report on Payments to Governments on Oil and Gas Exploration and Production Activities*” as supplementary, information not reviewed by the external auditor.

All these reports are available at www.repsol.com.

¹ The preparation of the consolidated financial statements, which is the responsibility of the Board of Directors of the Group’s parent company, makes it necessary to use accounting estimates and judgments when applying the accounting standards. The areas in which most significant judgments and estimates have to be made are detailed in Note 3.

² The 2016 Consolidated Financial Statements were approved at Repsol’s Annual Shareholders’ Meeting held on May 19, 2017.

1.4) Composition of the Group and main changes in consolidation scope

The Repsol Group contains more than 300 companies incorporated in more than 40 countries (mainly in Spain, Netherlands, Canada and the United States) that, from time to time, carry out activities abroad through branches, permanent establishments and so on.

The Repsol Group comprises subsidiaries, joint arrangements and associates. Appendices I and II detail the main companies, subsidiaries, joint arrangements and associates that form part of the Repsol Group included in the scope of consolidation.

In the Oil&Gas industry, exploration and production activities are usually carried out through partnerships or associations between companies they classify as joint arrangements, which are implemented through joint operation agreements that are included in partners' financial statements in accordance with the share of the assets, liabilities, income and expenses arising from the agreement, or as joint ventures that are included in partners' financial statements using the equity method.

There were no significant changes in the Group's scope of consolidation in 2017. For further information on changes in the Group's composition, see Appendix Ib "Main changes in the consolidation scope".

In 2016, in contrast, significant changes were made in the Group's composition as a result of a number of divestments¹ (sale of 10% in Gas Natural SDG, sale of LPG piped gas facilities in Spain, sale of LPG business in Peru and in Ecuador, sale of wind business in the United Kingdom, sale of Repsol E&P T&T Limited, sale of stake in Tangguh LNG in West Papua, Indonesia. In addition, 2016 saw the end of the business combination begun on May 8, 2015 by which Repsol acquired 100% of the shares of Talisman Energy, Inc. (hereinafter "ROGCI").

¹ For further information, see the 2016 consolidated financial statements.

(2) BASIS OF PRESENTATION

The accompanying consolidated financial statements are presented in millions of euros and were prepared based on the accounting records of Repsol, S.A. and its investees. They are presented in accordance with the International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board (IASB) as well as the IFRS endorsed by the European Union (EU) as of December 31, 2017¹ and other provisions of the regulatory framework². The changes in accounting standards that have been applied by the Group as of January 1, 2017 have not had an impact in the financial statements³ except for certain additional disclosures (see Note 25.3)

Repsol's consolidated financial statements include investments in all their subsidiaries, associates and joint arrangements⁴.

The accounting policies used by the Group's subsidiaries, joint arrangements and associates have been adjusted so that they are consistent with those applied by the parent and so that the consolidated financial statements are presented using uniform accounting policies for like transactions.

The Consolidated Financial Statements are presented in millions of euros, which is the functional currency of the parent company and presentation currency of consolidated financial statements. The items included in these consolidated financial statements relating to the Group companies are measured using their functional currency, which is the currency in the main economic environment in which they operate; when this differs from the presentation currency, the conversation is carried out as stated below: i) the assets and liabilities in each of the balance sheets presented are translated applying the closing exchange rate on the balance sheet date, ii) income and expense are translated applying the average exchange rate for the period in which the transactions were performed (however, the transaction-date exchange rate is used to translate significant transactions or when exchange rates have fluctuated significantly during the reporting period), and iii) any exchange gains/(losses) arising as a result of the foregoing are recognized as "Translation differences" under the equity heading.

Transactions in currencies other than the functional currency of an entity are deemed to be 'foreign currency transactions' and are translated to the functional currency by applying the exchange rates prevailing at the date of the transaction. At each year end, the foreign currency monetary items on the balance sheet are measured applying the exchange rate prevailing at that date and the exchange rate differences arising from such measurement are recorded as "Net exchange gains/(losses)" under Financial result.

The exchange rates against the euro of the main currencies used by the Group companies at December 31, 2017 and 2016 were as follows:

	12/31/2017		12/31/2016	
	Closing rate	Average accumulated rate	Closing rate	Average accumulated rate
US dollar	1.20	1.13	1.05	1.11
Brazilian real	3.97	3.61	3.43	3.86

¹ The IFRSs adopted and in effect in the EU differ in some respects from the IFRSs issued by the IASB; however these differences do not have a material impact on the Group's consolidated financial statements in the years presented.

² The policies considered significant based on the nature of the Group's activities are described at the end of this Note and other significant policies and those considered an accounting policy option are shown in the corresponding Notes.

³ The following standards are applicable from January 1, 2017: i) Amendments to IAS 12 *Recognition of deferred tax assets for unrealised losses*; ii) Amendments to IAS 7 *Disclosure initiative*; and iii) *Annual improvements, 2014-2016 Cycle (including Amendments to IFRS 12 Disclosure of Interests in Other Entities)*.

⁴ According to the control exercised over them, Group companies are classified as follows: i) subsidiaries: companies over which Repsol directly or indirectly exercises control and which are fully consolidated, ii) joint arrangements: companies in which strategic operating and financial decisions require the unanimous consent of the parties sharing control (joint control and are classified as i) joint operations organized through joint operating agreements (JOAs), or a similar vehicle and whose stakeholdings are held by the Group through the interest in subsidiaries that are fully consolidated, or ii) joint ventures are recognized using the equity method; and iii) associates: stakeholdings over which there is significant influence, where Repsol's consent is not required in strategic operational and financial decision-making, but over which it has power to intervene and that are accounted for using the equity method.

2.1) Comparative information

Earnings per share at December 31, 2016 have been restated with respect to that recognized in the 2016 consolidated financial statements in accordance with accounting standards, as the average number of outstanding shares considered in the calculation should be based on the new number of shares issued after the capital increase carried out as part of the compensation scheme to shareholders known as "Repsol Flexible Dividend" described in Note 6.

2.2) New standards issued for mandatory application in future years

The standards and amendments to standards issued by the IASB that will be mandatory in future reporting periods are listed below:

Standards and amendments to standards	Date of 1st application
Adopted by the European Union	
IFRS 9 <i>Financial instruments</i>	January 1, 2018
IFRS 15 <i>Revenue from contracts with customers</i>	January 1, 2018
Clarifications to IFRS 15 <i>Revenue from contracts with customers</i>	January 1, 2018
Amendments to IFRS 4 Application of IFRS 9 <i>Financial Instruments</i> in conjunction with IFRS 4 <i>Insurance contracts</i> ⁽¹⁾	January 1, 2018
Annual Improvements to IFRSs, 2014-2016 Cycle ^{(1), (3)}	January 1, 2018
IFRS 16 <i>Leases</i>	January 1, 2019
Pending Adoption by the European Union²	
Amendments to IFRS 2 <i>Classification and measurement of share-based payment transactions</i>	January 1, 2018
Amendments to IAS 40 <i>Transfers of investment property</i>	January 1, 2018
Interpretation IFRIC 22 <i>Foreign currency transactions and advance consideration</i>	January 1, 2018
Interpretation IFRIC 23 <i>Uncertainty over income tax treatment</i>	January 1, 2019
Amendments to IFRS 9 <i>Prepayment features with negative compensation</i>	January 1, 2019
Amendments to IAS 28 <i>Long-term interests in associates and joint ventures</i>	January 1, 2019
Annual Improvements to IFRSs, 2015-2017 Cycle ⁽⁴⁾	January 1, 2019
Amendments to IAS 19 <i>Employee benefits: plan amendment, curtailment or settlement</i>	January 1, 2019
IFRS 17 <i>Insurance contracts</i>	January 1, 2021
Amendments to IFRS 10 and IAS 28 <i>Sale or contribution of assets between an investor and its associate or joint venture</i> ⁽⁵⁾	Undefined

¹ No significant impacts have been identified resulting from its application.

² With regard to these standards and amendments, the Group is currently assessing the impact their application may have on the consolidated financial statements, without any significant impacts having been identified to date.

³ Includes Amendments to IFRS 1 *First-time adoption of IFRS* and Amendments to IAS 28 *Investments in associates and joint ventures* applicable from January 1, 2018.

⁴ Includes Amendments to IAS 12 *Income tax*, to IAS 23 *Borrowing costs* and IFRS 3 *Business combinations* and IFRS 11 *Joint arrangements*.

⁵ The application of these amendments to IFRS 10 and IAS 28, which were originally issued in September 2014, was deferred indefinitely in December 2015, until such time as the IASB completes the project relating to the equity method, which, in turn, has been delayed until the post-implementation phase of IFRS 10, IFRS 11 and IFRS 12.

IFRS 9 Financial instruments

IFRS 9 will replace IAS 39 from the tax year starting January 1, 2018. It contains significant differences with the current financial instrument recognition and measurement standard. The Group will apply IFRS 9 without restating comparative information, meaning that the impact of its initial application on financial assets and liabilities will be recognized in reserves on January 1, 2018.

Based on an analysis of the Group's financial assets and liabilities at December 31, 2017, employing the facts and circumstances at the time, the estimated impact of the initial application of IFRS 9 is as follows:

a) Classification and measurement of financial assets¹:

IFRS 9 establishes new categories for the measurement of financial assets.

The Group does not believe there will be a significant change or impact on its balance sheet as a result of the new classification and measurement criteria.

b) Impairment of financial assets:

IFRS 9 requires the application of an expected loss model, whereas IAS 39 required the use of a model structured around losses incurred. Under this model, the institution will recognize expected loss and changes thereto at each reporting date to reflect the changes to credit risk from the date of initial recognition. In other words, it is no longer necessary for impairment to occur before recognizing credit loss.

Financial assets measured at amortized cost, customer receivables and financial guarantee contracts are subject to the provisions of IFRS 9 in terms of impairment loss. The Group assumes the simplified approach to recognize credit loss expected during the lifetime of its trade receivables accounts. The Group has its own risk measurement models that it applies to its customers and expected loss estimation models based on the likelihood of default, the exposed balance and its estimated severity, considering the information available on each customer (sector of activity, payment performance, financial information, etc.).

Repsol is finalizing its complete expected loss model under IFRS 9. The estimated impact of the adoption of IFRS 9 on January 1, 2018 comes to €-350 million, approximately, on "Equity", fundamentally on account of assets linked to Venezuela². The risk of a worsening of the exceptional situation in Venezuela, in accordance with the methodology laid down by IFRS 9, has led to the use of different severity scenarios to quantify potential losses in addition to those recognized at year-end 2017 (see Note 21).

c) Hedge accounting:

IFRS 9 has provided more flexibility in terms of types of activity to which hedge accounting can be applied, specifically by expanding the types of instruments that satisfy the criteria to be considered as hedge instruments and in terms of the types of risk components in non-financial items that are eligible for hedge accounting. Furthermore, the efficiency test has been overhauled and replaced by the principle of "economic connection". The retroactive assessment of the efficiency of the hedge is no longer necessary.

Given that the new hedge accounting requirements will be closer to the Group's risk management policies, after the assessment undertaken of existing hedges (see Note 8), they meet the continuity requirements for hedges under IFRS 9. In addition, the Group will continue to include the forward element of exchange rate forward contracts in its hedging relationships.

¹ Investments in debt held within a business model whose objective is to obtain contractual cash flows consisting exclusively of the principal and interest are generally measured at amortized cost. When these debt instruments are held within a business model whose objective is achieved by obtaining contractual cash flows of the principal and interest and the sale of financial assets, generally speaking, they are measured at fair value with changes through profit or loss with changes to other comprehensive income. All other investments in debt and equity will be measured at fair value with changes through profit or loss. However, it is possible to irreversibly decide to include subsequent changes in the fair value of certain equity instruments in "Other comprehensive income" and, in general, in this case only dividends will be recognized afterwards in income.

² To quantify this impact, the criteria set out in "Amendments to IAS 28 Long-term interests in associates and joint ventures" on the net investment in Cardón IV have been taken into consideration.

IFRS 15 Revenue from contracts with customers

IFRS 15 is a comprehensive standard on the recognition of customer income that will replace several standards currently in force¹. The new requirements may give rise to changes in the Group's current income profile, as they must be recognized in such a way that the transfer of goods or services promised to customers is shown for a sum that reflects the consideration to which the Group expects to be entitled in exchange for said goods or services. The Group has revised the type of customer contracts (mainly for the sale of crude oil, gas, naphtha, oil products, chemicals and petrochemicals) and has not identified any significant impact on its financial statements in terms of: (i) the identification of "*performance obligations*" (obligations to transfer goods or services in contracts with customers) other than those already identified that might lead to their separation for the purposes of income recognition and measurement; (ii) accrual for accounting purposes or temporary attribution of income. The Group will apply the initial application option provided for in IFRS 15 and will not restate comparative financial statements.

IFRS 16 Leases

To date, the impact estimated by the Group of applying IFRS 16 Leases are associated with the leases under which the Group is a lessee and which in accordance with IAS 17 *Leases*, currently in effect, are classified as operating leases (see Note 20) and following the application of IFRS 16, will be recognized on the balance sheet on a basis resembling the one now applicable to finance leases. As a result, all leases would increase the Group's recognized assets and liabilities. Additionally, it would change the basis of recognition of lease expenses, to the extent that it would be recorded as an expense for amortization of the leased asset and as an interest expense by discounting the lease liability to present value. The Group continues to evaluate the impacts resulting from its application. The Group has no intention of applying this standard in advance and, at this date, different options for initial application are being evaluated.

¹ IAS 18 *Revenue*, IAS 11 *Construction Contracts*, IFRIC 13 *Customer Loyalty Programmes*, IFRIC 15 *Agreements for the Construction of Real Estate*, IFRIC 18 *Transfers of Assets from Customers* and SIC 31 *Barter Transactions Involving Advertising Services*.

ACTIVITY-SPECIFIC ACCOUNTING POLICIES

Recognition of hydrocarbon exploration and production transactions:

Repsol recognizes oil and gas exploration and production operations using accounting policies mostly based on the "successful efforts" method. Under this method, the various costs incurred are treated as follows for accounting purposes:

i. The costs of acquiring rights to explore and the costs incurred in conducting geological and geophysical (G&G) studies during the exploration phase are capitalized under the "Exploration rights" item of intangible assets. During the exploration and evaluation phase they are not amortized, although they are tested for impairment at least once a year and whenever indications of impairment are detected, in accordance with the guidelines set forth in IFRS 6. Once the exploration and evaluation phase is completed, if no reserves are found, the amounts previously capitalized are recognized as an expense in the consolidated income statement.

ii. The costs of acquiring new interests in areas with proved and unproved reserves (including bonds, resource-related costs, legal costs, etc.) are capitalized as incurred under the "Investments in areas with reserves" item of property, plant and equipment.

iii. Exploratory drilling costs, including those relating to stratigraphic exploration wells, are recognized as assets under the "Other exploration costs" item until it is determined whether reserves justifying their commercial development have been found. If no reserves are found, the capitalized drilling costs are registered in the statement of profit or loss. In the event that reserves are found but remain under evaluation for classification as proven, their recognition depends on the following:

- If additional investments are required prior to the start of production, they continue to be capitalized whilst the following conditions are met: (i) the amount of proved reserves found justifies the completion of a productive well if the required investment is carried out; and (ii) satisfactory progress has been made in the evaluation of reserves and the operational viability of the project. If any of these conditions fails to be satisfied, they are treated as impaired, and are expensed in the statement of profit or loss.
- In all other cases, if there is no commitment to carry out significant activities to evaluate reserves or develop the project within a reasonable period after well drilling has been completed, or if activities have been halted, they must be recorded as an expense in the statement of profit or loss.
- Costs incurred in exploratory drilling work that has yielded a commercially exploitable reserve finding are reclassified to "Investments in areas with reserves" under property, plant and equipment at their carrying amount.

iv. Exploration costs other than G&G costs ("Exploration rights and geology and geophysical costs"), excluding the costs of drilling exploration wells and exploration licenses, are recognized as an expense in the statement of profit or loss when incurred.

v. Development expenditure incurred in lifting proven reserves and in processing and storing oil and gas (including costs incurred in drilling relating to productive wells and dry wells under development, oil rigs, recovery improvement systems, etc.) are recognized as assets under the "Investments in areas with reserves" item of property, plant and equipment.

vi. Future field abandonment and dismantling costs (environmental, safety, etc.) are estimated, on a field-by-field basis, and are capitalized at their present value when they are initially recognized under "Investments in areas with reserves" against the dismantling provision item (see Note 13).

The investments capitalized as described above are depreciated as follows:

i. Investments in the acquisition of proven reserves and common facilities are depreciated over the estimated commercial life of the field on the basis of the production for the period as a proportion of the proven reserves of the field

at the beginning of the depreciation period.

ii. The costs incurred in surveys for the development and extraction of hydrocarbon reserves are amortized over the estimated commercial life of the field on the basis of the relationship between the production of the period and proved developed reserves of the field at the beginning of period amortization.

iii. Investments relating to non-proven reserves or fields under evaluation are not depreciated. These investments are tested for impairment at least once a year and whenever indications of impairment are detected.

The changes in estimated reserves are considered on a prospective basis in calculating depreciation.

Service/Gas station association rights and other rights:

Primarily corresponds the costs of agreements linked to gas station association rights, reflagging rights and image rights of publicity and exclusive supply to gas stations recognized under intangible assets. They are amortized on a straight-line basis over the period of the contract (between 25 and 30 years for the former and 1 year, which may be extended to a maximum of 3 years at the request of the counterparty for the others).

Carbon emission allowances:

Emission allowances are recognized as an intangible asset and are initially recognized at acquisition cost. Those received free of charge under the emissions trading system for the period 2013-2020, are initially recognized at the market price prevailing at the beginning of the year in which they are issued, against deferred income as a grant. As the corresponding tons of CO₂ are issued, the deferred income is reclassified to profit or loss.

They are not amortized as their carrying amount matches their residual value and are subject to an impairment test based on their recoverable amount, (measured with reference to the price of the benchmark contract in the futures market provided by the ECX-European Climate Exchange).

The Group records an expense under "Other operating expenses" in the income statement for the CO₂ emissions released during the year, recognizing a provision calculated based on the tons of CO₂ emitted, measured at: (i) their carrying amount in the case of the allowances of which the Group is in possession at year end; and (ii) the closing list price in the case of allowances of which it is not in possession at year end.

When the emissions allowances for the CO₂ tons emitted are delivered to the authorities, the intangible assets as well as their corresponding provision are derecognized from the balance sheet without any effect on the income statement.

When carbon emission allowances are actively managed to take advantage of market trading opportunities (see Note 29), the trading allowances portfolio is classified as trading inventories.

(3) ACCOUNTING ESTIMATES AND JUDGMENTS

The preparation of financial statements in accordance with generally accepted accounting principles makes it necessary to make assumptions and estimates that affect the valuation of the amounts of the assets and liabilities recognized, the presentation of contingent assets and liabilities at year end and the income and expenses recognized during the year. The actual results could differ depending on the estimates made.

The accounting policies and areas which require the highest degree of judgment and estimates in the preparation of the consolidated financial statements are: (i) crude oil and natural gas reserves; (ii) calculation of the recoverable value of assets (see Notes 10, 11 and 21); (iii) measurement of investments in Venezuela (see Notes 12 and 21); (iv) provisions for litigation, dismantling and other contingencies (see Note 13); (v) the calculation of income tax, tax credits and deferred tax assets (see Note 23); and (vi) the value of derivative financial instruments (see Note 8).

Crude oil and gas reserves

The process of estimating oil and gas reserves¹ is a key component of the Company's decision-making process. Oil and gas reserve estimates are used to calculate depreciation and amortization charges applying the unit-of-production ratio method and to test these Upstream assets for impairment (see "Testing assets for impairment and calculating their recoverable amounts" further on in this Note). Changes in reserve volumes could have a significant impact on the Group's results.

To estimate proved and unproved reserves and oil and gas resources, Repsol uses the criteria established by the SPE/WPC/AAPG/SPEE Petroleum Resources Management System, commonly referred to by its acronym SPE-PRMS (SPE standing for Society of Petroleum Engineers).

Calculating the recoverable amount of assets

In order to ascertain whether its assets have become impaired, the Group compares their carrying amount with their recoverable amount at least annually and whenever there are indications that an asset might have become impaired ("impairment test"). If the recoverable amount of an asset is estimated to be less than its net book value, the carrying amount of the asset is reduced to its recoverable amount, and an impairment loss is recognized in the consolidated income statement.

After an impairment loss has been recognized, amortization charges are calculated prospectively on the basis of the reduced carrying amount of the impaired asset.

On the occurrence of new events, or changes in existing circumstances, which prove that an impairment loss recognized on a prior date could have disappeared or decreased, a new estimate of the recoverable value of the corresponding asset is developed, to determine whether it is applicable to reverse the impairment losses recognized in previous periods. An impairment loss of goodwill cannot be reversed in the following years.

In the event of a reversal of an impairment previously recorded, the carrying amount of the asset is increased to the revised estimate of its recoverable value, so that the increased carrying amount does not exceed the carrying amount that would have been determined in case no impairment loss had been recognized for the asset in prior years.

For the "impairment test", assets are grouped into cash-generating units (CGUs), to the extent that such assets, when individually considered, do not generate cash inflows that are independent of the cash inflows from other assets or CGUs. The grouping of assets into the various CGUs implies the use of professional judgments and the determination, among other criteria, of the business segments and geographic areas in which the Company operates. Against this backdrop, in the *Upstream* segment, each CGU corresponds to one of the various contractual exploration areas widely known as 'blocks'; exceptionally, if the cash flows generated by more than one block are mutually interdependent, these blocks will be grouped into a single CGU. In the *Downstream* segment, the CGUs are defined as a function of business activities (mainly Refining, Chemicals, commercial businesses and LPG) and geographic areas. With respect to the North America Trading & Gas business, the Group includes a single CGU that essentially encompasses the North American assets.

¹ Registered volumes are periodically audited by independent engineering firms (at least 95% of the reserves are audited externally in a three-year cycle).

Goodwill acquired on a business combination is allocated among the CGUs or groups of cash-generating units (CGUs) that benefit from the synergies of the business combination and the recoverable amount thereof is estimated, generally, by discounting the estimated future cash flows of each unit, up to the limit of the business segment.

The recoverable amount is the higher of fair value less costs of sale and value in use.

The methodology used by the Group to estimate the recoverable amount of assets is, in general, the value in use calculated by discounting to present value the future cash flows expected to derive from the operation of these assets.

The cash flow projections are based on the best available estimates of the CGUs' income and expenses using sector forecasts, prior results and the outlook for the business's performance and market's development:

- The Group's annual budget and the business plan set macroeconomic forecasts for each of the countries where it has business operations, which include variables such as inflation, GDP growth, exchange rates, etc. that are used to quantify the abovementioned income and expense estimates. The aforementioned macroeconomic forecasts are prepared on the basis of the content of internal reports that use in-house estimates, based on updated external information of relevance (forecasts prepared by consultants and specialized entities).
- The oil and natural gas price trend estimates used by the Group are based on analysis of available market information, internal reports on the global energy landscape, including our own forecasts of the balance of supply and demand, and consideration of other factors (macroeconomic, financial, etc) and opinions expressed by outside sources:
 - i. To estimate near-term (2-3 years) price trends we use reports produced by a selection of analysts, investment banks and benchmark agencies¹.
 - ii. For long-term estimates, the only sources that produce sufficiently detailed analysis and forecasts are the benchmark agencies (IEA and EIA), so only these views are considered. These agencies engage in detailed research on supply, demand and prices under various scenarios (see Note 21.1).

The resulting prices are consistent with the annual budget and the updated strategic plan.

Valuations of Exploration & Production assets (*Upstream*) use cash flow projections for a period that covers the economically productive useful lives of the oil and gas fields, limited by the contractual expiration of the operating permits, agreements or contracts. The key valuation assumptions used to determine the variables that most affect this business' cash flows are summarized below:

- Oil and gas sales prices. The international benchmark prices used by the Group are: Brent, WTI (West Texas Intermediate) and HH (Henry Hub). In countries where international list prices do not reflect local market circumstances, the prices modeled factor in local market prices.
- Reserves and production profiles. Production profiles are estimated on the basis of output levels at existing wells and the development plans in place for each productive field. As a consequence, these profiles are then used to estimate proved and unproved reserves and resources. To estimate proved and unproved reserves and oil and gas resources, Repsol uses the criteria established by the SPE-PRMS (Society of Petroleum Engineers - Petroleum Resources Management System).
- Operating expenses and capital expenditure. These are calculated in year one on the basis of the Group's annual budget and thereafter in keeping with the asset development programs until 2020. These costs were extrapolated at a growth rate of 2% for impairment testing purposes in 2021 and subsequent years.

¹ The analysts engaging in macroeconomic and energy analysis are PIRA, IHS and Wood Mackenzie. The benchmark agencies are the International Energy Agency (IEA) and the US Energy Information Administration (EIA).

In the *Downstream* segment, the various businesses' cash flows are estimated on the basis of the outlook for its key variables (unit contribution margins, fixed costs and required maintenance capital expenditure), in keeping with the expectations reflected in the annual budget and the individual business-specific strategic plans. Cash inflows and outflows corresponding to future restructuring exercises or initiatives to enhance the assets' performance are not considered. The cash flow projection period considered to this end is generally five years; cash flows after year five are extrapolated without factoring in any further growth. Specifically:

- In the Refining business, and given the impact of the refinery expansion work and upgrades, long-term projections span a long-term period (specifically, more than 20 years)¹. For the purpose of calculating residual values, the only investment considered is maintenance capital expenditure and any investment needed for renovation purposes in order to maintain the CGU's productive capacity.
- The key assumptions for the North America Trading & Gas cash flow estimates businesses are as follows:
 - i. LNG and gas prices The international benchmark prices used by the Group are: Brent, HH, Algonquin and NBP (National Balancing Point), adjusted as required for local market considerations in the event that these international benchmarks do not fully reflect local market circumstances. The price trend used is consistent with the one used for the annual budget and the updated strategic plan (see Note 21).
 - ii. Gas and LNG marketing volumes and margins. The volumes used for cash flow forecasting purposes are estimated on the basis of the contracts in force at year-end and activity estimates, all of which in keeping with the annual budget and strategic plan. Margins factor in historical data, the price forecasts detailed in i. above and the outlook for margins going forward.

These estimated after-tax cash flows are discounted to present value using CGU-specific discount rates determined as a function of the currency in which their respective cash flows are denominated and the risks associated with these cash flows, including country risk. Repsol discounts projected cash flows using post-tax weighted average costs of capital for each country and business. These rates are reviewed at least once a year². The discount rates are intended to reflect current market assessments of the time value of money and the risks specific to the asset. Accordingly, the various discount rates used factor in the risk-free rate, country risk, the currency in which the cash flows are generated, as are the business and market and credit risk factors. To ensure that the calculations are consistent, the cash flow projections do not factor in risks that have already been built into the discount rates used, and vice versa. The discount rates used factor in average sector leverage as a reasonable proxy for the optimal capital structure, to which end management monitors leverage rates at comparable oil and gas companies during the last five years.

Furthermore, to determine whether it is necessary to recognize any impairment losses on investments in associates and joint ventures, the entire carrying amount of the investment is tested for impairment in accordance with IAS 36 *Impairment of assets* as a single asset, including any goodwill that may be implicit within the investment, by comparing its recoverable amount with its carrying amount. The recoverable amount of an investment in an associate or a joint venture is evaluated individually, unless it does not generate cash inflows from continuing use that are largely independent of those generated by other Group assets or cash-generating units.

¹ The use of the period of more than 5 years began in 2011 after the coming into operation of the refinery expansion and improvement projects. To keep the amortization rate in step with the pace of investment, we extended the timeline of cash flow projection, so that, from the fifth year onwards, EBITDA is projected, continuing at a similar level of activity and in a similar business environment.

² The main components of the discount rate are as follows:

- The risk-free interest rate for dollar flows matches that for 10-year U.S. Treasury; for euro flows, the risk-free interest rate matches the 10-year German sovereign bond;
- For country risk, Repsol uses the country risk information by three external providers -Country Risk Rating (IHS Global Insight), International Country Risk Guide (PRS Group) and Business Monitor (Fitch Group), the spread of sovereign bonds in euros or US dollars against the debt issued by Germany (euros) or the US (USD) respectively, and the *Emerging Markets Bond Index* (EMBI) published by JP Morgan, all adjusted for the specific risks of the business;
- We use a single market risk premium for all countries. Betas or business risk premiums are calculated specifically for each business, *Upstream*, Refining, Marketing, Chemicals, North America Trading & Gas and LPG – based on five-year historic series for comparable companies obtained from Bloomberg.

Provisions for litigation, dismantling and other contingencies

The final cost of settling claims, grievances and lawsuits could vary due to estimates based on differing interpretations of the technical rules, opinions and final assessments of the amount of the damages.

Repsol uses judgments and estimates to recognize provisions for the cost of dismantling its oil and gas production operations. These calculations are complex on account of the need to recognize the present value of the estimated future costs and to adjust this figure in subsequent years in order to reflect the passage of time and changes in the estimates due to changes in the underlying assumptions on account of technological advances and regulatory, economic, political and environmental developments, as well as changes in the initially-established schedules or other terms. The dismantling provisions are updated regularly to reflect trends in estimated costs and the discount rates. These discount rates take into account the risk-free rate, by term and currency, country risk and a spread according to debt structure and the cash flow projection period. Specifically, the weighted average rate set by the Group was 3.62%.

Additionally, Repsol makes judgments and estimates in recording costs and establishing provisions for environmental clean-up and remediation costs which are based on current information regarding costs and expected plans for remediation. For environmental provisions, costs can differ from estimates because of changes in laws and regulations, discovery and analysis of site conditions and changes in clean-up technology.

Therefore, any change in the factors or circumstances related to provisions of this nature, as well as changes in laws and regulations could, as a consequence, have a significant effect on the provisions recognized for these costs (see Notes 13, 16, and 23).

Evaluation of investments in Venezuela

Repsol has a presence in Venezuela through its shareholdings in mixed oil companies and gas licensees. The current situation in Venezuela and concerning PDVSA, in which there has been an increase in economic, political and regulatory instability, has made it necessary to assess the recoverability of investments in the country. Certain hypotheses and assumptions, such as asset development plans, compliance with payment mechanisms set out in agreements entered into, in addition to guarantees established and the development of a highly uncertain environment, involves judgments and estimates that may vary over time (see Notes 12 and 21).

Calculation of income tax, tax credits and deferred tax assets

The appropriate assessment of the income tax expense is dependent on several factors, including estimates of the timing and realization of deferred tax assets and the timing of income tax payments. Actual collections and payments may differ materially from these estimates as a result of changes in tax laws as well as unanticipated future transactions impacting the Company's tax balances (see Note 23).

(4) SEGMENT REPORTING¹

4.1) Definition of segments and presentation model of the results for the period by segments

The segment reporting disclosed by the Group in this section is presented in accordance with the disclosure requirements of IFRS 8 *Operating segments*.

The definition of the Repsol Group's business segments is based on the delimitation of the different activities performed and from which the Group earns revenue or incurs expenses, as well as on the organizational structure approved by the Board of Directors for business management. Using these segments as a reference point, Repsol's management team (the Corporate Executive, E&P and Downstream Committees) analyzes the main operating and financial indicators in order to make decisions about segment resource allocation and to assess how the Company is performing.

At December 31, 2017, the operating segments of the Group are:

- *Upstream*, corresponding to exploration and development of crude oil and natural gas reserves.
- *Downstream*, corresponding, mainly, to the following activities: (i) refining and petrochemistry, (ii) trading and transportation of crude oil and oil products, (iii) commercialization of oil products, petrochemical and LPG, (iv) the commercialization, transport and regasification of natural gas and liquefied natural gas (LNG).

Lastly, *Corporate and other* includes activities not attributable to the aforementioned businesses, and specifically, corporate expenses, financial result, the earnings and other metrics related to the remaining interest in Gas Natural SDG, S.A.² and inter-segment consolidation adjustments.

The Group has not aggregated any operating segments for presentation purposes.

In presenting the results of its operating segments Repsol includes the results of its joint ventures³ and other managed companies operated as such⁴, in accordance with the Group's ownership interest, considering its operational and economic metrics in the same manner and with the same detail as for fully consolidated companies. Thus, the Group considers that the nature of its businesses and the way in which results are analyzed for decision-making purposes is adequately reflected.

In addition, the Group, considering its business reality and in order to make its disclosures more comparable with those in the sector, utilizes as a measure of segment profit the so-called Adjusted Net Income, which corresponds to net income from continuing operations at ("*Current cost of supply*" or CCS) after taxes and non-controlling interests and not including certain items of income and expense ("*Special Items*"). Net finance cost is allocated to the *Corporation and others* segment's Adjusted Net Income/Loss.

The current cost of supply (CCS) is commonly used in this industry to present the results of *Downstream* businesses which must work with huge inventories subject to continual price fluctuations. It is not a commonly-accepted European accounting regulation, yet it does enable comparability with other sector companies as well as monitoring of businesses independently of the impact of price variations on their inventories. Using the CCS method, the cost of volumes sold during the reporting period is calculated using the costs of procurement and production incurred during that same period. Due to the above, adjusted net income does not include the inventory effect. This inventory effect is presented separately, net of tax and non-controlling interests, and corresponds to the difference between income at CCS and that arrived at using the Weighted Average Cost approach, which is the method used by the Company to determine its earnings in accordance with European accounting regulations.

Furthermore, Adjusted Net Income does not include the so-called Special Items, i.e. certain material items whose

¹ Some of metrics presented in this Note are classified as Alternative Performance Metrics (APMs) in accordance with ESMA guidelines (for further information, see Appendix I of the Consolidated Management Report or www.repsol.com). All of the figures shown throughout this Note have been reconciled with IFRS-EU financial statements in Appendix III.

² Includes net income of the company according to the equity method. The other measures (EBITDA, free cash flow, etc.) only reflect the cash flows affecting the Group in its capacity as shareholder in Gas Natural SDG, S.A. (dividends, etc.).

³ In the segment reporting model, joint ventures are consolidated proportionally in accordance with the Group's percent holding. See Note 12 and Appendix I, where the Group's main joint ventures are identified.

⁴ Corresponds to Petrocarabobo, S.A., (Venezuela), an associated entity of the Group.

separate presentation is considered appropriate in order to facilitate analysis of the ordinary business performance. It includes gains/losses on disposals, personnel restructuring charges, asset impairment losses and provisions for contingencies and other significant charges. Special items are presented separately, net of the tax effect and non-controlling interests.

4.2) Results for the period by segments

SEGMENTS	€ Million	
	2017	2016
Upstream	632	52
Downstream	1,877	1,883
Corporate and other	(104)	(13)
ADJUSTED NET INCOME	2,405	1,922
Inventory effect	104	133
Special items	(388)	(319)
NET INCOME	2,121	1,736

For further information on Group performance, see section 4 of the consolidated Management Report (www.repsol.com).

4.3) Disclosures by geography and segment

The breakdown by geography and segment of the year-end 2017 and 2016 metrics for which geographic segmentation is material is provided below:

	€ Million									
	Operating income		Adjusted net income		Net operating investments ⁽¹⁾		Non-current assets ⁽²⁾		Capital employed	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Upstream	1,009	(87)	632	52	2,072	1,889	25,636	29,186	21,612	23,853
Europe, Africa and Brazil	726	224	355	167	427	594	4,182	3,517	-	-
Latin America - Caribbean	594	238	386	234	494	578	4,940	6,498	-	-
North America	(58)	(189)	(43)	9	553	383	8,555	9,666	-	-
Asia and Russia	251	127	161	(4)	235	(117)	2,750	3,719	-	-
Exploration and other	(504)	(487)	(227)	(354)	363	451	5,209	5,786	-	-
Downstream	2,467	2,467	1,877	1,883	757	(496)	10,312	10,444	9,749	9,469
Europe	2,420	2,480	1,852	1,895	584	(442)	8,933	9,012	-	-
Rest of the world	47	(13)	25	(12)	173	(54)	1,379	1,432	-	-
Corporate and other	(262)	(313)	(104)	(13)	27	(1,893)	3,968	4,042	4,969	5,933
TOTAL	3,214	2,067	2,405	1,922	2,856	(500)	39,916	43,672	36,330	39,255

⁽¹⁾ Includes investments accrued during the period net of divestments but does not include investments in "Other financial assets."

⁽²⁾ Excludes "Non-current financial investments", "Deferred tax assets" and "Other non-current assets".

For more segment reporting and the reconciliation of these figures with the IFRS-EU Financial Statements, see Appendix III.

(5) CAPITAL STRUCTURE

Repsol, as an essential part of its strategy, has committed to a policy of financial prudence. The financial structure targeted is defined by this commitment of solvency and the aim to maximize shareholder returns, by optimizing the cost of capital.

Determination of the Group's target capital structure takes into consideration the leverage ratio defined as the ratio between net financial debt and capital employed:

$$\text{Leverage ratio} = \frac{\text{Net financial debt}^{(1)}}{\text{Capital employed}^{(2)}}$$

⁽¹⁾ The formula considers net and not gross debt to factor in the effect of financial investments. In keeping with its conservative financial policy, Repsol holds cash and cash equivalents and undrawn credit lines. As a result, the net debt leverage ratio provides a more accurate picture of the Group's financial solvency.

⁽²⁾ Corresponds to the sum of net financial debt and equity.

The trend and analysis of this ratio is monitored systematically. Moreover, leverage projections are performed as a key and restrictive input into Group investment decision-making and dividend policy.

The calculations of these ratios, based on the following consolidated balance sheet headings at December 31, 2017 and 2016, is as follows:

	€ Million	
	2017	2016
Shareholders' equity	30,197	28,487
Other accumulated comprehensive profit/(loss)	(404)	2,380
Minority interests	270	244
Equity	30,063	31,111
Non-current financial liabilities	10,080	9,482
Current financial liabilities	4,206	6,909
Non-current financial assets ⁽¹⁾	(1,920)	(1,081)
Other current financial assets	(257)	(1,280)
Cash and cash equivalents	(4,601)	(4,687)
Financial instruments from interest rate derivatives and others (see Note 8)	(70)	(87)
Net debt from joint ventures	(1,171)	(1,112)
Net financial debt ^{(2) (3)}	6,267	8,144
Capital employed ⁽²⁾⁽⁴⁾	36,330	39,255
Leverage ratio	17.3%	20.7%

⁽¹⁾ Does not include assets available for sale.

⁽²⁾ Figures calculated according to the Group's reporting model described in Note 4. For further information, see Appendices III and I of the consolidated Management Report.

⁽³⁾ Does not include €1,541 million and €1,758 million, relating to debts for current and non-current financial leases in 2017 and 2016, respectively (see Note 14).

⁽⁴⁾ Net Capital employed in 2016 includes that corresponding to discontinued operations.

(6) EQUITY

	€ Million	
	2017	2016
Net equity	30,197	28,487
Capital	1,556	1,496
Share premium and reserves:	25,694	24,331
Share premium ⁽¹⁾	6,428	6,428
Legal reserve ⁽²⁾	299	275
Prior year income/(losses) and other reserves ⁽³⁾	18,967	17,628
Treasury shares and own equity investments	(45)	(1)
Net income for the year attributable to the parent	2,121	1,736
Dividends and remuneration	(153)	(99)
Other equity instruments	1,024	1,024
Other accumulated comprehensive income	(404)	2,380
Minority interests	270	244
TOTAL EQUITY	30,063	31,111

⁽¹⁾ The Spanish Companies Act expressly permits the use of the share premium account balance to increase capital and establishes no specific restrictions as to its use.

⁽²⁾ Under the Spanish Companies Act, 10% of profit for each year must be transferred to the legal reserve until the balance of this reserve reaches at least 20% of share capital. The legal reserve can be used to increase capital provided that the remaining reserve balance does not fall below 10% of the increased share capital amount. Otherwise, until the legal reserve exceeds 20% of share capital, it can only be used to offset losses, provided that sufficient other reserves are not available for this purpose.

⁽³⁾ This includes the adjustments related to the differences between the previous accounting principles and the IFRS, from events and transactions before the transition date to IFRS (January 1, 2004).

6.1) Share capital

The share capital at December 31, 2017 and 2016, registered within the Companies Register, consisted of 1,527,396,053 and 1,465,644,100 fully subscribed and paid up shares of €1 par value each, in book entry form, and all listed on the Spanish stock exchanges and the Buenos Aires Stock Exchange. The Company *American Depositary Shares* (ADSs) are traded on the OTCQX in the US.

Following the most recent bonus share issue, closed in January 2018, outlined below, the share capital of Repsol, S.A. is currently represented by 1,556,464,965 shares, each with a par value of €1. Under accounting regulations, because the abovementioned capital increase had been registered within the Companies Register before the Board of Directors authorized the consolidated financial statements for issue, this bonus share issue has been recognized in the Group's financial statements as of December 31, 2017.

At the Annual General Meeting held on May 19, 2017, the Company's shareholders approved two bonus share issues to execute the shareholder remuneration scheme "*Repsol Flexible Dividend*"¹, in substitution of what would have been the traditional final dividend from 2016 profits and the interim dividend from 2017 earnings, under which shareholders can instead choose between receiving their remuneration in cash (by selling their bonus share rights in the market or back to the Company) or in Company shares.

¹ Repsol executed its "*Repsol Flexible Dividend*" scheme for the first time in 2012, having been approved by the shareholders at the Annual General Meeting of May 31, 2012. This system of shareholder remuneration is implemented through capital increases against voluntary reserves derived from retained earnings, with the Repsol's purchase commitment of free-of-charge allocation rights at a guaranteed fixed price.

The first of these two bonus share issues took place between June and July 2017 and the second, between December 2017 and January 2018: The main characteristics of these issues are detailed below:

		June/July 2017	Dec. 2017/January 2018
REMUNERATION IN CASH	Shareholders that accepted the irrevocable purchase commitment ⁽¹⁾	29.58% rights	25.78% rights
	Deadline for requesting sale of rights to Repsol at guaranteed price	June 23	December 29
	Fixed price guaranteed by right	€0.426 gross/right	€ 0.388 gross/right
	Gross value of rights acquired by Repsol	€189 million	€153 million
REMUNERATION IN REPSOL SHARES	Shareholders that chose to receive new Repsol shares	70.42% rights	74.22% rights
	Number of rights required to allocate new share	34	39
	New shares issued	30,991,202	29,068,912
	Approximate increase in share capital	2.07%	1.90%
	End of capital increase	July 4	January 9

⁽¹⁾ Repsol has renounced the bonus share rights acquired by virtue of the above-mentioned purchase commitment and, by extension, the shares corresponding to those rights. The consolidated balance sheet as of December 31, 2017 recognizes the obligation to pay the shareholders that had accepted the irrevocable purchase commitment in the bonus issue completed in January 2018, corresponding to the sale of rights to Repsol for €153 million, as a reduction in equity under "Dividends and remuneration".

According to the latest information available at the date of authorization of the accompanying Consolidated Financial Statements for issue, the significant shareholders are:

Significant shareholders	total % of share capital
CaixaBank, S.A.	9.5
Sacyr, S.A. ⁽¹⁾	7.9
Temasek Holdings (Private) Limited ⁽²⁾	4.0
Blackrock, Inc. ⁽³⁾	4.3

⁽¹⁾ Sacyr, S.A. retains its shareholding via Sacyr Securities, S.A.U., Sacyr Investments S.A.U. and Sacyr Investments II, S.A.U.

⁽²⁾ Temasek holds its investment through its subsidiary, Chembra Investment PTE, Ltd.

⁽³⁾ Blackrock, Inc. holds its investment through a number of controlled entities.

At December 31, 2017, the following Group companies' shares were publicly listed:

Company	Number of shares traded	% share capital listed	Stock exchanges ⁽¹⁾	Value at closing	Medium last quarter	Currency
Repsol, S.A.	1,527,396,053	100%	Spanish stock exchanges (Madrid, Barcelona, Bilbao, Valencia)	14.75	15.38	Euros
			Buenos Aires	300.00	307.49	Argentine pesos
			OTCQX ⁽²⁾	17.72	18.14	Dollars
Gas Natural SDG, S.A.	1,000,689,341	100%	Spanish stock exchanges (Madrid, Barcelona, Bilbao, Valencia)	19.25	18.61	Euros
Refinería La Pampilla, S.A.	3,534,890,000	100%	Lima stock exchange	0.31	0.30	Peruvian soles

⁽¹⁾ Exchanges or markets for which the Group has specifically applied for admission to trading. Other exchanges, markets or multilateral trading platforms on which the shares may be traded without having been specifically requested by the Group are not included.

⁽²⁾ Since March 9, 2011, Repsol's American Depositary Shares (ADSs) are traded on the OTCQX, an OTC (over-the-counter) US trading platform.

6.2) Treasury shares and own equity investments

The main transactions undertaken by the Repsol Group involving treasury shares¹ were as follows:

€ Million	2017			2016		
	No. of shares	Amount	% capital	No. of shares	Amount	% capital
Balance at January 1	94,185	1	0.01%	18,047,406	248	1.25%
Market purchases ⁽¹⁾	23,630,054	339	1.52%	21,693,728	254	1.45%
Market sales ⁽¹⁾	(20,716,006)	(295)	1.33%	(39,740,591)	(501)	2.66%
Repsol Flexible Dividend ⁽²⁾	20,691	-	0.00%	93,642	-	0.01%
Balance at December 31⁽³⁾	3,028,924	45	0.19%	94,185	1	0.01%

⁽¹⁾ Includes any shares acquired under the scope of the Share Acquisition Plan and the share purchase programs aimed at beneficiaries of the multi-year variable remuneration programs. In 2017, 561,006 shares were delivered in accordance with the terms and conditions of each of the plans (see Note 28.4).

⁽²⁾ New shares received under the "Repsol Flexible Dividend" scheme's bonus share issues corresponding to treasury shares.

⁽³⁾ The balance at December 31, 2017, includes equity swaps for a notional total of 3 million shares in Repsol, S.A. taken out by Repsol Tesorería y Gestión Financiera, S.A. and Repsol, S.A. with financial institutions, under which voting rights and economic risk intrinsic to the underlying were transferred to the Group.

6.3) Dividends and shareholder remuneration

During 2017 and 2016 the Company's shareholders were also remunerated by means of the program denominated "Repsol Flexible Dividend" whose main characteristics are described in section 1. *Share capital* of this Note and whose figures are compiled in the following chart:

	No. free allocation rights sold to Repsol	Price of purchase commitment (€/right)	Amount paid out in cash (€ Million)	New shares issued	Remuneration in shares (€ Million)
December 2015/January 2016	489,071,582	0.466	228	41,422,248	425
June/July 2016	511,212,326	0.292	149	23,860,793	272
December 2016/January 2017	296,735,539	0.335	99	30,760,751	392
June/July 2017	442,703,938	0.426	189	30,991,202	449

In addition, in January 2018, under the "Repsol Flexible Dividend" program, replacing what would have been the interim dividend from 2017 profits, Repsol paid out €153 million (€0.388 per right before withholdings) to those shareholders opting to sell their bonus share rights back to the Company and delivered 29,068,912 shares, worth €440 million, to those opting to take their dividend in the form of new Company shares.

At the date of the authorization for issue of these Consolidated Financial Statements, the Company's Board of Directors is expected to submit a proposal to shareholders at the next Shareholder Annual Meeting to continue the "Repsol Flexible Dividend" program, through the implementation of a capital increase charged to voluntary reserves from retained earnings, on the same dates as those on which the company has traditionally paid the final dividend.

¹ Transactions carried out exercising the powers delegated by the Company's shareholders at the Annual General Meeting of March 28, 2014, authorizing the Board of Directors, for a five-year period, to carry out the derivative acquisition of Repsol shares, directly or through subsidiaries, up to a maximum number of shares such that the sum of those acquired plus treasury shares already held by Repsol and any of its subsidiaries does not exceed 10% of the Company's capital, insofar as the price or value of the consideration delivered is not less than the par value of the shares or more than their quoted price on the stock exchange. The authorization was granted for five years running from the date of the Annual General Meeting, and nullified the equivalent resolution ratified at the ordinary Annual General Meeting held on April 30, 2010, in relation to any part thereof that had not been used.

6.4) Other equity instruments

On March 25, 2015, Repsol International Finance, B.V. ("RIF") issued perpetual subordinated bonds guaranteed by Repsol, S.A., with a nominal value of €1,000 million (redeemable at the request of the issuer from year six or under certain circumstances stipulated in the bond terms and conditions)¹.

This bond was placed with qualified investors and trades on the Luxembourg Stock Market, accruing a fixed annual coupon of 3.875% from the issue date until March 25, 2021, payable to the bondholders annually from March 25, 2016 and a fixed annual coupon equal to the 6-year swap rate applicable plus a spread from March 25, 2021.

The issuer can defer the coupon payments without triggering an event of default. Coupons so deferred will be cumulative and will be mandatorily settled following certain events described in the related terms and conditions of the issue.

This bond was recognized under "Other equity instruments", included under equity in the consolidated balance sheet, considering that they do not meet the accounting conditions required to be treated as a Group's financial liability². Net finance expense associated with the coupon on the subordinated bond has been recorded under "Retained earnings and other reserves" amounting to €29 million.

6.5) Non-controlling interests

The equity attributable to non-controlling interests at December 31, 2017 and 2016 relates basically to the following companies:

	€ Million	
	2017	2016
Petronor, S.A.	153	133
Refinería La Pampilla, S.A.	72	67
Repsol Comercial de Productos Petrolíferos, S.A.	32	31
Other companies	13	13
TOTAL	270	244

(7) FINANCIAL INSTRUMENTS

7.1) Financial assets

Below, the breakdown of financial assets included in the balance sheet line-items can be found:

	€ Million	
	2017	2016
Non-current financial liabilities	2,038	1,204
Derivatives relating to non-current trade transactions ⁽¹⁾	2	-
Other current financial assets	257	1,280
Derivatives relating to current trade transactions ⁽²⁾	60	64
Cash and Cash equivalents	4,601	4,687
TOTAL	6,958	7,235

⁽¹⁾ Recognized in "Other non-current assets" of the consolidated balance sheet.

⁽²⁾ Recognized in "Other receivables" of the consolidated balance sheet.

¹ On March 16, 2016, RIF and Repsol, S.A. undertook not to trigger early redemption if a credit rating agency were to assign to the bond a lower equity content than that assigned at the issue date as a result of applying a different valuation approach owing to changes in the credit rating accorded to the issuer and/or the guarantor (one of the early redemption triggers—"Capital Events"—available to the issuer, as set out in the terms and conditions of the issue). This bond was placed with qualified investors and is traded on the Luxembourg stock exchange.

² This bond does not involve a contractual obligation to make a payment in cash or other financial assets or an obligation to exchange financial assets or liabilities.

The detail, by type of assets, of the Group's financial assets at December 31, 2017 and 2016, is as follows:

€ Million	December 31, 2017 and 2016											
	Financial assets held for trading ⁽²⁾		Other financial assets at fair value with changes through profit or loss ⁽³⁾		Financial assets available for sale ⁽⁴⁾		Loans and receivables ⁽⁵⁾		Held to maturity investments		Total	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Equity instruments	-	-	-	-	118	123	-	-	-	-	118	123
Derivatives	2	-	-	-	-	-	-	-	-	-	2	-
Other financial assets	-	-	52	56	-	-	1,868	1,025	-	-	1,920	1,081
Non current	2	-	52	56	118	123	1,868	1,025	-	-	2,040	1,204
Derivatives	77	95	-	-	-	-	-	-	-	-	77	95
Other financial assets	-	-	10	10	-	-	238	1,247	4,593	4,679	4,841	5,936
Current	77	95	10	10	-	-	238	1,247	4,593	4,679	4,918	6,031
TOTAL⁽¹⁾	79	95	62	66	118	123	2,106	2,272	4,593	4,679	6,958	7,235

⁽¹⁾ Headings "Other non-current assets" and "Trade and other receivables" of the consolidated balance sheet include €470 million classified under long-term and €5,161 million classified under short-term in 2017 (2016: €323 million classified under long-term and €4,832 million classified under short-term), corresponding to commercial receivables not included in the breakdown of the financial assets in the previous table net of the corresponding impairment provisions.

⁽²⁾ Derivatives not designated as hedging instruments are included (see Note 8).

⁽³⁾ Including, among others, interests in investment funds.

⁽⁴⁾ This heading includes minority financial investments in certain companies over which the Group does not have management influence.

⁽⁵⁾ Accounts receivables which do not bear explicit interest are recognized at their face value whenever the effect of not discounting the related cash flows is not significant.

Loans and receivables

In 2017 and 2016, current and non-current "Loans and receivables" include loans granted to Group companies that are not eliminated upon consolidation. They relate primarily to balances arising from transactions entered into with companies accounted for using the equity method in the amount of €1,871 and €2,231 million (among these, financing of joint ventures in Venezuela, with balances at year-end 2017 totaling €1,296 million, see Notes 12 and 21).

The return accrued on "Loans and receivables" was equivalent to an average interest rate of 6.51% in 2017 and of 6.92% in 2016. The maturity of non-current loans and receivables is the following:

	€ Million	
	2017	2016
2019	4	289
2020	504	180
2021	181	36
Subsequent years	1,179	520
TOTAL	1,868	1,025

Held to maturity investments

The corresponding carrying amount at December 31, 2017 and 2016 can be seen below:

	€ Million	
	2017	2016
Temporary financial investments ⁽¹⁾	1	2
Cash equivalents ⁽²⁾	839	1,470
Cash at banks and in hand	3,753	3,207
TOTAL	4,593	4,679

⁽¹⁾ These mainly consist to bank placements and collateral deposits, and have accrued an average interest of 0.05% and 0.09% in 2017 and 2016, respectively.

⁽²⁾ They primarily correspond to liquid financial assets, deposits or liquid investments needed to meet payment obligations in the short term that can be converted into a known amount of cash within a period usually shorter than three months and that are subject to an insignificant risk of changes in value.

7.2) Financial liabilities

Below, the breakdown of financial liabilities included in the consolidated balance sheet line-items can be found:

	€ Million	
	2017	2016
Non-current financial debt	10,080	9,482
Current financial liabilities	4,206	6,909
Current trade operation derivatives ⁽¹⁾	215	282
TOTAL	14,501	16,673

⁽¹⁾ Recorded in "Other payables" on the consolidated balance sheet.

The breakdown of these financial liabilities at December 31, 2017 and 2016 is provided below:

€ Million	December 31									
	Financial liabilities held for trading		Loans and payables		Hedging derivatives		Total		Fair value	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Bank borrowings	-	-	1,064	1,491	-	-	1,064	1,491	1,043	1,496
Bonds and other securities	-	-	6,323	7,905	-	-	6,323	7,905	6,812	8,328
Derivatives	-	-	-	-	68	86	68	86	68	86
Other financial liabilities	-	-	2,625	-	-	-	2,625	-	2,625	-
Non current	-	-	10,012	9,396	68	86	10,080	9,482	10,548	9,910
Bank borrowings	-	-	539	837	-	-	539	837	539	837
Bonds and other securities	-	-	3,406	2,855	-	-	3,406	2,855	3,419	2,875
Derivatives	241	303	-	-	2	3	243	306	243	306
Other financial liabilities	-	-	233	3,193	-	-	233	3,193	233	3,193
Current	241	303	4,178	6,885	2	3	4,421	7,191	4,434	7,211
TOTAL^{(1) (2)}	241	303	14,190	16,281	70	89	14,501	16,673	14,982	17,121

⁽¹⁾ At December 31, 2017 this heading includes €1,347 million corresponding to "Other non-current liabilities" (year-end 2016: €1,550 million) and €195 and €208 million corresponding to "Other payables" related to finance leases carried at amortized cost that are not included in the table above.

⁽²⁾ In relation to liquidity risk, the distribution of funding by maturity at December 31, 2017 and 2016 is provided in Note 9.

The breakdown of average financial balances outstanding and cost by instrument is as follows:

€ Million	2017		2016	
	Average volume	Average cost	Average volume	Average cost
Bank borrowings	1,815	2.72%	3,562	1.81%
Bonds and other securities	10,318	2.76%	10,152	3.33%
Other financial liabilities	2,939	2.48%	2,984	1.83%
TOTAL	15,072	2.70%	16,698	2.74%

Bank borrowings

This heading reflects the loans granted to the Group companies, mainly in Spain and Peru, by several banks in order to fund their projects and operations. It also includes drawdowns under short-term credit facilities extended by banks.

Bonds and other securities

Key issues, repurchases and redemptions carried out in 2017¹

- In February 2017, a €886 million 4.75% fixed annual bond issued by Repsol International Finance, B.V. under the EMTN Program was canceled at maturity.
- In May 2017, Repsol International Finance, B.V. issued a €500 million 0.50% fixed annual bond² maturing in 2022 and underwritten by Repsol, S.A. as part of the EMTN Program.
- On June 9, ROGCI announced the launch of a Consent solicitation targeted at holders of its bonds in US dollars primarily (i) to replace ROGCI's reporting obligations with the periodic financial information that Repsol publishes in compliance with its transparency obligations; and (ii) to remove the merger covenant with a view to optimizing the Group's operational and financial flexibility.

ROGCI also offered these investors the opportunity to tender their bonds for repurchase.

Prior to the announcement of the transaction, Repsol, S.A. granted a guarantee of ROGCI's payment obligations under these bonds; this guarantee shall remain in effect throughout the lifetime of the bonds.

ROGCI obtained the necessary consents from its bondholders to amend the terms and conditions of the issues as proposed and repurchased the bonds in US dollars for a total of \$87 million.

- On September 14, 2017, ROGCI repurchased a bond maturing in December 2017 and carrying a fixed annual coupon of 6.625% for a total of £266 million.
- On November 30, 2017, ROGCI repurchased a fixed-annual 7.75% bond maturing in June 2019 for a total of \$403 million.

The outstanding balance of the obligations and marketable securities at December 31, 2017:

ISIN	Issuer	Issue date	Currency	Face value (million)	Average rate %	Maturity	Listed ⁽⁵⁾
US87425EAE32 ⁽³⁾	Repsol Oil & Gas Canada Inc.	oct-97	Dollar	50	7.250%	oct-27	-
US87425EAH62 ⁽³⁾	Repsol Oil & Gas Canada Inc.	may-05	Dollar	88	5.750%	may-35	-
US87425EAJ29 ⁽³⁾	Repsol Oil & Gas Canada Inc.	jan-06	Dollar	102	5.850%	feb-37	-
US87425EAK91 ⁽³⁾	Repsol Oil & Gas Canada Inc.	nov-06	Dollar	115	6.250%	feb-38	-
US87425EAM57 ^{(3) (6)}	Repsol Oil & Gas Canada Inc.	nov-10	Dollar	237	3.750%	feb-21	-
XS0733696495 ⁽¹⁾	Repsol International Finance, B.V.	jan-12	Euros	1,000	4.875%	feb-19	LuxSE
US87425EAN31 ⁽³⁾	Repsol Oil & Gas Canada Inc.	may-12	Dollar	57	5.500%	may-42	-
XS0831370613 ⁽¹⁾	Repsol International Finance, B.V.	sep-12	Euros	750	4.375%	feb-18	LuxSE
XS0933604943 ⁽¹⁾	Repsol International Finance, B.V.	may-13	Euros	1,200	2.625%	may-20	LuxSE
XS0975256685 ⁽¹⁾	Repsol International Finance, B.V.	oct-13	Euros	1,000	3.625%	oct-21	LuxSE
XS1148073205 ⁽¹⁾	Repsol International Finance, B.V.	dec-14	Euros	500	2.250%	dec-26	LuxSE
XS1207058733 ⁽²⁾	Repsol International Finance, B.V.	mar-15	Euros	1,000	4.500% ⁽⁴⁾	mar-75	LuxSE
XS1334225361 ⁽¹⁾	Repsol International Finance, B.V.	dec-15	Euros	600	2.125%	dec-20	LuxSE
XS1352121724 ⁽¹⁾	Repsol International Finance, B.V.	jan-16	Euros	100	5.375%	jan-31	LuxSE
XS1442286008 ⁽¹⁾	Repsol International Finance, B.V.	jul-16	Euros	600	Eur. 3M+70 b.p.	jul-18	LuxSE
XS1451452954 ⁽¹⁾	Repsol International Finance, B.V.	jul-16	Euros	100	0.125%	jul-19	LuxSE
XS1613140489 ⁽¹⁾	Repsol International Finance, B.V.	may-17	Euros	500	0.500%	may-22	LuxSE

⁽¹⁾ Issues made under EMTN Program, which is guaranteed by Repsol, S.A., as renewed in May 2017.

¹ Key issues, repurchases or redemptions of 2016: i) In January, RIF issued a senior bond secured by Repsol, S.A. (nominal amount of €100 million, maturing in 2031 and a fixed annual coupon of 5.375%), ii) in February, the bond issued by RIF in December 2011 was canceled at maturity (nominal amount of €850 million and a fixed annual coupon of 4.25%), iii) in March, the bond issued by ROGCI in March 2009 was canceled at maturity (nominal amount of €150 million and a coupon of 8.5%) and iv) in July, RIF issued two senior bonds secured by Repsol S.A., one of them maturing at two years (nominal amount of €600 million and a quarterly coupon of 3-month Euribor + 70 basis points), and the other maturing at three years (nominal amount of €100 million and a fixed annual coupon of 0.125%). Furthermore, ROGCI repurchased bonds issued maturing in 2019, 2021, 2027, 2035, 2037, 2038 and 2042 for the nominal value of \$631 million recognizing income of €49 million before tax under "Impairment and gains/ (losses) on disposal of financial instruments".

² This represents the first issue of a "green bond" by the Repsol Group, the funds of which are dedicated to financing and refinancing projects that seek to prevent greenhouse gas emissions as part of refining and chemical activities in Spain and Portugal. For further information, consult the Green Bond Framework published at www.repsol.com.



- ⁽²⁾ Subordinated bond issued by Repsol International Finance, B.V. and guaranteed by Repsol, S.A. This issue does not correspond to any open-ended or shelf program.
- ⁽³⁾ Issues placed by Repsol Oil & Gas Canada, Inc., guaranteed by Repsol, S.A., undertaken under the scope of the "Universal Shelf Prospectus" programs.
- ⁽⁴⁾ Coupon scheduled for reset on March 25, 2025 and March 25, 2045.
- ⁽⁵⁾ LuxSE (Luxembourg Stock Exchange). Multilateral trading systems or other trading centers or non-official over-the-counter markets are not considered.
- ⁽⁶⁾ Issue subject to repurchase in January 2018 (see Note 31).

RIF also runs a Euro Commercial Paper (ECP) Program, arranged on May 16, 2013 and guaranteed by Repsol, S.A., with a limit up to € 2,000 million. Under this program, several issues and cancellations took place in 2017, with an outstanding balance at December 31, 2017 of €1,710 million (€1,473 million at December 31, 2016).

Financial conditions and debt obligations

In general, the financial debt agreements include the early termination clauses customary in agreements of this nature.

The ordinary bonds issued by RIF and guaranteed by Repsol, S.A. - with an aggregate face value at year-end of €6,350 million - contain early termination events (including cross-acceleration and cross-default clauses - applicable to the issuer and the guarantor) and negative pledge covenants in relation to future bond issues. If an event of default is triggered, the trustee, at their sole discretion or at the behest of the holders of at least one-fifth of the bonds or on the basis of an extraordinary bondholder resolution, is entitled to declare all the obligations under the bonds immediately due and payable. In addition, the holders of the bonds issued in 2012, 2013, 2014, 2015, 2016 and 2017 can elect to have their bonds called in the event of a change of control at Repsol or if, as a result of such change of control, Repsol's credit ratings are downgraded to below investment grade status.

Additionally, the €1,000 million subordinated bond issued on March 25, 2015 by RIF and guaranteed by Repsol, S.A. has no clauses for event of default other than in the event of dissolution or liquidation. The same conditions apply to the subordinated bond of €1,000 million described in Note 6.3.¹

The ordinary bonds issued by ROGCI and guaranteed by Repsol, with an aggregate nominal value at year-end of €649 million, contain certain termination event clauses (including cross-acceleration or cross-default clauses - applicable to the issuer and its main subsidiaries), and a negative pledge covenant affecting the assets of the issuer and its main subsidiaries, and in relation to other debts and obligations, including future bond issues.

At the date of preparation the accompanying Consolidated Financial Statements, the Repsol Group was not in breach of any of its financial obligations or of any other obligation that could trigger the early repayment of any of its financial commitments.

At December 31, 2017 and 2016 there are no amounts secured by the Group companies in issuances, repurchases or redemptions made by associates, joint arrangements or companies that are not part of the Group.

Other financial liabilities

Includes loans granted to Group companies or entities which are not eliminated in the consolidation process, corresponding mainly to those granted by companies consolidated using the equity method. Worth particular note is the loan granted by Repsol Sinopec Brasil S.A., for the sum of €2,858 million and €3,193 million in 2017 and 2016, respectively, via its subsidiary Repsol Sinopec Brasil B.V. to its shareholders (including the Repsol Group) in proportion to their respective shareholdings (see Note 12), amounting to €2,624 and €2,942 million December 31, 2017 and 2016, respectively. This loan is renewed annually and can be called according to agreed-upon authorization levels.

¹ This bond does not involve a contractual obligation to make payment in cash or other financial assets or an obligation to exchange financial assets or liabilities.

7.3) Fair value

The classification of the financial assets and liabilities recognized in the financial statements at fair value, by fair value calculation method, is as follows:

€ Million

	Level 1		Level 2		Level 3		Total	
	2017	2016	2017	2016	2017	2016	2017	2016
Financial assets								
Financial assets held for trading	6	6	73	89	-	-	79	95
Other financial assets at fair value with changes through profit or loss	62	66	-	-	-	-	62	66
Available-for-sale financial assets ⁽¹⁾	1	1	-	-	-	-	1	1
Hedging derivatives	-	-	-	-	-	-	-	-
TOTAL	69	73	73	89	-	-	142	162
	Level 1		Level 2		Level 3		Total	
	2017	2016	2017	2016	2017	2016	2017	2016
Financial liabilities								
Financial liabilities held for trading	139	215	102	88	-	-	241	303
Hedging derivatives	-	-	70	89	-	-	70	89
TOTAL	139	215	172	177	-	-	311	392

Level 1: Valuations based on a quoted price in an active market for an identical instrument and relate mainly to derivatives held for trading and investments funds.

Level 2: Valuations based on a quoted price in an active market for similar financial assets or based on other valuation techniques that rely on observable market inputs.

Level 3: Valuations based on inputs that are not directly observable in the market.

⁽¹⁾ Does not include €117 million and €122 million in 2017 and 2016, respectively, related to investments in shares of companies that are recorded at acquisition cost in accordance with IAS 39.

The valuation techniques used for instruments classified under level 2, in accordance with accounting regulations, are based on the income approach, which entail the discounting to present value of future cash flows, either known or estimated, using discount curves from the market reference interest rates (in the case of derivative instruments, estimated using implicit forward curves offered in the market), including adjustments for credit risk based on the life of the instruments. In the case of options, price-setting models based on the Black & Scholes formula are used.

The most significant variables for valuing financial assets vary depending on the type of instrument, but fundamentally include: exchange rates (spot and forward), interest rate curves, counterparty risk curves, prices of equities and the volatilities of all the aforementioned factors. In all cases, market data is obtained from reputed information agencies or correspond to quotes issued by official bodies.

(8) DERIVATIVE AND OTHER TRANSACTIONS

The breakdown of derivative instruments on the consolidated balance sheet at December 31, 2017 and 2016, is as follows:

	Non-Current Assets		Current Assets		Non-Current Liabilities		Current Liabilities		Fair Value ⁽⁴⁾	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
€ Million										
Cash Flow Hedges ⁽¹⁾	-	-	-	-	(68)	(86)	(2)	(3)	(70)	(89)
Interest rate	-	-	-	-	(68)	(86)	(2)	(2)	(70)	(88)
Exchange rate	-	-	-	-	-	-	-	-	-	-
Product price	-	-	-	-	-	-	-	(1)	-	(1)
Net Investment Hedges ⁽²⁾	-	-	-	-	-	-	-	-	-	-
Exchange rate	-	-	-	-	-	-	-	-	-	-
Other derivative transactions	2	-	77	95	-	-	(241)	(303)	(162)	(208)
Exchange rate	-	-	17	31	-	-	(26)	(22)	(9)	9
Commodity price	2	-	60	64	-	-	(215)	(281)	(153)	(217)
TOTAL ⁽³⁾	2	-	77	95	(68)	(86)	(243)	(306)	(232)	(297)

⁽¹⁾ These are hedges of the exposure to changes in cash flows that: (i) are attributed to a particular risk associated with a recognized asset or liability, a highly probable forecasted transaction or a firm commitment, if the risk hedged is foreign currency related; and (ii) could affect profit or loss for the period.

⁽²⁾ These are hedges of the exposure to foreign exchange rate changes in relation to investments in the net assets of foreign operations.

⁽³⁾ In 2017 and 2016, this heading includes derivatives with a negative measurement in respect of interest rates of -€70 million and -€87 million, respectively.

⁽⁴⁾ The fair value valuation methods are set out in Notes 7.3.

The breakdown of the impact of the fair value restatement of financial instruments on consolidated profit before tax and on consolidated equity is as follows:

€ Million	Operating income		Financial result ⁽³⁾		Equity	
	2017	2016	2017	2016	2017	2016
Cash flow hedges ⁽¹⁾	(1)	(4)	(26)	(30)	22	18
Net investments hedges ⁽²⁾	-	(12)	-	-	354	(168)
Other transactions	(61)	(226)	34	189	-	-
TOTAL	(62)	(242)	8	159	376	(150)

⁽¹⁾ The portion of the changes in the fair value that is determined to be an effective hedge is recognized in equity under "Hedging transactions" and the ineffective portion of the gain or loss on the hedging instrument (excess, in absolute terms, between the cumulative change in the fair value of the hedging instrument with respect to the change in the fair value of the hedged item) is recognized in the income statement. The gains or losses accumulated in equity are transferred to the income statement in the periods in which the hedged items affect income or, when the transaction hedge results in the recognition of a non-financial asset or liability, are included in the cost of the related asset or liability.

⁽²⁾ Cash flow hedges are accounted for in a similar way, although any changes in valuation as part of these transactions are recognized in "Translation differences" within equity until the foreign operation subject to the hedge is sold or disposed of in any other way, at which time it is transferred to the income statement.

⁽³⁾ In 2017 and 2016, short-term forward contracts and currency swaps were arranged that generated a pre-tax gain of €34 million and €189 million, which is recognized under "Change in fair value of financial instruments".

There follows a detailed disclosure of the Group's most significant transactions related to derivative financial instruments at December 31, 2017 and 2016.

8.1) Accounting hedges

The most significant transactions correspond to:

- Financial instruments designated as net investment hedge in certain dollar-denominated assets in the *Upstream* segment and whose notional as of this date is \$3,080 million (€2,742 million). At December 31, 2016 the notional of net investment hedges amounted to \$3,058 million (€2,722 million).
- The hedges arranged in 2016 over product prices corresponded mainly to hedges of dollar-denominated cash flows; the aim was to hedge gas price variability. These instruments matured within less than one year. As of December 31, 2016, the notional amount stood at €28 million and fair value at -€1 million.
- Cash flow hedges in the form of interest rate swaps arranged in 2014 for a notional amount of €1,500 million to hedge future bond issues in late 2014 and early 2015 (see Note 7.2). Under these arrangements, the Group paid a weighted average interest rate of 1.762% and received 6-month EURIBOR. In 2017, these hedges generated a €12 million gain in profit and loss (€15 million in 2016). The fair value changes recognized in equity and pending to be reclassified to profit and loss stood at a loss of €-83 million (after tax) at December 31, 2017 (-€92 million after tax at December 31, 2016).
- A cash flow hedge in dollars in the form of interest rate swaps associated with the facility funding the investment in the Canaport LNG project (Canada), written over a notional amount of €297 million, maturing after 2019 and with a negative fair value at year-end of €70 million. At December 31, 2016, the notional amount stood at €352 million and negative fair value at €88 million.

8.2) Other derivative transactions

Repsol has arranged a series of derivatives to manage its exposure to foreign exchange rate and price risk that do not qualify as accounting hedges under IAS 39. These derivatives include currency forward contracts which mature in less than a year, as part of the global strategy to manage the exposure to exchange-rate risk. Additionally, for the coverage of the product risk that derives from future physical transactions such as the selling and/or purchase of oil and other petroleum products, the Group has entered into futures and swap contracts.

The breakdown of these derivatives at December 31, 2017 and 2016 is provided below:

€ Million Classification	Fair value maturity											
	2017						2016					
	2018	2019	2020	2021	Seq.	Total	2017	2018	2019	2020	Seq.	Total
Exchange rate	(9)	-	-	-	-	(9)	9	-	-	-	-	9
Product price	(155)	2	-	-	-	(153)	(217)	-	-	-	-	(217)
Purchase agreements	400	-	(2)	(1)	-	397	620	-	-	-	-	620
Sale agreements	(409)	2	2	1	-	(404)	(676)	-	-	-	-	(676)
Options	1	-	-	-	-	1	-	-	-	-	-	-
Forwards	13	-	-	-	-	13	-	-	-	-	-	-
Swaps	(156)	-	-	-	-	(156)	(171)	-	-	-	-	(171)
Others ⁽¹⁾	(4)	-	-	-	-	(4)	10	-	-	-	-	10
TOTAL	(164)	2	-	-	-	(162)	(208)	-	-	-	-	(208)

⁽¹⁾ Long-term oil and gas sale and purchase firm commitments are analyzed with the aim to determine whether they correspond to the supply or marketing needs of the normal business activities of the Group or whether, on the contrary, these should be considered as a derivative instrument and be recognized in accordance with the criteria set forth in IAS 39.

The physical units and the fair value of the product price derivatives are itemized below:

	12/31/2017		12/31/2016	
	Physical Units	Fair Value (€ Million)	Physical Units	Fair Value (€ Million)
Purchase agreements		397		620
IPE GO (Thousand Tons)	-	-	201	14
BRENT (Thousand barrels)	38,097	260	5,809	164
NYMEX HHO (Thousand gallons)	-	-	239	203
RBOB (Thousand gallons)	150,704	38	205	191
WTI (Thousand barrels)	7,488	38	797	39
NAT GAS (Thousand gallons)	101,745,517	(5)	-	-
GO (Thousand tons)	909	49	-	-
HO (Thousand gallons)	85,093	18	-	-
Other	-	(1)	-	9
Sale agreements		(404)		(676)
IPE GO (Thousand Tons)	-	-	419	(20)
BRENT (Thousand barrels)	41,569	(247)	6,586	(174)
NYMEX HHO (Thousand gallons)	-	-	294	(207)
RBOB (Thousand gallons)	225,339	(35)	203	(192)
WTI (Thousand barrels)	6,712	(32)	255	(44)
Physical SoNat (Thousand gallons)	-	-	110,771	37
Physical Tenn 800 Leg (Thousand gallons)	-	-	243,962	(25)
Physical Tenn 500 Leg (Thousand gallons)	313,973	-	686,134	(17)
GO (Thousand tons)	1,166	(54)	417	(14)
Physical Dom South (Thousand gallons)	(86,679)	-	70,992	(14)
NAT GAS (Thousand gallons)	109,830,739	(16)	-	-
HO (Thousand gallons)	105,378	(18)	-	-
Other	-	(2)	-	(6)
Swaps		(156)		(171)
NAT GAS (Thousand gallons)	1,075,772	(10)	6,654,023	(36)
Fuel Oil (Thousand Tons)	4,355	(73)	5,154	(57)
Crude oil (Thousands of barrels)	22,123	(73)	19,829	(54)
NAPHTHA (Thousand tons)	1,489	(2)	1,566	3
Jet (Thousand Tons)	-	-	338	(1)
Other	-	2	-	(26)
Forwards		13		-
NAT GAS (Thousand gallons)	4,913,064	13	-	-
Options		1		-
Other	-	1	-	-
Other		(4)		10
TOTAL		(153)		(217)

(9) FINANCIAL RISKS¹

9.1) Financial risk management

Group business is exposed to different kinds of financial risk, including: market risk, liquidity risk and credit risk. Repsol has a risk management structure and systems that enable it to identify, measure and control the risks to which the Group is exposed.

9.1.1) Market risk

Market risk is the potential loss faced due to adverse movements in market variables. The Group is exposed to various types of market risk: exchange rate risk, interest rate risk and commodity price risk.

The Company monitors exposure to market risk through ongoing sensitivity analysis. These strategies are complemented with other risk management measures when required by the nature of the risk exposure. For example, commodity risk, exchange rate and interest rate risk that affect the income statement are subject to maximum risk levels, measured in terms of Value at Risk (VaR), defined by the Corporate Executive Committee in line with the different authorization levels and supervised on a daily basis by a separate area to the area responsible for management.

For each of the market risk factors detailed below, there is a table depicting the sensitivity of Group profit and equity (within the headings comprising "Other comprehensive income") to the main risks to which its financial instruments are exposed, in accordance with the requirements stipulated in IFRS 7 *Financial instruments: data to be disclosed*.

This sensitivity analysis uses changes to representative variables based on historical performance. The estimates made depict the impact of both favorable and adverse scenarios. The impact on profit and/or equity is estimated as a function of the financial instruments held by the Group at each year end.

a) Exchange rate risk

The Group's profit and equity are exposed to fluctuations in the exchange rates of the currencies in which it transacts, with the US dollar generating the greatest level of exposure.

Exposure to exchange-rate risk can be traced, on the one hand, to financial assets and investments and monetary flows and liabilities in currencies other than the functional currency of the Group's parent company (in this connection, Repsol hedges assets in foreign currency, often regarding decisions to proceed with divestments or the sale of assets, which are normally designated as net investment hedges, structured through derivative instruments or loans in the corresponding currencies, primarily US dollars) and, on the other hand, exchange-rate risk extends to Group companies whose assets, liabilities and monetary flows are denominated in a currency other than the functional currency of said companies, with the following of particular importance in this connection: (i) cash flows from international trade operations involving crude oil, natural gas and refined products are usually carried out in US dollars; and (ii) local operations carried out in the countries in which Repsol operates are exposed to fluctuations in the exchange rates of the corresponding local currencies compared to currencies in which commodities are traded.

Repsol permanently monitors the Company's exposure to fluctuations in the exchange rate of currencies in which it undertakes significant operations and actively manages exchange-rate risk positions that affect the Group's income statement. To this end, it contracts derivative financial instruments that seek to provide a consolidated economic hedge of currencies for which there is a liquid market.

Furthermore, cash flows are subject to accounting hedges with a view to protecting the economic value of the flows corresponding to investment and divestment operations, corporate operations or project execution or one-off contracts for which the monetary flow is distributed over a period of time.

¹ Repsol has an integrated risk management model designed to anticipate, manage, and control risks from a global perspective. For further information on the integrated risk management model and the risk factors to which the Group is exposed, see section 24 "Risk Management" of the Management Report (www.repsol.com).

In terms of the financing obtained in dollars, see Note 7, and concerning the information on exchange rate derivatives, see Note 8.

The sensitivity of net income and equity to exchange rate risk, as a result of the appreciation or depreciation of the euro against the dollar, on the financial instruments held by the Group at December 31, is illustrated below:

	Appreciation (+) / depreciation (-) in exchange rates	€ Million	
		2017	2016
Effect on earnings after tax	5%	6	(27)
	-5%	(6)	30
Effect on equity	5%	(28)	202
	-5%	31	(223)

b) Interest rate risk

Fluctuations in interest rates can affect interest income and expense of financial assets and liabilities with variable interest rates; which may also impact the fair value of financial assets and liabilities with a fixed interest rate. Furthermore, these variations can affect the carrying value of assets and liabilities due to variations in the discount rates of applicable cash flows, the profitability of investments and the future cost of raising financial resources.

Repsol's debt is linked to the most competitive financial instruments at the time, both in terms of the capitals market and banking market and based on the market conditions considered most ideal accordingly. Furthermore, Repsol contracts interest rate derivatives to reduce the risk of variations in financial burdens and in the fair value of its debt, and to mitigate the interest-rate risk on future fixed-time debt issues, which are designated in general as hedging instruments (see Note 8).

At year end 2017 and 2016, the net debt balance at fixed rates was €8,094 million and €9,302 million respectively. This is equivalent to 108% and 100%, respectively, of total net debt including interest rate derivatives.

The sensitivity of net income and equity, as a result of the effect of fluctuations in interest rates on the financial instruments held by the Group at December 31 is illustrated in the following table:

	Increase (+) / decrease (-) in interest rates (basic points)	€ Million	
		2017	2016
Effect on earnings after tax	50 b.p.	2	-
	-50 b.p.	(2)	-
Effect on equity	50 b.p.	13	14
	-50 b.p.	(13)	(14)

c) Commodity price risk

As a result of its trade operations and activities, the Group's results are exposed to volatility in the prices of oil, natural gas and their derivative products.

Repsol enters into derivative transactions to mitigate its exposure to price risk. These derivatives provide an economic hedge of the Group's results, although they are not always designated as hedging instruments for accounting purposes (see Note 8).

The approximate impact of a 10% increase or decrease in crude and oil product prices in the net income, as a result of its effects on the financial instruments held by the Group at year end 2017 and 2016, is illustrated in the following table.

	Increase (+) / decrease (-) in crude oil and byproducts prices	€ Million	
		2017	2016
Effect on earnings after tax	+10%	(4)	(33)
	-10%	4	33

9.1.2) Liquidity risk

The liquidity policy applied by Repsol is structured around guaranteeing the availability of the necessary funds to ensure compliance with obligations assumed and the evolution of the Group's business plans, whilst retaining the ideal amount of liquid resources and seeking the highest level of efficiency in the management of financial resources at all times. In line with this prudent financial policy, Repsol maintains cash resources and other liquid financial instruments¹ and undrawn credit lines sufficient to cover current debt maturities 1.8 times.

Repsol controls and monitors its financial needs ranging from the production of daily cash flow forecasts to the financial planning involved in the annual budgets and its strategic plan; it maintains diversified and stable sources of financing that facilitate efficient access to financial markets, all within the framework of a financing structure that is compatible with the corresponding credit rating in the investment grade category.

The Group had undrawn credit facilities amounting to €2,503 million and €4,429 million at December 31, 2017 and 2016, respectively.

The tables below contain an analysis on the maturities of the financial liabilities existing at December 31, 2017 and 2016:

	Maturities (€ Million)							Maturities (€ Million)						
	2017							2016						
	2018	2019	2020	2021	2022	Seq.	Total	2017	2018	2019	2020	2021	Seq.	Total
December 31, 2017														
Loans and other financial debts ⁽¹⁾	4,313	1,523	2,177	1,249	695	7,925	17,882	7,068	1,918	1,961	2,155	1,529	5,810	20,441
Derivatives ⁽²⁾	34	9	8	7	6	30	93	130	12	10	9	8	35	204
Suppliers	2,738	-	-	-	-	-	2,738	2,128	-	-	-	-	-	2,128
Other receivables	4,280	-	-	-	-	-	4,280	4,365	-	-	-	-	-	4,365

NOTE: The amounts shown are the contractual undiscounted cash flows; therefore, they differ from the amounts included on the consolidated balance sheet. Obligations under finance leases are not included (See Note 14)

⁽¹⁾ Corresponds to future maturities of amounts registered under the "Non-current financial liabilities" and "Current financial liabilities" items, including interests or future dividends related to those financial liabilities. It does not include financial derivatives.

⁽²⁾ The contractual maturities of the derivatives included under this heading are outlined in Note 8. It does not include trade derivatives recognized in "Other non-current liabilities" and "Other payables" in the consolidated balance sheet.

9.1.3) Credit risk²

Credit risk is defined as the possibility of a third party not complying with his contractual obligations, thus creating losses for the Group and is measured and controlled per individual customer or third-party. The Group has its own systems for the permanent credit evaluation of all its debtors and the determination of risk limits with respect to third parties, in line with best practices.

The Group periodically assesses the existence of objective evidence of impairment after a financial asset has been initially recognized; if it is determined that there is credit loss, the respective provisions are assigned. The criteria for allocating these provisions include the following: i) the age of the debt; ii) the existence of insolvency proceedings; and iii) an analysis of the customer's capacity to return the credit granted.

The maximum exposure (prior to impairment remeasurements) to credit risk of the Group, according to the type of financial instruments and without excluding the amounts covered by guarantees and other arrangements mentioned further on this note, is detailed below:

	Note	€ Million	
		2017	2016
Maximum exposure			
Trade receivables ⁽¹⁾	18	5,565	4,960
Non-current financial assets ⁽²⁾	7	3,712	3,174
Other current financial assets	7	240	1,249
Cash and cash equivalents	7	4,601	4,687
Derivatives	7	79	95

⁽¹⁾ Accounts receivable have a credit quality assigned according to the valuations of the Group, based on the solvency analysis and the payment

¹ Includes time deposits with immediate availability recognized in "Other current financial assets" in the amount of €231 million.

² The credit risk information set out in this section does not include credit risk of associates or joint ventures.

habits of each customer.

⁽²⁾ Not including derivatives. At December 31, 2017 and 2016 this item includes the loans granted to the Petersen group to fund the acquisition of its interest in YPF S.A.; these loans have been fully written down for impairment.

The trade debts are shown on the consolidated balance sheet at December 31, 2017 and 2016 net of allowances for impairment provisions for an amount of €5,392 million and €4,829 million, respectively. Note 18 includes impairment losses at December 31, 2017 and 2016. These provisions represent the Group's best estimate of the losses on the receivables. The following table shows the age of trade receivables:

Maturities	€ Million	
	2017	2016
Unmatured debt	4,819	4,486
Unmatured debt 0-30 days	240	192
Unmatured debt 31-180 days	94	67
Unmatured debt over 180 days	239	84
TOTAL	5,392	4,829

The Group's credit risk on trade receivables is not significantly concentrated as it is spread out among a large number of customers and other counterparties. The maximum net exposure to a third party, including official bodies and public sector entities, does not exceed 3.5%, and no single private client accumulates risk exposure of more than 2%.

As a general rule, the Group establishes a bank guarantee issued by the financial entities as the most suitable instrument of protection from credit risk. In some cases, the Group has contracted insurance credit policies whereby this transfers partially to third parties the credit risk related to the business activity of some of their businesses.

As part of its business activities, the Group has guarantees provided by third parties in an aggregate amount of €3,402 million at December 31, 2017 (€3,992 million in 2016). Of this amount, trade payables covered by guarantees at December 31, 2017 and 2016 amount to €537 and €801 million, respectively. During 2017 and 2016, the Group executed guarantees received for an amount of €3 and €6 million, respectively.

The Group's exposure to credit risk also derives from debts with a financial nature which are carried on the consolidated balance sheet net of the corresponding impairment provisions. The breakdown of impaired financial assets and the impact on the consolidated income statement are provided in Note 7.

The credit risk affecting liquid funds, derivatives and other financial instruments is generally more limited than the accounts trade receivables because the counterparties are banks or insurance entities that meet the standards of solvency in accordance with the internal valuation models and market conventions regulating these kinds of financial transactions.

(10) INTANGIBLE ASSETS

The breakdown of the intangible assets and of the related accumulated depreciation and impairment losses at December 31, 2017 and 2016 is as follows:

	Intangible Assets									Total
	Goodwill	Upstream			Service station association rights and other rights ⁽²⁾	Downstream		Corporate		
		Exploration permits	Computer software	Other assets		Computer software	Carbon emission allowances ⁽³⁾	Concessions and other ⁽⁴⁾	Computer software and other	
GROSS COST										
Balance at January 1, 2016	3,268	1,740	169	77	783	233	82	289	278	6,919
Investments ⁽¹⁾	(1)	176	12	-	10	33	-	4	13	247
Retirement or removals	-	(42)	(4)	1	(33)	-	-	(2)	-	(80)
Translation differences	87	94	5	2	4	1	-	(4)	-	189
Change in scope of consolidation	(67)	1	(4)	-	(1)	(3)	-	(98)	-	(172)
Reclassifications and other movements	8	360	8	30	5	2	2	9	-	424
Balance at December 31, 2016	3,295	2,329	186	110	768	266	84	198	291	7,527
Balance at January 1, 2017	3,295	2,329	186	110	768	266	84	198	291	7,527
Investments ⁽¹⁾	-	170	16	-	17	41	19	1	21	285
Retirement or removals	-	(16)	(11)	-	(58)	-	-	(8)	2	(91)
Translation differences	(330)	(266)	(18)	(2)	(12)	(5)	-	(2)	-	(635)
Change in scope of consolidation	(9)	(44)	-	-	-	-	-	-	-	(53)
Reclassifications and other movements	(9)	48	3	(28)	31	(2)	(34)	(7)	(7)	(5)
Balance at December 31, 2017	2,947	2,221	176	80	746	300	69	182	307	7,028
ACCUMULATED AMORTIZATION AND IMPAIRMENT LOSSES										
Balance at January 1, 2016	(169)	(859)	(59)	(69)	(484)	(140)	-	(160)	(197)	(2,137)
Depreciation	-	(139)	(34)	(1)	(41)	(17)	-	-	(23)	(255)
Retirement or removals	-	35	2	-	32	-	-	2	-	71
Impairment losses recognized/(reversed)	(20)	(67)	-	66	-	-	(12)	(2)	-	(35)
Translation differences	-	(37)	(3)	(2)	(2)	(1)	-	(1)	-	(46)
Change in scope of consolidation	9	(2)	1	-	1	2	-	-	-	11
Reclassifications and other movements	-	8	(3)	(30)	3	-	(1)	(4)	-	(27)
Balance at December 31, 2016	(180)	(1,061)	(96)	(36)	(491)	(156)	(13)	(165)	(220)	(2,418)
Balance at January 1, 2017	(180)	(1,061)	(96)	(36)	(491)	(156)	(13)	(165)	(220)	(2,418)
Depreciation	-	(48)	(26)	(1)	(40)	(20)	-	(1)	(24)	(160)
Retirement or removals	-	9	10	-	57	-	-	1	(2)	75
Impairment losses recognized/(reversed)	(4)	(70)	-	(66)	(1)	-	-	(2)	-	(143)
Translation differences	-	115	10	-	9	1	-	1	2	138
Change in scope of consolidation	-	20	-	-	-	-	-	-	-	20
Reclassifications and other movements	-	(17)	-	36	(2)	-	13	7	6	44
Balance at December 31, 2017	(184)	(1,052)	(102)	(67)	(468)	(175)	-	(159)	(238)	(2,444)
Net balance at December 31, 2016⁽⁵⁾	3,115	1,268	90	74	277	110	71	33	71	5,109
Net balance at December 31, 2017⁽⁵⁾	2,763	1,169	74	13	278	125	69	23	69	4,584

⁽¹⁾The additions recognized in 2017 and 2016 derive from direct asset acquisitions. Investments in "Exploration permits" mainly refer to activating geology and geophysics costs in the amount of €170 million and €175 million in 2017 and 2016 respectively.

⁽²⁾Service station association rights and other rights are legal rights, title to which is conditional upon the terms of the underlying contracts.

⁽³⁾In 2017, this includes €51 million corresponding to CO₂ free-allocated allowances in 2017 under Spain's National Allocation Plan and the derecognition corresponding to allowances consumed as a result of emissions made during 2016 in the amount of €72 million. In 2016, it mainly includes €68 million corresponding to CO₂ free-allocated allowances in 2016 under Spain's National Allocation Plan and the derecognition corresponding to allowances consumed as a result of emissions made during 2015 in the amount of €83 million. For further information about CO₂ allowances, see Note 29.4.

⁽⁴⁾Primarily includes the concession in the port of A Coruña.

⁽⁵⁾In 2017 and 2016, this includes €165 million and €158 million of assets acquired under finance leases, respectively, mainly corresponding to gas station association rights. Additionally, it includes €7 million and €6 million of intangible assets with indefinite useful lives (these assets are not amortized but they are tested at least on an annual basis for impairment) in 2017 and 2016, respectively.

Goodwill

The breakdown of goodwill, by segment and company, at December 31, 2017 and 2016 is as follows:

Goodwill	€ Million	
	2017	2016
Upstream ⁽¹⁾		
Repsol Oil & Gas Canada, Inc.	2,333	2,666
Other companies	14	14
Downstream ⁽²⁾		
Repsol Portuguesa, S.A.	154	154
Repsol Gas Portugal, S.A.	106	118
Repsol Comercial de Productos Petrolíferos, S.A.	104	102
Other companies	53	61
TOTAL ⁽³⁾	2,764	3,115

⁽¹⁾ Almost the entirety of this item reflects the goodwill arising from the acquisition of ROGCI in 2015 and allocated for the purpose of evaluating its recoverability in the *Upstream* segment (see Note 1.4).

⁽²⁾ Corresponds to 9 CGU being the most significant individual amount not exceeding to 32% of the total of segment. Of the total, €389 million and €401 million in 2017 and 2016, respectively, correspond to companies whose main activities are undertaken in Europe.

⁽³⁾ Includes €184 million and €180 million of impairment losses in 2017 and 2016 respectively.

For CGUs with goodwill and/or assets with indefinite useful lives allocated, the Group performs sensitivity analysis in order to quantify if changes in the recoverable amounts, calculated according to the method described in Note 3, of these CGUs would have a significant impact in the financial statements. Specifically, in performing the most significant sensitivity analysis, the following inputs have been taken into consideration.

Sensitivity analysis	
Decrease in the price of hydrocarbons (Brent and HH)	10%
Decrease in sales volume	5%
Increase in operating and investment costs	5%
Decrease in the unit contribution margin	5%
Increases in the discount rate	100 b.p.

Repsol considers, based on its current knowledge, that the reasonably predictable changes in the key inputs for determining the fair value of CGUs to which goodwill has been allocated would not have a material impact on the Group's financial statements at December 31, 2017 as a result of the recoverable value of its goodwill.

(11) PROPERTY, PLANT AND EQUIPMENT

The breakdown of "Property, plant and equipment" and of the related accumulated depreciation and impairment losses at December 31, 2017 and 2016 is as follows:

	Property, plant and equipment								
	Upstream			Downstream			Corporate		Total
	Investments in areas with oil reserves	Investment in exploration	Other fixed assets	Land, buildings and other structures	Machinery and plant	Other fixed assets	Assets under construction	Land, buildings and other ⁽⁵⁾	
GROSS COST⁽¹⁾									
Balance at January 1, 2016	24,797	4,765	531	2,006	18,535	1,145	934	1,057	53,770
Investments	710	252	82	-	8	36	649	18	1,755
Retirements or removals	(24)	(285)	(26)	(7)	(89)	(13)	(1)	(5)	(450)
Translation differences	856	130	15	17	93	10	(1)	-	1,120
Changes in scope of consolidation ⁽²⁾	(1012)	(71)	(39)	(24)	(134)	(123)	(6)	-	(1,409)
Reclassifications and other movements ⁽²⁾⁽³⁾	671	(512)	(83)	10	712	159	(886)	(47)	24
Balance at December 31, 2016	25,998	4,279	480	2,002	19,125	1,214	689	1,023	54,810
Balance at January 1, 2017	25,998	4,279	480	2,002	19,125	1,214	689	1,023	54,810
Investments	922	274	33	1	11	27	670	14	1,952
Retirements or removals	(157)	(19)	(20)	(22)	(171)	(7)	(3)	(1)	(400)
Translation differences	(3,208)	(456)	(55)	(66)	(350)	(39)	(21)	-	(4,195)
Changes in scope of consolidation ⁽²⁾	(5)	(116)	(2)	-	-	-	-	-	(123)
Reclassifications and other movements ⁽³⁾	558	(427)	1	26	419	23	(491)	1	110
Balance at December 31, 2017	24,108	3,535	437	1,941	19,034	1,218	844	1,037	52,154
ACCUMULATED AMORTIZATION AND IMPAIRMENT LOSSES⁽¹⁾									
Balance at January 1, 2016	(9,495)	(2,455)	(166)	(1,005)	(11,157)	(903)	-	(387)	(25,568)
Depreciation	(1,415)	(117)	(46)	(35)	(586)	(34)	-	(41)	(2,274)
Retirements or removals	6	271	11	4	73	15	-	3	383
Impairment losses recognized/(reversed)	(30)	(11)	(11)	1	(207)	21	-	-	(237)
Translation differences	(354)	(67)	(6)	(13)	(64)	(3)	-	-	(507)
Change in scope of consolidation	488	45	8	7	63	50	-	-	661
Reclassifications and other movements ⁽³⁾	57	(47)	16	24	(22)	1	-	-	29
Balance at December 31, 2016	(10,743)	(2,381)	(194)	(1,017)	(11,900)	(853)	-	(425)	(27,513)
Balance at January 1, 2017	(10,743)	(2,381)	(194)	(1,017)	(11,900)	(853)	-	(425)	(27,513)
Depreciation	(1,371)	(135)	(21)	(35)	(602)	(38)	-	(37)	(2,239)
Retirements or removals	121	8	11	21	168	6	-	-	335
Impairment losses recognized/(reversed)	170	(247)	-	4	5	(1)	-	-	(69)
Translation differences	1,351	270	21	51	241	15	-	-	1,949
Change in scope of consolidation	10	10	1	-	-	-	-	-	21
Reclassifications and other movements ⁽³⁾	(14)	(23)	(6)	(6)	(33)	44	-	-	(38)
Balance at December 31, 2017	(10,476)	(2,498)	(188)	(982)	(12,121)	(827)	-	(462)	(27,554)
Net balance at December 31, 2016⁽⁴⁾	15,255	1,898	286	985	7,225	361	689	598	27,297
Net balance at December 31, 2017⁽⁴⁾	13,632	1,037	249	959	6,913	391	844	575	24,600

(1) The Repsol Group uses the cost model by which items of property, plant and equipment are measured initially at acquisition cost. With the exception of exploration and production activities (see Note 2), amortization is carried out on a straightline basis, in line with its estimated useful life, once in ideal conditions of use. Below is the estimated useful life of the main assets:

	Estimated useful life (years)
Buildings and other constructions	20-50
Machinery and facilities:	
Machinery, fixtures and tools	8-25
Specialized complex facilities:	
Units	8-25
Storage tanks	20-40
Pipelines and networks	12-25
Gas and electricity infrastructure and distribution facilities	12-40
Transport equipment	5-20
Other PP&E:	
Furniture and fixtures	9-15

(2) See Note 1.4.

(3) In 2017 and 2016, this item includes reclassifications from "Assets under construction", mainly to "Machinery and plant", as a result of several upgrade, repair and remodeling projects at the Group's refineries.

(4) At December 31, 2017 and 2016, the value of accumulated inventory impairment came to €4,023 and €4,732 million, respectively.

(5) Mainly includes "Land and buildings" for the sum of €468 million and €476 million and "Machinery and plant" and "Other property" for the sum of €106 and €122 million in 2017 and 2016, respectively.

The breakdown by geography of the Group's most significant investments is detailed in Note 5.2 "Disclosures by geography and segment", which is presented using the Group's reporting model.

"Property, plant and equipment" includes €517 million and €640 million in 2017 and 2016, respectively, corresponding to the carrying value of assets acquired under finance leases. Worth particular mention among the assets acquired under finance leases at year-end 2017, are the gas pipelines and other assets for the transportation of gas in the USA and Canada, in the carrying amount of €489 million and €587 million at December 31, 2017 and 2016, respectively (see Note 14).

This heading also includes investments made by the Group in service concession arrangements in the amount of €269 million and €246 million at December 31, 2017 and 2016, respectively. These concessions revert to the State over a period of time ranging from 2018 to 2054.

Repsol capitalizes qualifying borrowing costs. In 2017 and 2016, the average capitalization cost was 2.77% and 2.97%, and the costs capitalized in this respect came to €98 and €109 million, respectively, recognized in "Financial result" in the income statement.

The figures corresponding to non-depreciable assets, that is, land and assets under construction, amount, respectively, to €577 million and €929 million at December 31, 2017, respectively and €583 million and €766 million at December 31, 2016, respectively.

"Property, plant and equipment" includes fully depreciated items with an original carrying amount of €8,898 million and €9,109 million at December 31, 2017 and 2016, respectively.

In accordance with industry practices, Repsol insures its assets and operations worldwide. Among the risks insured are damage to property, plant and equipment, together with the subsequent interruptions in its business that such damage may cause. The Group believes that the current coverage level is, in general, appropriate for the risks inherent to its business.

(12) INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Movement in this consolidated balance sheet heading during 2017 and 2016 was as follows:

	€ Million	
	2017	2016
Balance at January 1	10,176	11,797
Net investments ⁽¹⁾	313	(1,193)
Changes in scope of consolidation	81	1
Share of results from investments accounted for using the equity method	904	194
Dividends distributed	(676)	(729)
Translation differences	(913)	312
Reclassifications and other movements	(617)	(206)
Balance at December 31	9,268	10,176

⁽¹⁾ In 2017, mainly consists of capital contributions in BPRY Caribbean Ventures, LLC. and Repsol Sinopec Resources UK Ltd. In 2016, mainly included the sale of its 10% interest in Gas Natural SDG, S.A. (see Note 1.4) and the capital contributions to BPRY Caribbean Ventures, LLC. and Repsol Sinopec Resources UK Ltd.

The breakdown of the investments accounted for using the equity method and the Group's share of their results using this method is provided in the table below:

	€ Million			
	Carrying value of investment ⁽³⁾		Share of results ⁽⁴⁾	
	2017	2016	2017	2016
Joint ventures	5,969	6,713	693	(168)
Associates ⁽¹⁾	3,299	3,463	211	362
TOTAL⁽²⁾	9,268	10,176	904	194

⁽¹⁾ This mainly includes interests in Gas Natural SDG, S.A. and Petrocarabobo, S.A.

⁽²⁾ Includes reversal of provision for obligations arising from the stake in Repsol Sinopec Resources UK Ltd. (see Note 13).

⁽³⁾ In 2017, €5,714 million correspond to the *Upstream* segment (€6,593 million in 2016), mainly relating to joint ventures.

⁽⁴⁾ Corresponds to the net income for the period from continuing and discontinued operations. Does not include "Other comprehensive income" of -€944 million (€-753 million corresponding to joint ventures and -€191 million to associates) and €355 million (€244 million corresponding to joint ventures and €109 million corresponding to associates) in 2017 and 2016, respectively, mainly due to translation differences.

Joint ventures take place when the Repsol Group, based on shareholder agreements signed with each of the partners in each company, makes strategic operational and financial decisions in consensus with the controlling parties. The most significant joint ventures are:

Joint ventures

Repsol Sinopec Brasil (RSB)

Repsol, S.A. holds a 60% interest in the Repsol Sinopec Brasil (RSB) group, which comprises Repsol Sinopec Brasil, S.A. and its subsidiaries (see Appendix I). Repsol's stake is implemented by holding 60% interest in Sinopec Brasil, S.A.

This entity's main businesses are oil and gas exploration and production, the import and export of crude oil and gas and derivative products, the storage, distribution and sale of crude oil, oil derivatives and natural gas, as well as the provision of services related to these activities. It operates mainly in Brazil.

Regarding the loans granted to the Repsol Group by RSB, see Note 7.2.

YPFB Andina, S.A.

Repsol holds 48.33% of YPFB Andina, S.A., through Repsol Bolivia, S.A., which chiefly engages in oil and gas exploration, operation and marketing. It operates mainly in Bolivia.

BPRY Caribbean Ventures, LLC. (BPRY)

Repsol holds a 30% interest in BPRY Caribbean Ventures LLC (through Repsol Exploración, S.A.), which, together with its subsidiaries, engages in oil and gas exploration, operation and marketing and related activities, such as construction and operation of oil rigs, pipelines and other facilities in Trinidad and Tobago.

Petroquiriquire, S.A.

Repsol has a 40% stake in Petroquiriquire, S.A. through Repsol Exploración, S.A. Petroquiriquire is a public-private venture, partly held by Corporación Venezolana de Petróleo, S.A., (CPV) with 56% and PDVSA Social, S.A. with 4%. Its core activity is the production and sale of oil and gas in Venezuela. For information on the Group's risks and exposure in Venezuela, see Note 21.

Cardón IV, S.A.

Repsol has a 50% stake in Cardón IV, S.A. through Repsol Exploración, S.A. The other 50% is owned by the ENI group. Cardón IV is a gas licensee whose core activity is the production and sale of gas in Venezuela. For information on the Group's risks and exposure in Venezuela, see Note 21.

Equion Energía Ltd.

Equion is a company held 51% and 49% by Ecopetrol, S.A. and Talisman Colombia Holdco, Ltd, respectively. Equion mainly explores for, researches, exploits, develops and sells oil and gas and derivative products in Colombia. Based on a shareholder agreement with Ecopetrol, S.A., Repsol treats Energía Ltd. as one of its joint ventures.

Repsol Sinopec Resources UK Ltd. (RSRUK)

RSRUK is held by Talisman Colombia Holdco, Ltd, and Addax Petroleum UK Limited ("Addax"), a subsidiary of the Sinopec Group, with a 51% and 49% stake, respectively, and whose core business is the exploration and exploitation of oil and gas in the North Sea. This joint venture is governed by a shareholder agreement that requires the unanimous consent of both shareholders for all significant financial and operating decisions. The amount of this investment in the Group's financial statements is nil and in 2017, the provision to cover its obligations deriving from its investment was reversed in full, see Note 13. For information on the arbitration procedure concerning the purchase by Addax of its 49% stake in RSRUK, see Note 16.

The tables below provide summarized financial information for these investments, prepared in keeping with IFRS-EU accounting policies, as detailed in Note 2 and reconcile these disclosures with the amounts at which these investments

are carried in the Group's consolidated financial statements:

Income from joint ventures:

€Million	RSB		YPFB Andina		BPRY		Petroquiriquire		Cardón IV		Equion	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Operating revenue	1,490	957	254	266	1,516	939	342	294	734	697	437	393
Amortization and impairment provisions ⁽¹⁾	(399)	(323)	(151)	(157)	(739)	(638)	(427)	(40)	(731)	(614)	(142)	(232)
Other operating expenses ⁽²⁾	(769)	(508)	(108)	(110)	(964)	(719)	(771)	(452)	(240)	(217)	(83)	(148)
Operating income	322	126	(5)	(1)	(187)	(418)	(856)	(198)	(237)	(134)	212	13
Finance income	104	70	153	159	(10)	1	83	371	58	54	-	14
Finance costs ⁽³⁾	(22)	22	(158)	(165)	(111)	(55)	(108)	108	(314)	(321)	(6)	(1)
Share of results from investments accounted for using the equity method - net of taxes	19	11	12	(12)	-	-	-	-	-	-	-	-
Income before tax	423	229	2	(19)	(308)	(472)	(881)	281	(493)	(401)	206	26
Income tax	(80)	90	7	8	(24)	215	338	(587)	51	(99)	32	64
Net income for the period from continuing operations	343	319	9	(11)	(332)	(257)	(543)	(306)	(442)	(500)	238	90
Net income for the period from discontinued operations	-	-	-	-	-	-	-	-	-	-	-	-
Net income for the period attributable to the parent	343	319	9	(11)	(332)	(257)	(543)	(306)	(442)	(500)	238	90
Repsol stakeholding	60%	60%	48%	48%	30%	30%	40%	40%	50%	50%	49%	49%
Consolidation income	206	191	4	(5)	(100)	(77)	(217)	(122)	(221)	(250)	117	44
Dividends	132	121	-	5	5	-	140	164	-	-	64	104
Other comprehensive income ⁽⁴⁾	(574)	178	(61)	24	(75)	19	(5)	(1)	14	4	(23)	4

Note: The itemized amounts below feature the percentage stake of the Group in each of the companies:

- (1) In 2017, Petroquiriquire and Cardón IV include the impairment of property, plant and equipment for the sum of €151 million and €327 million, respectively (€260 million in Cardón IV in 2016). See Note 21.
- (2) In 2017 and 2016, RSB includes operating lease expenses of €123 million and €102 million, respectively, mainly under floating production platform (FPSO units) lease commitments that are secured by the Group (see Note 15). In 2017, Petroquiriquire includes the impairment of accounts receivable with PDVSA for the sum of €256 million (see Note 21).
- (3) In 2017 and 2016, RSB includes the finance expense associated with the effect of discounting dismantling provisions to present value in the amount of €5 million and €4 million, respectively. In 2017, Petroquiriquire and Cardón IV include financial expenses for the expected delay in receiving accounts receivable from PDVSA for the sum of €11 million and €42 million, respectively.
- (4) Relates to "Income and expenses recognized directly in equity" and "Amounts transferred to the consolidated statement of profit or loss" in the consolidated statement of recognized income and expenses.

Value of interest in joint ventures:

€Million	RSB		YPFB Andina		BPRY		Petroquiriquire		Cardón IV		Equion	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Assets												
Non-current assets	7,781	4,042	876	1,023	8,055	8,548	491	1,048	1,409	3,107	537	541
Current assets	402	5,227	324	346	865	551	3,417	4,387	899	295	88	171
Cash and cash equivalents	46	71	124	120	73	63	12	1	60	24	48	95
Other current assets	356	5,156	200	226	792	488	3,405	4,386	839	271	40	76
Total Assets	8,183	9,269	1,200	1,369	8,920	9,099	3,908	5,435	2,308	3,402	625	712
Liabilities												
Non-current liabilities	662	582	205	248	6,051	5,920	789	1,325	2,112	926	145	257
Financial liabilities	229	95	-	-	1,839	1,561	482	517	2,057	-	-	-
Other non-current liabilities ⁽¹⁾	433	487	205	248	4,212	4,359	307	808	55	926	145	257
Current liabilities	609	943	77	91	702	1,144	3,635	3,722	623	2,490	89	108
Financial liabilities	229	478	-	-	-	587	-	-	-	2,099	-	-
Other current liabilities	380	465	77	91	702	557	3,635	3,722	623	391	89	108
Total Liabilities	1,271	1,525	282	339	6,753	7,064	4,424	5,047	2,735	3,416	234	365
NET ASSETS	6,912	7,744	918	1,030	2,167	2,035	(517)	388	(427)	(14)	391	347
Repsol stakeholding	60%	60%	48%	48%	30%	30%	40%	40%	50%	50%	49%	49%
Stake in net assets ⁽²⁾	4,147	4,646	441	494	650	611	(207)	155	(214)	(7)	192	170
Capital gains/ (losses)	-	-	-	-	-	-	-	-	-	-	-	-
Carrying value of investment	4,147	4,646	441	494	650	611	-	155	-	-	192	170

Note: The itemized amounts below feature the percentage stake of the Group in each of the companies:

- (1) In 2017 and 2016, RSB includes non-current provisions for dismantling obligations in the amount of €102 million and €99 million.
- (2) Petroquiriquire: In 2017, a provision for risk and expenses for the sum of €207 million was registered, corresponding to the negative value of Petroquiriquire's equity (see Notes 12 and 13).
Cardón IV: The value of the investment is made equal to zero by deducting the carrying amount from the loan granted to Cardón IV which is considered a net investment (see Note 7.1).

Associates

Gas Natural Fenosa (GNF)

Repsol has an interest in the GNF Group by means of a 20% stake in Gas Natural SDG, S.A., through which it exerts significant influence. The shares of Gas Natural SDG, S.A. are admitted to trading on Spain's four stock exchanges, are traded on the continuous market, and are also part of the Ibex35 (see Note 6).

GNF's main businesses are the supply, liquefaction, regasification, transport, storage, distribution and commercialization of gas, as well as the generation, transmission, distribution and commercialization of electricity. It mainly operates in Spain, and abroad, primarily in Latin America, the rest of Europe and Africa.

On February 22, 2018, Repsol, S.A. has reached an agreement for the sale of its stake in this company. For further information, see Note 31.

The tables below provide summarized financial information for GNF, prepared in keeping with IFRS-EU accounting policies, as detailed in Note 2 and reconcile these disclosures with the amounts at which these investments are carried in the Group's consolidated financial statements:

€ Million	GNF		€ Million	GNF	
	2017	2016		2017	2016
Operating revenue	23,609	23,665	Assets		
Amortization and impairment provisions	(1,643)	(1,759)	Non-current assets	35,946	38,596
Other operating expenses	(19,849)	(18,900)	Current assets	11,083	8,213
Operating income	2,117	3,006	Cash and cash equivalents	3,225	2,067
Finance income	111	130	Other current assets	7,858	6,146
Finance costs	(810)	(955)	Total Assets	47,029	46,809
Share of results from companies accounted for using the equity method, net of taxes	14	(98)	Liabilities		
Income before tax	1,432	2,083	Non-current liabilities	24,980	24,713
Income tax	(191)	(416)	Financial liabilities ⁽²⁾	15,916	9,480
			Other non-current liabilities	9,064	15,233
Net income for the period from continuing operations	1,241	1,667	Current liabilities	7,608	7,176
Net income for the period from interrupted operations	460	44	Financial liabilities ⁽²⁾	2,543	2,599
Net income attributable to non-controlling interests	(337)	(364)	Other current liabilities	5,065	4,577
Net income for the period attributable to the parent	1,364	1,347	Total Liabilities	32,588	31,889
			NET ASSETS	14,441	14,920
Repsol stakeholding	20%	20%	Repsol stakeholding	20%	20%
Consolidation income	274	362	Stake in net assets	2,899	2,995
Dividends	201	278	Capital gains/(losses) ⁽³⁾	325	327
Other comprehensive income ⁽¹⁾	(175)	160	Carrying value of investment	3,224	3,322

⁽¹⁾ Corresponds to items reclassifiable and not reclassifiable under the "Other comprehensive income" item of the Statement of recognized income and expenses.

⁽²⁾ Excludes trade and other accounts payable; and provisions.

⁽³⁾ The gain corresponds to goodwill.

Lastly, and regarding joint arrangements and associates that are material or of significant relative importance: (i) there are no legal restrictions on the capacity to transfer funds; (ii) the financial statements that have been used refer to the same date as the financial statements of Repsol, S.A.; and (iii) there are no unrecognized losses.

(13) CURRENT AND NON-CURRENT PROVISIONS

At December 31, 2017 and 2016, the balance and changes in these items during 2017 and 2016 are as follows:

	€ Million				
	Provisions for risks and current/non-current expenses				
	Decommissioning of fields	Onerous contracts	Legal and tax contingencies (5)	Other provisions	Total
Balance at January 1, 2016	2,230	1,194	1,717	2,063	7,204
Allowances charged to income ^{(1) (2)}	103	209	168	648	1,128
Use of provisions credited to income ⁽³⁾	(36)	(3)	(342)	(175)	(556)
Provisions released due to payment ⁽⁴⁾	(57)	(220)	(44)	(541)	(862)
Changes in scope of consolidation	(80)	-	16	(15)	(79)
Translation differences	99	32	37	57	225
Reclassifications and other	76	(53)	(51)	(33)	(61)
Balance at December 31, 2016	2,335	1,159	1,501	2,004	6,999
Allowances charged to results ⁽¹⁾	91	60	340	220	711
Use of provisions credited to income ⁽³⁾	(85)	(128)	(144)	(86)	(443)
Provisions released due to payment ⁽⁴⁾	(89)	(105)	(43)	(144)	(381)
Changes in scope of consolidation	(1)	-	-	-	(1)
Translation differences	(242)	(112)	(149)	(119)	(622)
Reclassifications and other	166	(62)	8	(1,028)	(916)
Balance at December 31, 2017	2,175	812	1,513	847	5,347

⁽¹⁾ Includes €155 and €191 million reflecting the discounting to present value of provisions in 2017 and 2016. In 2017, a change in the discount rate of +/-50bp would have the effect of decreasing/increasing provisions for dismantling costs by €-147 million and €118 million, respectively.

⁽²⁾ In 2016, it mainly included the workforce restructuring provision in the amount of €479 million.

⁽³⁾ In 2017, it included the reversal of the Ship or Pay provision in Ecuador. In 2016, this item mainly reflected the impact associated with the divestment in YPF as recognized in heading "Net income attributed to the parent from discontinued operations" in an amount of €299 million.

⁽⁴⁾ In 2017 and 2016, this heading mainly reflects, under "Onerous contracts", payments for drilling platform leases and other long-term onerous contracts, and, under "Other provisions", personnel restructuring payments.

⁽⁵⁾ See Notes 16 and 23.

"Other provisions" includes mainly the provisions recognized to cover obligations deriving from environmental risks (see Note 29.2), pension commitments (see Note 28.2), consumption of CO₂ allowances (Note 29.4), employee incentive schemes (Notes 28.3 and 28.4) and other provisions to cover obligations arising from the Group's interests in companies:

- Concerning the latter, in 2017, provisions recognized for obligations arising from the net payouts expected in the stake in RSRUK, mainly relating to the activity and the dismantling of the facilities for oil and gas exploration and production in the North Sea, have been reversed. The reversed amount (€911 million) has been recognized in "Investments accounted for using the equity method" (see Note 12). The operating improvements and efficiencies obtained in the operation of this asset since its acquisition in 2015, both in terms of production efficiency and the reduction of OPEX and CAPEX and the recovery of tax credits, has entailed, based on the company's business plan, a significant improvement in the estimated cash flows. Therefore, the Group has decided to reverse the entire provision set aside and to this end has sought the opinion of an independent valuator, whose valuation does not differ significantly from the Group's.
- Also, 2017 and 2016, provisions include workforce restructuring charges calculated as agreed in as part of the Collective Redundancy Program in Spain¹ in the amount of €111 million and €212 million, respectively, a sum that represents the present value of the estimate of future disbursements to be made to the people affected by the plan who have not yet left the company's employment and Social Security. In 2017 and 2016, payments under this item amounted to €55 and €103 million, respectively. The cash outlays corresponding to this provision are expected to run until 2022.

¹ As recorded in the minutes of proceedings of the Oversight Committee for the Seventh Framework Agreement signed on June 8, 2016 between union representatives and Repsol's management, it was decided that the most suitable mechanism to implement the workforce downsizing in Spain was to set in motion a collective dismissal process.

The next table provides an estimation of maturities of provisioned contingencies and expenses recognized at year-end 2017.

	€ Million			Total
	Less than one year	From 1 to 5 years	More than 5 years and/or undefined	
Provisions for decommissioning fields	99	527	1,549	2,175
Provision for onerous contracts	77	295	440	812
Provision for legal and tax contingencies	81	806	626	1,513
Other provisions	261	570	16	847
TOTAL ⁽¹⁾	518	2,198	2,631	5,347

⁽¹⁾ Due to the nature of the risks provisioned, these timing assessments are subject to uncertainty and changes that are beyond the Group's control. As a result, this schedule could change in the future according to the circumstances underpinning the estimates.

(14) OTHER NON-CURRENT LIABILITIES

A breakdown of "Other non-current liabilities" can be found below:

	€ Million	
	2017	2016
Obligations under finance leases	1,346	1,550
Guarantees and deposits ⁽¹⁾	120	121
Deferred income ⁽²⁾	47	39
Other	282	299
TOTAL	1,795	2,009

⁽¹⁾ This item includes, among others, deposits received by Repsol Butano, S.A. from the users of gas bottles in accordance with applicable legal regulations. These amounts are refundable when the corresponding contracts are cancelled.

⁽²⁾ Includes the amounts associated to the CO₂ emission allowances granted free of charge (see Note 10).

The breakdown of the amounts payable under finance leases at December 31, 2017 and 2016 is as follows:

	€ Million			
	Lease payments		Value minimum lease payments	
	2017	2016	2017	2016
During following year	202	221	195	208
From 2nd to 5th year, included	732	830	553	633
After 6th year	2,112	2,434	793	917
	3,046	3,485	1,541	1,758
Less:				
Future finance expenses	(1,505)	(1,727)		
Total debt on financial leases	1,541	1,758		
Non current	1,346	1,550		
Current	195	208		

The effective average interest rate on obligations under finance leases at December 31, 2017 was 8.93% (9.04% at December 31, 2016).

The main liabilities related to finance leases shown in this heading at December 31 are as follows:

- On May 15, 2006 the Group signed an agreement with Emera Brunswick Pipeline Company, Ltd. for the transportation of natural gas through a pipeline that connects the Canaport plant with the US border. The agreement has an initial term of 25 years (renewable for up to an additional 30 years). The contract came into effect in July 2009. At December 2017 and 2016, the amount recognized in this heading was \$454 million (€379 million) and \$466 million (€442 million), respectively.
- In addition, on April 21, 2006 the Group signed an agreement with Maritimes & North East Pipeline for the transportation of Canadian natural gas from the Canadian border to Dracut for an initial term of 25 years (renewable for up to an additional 30 years). The contract initially came into effect in March 2009. The corresponding liability recognized in this heading at year end 2017 and 2016 amounted to \$1,136 million (€947 million) and \$1,164 million (€1,104 million), respectively.

(15) COMMITMENTS AND GUARANTEES

15.1) Contractual commitments

At December 31, 2017, the Repsol Group has contractually committed to the following purchases, investment and other expenditures:

€ Million	2018	2019	2020	2021	2022	Subsequent years	Total
Purchase commitments	3,286	753	742	774	777	12,250	18,582
Crude oil and others ^{(1) (3)}	2,396	268	223	228	233	2,833	6,181
Natural gas ^{(2) (3)}	890	485	519	546	544	9,417	12,401
Investment commitments ⁽⁴⁾	1,000	553	359	204	80	178	2,374
Service provisions ⁽⁵⁾	490	369	295	246	173	1,067	2,640
Transport commitments ⁽⁶⁾	213	174	168	137	113	389	1,194
TOTAL	4,989	1,849	1,564	1,361	1,143	13,884	24,790

Note: Commitments consist of future unconditional obligations (non-cancellable, or cancellable only under certain circumstances), as a result of commercial agreements in which fixed total amounts are not stipulated. These commitments were quantified using Repsol's best estimates, and, in case fixed total amounts were not stipulated, price estimates and other variables were used for calculating the recoverable amount of the assets (see Notes 3 and 21). In relation to operating lease commitments, see Note 20.6

⁽¹⁾ Mainly includes the commitments for the purchase of products needed to operate the Group's refineries in Spain and the commitments assumed under crude oil purchase contracts with the Pemex Group (open-ended), with the Saudi Arabian Oil Company (renewed annually) and with the Repsol Sinopec Brasil Group (expires 2020) and with Overseas Petroleum and Investment Corporation (expires in 2018), committing to the acquisition in 2018 of 166,667, 26,374, 13,288 and 3,945 barrels per day, respectively.

⁽²⁾ Primarily includes commitments to purchase liquefied natural gas in North America, acquired under two contracts signed in 2013 for a volume of 75.7 TBtu annually, with deliveries from 2017, one of them signed with the group Gas Natural Fenosa. It also included commitments in Spain made with Gas Natural Fenosa for the contract to supply natural gas to Repsol refineries.

⁽³⁾ Committed crude oil and gas volumes are as follows:

	Unit of measurement	2018	2019	2020	2021	2022	Subsequent years	Total
Purchase commitments								
Crude oil	Mb	28,676	196	195	194	193	1,117	30,571
Natural Gas								
Natural Gas	Tbtu	109	7	5	5	5	22	153
Liquefied natural gas	Tbtu	64	80	79	82	79	1,160	1,544

⁽⁴⁾ Includes mainly investment commitments in Vietnam, Norway, Algeria and Bolivia in the amount of €494 million, €456 million, €396 million and €229 million, respectively.

⁽⁵⁾ Primarily includes services for processing gas in *Downstream* Canada amounting to €988 million, and associated with oil and gas exploration and productions activities in the *Upstream* segment totaling €658 million.

⁽⁶⁾ It includes, primarily, oil and gas pipeline transportation commitments in North America, Peru and Indonesia amounting to approximately €1,001 million.

15.2) Guarantees

At December 31, 2017, the most significant guarantees to third parties or companies whose assets, liabilities and earnings are not presented in the consolidated financial statements (joint ventures and associates) are as follows:

- For the rental of three floating production platforms for the development of the BMS9 field in Brazil:
 - A guarantee for \$593 million corresponding to 100% of RSB's interest (see Note 12) in Guara B.V., for which Repsol holds a counter guarantee from China Petrochemical Corporation in respect of the latter's 40% interest in RSB,
 - and two additional guarantees of \$516 million and \$486 million, corresponding to the 15% interest held indirectly by the Group in Guará B.V.

The guaranteed amounts are reduced annually during the contracts' term of 20 years.

- For 51% of the guarantees for the decommissioning of RSRUK in the North Sea, for £523 million.
- To cover the risk of confiscation, expropriation, nationalization, or any measure designed to restrict use of the drilling unit introduced by the Venezuelan government or acts of insurgency or terrorism, for \$90 million, granted for the 50% interest in Cardón IV¹.
- To cover the construction, abandonment, environmental and operating risks of a pipeline in Ecuador in the amount of \$30 million, granted for the 29.66% interest in Oleoducto de Crudos Pesados de Ecuador, S.A.

In addition, in line with general industry practice, the Group grants guarantees and commitments to compensate for obligations arising in the course of ordinary activities, and for any liabilities of its activities, including environmental liabilities² and for the sale of assets³.

The aforementioned guarantees cannot be considered a definite outflow of resources to third parties, as for the large part, they will mature without any payment obligation arising. At the date of issue of these consolidated financial statements, the probability of a breach that would trigger liability for these commitments to any material extent is remote.

(16) LITIGATION

The Group's general criterion is to recognize provisions (see Note 13) for proceedings that it deems it is likely to lose and does not recognize provisions when the risk of losing the case is considered possible or remote. The amounts to be provisioned are calculated on the basis of the best estimate of the amount needed to settle the lawsuit in question, underpinned, among others, by a case-by-case analysis of the facts, the legal opinions of in-house and external advisors and prior experience in these matters.

As of December 31, 2017, Repsol's consolidated balance sheet includes provisions for proceedings in the ordinary course of its activities totaling €98 million (this figure does not include the provisions for tax contingencies itemized in Note 23).

The most significant legal or arbitration proceedings and their status on the date these Consolidated Financial Statements were drawn up are summarized below.

United Kingdom

Addax arbitration in relation to the purchase of Talisman Energy (UK) Limited (TSEUK)

On July 13, 2015, Addax Petroleum UK Limited ("Addax") and Sinopec International Petroleum Exploration and Production Corporation ("Sinopec") filed a "Notice of Arbitration" against Talisman Energy Inc. (now known as "ROGCI") and Talisman Colombia Holdco Limited ("TCHL") in connection with the purchase of 49% of the shares of TSEUK (now known as "RSRUK", see Note 12). ROGCI and TCHL filed their response to the Notice of Arbitration on October 1. On May 25, 2016, Addax and Sinopec filed the Statement of Claim, in which they seek, in the event that their claims were confirmed in their entirety, repayment of their initial investment in RSRUK, which was executed in 2012 through the purchase of 49% of RSRUK from TCHL, a wholly-owned subsidiary of ROGCI, together with any additional investment, past or future, in such company, and further for any loss of opportunity, and which they estimate in a total approximate amount of \$5,500 million. The court of arbitration has decided, among other procedural matters, to split the proceedings into two phases: the hearing on liability issues which took place from January 29 to February 20, 2018, and, if necessary, the hearing on the assessment of any damages will take place later, at an as yet unspecified date – it is estimated that this would be early 2019. Repsol maintains its opinion that the claims included in the Statement of Claim are without merit.

¹ Also in Venezuela, Repsol has issued an indeterminate guarantee in favor of Cardón IV to cover gas supply commitments undertaken with PDVSA through to 2036. In the opposite direction, PDVSA has granted a guarantee to Cardón IV to cover receivables on supply commitments.

² Guarantees granted in the ordinary course of business comprise a limited number of guarantees totaling €118 million in value. Environmental guarantees are formalized in the normal course of oil and gas exploration and production activity, where the probability of occurrence of the collateralized contingencies is remote, and the related amounts are unascertainable.

³ Outstanding guarantees for asset sales, granted in accordance with general industry practice, are immaterial. Of recent note are those granted in the sale of LNG assets to Shell in 2015 (see Notes 4 and 29 of the 2015 consolidated financial statements).

"Galley" pipeline lawsuit

In August 2012, the Galley pipeline, in which RSRUK has a 67.41% interest, suffered an upheaval buckle.

In September 2012, RSRUK filed a claim seeking coverage of the damages and losses sustained as a result of the incident from the insurance company Oleum Insurance Company ("Oleum"), a wholly-owned subsidiary of ROGCI, which in turn owns 51% of RSRUK. In July 2014, RSRUK presented Oleum with a \$351 million claim for property damage and business disruption.

To date, the documentation delivered by RSRUK in support of its claim has proven insufficient to conclude on the existence of coverage under the policy.

RSRUK filed a request for arbitration on August 8, 2016, which will take place in London and the law governing the merits of the case will be the law of the State of New York.

On June 2017, the Court, at the parties' proposal, the division of the procedure into two phases (liability and quantum, as applicable) was approved, as was the preliminary hearing for matters to be addressed in the first phase, in two weeks (between February, 19 and March, 2 2018).

United States of America

The Passaic River / Newark Bay lawsuit

The events underlying this litigation related to the sale by Maxus Energy Corporation ("Maxus") of its former chemicals subsidiary, Diamond Shamrock Chemical Company ("Chemicals") to Occidental Chemical Corporation ("OCC"). Maxus agreed to indemnify Occidental for certain environmental contingencies relating to the business and activities of Chemicals prior to September 4, 1986. After that (1995), Maxus was acquired by YPF S.A. ("YPF") and after that (1999), Repsol, S.A. acquired YPF.

In December 2005, the New Jersey Department of Environmental Protection ("DEP") and the New Jersey Spill Compensation Fund (together, the "State of New Jersey") sued Repsol YPF S.A. (today called Repsol, S.A., hereinafter, "Repsol"), YPF, YPF Holdings Inc. ("YPFH"); CLH holdings ("CLHH"); Tierra Solutions, Inc. ("Tierra"), Maxus and OCC for the alleged contamination caused by the old Chemicals plant which allegedly contaminated the Passaic River, Newark Bay and other bodies of water and properties in the vicinity.

On September 26, 2012 OCC lodged a Second Amended Cross Claim (the "Cross Claim") against Repsol, YPF, Maxus, Tierra and CLHH (all of which together "the Defendants"). Between June 2013 and August 2014, the Defendants signed different agreements with the State of New Jersey, in which they do not acknowledge liability and through certain payments in exchange for the withdrawal by the State of New Jersey of its proceedings against them.

On January 29, 2015 the judge ruled on certain Motions to Dismiss submitted by the Defendants against Cross Claim, dismissing, in full or in part, without scope for re-admission, ten of the twelve claims presented by OCC.

On January 14, 2016 the Special Master issued her recommendations on these Motions, allowing the ones submitted by Repsol in relation to its characterization as alter ego to Maxus and rejecting OCC's against Repsol's claim visa-vis OCC in respect of the \$65 million paid pursuant to the agreement with the State of New Jersey.

On April 5, 2016 the Presiding Judge decided to dismiss OCC's suit against Repsol in full. The decision can be appealed. On June 16, 2016, the Special Master agreed to hear the Motion for Summary Judgment presented by Repsol with regard to its claim against OCC for the \$65 million paid as part of the settlement reached with the State of New Jersey. On January 30, 2017, OCC appealed against the recommendation of the Special Master. On June 17, 2016, Maxus filed for bankruptcy protection before the United States Bankruptcy Court for the District of Delaware, also seeking release from its main litigation liability, a petition the Court must rule on. On October 19, 2017, the judge decided to fully uphold the recommendations of the special master and, thus, uphold the motion for summary judgment presented by Repsol in relation to its claim against OCC for \$65 million. On November 22, 2017, OCC was formally condemned to pay

the \$65 million plus interest and expenses. On January 8, 2018, Maxus (assuming right of ownership of the claim on behalf of OCC) and OCC announced the formal submission of an appeal against these rulings.

Spain

Lawsuits in relation to the application of Ministerial Order ITC/2608/2009 of September 28

In February 2017, four decisions were handed down by the Supreme Court upholding the lower court rulings and a prior decision by the Supreme Court itself recognizing the right of Repsol Butano, S.A. to compensation for losses and damages caused by the formula for determining the maximum price of regulated LPG containers set out in the Order ITC/2608/2009 of September 28 that was overturned by the decision by the Supreme Court of June 19, 2012, plus legal interest accrued (see Note 20.3).

(17) INVENTORIES

The breakdown of "Inventories" at December 31, 2017 and 2016 is as follows:

	€ Million	
	2017	2016
Crude oil and natural gas	1,244	1,187
Finished and semi-finished products	2,252	2,110
Materials and other stocks	300	308
TOTAL ⁽¹⁾	3,797	3,605

⁽¹⁾ Includes provisions for inventory impairment losses of €32 million and €28 million at December 31, 2017 and 2016, respectively. The impairment provisions recognized and reversed amounted to €-10 million and €6 million, respectively (-€7 million recognized and €69 million reversed in 2016).

At December 31, 2017, the balance of commodity inventories, related to trading activity, at fair value less costs to sell amounted to €183 million, and the effect of their measurement at market value represented income of €9 million. Recoverable amounts are calculated using market information and benchmarks. Specifically, forward price/benchmark price curves provided by the market as well as a benchmark time horizon for pricing purposes. The main variables used were: prices taken from official publications (Platt's, Argus, OPIS, the brokerage community...) and historic or mark-to-market premiums, if available.

In the assessment of refinery products, production costs are allocated in proportion to the selling price of the related products (*isomargin* method) due to the existing difficulty to recognize the conversion costs of every product.

At December 31, 2017 and 2016, the Repsol Group complies with the legal requirements regarding minimum safety stocks established under prevailing legislation (see Appendix IV) through its Spanish Group companies.

(18) TRADE AND OTHER RECEIVABLES

The breakdown of this heading at December 31, 2017 and 2016 is as follows:

	€ Million	
	2017	2016
Trade receivables for sales and services (gross amount)	4,152	3,242
Insolvency provisions	(173)	(131)
Trade receivables	3,979	3,111
Receivables on traffic activities and other receivables	943	1,395
Receivables from operations with staff	41	42
Public administrations	198	284
Trade operation derivatives (Note 7 and 8)	60	64
Other receivables	1,242	1,785
Current income tax assets	691	989
Trade and other receivables	5,912	5,885

The changes in the provision for doubtful accounts in 2017 and 2016 were as follows:

	€ Million	
	2017	2016
Balance at January 1	131	131
Provision/(reversal) impairment losses	57	(3)
Changes in scope of consolidation	-	(1)
Translation differences	(9)	2
Reclassifications and other movements	(6)	2
Balance at December 31	173	131

(19) TRADE PAYABLES AND OTHER PAYABLES

Repsol had the following accounts payable classified under "Trade payables and other payables":

	€ Million	
	2017	2016
Suppliers	2,738	2,128
Obligations under finance leases (Note 14)	195	208
Tax payables	656	535
Derivative financial instruments (Note 8)	215	282
Other	3,214	3,340
Other receivables	4,280	4,365
Current tax liabilities	292	317
TOTAL	7,310	6,810

Information regarding deferrals of payments settled with suppliers in Spain

The disclosures made in respect of the average payment term for trade payables are presented in keeping with the stipulations of additional provision three of Spanish Law 15/2010 of July 5 (as amended by means of final provision two of Law 31/2014, of December 3) and prepared in keeping with the related resolution issued by the ICAC (acronym in Spanish for the Audit and Accounting Institute) in January 2016.

The information regarding the average term of payment to the suppliers of the Group's Spanish companies in 2017 pursuant to the sole additional provision of the above-mentioned resolution is as follows:

	Days	
	2017	2016
Average payment period to suppliers ⁽¹⁾	25	27
Ratio of paid operations ⁽²⁾	25	27
Ratio of outstanding payment operations ⁽³⁾	28	22
	€ Million	
Tax payments made	10,995	10,450
Total pending payments	521	219

⁽¹⁾ ((Ratio of paid transactions * total amount of payments made) + (Ratio of Outstanding payment transactions * total outstanding payments)) / (Total payments + total outstanding payments).

⁽²⁾ Σ (number of days of payment * amount of the transaction paid) / Total payments.

⁽³⁾ Σ (number of days outstanding payment * amount of the transaction outstanding payment) / Total outstanding payments.

According to the transitional provision of Law 15/2010, the maximum legal payment deadline is 60 days.

(20) OPERATING INCOME

20.1) Sales and services rendered and other income

The distribution by geography of the "Sales" and "Services rendered and other income" items, depending on the markets to which they correspond, is as follows:

Geographical areas	€ Million	
	2017	2016
Spain	20,727	20,727
European Union	8,624	4,885
OECD countries	4,660	3,190
Rest of the world	7,657	5,887
TOTAL	41,668	34,689

This heading includes excise tax and similar taxes levied on the production and/or sale of oil and gas products amounting to €6,310 million in 2017 and €6,249 million in 2016.

In sales in which the Group acts as an agent, the Group does not recognize all the income and expenses associated with the transaction, recognizing as revenue only the margin received or pending to receive.

20.2) Income from reversal of impairment provisions and on disposal of assets

These headings include the following items:

	€ Million	
	2017	2016
Income from reversal of impairment provisions (Notes 20.7 and 21)	802	623
Earnings arising from the disposal of assets	62	1,002
TOTAL	864	1,625

In 2016, the gain recognized on non-current asset disposals corresponded primarily to (see Note 1.4) i) the sale of part of the piped gas business assets in Spain amounting to €464 million; ii) sale of 10% of the stake in Gas Natural SDG, S.A. for €233 million; iii) sale of the wind power business in the United Kingdom for €101 million; iv) sale of the LPG business in Peru and Ecuador for €129 million; v) divestment of Repsol E&P T&T Limited in the amount of €17 million; and vi) divestment of the Tangguh LNG project in the amount of €21 million.

20.3) Other operating income

This item reflects, inter alia, income recognized on the remeasurement of trade derivatives (see Note 8) and the reversal of provisions, taken to the income statement (see Note 13).

In 2016, €80 million was included under this item respectively, resulting from favorable rulings concerning damages caused by the application of the maximum sale prices for regulated bottled LPG formula established in Spanish Ministerial Order ITC/2608/2009, which was subsequently struck down by a Supreme Court decision dated June 19, 2012 (see Note 16 and Appendix IV). In addition, financial income for the sum of €21 million was recognized, corresponding to the statutory interest relating to these claims. The proceeds from these decisions were collected in full in 2017 (see Note 16).

Finally, this heading also includes grants released to income in the amount of €23 and €25 million in 2017 and 2016, respectively.

20.4) Supplies

"Supplies" includes the following items:

	€ Million	
	2017	2016
Purchases	30,420	24,325
Variation in the inventories	(169)	(710)
TOTAL	30,251	23,615

"Supplies" includes excise tax and similar taxes levied on the production and/or sale of oil and gas products disclosed in section "Sales and Services rendered and other income" of this note.

20.5) Personnel expenses

"Personnel expenses" includes the following items:

	€ Million	
	2017	2016
Remuneration and other	1,481	2,045
Social Security costs	411	456
TOTAL	1,892	2,501

In 2017 and 2016, "Salaries and others" includes the workforce restructuring charges deriving mainly from the collective redundancy program in Spain (see Note 13), the adjustments for workforce restructuring in other countries and the changes made to the management team.

20.6) Other operating expenses

"Other operating expenses" includes the following items:

	€ Million	
	2017	2016
Transport and freight costs ⁽¹⁾	1,072	1,166
Taxes	367	320
External services	3,461	3,551
Supplies	842	736
Operator expenses ⁽²⁾	498	533
Freelance Services	448	470
Leases	400	406
Repair and conservation	300	340
Other	973	1,066
Other costs	295	893
TOTAL	5,195	5,930

⁽¹⁾ In order to minimize transport costs and optimize the Group's logistics chain, the Group arranges swaps of oil products of similar nature with other companies in a number of geographical locations. These transactions are not recognized in the income statement as separate purchases and sales, being recognized for the net amount.

⁽²⁾ Includes, among other items, the cost of agency services at the facilities of Compañía logística de Hidrocarburos CLH, S.A., product bottling, storage, loading, transportation and dispatch services.

The costs of operating leases itemized in the above table primarily reflect leases with gas stations. None of these leases particularly stands out from the rest.

The non-cancellable future minimum payments tied to these leases as of December 31, 2017 are specified below:

	€ Million
2018	229
2019	182
2020	195
2021	182
2022	169
Subsequent years	937
TOTAL	1,894

In 2017, an operating lease agreement for a floating production platform (FPSO) was signed in Vietnam, whose activity will begin in 2019, amounting to €384 million.

20.7) Exploration expenses

The geographic distribution of costs taken to the income statement in respect of exploration activities (see Note 2) is as follows:

	€ Million	
	2017	2016
Europe	136	133
America	236	173
Africa	54	140
Asia	34	6
Oceania	87	89
TOTAL	547	541

Exploration costs amounted to €547 million and €541 million in 2017 and 2016, of which €177 million and €241 million, respectively, are recognized under "Depreciation and amortization of non-current assets" and €478 million and €96 million under "Impairment losses recognized and losses on disposal of non-current assets" in 2017 and 2016, respectively. In addition, in 2017 impairment losses were reversed in the amount of €147 million under "Reversal of impairment losses and gains on disposal of non-current assets".

For more information, see the Information on oil and gas exploration and production activities (non-audited information) at (www.repsol.com).

20.8) Impairment losses recognized and losses on disposal of assets

These headings include the following items:

	€ Million	
	2017	2016
Impairment provisions (Notes 20.7 and 21)	901	905
Losses arising from the disposal of assets	21	42
TOTAL	922	947

(21) ASSET IMPAIRMENT

21.1) Asset impairment test

The Group has assessed the recoverable amount of cash-generating units as per the methodology described in Note 3 and the predictable economic scenarios of its business plans. The main hypotheses are as follows:

a) Price trend:

	2018	2019	2020	2021	2022	2023	2024	2025	2026	Following
Brent (\$/barrel)	59.0	64.0	71.6	75.3	80.7	87.2	91.3	95.6	97.5	+2%
WTI	56.0	61.0	68.6	73.3	78.7	85.2	89.3	93.6	95.5	+Brent -\$2/bbl
HH (\$/ Mbtu)	3.5	3.5	3.8	3.9	4.1	4.3	4.7	4.9	5.1	+2%

b) Discount rates ⁽¹⁾:

	2017	2016
UPSTREAM ⁽²⁾		
Latin America-Caribbean	7.8% - 30%	7.7% - 19%
Europe, Africa and Brazil	7.1% - 12%	7.0% - 13%
North America	8.3% - 8.4%	7.9% - 8.1%
Asia and Russia	8.3% - 11.2%	8.3% - 11.8%
DOWNSTREAM ⁽³⁾		
	4.2% - 9.3%	4.2% - 9.6%

⁽¹⁾ In 2017, in comparison to 2016, there were no material changes in country risk year-on-year nor in inherent business risk, except in the case of Venezuela.

⁽²⁾ Discount rates in US dollars.

⁽³⁾ Discount rates in euros and US dollars.

In 2017, provisions have been recognized, net of reversals, for the impairment of value of assets amounting to €-296 million (€-488 million in 2016¹), which correspond mainly to (i) intangible assets (€-73 million, see Note 10); (ii) items of property, plant and equipment and provisions for onerous contracts (€+134, see Notes 11 and 13), and (iii) impairment losses on investments accounted for using the equity method (€-357 million, see Notes 12 and 13).

Upstream assets

The Group has written its *Upstream* assets down for net impairment by €-293 million. These charges mainly affect:

- North America (+€127 million): reversal of impairment losses in assets in Canada (Chauvin and Duvernay areas) and US (Marcellus) mainly due to higher forecast volumes of production, partially offset by impairment losses in other assets in the US (Midcontinent and Eagle Ford) as a result of the lower expected level of activity in the current price environment.
- Latin America (-€297 million): impairment losses on assets in Venezuela (-€434 million)² due to increase in discount rate owing to trends in country risk indicators (30% vs. 19% in 2016), which were partially offset by the reversal of impairment losses on assets of Ecuador and Colombia due to the better volumes and expected performance of business plans.

The recoverable value of the above assets came to €11,035 million.

In 2016, impairment amounted to €-255 million due to the increase in discount rates and the expected evolution of production profiles involving non-conventional assets (North America: €-132 million; Latin America €-85 million and other countries, essentially South-East Asia and North Africa €38 million).

Downstream assets

In the *Downstream* segment, the hypothesis of lower energy and commodity prices involve, in general terms, an increase in value of the businesses, meaning that in 2017, there has been no significant impairment.

In 2016, an impairment loss was recognized on Gas assets in North America (the Canaport regasification plant and associated gas pipeline transport commitments) in the amount of -€175 million as a result of the outlook for gas margins. The discount rate used was 5.5%.

¹ In 2016, €-276 million mainly relate to intangible assets and items of property, plant and equipment (see Notes 10 and 11) and €-187 million relate to impairment losses of investments accounted for using the equity method (see Note 12).

² In 2017, includes €-66 million in impairment of intangible assets and €-368 million in "Investments accounted for using the equity method" (property, plant and equipment).

21.2) Sensitivities

A change in the estimated future price curves and used discount rates would affect the amount of the impairment of the Repsol Group assets. The principal sensitivities to these variations without bearing in mind the rebalancing of other related variables or the possible adjustments of the operative plans that would allow mitigating the negative impact of the above-mentioned variations are indicated in the table below:

	Increase (+) / decrease (-)	€ Million	
		Operating income	Net income
Changes in crude oil and gas prices	+10%	614	432
	-10%	(1,751)	(1,305)
Changes in the discount rate	+100 b.p.	(704)	(551)
	-100 b.p.	453	315

21.3) Geopolitical Risks

Repsol is exposed to risks arising in countries that may present specific economic, social and political circumstances that may have a negative impact on its businesses (unexpected regulatory changes; highly volatile exchange rate; high inflation; possibility of economic and financial crises or political instability or social tensions and public unrest, etc.).

When assessing its assets for the impairment test, Repsol considers the geopolitical risks it is exposed to by estimating cash flows or calculating its discount rates.

According to the ratings in the Country Risk Rating of IHS Global Insight and the Country Risk Score of the Economist Group, the Repsol Group is exposed to a particular geopolitical risk in Venezuela, Libya, Algeria and Ecuador.

Venezuela:

Repsol's equity exposure¹ to Venezuela at December 31 amounts to approximately €1,480 million and mainly comprises dollar-denominated financing extended to the Venezuelan subsidiaries^{2, 3} (see Note 7). Exposure was significantly lower than at December 31, 2016 (€2,273 million) as a result of impairment charges recognized during the year.

Repsol has had a presence in Venezuela since 1993 and currently has a presence in the country through its stake in the following companies: (i) Mixed crude oil companies (E.M.): 40% in E.M. Petroquiriquire, S.A. (Quiriquire, Menegrande, Barua Motatán blocks, all until 2031) and 11% in E.M. Petrocarabobo, S.A. (Carabobo block, until 2035⁴) and (ii) gas licensees: 60% in Quiriquire Gas (until 2027) and 50% in Cardón IV, S.A. (until 2036). All these investments are accounted for using the equity method (see Note 12). In 2017, Repsol's average production in Venezuela was 77 thousand barrels of oil equivalent/day (similar to 2016) and its proven reserves as of December 31 amounted to 577 million barrels of oil equivalent.

The Oil&Gas industry is very important to the Venezuelan economy, accounting for 25% of GDP and 95% of exports⁵.

¹ Equity exposure relates to net consolidated assets of companies registered in each of the countries reported, plus financing granted, as applicable.

² Repsol holds a loan with Cardón IV, which matures annually and can be extended by the shareholders (Repsol and Eni). The shareholders do not intend on liquidating this financing, nor does this seem likely in the near future; it has therefore been considered as part of the net investment in this company (see Note 12).

³ Petroquiriquire, S.A., Repsol and PDVSA signed on October 6, 2016 a range of agreements to shore up the financial structure of Petroquiriquire, S.A. and enable it to implement its Business Plan. The agreements involved (i) provision by Repsol of a credit facility for up to \$1,200 million, backed by a guarantee given by PDVSA, to be used to pay past dividends owed to Repsol and for Petroquiriquire's capital and operating expenditures; and (ii) a commitment given by PDVSA to pay for oil & gas production of the mixed enterprise via transfer to Petroquiriquire, S.A. of payments arising from crude oil sale contracts to offtakers or through outright cash payments in an amount sufficient for the mixed enterprise to meet its capital and operating expenditures to the extent not covered by the financing from Repsol, and to pay Repsol's dividends generated in each fiscal year and its debt service obligations with Repsol. The financing granted by Repsol and the commitments assumed by PDVSA are governed by the Laws of the State of New York, and any disputes that should arise shall be submitted to arbitration in Paris in accordance with the rules of the International Chamber of Commerce. Drawdowns under the credit facility are subject to compliance by Petroquiriquire and PDVSA of certain conditions precedent, and the terms and conditions include the covenants, breach clauses and acceleration or early termination clauses that are customary in such transactions. Breach by PDVSA of its obligations under the guarantee could enable PDVSA's creditors and bondholders to declare default and acceleration of the rest of its financial debt. In addition, the agreement includes other elements such as a mechanism for offsetting of reciprocal debts between Petroquiriquire, S.A. and PDVSA. As at December 31, 2017, drawdowns of this credit facility amounted to \$578 million; all payments were met on the agreed dates.

⁴ Renewable for additional 15 years.

⁵ Source: Organization of the Petroleum Exporting Countries (www.opec.org/opec).

Operations in this sector in Venezuela are undertaken in a framework of collaboration between the public sector and foreign companies, and Repsol is a major partner for PDVSA and holds strategic assets in the country.

Venezuela has a regulated currency exchange system, an economy in recession with high levels of inflation and which has undergone recent devaluations, and an oil sector with a high degree of public sector intervention and participation.

- Political and economic situation: The economic recession (GDP¹ has dropped by 14.7% in 2017), inflation² (the International Monetary Fund estimates rates of 2.399% in 2017 and 9.196%³ for 2018) and the lack of certain basic products have caused difficulties in the country. Oil production has significantly decreased in recent years.

During this period, the State of Economic Emergency has been extended, political instability persists and the Constituent Assembly, responsible for drafting a new Venezuelan Constitution, has been formally installed and presidential elections have been called for April 22.

Venezuela has been subjected to a number of international sanctions measures (by the US, European Union, etc.) that may affect the financial and commercial capacities of the public sector.

Delays and occasional non-compliance has occurred in the servicing of the sovereign debt. In December, as a result of the country's failure to pay the interest on certain sovereign bonds, Standard & Poor's placed Venezuelan and PDVSA bonds in Selective Default. In turn, the International Swaps and Derivatives Association (ISDA) declared in November 2017 that Venezuela was in default, making it possible to file for payment of credit default swaps. The Government of Venezuela has stated its intention of refinancing and restructuring Venezuela's foreign debt in order to honor its payment obligations to creditors.

- Public regulation and stake in the Oil & Gas sector: Repsol operates through mixed companies whose incorporation and conditions for carrying out primary activities need to first be approved by the National Assembly. As for the other companies, such as Cardón IV and Quiriquire Gas, their Licenses are granted by the Ministry of Popular Power over Oil and Mining. See Appendix IV for more information on the legal framework for mixed companies and the regulatory framework in force in Venezuela.

On December 6, 2017, a Resolution was published by the Ministry of Popular Power over Oil and Mining, establishing a system for revising and validating all national and international agreements entered into and those pending, by PDVSA, its subsidiaries and mixed-ownership companies in which PDVSA holds shares. During the 30 days following the date on which the Resolution was published, the corresponding agreements are subject to revision and validation by the Office of the Chairman at PDVSA, with a view to assessing whether they have satisfied the corresponding legal, financial, budgetary and technical requirements, thus making it possible to consider and form an opinion on their existence, validity and appropriateness for PDVSA. To date, there has been no notification regarding the contracts affecting Repsol's investments in Venezuela.

Also in December 2017, the Constitutional Foreign Production Investment Law was published, establishing the principles, policies and procedures that regulate foreign production investments in goods and services. On the reporting date, the special legislation regulating foreign investments in specific sectors of the economy is pending publication, including those addressing oil and gas matters (further details in Appendix IV).

- Exchange system at December 31: Venezuela introduced a currency exchange control regime in February 2003 which is managed by the Central Bank of Venezuela and the Ministry of the Popular Power over the Economy and Finance. These authorities have issued various resolutions governing the ways in which currency can be sold in Venezuela. The operating mechanism of the DICOM floating rate system was established on May 19, 2017 by Foreign Exchange Agreement 38, which provides as follows: (i) Mixed Companies may sell dollars via the DICOM exchange market having obtained authorization from the executive branch; (ii) the DICOM exchange rate will be set by means of currency auctions within the system of fluctuation bands to be announced by the Central Bank of Venezuela⁴.

¹ Source: Ecoanalítica Report, Year 13, Number 4, Quarter IV.

² The inflation rate published by the Central Bank was 68.5% in 2014 and 180.9% in 2015. The Central Bank of Venezuela has not officially released a cumulative inflation figure since 2016.

³ Forecast based on a conservative scenario.

⁴ On January 29, 2018, Foreign Exchange Agreement No. 39 was published, revoking No. 35 and No. 38 and establishing the rules that will regulate

In addition, Foreign Exchange Agreement No. 9 has applied to the revenue generated by mixed companies from oil and gas exports since 2004. This revenue can be kept in currency accounts abroad with a view to servicing payments and outlays that have to be made outside of Venezuela. Exchange Rate Agreement No. 37, which took effect on May 27, 2016, allows privately-held companies that hold gas licenses (Cardón IV, S.A.) to hold the dollars generated by their activities outside of Venezuela for the purpose of serving payments and outlays that have to be made outside of Venezuela. The above Agreement further stipulates that these companies may not acquire currency using the official exchange systems.

Venezuelan currency has been sharply devalued during the period. In the last DICOM auction of September 1, 2017, the exchange rate was 3,345 Bs/\$. Since then and until the end of the year, the auctions were suspended. The trade price at December 31, 2016 was 674 Bs/\$.

Repsol uses the US dollar as the functional currency in the majority of its oil and gas exploration activities in Venezuela (Cardón IV, S.A. E.M. Petroquiriquire, S.A. and E.M. Petrocarabobo, S.A.). However, for tax purposes, the bolivar is the reference currency for taxes. In companies with the bolivar as the functional currency (Quiriquire Gas, S.A), Repsol uses the DICOM exchange rate for bolivar/euro exchange as the reference for the preparation of these financial statements.

The devaluation of the bolivar has had no significant impact on Repsol's financial statements in 2017.

As a result of recent events in Venezuela, the Group has carried out an assessment of the recoverability of its investments in Venezuela, and of credit risk with respect to the accounts receivable with PDVSA. As a result of the analysis, at year-end 2017, impairment losses were recognized on Group assets in Venezuela in the amount of -€716 million (-€627 million for impairment of investees, -€66 million for impairment of intangible assets and -€23 million for impairment of other financial assets, with an impact on yearly income of -€695 million):

- The revision of asset business plans, the delay in collecting on sales, the increase in credit risk and a significant increase in the discount rate (30%, +11% on 2016) have adversely affected the recoverable value of investees and intangible assets, resulting in recognition of impairment charges in the amount of €-693 million (see section 1 of this Note).
- The delay in collection of trade receivables from PDVSA caused losses of -€23 million.

The assessment of impairment due to credit risk in Venezuela requires estimates to be performed in terms of the implications and development of a highly uncertain environment, for which we have sought an opinion from an independent expert to validate the judgments made by management.

In 2016, impairments were recognized for -€284 million before tax (-€195 million after tax).

Libya

Repsol's equity exposure in Libya as of December 31 amounts to about €410 million.

Repsol operates in Libya since the 1970s when it started exploring in the Sirte Basin. As of December 31, 2017, Repsol has acreage on two contractual areas (with exploration, development and production activities) and proven reserves amount to 97 million barrels of oil equivalent.

operations in the DICOM exchange rate system from that date onwards. The most significant aspects for Repsol are as follows: i) DICOM will apply to all foreign currency operations in the public and private sector, in addition to all foreign currency operations not expressly covered therein, ii) the conversion of foreign currency to establish the tax base of tax liabilities shall employ the DICOM exchange rate, iii) each month, legal persons may acquire the equivalent of 30% of their monthly average gross income, included in the Income Tax Return for the preceding year, up to a maximum amount equivalent to €340 thousand or its equivalent in another currency, and iv) legal persons acquiring foreign currency via DICOM shall apply the exchange rate obtained at auction as the basis for calculating their cost structure and for other purposes. The first auction took place on February 5, 2018, resulting in an exchange rate of 30,987.5 Bs/\$. Repsol does not expect any significant impact as a result of the new Foreign Exchange Agreement.

Due to the worsening of safety conditions, production was interrupted from November 2014 to the end of 2016. Production in *El Sharara* resumed on December 20, 2016 (fields A, M and H), on January 4, 2017, production resumed in the I/R field (field shared between blocks NC-186 and NC-115) and, on May 9, in NC-186. However, due to external factors, there were intermittent stoppages over the course of the year. Average production in 2017 came to 25 thousand barrels of oil equivalent/day (39 thousand barrels of oil equivalent/day in December).

The Government of National Accord (GNA) of Libya is recognized by the International Community and the United Nations. However, the activity of a number of military militias operating in different regions of the country is generating a high level of insecurity.

Algeria

Equity exposure amounts to about €716 million.

Repsol has two exploration blocks in Algeria (Boughezoul and S.E. Illizi) as well as three production/development blocks (Reggane, Block 405a (with the MLN, EMK and Ourhoud licenses) and Tin Fouyé Tabankort (TFT)).

In 2017, net average production in Algeria came to 12.2 thousand barrels of oil equivalent/day (16.9 kboe in 2016) from blocks 405a and Tin Fouyé Tabankort (TFT).

As of December 31, 2017, net proven reserves amount to 31 million barrels of oil equivalent. Around 57% of the net proven reserves refer to the ongoing gas project in Reggane, which allows for the development of six fields (Reggane, Kahlouche, Kahlouche Sud, Sali, Tiouliline and Azrafil Sudest), located in the Algerian Sahara in the Reggane basin. Repsol holds a 29.25% stake in the consortium that is to develop the project, alongside the Algerian state-owned company Sonatrach (40%), Germany's RWE Dea AG (19.5%), and Edison of Italy (11.25%).

Ecuador

Repsol has exploration and production rights over two blocks (Block 16 and Block 67/Tivacuno) under service provision agreements. Furthermore, it retains a 29.66% shareholding in Oleoductos de Crudos Pesados de Ecuador, S.A. (OCP), which operates a pipeline in the country.

Average production in Ecuador in 2017 was 6.4 thousand barrels of oil equivalent/day and its proven reserves as of December 31 amounted to 6.6 million barrels of oil equivalent.

The investment accounting value in Ecuador is nil.

Brexit

In a referendum held on June 23, 2016, the British people decided to exit the European Union, and the United Kingdom is now in the process of deciding on and negotiating the terms of its departure. The consequences of this process remain uncertain. There may be effects on the value of sterling versus the euro, access to the European Single Market in the movement of goods, services or capital, or on the value of investments made in the United Kingdom. However, as to the extraction, transportation and marketing of oil and gas, no material change is expected, because the UK Government has maintained sovereignty and control over key aspects with an industry-wide impact, such as the process of mining rights licensing and the tax framework within which oil companies do business in the country. In this sense, messages passed on to the sector from the beginning of the process include a commitment to regulatory stability.

After the sale of the offshore wind power business in the United Kingdom (see Note 1.4), the Group's exposure is limited to its stake in Repsol Sinopec Resources UK Limited (RSRUK), which operates a mature business and whose functional currency is the dollar. The value of the investment in RSRUK is nil, for further information see Notes 12 and 16.

(22) FINANCIAL RESULT

The breakdown of finance income and expenses in 2017 and 2016 is as follows:

	€ Million	
	2017	2016
Finance income	159	140
Finance expenses	(447)	(493)
Debt interest	(288)	(353)
By interest rate	(14)	1
Change in fair value of financial instruments	(14)	1
By exchange rate	181	226
Change in fair value of financial instruments	30	132
Exchange gains/(losses)	151	94
Other positions	18	56
Change in fair value of financial instruments	18	56
Income from positions⁽¹⁾	185	283
Financial update of provisions	(126)	(175)
Capitalized interests⁽²⁾	120	133
Finance leases	(141)	(143)
Impairment and gains (losses) on disposal of financial instruments ⁽³⁾	(14)	48
Other income	37	36
Other expenses	(85)	(63)
Other finance income and expense	(203)	(122)
FINANCIAL RESULT	(312)	(234)

⁽¹⁾ This heading includes exchange gains and losses generated by the measurement and settlement of foreign-currency denominated monetary items as well as the gains and losses recognized as a result of the measurement and settlement of derivatives.

⁽²⁾ Capitalized interests is recognized in the consolidated income statement under "Finance expenses" and capitalized under assets.

⁽³⁾ In 2017 and 2016, this heading mainly reflects the €-10 million loss and €49 million gain generated by the buyback of Talisman bonds, respectively (see Note 7.2).

(23) TAXES

23.1) Income tax

In the area of taxation and, particularly, of profits taxation, Repsol Group is subject to the legislation of several tax jurisdictions due to the broad geographic mix and the relevant international nature of the business activities carried out by the Group companies it comprises.

For this reason, the Repsol Group's effective tax rate is shaped by the breakdown of earnings obtained in each of the countries where it operates and, on occasion, by the taxation of said profits in more than one country (double taxation).

a) In Spain

Most of the entities resident in Spain for tax purposes are subject to taxation in Spain under Spain's consolidated tax regime. Under this regime, the companies comprising the tax group jointly determine the Group's taxable profit and tax liability, which is then allocated to these companies following the criteria established by the ICAC (acronym in Spanish for the Audit and Accounting Institute) in relation to the recognition and determination of individual corporate tax liabilities.

Repsol, S.A. is the parent of Consolidated Tax Group 6/80, which comprises all of the companies resident in Spain that are at least 75%-owned, directly or indirectly, by the parent and that meet certain prerequisites. The Tax Group contained 54 companies in 2017, the most significant of which were the following: Repsol, S.A., Repsol Petróleo, S.A., Repsol Trading, S.A., Repsol Química, S.A., Repsol Butano, S.A., Repsol Exploración, S.A. and Repsol Comercial de Productos Petrolíferos, S.A.

For its part, Petróleos del Norte, S.A. (Petronor) is the parent of Consolidated Tax Group 02/01/B, which applies regional tax regulations of Vizcaya for corporate income tax purposes.

Finally, the rest of the companies resident in Spain for tax purposes that are not included in either of the above tax groups determine their income tax individually.

The Spanish companies are taxed at the general rate of 25% in 2017, regardless of whether they pay tax as part of a tax group or individually. Exceptionally, Repsol Investigaciones Petrolíferas, S.A., which files its taxes on an individual basis under the Special Hydrocarbon Regime, is taxed at 30%, and the Petronor group, which applies the special regional regime of Vizcaya, is taxed at 28%.

b) Other countries

The rest of the Group companies are subject to taxation in each of the countries in which they do business, applying the prevailing income tax rate under applicable local tax regulations. Group companies in some countries are also subject to a levy on minimum presumptive income in addition to income tax.

In turn, the Group companies resident in Spain that conduct some of their business in other countries are also subject to prevailing income tax in those countries in respect of the profits generated outside Spain. This is the case, for example, of the permanent establishments of the Spanish companies that carry out oil and gas exploration and production activities in other countries (including Libya, Algeria, Peru and Ecuador).

Below is a list of the statutory income tax rates applicable in the Group's main tax jurisdictions:

Country	Tax rate
Algeria ⁽¹⁾	38%
Australia	30%
Bolivia	25%
Canada ⁽²⁾	27%
Colombia	40%
Ecuador	22%
United States ⁽³⁾	35%
Indonesia	40% - 48%
Libya	65%
Malaysia	38%
Norway	78%
The Netherlands	25%
Papua New Guinea	30%
Peru	28% - 30%
Portugal	22.5% - 29.5%
United Kingdom	40%
Singapore	17%
Trinidad and Tobago	55% - 57.2%
Venezuela	34% (gas) and 50% (oil)
Vietnam	32% - 50%

⁽¹⁾ Plus tax on exceptional profits (TPE) by its acronym in Spanish.

⁽²⁾ Federal and provincial rate.

⁽³⁾ The federal rate applicable for 2017 (does not include state taxes).

In December 2017, a significant income tax reform was approved in the US, and enters into effect on January 1, 2018. Among other changes, the reform reduces the federal income tax rate from 35% to 21%. According to our best estimates, Repsol considers that the reform will have a net positive effect impact for the Company by improving the value of its assets in the country as a result of an increase in their expected future after-tax cash flows. However, the revaluation at year-end 2017 of tax credits and deferred tax assets under the new tax rate had a negative impact of €406 million.

23.2) Accrued income tax expense

The table below shows how the income tax expense accrued for accounting purposes in 2017 and 2016 was calculated:

	€ Million	
	2017	2016
Current income tax for the year	(657)	(469)
Adjustments to current income tax ⁽¹⁾	33	(43)
Current Income tax (a)	(624)	(512)
Deferred income tax for the year	180	6
Adjustments to deferred income tax ⁽²⁾	(776)	115
Deferred income tax (b)	(596)	121
Expense / (Income) on the income tax (a+b)	(1.220)	(391)

⁽¹⁾ Corresponds mainly to adjustments from previous years and movements in provisions.

⁽²⁾ Corresponds mainly to the impact of tax reform in the US as rates have been lowered, resulting in a devaluation of tax credits pending application and net deferred tax assets.

The reconciliation of "Income tax expense" registered and the expense that would result from the application of the nominal tax rate existing in the country of the parent company (Spain) to the net profit before taxes and participated entities is as follows:

	€ Million	
	2017	2016
Net income before tax	3,381	1,871
Results of investments accounted for using the equity method after taxes	904	194
Income before tax and before considering income from entities accounted for using the equity method	2,477	1,677
General nominal income tax rate in Spain	25%	25%
(Expense)/Income on the nominal income tax rate	(619)	(419)
Income taxed at different nominal rates than the general Spanish rate	(258)	(56)
Mechanisms to prevent double taxation ⁽¹⁾	36	93
Non-deductible costs	(14)	(50)
Tax deductions ⁽²⁾	140	37
Tax losses for which no deferred tax asset for has been recognized	(89)	(143)
Revaluation of deferred tax ⁽³⁾	(129)	214
Tax risk provisions	(276)	(68)
Other items	(11)	1
(Expense)/Income on the income tax rate	(1,220)	(391)

⁽¹⁾ Includes mechanisms to prevent international and internal double taxation, whether in the form of exemptions, credits or deductions.

⁽²⁾ Mainly relates to deductions in Spain for capitalization, R&D and other.

⁽³⁾ Includes revaluation of deferred taxes due to modifications in the tax rate (-€406 million in 2017 and +€17 million in 2016) exchange rate (+€23 million in 2017 and €-6 million in 2016) and new expectations of future use of tax credits, mainly on losses carried over from prior years (+€254 million in 2017 and +€203 million in 2016).

23.3) Deferred taxes

The Group presents deferred tax assets and liabilities on a net basis in the same taxable entity. The breakdown of the deferred tax assets and deferred tax liabilities by underlying concept recognized in the accompanying balance sheet is shown below:

	€ Million	
	2017	2016
For losses, deductions and similar	3,809	4,801
Amortization differences	(2,585)	(3,631)
Provisions for decommissioning fields	836	1,072
Provisions for personnel and other	416	491
Other deferred taxes	530	634
Total deferred tax	3,006	3,367

Below is a breakdown of changes in deferred tax:

	€ Million	
	2017	2016
Balance at 1 January	3,367	3,143
Charge (payment) statement of profit or loss	(403)	96
Charge (payment) in equity	(1)	(10)
Translation differences of balances in foreign currency	43	138
Balance at 31 December	3,006	3,367

The Repsol Group only recognizes deferred tax assets insofar as it is deemed probable that the entities (individually or on a consolidated basis) that have generated them will have sufficient taxable income in the future against which they can be utilized.

At each closing date, the recognized deferred tax assets are reassessed to verify that they still qualify for recognition and they make the appropriate adjustments on the basis of the outcome of the analysis performed. These analysis are based on: (i) the construction of hypotheses to analyze the existence or otherwise of sufficient earnings for tax purposes that might offset such tax losses based on the approach used to ascertain the presence of indications of impairment in its assets (see Note 3); (ii) the assessment of earnings estimates for each entity or tax group in accordance with their individual business plans and the Group's overall strategic plan; and (iii) the statute of limitations period and other utilization limits imposed under prevailing legislation in each country for the recovery of the tax credits.

The deferred tax assets corresponding to offsetable tax losses and tax credits pending application amount to €3,809 million and correspond mainly to:

Country	€ Million	Legal expiration	Estimated recoverability
Spain	1,539	No time limit	In less than 10 years
United States	1,258	20 years	The majority in 10 years
Canada	353	20 years	In less than 10 years
Norway	214	No time limit	The majority in 10 years
RoW	445	-	-
Total	3,809		

The Group has deferred tax liabilities not recognized of €3,550 million and €3,821 million at 2017 and 2016 respectively.

The Group has deferred tax liabilities not recognized of €108 million and €93 million at year-end 2017 and 2016 respectively. This mainly relates to taxable temporary differences associated with investments in subsidiaries, associates and permanent establishments that qualify for the exemption provided for under IFRS.

23.4) Government and legal proceedings with tax implications

In accordance with prevailing tax legislation, tax returns cannot be considered final until they have been inspected by the tax authorities or until the inspection period in each tax jurisdiction has prescribed.

The years for which the Group companies have their tax returns open to inspection in respect of the main applicable taxes are as follows:

Country	Years open to inspection
Algeria	2013 – 2017
Australia	2013 – 2017
Bolivia	2012 – 2017
Canada	2010 – 2017
Colombia	2012 – 2017
Ecuador	2014 – 2017
Spain	2014 – 2017
United States	2014 – 2017
Indonesia	2012 – 2017
Libya	2010 – 2017
Malaysia	2013 – 2017
Netherlands	2016 – 2017
Norway	2015 – 2017
Papua New Guinea	2014 – 2017
Peru	2013 – 2017
Portugal	2014 – 2017
United Kingdom	2011 – 2017
Singapore	2013 – 2017
Trinidad and Tobago	2013 – 2017
Venezuela	2011 – 2017

Whenever discrepancies arise between Repsol and the tax authorities with respect to the tax treatment applicable to certain operations, the Group acts with the authorities in a transparent and cooperative manner in order to resolve the resulting controversy, using the legal avenues at its disposition with a view to reaching non-litigious solutions. However, in this fiscal year, as in prior years, there are administrative and legal proceedings with tax implications that might be adverse to the Group's interest and that have given rise to litigious situations that could result in contingent tax liabilities. Repsol believes that it has acted lawfully in handling the foregoing matters and that its defense arguments are underpinned by reasonable interpretations of prevailing legislation, to which end it has lodged appeals as necessary to defend the interests of the Group and its shareholders.

It is difficult to predict when these tax proceedings will be resolved due to the extensive appeals process. Based on the advice received from in-house and external tax experts, the Company believes that the tax liabilities that may ultimately derive from these proceedings will not have a significant impact on the accompanying Financial Statements. In the Group's experience, the result of lawsuits claiming sizeable amounts have either tended to result in immaterial settlements or the courts have found in favour of the Group.

The Group's general criterion is to recognize provisions (see Note 13) for tax-related proceedings that it deems it is likely to lose and does not recognize provisions when the risk of losing the case is considered possible¹ or remote. The amounts to be provisioned are calculated on the basis of the best estimate of the amount needed to settle the lawsuit in question, underpinned, among others, by a case-by-case analysis of the facts, the legal opinions of its in-house and external advisors and prior experience in these matters. At December 31, 2017, the Group recognized provisions to cover contingencies associated with lawsuits and other tax matters in the Group's consolidated balance statement for the sum of €1,415 million (€1,376 million at December 31, 2016), which are considered adequate to cover those contingencies.

As for the main tax proceedings affecting the Group at December 31 noted below:

¹ Notwithstanding the above, in respect of the Talisman business combination (Note 1.4), in accordance with IFRS 3 *Business combinations*, the Group has provisioned contingencies whose probability of materialization was considered possible.

Bolivia

Repsol E&P Bolivia, S.A. and YPFB Andina, S.A. are pursuing several lawsuits against administrative resolutions denying the possibility of deducting royalties and hydrocarbon interests for corporate income tax calculation purposes, prior to the nationalization of the oil sector.

The first lawsuits of Repsol E&P Bolivia, S.A. and YPFB Andina, S.A. were resolved unfavorably by the Supreme Court and upheld by the Constitutional Court.

The Company is involved in other lawsuits for the same matters, considering that its position is expressly endorsed by Law 4115 of September 26, 2009.

Brazil

Petrobras, as operator of block BMS-9, in which Repsol has a 25% ownership interest, has been served by the Sao Paulo tax authorities of an infraction notice in relation to purported breaches of formal requirements related to the onshore-offshore movement of materials and equipment from/to the offshore drilling platform. The criterion adopted by Petrobras is in line with widespread industry practice. A court of first instance ruled in favor of the taxpayer, although it is expected that the State of Sao Paulo will lodge an appeal.

Secondly, Petrobras, as operator of the Albacora Leste, BMS-7 and BMS-9 consortia, has received notices with respect to several taxes for the period 2008 to 2012 in relation to payments to foreign companies for the chartering of exploration platforms and related services used at the above-listed blocks. All notices have been appealed and are in administrative tribunals (2009-2012) or are being appealed (2008).

In addition, Repsol Sinopec Brasil (see Note 12) received notices with respect to withholdings (2009 and 2011) in relation to payments to foreign companies for the chartering of exploration vessels and related services used at blocks BMS 48 and BMC 33, which Repsol Sinopec Brasil operates. The administrative federal tribunal of second instance has ruled against the Company; however, it believes its actions are within the law and its behavior is in line with widespread sector practice; therefore, it has launched a new appeal with the administrative tribunals.

In relation to the last two lawsuits, Law 13586/17 was recently approved and published, by virtue of which it is possible to reduce the disputed amount quite substantially, provided that the taxpayer refrains from fighting the lawsuits in question. The Company has requested to take advantage of this new regulation requesting the termination of the processes related to the contractual structure for contracting platforms in the part related to the withholdings.

Canada

The Canada Revenue Agency, or CRA, has disallowed the application of tax incentives related to the assets of the Canaport project. The company filed appeals against the inspection assessments (2005-2008). Canada's Tax Court ruled in favor of Repsol on January 27, 2015. However, this decision was appealed before the Federal Court of Appeal, which, in September 2017, ruled in favor of Repsol. As the decision has not been appealed, it is now final.

Furthermore, the CRA regularly inspects the ROGCI companies (formerly Talisman Group companies, acquired by Repsol in 2015) resident in Canada. In 2017, the audit corresponding to the period from 2006 to 2009 was concluded satisfactorily. Tax years 2010 to 2015 are currently subject to inspection.

Ecuador

The Ecuador Internal Revenue Service (SRI) has disallowed the deduction from income tax (2003 to 2010) of payments for the transportation of crude oil to Ecuador company Oleoducto de Crudos Pesados, S.A. under a "Ship or Pay" arrangement. The National Court of Justice has dismissed the appeals regarding 2003 to 2005 on procedural grounds, without addressing the merits of the case.

The SRI has also called into question, for the years 2004 to 2010, the criteria used to set the benchmark price applicable to sales of production from the Block 16, in which Repsol Ecuador, S.A. holds a 35% interest. The National Court of Justice has dismissed the appeal regarding 2005 on procedural grounds, without addressing the merits of the case. As a result, the government of Ecuador has been notified that an international arbitration action may be lodged.

In addition, Oleoducto de Crudos Pesados, S.A. (OCP), a 29.66% investee of Repsol Ecuador, S.A., is disputing with the government of Ecuador the tax treatment of subordinated debt issued to finance its operations. The National Court handed down a favorable ruling for this company, which the authorities appealed before the Constitutional Court. The Constitutional Court has rendered the ruling null and ordered a new ruling. The government also dismissed the National Court members who ruled in favor of the company. Later, the National Court issued rulings in favor of the interests of SRI in respect of the 2003 to 2006 fiscal years. OCP's appeals to the Constitutional Court were dismissed. The government of Ecuador has been notified that an international arbitration action may be lodged.

Spain

In 2013, the main proceedings over income tax for inspections of the years 1998 to 2001 and 2002 to 2005 came to an end. The corresponding decisions and rulings had the effect of canceling 90% of the tax liability initially assessed by the Spanish tax authorities (AEAT) and that had been appealed by the Company. With regard to the penalties linked to those inspections, they have been canceled by the Courts for the large part.

In addition, with regard to the inspection of the years 2006 to 2009, the principal matters under discussion in terms of the audit are mainly related to transfer pricing, foreign portfolio loss recognition, and investment incentives, and they involve a change in the tax authority's criteria with respect to earlier inspections. Recently, a ruling has been received from the Central Economic Administrative Tribunal (TEAC) that partially upheld the Company's appeal in relation to some income tax issues included in the assessments and in the sanctions decisions of the years 2007-2009. An administrative appeal has been filed before the National High Court on issues that have not been upheld by the TEAC. The assessment for the year 2006 and the assessment that contains adjustment of transfer prices of the 2007-2009 period are suspended, as a conflict was brought before the Arbitration Board of the Basque Economic Agreement.

The Company believes it has acted within the law, based on the reports provided by its internal and external tax advisors and other experts consulted. As a result, no liabilities are expected to arise that might have a significant impact on the Group's income.

In August 2017, the Spanish tax authorities completed the tax audit corresponding to period from 2010 to 2013. These activities have been completed without any sanctions being imposed and, for the large part, in the issuance of declarations of conformity concerning Corporate Income Tax, VAT, personal income tax withholdings and non-resident personal income tax withholdings, for which no significant liabilities have been incurred by the Group. However, in terms of the deductibility of interest for the late payment of taxes and the calculation of losses on overseas business corresponding to Corporate Income Tax, the administrative decision has been subject to appeal, as the Company believes it has acted within the law.

The AEAT also started audit activities on Tax Group 6/80 concerning the 2014 and 2015 tax years in August.

In relation to the sentence issued by the European Union Court of Justice on February 27, 2014, declaring the Tax on the Retail Sale of Certain Hydrocarbons (IVMDH for its acronym in Spanish), levied from 2002 to 2012, contrary to EU law, Repsol has initiated several proceedings against the Spanish tax authorities in order to uphold the interests of its customers and their right to seek the refund of the amounts incorrectly collected in this respect.

Indonesia

Indonesian Corporate Tax Authorities have been questioning various aspects of the taxation of permanent establishments that Talisman Group has in the country. These proceedings are pending a court hearing or administrative appeal.

Malaysia

Repsol Oil & Gas Malaysia Ltd. and Repsol Oil & Gas Malaysia (PM3) Ltd., the Group's operating subsidiaries in Malaysia, have received notifications from the Inland Revenue Board (IRB) in respect of the years 2007, 2008 and 2011 questioning, primarily, the deductibility of certain costs. The aforementioned actions have resulted in a reconciliation agreement currently pending ratification by the tax court, under which Repsol subsidiaries will receive a refund of the taxes initially retained by the IRB.

(24) EARNINGS PER SHARE

The earnings per share at December 31, 2017 and 2016 are detailed below:

Earnings per share (EPS)	2017	2016
Net income attributable to the parent (€ million)	2,121	1,736
Adjustment to interest expense on subordinated perpetual bonds (€ million)	(29)	(28)
Weighted average number of shares outstanding (millions of shares) ⁽¹⁾	1,551	1,538
Basic/diluted EPS (€/share)	1.35	1.11

⁽¹⁾ The outstanding share capital at December 31, 2016 came to 1,496,404,851 shares, although the average weighted number of shares outstanding for the purposes of calculating earnings per share on said date included the effect of capital increases undertaken as part of the "Repsol Flexible Dividend" shareholder payment system, as per the applicable accounts regulations (see Note 6.3).

(25) CASH FLOWS¹

25.1) Cash flow from operating activities

During 2017, the net cash flow from operating activities amounted to €5,113 million, which represents an increase of 31% on 2016. The composition of the heading “Cash flows from operating activities” of the consolidated cash flow statement is as follows:

	Notes	€ Million	
		2017	2016
Income before tax		3,381	1,871
Adjustments to net income:		1,872	2,547
Depreciation and amortization of non-current assets	10 and 11	2,399	2,529
Net operating provisions	13 and 21	160	1,017
Earnings arising from the disposal of non-commercial assets	1.4 and 20	(41)	(960)
Financial result	22	312	234
Share of results of companies accounted for using the equity method net of taxes	12	(904)	(194)
Other adjustments (net)		(54)	(79)
Changes in working capital		(110)	(517)
Increase/Decrease Accounts receivable		(665)	(215)
Increase/Decrease Inventories		(332)	(757)
Increase/Decrease Accounts payable		887	455
Other cash flows from operating activities:		(30)	(11)
Dividends received		511	920
Income tax payments/(receipts)		(320)	(264)
Other payments/(receipts) on operating activities		(221)	(667)
Cash Flows from Operating Activities		5,113	3,890

25.2) Cash flows from investing activities

During 2017, the net cash flow from investing activities resulted in the net payment of €2,789 million.

The “payments/receipts on investments in Group companies and associates” comes to €-311 million and primarily corresponds to capital increases in joint ventures for the sum of €-309 million and net entries in the scope of consolidation for the sum of €-2 million.

“Payments/receipts on investments in property, plant and equipment, intangible assets and property investments” came to €-2,222 million and primarily corresponds to investments in the *Upstream* segment in North America, Asia, Algeria and Peru and in the *Downstream* segment in the refinery business.

The “payments/receipts on investments in other financial assets”, came to €-307 million, corresponding to the constitution of deposits and the variation of loans extended to joint ventures.

25.3) Cash flows from financing activities

During 2017, the net cash flow from financing activities resulted in the net payment of €2,361 million, which represents an increase of 15% on 2016.

¹ In accordance with the presentation options allowed in IAS 7 *Statement of cash flows*, the Group uses the so-called “indirect method” to disclose its operating cash flows. Under this method, the statement of cash flows starts with “Net income before tax” for the year, as per the income statement; this figure is then adjusted for the effects of transactions of a non-cash nature, any deferrals or accruals of past or future operating cash receipts or payments, and items of income or expense associated with investing or financing cash flows.

A breakdown of the changes to liabilities linked to financing activities can be found below:

	€ Million					Closing balance (1)
	2016	2017				
	Opening balance (1)	Cash flows	Other flows non cash flow			
		Currency translation differences	Changes in fair value	Other		
Bank borrowings	2,328	(358)	(160)	-	(207)	1,603
Bonds and other securities	10,760	(1,153)	(167)	-	289	9,729
Derivatives (liabilities)	110	(504)	(11)	485	16	96
Other financial liabilities (2)	3,193	(32)	(384)	-	81	2,858
Lease agreements liabilities	1,758	(202)	(197)	-	183	1,542
Shareholder remuneration and perpetual bond	1,130	(332)	-	-	385	1,183
Treasury shares and own equity	(1)	(293)	-	-	249	(45)
Total liabilities perpetual activities	19,278	(2,874)	(919)	485	996	16,966
Derivatives (asset)	(32)	542	(1)	(527)	-	(18)
Other payments/receipts of financing activities (3)	n/a	(29)	-	-	-	n/a
Total other assets and liabilities	(32)	513	(1)	(527)	-	(18)
Total	19,246	(2,361)	(920)	(42)	996	16,948

(1) Corresponds to the current and non-current balance of the income statement.

(2) Includes loans to Group companies that have not been eliminated from the consolidation process.

(3) Includes mainly payments/receipts of short-term financing granted in the amount of €-21 million.

(26) INFORMATION ON RELATED PARTY TRANSACTIONS

Repsol carries out transactions with related parties on an arm's length basis. The transactions performed by Repsol, S.A. with its Group companies and those performed by the Group companies among themselves form part of the Company's ordinary course of business in terms of their purpose and conditions.

For the purposes of presenting this information, the following are considered to be related parties:

- a. Significant shareholders: the Company's significant shareholders that are deemed related parties at December 31 are:

Significant shareholders	total % of share capital December 31, 2017 ⁽¹⁾
CaixaBank, S.A.	9.6
Sacyr, S.A. ⁽²⁾	8.0
Temasek Holdings (Private) Limited ⁽³⁾	4.1

Note: Data for the Company available at December 31, 2017 from the latest information provided by Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores, S.A.U. (Iberclear), and information submitted by shareholders to the Company and to the National Securities Market Commission (CNMV).

⁽¹⁾ Data prior to the close of the scrip issue detailed in section 6.1 Share capital.

⁽²⁾ Sacyr, S.A. holds its investment through Sacyr Securities, S.A.U, Sacyr Investments S.A.U. and Sacyr Investments II, S.A.U.

⁽³⁾ Temasek holds its investment through its subsidiary Chembra Investment PTE, Ltd.

- b. Directors and executives: includes members of the Board of Directors as well as members of the Corporate Executive Committee whose members are considered as "executive personnel" for purposes of this section (see Note 27.4).
- c. People, companies or entities within the Group: includes transactions with Group companies or entities for the part not eliminated in the consolidation process, corresponding mainly to transactions undertaken with companies consolidated using the equity method.

Income, expenses and other transactions recorded at December 31 with related party transactions are as follows:

€ Million	2017				2016			
	Significant shareholders	Directors and executives ⁽¹⁾	People, companies or entities within the Group	Total	Significant shareholders	Directors and executives ⁽¹⁾	People, companies or entities within the Group	Total
EXPENSES AND REVENUES								
Finance costs	7	-	75	82	7	-	56	63
Management or collaboration agreements	-	-	-	-	-	-	-	-
Leases	1	-	1	2	1	-	2	3
Service receptions	19	-	138	158	18	-	168	186
Purchase of goods (finished or outstanding) ⁽²⁾	-	-	1,902	1,902	-	-	1,433	1,433
Losses arising from the derecognition or disposal of assets	-	-	-	-	-	-	3	3
Other costs	13	-	-	13	23	-	1	24
TOTAL COSTS	40	-	2,116	2,156	49	-	1,663	1,712
Finance income	8	-	156	164	1	-	134	135
Management or collaboration agreements	-	-	-	-	-	-	-	-
Leases	1	-	8	9	1	-	4	5
Dividends received	-	-	-	-	-	-	-	-
Service provisions	8	-	1	9	7	-	4	11
Sale of goods (finished or outstanding) ⁽³⁾	156	-	685	841	125	-	511	636
Earnings arising from the derecognition or disposal of assets	-	-	2	2	-	-	233	233
Other revenues	0	-	63	64	-	-	68	68
TOTAL REVENUES	173	-	916	1,089	134	-	954	1,088

€ Million	2017				2016			
	Significant shareholders	Directors and executives ⁽¹⁾	People, companies or entities within the Group	Total	Significant shareholders	Directors and executives ⁽¹⁾	People, companies or entities within the Group	Total
OTHER TRANSACTIONS								
Purchase of property, plant and equipment, intangible assets and others	105	-	-	105	67	-	2	69
Finance agreements: loans and capital contributions (lender) ⁽⁴⁾	-	-	2,846	2,846	-	-	4,057	4,057
Finance lease agreements (lessor)	-	-	1	1	-	-	2	2
Sale of property, plant and equipment, intangible assets and others	-	-	-	-	32	-	124	156
Finance agreements: loans and capital contributions (borrower) ⁽⁵⁾	289	-	3,807	4,096	454	-	4,229	4,683
Commitments and guarantees extended ⁽⁶⁾	283	-	2,053	2,336	308	-	2,182	2,490
Commitments and guarantees received	26	-	4	30	45	-	4	49
Commitments assumed ⁽⁷⁾	160	-	8,926	9,086	235	-	10,394	10,629
Commitments and guarantees canceled	-	-	-	-	-	-	-	-
Dividends and other profit distributed ⁽⁸⁾	174	-	-	174	266	-	-	266
Other transactions ⁽⁹⁾	1,210	-	39	1,249	1,018	-	-	1,018

(1) Includes transactions performed in each reporting period with executives and directors not included in Note 27 on the remuneration received by executives and directors, and would correspond to the outstanding balance at the reporting date of the loans granted to members of senior management and the corresponding accrued interest, as well as dividend and other remuneration received as a result of holdings shares of the Company.

(2) As of December 31, the column headed "People, companies or entities within the Group" primarily includes goods purchased from Repsol Sinopec Brasil (RSB) and Gas Natural Fenosa (GNF), BPRY Caribbean Ventures LLC (BPRY) in the amounts €822 million, €811 million and €166 million in 2017, respectively, and €478 million, €687 million and €184 million in 2016 (See Note 12).

(3) Includes mainly product sales to the Gas Natural Fenosa Group (GNF), Iberian Lube Base Oil, S.A. (ILBOC) and the Dynasol Group for €338, 187 and €148 million in 2017, and for €176, €143 and €69 million in 2016.

(4) Includes loans extended to Group companies with entities consolidated using the equity method and these entities' undrawn credit lines (see Notes 7 and 12).

(5) At December 31, "Significant shareholders" includes credit lines with La Caixa for the maximum amount granted of €208 and 358 million in 2017 and 2016. "People, companies or entities within the Group" mainly includes the loan extended by Repsol Sinopec Brasil S.A. to its shareholders (see Note 6.2 "Financial liabilities") as well as undrawn credit lines with investees accounted for using the equity method.

(6) In 2017 and 2016, this includes €1,132 million and €1,365 million, respectively, corresponding to 3 guarantees provided by Repsol S.A. in relation to the lease agreements on three floating platforms entered into by its subsidiary Guar4 B.V. In addition, as of December 31, 2017 and 2016, it includes €590 million and €586 million, respectively, corresponding to the counter guarantees issued by the Group associated with bank guarantees issued on behalf of its subsidiary Repsol Sinopec Resources UK Ltd (RSRUK) covering decommissioning obligations arising from their exploration activity in the North Sea (see Note 16).

(7) Corresponds to purchase commitments outstanding at December 31 (see Note 15).

(8) Includes amounts corresponding to the sale to Repsol, at the guaranteed fixed price, of free-of-charge allocation rights as part of the paid-up capital increases closed in January and July 2017 (and in the 2016 table: January and July 2016) in the framework of the shareholder remuneration program "Repsol Flexible Dividend" (see Note 6.3). In contrast, for 2017 and 2016, this heading does not include the amounts corresponding to the sale to Repsol, at the guaranteed fixed price, of bonus share rights as part of the bonus share issue closed in January 2018 and 2017, which in the case of the significant shareholders amounted to €82 million (€67 million in 2016). These rights are recognized as an account payable at December 31. Nor does it include the Repsol shares subscribed as a result of the aforementioned bonus share issues.

(9) In 2017 and 2016, this heading primarily includes remunerated accounts and deposits in the amount of €852 million and €678 million respectively and interest rate hedges in the amount of €67 million arranged with La Caixa Group in both periods.

(27) REMUNERATION OF THE MEMBERS OF THE BOARD OF DIRECTORS AND EXECUTIVES

27.1) Remuneration of the members of the Board of Directors

a) Due to membership of the Board of Directors

In accordance with Article 45 of the Articles of Association, the Directors, in their capacity as members of the Board and in exchange for discharging the supervisory and decision-making duties intrinsic to Board membership, are entitled to receive a fixed annual payment that may not exceed the ceiling established to this end at the Annual General Meeting or on the Director Remuneration Policy; it is up to the Board of Directors to determine the precise amount payable within that limit and its distribution among the various Directors, factoring in the positions and duties performed by each within the Board and its Committees, the membership of the Committees, the positions held by each one of them on the Board and any other objective circumstance considered as relevant.

The upper limit established in the Director Remuneration Policy approved at the Annual General Meeting held on April 30, 2015, under item nineteen of the corresponding agenda, is €8.5 million.

The amount of remuneration accrued in 2017 by the members of the Board of Directors in their capacity as Board members against the aforesaid assignment amounted to €7,345 million, the detail being as follows:

Board of Directors	Remuneration for membership of Governing Bodies (euros)						Total
	Board	Delegate Com.	Audit Com.	Appoints. Com.	Renum. Com.	Sustain. Com.	
Antonio Brufau Niubó	(1)	(1)	-	-	-	-	2,500,000
Gonzalo Gortázar Rotaache	176,594	176,594	-	-	22,074	-	375,263
Manuel Manrique Cecilia	176,594	176,594	-	-	-	-	353,188
Josu Jon Imaz San Miguel	176,594	176,594	-	-	-	-	353,188
María Teresa Ballester Fornés (2)	117,729	-	58,865	-	-	-	176,594
Artur Carulla Font	176,594	176,594	-	22,074	22,074	-	397,337
Luis Carlos Croissier Batista	176,594	-	88,297	-	-	44,148	309,039
Rene Dahan	176,594	176,594	-	-	-	-	353,188
Ángel Duráñez Adeva (3)	176,594	-	88,297	-	14,716	-	279,608
Javier Echenique Landiribar (4)	73,581	-	36,790	-	-	18,395	128,767
Mario Fernández Pelaz (5)	176,594	-	88,297	22,074	22,074	-	309,040
M ^a Isabel Gabarró Miquel (6)	73,581	-	-	9,198	9,198	18,395	110,371
Jordi Gual Solé (7)	-	-	-	-	-	-	-
José Manuel Loureda Mantiñán	176,594	-	-	22,074	22,074	44,148	264,891
Antonio Massanell Lavilla (8)	176,594	-	-	22,074	-	44,148	242,816
Mariano Marzo Carpio (9)	117,729	-	-	14,716	-	29,432	161,878
Isabel Torremocha Ferrezuelo (10)	117,729	-	58,865	-	-	-	176,594
Henri Philippe Reichstul (11)	73,581	73,581	-	-	-	-	147,162
J. Robinson West	176,594	176,594	-	-	-	-	353,188
Luis Suárez de Lezo Mantilla	176,594	176,594	-	-	-	-	353,188

Note: In accordance with the scheme adopted by the Board of Directors, and at the proposal of the Remuneration Committee, the amount due annually in 2017 came to: (i) €176,594 for membership of the Board of Directors; (ii) €176,594 for membership of the Delegate Committee; (iii) €88,297 for membership of the Audit and Control Committee; (iv) €44,148 for membership of the Sustainability Committee; (v) €22,074 for Membership of the Nomination Committee; and (vi) €22,074 for Membership of the Remuneration Committee.

(1) Mr. Brufau stepped down from his executive duties on April 30, 2015; on that same date the Annual General Meeting voted in favor of his re-election as non-executive Chairman of the Board of Directors, similarly approving his new remuneration terms and conditions, applicable from May 1, 2015 and comprising fixed annual remuneration (before tax) of €2,500. Also, in-kind remuneration and payments on account/withholdings related to in-kind remuneration totaled €0.589 million.

(2) Ms. Ballester was appointed Director and member of the Audit and Control Committee on May 19, 2017.

(3) Ms. Duráñez was appointed member of the Remuneration Committee on May 19, 2017.

(4) Mr. Echenique resigned from his position as Director and Chairman of the Audit and Control Committee and member of the Sustainability Committee on May 19, 2017.

(5) See Note 31.

(6) Ms. Gabarró resigned from her position as Director and Chairwoman of the Sustainability and member of the Appointments and Remuneration Committee on May 19, 2017.

(7) Mr. Gual was appointed Director and member of the Appointments and Sustainability Committees on December 20, 2017.

(8) Mr. Massanell resigned from his position as Director and member of the Appointments and Sustainability Committees on December 20, 2017.

(9) Mr. Marzo was appointed Director and Chairman of the Sustainability Committee and member of the Appointments Committee on May 19, 2017.

(10) Ms. Torremocha was appointed Director and member of the Audit and Control Committee on May 19, 2017.

(11) Mr. Reichstul resigned from his position as Director and member of the Delegate Committee on May 19, 2017.

Additionally, it should also be noted that:

- The members of the Board of Directors of the parent company have not been granted any loans or advances by any Group company, joint arrangement or associate.
- The non-executive Directors only receive the fixed remuneration indicated in the table above and are excluded from the schemes financed by the Company to provide coverage in the event of termination, death or other developments and from the Company's short and long term performance-based bonus schemes. As regards the Chairman of the Board of Directors, see Note 1 of the table of remuneration for being part of the Administration Bodies, in this section.
- No Group company, joint arrangement or associated company has pension or life insurance obligations to any former or current member of the Board of Directors of the parent company, except in the case of the Chairman of the Board, the Chief Executive Officer and the General Counsel Secretary, whose remuneration are subject to the commitments set forth in their respective contracts for services, as described further on.

b) Due to the holding of executive positions and performing executive duties

In 2017, compensation to Directors for the performance of executive duties was as follows:

€ Million	Josu Jon Imaz San Miguel	Luis Suárez de Lezo Mantilla
Fixed monetary remuneration	1.200	0.983
Variable and in-kind remuneration ⁽¹⁾	2.479	1.862

⁽¹⁾ Includes, among other items, life and disability insurance and health insurance, as well as variable annual and multiannual remuneration, as well as additional shares corresponding to the settlement of the fourth cycle of the Share Acquisition Plan by the beneficiaries of the long-term incentive programs, as detailed in section 27.1) e).

The above amounts do not include the amounts detailed in section c) and d) below.

c) Due to membership of the Boards of Directors of subsidiaries

The remuneration earned in 2017 by the members of the parent's Board of Directors in their capacity as directors of other Group companies, joint arrangements and associates amounted to €0.420 million, according to the following detail:

€ Million	Gas Natural
Josu Jon Imaz San Miguel	0.253
Luis Suárez de Lezo Mantilla	0.167

d) Due to contributions to pension plans, long-service bonuses and welfare plans

The cost in 2017 of the contributions made to pension plans, long-service bonuses and welfare plans for the members of the Executive Directors discharging executive duties in the Group amounted to:

	€ Million
Josu Jon Imaz San Miguel	0.254
Luis Suárez de Lezo Mantilla	0.197

e) Share Purchase Plan for beneficiaries of the multi-year variable remuneration programs

On May 31, 2017, the vesting period concluded for the fourth cycle of the share purchase program for beneficiaries of long-term incentive programs (see Note 28.4.i). Upon vesting, Josu Jon Imaz became entitled to the receipt of 1,707 (before withholdings), valued at a unit price of €14.82 per share. Luis Suárez de Lezo Mantilla became entitled to receive 1,126 shares at the same valuation.

27.2) Indemnity payments to Board Members

None of the Directors received any indemnity payment from Repsol in 2017.

27.3) Other transactions with directors

During 2017, Repsol's Directors did not conclude any material transaction with the Company or any of the Group companies outside the ordinary course of business or on terms other than those afforded to customers or other than on an arm's length basis.

The Chief Executive Officer signed up for the 2015-2018, 2016-2019 and 2017-2020 cycles of the Share Purchase Plan for beneficiaries of the long-term incentive programs, as detailed in Note 28. The General Counsel Secretary has signed up for the 2015-2018 and 2017-2020 cycles of this Plan.

In 2017, the Board of Directors has not been made aware of any situation of direct or indirect conflict of interest. Nevertheless, in accordance with article 229 of the Companies Act, in that fiscal year resolutions of the Board and of the Nomination Committee regarding related-party transactions, ratification, re-election and continuity of Directors and on appointment to positions within the Board were adopted in the absence of the Director and its committees affected by

the relevant proposed resolution.

In addition, the Executive Directors did not participate in the approval of the Board of Directors resolutions regarding their compensation for the performance of executive duties at the Company.

27.4) Remuneration of key management personnel

a) Scope

For reporting purposes in this section, Repsol considers "key management personnel" to be the members of the Corporate Executive Committee. In 2017, a total of 8 persons formed the Corporate Executive Committee. The term "key management personnel", made purely for reporting purposes, neither substitutes nor comprises a benchmark for interpreting other senior management pay concepts applicable to the Company under prevailing legislation (e.g. Royal Decree 1382/1985), nor does it have the effect of creating, recognizing, amending or extinguishing any existing legal or contractual rights or obligations.

This section itemizes the remuneration accrued in 2017 by the people who, at some juncture during the period and during the time they occupied such positions, were members of the Board of Directors. Unless indicated otherwise, the compensation figures provided for "key management personnel" do not include the compensation accrued by people who are also directors of Repsol, S.A.; the director compensation disclosures for these individuals are included in section 1 of this note.

b) Wages and salaries, executive welfare plan, pension fund and insurance premiums.

The total remuneration earned in 2017 by executive officers who formed part of the Corporate Executive Committee is as follows:

	<i>€ Million</i>
Salary	5.049
Allowances	0.318
Variable remuneration ⁽¹⁾	5.478
In-kind remuneration ⁽²⁾	0.463
Executive welfare plan	1.047

⁽¹⁾ This consists of an annual bonus, and a multi-annual bonus, calculated both as a given percentage of the fixed remuneration earned on the basis of the degree to which certain targets are met.

⁽²⁾ Includes, inter alia, vested entitlement to 6,568 additional shares (before withholdings) at the end of the vesting period for the fourth cycle of the share purchase plan for beneficiaries of the long-term incentive programs, valued at €14.82 per share, representing an equivalent amount of €97,353. It also includes contributions to pension plans for executives (see Note 28), and the amount of premiums paid for life and disability insurance, amounting to €0.238 million.

c) Advances and loans granted

No advances or loans had been granted to management as of December 31, 2017.

27.5) Indemnity payments to key management personnel

Key management personnel are entitled under their contracts to severance pay if their employment is terminated for any reason other than breach of executive duties, retirement, disability or their own free will without reference to any of the indemnifiable events specified in the contracts.

The Group has arranged a collected insurance agreement to assure such benefits for Corporate Executive Committee members with the title General Manager, and for Directors that have performed executive duties.

In 2017, no amounts have been paid by the Company's key management personnel in the form of termination benefits or compensation for non-compete clauses.

27.6) Other transactions with key management personnel

During 2017, Repsol's key management personnel did not conclude any material transaction with the Company or any of the Group companies outside the ordinary course of business or on terms other than those afforded to customers or

other than on an arm's length basis.

Notwithstanding the above, executive personnel signed up for the 2015-2018, 2016-2019 and 2017-2020 cycles of the Share Purchase Plan for beneficiaries of the long-term incentive programs, as detailed in Note 28.

27.7) Civil liability insurance

The Repsol Group subscribed a civil liability policy for Board members, the executive officers referred to in Note 27.4.a), and the rest of officers and people executing such functions, for a total premium of €1.8 million. The policy also covers different Group companies under certain circumstances and conditions.

(28) PERSONNEL OBLIGATIONS

28.1) Defined contribution pension plans

Repsol has defined mixed modality plans for certain employees in Spain, which conform to current legislation. Specifically, this refers to pension plans with defined contributions for retirement and defined contributions for permanent disability and death. For contingencies of permanent disability and death, pension plans have life insurance policies with an external entity. Additionally, outside Spain, certain Group subsidiaries have a defined contribution pension plans for their employees.

The annual cost charged to "*Personnel expenses*" in the consolidated income statement in relation to the defined contribution pension plans detailed above amounted to €54 million in 2017 and €58 million in 2016.

Executives of the Repsol Group in Spain are beneficiaries of an executive pension plan that complements the standard pension plan denominated "*Plan de previsión de Directivos*" (Management remuneration plan) which covers the participant retirement, disability and death. Repsol makes defined contributions based on a percentage of participants' salaries. The plan guarantees a fixed return equivalent to 125% the prior year National Consumer Price Index. The plan is instrumented through collective insurances that cover pension obligations, subscribed with an insurance entity. Premiums paid under these policies finance and externalize the Group's commitments in respect of contributions, as well as the fixed return mentioned above.

The cost of this plan recognized under "*Personnel expenses*" in the income statement in 2017 and 2016 was €13.5 and €17.4 million, respectively.

28.2) Defined benefit pension plans

Repsol has arranged defined benefit pension plans for certain groups of employees. The amount charged to the Group's income statement in 2017 and 2016 was €2 million and €6 million respectively, while the related balance sheet provision at year-end 2017 and 2016 stood at €70 million and €87 million, respectively (see Note 13).

28.3) Long-term variable remuneration

The Company has implemented a loyalty building program aimed at senior executives and other persons occupying positions of responsibility in the Group, consisting of long-term incentives as part of their benefit package. The purpose of this program is to strengthen the identification of executives and managers with shareholders' interests, based on the Company's medium and long-term earnings sustainability as well as the compliance with the Strategic Plan, while at the same time facilitating the retention by the Group of key personnel.

At year end, the 2014-2017, 2015-2018, 2016-2019 and 2017-2020 long-term incentive programs were in force. The 2013-2016 plan was closed, as originally stipulated, on December 31, 2016 and its beneficiaries perceived their bonuses during 2017.

The four long-term incentive programs in effect are independent of each other but their main characteristics are the same. Fulfillment of the respective objectives tied to each program entitles the beneficiaries of each plan to receive an incentive in the first four months of the year following the last year of the plan. However, receipt of this incentive

payment is tied to the beneficiary remaining in the Group's employ until December 31 of the last year of the plan, except in the special cases envisaged in the terms and conditions of the related plan.

If the incentive is to be received, the amount determined at the time the long-term incentive is applied a first variable coefficient on the basis of the extent to which the objectives set are achieved, and then a second variable coefficient tied to the beneficiary's average individual performance under the Management through Commitments scheme during the years used for benchmarking under each incentive program.

None of the plans involve the delivery of shares or options to beneficiaries, with the exception of Executive Directors to whom, as per the agreement approved by the shareholder annual meeting on May 19, 2017, under Agenda item 19, a payment shall be made partially in shares (30%) of the amount corresponding to the long-term incentive programs for 2014-2017, 2015-2018, 2016-2019 and 2017-2020. The 2016-2019 and 2017-2020 Programs involve targets pegged to Repsol's stock price performance.

The amount corresponding to the 2014-2017 Long-term Incentive Plan will be paid to the Executive Directors in a proportion of 70% in cash and the remaining 30% in Company shares, so that Mr. Josu Jon Imaz will receive €820,651 in cash and 11,380 Company shares, equivalent to an amount of €162,176, and Mr. Luis Suárez de Lezo Mantilla will receive €693,919 in cash and 9,623 Company shares, equivalent to an amount of €137,137.

As resolved by the General Shareholders' meeting on May 19, 2017, the final number of shares to be delivered to the Executive Directors has been calculated taking into account: (i) the amount that is effectively payable to each Director following application of the corresponding taxes (or withholdings) ; and (ii) the weighted average for the daily volume of average weighted Repsol share prices in the fifteen trading sessions before the Friday of the week preceding the date on which the Board of Directors agrees payment of the Long-Term Incentive for Executive Directors in each of the Plans.

To reflect the commitments assumed under these incentive plans, the Group recognized a provision charge of €23 and €16 million in the 2017 and 2016 consolidated income statement, respectively. At December 31, 2017 and 2016 the Group had recognized provisions totaling €57 million and €50 million to meet its obligations under all the aforementioned plans respectively, to fulfill all the plans described above.

28.4) Share purchase plans for beneficiaries of long-term incentive programs and share acquisition plans

i.) "Share Purchase Plan for Beneficiaries of the Long-Term Incentive Programs"

This Plan allows for investment in Repsol, S.A. shares of up to 50% of the total long-term gross amount received. Its aim is to promote the alignment of beneficiaries (including Executive Directors and Corporate Executive Committee members) with the long-term interests of both the Company and its shareholders. If the beneficiaries continue to hold the shares so acquired for three years after they are purchased and the rest of the Plan terms and conditions are met, the Company will provide them with one additional share for every three initially acquired.

The beneficiaries qualifying as Senior Management, defined to this end as the Executive Directors and the other Members of the Corporate Executive Committee, for cycles approved by the Annual General Meeting of May 19, 2017 are subject to an additional performance requirement in order to qualify for receipt of these additional shares, namely overall satisfaction of at least 75% of the targets set in the long-term incentive program closed in the year immediately preceding that of delivery of the shares.

At the date of preparation of the accompanying consolidated financial statements for issue, the fifth, sixth and seventh cycles of this Plan were in force (2015-2018, 2016-2019 and 2017-2020); key data for these cycles are provided below:

	No. of participants	Total initial investment (No. of shares)	Average price (€ / share)	Maximum commitment to deliver shares
Fifth cycle (2015-2018)	219	170,302	17.41	56,698
Sixth cycle (2016-2019)	132	160,963	11.38	53,604
Seventh cycle ciclo (2017-2020)	153	135,047	15.00	44,964

During this seventh cycle, the current members of the Corporate Executive Committee and other Executive Directors have acquired a total of 51,482 shares.

As a result of this Plan, at December 31, 2017 and 2016, the Group had recognized an expense under "Personnel expenses" with a counterbalancing entry under "Other reserves" in equity of €0.5 million and €0.4 million, respectively.

In addition, the fourth cycle of the Plan vested on May 30, 2017. As a result, the rights of 160 beneficiaries to 28,288 shares vested (receiving a total of 21,576 shares net of payment on account of the personal income tax to be made by the Company). Specifically, the rights of the members of the Corporate Executive Committee and the rest of the Executive Directors to 9,400 shares also vested (net of the withholding retained by the Company, these individuals received a total of 6,504 shares).

ii.) "Share Acquisition Plans"

The Share Acquisition Plans were approved at the Annual General Meetings of April 15, 2011 (the 2011-2012 Share Acquisition Plan), May 31, 2012 (the 2013-2015 Share Acquisition Plan) and April 30, 2015 (the 2016-2018 Share Acquisition Plan).

These Plans are targeted at employees of the Repsol Group in Spain and are designed to enable those so wishing to receive a portion of their remuneration in Repsol, S.A. shares up to an annual limit of €12,000. The shares to be delivered will be valued at Repsol, S.A.'s closing share price on the continuous Spanish stock market on each date of delivery to the beneficiaries.

In 2017 the Group purchased 539,430 shares of Repsol, S.A. for €7.8 million for delivery to employees. Under the scope of the 2016 Plan, the Group acquired 725,352 shares from Repsol, SA. for a total of €8 million (see Note 6).

The members of the Corporate Executive Committee acquired a total of 5,768 shares in accordance with the plan terms and conditions in 2017.

The shares to be delivered under both schemes i) and ii) may be sourced from Repsol's directly or indirectly held treasury shares, new-issued shares or from third party entities with whom the Group has entered into agreements to guarantee coverage of the commitments assumed.

(29) ENVIRONMENTAL INFORMATION^{1,2,3}

29.1) Environmental Assets

The criteria for measuring property, plant and equipment of an environmental nature, the purpose of which is to minimize environmental impact and to protect and improve the environment, are drawn up on the basis of the nature of the business activities carried on, based on the Group's technical criteria established in the "Repsol Safety and Environmental Cost Guide", which are based on the guidelines relating to these matters issued by the American Petroleum Institute (API).

Environmental property, plant and equipment and the related accumulated depreciation are recognized in the consolidated balance sheet together with other property, plant and equipment, classified by their nature for accounting purposes (see Note 11).

¹ The information provided in this Note does not include information on ROGCI's environmental assets recognized prior to the company's acquisition (see Note 1.4).

² For further information on safety and the environment, see sections 6.1, 6.3 and 6.4 of the Consolidated Management Report.

³ As to the regulatory framework applicable to safety and the environment, see Appendix IV "Regulatory Framework".

The breakdown of the cost of the environmental assets identified and the related accumulated depreciation at December 31, 2017 and 2016 is as follows:

	€ Million					
	2017			2016		
	Cost	Accumulated amortization	Net	Cost	Accumulated amortization	Net
Atmosphere protection	471	(275)	196	444	(264)	180
Water management	501	(350)	151	507	(353)	154
Product quality	2,009	(1,013)	996	1,945	(946)	999
Soil and dismantling	148	(69)	79	158	(65)	93
Energy saving and efficiency	442	(175)	267	431	(162)	269
Waste management	40	(19)	21	42	(20)	22
Contingencies and spills	68	(11)	57	67	(7)	60
Other	260	(120)	140	236	(122)	115
	3,939	(2,032)	1,907	3,830	(1,939)	1,891

The cost includes €305 million of assets under construction at December 31, 2017 and €254 million at December 31, 2016.

Among the most significant environmental investments made in 2017, it is worth highlighting the ones dedicated to improving environmental quality of oil products, managing and optimizing water consumption, minimizing emissions into the atmosphere, increasing energy saving and efficiency and improving contingency systems and spill prevention systems.

Our main investment projects included the continuation of the fuel quality improvement project at the La Pampilla Refinery in Peru, with a €117 million investment in 2017, and the €7.6 million investment in Malaysia to change the type of pipeline for transmission of crude and condensed oil. This investment reduced energy consumption and the risk of spills, and lowered the impact on the marine environment. Also noteworthy is the €8 million investment in the Tarragona refinery and the €5 million investment in Chemicals to reduce NOx emissions into the atmosphere.

Furthermore, in 2017 an investment of €37 million was allocated to energy efficiency projects: highlights included a €5.4 million investment in the Petronor refinery to reduce emissions through the installation of new compressors in the fluid catalytic cracking unit, and the €5.2 million investment in Cartagena to reduce energy consumption in the atmospheric distillation unit.

29.2) Environmental provisions

Repsol recognizes the provisions required to cover the measures aimed at preventing and repairing environmental impact. These provisions are presented under “*Current and non-current provisions*” on the consolidated balance sheet and under the “*Other provisions*” column in the table reconciling the movement in provisions in Note 13.

The changes in the environmental provisions in 2017 and 2016 were as follows:

	€ Million	
	2017	2016
Balance at 1 January	134	59
Allowances charged to income statement	14	6
Use of provisions credited to income statement	(43)	(13)
Provisions released due to payment	(4)	(6)
Reclassifications and other changes	(20)	88
Balance at 31 December	81	134

Additionally, the Group has registered field dismantling provisions (see Note 13).

The insurance policies cover, subject to terms and conditions, civil liability for pollution on land and at sea and certain liabilities vis-a-vis the authorities pursuant to the Environmental Liability Act, all of which derived from accidental, sudden and identifiable events, in keeping with habitual industry practice and applicable legislation.

29.3) Environmental expenses

Work relating to water management, atmospheric protection, waste management, remediation of soil and subsoil water and the development of environmental management systems are considered as environmental expenses. In 2017 and 2016, these expenses amounted to €162 million and €155 million, respectively, classified as “Supplies” and “Other operating expenses”. These expenses include €69 and €72 million of expenses for the allowances needed to cover CO₂ emissions made in 2017 and 2016.

Also, environmental expenses in 2017 and 2016 include: other work carried out to enhance air quality in the amount of €31 and €25 million, respectively; water management in the amount of €19 and €18 million, respectively; waste management totaling €16 and €12 million, respectively; and soil and other restoration work for €12 and €9 million, respectively.

29.4) Carbon emission allowances

The provisions movements recognized in respect of CO₂ emission allowances used in 2017 and 2016 is as follows:

	€ Million	
	2017	2016
Balance at 1 January	72	83
Contributions charged to results ⁽¹⁾	69	72
Reclassifications and other movements ⁽²⁾	(72)	(83)
Balance at 31 December	69	72

⁽¹⁾ Corresponds to the expense incurred to acquire the allowances needed to cover the Group's CO₂ emissions.

⁽²⁾ In 2017 and 2016, corresponds to the derecognition of allowances used to cover emissions made in 2016 and 2015, respectively (see Note 10).

During 2017 and 2016, the companies comprising the consolidation scope recognized emission allowances allocated free of charge under the Spanish National Allocation plan equivalent to 8 million tons of CO₂, initially measured at €51 and €68 million, respectively (see Note 10).

The cost of the CO₂ management effort came to €17 million in 2017 and in 2016.

(30) FURTHER BREAKDOWNS

30.1) Staff¹

Repsol Group employed a total of 24,226 people at December 31, 2017, geographically distributed as follows: Spain (16,353 employees), North America (1,393 employees), South America (3,696 employees), Europe, Africa and Brazil (2,546 employees), Asia and Russia (234 employees) and Oceania (4 employees). Average headcount in 2017 was 24,675 employees (26,422 employees in 2016).

Below is a breakdown of the Group's total staff² distributed by professional categories and genders at year-end 2017 and 2016:

	2017		2016	
	Men	Women	Men	Women
Executives	212	50	229	46
Technical Managers	1,648	685	1,669	641
Technicians	7,123	4,382	7,511	4,467
Manual workers and junior personnel	6,613	3,513	6,510	3,462
Total ⁽¹⁾	15,596	8,630	15,919	8,616

The Repsol Group employed a total of 573 people of differing abilities at year-end 2017 (2.37% of its workforce).

¹ For further information on the workforce and human resource management policies, see section 6.2 of the Consolidated Management Report.

² Pursuant to the provisions of Organic Law 3/2007, of March 22, which promotes true equality between men and women, published in the Official State Gazette of March 23, 2007.

In Spain in 2017, using the computation criteria stipulated in Spanish law on the rights of people with disability and their integration, the Group surpassed the legally required percentage threshold: its differently-abled workforce accounted for 2.56% of the total in Spain, namely 490 direct hires.

30.2) Fees paid to auditors

The approved fees for audit services, professional services related to the audit and other non-audit services provided during the year to Repsol Group companies by Deloitte Group companies and their controlled entities, as well as the fees for similar services provided by other audit firms and their controlled entities, are shown below:

€ Million	Main auditor ⁽³⁾		Other auditors ⁽⁴⁾	
	2017	2016	2017	2016
Fees for audit services	5.9	5.9	1.8	3.1
Fees for audit-related professional services ⁽¹⁾	1.1	1.1	-	0.2
Fees for other services ⁽²⁾	0.6	0.5	0.8	0.2
Total	7.6	7.5	2.6	3.5

⁽¹⁾ Mainly includes the revision of the Group's Internal Control, the revision of the corporate social responsibility report and services relating to the processes for issuing bonds and other marketable securities.

⁽²⁾ Includes tax, consulting and other services.

⁽³⁾ The sum of these figures does not represent more than 10% of total revenue of the auditor (Deloitte, S.L.) and its organization as a whole.

⁽⁴⁾ Mainly includes fees due to EY, S.L. for audit work and other services provided to Repsol Oil&Gas Canada, Inc. and its subsidiaries.

Repsol's Annual Shareholders' Meeting held on May 19, 2017 approved the appointment of PricewaterhouseCoopers Auditores, S.L. as the auditor of Repsol, S.A. and the Group for 2018, 2019 and 2020.

30.3) Research and development

Research costs incurred are recognized as expenses for the year and development costs are capitalized only if all the conditions stipulated in the applicable accounting standard are met.

The expense recognized in the income statement in connection with research and development activities amounted to €65 million in 2017 and €73 million in 2016. For further information, see section 6.5 of the consolidated Management Report.

(31) SUBSEQUENT EVENTS

- On January 17, 2018, ROGCI repurchased a fixed-annual 3.75% bond maturing in February 2021 for a total of \$251 million.
- On January 31, 2018, Repsol Norge AS acquired 7.7% of Visund (field operated by Statoil) at the Norwegian continental platform.
- On February 20, 2018, Mr. Mario Fernández Pelaz has resigned his position as Director of Repsol, S.A. Board of Directors.
- On February 22, 2018, Repsol, S.A. has reached an agreement with Rioja Bidco Shareholdings, S.L.U., ("Rioja") a company controlled by funds advised by CVC, for the sale of its stake in Gas Natural SDG, S.A. ("Gas Natural") corresponding to 200,858,658 shares, representing approximately 20.072% of the share capital of Gas Natural, for a total amount of €3,816,314,502, equivalent to a price of €19 per share. The goodwill generated for the Repsol Group would amount to approximately €400 million.

Closing of the sale of the Shares is conditional upon the fulfilment of the following conditions:

- (i) granting in no more than six months, from the signing of the agreement, of the mandatory authorizations by the competent authorities in Mexico, South Korea, Japan and Germany regarding the concentration transaction that in those market entails the transfer of the Shares;
- (ii) the lack of opposition, express or tacit, by the Irish Central Bank regarding the indirect acquisition of a

significant stake in the entity Clover Financial & Treasury Services Ltd. in the same period no longer than six months; and

- (iii) the execution by Rioja of a shareholders agreement with Criteria Caixa, S.A.U. and GIP III Canary 1 S.à r.l. no later than 22 March, as well as the appointment, no later than the transaction closing date, of 3 people designated by Rioja as members of the board of Gas Natural replacing the three representative that Repsol currently has in the Board of Directors of Gas Natural.

(32) EXPLANATION ADDED FOR TRANSLATION TO ENGLISH

These consolidated financial statements are prepared on the basis of IFRSs, as endorsed by the European Union, and Article 12 of Royal Decree 1362/2007. Consequently, certain accounting practices applied by the Group may not conform to other generally accepted accounting principles in other countries.

APPENDIX I: MAIN COMPANIES COMPRISING THE REPSOL GROUP AT DECEMBER 31, 2017

Name	Parent company	Country	Corporate purpose	Method of consol. ⁽¹⁾	December 2017				
					%		€ Million		
					Controlling Interest ⁽²⁾	Total Group Interest	Equity ⁽³⁾	Share Capital ⁽³⁾	
UPSTREAM									
AESA - Construcciones y Servicios Bolivia, S.A.	Repsol Bolivia, S.A.	Bolivia	Transport of hydrocarbons (16)	F.C.	99.00	99.00	0	0	
Agri Development, B.V.	Repsol Sinopec Brasil, B.V.	Netherlands	Platform for production of crude oil and natural gas	E.M. (J.V.)	10.00	6.00	656	0	
Akakus Oil Operations, B.V.	Repsol Exploración Murzuq, S.A.	Netherlands	Oil and gas exploration and production	E.M.	49.00	49.00	0	0	
BP Trinidad & Tobago (19)	BPRY Caribbean Ventures, Llc.	United States	Oil and gas exploration and production	E.M. (J.V.)	100.00	30.00	1	1	
BPRY Caribbean Ventures, Llc.	Repsol Exploración, S.A.	United States	Oil and gas exploration and production	E.M. (J.V.)	30.00	30.00	1,823	2,603	
Cardón IV, S.A.	Repsol Exploración, S.A. (13)	Venezuela	Oil and gas exploration and production	E.M. (J.V.)	50.00	50.00	(440)	3	
CSJC Eurotek - Yugra	Repsol Exploración Karabashsky, B.V.	Russia	Oil and gas exploration and production	E.M. (J.V.)	73.63	73.63	89	0	
Dubai Marine Areas Ltd.	Repsol Exploración, S.A.	United Kingdom	Oil and gas exploration and production (16) (17)	E.M. (J.V.)	50.00	50.00	2	0	
Equion Energia Ltd.	Talisman Colombia Holdco Ltd.	United Kingdom	Oil and gas exploration and production	E.M. (J.V.)	49.00	49.00	319	0	
FEHI Holding S.a.r.l.	TE Holding S.a.r.l.	Luxembourg	Portfolio company	F.C.	100.00	100.00	2,681	186	
Foreland Oil Ltd. (10)	Rift Oil, Ltd.	British Virgin Islands	Oil and gas exploration and production	F.C.	100.00	100.00	51	238	
Fortuna Resources (Sunda) Ltd. (10)	Talisman UK (South East Sumatra) Ltd.	British Virgin Islands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	44	0	
Guará, B.V.	Repsol Sinopec Brasil, B.V.	Netherlands	Platform for production of crude oil and natural gas	E.M.	25.00	15.00	1,524	0	
MC Alrep, Llc.	AR Oil & Gaz, B.V.	Russia	JV company management services	E.M. (J.V.)	100.00	49.00	0	0	
Lapa Oil & Gas, B.V. (5)	Guará, B.V.	Netherlands	Platform for production of crude oil and natural gas	E.M.	100.00	15.00	-	-	
Occidental de Colombia LLC	Repsol International Finance, B.V.	United States	Portfolio company	E.M. (J.V.)	25.00	25.00	127	88	
Paladin Resources Ltd.	TE Holding S.a.r.l.	United Kingdom	Portfolio company	F.C.	100.00	100.00	(554)	276	
Pan Pacific Petroleum (Vietnam) Pty. Ltd. (5)	Repsol Exploración, S.A.	Australia	Oil and gas exploration and production	F.C.	100.00	100.00	6	0	
Petrocarabobo, S.A.	Repsol Exploración, S.A.	Venezuela	Oil and gas exploration and production	E.M. (J.V.)	11.00	11.00	643	517	
Petroquiriquire, S.A. Emp. Venture	Repsol Exploración, S.A.	Venezuela	Oil and gas exploration and production.	E.M. (J.V.)	40.00	40.00	(392)	217	
Quiriquire Gas, S.A.	Repsol Venezuela, S.A.	Venezuela	Oil and gas exploration and production.	E.M. (J.V.)	60.00	60.00	8	0	
Repsol Alberta Shale Partnership	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	986	1,197	
Repsol Angola 22, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	(46)	241	
Repsol Angola 35, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	(1)	113	
Repsol Angola 37, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	2	236	
Repsol Angostura Ltd,	Repsol Exploración, S.A.	Trinidad and Tobago	Oil and gas exploration and production	F.C.	100.00	100.00	(2)	28	
Repsol Aruba, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	4	6	
Repsol Bulgaria, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	71	85	
Repsol Canada Energy Partnership	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	5,548	2,333	
Repsol Canada Inversiones, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	8,228	0	
Repsol Ductos Colombia, S.A.S.	Talisman Colombia Holdco Ltd.	Colombia	Oil and gas exploration and production	F.C.	100.00	100.00	38	3	
Repsol E&P Bolivia, S.A.	Repsol Bolivia, S.A.	Bolivia	Oil and gas exploration and production	F.C.	100.00	100.00	584	127	
Repsol E&P Canada Ltd.	Repsol Exploración, S.A.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	3	87	
Repsol E&P Eurasia, LLC.	Repsol Exploración, S.A.	Russia	Oil and gas exploration and production	F.C.	99.99	99.99	(15)	0	
Repsol E&P USA, Inc.	Repsol USA Holdings Corporation	United States	Oil and gas exploration and production	F.C.	100.00	100.00	2,533	2,740	
Repsol E&P USA Holdings, Inc.	Repsol Oil & Gas Holdings USA, Inc.	United States	Oil and gas exploration and production	F.C.	100.00	100.00	2,219	1,578	
Repsol Ecuador, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	(287)	5	
Repsol Energy North America Corporation	Repsol USA Holdings Corporation	United States	Marketing of LNG	F.C.	100.00	100.00	(445)	238	
Repsol Exploración 17, B.V. (19)	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	
Repsol Exploración Aitoloakarnania, S.A. (5)	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	
Repsol Exploración Argelia, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	648	4	
Repsol Exploración Atlas, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	
Repsol Exploración Bougezoul, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	
Repsol Exploración Caribe, S.L.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	0	
Repsol Exploración Cendrawasih I, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	(1)	25	
Repsol Exploración Cendrawasih II, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	12	
Repsol Exploración Cendrawasih III, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	4	
Repsol Exploración Cendrawasih IV, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	0	6	
Repsol Exploración Colombia, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	155	2	
Repsol Exploración East Bula, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	3	

					December 2017				
					%		€ Million		
Name	Parent company	Country	Corporate purpose	Method of consol. (1)	Controlling interest (2)	Total Group Interest	Equity (3)	Share Capital (3)	
Repsol Exploración Guyana, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	15	0	
Repsol Exploración Ioannina, S.A. (5)	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	1	0	
Repsol Exploración Irlanda, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	12	0	
Repsol Exploración Karabashsky, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	98	131	
Repsol Exploración Kazakhstan, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production (16)	F.C.	100.00	100.00	8	0	
Repsol Exploración Liberia, B.V. (7)	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	4	54	
Repsol Exploración México, S.A. de C.V.	Repsol Exploración, S.A.	Mexico	Oil and gas exploration and production	F.C.	100.00	100.00	23	19	
Repsol Exploración Murzuq, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	268	9	
Repsol Exploración Perú, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	162	17	
Repsol Exploración Seram, B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	(3)	3	
Repsol Exploración Sierra Leona, S.L.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production (16)	F.C.	100.00	100.00	8	3	
Repsol Exploración Tobago, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	15	0	
Repsol Exploración Venezuela, B.V.	Repsol Exploración, S.A.	Netherlands	Portfolio company	F.C.	100.00	100.00	381	920	
Repsol Exploración, S.A.	Repsol S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	6,263	25	
Repsol Exploration Australia, Pty, Ltd.	Repsol Exploración, S.A.	Australia	Oil and gas exploration and production	F.C.	100.00	100.00	0	21	
Repsol Exploration Namibia Pty, Ltd.	Repsol Exploración, S.A.	Namibia	Oil and gas exploration and production (16)	F.C.	100.00	100.00	(12)	0	
Repsol Exploração Brasil, Ltda. (14)	Repsol Exploración, S.A. (15)	Brazil	Oil and gas exploration and production	F.C.	100.00	100.00	39	39	
Repsol Investigaciones Petrolíferas, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	508	226	
Repsol Libreville, S.A. avec A.G.	Repsol Exploración, S.A.	Gabon	Oil and gas exploration and production	F.C.	100.00	100.00	53	63	
Repsol LNG Holdings, S.A.	Repsol Exploración, S.A.	Spain	Hydrocarbon marketing	F.C.	100.00	100.00	8	2	
Repsol Louisiana Corporation	Repsol USA Holdings Corporation	United States	Oil and gas exploration and production	F.C.	100.00	100.00	23	86	
Repsol Norge, AS	Repsol Exploración, S.A.	Norway	Oil and gas exploration and production	F.C.	100.00	100.00	107	0	
Repsol OCP de Ecuador, S.A.	Repsol Ecuador, S.A.	Spain	Operation of an oil pipeline for the transport of hydrocarbons	F.C.	100.00	98.36	6	0	
Repsol Offshore E & P USA, Inc.	Repsol USA Holdings Corporation	United States	Oil and gas exploration and production	F.C.	100.00	100.00	11	27	
Repsol Oil & Gas Australia (JPDA 06-105) Pty Ltd.	Paladin Resources Ltd.	Australia	Oil and gas exploration and production	F.C.	100.00	100.00	(26)	133	
Repsol Oil & Gas Australasia Pty Ltd.	Talisman International Holdings, B.V.	Australia	Shared services company	F.C.	100.00	100.00	14	76	
Repsol Oil & Gas Canada, Inc. (12)	Repsol Energy Resources Canada Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	1,206	5,005	
Repsol Oil & Gas Holdings USA Inc.	FEHI Holding S.a.r.l.	United States	Oil and gas exploration and production	F.C.	100.00	100.00	4,040	1,791	
Repsol Oil & Gas Malaysia (PM3) Ltd.	Repsol Oil & Gas Malaysia Holdings Ltd.	Barbados	Oil and gas exploration and production	F.C.	100.00	100.00	13	10	
Repsol Oil & Gas Malaysia Ltd.	Repsol Oil & Gas Malaysia Holdings Ltd.	Barbados	Oil and gas exploration and production	F.C.	100.00	100.00	209	0	
Repsol Oil & Gas Niugini Kimu Alpha Pty Ltd.	Repsol Oil & Gas Niugini Ltd.	Australia	Oil and gas exploration and production	F.C.	100.00	100.00	1	5	
Repsol Oil & Gas Niugini Kimu Beta Ltd.	Repsol Oil & Gas Niugini Ltd.	Papua Nueva Guinea	Oil and gas exploration and production	F.C.	100.00	100.00	4	13	
Repsol Oil & Gas Niugini Ltd.	Repsol Oil & Gas Papua Pty, Ltd.	Papua Nueva Guinea	Oil and gas exploration and production	F.C.	100.00	100.00	56	303	
Repsol Oil & Gas Niugini Pty Ltd.	Talisman International Holdings, B.V.	Australia	Oil and gas exploration and production	F.C.	100.00	100.00	300	548	
Repsol Oil & Gas Papua Pty Ltd.	Repsol Oil & Gas Niugini Pty Ltd.	Australia	Oil and gas exploration and production	F.C.	100.00	100.00	286	287	
Repsol Oil & Gas USA LLC.	Repsol E&P USA Holdings Inc.	United States	Oil and gas exploration and production	F.C.	100.00	100.00	1,554	1,687	
Repsol Oriente Medio, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production (16)	F.C.	100.00	100.00	64	0	
Repsol Servicios Colombia, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	1	0	
Repsol Sinopec Brasil, S.A.	Repsol S.A.	Brazil	Hydrocarbon operations and marketing	E.M. (J.V.)	60.01	60.01	6,394	6,733	
Repsol Sinopec Resources UK Ltd.	Talisman Colombia Holdco Ltd.	United Kingdom	Oil and gas exploration and production	E.M. (J.V.)	51.00	51.00	0	2,848	
Repsol Surorient Ecuador, S.A.	Repsol Exploración, S.A.	Spain	Oil and gas exploration and production	F.C.	100.00	100.00	1	2	
Repsol U.K., Ltd.	Repsol Exploración, S.A.	United Kingdom	Oil and gas exploration and production	F.C.	100.00	100.00	(5)	1	
Repsol USA Holdings Corporation	Repsol Exploración, S.A.	United States	Oil and gas exploration and production	F.C.	100.00	100.00	2,878	2,917	
Repsol Venezuela Gas, S.A.	Repsol Venezuela, S.A.	Venezuela	Oil and gas exploration and production	F.C.	100.00	100.00	14	1	
Repsol Venezuela, S.A.	Repsol Exploración Venezuela, B.V.	Venezuela	Oil and gas exploration and production	F.C.	100.00	100.00	351	668	
SC Repsol Baicoi, S.R.L.	Repsol Exploración, S.A.	Romania	Oil and gas exploration and production	F.C.	100.00	100.00	15	40	
SC Repsol Pitesti, S.R.L.	Repsol Exploración, S.A.	Romania	Oil and gas exploration and production	F.C.	100.00	100.00	5	11	
SC Repsol Targoviste, S.R.L.	Repsol Exploración, S.A.	Romania	Oil and gas exploration and production	F.C.	100.00	100.00	38	46	
SC Repsol Targu Jiu, S.R.L.	Repsol Exploración, S.A.	Romania	Oil and gas exploration and production	F.C.	100.00	100.00	2	6	
Servicios Administrativos Cuenca de Burgos S.A. de C.V.	Repsol Exploración, S.A.	Mexico	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	

Name	Parent company	Country	Corporate purpose	Method of consol. (1)	December 2017				
					Controlling interest (2)	Total Group Interest	€ Million		Share Capital(3)
							%	Equity (3)	
Talisman (Algeria) B.V.	Talisman Middle East, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	155	0	
Talisman (Asia) Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	(137)	0	
Talisman (Block K 39) B.V.	Talisman K. Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	(5)	0	
Talisman (Block K 44) B.V.	Talisman K. Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	7	0	
Talisman (Block K 9) B.V.	Talisman Global Holdings, B.V.	Netherlands	Oil and gas exploration and production (16) (17)	F.C.	100.00	100.00	0	0	
Talisman (Colombia) Oil & Gas Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	514	716	
Talisman (Corridor) Ltd. (18)	Fortuna International (Barbados), Inc	Barbados	Oil and gas exploration and production	F.C.	100.00	100.00	930	39	
Talisman (Jambi Merang) Ltd.	Talisman International Holdings, B.V.	United Kingdom	Oil and gas exploration and production	F.C.	100.00	100.00	62	68	
Talisman (Pasangkayu) Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production (16)	F.C.	100.00	100.00	(13)	43	
Talisman (Sageri) Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production (16)	F.C.	100.00	100.00	(80)	0	
Talisman (Sumatra) Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	0	
Talisman (Vietnam 133 & 134) Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	42	29	
Talisman (Vietnam 15-2/01) Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	279	441	
Talisman (Vietnam 46/02) Ltd.	Repsol Oil & Gas Canada Inc.	Canada	Oil and gas exploration and production (16)	F.C.	100.00	100.00	49	50	
Talisman Andaman B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	31	0	
Talisman Colombia Holdco Ltd.	TE Holding S.a.r.l.	United Kingdom	Portfolio company	F.C.	100.00	100.00	3,988	3,947	
Talisman Banyumas B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	
Talisman East Jabung B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	(15)	0	
Talisman Energy DL, Ltd. (20)	Repsol Sinopec Resources UK Ltd.	United Kingdom	Oil and gas exploration and production (16) (17)	E.M. (J.V.)	100.00	51.00	-	-	
Talisman Energy Investments Norge AS	Talisman Perpetual (Norway) Ltd.	Norway	Oil and gas exploration and production (16) (17)	F.C.	100.00	100.00	0	1	
Talisman Energy NS, Ltd. (20)	Repsol Sinopec Resources UK, Ltd.	United Kingdom	Oil and gas exploration and production (16) (17)	E.M. (J.V.)	100.00	51.00	-	-	
Talisman Energy Tangguh B.V.	Talisman Energy (Sahara) B.V.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	0	
Talisman Java B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	
Talisman Resources (Bahamas) Ltd. (9)	Paladin Resources Ltd.	Bahamas	Oil and gas exploration and production (16)	F.C.	100.00	100.00	7	0	
Talisman Resources (North West Java) Ltd.	Talisman UK (South East Sumatra) Ltd.	United Kingdom	Oil and gas exploration and production (16)	F.C.	100.00	100.00	31	0	
Talisman Sadang B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production (16) (17)	F.C.	100.00	100.00	0	0	
Talisman Sakakemang B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	79	0	
Talisman Sierra Leone B.V.	TE Global Holding, B.V.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	0	
Talisman South Mandar B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	0	
Talisman South Sageri B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	0	
Talisman Transgasindo Ltd. (18)	Fortuna International (Barbados), Inc.	Barbados	Portfolio company	F.C.	100.00	100.00	(5)	24	
Talisman UK (South East Sumatra) Ltd.	Paladin Resources, Ltd.	United Kingdom	Oil and gas exploration and production (16)	F.C.	100.00	100.00	47	0	
Talisman Vietnam Ltd.	Talisman Oil, Ltd.	Barbados	Oil and gas exploration and production	F.C.	100.00	100.00	10	0	
Talisman Vietnam 05-2/10 B.V.	TV 05-2/10 Holding, B.V.	Netherlands	Oil and gas exploration and production (16)	F.C.	100.00	100.00	0	0	
Talisman Vietnam 07/03 B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	190	0	
Talisman Vietnam 07/03-CRD Corporation LLC	Talisman International Holdings, B.V.	United States	Oil and gas exploration and production	F.C.	100.00	100.00	157	43	
Talisman Vietnam 135-136 B.V.	TV 135-136 Holding, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	274	0	
Talisman Vietnam 146-147 B.V.	Talisman International Holdings, B.V.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	53	0	
Talisman West Bengara B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	0	0	
Transportadora Sulbrasileira de Gas, S.A.	Tucunaré Empreendimentos e Participaçã	Brazil	Gas pipeline construction and operation	E.M. (J.V.)	25.00	25.00	-	18	
Triad Oil Manitoba Ltd.	Repsol Oil & Gas Canada, Inc.	Canada	Oil and gas exploration and production (16)	F.C.	100.00	100.00	5	0	
YPFB Andina, S.A.	Repsol Bolivia, S.A.	Bolivia	Oil and gas exploration and production	E.M. (J.V.)	48.33	48.33	841	147	
YPFB Transierra, S.A.	YPFB Andina, S.A.	Bolivia	Transport of hydrocarbons via a gas pipeline and oil pipeline	E.M.	44.50	21.51	163	67	
504744 Alberta Ltd.	Repsol Oil & Gas Canada, Inc.	Canada	Oil and gas exploration and production (16)	F.C.	100.00	100.00	(7)	0	
7308051 Canada Ltd	Repsol Oil & Gas Canada, Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	42	252	
8441251 Canada Ltd.	Repsol Oil & Gas Canada, Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	13	12	
8787352 Canada Ltd.	Repsol Oil & Gas Canada, Inc.	Canada	Oil and gas exploration and production	F.C.	100.00	100.00	2	2	
Vung May 156-159 Vietnam B.V.	Repsol Exploración, S.A.	Netherlands	Oil and gas exploration and production	F.C.	100.00	100.00	1	0	

Name	Parent company	Country	Corporate purpose	Method of consol. (1)	Controlling Interest (2)	Total Group Interest	Equity (3)	Share Capital(4)
DOWNSTREAM								
Abastecimentos e Serviços de Aviação, Lda.	Repsol Portuguesa, S.A.	Portugal	Marketing of oil products	E.M.	50.00	50.00	0	0
Air Miles España, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Programa Travel Club. Loyalty service	E.M.	26.67	25.78	10	0
Arteche y García, S.L.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Installation and operation of gas stations	F.C.	100.00	96.68	0	0
Asfalnor, S.A.	Petróleos del Norte, S.A.	Spain	Distribution and marketing of asphalt products	F.C.	100.00	85.98	0	0
Asfaltos Españoles, S.A.	Repsol Petróleo, S.A.	Spain	Asphalts	(4)	50.00	49.99	34	9
Benzirep-Vall, S.L.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Installation and operation of gas stations	F.C.	100.00	96.68	0	0
Caiaigeste - Gestao de Areas de Serviço, Lda.	GESPOST	Portugal	Operation and management of gas stations	E.M.	50.00	50.00	0	0
Campa Estaciones de Servicio, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Operation and management of gas stations	F.C.	100.00	96.68	140	8
Carburants i Derivats, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Andorra	Distribution of oil derivative products	E.M.	33.25	32.15	2	0
Cogeneración Gequisa, S.A.	General Química	Spain	Production of electricity and steam	E.M.	39.00	19.50	9	2
Compañía Anónima de Revisiones y Servicios, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Installation and operation of gas stations	F.C.	95.00	91.85	3	1
Compañía Auxiliar de Remolcadores y Buques Especiales, S.A.	Repsol Petróleo, S.A.	Spain	Provision of maritime services	F.C.	100.00	99.19	7	0
Distribuidora Andaluía Oriental, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Fuel marketing	E.M. (J.V.)	50.00	48.34	2	1
Distribuidora de Petróleos, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Fuel marketing	F.C.	85.00	82.18	0	0
Dynasol Altamira, S.A. de C.V. (19)	Dynasol Elastómeros, S.A. de C.V.	Mexico	Service provisions	E.M.	100.00	50.00	2	0
Dynasol China, S.A. de C.V. (19)	Dynasol Gestión Mexico, S.A.P.I. de C.V.	Mexico	Service provisions	E.M.	99.99	49.99	17	5
Dynasol Elastómeros, S.A. de C.V.	Dynasol Gestión Mexico, S.A.P.I. de C.V.	Mexico	Production and marketing of chemical products	E.M.	100.00	50.00	89	27
Dynasol Elastómeros, S.A.U.	Dynasol Gestión, S.L.	Spain	Production and marketing of chemical products	E.M.	100.00	50.00	50	17
Dynasol Gestión Mexico, S.A.P.I. de C.V. (19)	Repsol Química, S.A.	Mexico	Portfolio and shared services company	E.M.	50.00	50.00	0	0
Dynasol Gestión, S.L.	Repsol Química, S.A.	Spain	Portfolio and shared services company	E.M.	50.00	50.00	137	42
Dynasol, Llc.	Dynasol Gestión, S.L.	United States	Marketing of petrochemical products	E.M.	100.00	50.00	0	0
Energy Express S.L.U. (19)	Societat Catalana de Petrolis, S.A.	Spain	Operation and management of gas stations	F.C.	100.00	92.08	5	1
Estación de Servicio Barajas, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Installation and operation of gas stations	F.C.	96.00	92.81	3	1
Estaciones de Servicio El Robledo, S.L.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Installation and operation of service stations (16)	F.C.	100.00	96.68	0	0
Gas Natural West África S.L.	Repsol LNG Holding, S.A.	Spain	Oil and gas exploration and production.	E.M. (J.V.)	100.00	72.06	0	0
Gastream México, S.A. de C.V. (16)	Repsol S.A.	Mexico	Other activities (16) (17)	F.C.	100.00	100.00	0	26
General Química, S.A.U.	Dynasol Gestión, S.L.	Spain	Manufacture and sale of petrochemical products	E.M.	100.00	50.00	44	6
Gestão e Admin. de Postos de Abastecimento, Unipessoal, Lda. GESPOST	Repsol Portuguesa, S.A.	Portugal	Marketing of oil products	F.C.	100.00	100.00	4	0
Gestión de Puntos de Venta GESPEVESA, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Gas station management	E.M. (J.V.)	50.00	48.34	54	39
Grupo Repsol YPF del Perú, S.A.C.	Repsol Perú B.V.	Peru	Shared services company	F.C.	100.00	100.00	2	0
Iberian Lube Base Oil Company, S.A.	Repsol Petróleo, S.A.	Spain	Development and production of lubricant base oils	(4)	30.00	29.99	206	180
Ibil, Gestor de Carga de Vehículo Eléctrico, S.A.	Repsol Nuevas Energías, S.A.	Spain	Operation of electric vehicle charging points	E.M. (J.V.)	50.00	50.00	4	12
Industrias Negromex, S.A. de C.V. (19)	Dynasol Gestión Mexico, S.A.P.I. de C.V.	Mexico	Production of synthetic oilcloths	E.M.	99.99	49.99	0	0
Insa Altamira, S.A. de C.V. (19)	Dynasol Gestión Mexico, S.A.P.I. de C.V.	Mexico	Supply of permanent staff	E.M.	99.99	49.99	17	6
Insa Gpro (Nanjing), Synthetic Rubber Co., Ltd.	Dynasol China, S.A. de C.V.	China	Production, search and development, sale of synthetic rubber.	E.M.	50.00	24.99	61	96
Insa, Llc. (19)	Dynasol Gestión, S.L.	United States	Marketing of rubber NBR products	E.M.	100.00	50.00	7	10
Klikin Deals Spain, S.L. (5)	Repsol Comercial de Productos Petrolíferos	Spain	Commercialization, platform for customer management and marketing plans	E.M.	70.00	67.68	-	-
Liaoning North Dynasol Synthetic Rubber Co., Ltd. (19)	Dynasol Gestión, S.L.	China	Production, search and development, sale of synthetic rubber.	E.M.	50.00	25.00	61	96
North Dynasol Shanghai Business Consulting Co Ltd.	Dynasol Gestión, S.L.	China	Marketing of rubber products	E.M.	50.00	25.00	-	-
OGCI Climate Investments, Llp. (5)	Repsol Energy Ventures, S.A.	United Kingdom	Technology Development	E.M.	14.29	14.29	16	19
Petróleos del Norte, S.A.	Repsol S.A.	Spain	Construction and operation of an oil refinery.	F.C.	85.98	85.98	1,112	121
Petronor Innovación, S.L.	Petróleos del Norte, S.A.	Spain	Research activities	F.C.	100.00	85.98	0	0
Polidux, S.A.	Repsol Química, S.A.	Spain	Manufacture and sale of petrochemical products	F.C.	100.00	100.00	18	17
Principle Power (Europe), Ltd. (19)	Principle Power, Inc.	United Kingdom	Electricity production	E.M. (J.V.)	100.00	24.22	15	0
Principle Power Portugal Unipessoal, Lda. (19)	Principle Power, Inc.	Portugal	Electricity production	E.M. (J.V.)	100.00	24.22	15	0
Principle Power, Inc.	Repsol Energy Ventures, S.A.	United States	Holding company	E.M.	24.22	24.22	17	35
Refinería La Pampilla, S.A.A.	Repsol Perú B.V.	Peru	Hydrocarbon refining and marketing.	F.C.	82.39	82.39	416	444
Repsol Butano, S.A.	Repsol S.A.	Spain	Marketing of LPG	F.C.	100.00	100.00	1,207	59
Repsol Canada, Ltd. General Partner	Repsol Exploración, S.A.	Canada	Regasification of LNG	F.C.	100.00	100.00	4	5
Repsol Chemie Deutschland, GmbH	Repsol Química, S.A.	Germany	Marketing of chemical products	F.C.	100.00	100.00	2	0
Repsol Chile, S.A.	Repsol S.A.	Chile	Portfolio company (16)	F.C.	100.00	100.00	2	2
Repsol Comercial de Productos Petrolíferos, S.A.	Repsol Petróleo, S.A.	Spain	Marketing of oil products	F.C.	99.79	96.68	1,128	335
Repsol Comercial, S.A.C.	Refinería La Pampilla S.A.A.	Peru	Fuel marketing	F.C.	100.00	82.38	82	70
Repsol Directo, Lda.	Repsol Portuguesa, S.A.	Portugal	Distribution and marketing of oil products	F.C.	100.00	100.00	0	0
Repsol Directo, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Distribution and marketing of oil products	F.C.	100.00	96.68	3	0

				December 2017				
				%		€ Million		
Name	Parent company	Country	Corporate purpose	Method of consol. (1)	Controlling Interest (2)	Total Group Interest	Equity (3)	Share Capital(3)
Repsol Downstream México, S.A. de C.V (5)	Repsol Lubricantes y Especialidades, S.A.	Mexico	Production, acquisition, import, export, intermediation and marketing of all types of	F.C.	100.00	99.97	0	0
Repsol Eléctrica de Distribución, S.L.	Repsol Petróleo, S.A.	Spain	Distribution and supply of electricity	F.C.	100.00	100.00	8	0
Repsol Energy Canada, Ltd.	Repsol Exploración, S.A.	Canada	Marketing of LNG	F.C.	100.00	100.00	(1,379)	692
Repsol Energy Ventures, S.A.	Repsol Nuevas Energías, S.A.	Spain	Development of new energy source projects	F.C.	100.00	100.00	17	2
Repsol Exploration Advanced Services, AG	Repsol Exploración, S.A.	Switzerland	Human resource service provider	F.C.	100.00	100.00	1	0
Repsol Gas Portugal, S.A.	Repsol Butano, S.A.	Portugal	Marketing of LPG	F.C.	100.00	100.00	34	1
Repsol GLP de Bolivia, S.A.	Repsol Exploración, S.A. (11)	Bolivia	Marketing of GLP (16)	F.C.	100.00	100.00	0	0
Repsol Italia, SpA	Repsol S.A.	Italy	Marketing of oil products	F.C.	100.00	100.00	35	2
Repsol Lubricantes y Especialidades, S.A.	Repsol Petróleo, S.A.	Spain	Production and marketing of oil derivatives	F.C.	100.00	99.97	72	5
Repsol Lubrificantes e Especialidades Brasil Participacoes. Ltda.	Repsol Lubricantes y Especialidades, S.A.	Brazil	Production and marketing of lubricants	F.C.	100.00	100.00	1	2
Repsol Marketing, S.A.C.	Repsol Perú B.V.	Peru	Fuel and special product marketing	F.C.	100.00	100.00	12	3
Repsol Maroc, S.A.	Repsol Butano, S.A.	Morocco	Marketing of GLP (16)	E.M.	99.96	99.96	0	1
Repsol Nuevas Energías, S.A.	Repsol S.A.	Spain	Production, distribution and sale of biofuels	F.C.	100.00	100.00	90	1
Repsol Perú, B.V.	Repsol S.A.	Netherlands	Portfolio company	F.C.	100.00	100.00	209	159
Repsol Petróleo, S.A.	Repsol S.A.	Spain	Import of products and operation of refineries	F.C.	99.97	99.97	4,085	218
Repsol Polímeros, S.A.	Repsol Química, S.A.	Portugal	Manufacture and sale of petrochemical products	F.C.	100.00	100.00	296	60
Repsol Portuguesa, S.A.	Repsol S.A.	Portugal	Distribution and marketing of oil products	F.C.	100.00	100.00	209	59
Repsol Química, S.A.	Repsol S.A.	Spain	Manufacture and sale of petrochemical products	F.C.	100.00	100.00	1,403	60
Repsol St. John LNG, S.L.	Repsol LNG Holding, S.A.	Spain	Sector studies	F.C.	100.00	100.00	0	0
Repsol Trading Perú, S.A.C.	Repsol Trading, S.A.	Peru	Trading and transport	F.C.	100.00	100.00	2	3
Repsol Trading Singapore Pte., Ltd.	Repsol Trading, S.A.	Singapore	Trading and transport	F.C.	100.00	100.00	(28)	0
Repsol Trading USA Corporation	Repsol USA Holdings Corporation	United States	Trading and transport	F.C.	100.00	100.00	(83)	0
Repsol Trading, S.A.	Repsol S.A.	Spain	Supply, Marketing, Trading and Transport	F.C.	100.00	100.00	462	0
Rocsole, Ltd.	Repsol Energy Ventures, S.A.	Finland	Technology Development	E.M.	13.16	13.16	2	5
Saint John Gas Marketing Company	Repsol St. John LNG, S.L.	United States	Liquefaction plant investment project in Canada	F.C.	100.00	100.00	0	2
Saint John LNG Development Company, Ltd.	Repsol St. John LNG, S.L.	Canada	Liquefaction plant investment project in Canada	F.C.	100.00	100.00	0	3
Servicios de Seguridad Mancomunados, S.A.	Repsol Petróleo, S.A.	Spain	Safety	F.C.	100.00	99.98	1	0
Servicios Logísticos Combustibles de Aviación, S.L.	Repsol Lubricantes y Especialidades, S.A.	Spain	Transport of aviation oil products	E.M. (J.V.)	50.00	49.29	25	4
Servicios y Operaciones de Perú S.A.C	Repsol Perú B.V.	Peru	Other activities (16)	F.C.	100.00	100.00	0	0
Sociedade Abastecedora de Aeronaves, Lda.	Repsol Portuguesa, S.A.	Portugal	Marketing of oil products	E.M.	25.00	25.00	0	0
Sociedade Açoreana de Armazenagem de Gas, S.A.	Repsol Gas Portugal, S.A.	Portugal	Marketing of LPG	E.M.	25.07	25.07	4	1
Societat Catalana de Petrolis, S.A. (PETROCAT)	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Distribution and marketing of oil products	F.C.	94.94	91.89	(5)	6
Solgas Distribuidora de Gas, S.L.	Repsol Butano, S.A.	Spain	Marketing of LPG	F.C.	100.00	100.00	0	1
Solred, S.A.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Management of payment methods at gas stations	F.C.	100.00	96.68	42	7
Sorbwater Technology, A.S. (5)	Repsol Energy Ventures, S.A.	Norway	Water management and water treatment technology in E&P.				2	9
Spelta Produtos Petrolíferos Unipessoal, Lda.	Repsol Gas Portugal, S.A.	Portugal	Marketing of LPG	F.C.	100.00	100.00	2	0
Terminales Canarias, S.L.	Repsol Comercial de Productos Petrolíferos, S.A.	Spain	Supply and distribution of oil products	E.M. (J.V.)	50.00	48.34	26	20
The Repsol Company of Portugal, Ltd.	Repsol S.A.	Portugal	Leasing of logistics assets in Portugal	F.C.	100.00	100.00	2	1
Windplus, S.A.	Repsol Nuevas Energías, S.A.	Portugal	Technology development for wind generation	E.M.	20.60	19.70	2	1
CORPORATION								
Albatros, S.à.r.L.	Repsol S.A.	Luxembourg	Portfolio company	F.C.	100.00	100.00	218	0
AR Oil & Gaz, B.V.	Repsol Exploración, S.A.	Netherlands	Portfolio company	E.M. (J.V.)	49.00	49.00	471	0
Carbón Black Española, S.A.	Repsol S.A.	Spain	Portfolio company	F.C.	100.00	100.00	78	0
Edwards Gas Services LLC	Repsol Oil & Gas USA LLC.	United States	Portfolio company	E.M.	50.00	50.00	148	71
Fortuna International (Barbados) Inc. (18)	Talisman International (Luxembourg), S.a	Barbados	Portfolio company	F.C.	100.00	100.00	103	64
Fortuna International Petroleum Corporation	Repsol Oil & Gas Canada Inc.	Barbados	Portfolio company	F.C.	100.00	100.00	625	536
Gas Natural SDG, S.A.	Repsol S.A.	Spain	Generation of electricity and wind power and the purchase and sale of gas	E.M.	20.07	20.07	18,305	1,001
Gaviota RE, S.A. (8)	Albatros, S.a.r.l.	Luxembourg	Insurance and reinsurance.	F.C.	100.00	100.00	271	14
Greenstone Assurance, Ltd.	Gaviota RE, S.A.	Bermuda	Insurance and reinsurance ("run-off" company)	F.C.	100.00	100.00	3	3
Oleoducto de Crudos Pesados, Ltd.	Repsol OCP de Ecuador, S.A.	Cayman Islands	Portfolio company	E.M.	29.66	29.66	(17)	84
Oleum Insurance Company Ltd.	Repsol Oil & Gas Canada Inc.	Barbados	Insurance and reinsurance ("run-off" company)	F.C.	100.00	100.00	429	3
Repsol Bolivia, S.A.	Repsol S.A.	Bolivia	Service provisions	F.C.	100.00	100.00	453	222
Repsol Energy Resources Canada, Inc.	Repsol Canada Inversiones, S.A.	Canada	Portfolio company	F.C.	100.00	100.00	8,135	9,498
Repsol Gestión de Divisa, S.L.	Repsol S.A.	Spain	Financial	F.C.	100.00	100.00	13	0

				December 2017				
				%		€ Million		
Name	Parent company	Country	Corporate purpose	Method of consol. ⁽¹⁾	Controlling Interest ⁽²⁾	Total Group Interest	Equity ⁽³⁾	Share Capital ⁽³⁾
Repsol International Finance, B.V.	Repsol S.A.	Netherlands	Financing and holding of shares	F.C.	100.00	100.00	1,103	297
Repsol Netherlands Finance, BV	Repsol International Finance, B.V.	Netherlands	Financial	F.C.	100.00	100.00	159	0
Repsol Oil & Gas RTS Sdn.Bhd.	TE Holding S.a.r.l.	Malaysia	Shared services company	F.C.	100.00	100.00	(4)	13
Repsol Oil & Gas SEA Pte. Ltd.	TE Holding S.a.r.l.	Singapore	Shared services company	F.C.	100.00	100.00	6	5
Repsol Services Company	Repsol USA Holdings Corporation	United States	Service provisions	F.C.	100.00	100.00	33	37
Repsol Sinopec Brasil, B.V.	Repsol Sinopec Brasil, S.A.	Netherlands	Portfolio company	E.M. (J.V.)	100.00	60.01	4,728	4,337
Repsol Tesorería y Gestión Financiera, S.A.	Repsol S.A.	Spain	Financial	F.C.	100.00	100.00	817	0
Rift Oil Ltd.	Talisman International Holdings, B.V.	United Kingdom	Portfolio company	F.C.	100.00	100.00	133	139
Talisman Finance (UK) Ltd.	TEGSI (UK), Ltd.	United Kingdom	Finance (16) (17)	F.C.	100.00	100.00	0	2
Talisman International (Luxembourg), S.a.r.l.	Repsol Oil & Gas Canada Inc.	Luxembourg	Portfolio company	F.C.	100.00	100.00	1,366	64
Talisman International Holdings B.V.	TE Holding S.a.r.l.	Netherlands	Portfolio company	F.C.	100.00	100.00	193	814
Talisman Perpetual (Norway) Ltd.	TE Holding S.a.r.l.	United Kingdom	Portfolio company (16)	F.C.	100.00	100.00	1	1
TE Finance S.a.r.l.	TE Holding, S.a.r.l.	Luxembourg	Financial	F.C.	100.00	100.00	1,980	0
TE Holding S.a.r.l.	Repsol Oil & Gas Canada, Inc.	Luxembourg	Portfolio and finance company	F.C.	100.00	100.00	2,406	1,876
TEGSI (UK) Ltd.	TE Holding, S.a.r.l.	United Kingdom	Shares services company (16)	F.C.	100.00	100.00	3	5
TV 05-2/10 Holding, B.V.	Talisman International Holdings, B.V.	Netherlands	Portfolio company	F.C.	100.00	100.00	0	0

⁽¹⁾ Method of consolidation:

F.C.: Full consolidation

E.M.: Equity method. Joint ventures are identified as "JV".

⁽²⁾ Percentage corresponding to direct and indirect stake of the parent company immediately above the subsidiary.

⁽³⁾ Corresponds to Equity and Share Capital data used in the Group's consolidation process. Companies whose functional currency is not the euro have been converted at the closing exchange rate. Amounts have been rounded (less than half a million down to zero).

⁽⁴⁾ Interests in joint operations (see Appendix II) which are structured through a Company, this vehicle does not limit its rights to the assets or obligations for the liabilities relating to the arrangement.

⁽⁵⁾ Companies incorporated into the Repsol Group in 2017 (see Appendix Ib).

⁽⁶⁾ Parent company of a group comprising more than thirty companies. This information can be obtained from the consolidated annual accounts of said company (www.portal.gasnatural.com)

⁽⁷⁾ This company has a registered office in Liberia, which is currently being derecognized.

⁽⁸⁾ This company holds a non-controlling share in Oil Insurance, Ltd (5.86%), which is registered in Bermudas.

⁽⁹⁾ This company, legally constituted in Bahamas, is registered for tax purposes in the United Kingdom.

⁽¹⁰⁾ These companies, legally constituted in the British Virgin Islands, are registered for tax purposes in the United Kingdom.

⁽¹¹⁾ Parent company previously known as Repsol Butano, S.A.

⁽¹²⁾ This company is the parent company for Repsol Groundbirch Partnership, registered in the United States.

⁽¹³⁾ Parent company for this company was Repsol Venezuela Gas, S.A.

⁽¹⁴⁾ This company previously known as Tucunare Empreendimentos e Participações, Ltda.

⁽¹⁵⁾ Previous parent company was Repsol Perú, B.V.

⁽¹⁶⁾ Inactive company.

⁽¹⁷⁾ Company in the process of liquidation.

⁽¹⁸⁾ These companies, legally constituted in the Barbados, are registered for tax purposes in the Netherlands.

⁽¹⁹⁾ Share Capital and Equity data correspond to 2016.

APPENDIX Ib: MAIN CHANGES IN THE CONSOLIDATION SCOPE

For the year ended December 31, 2017

a) Business combinations, other acquisitions and acquisitions of interest in subsidiaries, joint ventures and/or associates:

Registered name	Country	Parent company	Item	Date	12/31/2017		
					Method of consolidation ⁽¹⁾	% of voting rights acquired	% of voting rights in the entity post-acquisition ⁽²⁾
Repsol Exploración Aitoloarkarnania, S.A.	Spain	Repsol Exploración, S.A.	Constitution	february-17	F.C.	100.00%	100.00%
Repsol Exploración Ioannina, S.A.	Spain	Repsol Exploración, S.A.	Constitution	february-17	F.C.	100.00%	100.00%
Air Miles España, S.A.	Spain	Repsol Comercial de Productos Petrolíferos, S.A.	Increase part.	february-17	E.M.	1.67%	26.67%
OGCI Climate Investments, Llp.	United Kingdom	Repsol Energy Ventures, S.A.	Constitution	april-17	E.M.	14.29%	14.29%
Sorbwater Technology, A.S.	Norway	Repsol Energy Ventures, S.A.	Acquisition	may-17	E.M.	11.29%	11.29%
Pan Pacific Petroleum (Vietnam) Pty, Ltd.	Australia	Repsol Exploración, S.A.	Acquisition	June-17	F.C.	100.00%	100.00%
JSC Eurotek	Russia	AR Oil & Gaz, B.V.	Constitution	august-17	E.M. (JV)	100.00%	100.00%
JSC Yuzhno-Khadrykhinskoye	Russia	AR Oil & Gaz, B.V.	Constitution	august-17	E.M. (JV)	100.00%	100.00%
Repsol Downstream México S.A. de C.V.	Mexico	Repsol Lubricantes y Especialidades, S.A.	Constitution	september-17	F.C.	100.00%	100.00%
TNO (Tafnefteotdacha)	Russia	AR Oil & Gaz, B.V.	Increase part.	october-17	E.M. (JV)	0.03%	99.57%
Klikin Deals Spain, S.L.	Spain	Repsol Comercial de Productos Petrolíferos, S.A.	Acquisition	december-17	E.M.	70.00%	70.00%
Lapa Oil & Gas, B.V.	Netherlands	Guará, B.V.	Constitution	december-17	E.M.	100.00%	100.00%

(1) Method of consolidation:

F.C.: Full consolidation.

E.M.: Equity method. Joint ventures are identified as "JV"

(2) Corresponds to the percentage of equity in the acquired company.

b) Reduction in interest in subsidiaries, joint ventures, and/or associates and other similar transactions:

Registered name	Country	Parent company	Item	Date	12/31/2017			Profit/(loss) generated (millions of euros) ⁽²⁾
					Method of consolidation ⁽¹⁾	% voting rights sold or retired	% of voting rights held in the entity after sale	
Talisman North Jabung, Ltd.	Canada	Talisman (Asia), Ltd.	Absorption	January -17	F.C.	100.00%	0.00%	-
Talisman (Ogan Komering) Ltd.	Canada	Repsol Oil & Gas Canada, Inc.	Disposal	March -17	F.C.	100.00%	0.00%	3
Repsol Central Alberta Partnership	Canada	Repsol Oil & Gas Canada, Inc.	Winding up	May 17	F.C.	100.00%	0.00%	-
Repsol Wild River Partnership	Canada	Repsol Oil & Gas Canada, Inc.	Winding up	May 17	F.C.	100.00%	0.00%	-
8787387 Canada, Ltd.	Canada	Repsol Oil & Gas Canada, Inc.	Winding up	May 17	F.C.	100.00%	0.00%	-
8441316 Canada, Ltd.	Canada	Repsol Oil & Gas Canada, Inc.	Winding up	May 17	F.C.	100.00%	0.00%	-
Talisman East Tanjung, B.V.	Netherlands	Talisman International Holdings, B.V.	Winding up	June 17	F.C.	100.00%	0.00%	-
Talisman Sumatra, B.V.	Netherlands	Talisman International Holdings, B.V.	Winding up	June 17	F.C.	100.00%	0.00%	-
Talisman Vietnam 45, B.V.	Netherlands	Talisman International Holdings, B.V.	Winding up	June 17	F.C.	100.00%	0.00%	-
Talisman Vietnam 46-07, B.V.	Netherlands	Talisman International Holdings, B.V.	Winding up	June 17	F.C.	100.00%	0.00%	-
Talisman International Holdings, B.V. S.C.S.	Luxembourg	Talisman Global Holdings, B.V.	Winding up	June 17	F.C.	100.00%	0.00%	-
Talisman Middle East, B.V.	Netherlands	Talisman Global Holdings, B.V.	Absorption	June 17	F.C.	100.00%	0.00%	-
Talisman K. Holdings, B.V.	Netherlands	Talisman Global Holdings, B.V.	Absorption	June 17	F.C.	100.00%	0.00%	-
TV 135- 136 Holding, B.V.	Netherlands	Talisman International Holdings, B.V.	Absorption	June 17	F.C.	100.00%	0.00%	-
Talisman Global Holdings, B.V.	Netherlands	Talisman International Holdings, B.V.	Absorption	June 17	F.C.	100.00%	0.00%	-
Talisman Energy (Sahara), B.V.	Netherlands	Talisman International Holdings, B.V.	Absorption	June 17	F.C.	100.00%	0.00%	-
Repsol Moray Firth, Ltd.	United Kingdom	Repsol UK Round 3, Ltd.	Winding up	July-17	F.C.	100.00%	0.00%	-
Repsol UK Round 3, Ltd.	United Kingdom	Repsol Nuevas Energías, S.A.	Winding up	July-17	F.C.	100.00%	0.00%	-
FEX GP, Llc. (3)	United States	Repsol Oil & Gas USA, Llc.	Absorption	July-17	F.C.	100.00%	0.00%	-
Rock Solid Images US Group, Inc.	United States	Repsol USA Holdings Corporation	Disposal	August-17	E.M.	30.00%	0.00%	(1)
OJSC Eurotek	Russia	AR Oil & Gaz, B.V.	Winding up	August-17	E.M. (J.V.)	100.00%	0.00%	-
Repsol Oil & Gas Malaysia Holdings, Ltd.	Barbados	Talisman Oil Limited	Absorption	August-17	F.C.	100.00%	0.00%	-
Talisman Oil Limited	Barbados	Fortuna International Petroleum Corp	Absorption	August-17	F.C.	100.00%	0.00%	-
Repsol Lusitania, S.L.	Spain	Repsol Química, S.A.	Absorption	October-17	F.C.	100.00%	0.00%	-
CSJC Eurotek- Yugra (4)	Russia	Repsol Exploración Karabashsky, S.A.	Decrease in stake	November-17	E.M. (J.V.)	26.39%	73.61%	8
JSC Eurotek	Russia	AR Oil & Gaz, B.V.	Disposal	December-17	E.M. (J.V.)	100.00%	0.00%	Note (5)
JSC Yuzhno-Khadrykhinskoye	Russia	AR Oil & Gaz, B.V.	Disposal	December-17	E.M. (J.V.)	100.00%	0.00%	Note (5)
Principle Power, Inc.	United States	Repsol Energy Ventures, S.A.	Decrease in stake	December-17	E.M.	0.57%	24.22%	-
Talisman Colombia, B.V.	Netherlands	TE Colombia Holding, S.a.r.l.	Winding up	December-17	F.C.	100.00%	0.00%	-
Talisman Holding International, S.a.r.l.	Luxembourg	Repsol Oil & Gas Canada, Inc.	Winding up	December-17	F.C.	100.00%	0.00%	-
Talisman Ocesa Pipelines Holdings, AG	Switzerland	Talisman Colombia, B.V.	Winding up	December-17	F.C.	100.00%	0.00%	-
Fortuna Finance Corporation, S.a.r.l.	Luxembourg	TE Holding, S.a.r.l.	Absorption	December-17	F.C.	100.00%	0.00%	-
TE Capital, S.a.r.l.	Luxembourg	TE Holding, S.a.r.l.	Absorption	December-17	F.C.	100.00%	0.00%	-
Amulet Maritime, Ltd.	United Kingdom	TEGI (UK), Ltd.	Winding up	December-17	F.C.	100.00%	0.00%	-
Talisman Perú, B.V.	Netherlands	Repsol Exploración Perú, S.A.	Absorption	December-17	F.C.	100.00%	0.00%	-

(1) Method of consolidation:

F.C.: Full consolidation.

E.M.: Equity method. Joint ventures are identified as "J.V."

(2) Corresponds to net income before tax.

(3) This company is the parent of FEX LP, Llc, which is registered in the United States. It is included in the absorption of the parent.

(4) This company was consolidated under the full consolidation method prior to the sale of 25% of its interest.

(5) These companies have been sold generating a loss of -€78 million.

APPENDIX Ib: MAIN CHANGES IN THE CONSOLIDATION SCOPE

For the year ended December 31, 2016

a) Business combinations, other acquisitions and acquisitions of interest in subsidiaries, joint ventures and/or associates:

12/31/2016							
Name	Country	Parent company	Concept	Date	Consolidation method ⁽¹⁾	% of voting rights acquired	% of voting rights in the entity post-acquisition ⁽²⁾
Repsol UK, Ltd.	United Kingdom	Repsol Exploración, S.A.	Constitution	jan-16	F.C.	100.0%	100.0%
Rocsole, Ltd.	Finland	Repsol Energy Ventures, S.A.	Acquisition	jan-16	E.M.	15.63%	15.63%
Inch Cape Offshore, Ltd.	United Kingdom	Wind Farm Energy U.K., Ltd.	Increase part.	jan-16	F.C.	49.00%	100.00%
Repsol Ductos Colombia, S.A.S.	Colombia	Talisman Colombia Holdco, Ltd.	Constitution	apr-16	F.C.	100.00%	100.00%
Vung May 156-159 Vietnam B.V. ⁽³⁾	Netherlands	Repsol Exploración, S.A.	Constitution	jun-16	F.C.	100.00%	100.00%
Petronor Innovación, S.L.	Spain	Petróleos del Norte, S.A.	Constitution	oct-16	F.C.	100.00%	100.00%
Repsol E&P USA Holdings, Inc.	United States	Repsol Oil & Gas Holdings USA, Inc.	Constitution	dec-16	F.C.	100.00%	100.00%

⁽¹⁾ Consolidation method:

F.C.: Fully consolidated

E.M.: Equity method.

⁽²⁾ Percent (direct and indirect) stake in a subsidiary held by the parent company directly above it in the Group structure.

⁽³⁾ Brought within scope of consolidation in the course of the year. Previously inactive.

Changes in legal and tax domicile:

Name	Previous jurisdiction of residence	New jurisdiction of residence	Date
Repsol Company of Portugal, Ltd. ⁽¹⁾	United Kingdom	Portugal	jan-16
Talisman International (Luxembourg), S.a.r.l ⁽²⁾	Barbados	Luxembourg	dec-16
Repsol Oil & Gas USA, Llc ⁽³⁾	USA (Delaware)	USA (Texas)	dec-16
Repsol Oil & Gas Holdings USA, Inc ⁽⁴⁾	USA (Delaware)	USA (Texas)	dec-16
FEX GP, Llc ⁽⁵⁾	USA (Delaware)	USA (Texas)	dec-16

⁽¹⁾ Change of tax residence, legal domicile is still the United Kingdom.

⁽²⁾ Formerly, Talisman International (Barbados), Inc

⁽³⁾ Formerly, Talisman Energy USA, Inc

⁽⁴⁾ Formerly, Fortuna Energy Holdings, Inc

⁽⁵⁾ Formerly Fex GP, Inc., this company is the parent of FEX L.P., whose registration has also been moved to Texas, USA.

b) Reduction in interest in subsidiaries, joint ventures, and/or associates and other similar transactions:

							12/31/2016		
Name	Country	Parent company	Concept	Date	% of voting rights sold or retired	% of total voting rights done post-alienation	Profit/(loss) generated € Million		
Moray Offshore Renewables, Ltd.	United Kingdom	Repsol Moray Firth, Ltd.	Alienation	jan-16	33.36%	0.00%	7		
Alsugas Gaviota, S.L.	Spain	Repsol Tesorería y Gestión Financiera, S.L.	Liquidation	mar-16	100.00%	0.00%	-		
Talisman Energy Norge AS	Norway	Talisman Middle East B.V.	Liquidation	mar-16	100.00%	0.00%	-		
Talisman Oil & Gas (Australia) Pty, Ltd.	Australia	Paladin Resources Limited	Alienation	apr-16	100.00%	0.00%	-9		
Beatrice Offshore Windfarm, Ltd.	United Kingdom	Beatrice Wind, Ltd.	Alienation	may-16	25.00%	0.00%	Note (2)		
Inch Cape Offshore, Ltd.	United Kingdom	Wind Farm Energy U.K., Ltd.	Alienation	may-16	100.00%	0.00%	Note (2)		
Beatrice Wind, Ltd ⁽³⁾	United Kingdom	Wind Farm Energy U.K., Ltd.	Alienation	may-16	100.00%	0.00%	Note (2)		
Wind Farm Energy U.K., Ltd ⁽⁴⁾	United Kingdom	Repsol Nuevas Energías, S.A.	Alienation	may-16	100.00%	0.00%	Note (2)		
Talisman (Jambi) Ltd.	Canada	Repsol Oil & Gas Canada, Inc	Liquidation	may-16	100.00%	0.00%	-		
Talisman Indonesia Ltd.	Canada	Repsol Oil & Gas Canada, Inc	Liquidation	may-16	100.00%	0.00%	-		
TE Resources S.ar.l.	Luxembourg	TE Holding S.ar.l.	Liquidation	may-16	100.00%	0.00%	-		
Talisman International Business Corporation	Barbados	Repsol Oil & Gas Canada, Inc	Liquidation	jun-16	100.00%	0.00%	-		
TLM Finance Corp	Canada	Repsol Oil & Gas Canada, Inc	Absorption	jun-16	100.00%	0.00%	-		
New Santiago Pipelines AG ⁽⁵⁾	Switzerland	Talisman Ocesa Pipelines Holdings AG	Absorption	jun-16	100.00%	0.00%	-		
Santiago Pipelines AG ⁽⁵⁾	Switzerland	Talisman Ocesa Pipelines Holdings AG	Absorption	jun-16	100.00%	0.00%	-		
Talisman Santiago AG ⁽⁵⁾	Switzerland	New Santiago Pipelines AG	Absorption	jun-16	100.00%	0.00%	-		
Talisman SO AG ⁽⁵⁾	Switzerland	Santiago Pipelines AG	Absorption	jun-16	100.00%	0.00%	-		
TE Colombia Holding S.ar.l	Luxembourg	TE Holding S.ar.l.	Liquidation	jun-16	100.00%	0.00%	-		
Repsol Exploración Gorontalo B.V.	Netherlands	Repsol Exploración, S.A.	Liquidation	jun-16	100.00%	0.00%	-		
Repsol Exploración Numfor B.V.	Netherlands	Repsol Exploración, S.A.	Liquidation	jun-16	100.00%	0.00%	-		
Repsol LNG Offshore B.V.	Netherlands	Repsol Exploración, S.A.	Liquidation	jun-16	100.00%	0.00%	1		
Repsol Gas del Perú, S.A.	Peru	Repsol Butano, S.A.	Alienation	jun-16	99.85%	0.00%	Note (6)		
Repsol Gas de la Amazonía, S.A.C.	Peru	Repsol Gas del Perú, S.A.	Alienation	jun-16	100.00%	0.00%	Note (6)		
Via Red Hostelería y Distribución, S.L.	Spain	Repsol Butano, S.A.	Alienation	jul-16	100.00%	0.00%	-		
Fusi GP, Llc. ^{(7) (8)}	USA	Repsol Oil & Gas USA Llc.	Absorption	jul-16	100.00%	0.00%	-		
Fortuna (US) L.P.	USA	Fusi GP, Llc.	Liquidation	jul-16	100.00%	0.00%	-		
Talisman Energy Services, Llc. ^{(7) (9)}	USA	Repsol Oil & Gas USA Llc.	Absorption	jul-16	100.00%	0.00%	-		
TE Global Services, Llc. ^{(7) (10)}	USA	Talisman Energy Services, Llc.	Absorption	jul-16	100.00%	0.00%	-		
TE NOK, S.a.r.l. ⁽¹¹⁾	Luxembourg	TE Holding S.ar.l.	Absorption	jul-16	100.00%	0.00%	-		
Talisman UK Investments, Ltd.	United Kingdom	TE Holding S.ar.l.	Liquidation	aug-16	100.00%	0.00%	-		
Papua Petroleum (PNG), Ltd.	Papua New Guinea	Papua Petroleum Pty Ltd.	Liquidation	aug-16	100.00%	0.00%	-		
Duragas, S.A.	Ecuador	Repsol Butano, S.A.	Alienation	oct-16	100.00%	0.00%	Note (12)		
Servicios de Mantenimiento y Personal, S.A.	Ecuador	Repsol Butano, S.A.	Alienation	oct-16	100.00%	0.00%	Note (12)		
Talisman Wiriagar Overseas, Ltd.	British Virgin Islands	Talisman Energy Tangguh, B.V.	Alienation	dec-16	100.00%	0.00%	21		
Repsol Capital, S.L. ⁽¹³⁾	Spain	Repsol Tesorería y Gestión Financiera S.L.	Absorption	dec-16	100.00%	0.00%	-		
Tecnicontrol y Gestión Integral, S.L. ⁽¹³⁾	Spain	Repsol Tesorería y Gestión Financiera S.L.	Absorption	dec-16	100.00%	0.00%	-		
Repsol E&P T&T, Ltd	Trinidad & Tobago	Repsol Exploración, S.A.	Alienation	dec-16	100.00%	0.00%	17		
Kuosol S.A.P.I. de C.V.	Mexico	Repsol Nuevas Energías, S.A.	Alienation	dec-16	50.00%	0.00%	-		
Principle Power, Inc.	USA	Repsol Energy Ventures, S.A.	Decrease part.	dec-16	0.58%	24.79%	-		
Gas Natural Fenosa SDG, S.A.	Spain	Repsol, S.A.	Decrease part.	dec-16	10.08%	20.07%	233		
Red Sea Oil Corporation	Canada	Repsol Oil & Gas Canada, Inc	Liquidation	dec-16	100.00%	0.00%	-		
TE Global Holding, S.a.r.l.	Luxembourg	Talisman Holding International, S.a.r.l.	Liquidation	dec-16	100.00%	0.00%	-		

⁽¹⁾ Net income before tax.

⁽²⁾ Companies transferred as part of the sale of the wind power business in the United Kingdom to the Chinese Group SIDIC Power (see Note 4.1).

⁽³⁾ Formerly, Repsol Beatrice, Ltd.

⁽⁴⁾ Formerly, Repsol Nuevas Energías UK, Ltd.

⁽⁵⁾ Merged into Talisman Ocesa Pipelines Holdings AG.

⁽⁶⁾ Transferred as part of the sale of the LPG business in Peru (see Note 4.1).

⁽⁷⁾ Merged into Talisman Energy USA Inc.

⁽⁸⁾ Formerly, Fusi GP, Inc.

⁽⁹⁾ Formerly, Talisman Energy Services, Inc.

⁽¹⁰⁾ Formerly, TE Global Services, Inc.

⁽¹¹⁾ Merged into TE Capital, S.a.r.l.

⁽¹²⁾ Transferred as part of the sale of the LPG business in Ecuador (see Note 4.1).

⁽¹³⁾ Merged into Repsol Tesorería y Gestión Financiera, S.A.

APPENDIX II: JOINT OPERATIONS OF THE REPSOL GROUP AT DECEMBER 31, 2017

The Repsol Group's main Joint Operations (Note 2) are shown below (including those in which the Group is involved through a joint arrangement ⁽¹⁾):

Name	Interest % ⁽¹⁾	Operator	Activity
UPSTREAM			
Angola			
Block 22	50.00%	Repsol	Exploration
Algeria			
Boughezoul (104b, 117, 133c, 135b and 137b)	51.00%	Repsol	Exploration
EMK	9.10%	Groupement Berkin	Development/Production
Greater MLN	35.00%	Pertamina	Development/Production
Menzel Ledjmet Sud-Est /405a	35.00%	Pertamina	Development/Production
Ourhoud Field / 404,405,406a	2.00%	Organisation Ourhoud	Development/Production
Reggane Nord	29.25%	Groupement Reggane	Development/Production
S.E. Illizi	72.50%	Repsol	Exploration
Tin Fouyé Tabenkor (TFT)	30.00%	Groupement TFT	Development/Production
Aruba			
Aruba	50.00%	Repsol	Exploration
Australia			
Kitan	25.00%	ENI	Development/Production
Bolivia ⁽²⁾			
Amboro - Espejos	48.33%	YPF B Andina, S.A	Exploration
Arroyo Negro	48.33%	YPF B Andina, S.A	Development/Production
Boqueron	48.33%	YPF B Andina, S.A	Development/Production
Camiri	48.33%	YPF B Andina, S.A	Development/Production
Carahuaicho 8B	24.17%	YPF B Andina, S.A	Exploration
Carahuaicho 8C	24.17%	YPF B Andina, S.A	Exploration
Carahuaicho 8D	48.33%	YPF B Andina, S.A	Exploration
Cascabel	48.33%	YPF B Andina, S.A	Development/Production
Cobra	48.33%	YPF B Andina, S.A	Development/Production
Enconada	48.33%	YPF B Andina, S.A	Development/Production
Guairuy	48.33%	YPF B Andina, S.A	Development/Production
Huacaya (Caipipendi)	37.50%	Repsol	Development/Production
Iñiguazu	37.50%	Repsol	Exploration
La Peña - Tundy	48.33%	YPF B Andina, S.A	Development/Production
Los Penocos	48.33%	YPF B Andina, S.A	Development/Production
Los Sauces (Grigota)	48.33%	YPF B Andina, S.A	Development/Production
Margarita (Caipipendi)	37.50%	Repsol	Development/Production
Monteagudo	39.67%	Repsol	Development/Production
Oriental	24.17%	YPF B Andina, S.A	Exploration
Palacios	48.33%	YPF B Andina, S.A	Development/Production
Patujú	48.33%	YPF B Andina, S.A	Development/Production
Puerto Palos	48.33%	YPF B Andina, S.A	Development/Production
Rio Grande	48.33%	YPF B Andina, S.A	Development/Production
Sabalo	24.17%	Petrobras	Development/Production
San Alberto (San Alberto)	24.17%	Petrobras	Development/Production
Sara Boomerang III	48.33%	YPF B Andina, S.A	Exploration
Sirari	48.33%	YPF B Andina, S.A	Development/Production
Víbora	48.33%	YPF B Andina, S.A	Development/Production
Yapacani	48.33%	YPF B Andina, S.A	Development/Production
Brazil			
Albacora Leste	6.00%	Petrobras	Development/Production
BM-C-33 (C-M-539)	21.00%	Statoil	Exploration
BM-ES-21 (ES-M-414)	6.66%	Petrobras	Exploration
BM-S-50 (S-M-623)	12.00%	Petrobras	Exploration
BM-S-51 (S-M-619)	12.00%	Petrobras	Exploration
BM-S-9A (SPS-50)- Lapa (Carioca)	15.00%	Total	Development/Production
BM-S-9 (SPS-55)- Sapinhoá (Guará)	15.00%	Petrobras	Development/Production
Bulgaria			
Han Asparuh	30.00%	Total	Exploration

⁽¹⁾ Joint operations in the *Upstream* segment include the blocks of joint operations where the Group holds acreage for exploration, development and production of oil and gas.

Name	Interest % ⁽¹⁾	Operator	Activity
Canada ⁽³⁾			
Chauvin Alberta	63.10%	Repsol	Development/Production
Chauvin Saskatchewan	92.54%	Repsol	Development/Production
Edson	79.23%	Repsol	Development/Production
Groundbirch/Saturn- No Montney Rights	35.19%	Repsol	Development/Production
Misc. Alberta	55.86%	Repsol	Exploration ⁽⁴⁾
Misc. British Columbia	67.03%	Repsol	Exploration
Misc. Saskatchewan	74.51%	Repsol	Exploration
North Duvernay	87.88%	Repsol	Development/Production
Quebec	80.00%	Repsol	Exploration
Total Frontier	2.47%	Repsol	Exploration
Wild River	49.22%	Repsol	Development/Production
Colombia ⁽⁵⁾			
Caguan 5	50.00%	Meta Petroleun Corp.	Exploration
Caguan 6	40.00%	Meta Petroleun Corp.	Exploration
Catleya	50.00%	Ecopetrol	Exploration
Chipirón	8.75%	Oxycol	Development/Production
COL-4	33.40%	Repsol	Exploration
Cosecha	17.50%	Oxycol	Development/Production
CPE-8	50.00%	Repsol	Exploration
CPO-9	45.00%	Ecopetrol	Exploration/Production
Cravo Norte	5.63%	Oxycol	Development/Production
Gua Off 1	30.00%	Repsol	Exploration
Mundo Nuevo	21.00%	Equion	Exploration
Niscota	30.00%	Equion	Exploration
Piedemonte	24.50%	Equion	Development/Production
RC-11	50.00%	Repsol	Exploration
RC-12	50.00%	Repsol	Exploration
Rio Chitamena	15.19%	Equion	Development/Production
Rondon	6.25%	Oxycol	Development/Production
Tayrona	20.00%	Petrobras	Exploration
Ecuador			
Block 16 (Wati extension)	35.00%	Repsol	Services Contract
Tivacuno	35.00%	Repsol	Services Contract
Spain			
Albatros	82.00%	Repsol	Development/Production
Angula	53.85%	Repsol	Development/Production
Bezana	44.45%	Petroleum Oil & Gas Spain	Exploration ⁽⁴⁾
Bigüenzo	44.45%	Petroleum Oil & Gas Spain	Exploration ⁽⁴⁾
Boquerón	61.95%	Repsol	Development/Production
Casablanca -Montanazo Unificado	68.67%	Repsol	Development/Production
Casablanca No Unit	67.35%	Repsol	Development/Production
Montanazo D	72.44%	Repsol	Development/Production
Rodaballo	65.42%	Repsol	Development/Production
United States ⁽³⁾			
Alaska			
North Slope (113 blocks)	49.00%	Armstrong	Exploration
North Slope (2 blocks)	49.00%	Armstrong	Development/Production
North Slope (227 blocks)	25.00%	Armstrong	Exploration
Eagle Ford	35.41%	Statoil	Development/Production
Gulf of Mexico			
Alaminos Canyon (4 blocks)	10.00%	Statoil	Exploration
Atwater Valley (3 blocks)	50.00%	Repsol	Exploration
Garden Banks (4 blocks)	50.00%	Repsol	Exploration
Green Canyon (6 blocks)	20.00%	Repsol	Exploration
Green Canyon (5 blocks)	20.00%	BHP	Exploration
Green Canyon (6 blocks)	28.00%	BHP	Development/Production
Green Canyon (2 blocks)	33.34%	Repsol	Exploration
Green Canyon (1 block)	34.00%	Repsol	Exploration
Green Canyon (1 block)	40.00%	Murphy	Exploration
Keathley Canyon (3 blocks)	10.00%	Statoil	Exploration
Keathley Canyon (6 blocks)	22.50%	Llog	Development/Production
Keathley Canyon (4 blocks)	60.00%	Repsol	Exploration
Walker Ridge (5 blocks)	60.00%	Repsol	Exploration
Walker Ridge (3 blocks)	30.00%	Llog	Exploration
Marcellus	83.96%	Repsol	Development/Production

Marcellus ⁽⁴⁾	99.73%	Repsol	Exploration
Midcontinent	7.24%	SandRidge	Development/Production
Gabon			
Luna Muetse (G4-246)	48.00%	Repsol	Exploration
Greece			
Aitoloakarnania	60.00%	Repsol	Exploration
Ioannina	60.00%	Repsol	Exploration
Guyana			
Kanuku	70.00%	Repsol	Exploration
Indonesia			
Corridor PSC	36.00%	Conoco	Development/Production
East Jabung	51.00%	Repsol	Exploration
Jambi Merang	25.00%	JOB Jambi Merang	Development/Production
Sakakemang	90.00%	Repsol	Exploration
Ireland			
Dunquin FEL	33.56%	ENI	Exploration
Libya			
NC-115 (Development)	20.00%	Akakus	Development/Production
NC-115 (Exploration)	40.00%	Repsol	Exploration
NC-186 (Development)	16.00%	Akakus	Development/Production
NC-186 (Exploration)	32.00%	Repsol	Exploration
Malaysia			
Angsi South Channel (Unit.)	60.00%	Repsol	Development/Production
PM03 CAA	41.44%	Repsol	Development/Production
PM305	60.00%	Repsol	Development/Production
PM314	60.00%	Repsol	Development/Production
SB1 Kinabalu	60.00%	Repsol	Development/Production
SB309	70.00%	Repsol	Exploration
Block 46-CN	33.15%	Repsol	Development/Production
Morocco			
Gharb Offshore Sud	75.00%	Repsol	Exploration
Mexico			
Block 11	60.00%	Repsol	Exploration
Norway			
Licencia 019B (Gyda)	61.00%	Repsol	Development/Production
Licencia 019B (Tambar East Unit)	9.76%	Aker BP	Development/Production
Licencia 025 (Gudrun)	15.00%	Statoil	Development/Production
Licencia 038 (Varg)	65.00%	Repsol	Development/Production
Licencia 038C (Rev)	70.00%	Repsol	Development/Production
Licencia 052 (Veslefikk)	27.00%	Statoil	Development/Production
Licencia 053B (Brage)	33.84%	Wintershall	Development/Production
Licencia 055 (Brage)	33.84%	Wintershall	Development/Production
Licencia 055 B (Brage)	33.84%	Wintershall	Development/Production
Licencia 055 D (Brage)	33.84%	Wintershall	Development/Production
Licencia 185 (Brage)	33.84%	Wintershall	Development/Production
Licencia 187 (Gudrun)	15.00%	Statoil	Exploration
Licencia 316 (Yme)	60.00%	Repsol	Development/Production
Licencia 316B (Yme)	60.00%	Repsol	Development/Production
Licencia 528 (6707/8, 6707/9, 6707/11)	6.00%	Centrica R. Norge	Development/Production
Licencia 528 B	6.00%	Centrica R. Norge	Development/Production
Licencia 705 (6705/7, 6705/8, 6705/9, 6705/10)	40.00%	Repsol	Exploration
Licencia 801 (6605/2,3 og, 6608/1,2 og and 6706/10)	50.00%	Repsol	Exploration
Licencia 840	20.00%	Statoil	Exploration
Licencia 847	20.00%	Wintershall	Exploration
PL 847B	20.00%	Wintershall	Exploration
PL 897	30.00%	Statoil	Exploration
Papua New Guinea			
PDL 10	40.00%	Repsol	Development/Production
PPL 261	50.00%	Repsol	Exploration
PPL 287	50.00%	Repsol	Exploration
PPL 426	66.60%	Repsol	Exploration
PRL 8	22.29%	Oil Search	Exploration
PRL 21	35.10%	Horizon Oil	Development/Production
PRL 28	37.50%	Eaglewood	Development/Production
PRL 38	25.00%	Repsol	Development/Production
PRL 40	60.00%	Repsol	Development/Production

Name	Interest % ⁽¹⁾	Operator	Activity
Peru			
Block 56	10.00%	Pluspetrol	Development/Production
Block 57	53.84%	Repsol	Exploration/Production
Block 88	10.00%	Pluspetrol	Development/Production
Region of Iraqi Kurdistan			
Kurdamir	40.00%	Repsol	Development/Production
Topkhana	80.00%	Repsol	Development/Production
United Kingdom ⁽⁶⁾			
P019 (22/17n)	30.08%	RSRUK	Development/Production
P020 (22/18n)	30.08%	RSRUK	Development/Production
P073 (30/18_E)	51.00%	RSRUK	Development/Production
P073 (30/18_W)	51.00%	RSRUK	Exploration
P079 (30/13a)	31.88%	RSRUK	Exploration
P101 (13/24a)	34.53%	RSRUK	Exploration
P111 (30/3a Upper)	15.55%	RSRUK	Development/Production
P111 (30/3a Blane Field)	30.75%	RSRUK	Development/Production
P116 (30/16n)	51.00%	RSRUK	Development/Production
P185 (30/11b)	30.60%	RSRUK	Exploration
P185 (30/11b)_Developm.	51.00%	RSRUK	Development/Production
P185 (30/12b)	30.60%	RSRUK	Exploration
P187 (11/30a Beatrice)	51.00%	RSRUK	Development/Production
P1031 (11/25a Beatrice)	51.00%	RSRUK	Development/Production
P1031 (12/21a Beatrice)	51.00%	RSRUK	Development/Production
P201 (16/21a)	7.65%	Premier	Development/Production
P201 (16/21d)	7.65%	Premier	Development/Production
P219 (16/13a)	16.07%	RSRUK	Development/Production
P219 (16/13e)	16.07%	RSRUK	Exploration
P220 (15/17n-F2- Saltire)	51.00%	RSRUK	Development/Production
P220 (15/17n-Sub Area)	20.40%	EnQuest Heather	Development/Production
P220 (15/17n-F2- Piper+ rest of Block)	51.00%	RSRUK	Development/Production
P225 (16/27a - Contract Area 3)	13.50%	JX Nippon	Exploration
P225 (16/27a- Contract Area 3 Andrew Field Area)	5.03%	BP Amoco	Development/Production
P237 (15/16a)	51.00%	RSRUK	Development/Production
P240 (16/22a- non Arundel Area)	18.86%	RSRUK	Development/Production
P241 (21/1a)_Developm.	51.00%	RSRUK	Development/Production
P241 (21/1a Rest of Block)	51.00%	RSRUK	Exploration
P241 (21/1a)	51.00%	RSRUK	Exploration
P241 (21/1c)	51.00%	RSRUK	Development/Production
P241/P244 (21/1c/21/2a- Cretaceous Area West)	51.00%	RSRUK	Development/Production
P244 (21/2a)	51.00%	RSRUK	Development/Production
P249 (14/19n - Residual -Claymore)_Develop.	51.00%	RSRUK	Development/Production
P249 (14/19n - Residual -Claymore)	51.00%	RSRUK	Exploration
P249 (14/19n_F1- Claymore)	47.16%	RSRUK	Development/Production
P249 (14/19n_F2- Scapa/Claymore)	51.00%	RSRUK	Development/Production
P250 (14/19a)	51.00%	RSRUK	Exploration
P250 (14/19a)_Developm.	51.00%	RSRUK	Development/Production
P250 (14/19s- Rest of Block)	51.00%	RSRUK	Exploration
P250 (14/19s- Rest of Block)_Develop	51.00%	RSRUK	Development/Production
P250 (14/19s- F1)	51.00%	RSRUK	Development/Production
P250 (15/17a-Sub Area)	20.40%	EnQuest Heather	Development/Production
P250 (15/17s-F1- Chanter / Saltire / Lona)	51.00%	RSRUK	Development/Production
P250 (15/17s-Rest of Block)	51.00%	RSRUK	Development/Production
P255 (30/14 Flyndre Area)	3.83%	Maersk	Development/Production
P255 (30/14 Cawdor Sub Area)	4.93%	Maersk	Development/Production
P255 (30/14 Cawdor Sub Area)_Develop.	4.93%	Maersk	Development/Production
P255 (30/19a Affleck)	17.00%	Maersk	Development/Production
P256 (30/16s)	51.00%	RSRUK	Development/Production
P263 (14/18a)	51.00%	RSRUK	Development/Production
P266 (30/17b)	51.00%	RSRUK	Development/Production
P291 (22/17s)	30.08%	RSRUK	Development/Production
P291 (22/22a)	30.08%	RSRUK	Development/Production
P291 (22/23a)	30.08%	RSRUK	Development/Production
P292 (22/18a)	30.08%	RSRUK	Development/Production
P294 (20/05a_F1)	51.00%	RSRUK	Development/Production
P294 (20/05a)	51.00%	RSRUK	Exploration
P295 (30/16t)	51.00%	RSRUK	Development/Production
P297 (13/28a)	33.02%	RSRUK	Exploration
P297 (13/28a)_Devel.	35.28%	RSRUK	Development/Production

Name	Interest % ⁽¹⁾	Operator	Activity
P307 (13/29a)_Devel.	35.28%	RSRUK	Development/Production
P307 (13/29a)	36.55%	RSRUK	Exploration
P324 (14/20b-Claymore Extension)	51.00%	RSRUK	Development/Production
P324 (14/20b)	25.50%	RSRUK	Development/Production
P324 (14/20b-f1+f2)	51.00%	RSRUK	Development/Production
P324 (15/16b)	51.00%	RSRUK	Development/Production
P324 (15/16c)	51.00%	RSRUK	Development/Production
P324 (15/23a)	34.38%	RSRUK	Exploration
P324 (15/23a)_Developm.	34.38%	RSRUK	Development/Production
P344 (16/21b Rest of Block)	30.60%	RSRUK	Development/Production
P344 (16/21b_F1*-Balmoral Field Area)	8.06%	Premier	Development/Production
P344 (16/21c*- Rest of block excluding Stirling)	30.60%	RSRUK	Development/Production
P344 (16/21c_f1*-Balmoral)	8.06%	Premier	Development/Production
P344 (16/21c_f1*)	7.81%	Premier	Development/Production
P534 (98/06a-Wareham)	2.55%	Perenco	Development/Production
P534 (98/06a-Wych Farm UOA)	2.53%	Perenco	Development/Production
P534 (98/07a)	2.55%	Perenco	Exploration
P585 (15/12b)	20.40%	EnQuest Heather	Exploration
P593 (20/05c)	51.00%	RSRUK	Development/Production
P593 (20/05e)	51.00%	RSRUK	Exploration
P729 (13/29b - Ross Unitised Field UUOA interests)	35.28%	RSRUK	Development/Production
P729 (13/29b - Blake Ext Non Skate (retained area)	40.80%	RSRUK	Exploration
P729 (13/29b - Blake Ext Non Skate_Devel.)	40.80%	RSRUK	Development/Production
P810 (13/24b- Rest of Block)	35.28%	RSRUK	Exploration
P810 (13/24b-Rest of Block)	35.28%	RSRUK	Development/Production
P810 (13/24b Blake Area)	34.53%	RSRUK	Development/Production
P973 (13/28c)	35.28%	RSRUK	Development/Production
P983 (13/23b)	25.50%	RSRUK	Exploration
PL089 (SZ/8, SY/88b, SY/98a)	2.55%	Perenco	Exploration
PL089 (SZ/8a, SY/88b, SY/98a)	2.55%	Perenco	Development/Production
Romania			
Baicoi	49.00%	OMV	Exploration
Pitesti	49.00%	OMV	Exploration
Targoviste	49.00%	OMV	Exploration
Targu Jiu	49.00%	OMV	Exploration
Russia ⁽⁷⁾			
Alkanovskoe	49.00%	AROG	Development/Production
Avgustovskoe	49.00%	AROG	Development/Production
Bazhkovskoe	49.00%	AROG	Development/Production
Borschevskoe	49.00%	AROG	Development/Production
Karabashkiy - 78	73.63%	Eurotek Yugra	Exploration
Karabashkiy - 79	73.63%	Eurotek Yugra	Exploration
Karabashsky-1	73.63%	Eurotek Yugra	Exploration
Karabashsky-2	73.63%	Eurotek Yugra	Exploration
Karabashsky-3	73.63%	Eurotek Yugra	Exploration
Karabashsky-9	73.63%	Eurotek Yugra	Exploration
Kileyskiy	73.63%	Eurotek Yugra	Exploration
Kochevnskoe	49.00%	AROG	Development/Production
Kovalevskoe	49.00%	AROG	Development/Production
Kulturnenskoe	49.00%	AROG	Development/Production
North Borschevskoe	49.00%	AROG	Development/Production
Novo-Kievskoe	49.00%	AROG	Development/Production
Penzenskoe	49.00%	AROG	Development/Production
Saratovskoe	49.00%	AROG	Development/Production
Solnechnoe	49.00%	AROG	Development/Production
South-Kultashikhskoe	49.00%	AROG	Development/Production
South-Solnechnoe	49.00%	AROG	Development/Production
Stepnoozerskoe	48.79%	AROG	Development/Production
West-Avgustovskoe	49.00%	AROG	Development/Production
West-Kochevnskoe	49.00%	AROG	Development/Production
Yelginskoe	48.79%	AROG	Development/Production
Trinidad and Tobago			
5B Manakin	30.00%	BPTT	Development/Production
East Block	30.00%	BPTT	Development/Production
S.E.C.C. (IBIS)	10.50%	EOG	Development/Production
West Block	30.00%	BPTT	Development/Production

Name	Interest % ⁽¹⁾	Operator	Activity
Venezuela ⁽⁸⁾			
Barua Motatan	40.00%	Petroquiriquire	Development/Production
Carabobo	11.00%	Petrocarabobo	Development/Production
Cardón IV	50.00%	Cardon IV	Development/Production
Mene Grande	40.00%	Petroquiriquire	Development/Production
Quiriquire	40.00%	Petroquiriquire	Development/Production
Quiriquire (Gas)	60.00%	Quiriquire Gas	Development/Production
Yucal Placer Norte	15.00%	Total	Development/Production
Yucal Placer Sur	15.00%	Total	Development/Production
Vietnam			
Bloque 07/03 (CRD)	51.75%	Repsol	Exploration
Bloque 15-2/01	60.00%	Thang Long JOC	Development/Production
Bloque 16-1 (TGT- Unitization)	0.67%	Hoang Long	Development/Production
Bloque 133 and 134	49.00%	Repsol	Exploration
Bloque 135 and 136	40.00%	Repsol	Exploration
Bloque 146 and 147	80.00%	Repsol	Exploration
DOWNSTREAM			
Canada			
Canaport LNG Ltd Partnership	75.00%	Repsol	Regasification LNG
Spain			
Asfaltos Españoles, S.A.	50.00%	Repsol	Asphalts
Iberian Lube Base Oils Company, S.A.	30.00%	SK Lubricants	Lubricants and Specialist Products

⁽¹⁾ Corresponds to the Group company's stake in the Joint Arrangement.

⁽²⁾ Repsol holds an interest in YPFB Andina, S.A., which, at December 31, 2017, came to 48.33% (see Appendix I).

⁽³⁾ Rights over the acreage in Canada and the United States are defined in a wide range of joint operating agreements. They have been grouped by geographical areas and Repsol's stake.

⁽⁴⁾ Exploration activities involving unconventional resources.

⁽⁵⁾ Repsol holds stakes in Equion Energía, Ltd. (Equion) and Occidental de Colombia, Ll. (OXYCOL) which, at December 31, 2017, came to 49% and 25%, respectively (see Appendix I).

⁽⁶⁾ Repsol holds a stake in Repsol Sinopec Resources UK, Ltd. (RSRUK) which, at December 31, 2017, came to 51% (see Appendix I).

⁽⁷⁾ Repsol holds a stake in AR Oil&Gas, B.V. (AROG) which, at December 31, 2017, came to 49% (see Appendix I).

⁽⁸⁾ Repsol holds interests in Petroquiriquire, S.A., Cardon IV, S.A. and Petrocarabobo, S.A., which, at December 31, 2017, came to 40%, 50% and 11%, respectively (see Appendix I).

APPENDIX III: SEGMENT REPORTING AND RECONCILIATION WITH IFRS-EU FINANCIAL STATEMENTS¹

Income Statement figures

The reconciliation between adjusted net income (loss) and IFRS-EU net income (loss) at December 31, 2017 and 2016 is as follows:

	€ Million											
	ADJUSTMENTS											
	Adjusted net income		Reclass. Joint Ventures		Special Items		Inventory Effect		Total Adjustments		Net income under EU-IFRS	
Results	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Operating income	3,214	2,067	(610)	98	42	(448)	143	194	(425)	(156)	2,789	1,911
Financial result	(356)	(315)	126	(68)	(82)	149	-	-	44	81	(312)	(234)
Net income from companies accounted for using the equity method - net of taxes	323	371	580	(177)	-	-	-	-	581	(177)	904	194
Income before tax	3,181	2,123	96	(147)	(39)	(299)	143	194	200	(252)	3,381	1,871
Income tax	(738)	(164)	(96)	147	(350)	(323)	(36)	(51)	(482)	(227)	(1,220)	(391)
Net income from continuing operations	2,443	1,959	-	-	(389)	(622)	107	143	(282)	(479)	2,161	1,480
Net income attributed to minority interests	(38)	(37)	-	-	1	4	(3)	(10)	(2)	(6)	(40)	(43)
Net income from continuing operations	2,405	1,922	-	-	(388)	(618)	104	133	(284)	(485)	2,121	1,437
Net income from interrupted operations	-	-	-	-	-	299	-	-	-	299	-	299
TOTAL NET INCOME ATTRIBUTABLE TO THE PARENT	2,405	1,922	-	-	(388)	(319)	104	133	(284)	(186)	2,121	1,736

	€ Million											
	Net amount of sales ⁽²⁾		Operating result		Depreciation and amortization of fixed assets ⁽³⁾		Income / (expenses) for the impairment of assets		Share of results of companies accounted for using the equity method		Income tax	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
<i>Segmentos</i>												
Upstream	6,333	4,963	1,009	(87)	(2,379)	(2,393)	(743)	(352)	32	(8)	(735)	12
Downstream	39,240	32,244	2,467	2,467	(739)	(716)	(3)	(233)	20	18	(677)	(545)
Corporación	(1,635)	(820)	(262)	(313)	(62)	(64)	(80)	-	271	361	290	(5)
TOTAL ADJUSTED FIGURES ⁽¹⁾	43,938	36,387	3,214	2,067	(3,180)	(3,173)	(826)	(585)	323	371	(1,122)	(538)
Adjustments												
Upstream	(2,240)	(1,668)	(482)	(563)	777	640	643	296	576	(182)	(100)	144
Downstream	(29)	(29)	122	487	3	4	4	7	6	7	2	3
Corporación	-	(1)	(65)	(80)	1	-	80	-	(1)	(2)	-	-
IFRS-EU FIGURES	41,669	34,689	2,789	1,911	(2,399)	(2,529)	(99)	(282)	904	194	(1,220)	(391)

⁽¹⁾ Figures drawn up according to the Group's reporting model described in Note 4.

⁽²⁾ The revenue figure corresponds to the sum of the "Sales" and "Services rendered and other income". The itemization by provenance (customers or inter-segment transactions) is as follows:

	€ Million					
	Customers		Inter-segment		Total	
	2017	2016	2017	2016	2017	2016
<i>Segments</i>						
Upstream	4,719	4,159	164	804	6,333	4,963
Downstream	39,218	32,228	22	16	39,240	32,244
Corporate	1	-	-	4	1	4
(-) Inter-segment adjustments and eliminations of operating income	-	-	(1636)	(824)	(1636)	(824)
TOTAL	43,938	36,387	-	-	43,938	36,387

⁽³⁾ Including depreciation of failed dry wells. For more information, see Note 21.

⁽¹⁾ Some of these metrics presented in this Appendix are Alternative Performance Metrics (APMs) in accordance with European Securities Markets Authority (ESMA) guidelines. For further information, see Appendix I of the consolidated Management Report.

Balance sheet figures

€ Million

Segments	Non-current assets		Net operating investments ⁽²⁾		Capital employed ⁽⁴⁾		Investments accounted for using the equity method	
	2017	2016	2017	2016	2017	2016	2017	2016
Upstream	25,636	29,186	2,072	1,889	21,612	23,853	303	364
Downstream	10,312	10,444	757	(496)	9,749	9,469	242	214
Corporate	3,968	4,042	27	(1,893)	4,969	5,933	3,229	3,323
ADJUSTED FIGURES ⁽¹⁾	39,916	43,672	2,856	(500)	36,330	39,255	3,774	3,901
Adjustments								
Upstream	(7,126)	(7,577)	(324)	(565)	1,152	1,095	5,411	6,229
Downstream	(22)	(23)	(2)	1	19	17	81	41
Corporate	(4)	(1)	3	6	-	-	2	5
EU-IFRS FIGURES	32,764	36,071	2,533	(1,058)	37,501	40,367	9,268	10,176

⁽¹⁾ Figures drawn up according to the Group's reporting model described in Note 4.

⁽²⁾ Excludes "Non-current financial investments", "Deferred tax assets" and "Other non-current assets".

⁽³⁾ Includes investments accrued during the period net of disposals but does not include net investments in "Other financial assets".

⁽⁴⁾ Includes capital employed (see Note 5) corresponding to joint ventures, non-current non-financial assets, operating working capital and other non-financial liability headings.

APPENDIX IV: REGULATORY FRAMEWORK

The activities of Repsol, S.A. and its subsidiaries are subject to extensive regulation, whose key aspects are described below.

Spain

Basic legislation

Spain currently has a legislation which implements a liberalization of the Oil Industry, an example of which is the Hydrocarbons Sector Law 34/1998 of October 7 ("LSH"), which has been amended by several legislative acts.

Law 2/2011, of March 4, on Sustainable Economy, modified the Hydrocarbons Sector Law, establishing binding guidelines for energy planning under criteria designed to contribute to the creation of a safe, cost-effective, economically-sustainable, and environmentally-friendly energy system.

Law 3/2013 of June 4, regarding the creation of the National Markets and Competition Commission (CNMC – "Comisión Nacional de los Mercados y la Competencia," in Spanish), created as an overseeing body, charged with the duties and tasks relating to supervision and control of regulated markets, which were previously supervised by various National Commissions, including the Energy and Competition.

Controlling concentration regime in the energy sector

The aforementioned Law 3/2013 modified the regime controlling corporate transactions in the energy sector, allocating duties to the Ministry of Industry, Energy and the Digital Agenda (MINETAD). It devises a new *ex post* regime with respect to certain transactions by either requiring the buyer to notify MINETAD of the execution of certain transactions or by means of the imposition of conditions on the business operations of the companies acquired, in so far as energy supply in Spain is deemed threatened.

A novelty of this new control regime is that in addition to extending to the electricity and gas sectors, it now extends to the liquid hydrocarbons sector including companies that pursue refining activities, pipeline transportation, and storage of petroleum products (related activities), or companies that hold title to said assets. Such assets acquire the condition of strategic assets.

Principal operators and dominant operators

Under Royal Decree-Law 5/2005, of March 11, the CNE - currently the CNMC - is obliged to publish not only the list of principal operators but also the dominant operators in each energy market or sector. Dominant operators are defined as those commanding a share of more than 10% of the benchmark market. On the other hand, a principal operator is considered an operator ranked among the top five players by market share. Designation as a dominant operator or principal operator implies certain regulatory restrictions.

Oil and gas exploration and production

Hydrocarbon deposits and underground storage existing on Spanish territory and in the territorial marine subsoil and ocean bottoms which are under Spanish sovereignty are considered public properties.

Exploration permits are granted by national or regional governments, depending on whether autonomous areas are affected, and exclusive investigation rights for the area in question are granted for periods lasting six years. In turn, the concession for exploiting hydrocarbon reserves grants the owners exclusive exploration rights for 30 years, renewable for two successive ten-year periods, as well as the right to continue exploration activities in these areas and obtain authorization to freely sell the hydrocarbon products they obtain.

Law 8/2015, regulating specific tax and non-tax measures related to oil and gas exploration, research and operation activities, fosters non-conventional extraction, or 'fracking' and creates an incentive regime for regional and local governments that pursue such activities, as well as creating a scheme for land owners to share in the profits derived from the related extraction activity.

Furthermore, on November 18, 2017, Royal Decree-Law 16/2017 came into

force, establishing safety provisions applicable to the hydrocarbon research and operation at sea ("RDL"), which partially transposes Directive 2013/30/EU, of June 12, 2013 on safety of offshore oil and gas operations ("Offshore Directive") into Spanish law.

The purpose of the RDL is to establish minimum requirements that offshore hydrocarbon research and operations must meet to prevent major accidents and to mitigate their consequences and to define action principles to ensure that offshore operations (including operations undertaken outside the EU) are performed employing a systematic risk management approach to ensure that the residual risk of serious accidents is considered acceptable.

Oil products

Law 11/2013 of July 26, regarding measures to support entrepreneurs and to stimulate growth and job creation, introduces a number of measures in the wholesale and retail markets for petroleum products intended to increase effective competition in the sector.

In the retail side of the business, it introduces changes to exclusive supply agreements for the distribution of vehicle fuel. Specifically, their term is now limited to 1 year (from 5 years previously); they can be automatically rolled over for additional one-year periods, for a maximum of three years, if and only if the distributor so desires. The new legislation also bans clauses that set, recommend or influence, directly or indirectly, the price at which fuel is sold to the public.

Additionally, it establishes limits on growth in the number of fuel supply facilities of wholesalers with provincial markets shares of over 30%. Law 8/2015 stipulates that from 2016 on, this market share shall no longer be measured in terms of points of sale but rather based on prior-year sales figures, allowing the government to revise this percentage threshold in three years' time or even remove the restriction altogether, market trends and the sector's business structure so permitting.

Finally, Law 8/2015 allows owners of oil and gas product retailers that do not belong to the distribution network of a wholesale operator (private label networks operating without exclusive supply agreements) to inform consumers of the origin of the fuel they sell by advertising the wholesaler from which they purchase the said fuel. Furthermore, oil and gas product retailers may supply products to other retailers, subject only to the requirement of first registering themselves in the special duty registry.

Minimum stock for security

Royal Decree 1766/2007, regulates the obligation to maintain a minimum inventory in the oil and natural gas sectors, the obligation to diversify the natural gas provisions and the activities of the Corporation of Strategic Reserves of Petroleum Products (CORES for its acronym in Spanish).

The obligation to maintain minimum stocks of oil and gas products for security reasons, excluding LPG, currently requires storing at all times an amount equivalent to 92 days of sales based on the sales during the previous 12 months. Repsol was obliged to maintain a stock corresponding to 50 days of sales, while the remaining inventory required to make up the difference with the above mentioned safety stock requirement are held by CORES on behalf of the various operators (strategic reserves).

Royal Decree-Law 15/2013, of December 13, introduces an amendment to the Hydrocarbon Sector Act, indicating that via regulation, administrative procedures and obligations needed to ensure, on an ongoing basis, a minimum safety buffer equivalent, at least, to the higher of the volume corresponding to 90 days of average net daily imports and 61 days of average internal daily consumption corresponding to the year of reference and measured in oil equivalent.

LPG

The prices of oil derivatives are deregulated, with the exception of LPG, which is, under certain circumstances, subject to retail price ceilings. The prices of bulk LPG and bottled LPG in cylinders with capacity of under 8 kilograms or over 20 kilograms are deregulated. Law 18/2014 of October 15 has had the

effect of also deregulating the prices of containers with capacity of under 8 kilograms or over 20 kilograms with a tare weight of no more than 9 kilograms other than containers of LPG mixes intended for use for fuel purposes; this measure favors certain players over others as a function of the tare weight of the containers they market and, in practice, does not constitute full sector deregulation.

Ministerial Order IET/389/2015 of March 5, 2015 updates the system for automatically determining the maximum price at which bottled LPG can be retailed and for determining the price of piped LPG, adjusting the formulae used to calculate raw material costs in order to, as per the wording of the Order, adapt them "to the supply reality in the Spanish market in recent years". Adaptation of these formulae does not apply to sales costs, thereby resulting in a reduction in maximum bottled LPG retail prices and piped LPG retail prices.

Additionally, Law 18/2014 consolidate users' right to home delivery of containers weighing between 8 and 20 kilograms by obliging the LPG wholesalers with the biggest market shares in the corresponding mainland and island territories to perform this home-delivery service. Failure to fulfil this obligation constitutes a very serious offence. The list of LPG wholesalers so obliged is determined by a resolution issued by the General Directorate of Energy Policy and Mining every 3 years. Every 5 years, the Spanish government is entitled to revise the terms of this obligation and has the power to remove it. The current list of mandatory home suppliers is as follows: Repsol Butano on the mainland and in the Balearics, DISA in the Canary Islands and Atlas in Ceuta and Melilla.

Natural Gas

Law 12/2007 of July 2, which amended the Hydrocarbon Sector Act incorporated measures for achieving a completely liberalized market. This legislation establishes the framework for eliminating the tariff system and creates the role of the supplier of last resort with ultimate liability for supplying customers lacking sufficient bargaining power. Moreover, these suppliers are subject to a price cap ("last resort tariff"), set by MINETAD. Activities in the natural gas sector can be classified into: i) regulated activities: transport (including storage, regasification and transport per se) and distribution of natural gas; and ii) deregulated activities: production, supply and marketing of natural gas. The Natural Gas System Operator, Enagás S.A. is responsible for the coordinating and ensuring that the system works properly. Law 8/2015 creates an official natural gas hub with a view to facilitating entry into the market of new suppliers and increasing competition, creating a new single hub operator, tasked with management of the gas "hub", the MIBGAS (which stands for Iberian Gas Market in Spanish), which ensures that all participating entities comply with the established rules.

Electricity sector regulation in Spain

Deregulation of the Spanish electricity sector began in 1997 with the passage of Law 54/1997, of November 27, the Electricity Sector Act, which was amended by Law 17/2007, of July 4, and more recently by Law 24/2013, of December 26, which took effect on December 28, 2013.

Generation and supply activities continue to be deregulated, developed by competitive businesses, while transmission, distribution and the system's technical and financial management remain as regulated activities, characterized by an access that requires administrative authorization, activities normatively set their remuneration and are subject to specific obligations. Power supply, for its part, is classified as a service of general economic interest.

Royal Decree 413/2014 regulates the legal and economic regime governing the production of electric power using renewable sources, combined heat and power systems and waste and affects the Repsol Group's facilities, formerly part of the now-defunct 'special' regime and now assimilated into the 'ordinary' regime. Ministerial Order IET/1045/2014 of June 16, meanwhile, enacts the standard facility remuneration parameters applicable to certain electricity-producing facilities that use renewable energy sources, CHP systems or waste.

Recently, Royal Decree 900/2015, of October 9, regulating the administrative, technical and financial conditions was passed, which governs the permitted forms of electricity distribution and generation with self-consumption.

Contributions to the national energy efficiency fund

Directive 2012/27/EU of the European Parliament and of the Council of October 25, 2012 on energy efficiency makes it binding on member states to justify a quantity of energy savings by 2020, obliging each state to establish energy efficiency obligation schemes such that energy distributors and/or retailers are obliged to achieve a cumulative quantity of energy savings by year-end 2020 means of annual savings between 2014 and 2020 equivalent to 1.5% of their annual energy sales.

Royal Decree-Law 8/2014 and Law 18/2014 transpose this EU Directive into Spanish law by establishing a National Energy Efficiency Fund (NEEF) by virtue of which gas and electricity distributors, oil product wholesalers and liquid petroleum gas wholesalers (although the latter are not considered bound parties under the Directive) are allocated an annual energy saving target at the national level called savings obligations, which is quantified in financial terms.

The successive IET/ETU ministerial orders stipulating mandatory contributions to the National Energy Efficiency Fund, are being appealed by the various companies encompassed by the aforementioned National Fund contribution obligation, including the Group entities subject to this obligation.

Energy audits

Spanish Royal Decree 56/2016, of February 12, transposing Article 8 of Directive 2012/27/EU, of the European Parliament and of the Council, of October 25, 2012, on energy efficiency, in respect of energy audits, energy service and energy audit provider accreditation and the promotion of energy efficiency, took effect in February 2016.

It has the effect of obliging all enterprises that are not SMEs ("large enterprises") within the European Union to carry out regular energy audits with a view to analyzing whether their energy management is as good as possible and having them establish the opportune energy savings and efficiency opportunities and proposals as warranted. The Group's energy management systems, which are based on the international ISO 50001 standard, are found in the Group's main industrial companies.

Climate change and alternative fuels

Following the Paris Agreement, countries' commitments under their respective National Determined Contributions (NDCs) will have a significant impact on the development of new climate policies. As a signatory of the *Paris Pledge for Action* document, Repsol supports the agreement, and works toward being part of the climate change solution.

In this connection, the Council of Ministers approved the National Action Framework on December 9, 2016 on alternative energy sources for transport. *Climate Change and Air Quality*. Furthermore, the future Climate Change and Energy Transition Law is being discussed, with the public consultation completed in October 2017 prior to the drawing up of the preliminary draft. This Law represents a commitment on behalf of the Prime Minister to fulfil the objectives set out in the Paris Agreement and in the framework of the European Union, which has already been assumed by Spain.

Royal Decree 639/2016, of December 9, published on December 10 lays down a framework of measures to implement an infrastructure for alternative fuels, with the aim of minimizing the dependence of the transport industry on oil, mitigating the environmental impact of transport, and setting threshold requirements for the creation of an infrastructure for alternative fuel, including charging stations for electric vehicles and natural gas and hydrogen refuelling stations.

Bolivia

The 2009 Bolivian Constitution establishes that state-owned company Yacimientos Petrolíferos Fiscales Bolivianos (YPFB) is authorized to enter into service agreements with companies for the latter to undertake activities in its name and on its behalf in exchange for remuneration or payment for their services.

The Bolivian oil and gas industry is regulated by Law 3,058 of May 19, 2005 (the "Hydrocarbons Law").

On May 1, 2006, Supreme Decree 28,701 was published, which nationalized the country's hydrocarbons. Furthermore, the shares required to enable YPFB to control at least 50% plus one vote in different companies, among them Empresa Petrolera Andina, S.A., (currently known as YPFB Andina) were nationalized.

On December 11, 2015, Law No. 767 was passed to promote investment in oil and gas exploration and production in Bolivia. Furthermore, Law No. 817 of July 19, 2016 was enacted supplementing Article 42 of Law No. 3058, previously amended by Law No. 767, allowing YPFB to enforce addendums to Operating Contracts to extend their term.

Operating Contracts

According to the Hydrocarbons Law and the Nationalization Decree, Repsol E&P Bolivia S.A. and its subsidiary YPFB Andina S.A. signed with YPFB the Operating Contracts establishing the conditions for the prospecting and production of hydrocarbons in Bolivia, effective as of May 2, 2007. Additionally, on May 8, 2009, the Natural Gas and Liquid Hydrocarbon Delivery Agreements establishing the terms and conditions governing the delivery of hydrocarbons by the Holder were signed.

On November 14, 2017, an addendum to the Operating Contract was signed for Área Caipipendi, approved by Law No. 1013 of December 27, 2017. This addendum seeks to establish the continuation of Oil Operations in Area from May 2, 2031 onwards, subject to compliance with a new investment plan to be enforced by the Holder.

Canada

In the Canadian provinces of British Columbia, Alberta and Saskatchewan where the majority of the Company's exploration and production interests in Canada lie, the provincial governments own the majority of the subsurface mineral rights to crude oil and natural gas. These governments grant rights to explore for and produce oil and natural gas from crown lands under the conditions set forth in provincial legislation and regulations. In addition to Crown lands, the Company participates in leases entered into from freehold mineral owners through direct negotiation.

The royalties applicable to production in Crown lands are established by government regulation and, in general, calculated as a percentage of gross production based on the productivity of the wells, geographic location, date on which the oil fields were discovered, recovery method and type of quality of oil derivative produced. Occasionally, the provincial governments may roll out incentive programs for exploration and development. Such programs seek to reduce for royalty rate fees, grace periods for fees or tax credits. Fees payable on production in privately owned land are established by means of negotiation between the owner and the oil company.

Companies operating in the Canadian oil and natural gas industry are subject to extensive regulation and control of operations (including land ownership, exploration, development, production, refining, transportation and marketing in addition to environmental matters) as a result of legislation and policy enacted at both the federal level (by the government of Canada) and by the various provincial governments. Generally speaking, oversight of such operations is undertaken by regulatory bodies that include the British Columbia Oil and Gas Commission, the Alberta Energy regulatory entity, the Saskatchewan Ministry of Economy and the Saskatchewan Ministry of the Environment, as well as federal regulatory bodies such as the Canadian Environmental Assessment Agency and the National Energy Board of Canada. Environment legislation restricts and prohibits the release or emission of various substances, such as sulphur dioxide, carbon dioxide and nitrous oxide. The regulations also impose conditions or prohibitions in operating in certain environmentally sensitive areas and establish requirements that regulate the satisfactory abandonment and reclamation of well and facility sites.

Non-compliance with the legislation, regulations, orders, directives or other applicable guidelines can result in fines or other sanctions.

In November 2016, the provincial government of Alberta issued regulations regarding carbon emissions that included a carbon levy across all industry sectors. The price per tonne of carbon dioxide emitted will increase to the

previously announced amount of \$30 CDN in 2018 and compared to \$20 CDN in 2017. The fee is paid at the time that hydrocarbons are eliminated or acquired in a gas or oil pipelines. The regulation contains exemptions for the producers and processors of raw material through to 2023, with certain exceptions. The Company has applied for and received exemption certificates in all possible cases.

In addition to the provincial regulations, the Canadian Federal Government has announced, as part of the Pan-Canadian Framework on Clean Growth and Climate Change, the possibility of provinces applying further increases to the price of carbon to \$50 CDN per tonne by 2022.

Ecuador

In accordance with the Constitution of 2008 and the Hydrocarbons Law of Ecuador, the nation's hydrocarbon fields and the associated substances are the inalienable, imprescriptible and unattachable property of the State.

The amended legislation of the Hydrocarbons Law and the Internal Tax Regime Law, of July 27, 2010, established that all agreements for the exploration and exploitation of hydrocarbons must be modified to reflect the amended reformed services agreement model.

This model involves the contractor being obliged to provide services using its own economic resources and at its own risk. In exchange, the contractor will receive a set price per net barrel of oil produced and delivered to the state. This price, which constitutes the contractor's gross revenue, is contractually stipulated based on estimated depreciation schedules, cost/expense schedules and a reasonable profit in light of the risk incurred.

Repsol Ecuador, S.A. (Ecuador Branch) entered into the services agreement for Block 16, which came into force on January 1, 2011. In addition, on January 22, 2011, it signed the service agreement of the Tivacuno Block.

United States

Offshore exploration and production

The two government agencies responsible for offshore exploration and production are the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) under the U.S. Department of the Interior. The BOEM is in charge of responsibly ensuring the economic and environmental development of US offshore resources. Its functions include the leasing (agreements that grant oil and gas mining rights), the revision and management of oil and gas exploration, the approval of development plans and the performance of analyses pursuant to the National Environmental Policy Act and other environmental studies. The BSEE is responsible for safety and environmental supervision of offshore oil and gas operations. Its functions include the development and application of security and environmental regulations, the authorization of offshore exploration, development and production, the performance of inspections and the response to oil spills.

Onshore exploration and production

With regard to U.S. onshore exploration and production activities, the oil and gas industry is primarily regulated by the laws of the individual States, with the exception of certain environmental matters and operations on Federal land. At present, the Company has operations in Alaska, Kansas, Louisiana, Oklahoma, Pennsylvania and Texas. In the different states, exploration and production activities are controlled by the Alaska Department of Natural Resources, the Corporate Commission of Kansas, the Louisiana Department of Natural Resources, the Corporate Commission of Oklahoma and the Railroad Commission of Texas. Each of these states has its own environmental protection agency. In Pennsylvania, the local Department of Environmental Protection is responsible for both environmental protection activities and the regulation of exploration and production activities.

Federal authorities do have exclusive jurisdiction over certain environmental aspects that affect the gas and oil sector. The United States Environmental Protection Agency The Environmental Protection Agency (EPA) applies laws and regulations such as the Clean Air Act, the Clean Water Act and the Resource Conservation and Recovery Act, which regulates dangerous

discharges. The environmental impact of the projects is regulated by the National Environmental Policy Act (NEPA), which is managed by different Federal agencies depending on the type of project.

Transport

The Federal Energy Regulatory Commission (FERC) governs the transport of natural gas as part of inter-State trade and the transport of oil via oil pipelines within the same field. The States regulate other types of transport.

Liquefied natural gas

The Natural Gas Act grants the Federal Energy Regulatory Commission (FERC) the exclusive power to regulate plants that import and export liquefied natural gas arriving in the United States and leaving the country with the authorization of the Office of Fossil Energy at the US Department of Energy (DOE).

Trading of gas, crude oil and refined products

The FERC regulates the sale of natural gas as part of inter-State trade. A number of US regulatory bodies are empowered to regulate the oil and refined products trading market. The Federal Trade Commission (FTC) has the power to regulate crude oil trading activities. The Environmental Protection Agency (EPA) regulates refined products marketed to private consumers such as gasoline and diesel. Trading of financial derivatives is regulated by the Commodities Futures Trading Commission (CFTC).

On December 18, 2015, the 2016 Consolidated Appropriation Act was passed (Public law no. 114-113). This piece of legislation repeals Article 103 of the Energy Policy and Conservation Act (EPCA), thereby eliminating the ban on exporting crude oil produced in the US. The legislation preserves the President's power to restrict oil exports in response to a national emergency, enforce trade sanctions and remedy oil supply scarcity or the sustained distortion of oil prices significantly above world market levels.

Indonesia

Under Indonesia's 1945 Constitution, all natural resources (including oil and gas) within Indonesian territory are owned and controlled by the State. The regulation of oil and natural gas in Indonesia is based on Law No. 22 of 2001 ("Law No. 22"), which sets out broad principles for the regulation of the industry. These principles are applied by means of a series of implementing regulations promulgated under Law No. 22, as well as ministerial regulations and decrees.

Law No. 22 restructured and liberalised the State's control over the oil and gas industry. SKK Migas is the current successor to Perusahaan Pertambangan Minyak dan Gas Bumi Negara ("PERTAMINA") as the supervisory party to the production sharing contracts (PSCs).

The Ministry of Energy and Mineral Resources ("MEMR") is responsible for approving the first Plan of Development ("POD") under production sharing contracts and overseeing the State's ownership and management of oil and gas resources. With assistance from the Directorate General of Oil and Gas ("MIGAS"), the MEMR formulates government policy, determines the blocks to be opened for bidding, is responsible for approval of transfers by contractors of their participating interest (in consultation with SKK Migas) and issues the licenses required for the conduct of refining oil and gas marketing activities, such as the production of liquefied natural gas using refining and marketing structures.

The Ministry of Finance is responsible for issuing instructions concerning the basis of the Government's share derived from the exploitation of liquefied natural gas and subordinated by Directorate General of Tax and Directorate General of Customs and Excise, determining the taxes, duties and excise due on LNG development activities, deciding on issues related to government guarantees and formulating, determining and implementing policies on State Owned Assets.

Pursuant to Law No. 22, companies wishing to explore for and exploit oil and gas reserves must enter into a Cooperation Contract with SKK MIGAS. The form of Cooperation Contract typically entered into in respect of exploration and production activities in Indonesia is a PSC.

Under a PSC the Government of Indonesia retains ownership of the oil and gas (prior to delivery) and the contractor bears all the risk and costs of exploration, development and production in return for an agreed percentage share of oil and/or gas production and recovery of eligible operating costs from production.

On January 16, 2017, the the Government of Indonesia introduced a new form of PSC (the "Gross Split PSC") under Minister of Energy & Mineral Resources Regulation No. 8 of 2017 regarding Gross Split Production Sharing Contract ("Regulation 8/2017"). On December 28, 2017, the Government of Indonesia enacted Government Regulation No. 53 of 2017 on the tax treatment of the Gross Split Production Sharing Contract (Government Regulation 53/2017), governing the tax conditions applicable to Gross Split PSCs. At present, no Repsol PSC takes on the form of a Gross Split.

Peru

Regulation of the hydrocarbons market in Peru is included in its Constitution. The Constitution states that the government promotes the private initiatives, recognizing the economic pluralism, and having the state a subsidiary role in terms of business concerns. The Constitution establishes that private and public business activity must be treated equally under the law, and those national and foreign investments are subject to the same conditions. In addition, the Constitution stipulates that the country's natural resources are the property of the state and that the terms and conditions of access to and use of these resources by private parties must be regulated by means of organic laws.

Natural and legal persons, whether Peruvian or foreign, who pursue oil and gas activities must expressly subject themselves to the laws of the Republic of Peru, renouncing the right to any diplomatic recourse.

The most important authorities with competence over Peruvian oil and gas matters are: the Ministry of Energy and Mining (MINEM for its acronym in Spanish), which is tasked with drafting, passing, proposing and applying sector policy; the Energy & Mining Investment Oversight Body (OSINERGMIN), tasked with oversight of the natural and legal persons carrying out activities related to the electricity and hydrocarbon sub-sectors and the imposition of penalties for any breaches of the legal and technical obligations issued by the MINEM and PERUPETRO. The Environmental Assessment and Taxation Body (OEFA) is the technical institution specialized in ensuring compliance with the standards, obligations and incentives laid down in prevailing environmental regulations.

Exploration and Production

The Organic Law of Hydrocarbons (OLH), regulates this natural resource. To provide legal assurance to investors, it states that contracts under its framework shall be considered Contract-Law, and therefore can only be modified by written agreement between the two parties. To achieve these goals the OLH created PERUPETRO, a state-owned Limited Company organized in accordance with the General Corporate Law, to which the state, as owner of the hydrocarbons located in its territory, grants the right of ownership over the hydrocarbons, so that PERUPETRO can negotiate, execute and monitor exploration and/or exploitation contracts, with a licensee (Contractor) by means of License Agreements, Service Agreements and other forms of contracts authorized by MINEM.

Hydrocarbon refining and marketing

The OLH stipulates that any national or foreign individuals or legal entities may install, operate, and maintain petroleum refineries, plants for processing natural gas and condensed, natural asphalt, greases, lubricants, and petrochemicals, subject to the norms specifically established by The Mines and Energy Ministry.

In Peru, the price of hydrocarbon derivatives is regulated by supply and demand.

Venezuela

The Constitution of the Bolivarian Republic of Venezuela stipulates that the mines and oil and gas fields, irrespective of their nature, located on national territory, under the territorial sea, in the exclusive economic zone or on the

continental platform, belong to the Republic, are public-domain goods and are, therefore, inalienable and imprescriptible.

By virtue of organic law and to protect national interests, the Venezuelan State has reserved the Venezuelan oil and gas activities for itself. For reasons of economic and political sovereignty and for national strategic purposes, the State holds all of the shares of *Petróleos de Venezuela, S.A. (PDVSA)*, or the entity that may be set up to run the oil and gas industry.

Venezuela's Hydrocarbons Organic Law (LOH) regulates all matters regarding the exploration, operation, refining, industrialization, transportation, storage, sale and conservation of hydrocarbons, including related refined products and the works required to perform these activities. Pursuant to the LOH, the performance of activities involving the exploration, extraction, collection, transport and storage of hydrocarbons is reserved to the State, which may undertake them directly or through wholly-owned State companies. The State may also conduct these activities through mixed owned companies whose equity interest is over 50%.

The Mixed Companies agreements referred to in the LOH do not impose restrictions on this legal form of company in terms of transferring funds in the form of cash dividends, loan repayments or the redemption of shareholder advances in foreign currency (USD).

Activities relating to the exploration, operation, collection, storage, use, industrialization, sale and transportation of non-associated natural gas and associated gas are subject to the provisions set out in the Organic Gaseous Hydrocarbons Law and its regulations.

Under Foreign Exchange Agreement No. 37, private domestic or foreign holders of gas exploration and operation licenses as defined in the Organic Gaseous Hydrocarbons Law, may hold in bank accounts or in analogous form the foreign currency representing the proceeds of operation of their licenses, including the proceeds of export sales or changes in consumption patterns.

On January 14, 2016, Decree No. 2184 was published in the Extraordinary Official Journal of the Bolivarian Republic of Venezuela No. 6,214, declaring a State of Economic Emergency throughout the entire territory of the Republic for a period of 60 days, providing the State with the power to enact exceptional and extraordinary economic, social, environmental, political and legal measures, in addition to others. This Decree has been successively extended on 11 occasions, with the most recent, Presidential Decree No. 3,074, published on September 15, 2017, in Extraordinary Official Gazette No. 41,237.

The Constituent Assembly was called by the President of the Bolivarian Republic, Nicolás Maduro, via Presidential Decree No. 2,830, published on May 1, 2017; all public authorities are subordinated under the Constituent Assembly and are obliged to comply and ensure compliance with the legal documents issued by said Assembly. The maximum term of this Assembly has been set at two years.

On December 6, 2017, Resolution No. 164 was published by the Ministry of Popular Power over Oil, establishing a 30-day system for revising and validating all national and international agreements entered into and those pending, by PDVSA, its subsidiaries and mixed-ownership companies in which PDVSA holds shares.

Official Gazette No. 41,310, of December 29, 2017 contained the publication of the Constitutional Foreign Production Investment Law, establishing the principles, policies and procedures that regulate foreign production investments in goods and services. The special legislation regulating foreign investments in specific sectors of the economy shall prevail over said law, including those addressing hydrocarbon matters, mining and telecommunications matters. Currently, the National Executive finds itself in the 90-day period prior to the entry into force of the law to set out the corresponding regulations.

REPSOL Group

2017 Integrated
Management Report

*Translation of a report
originally issued in Spanish.
In the event of a discrepancy,
the Spanish language version prevails*



About this report

The 2017 **Management Report** of the Repsol Group¹ fulfills the obligation to prepare a statement of non-financial information mandated under Royal Decree-Law 18/2017², including information necessary to understand the performance, results and position of the group, and the impact of its activity on environmental and social issues, as well as on workforce, on human rights and the fight against corruption and bribery.

In its commitment to transparency and efficiency, Repsol has prepared a report consisting of financial and non-financial information based on the recommendations contained in the “International Integrated Reporting Framework” of the International Integrated Reporting Council (IIRC), the “Guidelines for Preparation of the Listed Company Management Reports” of the Spanish National Securities Market Commission and the European Commission’s non-binding guidelines on the presentation of non-financial information. This “integrated” approach positions this report as a reference point for the Group’s financial and non-financial information.

The **financial information** presented in this document, unless expressly stated to the contrary, was prepared in accordance with the Group’s reporting model, which is described in Note 4 “Segment reporting” in the 2017 consolidated financial statements³. Some of the financial indicators and ratios are classified as Alternative Performance Metrics (APMs) in accordance with European Securities Markets Authority (ESMA) guidelines. Appendix I, “Alternative Performance Measures”, includes the reconciliation between the adjusted figures and those corresponding to IFRS-EU financial information.

The **non-financial information** corresponding to Sustainability indicators is presented in accordance with the Global Reporting Initiative (GRI) G4 Guidelines, using the “comprehensive” option. Appendix IV “GRI-G4 Index” contains a list of the GRI-G4 indicators, with references to the indicators that are included throughout the report, in other public reports or reported in Appendix III “GRI-G4 Indicators.” Sustainability figures and indicators have been calculated according to corporate rules that specify the criteria and common methodology to be applied to labor, environment, human rights and social issues that is described in detail in each of its sections. This information was completed in conformity with the basic criteria that govern the standard AA1000 2008 APS: inclusiveness, materiality and responsiveness, and it is verified under the ISAE 3000 and AA1000 2008 AS standard (verification letter available at www.repsol.com). In addition, for the preparation of this information, account has been taken of the Ten Principles of the United Nations Global Compact.

The **forward-looking information** contained in this document reflects the plans, forecasts or estimates of the Group’s managers at the date of preparation. Such forward-looking information is based on assumptions that are considered reasonable, and cannot be considered as a guarantee of the entity’s future performance, in the sense that such plans, forecasts or estimates are subject to numerous risks⁴ and uncertainties, meaning that the future performance of the Group will not necessarily coincide with what was initially planned.

our vision and values

Additional information: www.repsol.com

Repsol’s **vision** is to be a global company that seeks individual welfare and believes in the building of a better future through the development of intelligent energy to offer better energy solutions.

Our values are:

Integrity

Responsibility

Flexibility

Transparency

Innovation

1. Henceforth, the names “Repsol,” “Repsol Group” or “the Company” are used interchangeably to refer to the company group consisting of Repsol, S.A. and its subsidiaries, associates and joint arrangements.
2. Royal Decree-Law 18/2017, of November 24, amending the Code of Commerce, the restated text of the Spanish Companies Act and the Audit Law, as regards non-financial and diversity information.
3. This report should be read jointly with the Consolidated Financial Statements of the Repsol Group at December 31, 2017, which have been subject to an independent audit.
4. The main risks and risk factors to which the Company is exposed are described in section 2.4 “Risk management” and in Appendix II, “Risk Factors” respectively.

Message from CEO

The 2017 Management Report gathers together all the Group's financial and non-financial information in a single document, providing a full, comprehensive and accurate overview of our activities. ”



At Repsol, we have been striving to improve the information we offer to our stakeholders for a number of years now. In this connection, the new 2017 Management Report gathers together all the Group's financial and non-financial information in a single document, in line with the new legal framework on the disclosure of non-financial content and information on diversity.

This Integrated Management Report is a key tool in learning about our performance in detail, providing a full, comprehensive and accurate overview of our activities. It includes our financial position, the results of our activities and, as the main new feature, it integrates sustainability information that was previously set out in its own report.

Sustainability is one of the Company's strategic pillars, which includes environmental and social aspects in all decision-making processes. The corresponding chapter provides details on the management activities performed in 2017 concerning climate change, people, safety, the environment, innovation, technology, ethics and compliance, responsible taxation or the supply chain.

I would like to make particular mention of the section dedicated to climate change, in which details are provided on the dedication and commitment of Senior Management and all employees at the Company, the strategy, risk management and the initiatives and projects being developed to offer energy solutions that facilitate the transition toward a low-emissions future.

The 2017 Integrated Management Report provides clear and concise information about the Company's financial position and the results of our activities in a year in which our adjusted net income increased by 25%, the highest over the past 6 years, despite the complex international backdrop. Furthermore, in 2017 we have made progress with our operating efficiency enhancement projects, forging new synergies and continuing to optimize investments, all within the framework of the Strategic Plan.

By business area, *Upstream* recorded the best results due to the recovery of crude oil and gas prices, the improvement in efficiency and the increase in production in Libya and Brazil. In *Downstream*, solid results registered in 2016 were maintained, supported by the quality of our industrial assets and the benefits of our integrated business model.

In my opinion, this Integrated Management Report offers stakeholders the most comprehensive summary of our activities.

It is a faithful reflection of the work we have done to adapt to society's needs and consolidate our position as a key player in the energy sector for the next decades.

Thank you very much for placing your trust in us.

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1. Summary of main events

Upstream

Remarkable improvement

Recovery in prices
Reduction in operating costs
Contribution of Libya and Brazil
Important discoveries

Downstream

Strong results in line with 2016

Quality of our industrial assets
Competitive edge of our integrated model

In 2017, Repsol has advanced in the fulfillment of its **2016-2020 Strategic Plan**¹ and in its **process of transformation**, which aims to make the company more efficient, flexible and innovative. Proof of this is that, even in an environment of low crude oil and gas prices, the Company has demonstrated its ability to improve its results and its financial strength.

Net income amounted to €2,121 million (+22% over the same period of the previous year), **cash flow from operations** increased to €5,506 million (+44% on the previous year) and **net debt** was down to €1,877 million, which equals to a 17% leverage.

This notable performance helped **increase the share price** and improve the Group's **credit rating**.

Results for the period

(million euros)

	2017	2016	Δ
Upstream	632	52	580
Downstream	1,877	1,883	(6)
Corporate and other	(104)	(13)	(91)
Adjusted net income	2,405	1,922	483
Inventory effect	104	133	(29)
Special items	(388)	(319)	(69)
Net income	2,121	1,736	385

Upstream business segment results show a significant improvement on 2017 (+€580 million), supported by the increase in realization prices of crude oil and gas and the achievements derived from the operational efficiency plans, but also driven by higher contribution of production in Libya and Brazil.

In **Downstream**, the strong results are in line with those of 2016, which shows the quality of our industrial refining and petrochemical assets and the competitive advantage for the commercial businesses of our integrated business model.

Lower income in **Corporate and other**, despite the decrease of corporate and financial costs, was due mainly to the smaller contribution of Gas Natural Fenosa (GNF).

As a result of the foregoing, **adjusted net income**, which aims to reflect the ordinary profit resulting from business management, amounted to €2,405 million, which is 25% higher than in 2016, and the highest in the past six years, in a period marked by a complex international environment.

Inventory effect, which reflects the impact of price changes on inventories, is positive due to the upward trend in crude oil prices.

Special items in the period (€-388 million) mainly include the movement of provisions for accounting write-downs. In this period, the reversal of provisions related to assets in the United Kingdom stands out, due to the significant improvements obtained in its operation, as well as the provision to adjust the value of existing US tax credits to the reduction of rates in corporate tax and the provisions related to our investments in Venezuela, in line with the evolution of country risk.

In sum, the Group's 2017 **net income** amounted to a profit of €2,121 million, up 22% on 2016.

The **EBITDA** of €6,723 million, is 29% higher than in 2016, driven by a substantial improvement in results in the *Upstream* segment. **Free cash flow** in 2017 came to €2,560 million, due to the significant increase in cash flow from operations (+44%) and despite the absence of significant divestments.

€2,121 million

Net income of 2017 [↑22%]

22% ↑

Earnings per share

1. The 2016-2020 Strategic Plan was published in October 2015, and is available at www.repsol.com.

Important discoveries	Shareholders Remuneration	Occupational safety	Reduction in CO₂
North Slope Trinidad and Tobago	€0.76 per share	TRIR:1.43 No fatalities	216 Thousand Tons

44% ↑
cash flow from operations

Net debt at the end of the period amounted to €6,267 million, which constitutes an important reduction on year-end 2016 (€8,144 million).

The Group's **credit rating improved**. For S&P, it went from BBB- to BBB for the long term, and from A-3 to A-2 in the short term, both with a stable outlook. Moody's and Fitch improved their outlooks from "negative to "stable."

The company provided **remuneration to its shareholders** under its "Repsol Flexible Dividend" program, which allowed shareholders in 2017 to choose to receive an equivalent remuneration of €0.76 per share¹ in either new shares or cash.

Repsol shares gained 10% during the period, outperforming the Ibex-35 index and in line with the average of the European Oil & Gas sector. Progress in achieving the targets of the strategic plan, and the gradual recovery of the Brent price, lifted the share price in the second half of the year.

Other events during the period

There were **two major discoveries** during the year. One was in the Alaska *North Slope*, with the *Horseshoe-1* and *Horseshoe-1A* drillings, the biggest conventional hydrocarbon find in the U.S. in the last thirty years. The other was in Trinidad and Tobago with the *Savannah* and *Macadamia* drillings, Repsol's largest gas discovery in the last five years. In addition, **large projects were commissioned** in the *Upstream* segment, such as *Flyndre* and *Shaw/Cayle* in the UK, *Juniper* in Trinidad and Tobago, the re-development of *Kinabalu* in Malaysia, *Sagari* in Block 57 in Peru, *Lapa* in Brazil and *Reganne* in Algeria.

A **Global Sustainability Plan (GSP)** has been drawn up, in which Repsol commits itself to 2020 targets in the six main areas of Sustainability (climate change, people, safe operation, environment, innovation and technology, ethics and transparency).

In the context of an energy transition towards a low-emissions future that will limit the effects of **climate change**, in 2017 Repsol implemented improvement actions in its facilities that avoided 216 thousand tons in CO₂ emissions, while also reducing its energy consumption. Also worthy of note was the issuance of a **green bond**, the first for the Company and for the Oil & Gas sector, in the amount of €500 million.

With respect to **occupational safety**, the Total Recordable Incident Rate (TRIR) decreased 2% from the 2016 figure and there were no fatalities occurring among either own personnel or that of contractors' personnel.

In 2017, three new independent non-executive Directors were appointed, promoting the **diversity of knowledge and gender** in the Board of Directors.

GSP

Throughout this document, GSP Ambitions and Targets are identified with an **a** and a **2020** in similar boxes. Further information: www.repsol.com

23% ↓
Net debt

1. This includes the commitment to purchase free-of-charge allocation rights assumed by Repsol in the two capital increases concluded in January and July 2017 (€0.335 and €0.426 gross per right, respectively).

Main figures and indicators

Financial indicators ⁽¹⁾	2017	2016	Macroeconomic environment	2017	2016
Results			Brent (\$/bbl) average	54.2	43.7
EBITDA	6,723	5,226	WTI (\$/bbl) average	50.9	43.5
Adjusted net income	2,405	1,922	Henry Hub (\$/MBtu) average	3.1	2.5
Net income	2,121	1,736	Algonquin (\$/MBtu) average	3.7	3.1
Earnings per share (€/share)	1.35	1.11	Exchange rate (\$/€) average	1.13	1.11
Capital employed ⁽²⁾	36,330	39,255			
ROACE (%)	7.4	5.8	Our business performance⁽¹⁾	2017	2016
Financial overview and cash flows			Upstream		
Net debt (ND)	6,267	8,144	Proven reserves (MMboe)	2,355	2,382
ND / EBITDA (x times)	0.9	1.6	Proven reserve-replacement ratio (%)	89	103
ND / Capital employed (%)	17.3	20.7	Net daily liquids production (kbb/d)	255	243
Debt interest / EBITDA (%)	5.2	8.2	Net daily gas production (kboe/d)	440	447
Free cash flow	2,560	4,323	Net daily hydrocarbon production (kboe/d)	695	690
Net investments	2,856	(500)	Average crude oil price (\$/bbl)	49.6	39.0
Shareholder remuneration			Average gas price (\$/kscf)	2.9	2.4
Shareholder remuneration (€/share)	0.76	0.76	EBITDA	3,507	2,072
			Adjusted net income	632	52
Stock market indicators	2017	2016	Net investments	2,072	1,889
Share price at year-end (€/share)	14.75	13.42	Downstream		
Average share price (€/share)	14.57	11.29	Refining capacity (kbb/d)	1,013	1,013
Market capitalization at year-end (€ million)	22,521	19,669	Conversion rate in Spain (%)	63	63
Sustainability Indicators	2017	2016	Conversion utilization Spanish Refining (%)	104	103
People			Distillation utilization Spanish Refining (%)	94	88
No. employees ⁽³⁾	25,085	25,469	Refining margin indicator in Spain (\$/Bbl)	6.8	6.3
New employees ⁽⁴⁾	3,157	2,445	Service stations (no.) ⁽⁹⁾	4,709	4,715
Total Employee turnover rate (%)	9	13	Oil product sales (kt)	51,836	48,048
Hours of training per employee	40	41	Petrochemical product sales (kt)	2,855	2,892
Tax paid (€ million)⁽⁵⁾	11,979	11,764	LPG sales (kt)	1,375	1,747
Safety			Gas sales in North America (TBtu)	496	414
Lost Time Injury Frequency Rate ⁽⁶⁾	0.71	0.69	EBITDA	3,386	3,367
Total Recordable Incident Rate ⁽⁷⁾	1.43	1.46	Adjusted net income	1,877	1,883
Environment			Net investments	757	(496)
Direct CO ₂ emissions (Mt)	18.38	19.74			
Annual CO ₂ emissions reduction (Mt) ⁽⁸⁾	0.216	0.312			
No. of hydrocarbon spills > 1 bbl (t)	17	11			
Social					
Voluntary social investment (€ million)	23.5	19.8			

(1) Where applicable, figure shown in millions of euros.

(2) Capital employed from continuing operations.

(3) Number of employees that belong to companies in which Repsol establishes people management policies and guidelines, irrespective of the type of contract (fixed, temporary, partially retired, etc.).

(4) Only fixed or temporary employees with no prior working relationship with the Company are considered to be new hires. 31% of new employees in 2017 and 43% in 2016 had fixed contracts.

(5) Includes taxes paid which represent a cash expense for the company, thus reducing its earnings, as well as those withheld or passed on to the end taxpayer. Does not include amounts accrued payable at a future date or collected in previous periods. For further information, see section 6.6 of this document.

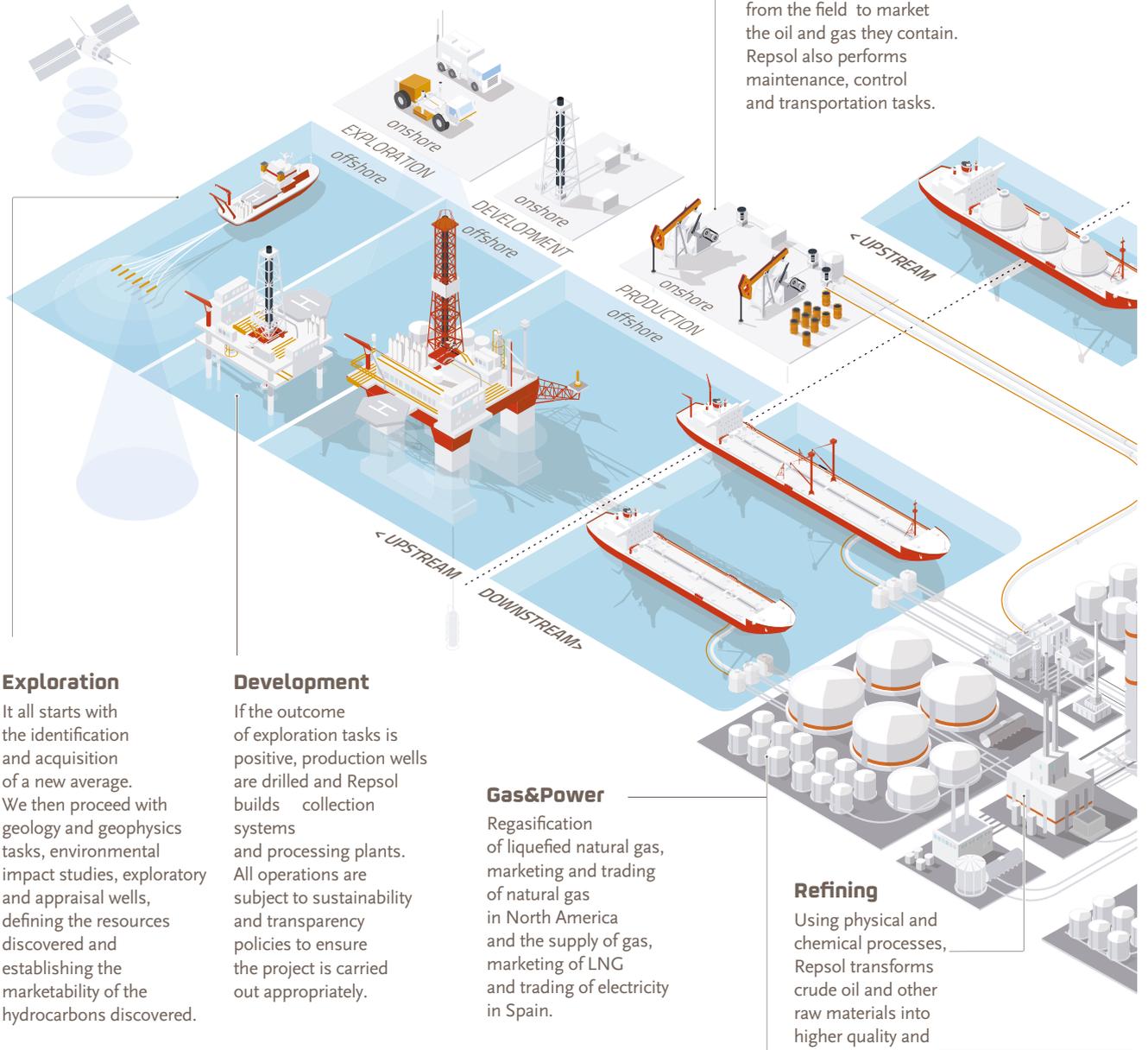
(6) Lost time injury frequency rate (LTIF): number of lost time injuries and fatalities per million work hours.

(7) Total Recordable Incident Rate (TRIR): Total number of injuries (fatalities, lost time injuries, medical treatment and restricted work) accumulated within the period per million hours worked.

(8) Reduction of CO₂ compared with the 2010 baseline.

(9) The number of service stations (SS) includes those controlled and licensed.

2. Our Company



Upstream

Operational Indicators

Proven reserves: 2,355 MMboe
Reserve replacement rate: 89%
Gas reserves: 74%

Production: 695 kboe/día
Gas Production: 63%

Sustainability Indicators*

No. Employees: 4,291 (28% women)
CO₂e emissions: 10.6 Mt (Scope 1 and Scope 2 included)
Water withdrawn: 1,921 kt

TRIR: 1.82
PSIR₁₊₂: 0.94

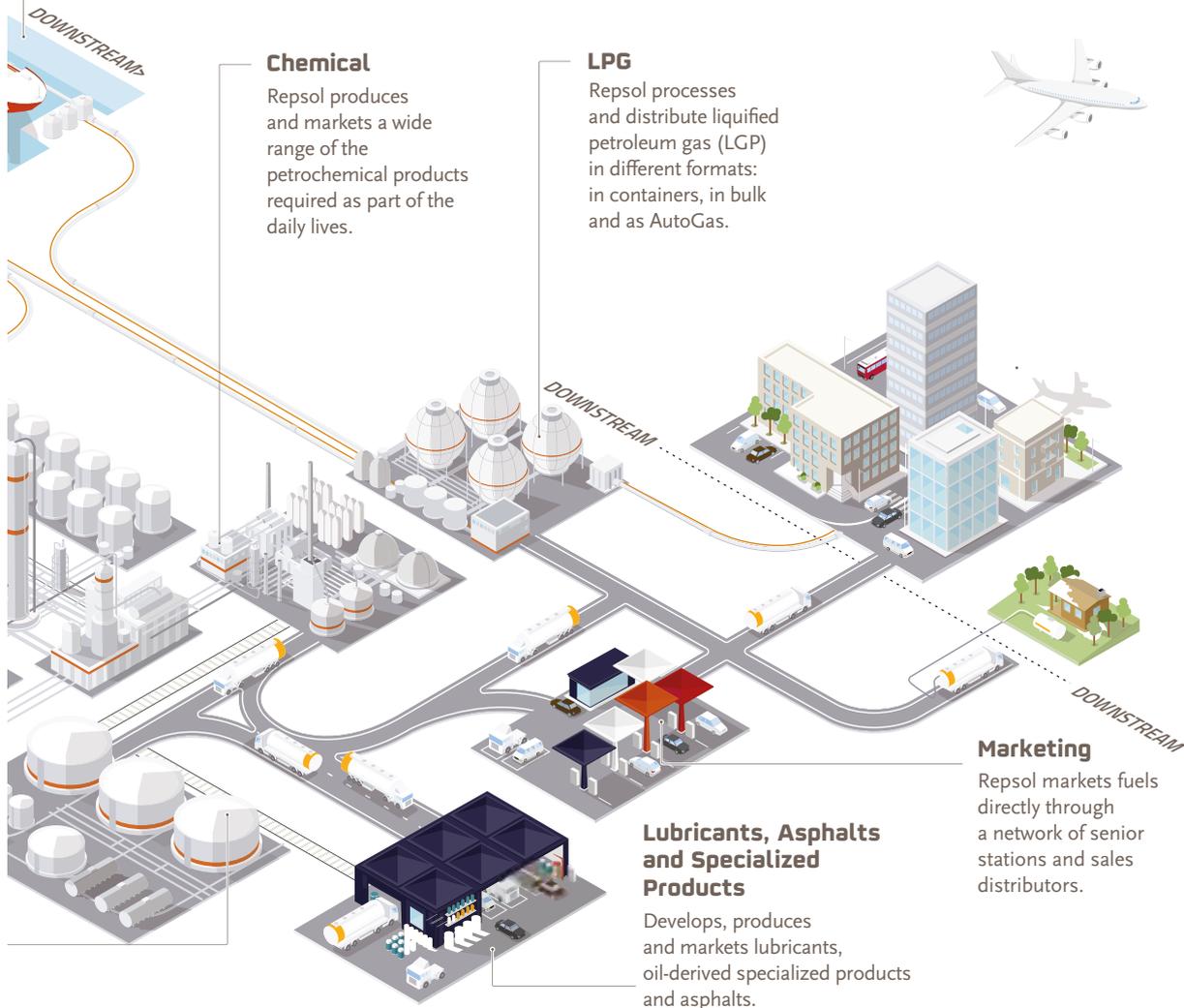
(*) Sustainability indicators are defined in section 6 of this document..

Trading

Once the hydrocarbons have been extracted, they are either transported to supply the refineries or they are sold on international markets. The best alternatives for supplying the Downstream system are also sought and any surplus sold for export.

2.1. Business Model

Repsol is an integrated energy company with a broader experience in the sector that operates across the world in two business areas.



Chemical

Repsol produces and markets a wide range of the petrochemical products required as part of the daily lives.

LPG

Repsol processes and distributes liquefied petroleum gas (LPG) in different formats: in containers, in bulk and as AutoGas.

Marketing

Repsol markets fuels directly through a network of senior stations and sales distributors.

Lubricants, Asphalts and Specialized Products

Develops, produces and markets lubricants, oil-derived specialized products and asphalts.

Downstream

Operational Indicators

Refining capacity: 1,013 kbb/d

Chemical capacity:

Basic: 2,603 kt

Derivative: 2,235 kt

Processed crude: 47,357 kt

Marketing (No. service stations):

3,445 at Spain

1,264 rest of the World

Sustainability Indicators*

No. employees: 18,604 (36% women)

CO₂e emissions: 12.7 Mt (Scope 1 and Scope 2 included)

Water withdrawn: 51,577 kt

TRIR: 1.30

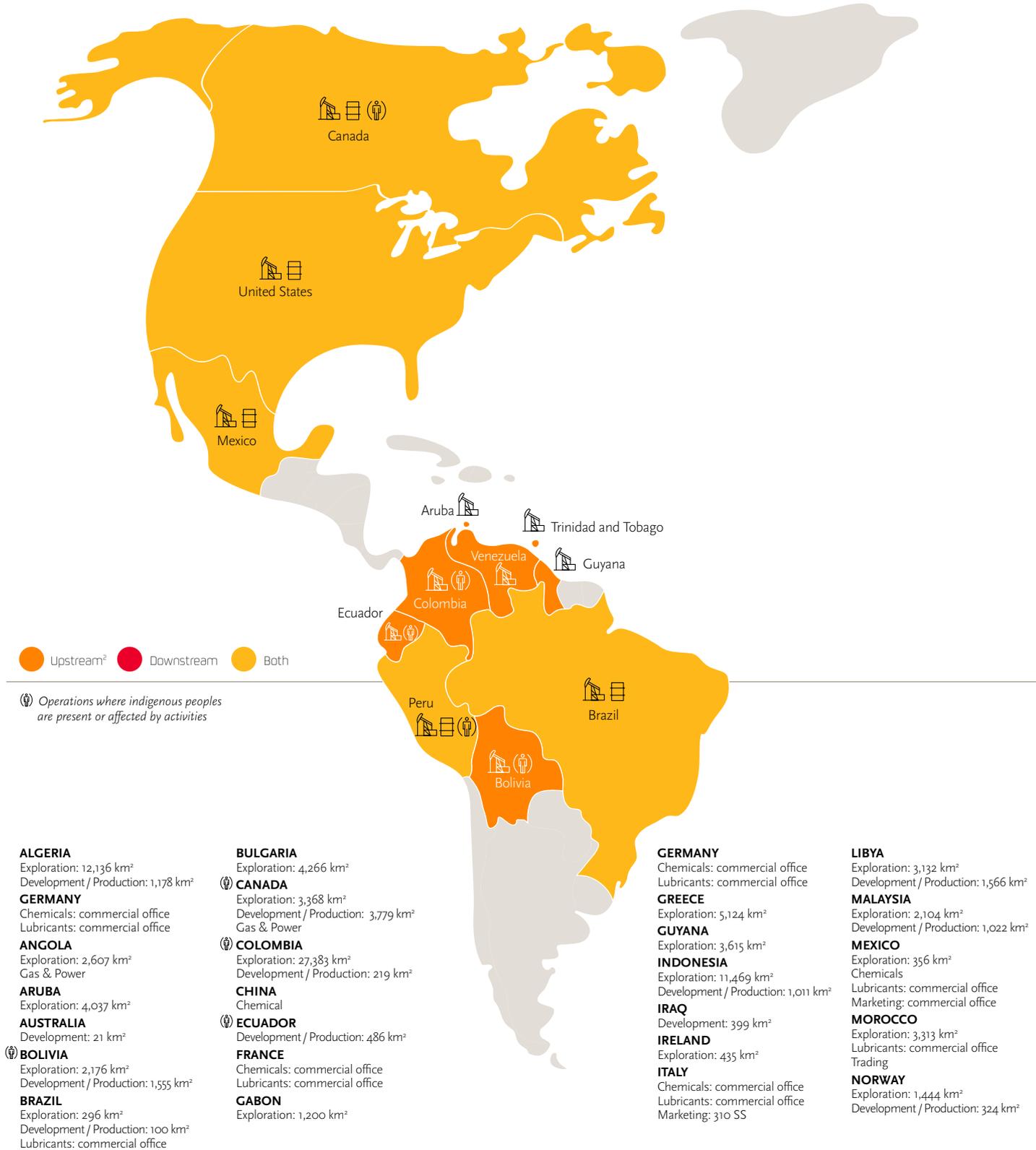
PSIR₁₊₂: 0.45

Electric recharge points: 1,055

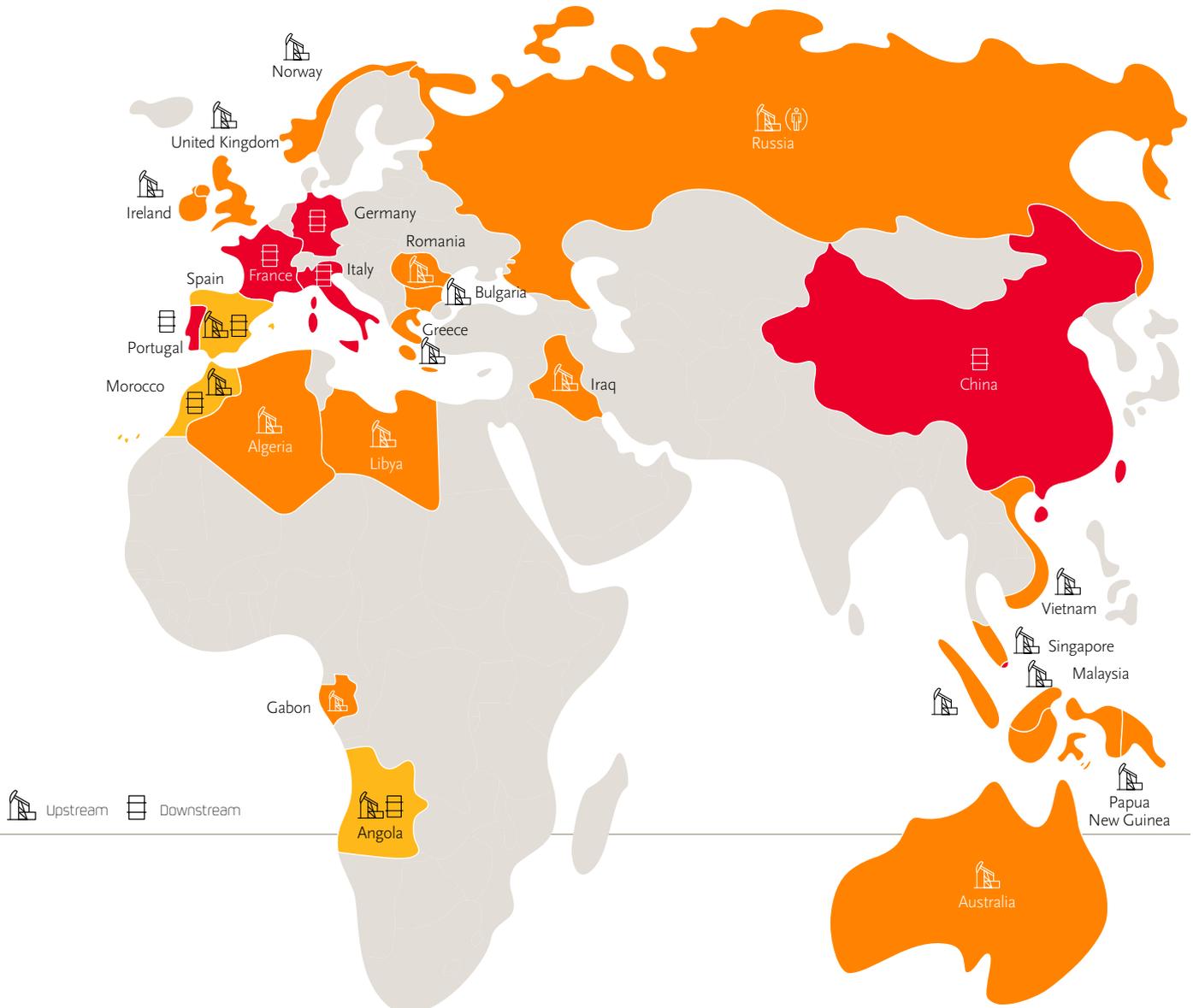
Autogas points: 767

(*) The Sustainability indicators are defined in section 6 of this document

2.2. Repsol around the world ¹



1. The information on this map reflects the Company's situation as of December 31, 2017.
 2. Exploration and production/development data is reported in net surface area of mineral rights.



Upstream Downstream

PAPUA NEW GUINEA
 Exploration: 7,418 km²
 Development: 1,303 km²

PERU
 Exploration: 10,255 km²
 Development / Production: 141 km²
 Lubricants: commercial office
 Refining: 1 refinery
 Trading
 Marketing: 490 SS

PORTUGAL
 Chemicals
 Lubricants: commercial office
 Marketing: 464 SS
 GLP

ROMANIA
 Exploration: 3,189 km²

RUSSIA
 Exploration: 2,272 km²
 Development / Production: 169 km²

SINGAPORE
 Lubricants: commercial office
 Trading

SPAIN
 Exploration: 798 km²
 Development / Production: 331 km²
 Chemicals
 Lubricants
 Refining: 5 refineries
 Trading
 Marketing: 3,445 SS
 GLP
 Gas & Power

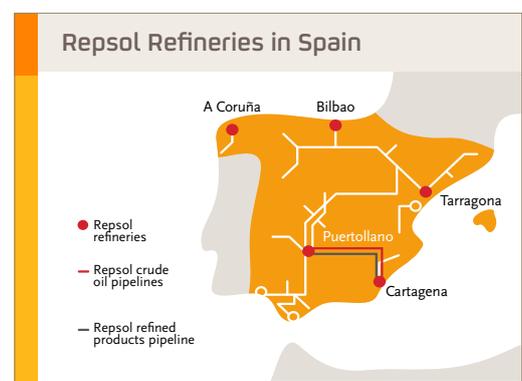
TRINIDAD & TOBAGO
 Development / Production: 1,121 km²

UNITED KINGDOM
 Exploration: 117 km²
 Development / Production: 543 km²

UNITED STATES
 Exploration: 1,780 km²
 Development / Production: 1,455 km²
 Chemicals: commercial office
 Trading
 Gas & Power

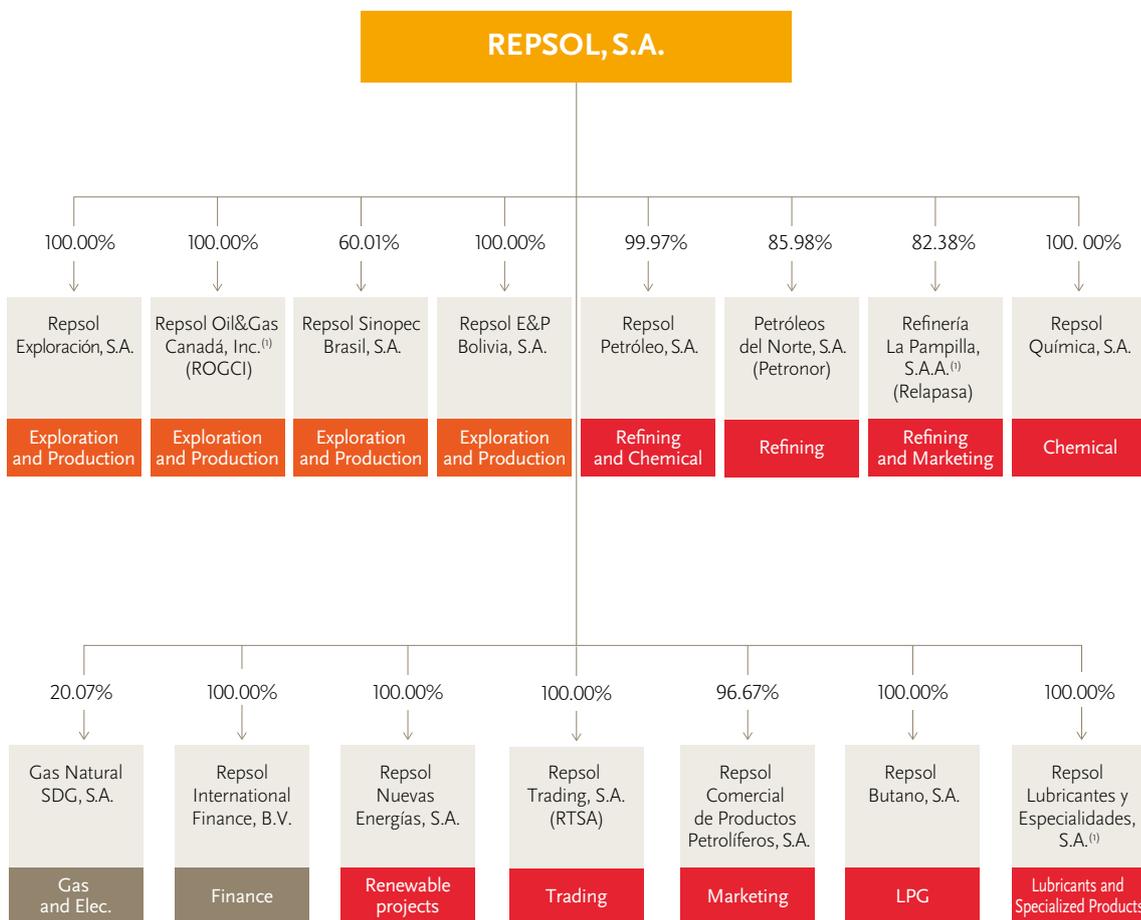
VENEZUELA
 Development / Production: 853 km²

VIETNAM
 Exploration: 73,336 km²
 Development / Production: 179 km²



2.3. Corporate structure

The corporate structure of the Repsol Group is shown below, in the form of the main companies making up the Group:



(1) Indirect ownership interests

● Upstream ● Downstream ● Corporate

Sale agreement of Gas Natural, SDG, S.A.:

On February 22, 2018, Repsol, S.A. has reached an agreement with Rioja Bidco Shareholdings, S.L.U., ["Rioja"] a company controlled by funds advised by CVC, for the sale of its stake in Gas Natural SDG, S.A. ["Gas Natural"], representing approximately 20.072% of the share capital of Gas Natural, for a total amount of €3,816,314,502, equivalent to a price of €19 per share. For further information, see Note 31 of the Consolidated financial statements.

Corporate structure:

For further information on the main companies comprising the Repsol Group and the main changes during the year, see Appendix I and Ib of the consolidated financial statements.

Corporate streamlining:

For further information on the process of streamlining the corporate structure launched following the integration of ROGCI, see section 6.7 of this document.

2.4. Corporate governance

Repsol's system of corporate governance, which was established in accordance with best national and international practice and standards, guides the structure, organization, and operation of corporate bodies in the interests of the Company and of its shareholders, and is based on the principles of transparency, independence and responsibility.

The **governance structure** at Repsol adequately differentiates the governance and management functions of the Company from its oversight, control, and strategic definition functions. The Annual General Meeting is the sovereign corporate body through which shareholders intervene in the taking of essential decisions of the Company, with the Board of Directors, either directly or through its various Committees, responsible for the formulation of general policies, the strategy of the Company, and basic management directives, as well as general oversight and consideration of matters of special importance that are not reserved to the Annual General Meeting.

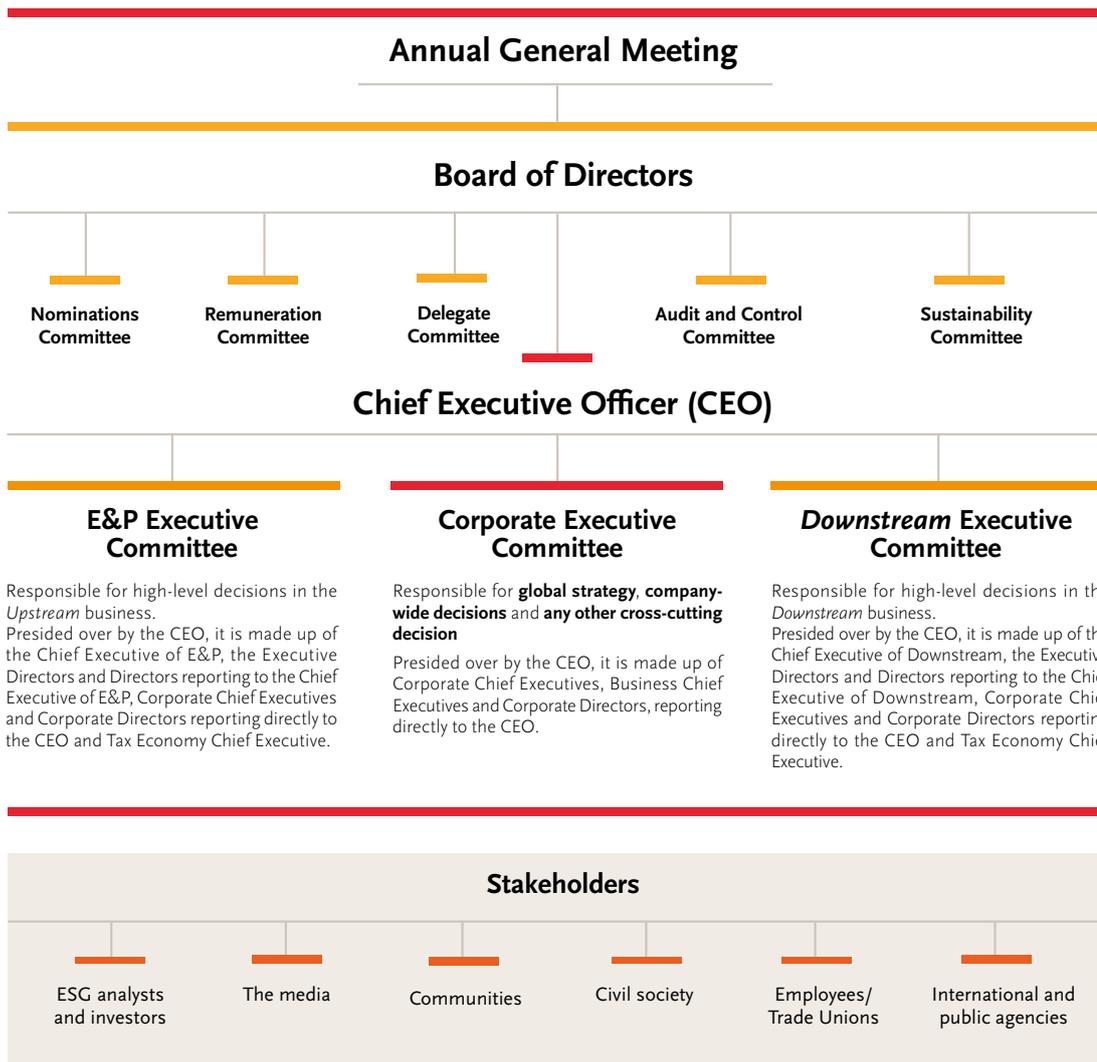


1. % of share capital according to the latest information available at the date of this document. Information provided by Compañía de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores, S.A.U. (Iberclear), and information submitted by shareholders to the Company and to the CNMV.

GSP

a

Ambition:
Achieve maximum national and international standards in terms of Good Governance.



The **composition of the Board of Directors** and its committees is as follows:

13.3%
of foreigners
in the Board
of Directors

13.3%
of women
in the Board
of Directors

GSP

**20
20**

Target:
30% of women
in the Board of
Directors

Board of Directors

<p>Chairman Antonio Brufau Niubó Chairman of the Delegate Committee First appointment: 07/23/96 Last appointment: 04/30/15</p>				
<p>Gonzalo Gortazar Rotaache First Vice Chairman Member of the Delegate Committee Member of the Remuneration Committee First appointment: 04/30/15 Last appointment: 05/20/16</p> 	<p>Manuel Manrique Cecilia Second Vice Chairman Member of the Delegate Committee First appointment: 04/25/13 Last appointment: 05/19/17</p> 	<p>Josu Jon Imaz San Miguel CEO Member of the Delegate Committee First appointment: 04/30/14 Last appointment: 04/30/15</p>	<p>Mª Teresa Ballester Fornés Member of the Audit and Control Committee First appointment: 05/19/17</p>	<p>Artur Carulla Font Member of the Delegate Committee Chairman of the Remuneration Committee Member of the Nominations Committee Coordinating Director First appointment: 06/16/06 Last appointment: 03/28/14</p>
<p>Luis Carlos Croissier Batista Member of the Audit and Control Committee Member of the Sustainability Committee First appointment: 05/09/07 Last appointment: 04/30/15</p>	<p>Rene Dahan Member of the Delegate Committee First appointment: 05/31/13 Last appointment: 05/19/17</p> 	<p>Ángel Durández Adeva Chairman of the Audit and Control Committee Member of the Remuneration Committee First appointment: 05/09/07 Last appointment: 04/30/15</p>	<p>Jordi Gual Solé Member of the Nominations Committee Member of the Sustainability Committee First appointment: 12/20/17</p> 	<p>José Manuel Loureda Mantiñán Member of the Nominations Committee Member of the Remuneration Committee Member of the Sustainability Committee First appointment: 01/31/07 Last appointment: 04/30/15</p> 
<p>Mariano Marzo Carpio Member of the Nominations Committee Chairman of the Sustainability Committee First appointment: 05/19/17</p>	<p>Isabel Torremocha Ferrezuelo Member of the Audit and Control Committee First appointment: 05/19/17</p>	<p>J. Robinson West Member of the Delegate Committee First appointment: 01/28/15 Last appointment: 04/30/15</p>	<p>Luis Suárez de Lezo Mantilla Director and General Secretary to the Board of Directors Member of the Delegate Committee First appointment: 02/02/05 Last appointment: 05/19/17</p>	<p>Legend:  Independent  Proprietary  Executive  External</p>

Changes to the Board

On May 19, 2017, Repsol's Annual General Meeting approved the re-election of Mr. Rene Dahan, Mr. Manuel Manrique Cecilia and Mr. Luis Suárez de Lezo Mantilla as Directors, the ratification and re-election of Mr. Antonio Massanell Lavilla as a Director and the appointment of Ms. María Teresa Ballester Fornes, Ms. Isabel Torremocha Ferrezuelo and Mr. Mariano Marzo Carpio as Directors. All shall serve a term of office of 4 years.

On December 20, 2017, the Board of Directors agreed, at the proposal of shareholder CaixaBank, S.A. the appointment by cooptation of Mr. Jordi Gual Solé as an External Director to cover the vacancy generated by the resignation of Mr. Antonia Massanell Lavilla.

On February 20, 2018, Mr. Mario Fernández Pelaz has resigned his position as Director of Repsol, S.A. Board of Directors.

Board Remuneration

Information on remuneration of members of the Board of Directors and executive personnel is provided in Note 27 of the consolidated financial statements. Repsol publishes an annual report on Remuneration of Directors, which contains detailed information on the application of the Directors Remuneration Policy, both of which are available at www.repsol.com

Sustainability and governance model

The Repsol Sustainability model identifies, systematizes and launches actions which contribute to sustainability development, where the Board of Directors and the Sustainability Committee play a key role. The Board approves the Company's strategy and policy on sustainability and corporate governance, while the Committee is aware of and orients the Company's policy, objectives and guidelines with respect to environmental, social and safety matters. In 2017, this Committee held four meetings and addressed the following:

- Sustainability Policy and Global Sustainability Plan.
- Risk Map.
- Sustainability Report 2016 and Sustainability Website.
- Scorecard, indicators and fulfillment of Safety and Environment targets.
- Energy and climate change: progress and commitments of OGCI and OGCI-Climate Investment, E&P emission reduction target, challenges of energy transition and Company's position in carbon capture, use and storage.
- Progress on Circular Economy Strategy.
- Progress and significant issues in Community Relations and Human Rights.
- Self-assessment of the Sustainability Committee.

In ethics and transparency matters, the Audit and Control Committee and the Ethics and Compliance Committee oversees compliance with the Code of Ethics and Conduct, and they examine proposed codes of ethics and conduct and reforms thereof, ensuring compliance with standards and that such codes are adequate for the Group.

Further, senior management, defines the Company's objectives, action plans and practices with respect to sustainability. To ensure the deployment of sustainability policies, targets and guidelines, sustainability targets account for up to 5% of the CEO's annual variable remuneration, and up to 10% of the multi-year variable remuneration implemented through long-term incentive plans for executives and other employees, including the CEO and General Counsel Secretary.

Risk management

As a global and integrated oil company, Repsol is exposed to different types of risk that may affect the future performance of the organization, and which must be mitigated in the most effective way possible.

The Company has an organization, procedures and systems that allow it to reasonably manage the risks to which the group is exposed, as an integral part of decision-making processes in both corporate governance bodies and business management.

Repsol has an integrated risk management model designed to anticipate, manage, and control risks from a global perspective. The Integrated Risk Management System (SGIR in Spanish) provides a comprehensive and reliable view of all risks that might affect the Company.

The Repsol Group has a system of internal control over financial reporting (ICFR) whose correct functioning can reasonably ensure the reliability of the Group's financial reporting. The ICFR model is based on the methodological framework of COSO 2013 (Committee of Sponsoring Organizations of the Treadway Commission).

Risk management

Additional information in Appendix II "Risks" and sections E and F of Annual Corporate Governance Report (Appendix VI).

3. Environment

3.1% ↑
 GDP growth in Spain in 2017 (estimated)

3.1. Macroeconomic environment

Recent economic trends

In 2017, the **world economy** consolidated the recovery that began in mid-2016. After modest growth of 3.2% in 2016, economic activity grew by 3.7% in 2017. The rebound was synchronized by regions, which contributed to the reduction of economic risk in the short term and to an improvement of the outlook.

Growth in the **advanced economies** rose from 1.7% in 2016 to 2.3% in 2017, due to an improvement in domestic demand, with the deleveraging of the private sector now well advanced and with fiscal policy becoming more expansive. In addition, with inflation levels still low – below the target level – the normalization of monetary policy is expected to be gradual, helping maintain better financial conditions and the stimulus for the global economy.

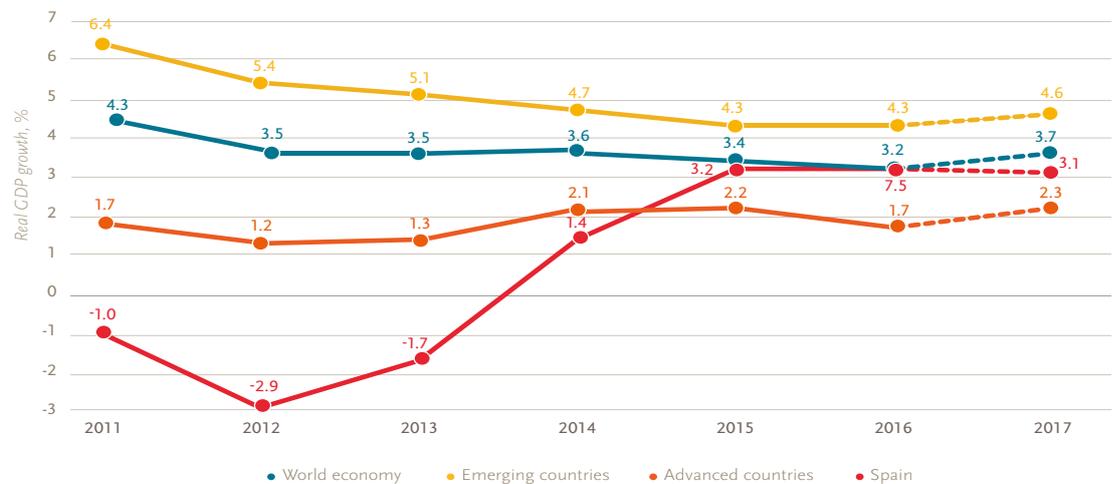
By regions, the 2.4% growth in the **Eurozone** is surprising on the upside, supported by the quantitative easing program of the European Central Bank (ECB), the recovery in lending,

looser fiscal policies, and the improvement in competitiveness. In **Spain**, not only does the economy remain dynamic (with YoY growth of 3.1% in 2017), but the composition of growth appears healthy. Despite the strength of domestic demand, the current account balance remains positive, with the strength of exports pointing to improved competitiveness.

Meanwhile, growth in the **US**, after easing to 1.5% in 2016, has showed greater dynamism in recent quarters, ending 2017 with growth of 2.3%. In addition, the possible approval of a fiscal reform that substantially reduces the tax burden, especially in corporate income tax, may boost activity even more in 2018.

For their part, the rebound of emerging economies from 4.4% growth in 2016 to 4.7% in 2017 is due to the greater dynamism of China, and especially of commodity-exporting countries against a backdrop of a certain degree of recovery in the prices of primary products and the return of capital inflows.

GDP evolution



Source: Bloomberg and Repsol Research Unit

Evolution of the exchange rate

The first part of 2017 was marked by the progressive weakening of the US dollar following the rally it underwent in late 2016. The Fed's decision to hike interest rates in December, and Trump's election as US president in November were the main factors explaining the strength of the dollar toward the end of the previous year. The markets thought that the new president's electoral promises would provide support for the dollar inasmuch as they would result in an expansionary fiscal policy, a tightening of monetary policy and a deregulation of US financial markets.

On the other hand, the fact that the ECB and the Bank of Japan (BOJ) would continue with their balance sheet expansion programs, with interest rates at historical lows, would exert downward pressure on the euro and yen. On the other hand, a year weighted with highly significant elections in Holland, France and Germany, together with a number of anti-EU parties bursting onto the scene, gave rise to a high level of political risk which predominated even over economic fundamentals.

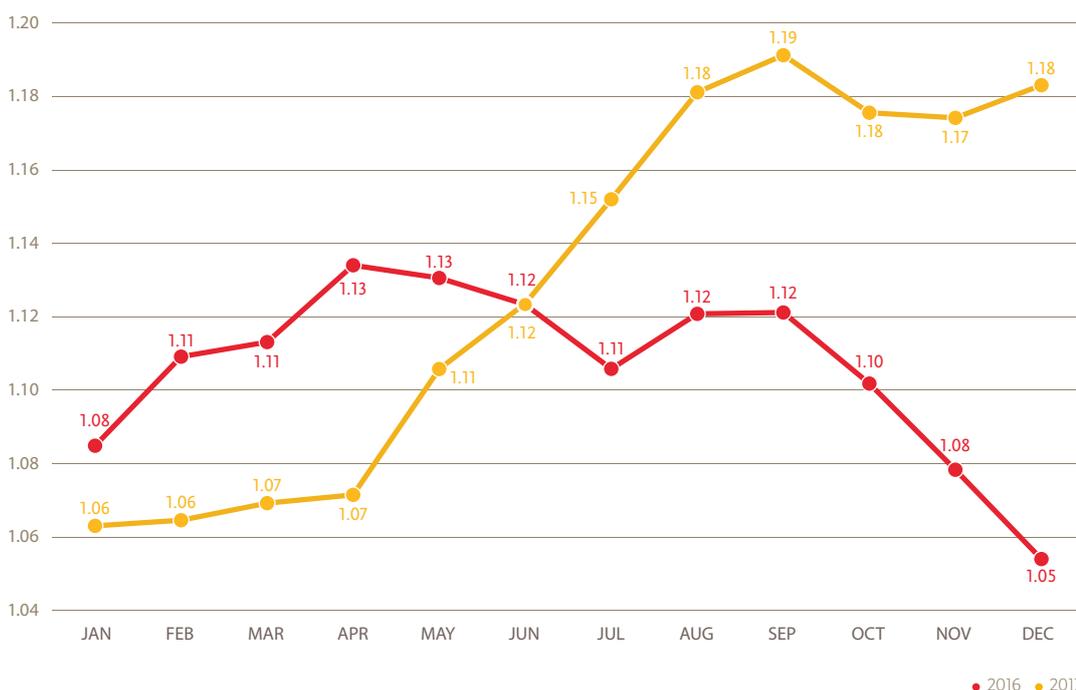
However, throughout the first part of this year, some of these factors weakened, favoring the strength of the dollar against the euro. Doubts arose about the capacity of the Trump administration to carry out its electoral promises - especially the fiscal expansion - and, in Europe, political risk diminished following the victories of pro-EU parties. In addition, with economic growth in Europe showing clear signs of strength, the ECB reduced the size of its asset purchasing program, thus narrowing the divergence in the monetary policy stance vis-à-vis the US.

This weak dollar trend began to reverse in early October, in tandem with highly favorable macro data also in the US and, above all, the progress in negotiations to finally approve the tax reform in the country.

Emerging markets saw their currencies appreciate in the first half of 2017, benefiting from a recovery in commodities prices and increased capital inflows, although some of these gains began to abate starting in October.

€/\$1.20
FX
year-end 2017

Evolution of EUR/USD exchange rate (monthly average)



Source: Bloomberg and Repsol Research Unit

24% ↑
Brent Price

3.2. Energy landscape

Crude oil - Brent

In the second half of 2017, the oil market followed an upward price trend, with Brent crude rising from an average of \$46.5/bbl in June to \$64.2/bbl in December, with the average coming out to \$54.2/bbl, nearly \$10 above the 2016 average. This price rebound was accompanied by several factors, most particularly the policy for cutting back production agreed in late 2016 by the OPEC countries, which was joined by a group of ten non-OPEC countries (Russia, Mexico, Kazakhstan, Azerbaijan, Oman, Malaysia, South Sudan, Sudan, Bahrain and Brunei).

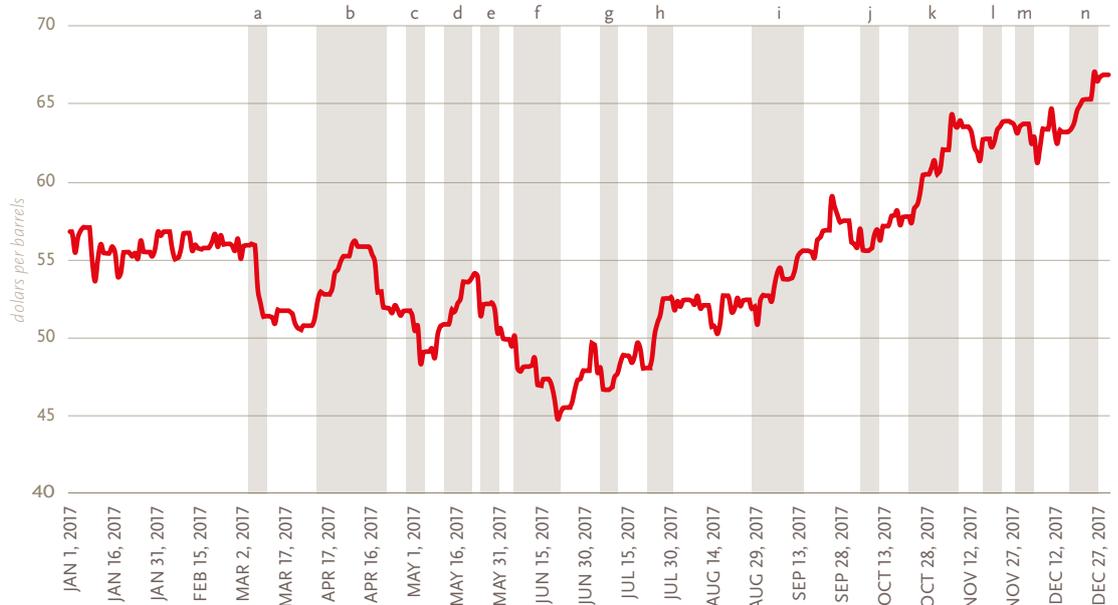
This agreed cut of about 1.8 million bbl/d in total, which will now last until the end of 2018, has reached a higher-than-expected level of compliance. This led to a sustained drop in inventories in the second half of 2017, causing a global deficit in the balance between supply and demand. In addition, geopolitical events (tension in Iraqi Kurdistan), natural disasters (intense hurricane season in the

US and Caribbean) and logistics problems (closure of major pipelines) also contributed to the price rebound in the second half of 2017.

In spite of the renewed balance achieved in supply and demand, certain risk factors could lead to a price correction: i) a far lower level of compliance with production cutbacks than seen to date; ii) a larger-than-expected increase in US production; and iii) lower-than-expected growth in the demand of emerging countries.

The Brent In January, the Brent price continued the upward trend of year-end 2017. The average price in January was \$69.2/bbl, which amounts to an increase of \$5/bbl on the December average, and nearly \$15/bbl on the average of January 2017. The forces driving up the price include geopolitical factors, notably the instability in Iran at the start of the month, in addition to fundamental factors arising from the improvement in the global economic outlook and the ongoing fall in inventories, particularly in the US. In short, the fundamentals side of supply and demand is showing the effects of the production cutback

Main milestones marking the price of Brent crude oil

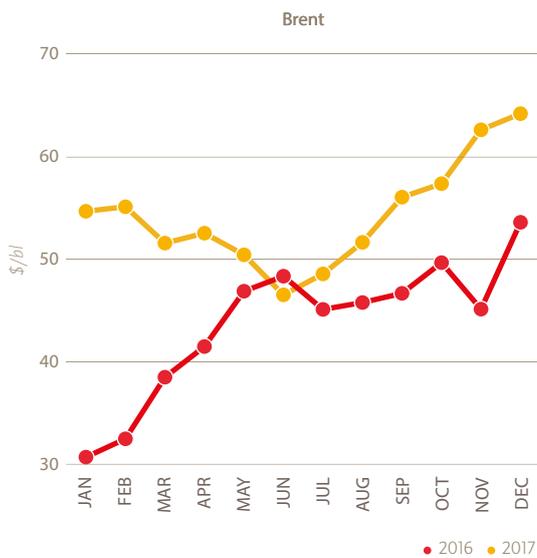


Source: Bloomberg and Repsol Research Unit

- a) Increase of production in the USA and bad signals in the demand.
- b) Forecast of extension of the OPEC agreement, but doubts about its effect on price.
- c) Doubts about China’s economic growth.
- d) Expectations prior to OPEC’s meeting.
- e) OPEC’s meeting (Vienna).
- f) Distress by OPEC’s findings and increased production in Libya.
- g) Significant changes in short positions in the market.
- h) Weakening of the dollar.
- i) Strong hurricanes in the USA.
- j) Tension in the Iraqi Kurdistan.
- k) Closure of the Keystone XL pipeline.
- l) Closure of the Forties pipeline and reduction of inventories in the USA.

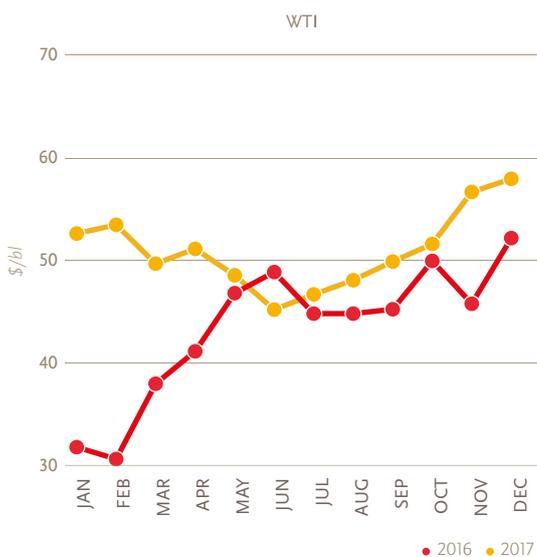
policy agreed by OPEC and some non-OPEC countries, in spite of the expected production increases that have occurred in the US. Moreover, the activity of non-commercial agents in petroleum oil financial markets also helped drive prices upward in January.

Brent price evolution



Source: Bloomberg and Repsol Research Unit

West Texas Intermediate (WTI) price evolution



Source: Bloomberg and Repsol Research Unit

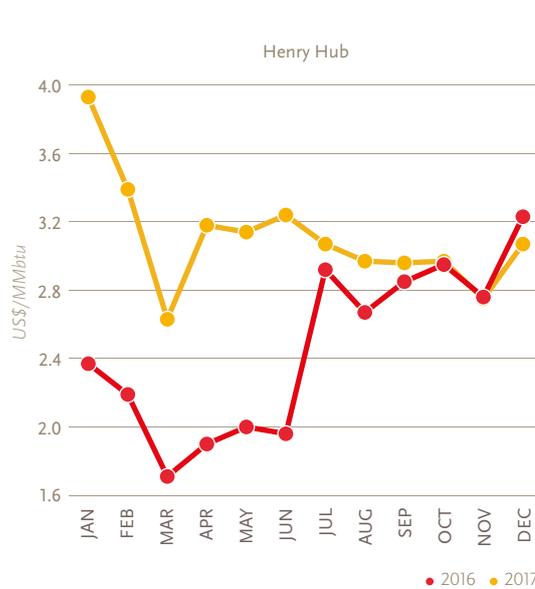
Natural Gas - Henry Hub

With respect to US natural gas, the average one-month futures price of HH was \$3.1/MMBtu in 2017 (increase of 26% on 2016), as a result of an adjustment of the supply-demand balance compared to the previous year. This adjustment was reflected in inventories which, at year-end, were 6% below the 2016 levels and compared to average level of the past five years. In this regard, the increase in exports of Liquefied Natural Gas (LNG), which nearly quadrupled, represented a key element for adjusting the balance sheet. In fact, in 2017, the US became a net exporter of natural gas in annual terms for the first time in its history since 1957.

In spite of the year-on-year price increase, it should be noted that in quarter-on-quarter terms, the trend was downward mainly due to the increase in the production of dry gas against a backdrop of weak demand. Specifically, the more temperate weather, following the cold waves of the start of the year, lower coal prices and higher hydraulic generation caused a 6% drop in electricity demand compared to 2016. For its part, US dry gas production increased by 1% on 2016.

26% ↑
Henry Hub Price

Henry Hub price evolution



Source: Bloomberg and Repsol Research Unit

4. Financial performance and shareholder remuneration

25% ↑
adjusted net income

4.1. Results

Million euros	2017	2016	Δ
Upstream	632	52	580
Downstream	1,877	1,883	(6)
Corporate and other	(104)	(13)	(91)
Adjusted net income	2,405	1,922	483
Inventory effect	104	133	(29)
Special items	(388)	(319)	(69)
Net income	2,121	1,736	385

EBITDA (million euros)	2017	2016
Upstream	3,507	2,072
Downstream	3,386	3,367
Corporate and other	(170)	(213)
TOTAL	6,723	5,226

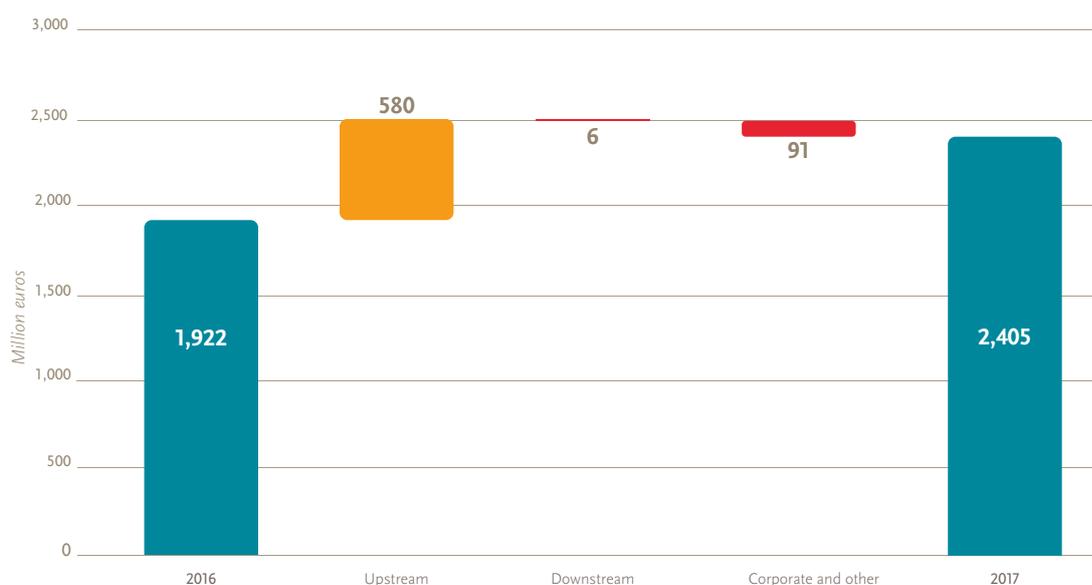
The results for 2017, compared to the same period in the previous year, occur in a more favorable environment, marked by the recovery of oil and gas prices (Brent + 24% and Henry Hub +26%) with a noteworthy increase in the last quarter of 2017, solid international refining margin indicators (around US\$7/bbl) as well as petrochemical margins, and a weaker dollar against the euro.

Against this backdrop, the Company, relying on the resilience of its integrated model, has continued to pursue its projects aimed at the enhancement of operating efficiency, realization of synergies and optimization of investment, within the scope of its 2016-2020 Strategic Plan.

Adjusted net income in 2017 amounted to €2,405 million, 25% higher than in the same period of 2016.

29% ↑
EBITDA

Adjusted net income variation



Upstream

Average **production** of 2017 amounted to 695 kboe/d, which is 1% higher than in 2016. The increased production was due to Libya (resumption of activity), Brazil (commencement of production in *Lapa* and the bringing on stream of new wells in *Sapinhoá*), Trinidad and Tobago and UK (launch of new projects, like *Juniper* area of MAR, *Flyndre* and *Shaw/Cayle*). This increase in production has been offset by the effect of divestments made in Indonesia (*Tanggung* and *Ogan Komering*) and Trinidad and Tobago (TSP), the natural decline of some fields and the lower gas exports to the Brazilian market in Bolivia.

In terms of **exploration activity**, fourteen exploratory wells and two appraisal wells were completed during the reporting period. The findings in six instances have been positive (five exploratory and one appraisal well) and in ten instances, they have been negative (one appraisal). Highlights, due to their potential, were the discoveries in Alaska (*Horseshoe-1* and *Horseshoe-1A*) and in Trinidad and Tobago (*Savannah* and *Macadamia*), see section 5.1.

Upstream adjusted net income amounted to €632 million, well up on the same period in the previous year (€52 million). This significant

improvement was due to the increase in the realization prices of crude oil and gas because of the better environment, the higher volumes sold, driven mainly by Libya and Brazil and lower operating costs. These positive effects are partially offset by higher corporate tax as a result of the higher income, the increase of amortization and depreciation due to the increasing exploration costs, as well as the 2016 effect of the reversal of abandonment provisions.

Upstream EBITDA amounted to €3,507 million, up 69% on the same period the previous year, driven by the improvement in operating results.

Net capital expenditure amounted to €2,072 million in 2017. Gross operating investment has been undertaken mainly in:

- Investment in production and/or development assets: (77%): mainly in the U.S. (21%), Trinidad and Tobago (16%), Canada (12%), Brazil (9%), Algeria (8%), the UK (6%) and Malaysia (5%).
- Investment in exploration (20%): mainly in Colombia (13%), Trinidad and Tobago (11%), Bolivia (9%), Indonesia (8%), Vietnam (8%), Bulgaria (8%), the US (6%) and Algeria (5%).

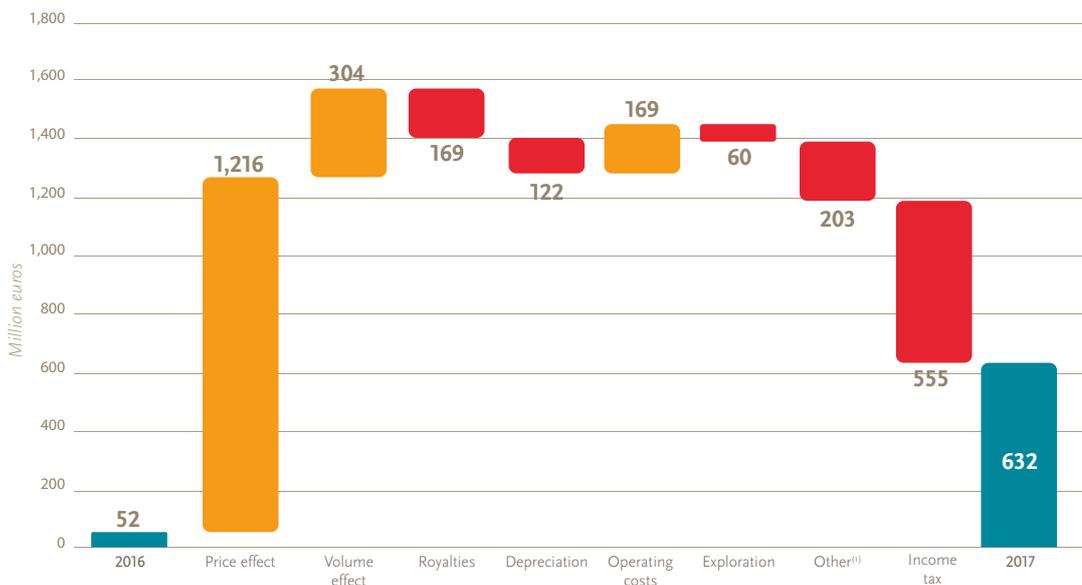
€580 million adjusted net income



69% EBITDA



Upstream adjusted net income variation



(1) Includes income from investees, the effect of exchange rate and other.

€1,877 million

adjusted net income

Downstream

Adjusted net income in 2017 amounted to €1,877 million, which is in line with the same period of 2016.

Change in result due mainly to:

- In **Refining**, strong results continued, boosted by a more favorable international environment (better margin indicator of \$6.8 vs. \$6.3/bbl in Spain and in Peru \$5.4 vs. \$3.1/bbl) and larger volumes of distillation in plants due to high utilization levels (94% in Spain and 90% in Peru), which offset higher amortizations and depreciation and the negative exchange rate effect (at year-end, \$1.20 vs. \$1.05 /€ in 2016).
- In **Chemicals**, which maintain good international margins from the previous year, income decreased due to the rise in the price of naphta and the higher variable costs due to plant shutdowns.
- Better income in **Trading**, mainly from crude oil transactions in Brazil, and the recovery of the **Gas&Power** business in North America, driven by larger volumes sold and lower costs.

- In **Commercial Businesses**, better Marketing results in Spain due to larger margins and volumes, the improvement of non-oil activity and the lower amortizations and depreciation. On the contrary, income from the LPG business decreased due to the smaller margins from regulated LPG containers in Spain, the absence of the 2016 income from indemnities pursuant to the regulated maximum price formula for LPG containers in 2008-2010 and from the business sold off in 2016 (piped gas in Spain and LPG Peru and Ecuador).

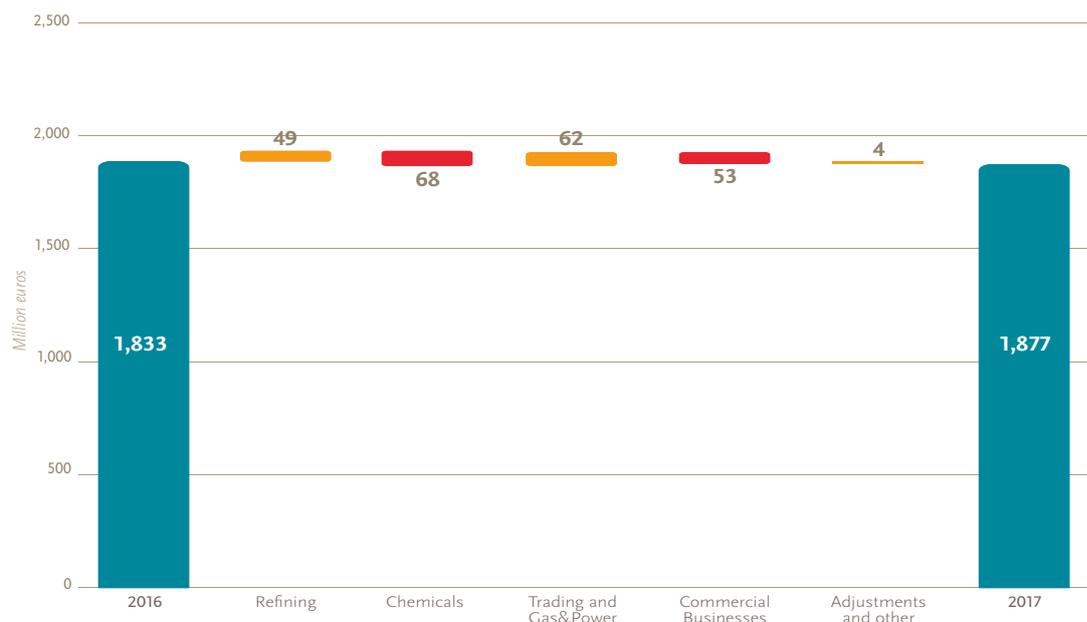
Downstream EBITDA totaled €3,386 million (compared to the €3,367 million recorded in the same period of 2016).

Net Downstream investment in 2017 amounted to €757 million (vs. -€496 million in 2016, when significant divestments were made). Gross investment increased by 8% on the same period of 2016. The largest investments were undertaken to enhance energy efficiency and safety and the environment, and for multi-year shutdowns of refineries in Spain and the remodeling of the gasoline block in the Pampilla refinery in Peru.

€3,386 million

EBITDA

Downstream adjusted net income variation



Corporate and other

Results (-€104 million) were lower than in 2016 (-€13 million). The reduction of corporate costs in Madrid and Calgary and lower debt interest could not offset the lower contribution of Gas Natural Fenosa (after the reduction of the stake in 2016, as the worse performance of electricity in Spain and higher personnel expenses have been compensated with the gains from divestments) and the absence of gains on the repurchase of ROGCI bonds carried out in 2016.

The **inventory effect** amounted to €104 million, which was due to price trends during the year.

Special items amounted to -€388 million which are mainly explained by the following:

- The *impairment* of assets amounting to -€635 million, with a highlight on provisions in Venezuela (-€695 million; for both impairment of fixed assets and credit risk) and net reversal of assets in North America, mainly in *Marcellus* (U.S.) and in assets in Canada (+94 million euros), and
- In *provisions and others*, the net effects of the reversal of the provision for obligations related to the Group's stake in RSRUK (+€911 million) the impact of the tax reform in the US (-€406 million) and net provisions for other risks (€-154 million).

(Million euros)		
Special items	2017	2016
Divestments	(51)	737
Workforce restructuring charges	(64)	(393)
Impairment	(635)	(434)
Provisions and other	362	(229)
TOTAL	(388)	(319)

As a result of the foregoing, **net income** amounted to €2,121 million, up 22% on 2016.

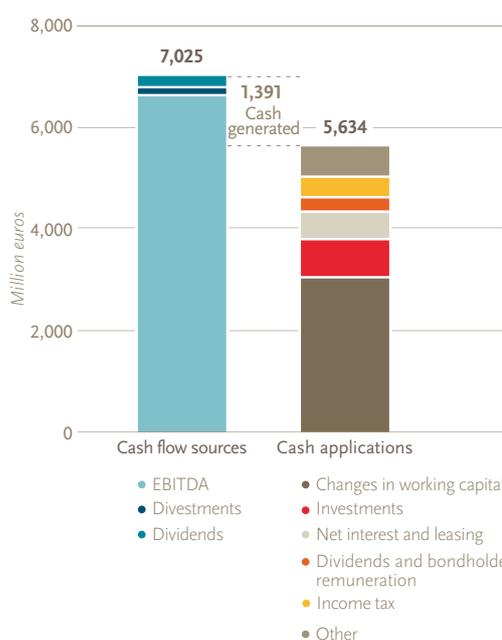
Performance indicators	2017	2016
Return on average capital employed (ROACE) (%)	7.4	5.8
Earnings per share (€/share)	1.35	1.11

4.2. Cash flow

Free cash flow in 2017 came to €2,560 million, compared to €4,323 million in 2016. The sizable improvement of EBITDA has been offset by the absence of significant divestments in the period.

Cash flow (million euros)	2017	2016
EBITDA	6,723	5,226
Changes in working capital	(751)	(777)
Dividends received	218	383
Income tax receipts/(payments)	(357)	(283)
Other receipts/(payments)	(327)	(717)
I. Cash flow from operations	5,506	3,832
Payments on investments	(3,030)	(3,157)
Proceeds from divestments	84	3,648
II. Cash flow from investments	(2,946)	491
Free cash flow (I + II)	2,560	4,323
Dividends and other equity instruments	(332)	(420)
Net interest and leasing	(544)	(600)
Treasury shares	(293)	(92)
Generated cash flow	1,391	3,211

Cash sources and applications



44% ↑
Cash flow from operations

7.4%
ROACE of the period

€1,391 million generated cash flow

The notorious increase in **cash flow from operations** (+44%) was due mainly to the increase of EBITDA stemming from the improvement of *Upstream* operating income due to the increase in the prices of crude oil and products, the collection of the indemnities pursuant to the judgements related to the regulated maximum price formula for LPG containers and, to a lesser extent, the decrease in workforce restructuring charges (2016 collective dismissal). Conversely, receipts decreased on dividends of Gas Natural Fenosa and payments for taxes increased.

Cash flow from investments totaled -€2,946 million, compared to €491 million in 2016, which included income from divestments in that year (€3,648 million). In 2017, the Company continued with its efficiency program, optimising investments with a decrease of 4%. Notable efforts were made in *Upstream* and, more intensely, in exploration (17% reduction).

As a result, **free cash flow** amounted to €2,560 million (€4,323 million in 2016). Following payment, among other items, of finance costs (-€544 million) and shareholder remuneration (-€332 million), the Company **generated a cash flow** of €1,391 million.

4.3. Financial overview

In line with the commitment to bolster the Group's financial structure, measures continued to be taken in 2017 to reduce debt and improve the Group's credit rating (in the case of S&P, the rating improved from BBB- to BBB with a stable outlook; for Moody's and Fitch, the outlook improved from "negative" to "stable").

In line with its policy of financial prudence and its commitment to maintaining a high degree of liquidity, the funds held in cash by the Group at the end of the year and available credit lines amply exceed the maturity dates of its short-term debt.

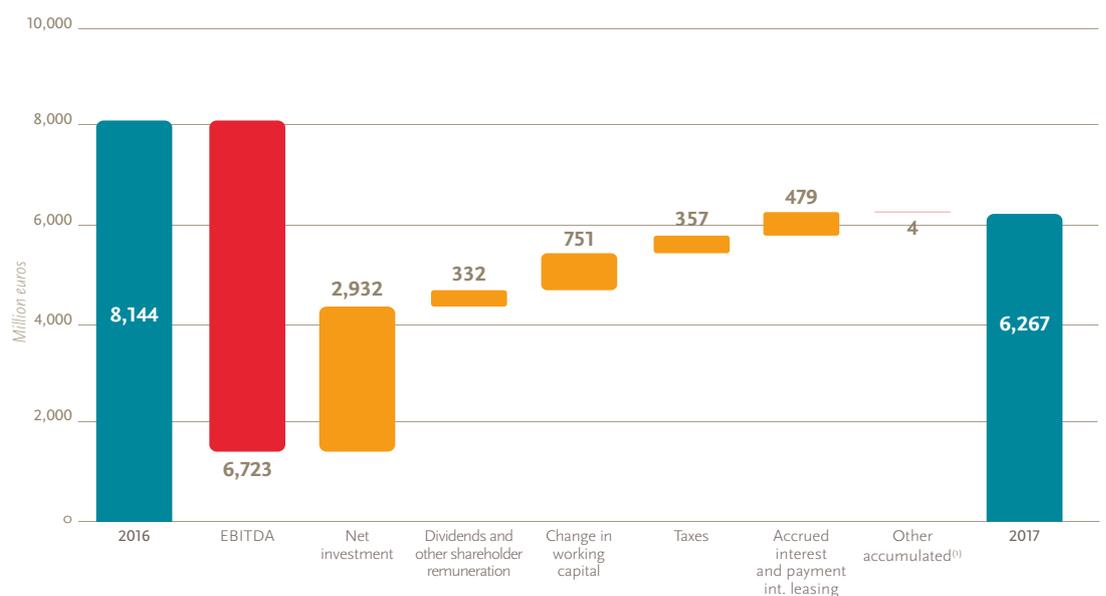
Indebtedness

The **net debt** at December 31, 2017 is €6,267 million, significantly lower than at the same date last year (€8,144 million), due to the improvement in the cash flow generated by the businesses driven mainly by the *Upstream* segment, discipline in investments and the lower costs of borrowing.

€1,877 million of net debt reduction



Net debt variation



(1) Mainly includes treasury stock transactions, receipt of dividends, other payments of exploitation activities and the effect of the exchange rate.

Main funding operations

- In February 2017, a bond issued by Repsol International Finance, B.V. (RIF) was repaid at maturity for the nominal amount of €886 million, with a fixed annual coupon of 4.75%.
- In May 2017, RIF issued a bond guaranteed by Repsol S.A., in the amount of €500 million, maturing in 2022 and carrying a fixed annual coupon of 0.50%. This represents the first issue of a **"green bond"** by the Repsol Group, the funds of which are dedicated to refinancing and financing projects that seek to prevent greenhouse gas emissions as part of refining and chemical activities in Spain and Portugal.
- In July 2017, ROGCI obtained the necessary number of consents from holders of its outstanding US dollar bonds to amend certain terms and conditions of these issues, mainly in order to: (i) replace ROGCI's reporting duties with the periodic financial information published by Repsol; and (ii) remove the merger covenant in order to optimize the Group's operating and financial flexibility. In addition, ROGCI repurchased and canceled bonds in the amount of \$87 million.

This transaction was preceded by Repsol, S.A.'s guaranteeing ROGCI's payment obligations as part of these issues; this guarantee shall remain in force until it matures or is canceled.

- In September 2017, ROGCI repurchased and canceled a 6.625% fixed annual bond maturing in December 2017 for a total of £266 million.
- In November 2017, ROGCI repurchased and canceled a 7.750% fixed annual bond maturing in June 2019 for a total of \$403 million.

Green bond

Further information at
www.repsol.com

Debt maturities

The **maturity dates for gross debt** at December 31, 2017 are as follows:

Million euros	
Gross debt ^{(1) (2)}	Total
Maturity 2018	4,144
Maturity 2019	1,415
Maturity 2020	1,982
Maturity 2021	1,108
Maturity 2022	591
Maturity 2023 and subsequent years	2,444
TOTAL	11,684

Bond maturities

Year	Currency	Nominal amount	Coupon	Maturity
2018	€	750 ⁽³⁾	4.38	feb-18
	€	600	Euro 3M+bp	jul-18
2019	€	1,000 ⁽³⁾	4.88	feb-19
	€	100	0.125	jul-19
2020	€	1,200 ⁽³⁾	2.63	may-20
	€	600 ⁽³⁾	2.13	dec-20
2021	\$	237 ⁽⁴⁾⁽⁵⁾	3.75	feb-21
	€	1,000 ⁽³⁾	3.63	oct-21
2022	€	500 ⁽³⁾	0.50	may-22
	€	500 ⁽³⁾	2.25	dec-26
	\$	50 ⁽⁴⁾	7.25	oct-27
	€	100 ⁽³⁾	5.38	jan-31
	\$	88 ⁽⁴⁾	5.75	may-35
	\$	102 ⁽⁴⁾	5.85	feb-37
2023 and subsequent years	\$	115 ⁽⁴⁾	6.25	feb-38
	\$	57 ⁽⁴⁾	5.50	may-42
	€	1,000 ⁽⁶⁾	4.50	mar-75

(1) Does not include the perpetual subordinated bond issued by RIF on March 25, 2015 in the amount of €1,000 million.

(2) Includes interest and exchange rate derivatives.

(3) Issues of RIF under the "Euro 10,000,000,000 Guaranteed Euro Medium Term Note Programme (EMTNs)" guaranteed by Repsol, S.A.

(4) Issues placed through ROGCI under the "Universal Shelf Prospectus" debt issue programs guaranteed by Repsol, S.A.

(5) Issue repurchased on January 17, 2018 for \$251 million.

(6) Subordinated bond maturing at 60 years issued by RIF and guaranteed by Repsol, S.A. Coupon scheduled for reset on March 25, 2025 and March 25, 2045.

Additionally, RIF holds a Euro Commercial Paper (ECP) Programme guaranteed by Repsol, S.A., with a limit up to €2,000 million; the outstanding balance at December 31, 2017 was €1,710 million.

17.3%
leverage
ratio

Financial prudence

Group liquidity, including committed and undrawn credit facilities, stood at €7,554 million at December 31, 2017, which is enough to cover its short-term debt maturities by a factor of 1.8. Repsol had undrawn credit lines amounting to €2,503 and 4,429 million at December 31, 2017 and 2016, respectively.

Indicators of financial position	12/31/2017	12/31/2016
Net financial debt (€ million)	6,267	8,144
Net financial debt / EBITDA (x times)	0.9	1.6
Net financial debt / Total capital employed (%)	17.3	20.7
Liquidity / Gross short-term debt (x times)	1.8	2.3
Debt interest / EBITDA (%)	5.2	8.2

Treasury shares and own equity investments

In 2017, no transactions involving treasury shares or own equity investments were performed. For further information, see Note 6.2 “*Treasury shares and own equity investments*” of the consolidated financial statements.

Average payment period to suppliers

The average payment period to suppliers for the Group's Spanish companies was 25 days in 2017, which is generated a cash flow the maximum 60-day limit stipulated by Law 15/2010, of July 5 (amended by final provision two of Law 31/2014), which establishes measures to combat late payment in commercial transactions. For further information, see Note 19 “*Trade payables and other payables*” of the 2017 consolidated financial statements.

Credit rating

At present, the credit ratings assigned to Repsol, S.A. and ROGCI by the ratings agencies are as follows:

€7,554M
liquidity

Term	Standard & Poor's		Moody's		Fitch	
	Repsol, S.A.	ROGCI	Repsol, S.A.	ROGCI	Repsol, S.A.	ROGCI
Long-term	BBB	BBB	Baa2	Baa2	BBB	BBB
Short-term	A-2	A-2	P-2	NR	F-3	F-3
Outlook	stable	stable	stable	stable	stable	stable
Last date of change	11/28/2017	11/28/2017	6/22/2017	6/22/2017	5/16/2017	5/16/2017

4.4. Shareholder remuneration

Repsol does not have a formal policy on dividends, and the Company's decisions on remuneration of shareholders depend on various factors, including the performance of its businesses and its operating results.

The remuneration received by shareholders in 2017 and 2016 under the "Repsol Flexible Dividend" program¹ is as follows:

- Remuneration of €0.76 per share² in 2017. Repsol paid out a gross total of €288 million to shareholders and distributed 61,751,953 new shares, worth €840 million, to those shareholders opting to take their dividend in the form of new company shares.
- Remuneration of €0.76 per share³ in 2016. In 2016 Repsol paid out a gross total of €377 million to shareholders and distributed 65,283,041 new shares, worth €697 million, to those shareholders opting to take their dividend in the form of new company shares.

In addition, in January 2018, under the "Repsol Flexible Dividend" program, replacing what would have been the interim dividend from 2017 profits, Repsol paid out €153 million in cash (€0.388 gross per right) to those shareholders opting to sell their bonus share rights back to the Company and delivered 29,068,912 shares, worth €440 million, to those opting to take their dividend in the form of new company shares.

At the date of the authorization for issue of the Management Report, the Board of Directors is expected to submit a proposal to shareholders at the next Annual General Meeting to continue the

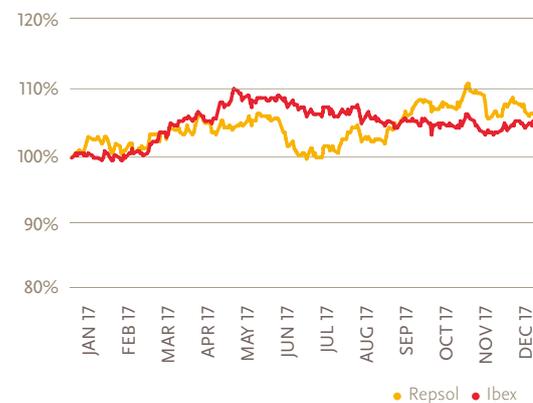
"Repsol Flexible Dividend" program, through the implementation of a capital increase charged to voluntary reserves from retained earnings, on the same dates as those on which the company has traditionally paid the final dividend.

Our share price

The Repsol share price rose by 10% in 2017, outperforming the Ibx 35 and in line with the average of its peers in the European Oil & Gas sector.

€0.76
per share
Of shareholder remuneration

Repsol share price vs. the Ibx 35



Source: Bloomberg

Repsol vs. the European oil sector



Source: Bloomberg

(1) European companies in the sector included: BP, Shell, Total, Eni, Statoil, Galp and OMV.

1. For additional information on the total remuneration received by shareholders and the aforementioned capital increases issued under the "Repsol Flexible Dividend" program, see section "Share capital" of Note 6 "Equity" of the consolidated financial statements.

2. This includes the amount of the irrevocable commitment to purchase free-of-charge allocation rights assumed by Repsol in the two capital increases concluded in January and July 2017 (€0.335 and €0.426 gross per right, respectively).

3. This includes the amount of the irrevocable commitment to purchase free-of-charge allocation rights assumed by Repsol in the two capital increases concluded in January and July 2016 (€0.466 and €0.292 gross per right, respectively).

10%
share revalorization

Up to the middle of the year, the share price was adversely influenced by the weakness of crude prices, which weighed down the sector as a whole and caused the share price to close the first half of the year slightly down. However, progress in achieving the targets of the 2016-2020 Strategic Plan, combined with the improvement in leading macroeconomic indicators, gave a strong boost to the share price in the second half of the year.

Brent crude, which was below 50 dollars a barrel from the start until the middle of the year, saw a major recovery in the second half of the year that lifted it to its highest price in two and a half years, closing at above 65 dollars a barrel by year end.

Repsol vs. Brent Crude



Source: Bloomberg

The Group's main stock market indicators in 2017 and 2016 are detailed below:

Main stock market indicators	2017	2016
Shareholder remuneration (€/share) ⁽¹⁾	0.76	0.76
Share price at period-end ⁽²⁾ (€)	14.75	13.42
Period average share price (€)	14.57	11.29
Maximum price of the period (€)	16.16	13.83
Minimum of the period price (€)	13.40	8.02
Number of shares outstanding at end of the year (million)	1,527	1,466
Market capitalization at end of the year (million euros) ⁽³⁾	22,521	19,669
PER ⁽⁴⁾	10.9	11.6
Dividend yield (%) ⁽⁵⁾	5.7	7.5
Book value per share (€) ⁽⁶⁾	19.5	20.6

- (1) For each period, shareholder remuneration includes the dividends paid and the fixed price guaranteed by Repsol for the bonus share rights awarded under the "Repsol Flexible Dividend" program.
- (2) Share price at year-end in the continuous market of the Spanish stock exchanges.
- (3) Year-end closing market price per share, times the number of shares in circulation.
- (4) Year-end closing market price per share / Earnings per share attributable to the parent company
- (5) Remuneration per share for each year / Share price at end of previous year.
- (6) Equity attributed to the parent/Number of shares outstanding at year-end.

Share price evolution



5. Performance of our businesses



5.1. Upstream¹

Our activities

- **New areas:** Identification and entry into new projects (organic or inorganic growth).
- **Exploration:** Geology, geophysics activities and drilling exploratory wells in the search for hydrocarbon resources.
- **Evaluation:** Drilling appraisal wells, definition of the resources discovered and determination of the commercial viability.

- **Development:** Drilling production wells and facilities for starting production of the reserves.
- **Production:** Commercial exploration of hydrocarbons.
- **Decommissioning:** Abandonment and reconditioning of all facilities in order to leave the area in the same environmental conditions as prior to the start of exploitation and production activities.

695 Mboe/d
net
production

Main operational figures

	2017	2016
Net undeveloped acreage (Km ²)	199,599	277,027
Net developed acreage (Km ²)	5,783	4,862
Reserves of crude oil, condensate and LPG (MMb)	617	584
Natural gas reserves (MMboe)	1,738	1,798
Reserve replacement ratio (%) ⁽¹⁾	89	103
Total production of liquids (kbb/d)	255	243
Total net gas production (Mboe/d)	440	447
Total net hydrocarbon production (Mboe/d)	695	690
Average crude oil price (\$/bbl)	49.6	39.0
Average gas price (\$/kscf)	2.9	2.4
Bonds, dry wells, and general and administration expenses ⁽²⁾	457	443

(1) Reserve replacement ratio (calculated by dividing total additions of proven reserves in the period by production for the period).

(2) Only costs directly assigned to exploration projects.

Main events of the period

- Average net **production** was 1% higher than in 2016, up to 695 Mboe/d. The increase is mainly due to the resumption of production in Libya, the addition of new wells in Sapinhoá and Lapa in Brazil, and the implementation of new projects in Trinidad and Tobago, (*Juniper*) and in UK (*MAR* area and *Flyndre and Shaw/Cayle*) offset by the loss of production resulting from the disposal of assets in Indonesia (*Tangguh* and *Ogan Komering*) and Trinidad and Tobago (TSP), the lower demand in the Brazilian market for exports from Bolivia, the natural decline in the United States and the decline and cease of activity in the Norway fields.

Our performance in 2017

Million euros	2017	2016	Δ
Operating income	1,009	(87)	1,096
Income tax	(408)	147	(555)
Investees and non-controlling interests	31	(8)	39
Adjusted net income⁽¹⁾	632	52	580
Special items	(151)	(1,013)	862
Net income	481	(961)	1,442
Effective tax rate (%)	(40)	168	(208)
EBITDA	3,507	2,072	1,435
Net investments	2,072	1,889	183

(1) Detail of adjusted net income by geographical area:

Geographical area	2017	2016	Δ
Europe, Africa and Brazil	355	167	188
Latin America	386	234	152
North America	(43)	9	(52)
Asia and Russia	161	(4)	165
Exploration and other	(227)	(354)	127
Adjusted net income	632	52	580

- **Exploratory campaign:** in 2017, drilling of 14 exploratory wells and 2 appraisal wells was concluded, 6 with positive results (5 exploratory wells and 1 exploratory well) and 10 negative (all exploratory except one appraisal well). At year end, 8 appraisal wells were still ongoing.
- The evolution of **reserves** was positive, with the addition of a total of 227 MMboe, mainly from extensions and discoveries in the United States, and revisions of previous estimates in Trinidad and Tobago, Brazil, Vietnam and the US.
- In 2017, there were 138 **non-significant ceases of activity** due to the closure of wells in different onshore operating areas, and 9 in offshore areas.

227 ↑
MMboe
evolution of
reserves

1. For more information, see "Information on oil and gas exploration and production" at www.repsol.com.

North America

504MMboe **63MMboe**

proven
reserves

net
production



Performance of operations

	2017	2016
Net developed acreage (Km ²)	2,199	2,184
Net undeveloped acreage (Km ²)	8,538	20,473
Net developing acreage (Km ²)	5,234	5,316
Net exploration acreage (Km ²)	5,503	17,342
Total proven reserves (MMboe)	504	496
Exploratory wells completed and in progress ⁽¹⁾ :		
Positive	1	-
Negative	-	-
Under evaluation	-	-
Ongoing	2	-
Finished development wells:		
Positive	153	150
Negative	-	-
Under evaluation	-	-
Net production of liquids (MMb)	18	20
Net production of natural gas (bcf)	256	262
Total production (MMboe)	63	67
Oil production wells	2,657	2,924
Gas production wells	2,219	2,610
Average crude oil realization price	47.4	36.5
Average gas realization price	14.6	11.4

(1) Does not include appraisal wells: 1 positive in 2017, and 1 under evaluation in 2016.

Sustainability performance

	2017	2016
No. employees	961	1,038
% women	33	33
% of women in leadership positions	24	21
Hydrocarbon spills (>1bbl) (t)	17.63	5.8
CO ₂ e emissions (Mt)	1.23	1.51
TRIR	3.16	1.96
PSIR	3.08	1.91
Voluntary social investment (€ thousand)	1,083	1,451

Main events of the period

- On March 9, the announcement was made of the discovery, in the **Horseshoe-1** and **Horseshoe-1A** drillings in **Alaska**, confirming that the *Nanushuk* formation has one of the highest potentials of the prolific *North Slope* zone, extending it by over 32 km with respect to the finds made until now. Total contingent resources are estimated at around 1,200 million recoverable barrels of light crude. The delineation work, which will allow the development plan to be defined, is currently pending completion, with production expected to begin in 2022. Repsol has a 25% stake in this discovery.
- In the second quarter, following the studies carried out on its potential, Repsol has agreed on the early withdrawal from 9 marginal blocks to the north of the **North Slope area in Alaska**.
- On June 19, the Mexican National Hydrocarbons Commission (CNH) awarded Repsol **an exploration block in Mexico in the shallow waters** of the Exploration Round 2. Block 11 has got a total surface area of 593 km² in the southeast basin. Repsol is the operator with a 60% stake, with its partner Sierra Oil & Gas with the other 40%. This award represents Repsol's first exploration block in Mexico; it is returning to the country after an absence following the expiry in January 2014 of the Multiple Services Contract in the Burgos basin.
- In the first semester, Repsol has acquired **in Canada** (up to a 35% interest) a portion of its partner Delphy's stake in assets in the *Bigstone* zone of Alberta, in the *Greater Edson* production area. Also in Alberta, Repsol has acquired a stake in *Gilby the Duvernay* Area.



5,503 km²

net exploration
acreage

- On August 16, as part of the Exploration Round 249 in the US **Gulf of Mexico**, Repsol (operator, 50% W.I.) was awarded four new exploration blocks (blocks 77, 78, 121 and 122) in the Garden Banks.
- On September 7, Repsol (which holds a 22,5% stake) and its partners announced that they had met a number of key milestones to commence **execution of the Buckskin project**. This large-scale project for the development of deep water has been previously outlined by a number of wells, and it will have an underwater link with the *Lucius Spar* operated by *Anadarko* and located in blocks 785, 828, 829, 830, 871 and 872 of *Keathley Canyon* in the Gulf of Mexico, approximately 6,800 feet underwater. Toward the end of January 2018, the drilling operations envisaged in the development program and the bringing on stream of the discovery were initiated. To perform development drilling at *Buckskin*, the company has decided to use the *Seadrill West Neptune* drilling platform, a cutting edge, sixth-generation, class DP3 vessel for drilling in deep waters.
- In the **Alaska North Slope Areawide Lease Sale**, Repsol was awarded 45 new exploration blocks located to the south of the discoveries made in the first semester of 2017 with the probes *Horseshoe-1* and *Horseshoe-1A* wells in the *Nanushuk* formation.
- In **Mexico**, Repsol was awarded, with different consortia, three new blocks (Blocks 10, 14 and 29) in the deep water exploration round held on January 31, 2018.

Country	Main assets ⁽¹⁾	% Repsol	P/D/E ⁽²⁾	L/G ⁽²⁾	Description
United States	Shenzi	28.00%	P	L-G	Deep waters of the Gulf of Mexico to the southeast of the state of Louisiana.
United States	Midcontinent	7.24%	P	L-G	Gas with associated liquids in the Mississippi basin in the states of Kansas and Oklahoma
United States	Eagle Ford	35.41%	P	L-G	Unconventional onshore gas assets with associated liquids to the south of the state of Texas
United States	Marcellus	83.96%	P	G	Unconventional assets of shale gas mainly in the states of Pennsylvania, New York and West Virginia.
United States	Buckskin	22.50%	D	L-G	Deep waters of the Gulf of Mexico to the southwest of the state of Louisiana
United States	Horseshoe	49.00%	D	L-G	New development area in Horseshoe discovery in the north of Alaska
United States	North Slope	Average 28.72%	E	--	Extensive, mainly onshore, exploration area in the north of Alaska
United States	Leon	60.00%	E	L-G	Exploratory asset in the deep waters of the Gulf of Mexico to the southwest of the state of Louisiana
Canada	Greater Edson	Average 63.82%	P	L-G	Production area in the heart of the state of Alberta Unconventional
Canada	Chauvin	Average 67.41%	P	L-G	Heavy crudes located in Alberta/Saskatchewan Unconventional
Canada	Duvernay	Average 95.15%	P	L-G	Area in development phase, with crude and gas production, in the central region of Alberta Unconventional

(1) Further information in Appendix II of the consolidated financial statements.

(2) P: Production / D: Development / E: Exploration / L: Liquids / G: Gas

Latin America

1,490MMboe proven reserves

127MMboe net production



Performance of operations	2017	2016	Sustainability performance	2017	2016
Net developed acreage (Km ²)	688	715	No. employees	1,234	1,322
Net undeveloped acreage (Km ²)	51,550	57,207	% women	25	25
Net developing acreage (Km ²)	4,475	4,736	% of women in leadership positions	20	18
Net exploration acreage (Km ²)	47,763	53,186	Hydrocarbon spills (>1bbl) (t)	11	0
Total proven reserves (MMboe)	1,490	1,525	CO ₂ e emissions (Mt)	0.96	1.41
Finished and ongoing exploratory wells ⁽¹⁾ :			TRIR	1.71	0.83
Positive	3	-	PSIR	0.80	0.13
Negative	4	2	Voluntary social investment (€ thousand)	5,250	4,597
Under evaluation	-	-			
Ongoing	5	1			
Finished development wells					
Positive	69	52			
Negative	2	2			
Under evaluation	3	7			
Net production of liquids (MMb)	38	39			
Net production of natural gas (bcf)	498	486			
Total net production (MMboe)	127	125			
Oil production wells	873	953			
Gas production wells	241	216			
Average crude oil realization price	47.0	37.1			
Average gas realization price	13.3	11.0			

(1) Does not include appraisal wells: 1 negative in 2017 and 5 in 2016, 1 positive, 2 negatives and 2 ongoing.

Main events of the period

- On January 19, exploratory drilling PTJ-X5 in **Bolivia** in the *Patujú* block (48.33% Repsol) ended with a negative result.
- On January 31, the *Mashira* drilling 57-18-6X in block 57 in **Peru** (53.84% Repsol) ended with a negative result.
- On April 16, exploratory drilling PTJ-WX1 in **Bolivia** in the *Patujú* block (48.33% Repsol) ended with a positive result.
- In the first quarter of 2017, the second production (well in the *Lapa*) field came on stream. This well in block BM-S-9 is located in the deep waters off **Brazil**. The third production well came on stream in the middle of the year.



47,763 km²

net exploration
acreage

- On May 29, drilling ended at *Siluro 1B*, in **Colombia** block RC-11 (Repsol 50%) with a negative result. The RC-11 block was reverted.
- On June 6, the discovery of gas was announced in the waters of **Trinidad and Tobago** with the *Savannah* and *Macadamia* drillings in the *East Block*, situated in the *Columbus* basin, to the east of the island of Trinidad, in a sheet of water of about 150 meters. Repsol is participating in this block with a 30% interest (the other 70% is held by BP). The resources are estimated at around 2 billions cubic feet of gas (2 TCF), equivalent to over two years of gas consumption in Spain.
- In the second quarter, the launch of the project for the development of the *Angelin* gas field in BPTT in **Trinidad and Tobago** was approved, in which Repsol holds a 30% interest. Production is expected to begin in the first quarter of 2019.
- On June 13, the first congress was held in Peru (Lima) of Latin American professionals in the field of Community Relations and Human Rights. Nearly 20 people from seven countries shared success stories in countries where Repsol is a leader in areas such as open and informed consultation, grievance mechanisms, management of social investment, among other issues.
- On June 16, an agreement was announced between the **Bolivian** government and Repsol for work to begin in a new exploration block (*Iñiguazu*), in the south of the country, where Bolivia's main gas-producing fields are found. The block covers 644 km², it is located in Tarija department and it borders on the *Caipipendi* area (*Margarita-Huacaya*). Drilling will be carried out by a consortium formed by Repsol (37.50%), who will be the operating company, YPFB Andina, YPFB Chaco Shell and PAE.

Latin America

June

Announcement of the biggest gas volume discovery by Repsol in the last 5 years in Trinidad and Tobago.



- In August, gas production commenced in the *Juniper* field with the assets of the company BPTT in **Trinidad and Tobago**, where Repsol has a 30% interest.
- In September, the *Brama-1* exploratory well in the *Tayrona* offshore block of **Colombia** ended with negative results.
- On October 9, the National Agency of Petroleum (ANP) of Brazil announced the award of an exploratory block to Repsol as the operating company in the 14th round. The new exploratory block (ES-M-667) is located in the waters of the *Espirito Santo* Basin and first exploration block in **Brazil** since 2005.
- Also in October, Repsol won the 2nd round of the PSC for the Entorno de *Sapinhoá* block of Brazil, along with Petrobrás and Shell.
- In November, **gas production commenced in the Sagari field** in block 57 in the *Ucayali-Madre de Dios* Basin, one of the most prolific gas zones of Peru, where Repsol is the operator, with an interest of 53.84%. The other major discovery in block 57, *Kinteroni*, entered into production in 2014.

In our continuous process of relating with local communities, in early 2017 members of the Nuevo Mundo community mobilized in the proximity of Repsol facilities to demand larger compensation for the easement rights associated with the compression project. After some weeks of participative and transparent dialog, a long-term agreement was reached with the community. It was signed in the community assembly of February 28 pursuant to the laws of the indigenous community and the requirements of the law.



November

Start of gas production in the Sagari field, in block 57 of the Peruvian Cusco region.

Country	Main assets ⁽¹⁾	% Repsol	P/D/E ⁽²⁾	L/G ⁽²⁾	Description
Trinidad and Tobago	BP TT	30.00%	P	L-G	Colombus offshore basin
Brazil	BM-S-9 (<i>Sapinhó</i>)	15.00%	P	L-G	Ultra-deep waters in pre-salt area of Santos Basin
Brazil	BM-S-9 (<i>Lapa</i>)	15.00%	P / D	L	Ultra-deep waters in pre-salt area of Santos Basin
Brazil	BM-S-50 (<i>Sagitario</i>)	12.00%	E	L-G	Ultra-deep waters in pre-salt area of Santos Basin
Brazil	BM-C-33 (<i>C-M-539</i>)	21.00%	E	L-G	Ultra-deep waters in pre-salt area of Campos Basin
Brazil	Albacora Leste	6.00%	P	L-G	Deep waters in Campos Basin
Bolivia	Margarita - Huacaya (<i>Caipipendi</i>)	37.50%	P	L-G	Sub-Andean Sur basin in the south of the country
Bolivia	Sábalo	24.17%	P	L-G	Sub-Andean Sur basin in the south of the country
Bolivia	San Alberto	24, 17%	P	L-G	Sub-Andean Sur basin in the south of the country
Colombia	Equion	Average 21.32%	P	L-G	Llanos Basin in center of country
Colombia	CPO-9 Akacias	45.00%	P / D	L	Llanos Basin in center of country
Colombia	Cravo Norte	5.63%	P	L	Llanos Basin next to Venezuelan border
Peru	Camisea (blocks 56 and 88)	10.00%	P	L-G	Ucayali Basin in Andean region
Peru	Block 57 (<i>Kinteroni & Sagari</i>)	53.84%	P / D	L-G	Madre de Dios Basin (Andean region)
Venezuela	Cardón IV (Perla)	50.00%	P / D	L-G	Shallow waters of the Gulf of Venezuela basin
Venezuela	Quiriquire	40.00%	P	L-G	Maturin onshore basin
Venezuela	Barua Motatan	40.00%	P	L	Maracaibo onshore basin
Venezuela	Mene Grande	40.00%	P	L	Maracaibo onshore basin
Venezuela	Carabobo	11.00%	P / D	L	Heavy crudes of Orinoco Petroleum Belt in the southeast of country

(1) For further more information see Appendix II of Consolidated financial statements.

(2) P: Production / D: Development / E: Exploration / L: Liquids / G: Gas.

Asia and Oceania

174 MMboe

proven
reserves

31 MMboe

net
production



Performance of operations	2017	2016
Net developed acreage (Km ²)	982	564
Net undeveloped acreage (Km ²)	99,721	113,633
Net developing acreage (Km ²)	4,105	4,638
Net exploration acreage (Km ²)	96,598	109,560
Total proven reserves (MMboe)	174	174
Finished and ongoing exploratory wells ⁽¹⁾ :		
Positive	1	-
Negative	2	6
Under evaluation	-	2
Ongoing	-	-
Finished development wells		
Positive	31	46
Negative	1	-
Under evaluation	3	-
Net production of liquids (MMb)	9	11
Net production of natural gas (bcf)	122	137
Total net production (MMboe)	31	36
Oil production wells	606	621
Gas production wells	78	91
Average crude oil realization price	51.2	39.4
Average gas realization price	29.6	25.1

(1) Does not include appraisal wells: 1 positive in 2016.

Sustainability performance	2017	2016
No. employees	1,038	1,141
% women	27	27
% of women in leadership positions	18	15
Hydrocarbon spills (>1bbl) (t)	0	1,9
CO ₂ e emissions (Mt)	8.38	9.67
TRIR	1.16	0.96
PSIR	0.25	0.72
Voluntary social investment (€ thousand)	1,779	446

Main events of the period

- On April 6, drilling P-8 ended; this is situated in the **Russian Karabashsky-1** block (73.63% stake), and was declared negative.
- On April 17, the “Field Development Plan” (FDP) of the project for the development and start of production of the offshore *Ca Rong Do* (CRD) discovery in the 07/03 block of **Vietnam** was approved. Subsequently, on April 26, Repsol and its partners in the project signed the Final Investment Decision (FID), launching the development phase of the project which is forecast to begin production in late 2019. Repsol has a 51.75% interest in the project following the purchase, in the first half of 2017, of an additional 5% from the company Pan Pacific.
- On November 1, the **first encounter of Asian professionals on community relations and human rights** was held in Ho Chi Minh City. The meeting helped strengthen processes in all countries of the ROGCI origin region, in accordance with the company's framework for management of community relations and human rights. Case studies of countries were also presented on social investment, social context, participative dialog and impacts on human rights.
- As part of the project for the redevelopment of the offshore *Kinabalu* field in **Malaysia**, where Repsol is the operating company with 60%, a new riser platform was installed on June 8. Following the development drilling carried out in the second half of the year and the connection and start-up work on the platform, in October, crude oil production commenced in this redevelopment project in Malaysia.



96,598km²
net exploration
acreage

- On June 29, an agreement was reached with the Russian company Gazprom Neft under which the latter acquired Repsol's 25% stake in the company Eurotek Yugra. Thus, Repsol and Gazprom Neft will manage Eurotek Yugra on a joint basis. Eurotek Yugra owns seven licenses in the most western zone of the West Siberia basin (*Karabashky* licenses 1, 2, 3, 9, 78, 79 and *Kileyski*). In the framework of this agreement, a memorandum of understanding was also signed to strengthen the collaboration between the two companies in **West Siberia**, and to explore joint investments in the area near Eurotek Yugra's assets.
- In the first half of the year, Repsol sold its 50% interest in the *Ogan Komering* block of **Indonesia** to the company Jadestone.
- In September, the 136-CKN-1X exploratory well in the 136 offshore block of **Vietnam** ended with a positive result.
- In September, a **new well in the 15-2/01 block (HST/HSD) of Vietnam**, in which Repsol has a 60% interest, came on stream.
- In September, it was announced that the installation of the new *Wellhead* platform in the northern zone of the **PM-3 CAA block** had been successfully completed in as part of the 6th phase of this development project in **Malaysia**. The new platform (called *Bunga Pakma*) will bring about increases in production in mid-2018 following the tender process for of connection and start-up work, in addition to development drilling activities.
- In October, the Ayu-1 exploratory well in the East Jabung block **Indonesia** ended with negative results.

Country	Main assets ⁽¹⁾	% Repsol	P/D/E ⁽²⁾	L/G ⁽²⁾	Description
Russia	SNO	49.00%	P	L	Diverse assets in the Volga-Urals Basin
Russia	TNO	49.00%	P	L	Diverse assets in the Volga-Urals Basin
Russia	Karabashky	73.62%	E	L - G	Exploratory blocks located in the West Siberia Basin
Indonesia	Corridor	36.00%	P	L-G	Onshore asset in the South Sumatra Basin
Malaysia	PM3 CAA	41.44%	P	L-G	Offshore production block in the west of the Malay Basin
Malaysia	Kinabalu	60.00%	P	L	Offshore production block in the west of the Malay Basin
Vietnam	Block 15-2/01 (HST / HSD)	60.00%	P	L-G	Offshore assets in the Cuu Long Basin
Vietnam	Block 07/03 (CRD)	51.75%	D	L-G	Block under development in Nam Con Son offshore basin

(1) For further more information see Appendix II of Consolidated financial statements.

(2) P: Production / D: Development / E: Exploration / L: Liquids / G: Gas.

Europe

59MMboe

proven
reserves

19MMboe

net
production



Performance of operations	2017	2016
Net developed acreage (Km ²)	680	686
Net undeveloped acreage (Km ²)	15,891	28,888
Net developeing acreage (Km ²)	1,199	1,230
Net exploration acreage (Km ²)	15,373	28,344
Total proven reserves (MMboe)	59	62
Finished and ongoing exploratory wells ⁽¹⁾ :		
Positive	-	-
Negative	2	-
Under evaluation	-	1
Ongoing	-	1
Finished development wells:		
Positive	4	3
Negative	-	-
Under evaluation	-	-
Net production of liquids (MMb)	16	16
Net production of natural gas (bcf)	17	17
Total net production (MMboe)	19	19
Oil production wells	222	236
Gas production wells	6	3
Average crude oil realization price	55.2	44.9
Average gas realization price	34.2	27.2

(1) Does not include appraisal wells: no activity in 2017 y 2016.

Sustainability performance	2017	2016
No. employees	886	954
% women	31	31
% of women in leadership positions	24	21
Hydrocarbon spills (>1bbl) (t)	-	-
GHG emissions (Mt)	0.06	0.09
TRIR	1.88	1.69
PSIR	1.92	0
Voluntary social investment (€ thousand)	340	271

Main events of the period

- On May 12, the start of production in the *Shaw* field in the MAR area was announced (*Montrose* and *Arbroath* platforms) in the **UK** North Sea. This field is operated by RSRUK within the framework of the MAR area development plan. This project includes the development of two new fields (*Shaw* and *Cayley*), for which a new production platform (BLP), connected to the *Montrose Alpha* platform, has been installed. The *Cayley* field came on stream in June 2017.
- On May 1, the Stordal-1 well, located in block PL705 in Norway (Repsol 40%) was finished with a negative result.
- On May 29, an agreement was announced to acquire a 60% stake and the status of operating company in the *Ioannina* and *Aitoloakarnania* onshore exploration blocks in western **Greece**, with a total extension of 8,540 km²; they form part of the *Hellinide* fold belt and are related to the recent important discoveries in Albania (the *Shell Shpirag* discovery). The current operator, Energean, will retain a 40% non-operating stake in the two blocks. The agreement is subject to approval by the Greek government and ratification of the Aitoloakarnania concession agreement between Energean and the government.



15,373 km²

net exploration
acreage

Country	Main assets ⁽¹⁾	% Repsol	P/D/E ⁽²⁾	L/G ⁽²⁾	Description
Norway	Operated assets (Blane, Varg, Gyda, etc.)	Average 67.26%	P	L-G	<i>Offshore</i> assets located in the North Sea, in the south of the country
Norway	Non-operated assets (Brage, Gudrun...)	Average 21.59%	P	L-G	<i>Offshore</i> assets located in the North Sea, in the south of the country
United Kingdom	RSRUK operating assets (Beatrice, Claymore, etc.)	Average 40.92%	P	L-G	<i>Offshore</i> assets mainly located in the Central North Sea Basin
United Kingdom	RSRUK non-operated assets (Balmoral, Cawdor, etc.)	Average 7.67%	P	L-G	<i>Offshore</i> assets mainly located in the Central North Sea Basin

(1) For further more information see Appendix II of Consolidated financial statements.

(2) P: Production / D: Development / E: Exploration / L: Liquids / G: Gas

- The second quarter of 2017 saw the early cancellation, in the Algarve basin in offshore **Portugal**, of the exploration licenses for blocks 11 (*Sapateira*) and 12 (*Caranguejo*). Repsol was the operator with a 70% interest, in association with Partex (30%). In the second half of 2017, the *Ameijoa*, *Camarao*, *Lagosta*, *Lagostim*, *Mexilhao* and *Ostra* blocks were reverted. Hence, at December 31, 2017, the company had no exploration and production presence in the country.
- On February 1, 2018, the agreement in **Norway** with Total for the acquisition of the company's 7.7% stake in the *Visund* field was announced. The field is located in the Norwegian waters of the North Sea. Operated by Statoil, the *Visund* field is a crude oil and gas field located 22 km off the coast of Norway. In 2017, its average production was in excess of 120 Mboe/d.

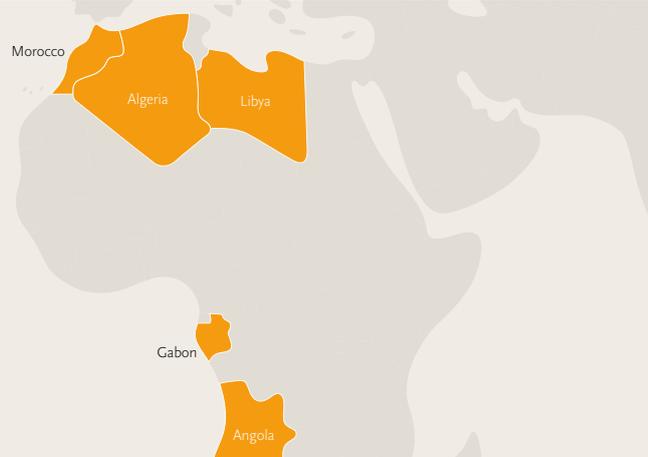
Africa

128 MMboe

proven
reserves

14 MMboe

net
production



Performance of operations	2017	2016
Net developed acreage (Km ²)	1,234	713
Net undeveloped acreage (Km ²)	23,899	56,825
Net developing acreage (Km ²)	2,744	2,744
Net exploration acreage (Km ²)	22,389	54,794
Total proven reserves (MMboe)	128	125
Finished and ongoing exploratory wells ⁽¹⁾ :		
Positive	-	-
Negative	1	1
Under evaluation	-	1
Ongoing	1	-
Finished development wells:		
Positive	12	8
Negative	1	1
Under evaluation	-	1
Net production of liquids (MMb)	12	3
Net production of natural gas (bcf)	8	16
Total net production (MMboe)	14	6
Oil production wells	248	128
Gas production wells	84	79
Average crude oil realization price	52.8	41.8
Average gas realization price	27.1	

(1) This does not include appraisal wells: 1 positive in 2016.

Sustainability performance	2017	2016
No. employees	172	145
% women	15	15
% of women in leadership positions	4	0
Hydrocarbon spills (>1bbl) (t)	0	0
GHG emissions (Mt)	0.0001	0.002
TRIR	0	0
PSIR	0	0
Voluntary social investment (€ thousand)	3,990	14

Main events of the period

- On January 4, 2017, production resumed in the I/R field in **Libya** (field shared between blocks NC-186 and NC-115) and, on May 9, in NC-186. On December 20, 2016, production was reestablished in **El Sharara** in block NC115 (fields A, M and H). Average production in 2017 amounted to 208 Kbb/d gross (299 Kbb/d gross at December 31), representing net Repsol production of 25.4 Kbb/d (38.8 Kbb/d in December).

In 2017, analysis was undertaken of the social backdrop and community impacts deemed to be potentially associated with production activity. The analysis was completed with interviews and surveys of key people, through which the needs communities feel to be a priority were identified. Repsol carried out significant work in community relations in 2017. It coordinated a global program jointly with the United Nations on community relations, involving the contribution of 9.6 million euros by the consortium in which Repsol has contributed in a 40%.

- In November, the *Ksar Chellala-1 ST1* (KCL-1 ST1) exploratory well in the *Boughezoul* block of **Algeria** ended with a negative result.



22,389 km²

net exploration
acreage

Start of production
of Project *Reggane*,
in Algeria.

Country	Main assets ⁽¹⁾	% Repsol	P/D/E ⁽²⁾	L/G ⁽²⁾	Description
Algeria	Tin Fouyé Tabankort (TFT)	30.00%	P	L-G	Production block located in the Illizi basin in the southeast of the country
Algeria	Reggane Nord	29.25%	P / D	G	Gas assets in the center of the country, in the Reggane basin in the south
Algeria	Greater MLN/ Menzel Ledjmet Sud-Est	35.00%	P	L	Assets located in the Ghadames/Berkine basin in the east of the country
Algeria	South East Illizi	72.50%	E	L-G	Exploratory block located in the Illizi basin in the southeast of the country
Libya	NC-115	20.00%	P	L	Asset located in the Murzuk basin in the southwest of the country
Libya	NC-186	16.00%	P	L	Asset located in the Murzuk basin in the southwest of the country

(1) Further information in Appendix of the consolidated financial.

(2) P: Production / D: Development / E: Exploration / L: Liquids / G: Gas

- In mid-December, the entry into production announced of the Reganne North gas project in the desert of **Algeria**, was around 1,500 km to the southwest of Algiers. The Reggane North gas fields are expected to reach their maximum

production capacity of 8 million cubic meters a day in the first quarter of 2018. The Reggane North project comprises six gas fields: *Azrafil Sud-Est*, *Kahlouche*, *Kahlouche Sud*, *Tiouline*, *Sali* and *Reggane*.

5.2. Downstream

Our activities

The *Downstream* business consists of six divisions:

- **Refining:** production of fuel and other petroleum-derived products.
- **Chemicals:** the production and sale of a wide variety of products, ranging from basic petrochemicals to derivatives.
- **Trading and Gas:** transport and supply of crude oil and products to the refining system, marketing of crude oil and products outside the system, regasification of liquefied natural gas, marketing and trading of natural gas in North America and the supply of natural gas in Spain, and renewable energy projects.
- **Marketing:** marketing and sale of the company's oil products through its network of service stations and other sales channels that provide differentiated services to sectors such as aviation, maritime, large industries and end consumers.
- **LPG:** production, distribution, wholesaling and retailing of liquefied petroleum gas (LPG).
- **Lubricants, Asphalt and Specialized products:** national and international production and working of lubricants, lubricant bases, bitumen for asphalt, extensor oils, sulfur, paraffin and other propellant gases.

Main figures	2017	2016
Refining capacity (kbbl/d)	1,013	1,013
Europe (including the stake in ASESAs)	896	896
Rest of world	117	117
Conversion rate in Spain (%)	63	59
Conversion utilization Spanish Refining (%)	104	103
Distillation utilization Spanish Refining (%)	94	88
Processed crude oil (million t)	47.4	43.2
Europe	41.9	39.4
Rest of world	5.4	3.8
Refining margin indicator (\$/bbl)		
Spain	6.8	6.3
Peru	5.4	3.1
Number of service stations	4,709	4,715
Europe	4,219	4,275
Rest of world	490	440
Oil product sales (kt)	51,836	48,048
Europe	45,081	42,787
Rest of world	6,755	5,261
Petrochemical product sales (kt)	2,855	2,892
Europe	2,412	2,428
Rest of world	443	464
LPG sales (kt)	1,375	1,747
Europe	1,356	1,261
Rest of world	19	486
Gas sales in North America (Tbtu)	496	414
LNG regasified (100%) in Canaport (Tbtu)	15	16

Our performance in 2017

Million euros	2017	2016	Δ
Operating income	2,467	2,467	-
Income tax	(572)	(565)	(7)
Investees and non-controlling interests	(18)	(19)	1
Adjusted net income⁽¹⁾	1,877	1,883	(6)
Inventory effect	104	133	(29)
Special items	(121)	261	(382)
Net income	1,860	2,277	(417)
Effective tax rate (%)	23	23	-
EBITDA	3,386	3,367	19
Net investments⁽²⁾	757	(496)	1,253

(1) Detail of adjusted net income by geographic area:

Geographical area	2017	2016	Δ
Europe	1,852	1,895	(43)
Rest of world	25	(12)	37
Adjusted net income	1,877	1,883	(6)

(2) In 2017 and 2016, most investments were allocated to operating improvements at facilities and to fuel quality, in addition to safety and respect of the environment.

Sustainability performance	2017	2016	Δ
No. employees	18,604	18,392	212
% women	35.8	35.0	1
% of women in leadership positions	26.1	25.1	1

Oil product sales	Europe		Rest of world		Total	
	2017	2016	2017	2016	2017	2016
<i>Thousand tons</i>						
Own marketing	21,186	20,468	2,288	2,238	23,474	22,706
Light products	17,868	17,114	2,077	2,072	19,945	19,186
Other products	3,318	3,354	211	166	3,529	3,520
Other sales⁽¹⁾	8,471	8,083	1,393	1,341	9,864	9,424
Light products	8,257	7,867	1,143	1,106	9,400	8,973
Other products	214	216	250	235	464	451
Exports⁽²⁾	15,424	14,236	3,074	1,682	18,498	15,918
Light products	6,433	5,939	740	561	7,173	6,500
Other products	8,991	8,297	2,334	1,121	11,325	9,418
TOTAL	45,081	42,787	6,755	5,261	51,836	48,048

(1) Includes sales to oil product operators and bunker sales.

(2) From country of origin.

Main events of the period

- In January, the **new brands Repsol Primeva and Repsol Ebantix** were presented. They will be used for marketing the company's range of ethylene-vinyl acetate (EVA) and ethylene butyl acrylate (EBA) copolymers, along with new grades with enhanced properties.
- In March, also in Chemicals, a new range of polyolefines was launched under the **Repsol Healthcare brand name** with the aim of supplying the demanding health (Pharma) market, thus confirming Repsol's focus on product differentiation.
- In April, a **new range of Repsol Moto lubricants**, developed in Repsol's Technology Center, was launched, reaching the highest market quality standards. This is an important milestone for maintaining leadership of the Spanish lubricants market and developing the international market.
- In April, Repsol and Enagás supplied LNG as fuel to a vessel from a regasification plant for the first time in Europe. Repsol took part as the supplier of LNG and Enagas as the manager of regasification infrastructure in Cartagena. This type of supply, carried out for the first time in Europe, is known as pipe-to-ship bunkering.
- In May, agreement with the Rubis group was reached for the **sale of the LPG piping facilities in mainland Portugal**. The agreement was executed and closed at the end of June 2017. In July, also with the Rubis Group, Repsol agreed to **sell its LPG business in the islands of Portugal (Azores and Madeira)**, pending approval of the transaction by the Portuguese competition authority.
- In May, customers of our service stations were given access to the new **Repsol WAYLET** app, thus strengthening the transformation in which the Company is engaged on the basis of innovation, technology and the digital environment.
- In June, Repsol, for the second consecutive year, was named **Europe's best producer of high-density polyethylene (HDPE)** in the annual meeting of European Plastics Converters (EuPC) and the Spanish Association of Plastics Manufacturers (ANAIP).
- In June, a **third production shift was established in the Puertollano lubricant plant** and new investments were performed in order to increase its production capacity. The new shift is necessary to launch this business line's growth strategy for the coming years.
- At the end of 2017, the project of **entering the Mexican fuel market** was launched with the aim of achieving 8-10% of the market share and a network of around 1,200 service stations in the next 5 years.
- In 2017, and taking advantage of the scheduled shutdowns at the Cartagena and Bilbao refineries, the following **improvements** were carried out:
 - **In Bilbao**, we invested in **2 new compressors for the FCC** unit to reduce the fuel consumed in the generation of steam, in dry seals in rotating machinery to reduce oil consumption and in the installation of new air pre-heaters for furnaces to reduce their fuel consumption.
 - **In Cartagena**, various **projects have been carried out to improve energy efficiency in the crude unit, the Hydrocracker and the Hydrogen 2 unit**, notably the modifications to the reformer furnace of the Hydrogen 2 unit, which reduce the fuel consumption specific to the process.
- In Peru, after the launch of the diesel module of the La Pampilla refinery, progress in 2017 on the **Gasoline block** proceeded in accordance with the timetable.

5.2.1. Refining

The refining business activities are framed within the 2016-2020 Strategic Plan, which includes greater integration between the refining and marketing activities and a clear goal to reduce energy costs and CO₂ emissions. Investments made in the Cartagena and Bilbao refineries, and the corresponding improvement in the overall margin of the refining system, have been key to placing Repsol at the head of the integrated European companies in terms of efficiency, creation of guaranteed value, and resilience against scenarios for low oil prices.

In addition to a wide range of efficiency measures implemented, the business' competitiveness continues to improve through managing markets and market access logistics, and relating to the business environment. These initiatives are underpinned by appropriate human resources management and an active policy of safety, environmental protection and innovation.

Assets

The Repsol Group owns and operates five refineries in Spain (Cartagena, A Coruña, Bilbao, Puertollano and Tarragona), with a combined distillation capacity of 896 thousand barrels of oil per day (including in Tarragona, the stake in Asfaltos Españoles, S.A.) In the case of the La Pampilla refinery (Peru), in which Repsol holds a 82.38% interest and is the operator, installed capacity rose from 102 thousand barrels of oil per day to 117 thousand barrels of oil per day after the inauguration of the low sulfur diesel production unit in 2016.

Refining capacity ⁽¹⁾	Primary distillation (Thousand bbl/d)	Conversion ratio ⁽²⁾ (%)	Lubricants (Thousand t/d)
Cartagena	220	76	155
A Coruña	120	66	-
Puertollano	150	66	110
Tarragona ⁽¹⁾	186	44	-
Bilbao	220	63	-
Total Repsol (Spain)	896	63	265
Peru La Pampilla	117	24	-
TOTAL	1,013	59	265

(1) The capacity of Tarragona includes 50% of the capacity of Asfaltos Españoles S.A. (ASESA), in which Repsol and Cepsa each hold a 50% interest.

(2) Defined as the ratio between the equivalent capacity factor of Fluid Catalytic Cracking (FCC) and primary distillation capacity.

Performance

The refining margin in Spain stood at \$6.8 per barrel in 2017, up on the same figure for 2016 (\$6.3 per barrel). In Peru, the annual refining margin came in at 5.4 dollars per barrel, in comparison to the 3.1 dollars per barrel seen in 2016.

In 2017, refining margins were higher than in 2016 due to the widening price spread between the main products, basically the mid distillates, which offset the increase in the price of crude oil. The high margins of mid distillates are due to the higher demand in Europe throughout the year, while gasolines kept their spread at slightly higher levels than in 2016 due to the impact of Hurricane Harvey on the Gulf of Mexico coast in late August, along with the higher demand for gasoline in the US during the summer months.

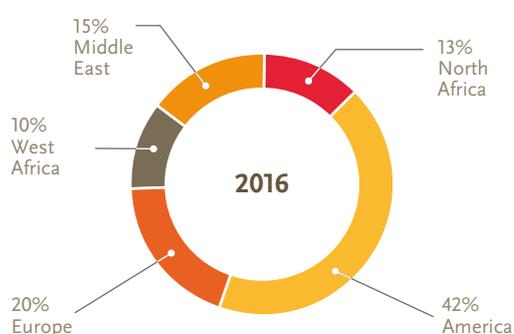
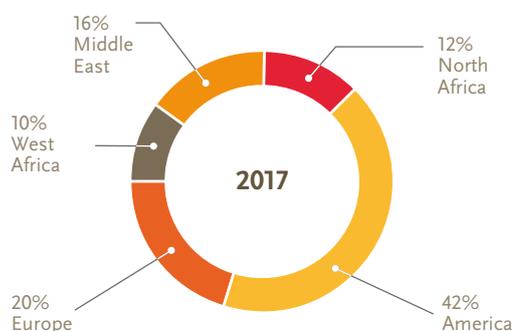
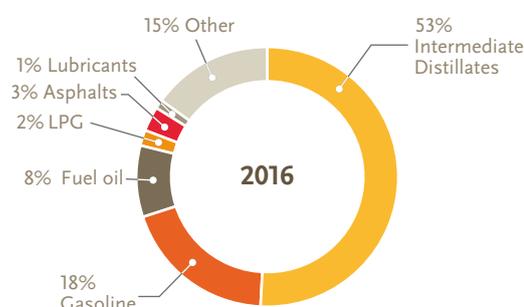
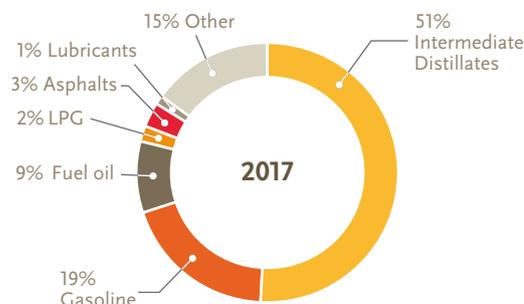
Against this backdrop, the Group's refineries processed 47.4 million tons of crude oil, 10% higher than the amount processed in 2016. The average use of refining capacity was 94% in Spain, compared to the 88% recorded in the previous year. In Peru, refinery use was up on 2016, rising from 68.9% to 89.8% in 2017.

Thousand tons		
Processed raw material	2017	2016
Crude oil	47,357	43,226
Other non material	8,565	9,387
Total	55,922	52,613

Thousand tons		
Refining production	2017	2016
Intermediate distillates	26,830	24,882
Gasoline	9,881	9,354
Fuel oil	4,996	4,500
LPG	990	1,008
Asphalts ⁽¹⁾	1,537	1,499
Lubricants	265	284
Other (including petrochemicals) ⁽²⁾	7,913	7,574
Total	52,412	49,101

(1) Includes 50% of the production of ASESA.

(2) Includes figures for petrochemical products (1,849 thousand tons in 2017 and 1,976 thousand tons in 2016).

Source of processed crude oil

Refining production


\$6.8/bbl
Refining margin

Sustainability performance

	2017	2016
Hydrocarbon spills (>1bbl) (t)	5.28	1.39
CO ₂ e emissions (Mt) ⁽¹⁾	9.11	9.13
TRIR	2.08	2.17
PSIR	0.46	0.86
Refining Peru TRIR	0.92	1.14
Refining Peru PSIR	0.31	0.28
Voluntary investment (€ thousand)	1,496	2,174

(1) This indicator does not include craker emissions. These are included in chemicals, in the next section. The 2016 indicator has been recalculated according to this criteria.

5.2.2. Chemicals

Assets

Production of the Repsol Chemicals business is concentrated at three petrochemical facilities located in Puertollano, Tarragona (Spain) and Sines (Portugal), where there is a high level of integration between basic and derivative chemicals, as well as with refining activities in the case of the Spanish facilities. Repsol also has a number of subsidiaries and affiliated companies, through which it produces polypropylene compounds, synthetic

rubber and chemical specialties. In particular, these chemical specialties are produced through Dynasol, a 50% partnership with the Mexican KUO group, with plants in Spain, Mexico and China, the latter of which work with local partners.

Production capacity

	Thousand tons
Basic petrochemicals	2,603
Ethylene	1,214
Propylene	864
Butadiene	185
Benzene	290
Methyl tert-butyl ether / Ethyl tert-butyl ether	50
Derivative petrochemicals	2,235
Polyolefins	
Polyethylene ⁽¹⁾	793
Polypropylene	505
Intermediate products	
Propylene oxide, polyols, glycols, and styrene monomer	937

(1) Includes ethylene vinyl acetate (EVA) and ethylene butyl acrylate (EBA) copolymers.

2.6Mt
Basic petrochemical capacity

2.9Mt

Petrochemical product sales

Performance

Earnings posted by Repsol's chemical business in 2017 maintained the strong results achieved in 2015 and 2016, in a year characterized by a more favorable international environment shaped by strong demand and higher margins. Efficiency improvements and advances in differentiation were consolidated during the year, particularly in the Repsol Resistex metallocene polyethylene line and in the Repsol Healthcare line.

Sales to third parties in 2017 amounted to 2.9 million tons, which is in line with the volume of 2016. Favorable market conditions, combined with healthy plant operations, helped maintain a high sales volume. The margin environment continued at historic highs, similar to 2016, albeit with a decrease in the last quarter of the year.

<i>Thousand tons</i>		
Sales by type of product	2017	2016
Basic petrochemicals	978	994
Derivative petrochemicals	1,877	1,898
Total	2,855	2,892
Sales by region	2017	2016
Europe	2,412	2,428
Rest of world	443	464
Total	2,855	2,892

As for investments, they were mainly earmarked to improve and optimize existing assets, enhance efficiency, reduce costs, differentiate products, and improve quality, safety, and environmental standards. The main expenses incurred in 2017 relate to projects designed to enhance efficiency, and on projects to be undertaken in the multi-year shutdowns scheduled in 2018 both in the Sines complex and in the propylene oxide/styrene plant of Tarragona.

With respect to recognitions, Repsol won the award for Best Producer of PEAD of Europe from the European Plastics Converters Association (EuPC) for the second consecutive year. The award is given on the basis of a vote by all the clients that are members of the association. In May, Repsol also received the Safety Award of the Business Federation of Spanish Chemical Industries (FEIQUE) for its Chemicals and for the chemical unit of the Tarragona industrial

complex, which recognizes the accident-related work carried out in 2016.

Sustainability performance	2017	2016
Hydrocarbon spills (>1bbl) (t)	0	0
CO ₂ e emissions (Mt) ⁽¹⁾	3.50	3.75
TRIR	1.42	1.89
PSIR	0.61	0.60
Voluntary social investment (€ thousand)	906	771

(1) This indicator includes cracker emissions. The 2016 indicator has been recalculated according to this criterion.

5.2.3. Marketing

Assets

At year-end 2017, Repsol had 4,709 service stations, with the following geographic distribution:

Country	No. of points of sale
Spain	3,445
Portugal	464
Peru	490
Italy	310
Total	4,709

Performance

In 2017, the company faced the challenge of consolidating the results achieved in 2016 and continuing to grow in order to stay at the forefront and offer our customers the best service by bearing in mind our strategy of "Transforming while Performing". The robustness of our business model proved itself in 2017 in both operations and results and in the change being undergone by the Company in line with the targets of its 2016-2020 Strategic Plan: creating value and boosting resilience. Highlights:

- In spite of limitations on the growth of points of sale in the Service Station business, sales increased on the previous year, with a strong performance from Premium products.
- The share and volume of Direct Sales increased from 2016, along with growth in unit margins.

4,709

Worldwide marketing points of sale

- In Marketing Portugal, the Service Station and direct sales businesses continued to show healthy performance in both sales and results.

The launch of the Repsol WAYLET app is furthering the transformation of the business based on innovation, technology and the digital environment.

The company has continued its policy of forming strategic alliances with market leaders, such as El Corte Inglés, Starbucks, Nespresso, Amazon, Correos and Disney. A strategic agreement has been signed with El Corte Inglés that will enable Repsol to create the largest network of proximity and convenience stores in Spain in the company's service stations, under the brand name "Supercor Stop&Go." The agreement with Correos involves the development of a package storage service at our service stations.

The alliance with Amazon consists of installing "Amazon Lockers" in our stations, where customers can pick up orders made on the Amazon website.

The strategic alliance has allowed Repsol to be more connected to the new technological trends related to electronic commerce. The acquisition in December of a 70% stake in the company Klikin will help boost the Waylet app as the universal means of payment with a mobile phone, allowing it to be used outside Repsol service stations.

Sustainability performance	2017	2016
Hydrocarbon spills (>1bbl) (t)	5.05	0
Hydrocarbon spills Repsol Peru (>1bbl) (t)	46.35	30.69
CO ₂ e emissions (Mt)	0.03	0.04
TRIR	1.12	1.31
TRIR Marketing Perú	0.39	0.56
% of contracts with human rights, environmental and anti-corruption clauses	100	100

5.2.4. Trading and gas

Trading

The function of Trading is to optimize the supply and marketing of Group positions in international markets (integrated supply chain) and its activity consists of the following: (i) supply of crude oils and products for the refining systems and other needs of the Repsol Group; (ii) marketing of crude oil and surplus products from the Group's own production; (iii) maritime transport of crude oil and derivative products associated to such activities, and (iv) management of hedges on products in financial derivative markets.

Trading activities are carried on globally through a number of offices in the leading markets of Europe, America and Asia.

In 2017, a total of 1,515 vessels were chartered (1,339 in 2016), and 270 voyages were made through the Time Charter fleet.

Sustainability performance

In safety and the environment in 2017, evaluation procedures were reviewed by the Vetting¹ area, which involves requirements that are more stringent and appropriate for the current risk map:

1. Process of assessment of vessels to be contracted:
 - For ships between 1 and 15 years of use, under OCIMF/ SIRE inspection in the previous process, it was used for vessels between 1 and 5 years of use.
 - For ships less than one year and more than 20 years, assessment for voyage to voyage.
 - Inclusion of Short Time Charter concept and of its assessment process.
 - Inclusion in Repsol Vetting Process (RVP) of attendance at sea trials for time charter vessels, new building vessels and LNG vessels gas test.
2. Safety criteria applicable to SIRE vessels (oil or gas tankers, chemical tankers, barges and tugboats) and bulk carriers:
 - New limits on vessels' age according to type of vessel.

1,515
vessels
chartered

1. Procedures apply to time charters, voyage or spot charters, and to vessels owned by Repsol, vessels carrying Repsol cargo, and vessels that visit terminals owned or operated by Repsol.

20% ↑
Volume marketed in North America

- Increase in requirement to employ the condition assessment program (CAP). In the new procedure, vessels of between 15 and 20 years of use are assessed. Previously, this applied to vessels of more than 20 years.

North America gas

Assets

At December 31, 2017, the Group had both its regasification and transport assets in its marketing businesses in North America, including the Canaport regasification plant and the gas pipelines in Canada and the United States.

Performance

Natural Gas in North America	2017	2016
LNG regasified (TBtu) in Canaport (100%)	15	16
Gas marketed in North America (TBtu)	496	414

The volume marketed in North America increased by 20%.

In the US northeast, where natural gas supplies tend to be more limited, cold temperature scenarios may cause significant peaks in benchmark prices in the region, such as Algonquin (the benchmark price for the Boston area). The company's activity in the northeast is focused on optimizing the margin obtained from the marketing of LNG in capitalizing on the flexibility offered by the Canaport plant. That is, flexibility in send out allows for concentrating gas sales in days of peak prices in winter.

In 2017, business activity was limited by the lack of sustained low temperatures over time in the northeast US, owing to an abnormally warm winter (not representative of an average winter temperatures for the region), thus reducing the Canaport regasification plant's capacity to capture commercial margin.

9% ↑
LPG sales growth in Spain

5.2.5. Liquefied petroleum gas (LPG)

Repsol is one of the leading retail distributors of LPG¹ in the world, ranking first in Spain and maintaining top positions in Portugal.

LPG sales totaled 1,375 Mt in 2017. Total sales in Spain increased 9% year on year, primarily due to higher sales to distributors. Sales in Portugal reached 138 thousand tons, making the company the third-largest operator.

Thousand tons

LPG sales by geographical area

area	2017	2016
Europe	1,356	1,261
Spain	1,218	1,116
Portugal	138	145
Latin America⁽¹⁾	19	486
Peru (Autogas)	19	188
Ecuador	-	298
TOTAL	1,375	1,747

(1) On April 20, 2016, Repsol sold its LPG businesses in Peru and Ecuador to the international operator Abastible.

In Spain, Repsol distributes bottled, bulk, and Autogas networks, with over 4 million active customers. Bottled LPG sales accounted for over 75% of total retail LPG sales in Spain, through an extensive network of distribution agencies. In Portugal, Repsol distributes LPG bottled, bulk and in AutoGas to end customers, while also supplying other operators.

Thousand tons

Sales volume of LPG by product

product	2017	2016
Bottled	670	1,049
Bulk, piped and others ⁽¹⁾	705	698
TOTAL	1,375	1,747

(1) Includes sales to the automotive market, LPG operators and other.

1. In Spain, prices continue to be regulated for piped LPG and LPG bottles of between 8 and 20 kg with a tare weight above 9 kg, excluding bottled mixtures for using LPG as fuel. For further information on the applicable legal framework in Spain, see Appendix IV of the consolidated financial statements.

AutoGas (LPG for vehicles) is the most widely-used alternative fuel in the world, in over 26 million vehicles (more than 14 million in Europe). Although it has yet to make a meaningful impact on the Spanish market, sales growth exceeded 8.1% in 2017, confirming the increased demand for this affordable fuel that also helps improve urban air quality. The main milestones in 2017 of this business are as follows:

- Various agreements were secured with leading automotive brands (Fiat, PSA Group, Ssangyong-Subaru, Opel and Renault Dacia Group) to promote, through joint actions, the sale of vehicles fueled by automotive LPG or AutoGas.
- A program of commercial incentives has been launched to adapt gasoline vehicles to AutoGas.
- Use of AutoGas as an alternative fuel through the AutoGas cluster was promoted; in June, the cluster had 15 members which, in addition to Repsol, included manufacturers of vehicles and components and technology and/or research institutes.
- The company took part in the most significant Spanish events of the year: the first AutoGas Forum and the first ExpoAutoGas. In the second half of the year, the 100% AutoGas bus was presented as part of a project led by the Center For Industrial Technological

Development (CDTI), which received the innovation award from the World LPG Association (WLPGA). Repsol is partnering on the project the carmaker BEGAS and the bus manufacturer KING LONG.

90
countries
International
presence
of lubricant
business

Sustainability performance	2017	2016
Hydrocarbon spills (>1bbl) (t)	0	0
CO ₂ e emissions (Mt)	0.01	0.02
TRIR	1.91	3.80
PSIR	0	0
% of contracts with human rights, environmental and anti-corruption clauses	100	100

5.2.6. Lubricants, asphalts and specialized products

The objective of this business unit is to maximize value through the whole oil-product claim from the refining activity.

In all cases production is centered mainly in Spain, although there are arrangements with local producers in some key countries to produce *in-situ* certain lubricant lines. Marketing and distribution are strongly international in scope, with sales in more than 90 countries throughout the world.

Sales by geographic destination are as follows:

Thousand tons

Country	Lubricants	Asphalts	Specialities ⁽¹⁾	2017 Total	2016 Total
Spain	86	313	257	656	637
Europe	24	347	253	624	607
Africa	2	-	238	240	281
America	18	-	7	25	34
Asia and Oceania	31	-	47	78	57
Sales to Traders		203	-	203	200
Total	161	863	802	1,826	1,816

(1) Includes mainly lubricant bases, extensor oils, sulfur, paraffin and propellant gases.

Regarding the evolution of the business during 2017, it should be noted that, with respect to 2016:

- Lubricants enhanced its leadership position in the Spanish market, with sales growth of 3%. In international markets, overall sales growth amounted to 17%.
- Sakes of bitumen for asphalt increased by 1.8% on 2016, and asphalt specialized products did so by 10%, even though its natural markets (Spain, France and Portugal) have seen minimum levels of demand.
- Record highs were reached in sales of Group II and III base oils. This product line grew by 101%.

The primary milestones are as follows:

- Launch of **production and distribution of lubricants in Thailand and Mexico**.
- Launch of a **new line of Repsol Moto lubricants** developed in the Repsol Technology Center, reaching the highest market quality standards, which is an important milestone for maintaining leadership of the Spanish lubricants market and developing the international market. In this sense, **agreements have been signed for the use of our lubricants with Honda and Kymco** in Spain, and with **SK Lubricants in Korea**, in this case for premium lubricants, and in **India**, for the launch of the **first synthetic product for motorcycles**, Repsol Moto 4T Sintético 10W-60.

- A **third production shift** has been established at the **Puertollano** lubricant plant. Combined with investments to boost capacity, this allowed for reaching production of 127,000 t (117,000 t in 2016). The objective is to reach 170,000 t/year by 2021.
- Launch of supply of asphalt-based emulsions in **Morocco**. This is the first part of a commercial agreement to export 1,400 t for maintenance work on roadbeds.
- Production launch of rubber paraffin in **China** under a toll arrangement, with expected annual production of 1,500 t.

Sustainability performance	2017	2016
Hydrocarbon spills (>1bbl) (t)	0	0
CO ₂ e emissions (Mt)	0.01	0.012
TRIR	0.82	0.63
% of contracts with human rights, environmental and anti-corruption clauses	100	100

Regarding social commitment, all international agreements include clauses related to human rights, safety, the environment and anti-corruption were carried out on lubricant manufacturers and distributors. Ten social audits were carried out during the year. In addition, all international agreements include clauses on these issues.





5.3. Corporate

Our activities

Relates mainly to the operating expenses of the Corporation, the financial result and figures for the 20% interest in Gas Natural SDG, S.A.

Our financial performance

Million euros	2017	2016	Δ
Corporate and adjustments	(262)	(313)	51
Financial result	(356)	(315)	(41)
Gas Natural Fenosa	272	361	(89)
Income tax	242	254	(12)
Adjusted net income⁽¹⁾	(104)	(13)	(91)
Special items	(117)	433	(550)
Net income	(221)	420	(641)
Effective tax rate (%)	(39)	(41)	2
EBITDA	(170)	(213)	106
Net investments	27	(1,983)	2,010

Sustainability performance

	2017	2016
No. employees	2,190	2,477
% women	53.9	52.3
% of women in leadership positions	42.5	41.2

Main events of the period

- In April, the Corporate Executive Committee approved a set of **changes in the executive team** in the framework of the transformation of the organization. These changes will enable us to progress towards a more flexible company and strengthen the relationships between the Corporation and the businesses (for further information, see section 6.2).
- In May, the Repsol General Shareholder's Meeting approved the appointment of PricewaterhouseCoopers Auditores, S.L. as the **auditor** of Repsol, S.A. and of the Group for the years 2018, 2019 and 2020.
- In May, RIF issued a bond guaranteed by Repsol S.A., in the amount of €500 million, maturing in 2022 and carrying a fixed annual coupon of 0.50%. This represents the **first issue of a "green bond"** by Repsol, the funds of which are dedicated to refinancing and financing projects that seek to prevent greenhouse gas emissions as part of refining and chemical activities in Spain and Portugal.
- In June, the Corporate Executive Committee approved the **Global Sustainability Plan** in which Repsol **commits itself to 2020 targets** in the six main areas of sustainability (see next section).
- With the integration of ROGCI in the Group, it has progressively been **released from its contractual and regulatory obligations to publish financial information** in Canada (Alberta Securities Commission), the US (Securities and Exchange Commission) and the United Kingdom (London Stock Exchange), which culminated with the ceasing order of its status as a reporting issuer by the Canadian authorities on September 29.
- During the year, Repsol's long-term debt **credit rating improved**:
 - Standard & Poor's improved the rating from BBB- to BBB, with a stable outlook.
 - Fitch changed its outlook from "negative" to "stable" (with a BBB rating).
 - Moody's changed its outlook from "negative" to "stable" (with a Baa2 rating).

6. Sustainability

Sustainability

For more information on sustainability, see Appendix III and IV and www.repsol.com

Repsol works to provide accessible, efficient and safe energy to meet growing energy demand without compromising future generations. Commitment to sustainability, a cornerstone of our vision of the future as an integrated energy company.

Repsol's commitment to sustainability is integrated in the Company's strategy, and it has the support and engagement of senior management.

Accordingly, we have set our ambitions and targets for 2020 related to the six pillars of the **Repsol Sustainability Model**: Climate change, People, Safe operation, Environment, Innovation and technology and Ethics and transparency. The model takes specific form in the **Global Sustainability Plan (GSP)**. Each year, the Company sets out concrete lines of

action to advance towards the 2020 targets. The GSP is the roadmap used to deploy local sustainability plans in countries or in the main industrial facilities. These local plans are which are defined in accordance with the context, activities, the risks and impacts and the expectations of the stakeholders of each place where Repsol operates.

In addition, as a member of the United Nations Global Compact, belonging to the Executive Committee of the Spanish Network of this initiative, as well as a member of IPIECA (The Global Oil and Gas Industry Association for Environmental and Social issues), Repsol supports the UN Agenda by 2030 and contributes to meet the 17 Sustainable Development Goals (SDG).

Global Sustainability Plan (GSP)



The Global Sustainability Plan focuses on the **six** axes of Repsol's Sustainability Model.



Sustainability Goals

for 2018 15%-20% variable remuneration of businesses.

Sustainability Plans and Sustainable Development Goals

Since 2010, Repsol has published Local Sustainability Plans in countries where it operates and in major industrial facilities. These plans align with the Global Sustainability Plan (GSP), but they also meet the expectations of local stakeholders. In 2017, local plans were published in Bolivia, Brazil, Colombia, Ecuador, the United States, Peru, Trinidad and Tobago and Venezuela, and in the industrial centers of La Coruña, Petronor, Tarragona, Puertollano and Cartagena.

In 2018, the Company will continue to broaden its commitment to Sustainability by incorporating new countries in the definition of local plans in Indonesia, Malaysia and Vietnam, and in the Sines Chemical facility of Portugal. The extension of this project to southeast Asian countries is a further illustration of the integration of the activities that came from ROGCI (acquired in 2015) in Repsol's Sustainability Model.

These plans, combined with the GSP, set out goals that help make achievement of the Sustainable Development Goals (SDGs) possible. In 2018, the Company will continue to commit to actions aligned with the six pillars of the Sustainability Model and the SDGs:

- Climate change: the CO2 emissions reduction plan defined by 2020 will continue. (SDG7 Affordable and clean energy and SDG 13 - Climate action).
- People: actions will be taken to strengthen community relations and human rights while favoring equality and work-life balance. (SDG 5 – Gender equality; SDG 8 – Decent work and economic growth and SDG 16 - Peace, justice and strong institutions).
- Safe Operation: actions will continue to be taken to strengthen the culture of safety. (SDG8: Decent work and economic growth)
- Environment: actions will be committed in relation to protection of biodiversity, air quality and reduction of waste. (SDG 6 –Clean water and sanitation; SDG 14 - Life below water and SDG 15 - Life on land, SDG 12: Responsible consumption).
- Ethics and transparency: internal awareness will continue to be raised in issues of ethics and anti-corruption. (SDG 16 - Peace, justice and strong institutions).



GSP

a

Ambition:

Position the Company in a scenario compatible with the Paris Agreement.

6.1. Climate change^{1, 2, 3}

Governance

The Board of Directors, at the proposal of the Sustainability Committee, approves the strategy for sustainability and, specifically, for climate change. In addition, the Sustainability Committee's duties include analyzing the expectations of the Company's stakeholders and reporting them to the Board, and orienting and monitoring the Company's sustainability objectives, action plans and practices.

Strategic decisions on climate change and lines of action are set at the highest executive level. The Corporate Executive Committee (CEC) has direct responsibility in the management of matters related to climate change. The CEC also approves the multi-year objectives and annual targets for reduction of greenhouse gases (GHG).

At least twice a year, or as often as necessary, the CEC and the Sustainability Committee review information on execution of the climate change and CO₂ emission strategy.

The Director of Sustainability, who reports directly to the CEO, coordinates with all business units involved in developing the climate change strategy the proposed objectives and monitoring of action plans to reduce Repsol's CO₂ emissions.

GHG emissions reduction targets weight between 5% and 20% of the targets of the business of the

Company, and have a direct impact on the variable remuneration of employees up to the Executive Directors.

Strategy

Repsol shares society's concerns regarding the effect of human activity on the climate. The Company is firmly committed to the ambition of limiting the average global temperature rise below 2°C above pre-industrial levels by the end of the century. As a signatory of the Paris Pledge for Action document, Repsol supports the Paris Agreement, and works towards being part of the climate change solution

This transition to a low-emissions future requires a holistic approach that means considering the costs and maturity of the technologies that will ultimately be successful. There are many possible paths towards a low-emissions future, in which Repsol has identified three common elements: enhanced energy efficiency and energy savings; reduction of emissions in the generation of electricity, where natural gas will be a key player, and the deployment of low-emission technologies in final sectors.

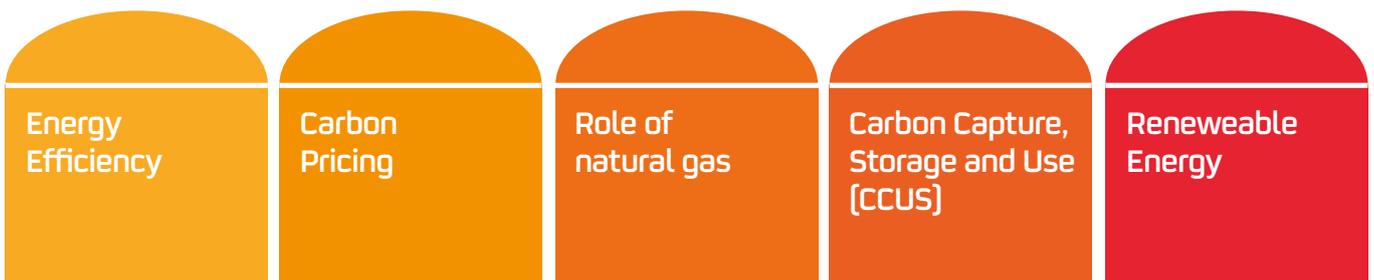
Repsol's business strategy is defined in five-year plans that are reviewed on an annual basis. These plans take account of the risks and opportunities of climate change and its impact on strategic lines and on competitiveness. The Company's 2016-2020 Strategic Plan is an example of what Repsol considers the most efficient solution to fostering a structured transition toward a low-emissions future, with a clear orientation to natural gas as a low-emission fuel. Repsol's *Upstream* portfolio is evolving towards a higher percentage of gas: about 63% in production and 74% of reserves.

The climate change strategy has a longer time horizon, and it is based on five pillars involving solutions that can enable society to move toward a sustainable future with low GHG emissions:

1. The figures and indicators in this section have been calculated in accordance with corporate standards that set out the criteria and common methodology to be applied in Safety and Environment (S&E). As a general rule, information includes 100% of the data from companies in which the Company holds a controlling interest or control over operation.

2. This section aims to meet the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), with the limitations of the first year of application.

3. Repsol publishes additional information on climate change issues in the Climate Disclosure Project (CDP) questionnaire, available at www.cdp.net.



The **short-term strategy** is influenced by climate change issues that are more closely related to competitiveness (energy costs and CO₂), and by the regulatory framework of its activities. Its strategy is focused on boosting the Company's resilience to these regulatory frameworks.

Carbon pricing is a critical element of climate policies aimed at carrying out the transition to a low-emissions future. Accordingly, for investment decision-making in new projects, Repsol has established an initial internal carbon price of \$25/t CO₂, with the aim of attaining \$40/t CO₂ in 2025.

In addition, **energy efficiency** will allow reducing the energy and carbon intensity of its operations. Repsol has adopted specific targets and plans on **energy efficiency** that include, inter alia, projects of energy integration of units, optimization of processes and efficient operation of facilities. Indeed, the current contribution of energy efficiency will be extended as the main drive of emission reduction until nearly the midway point of this century.

For the **medium and long term**, Repsol is analyzing different models of energy supply and demand in order to comprehend how the sector can tackle the future challenges with respect to mitigating climate change while supplying energy for a growing world population. These models are used to develop scenarios that show how energy demand will change over time, how quickly supply technologies can change, and the implications in terms of CO₂ emissions.

Analysis of climate scenarios is a very important tool for determining how the energy sector will continue to supply the energy society needs while doing so in a sustainable manner. Repsol is currently developing its own scenarios compatible with a 2°C future and, more specifically, with the Sustainable Development Scenario (SDS) of the International Energy Agency. Hence, the company is showing its ability to analyze the key levers and technologies that will make up a low-emissions future and identify new risks and opportunities. The Company is also applying metrics that will enable it to quantitatively contribute to the development of its long-term strategy.

In addition, Repsol is facing this challenge by taking part in international associations such as The Global Oil and Gas Industry Association for

Environmental and Social Issues (IPIECA) and initiatives like the Oil and Gas Climate Initiative (OGCI), through working groups dedicated to the low-emissions pathway scenarios of IPIECA and the low-emissions opportunities of OGCI. These long-term models and scenarios are being explored jointly with other sector companies. This is a complex analysis, as it depends on different regions of the world and the type of products that are included in the equation.

Repsol believes that these new scenarios offer a significant opportunity for innovation and investment in low greenhouse gas-emission solutions.

Demand for natural gas will increase because it is a "clean fuel" compared to coal. Emissions of CO₂ per energy unit account for approximately half of those related to coal, not including the performance gap between the technologies associated with these fuels in electricity generation.

The shift from coal to natural gas fuels offers a major opportunity to achieve large-scale reductions of CO₂ in a cost-efficient manner: that is, at a lower cost for society, where a structured transition to a low-emissions future is the most efficient way forward.

Carbon Capture, Use and Storage (CCUS) is a factor to be taken into account in the CO₂ emissions reduction policy in Repsol's value chain. The Company supports the deployment of these technologies, working to allow projects to be technically and economically feasible, sustainable and socially acceptable.

In addition, with a medium-term view, Repsol is continuously monitoring trends and the latest technologies being developed in renewable energies, investing in sustainable mobility and contributing to emissions reductions through production and research and development into biofuels and advanced fuels. Through the fund OGCI - Climate Investments, Repsol, in coalition with other Oil & gas companies, will continue to invest in low-emissions projects and technologies. It will support projects where a collective effort is the key to achieving synergies and successful results. OGCI will invest €1,000 million over ten years for this purpose.

\$40/t CO₂
Internal CO₂
price to be
reached by
2025

Repsol has been a part of this initiative along with nine other leading sector companies, to collaborate in climate action sharing best practices and technological solutions.



OIL AND GAS CLIMATE INITIATIVE

<https://www.oilandgasclimateinitiative.com>

Principles for Responsible Investors (PRI) Methane Initiative

for the sharing of best practices in management of methane emissions.



Link to PRI

Also, the Energy Ventures and Technology units invest in diverse areas of knowledge such as biofuels, graphene, electric mobility, among others (see section 6.5).

Risk management

It is essential to integrate energy and carbon management in the business model and in the risk management system. Climate change is other variable to be taken into account in the strategic decision-making.

Repsol has an Integrated Risk Management System (see Appendix II) in place, enabling the Company to identify, manage and control risks arising from climate change.

Repsol operates in areas with strict legislative requirements for energy and carbon (approximately 60% of the direct emissions of CO₂ come from its units in Europe, the US and Canada). Pursuant to the Paris Agreement, countries' commitments will have a significant impact on climate policies. More specifically, the following **legislative risks** are worthy of note:

- In Europe, the 2020 Energy and Climate package, current in force, includes a number of key directives, notably the Directive that regulates the Emissions Trading System (EU-ETS).

Specifically, the EU-ETS scheme affects our refineries and chemical facilities in Europe.

To mitigate these impacts, Repsol is reducing its CO₂ emissions through energy efficiency actions, which avoided 4.5 million tons of GHG emissions annual run rate in the 2006-2017 period. Precisely, Repsol has issued a green bond of €500 million applied to the 2014-2020 period in energy efficiency projects in its Refining and Chemical facilities.

Repsol is not only working to improve the energy efficiency of its production processes, but also in the manner it produces energy. Accordingly, the company is generating the electrical energy and the steam needed by its industrial processes through cogeneration facilities, which have a quite significant presence in Spain.

The 2020 Energy and Climate package also includes the Directive on Renewable Energies that will involve, among other things, incorporation by the year 2020 of up to 8.5% of biofuels in automotive fuels. This percentage will be increased by the additional incorporation of the Fuel Quality Directive.

- Legislation on the promotion of clean and efficient road transport vehicles sets a specific average emissions target for the fleet of vehicles marketed by automotive companies. In particular, light vehicles have to reduce their emissions from 130 gr of CO₂/km in 2015 to 95 gr of CO₂/km by 2020. Repsol has a flexible business model that enables it to tackle these shifts in demand.

Thus, Repsol has invested in its Refining business to adopt an advanced scheme in its complexity and flexibility to enable it to complete in future demand scenarios. In addition, the Company also identifies opportunities, supports projects and implements initiatives in renewable energy for transport, biofuels or use of automotive LPG, among others.

- Outside Europe, and in Canada specifically, it is important to consider the implementation of the Pan-Canadian Framework on Clean Growth and Climate Change, in which the federal government has set a carbon price pathway that will reach CAD\$50/ton in 2022.

Repsol is working to minimize **physical risks** and the magnitude of potential impacts of climate change in natural resources, facilities and in the climate phenomena to which the Company is exposed: drought, flooding, temperature change, etc.

To cite just one case of analysis, Repsol operates in areas that may be affected by the water stress, which would affect the correct operation of our facilities. In particular, the lack of water could cause a disruption of production. Thus, Repsol is developing adaptation plans aimed to anticipate and mitigate such situations as much as possible.

Lastly, risks are analyzed in the category of **reputation or market** risks in order to establish how changes affect consumer behavior and other

Methane Guiding Principles

Which addresses the guiding principles of proper methane management in terms of measurement, mitigation and transparency in the report among others.

variables that may affect the company.

A shift in consumer behavior could result in a decrease in demand for automotive and industrial fuels. To mitigate this effect and anticipate such changes, Repsol is investing in projects of innovation and technology (see section 6.5, *Innovation and Technology*).

Objectives and metrics

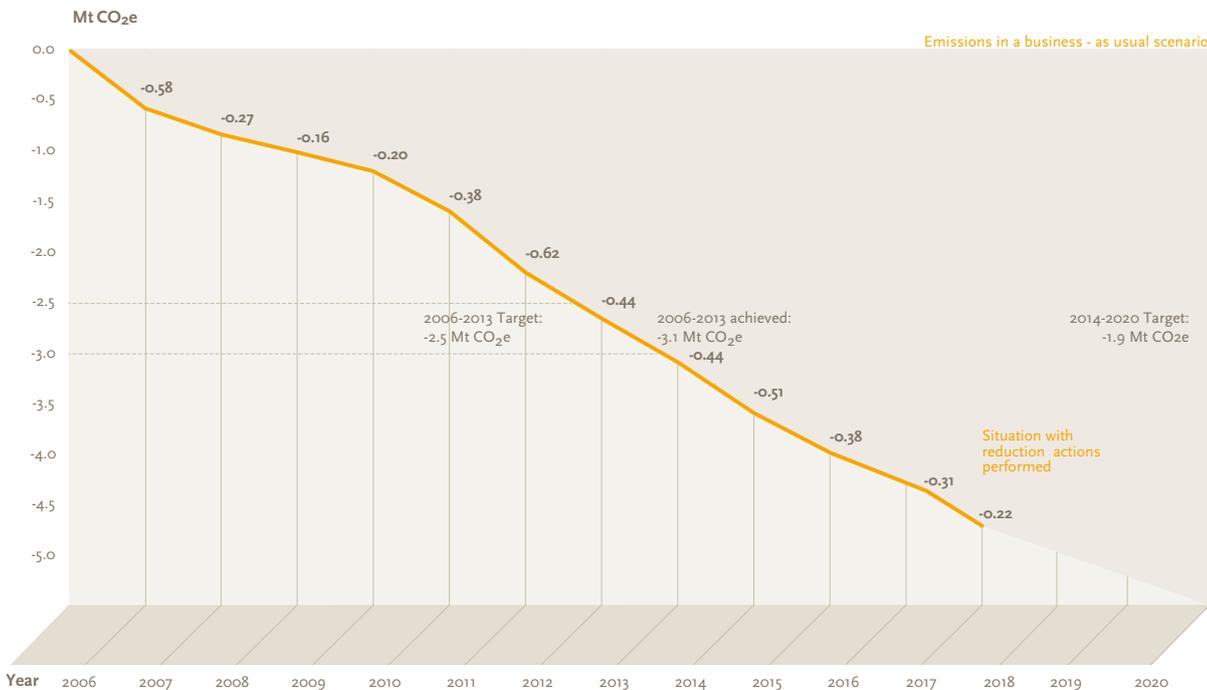
Repsol's commitment to climate change is articulated through its carbon strategy and the target of avoidance 1.9 million tons of CO₂ emissions annual run rate by 2020 starting in 2014. In 2017, Repsol is continuously improving and taking actions that avoided, so far 216 kt of CO₂ emissions, which means that since 2014, a reduction of nearly 74% of the target set for the entire period was met.

GSP

2020

Target:
Avoidance of 1.9 Mt of GHG emissions by 2020.

GHG emissions reduction (Millions of tons)



€37.5 million
invested in reduction actions in 2017

↓ 1.4 Mt
GHG avoided between 2014 and 2017

↓ 4.5 Mt
GHG avoided between 2006 and 2017

Scope 1



Our emissions

	Downstream								Total		
	Upstream			Refining		Chemical		Others ⁽⁴⁾			
	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O		
Scope 1 ⁽¹⁾⁽²⁾	10.58 Mt			8.97Mt		3.34 Mt		0.02 Mt		22.9 Mt	
	60%	40%	0,2%	97%	1%	1,9%	98%	1%	1,2%		
Scope 2 ⁽¹⁾⁽³⁾	54 kt			139 kt		155 kt		40 kt		388 kt	
Scope 3 ⁽⁵⁾⁽⁶⁾										2017	2016
Indirect CO ₂ emissions associated with purchasing hydrogen (Mt)										0.67 ⁽¹⁾	0.63
Indirect CO ₂ emissions associated with purchasing goods and services (excluding hydrogen) (Mt)										7.84	6.94
Product transport and distribution (Mt) ⁽⁷⁾										0.52	0.61
CO ₂ emissions derived from product sales (Mt) ⁽⁸⁾										149	146

Scope 2



(1) Data being verified during the preparation of this report. About 96% of the company's total direct emissions (scope 1) will be verified under international standard ISO 14064-1. Once verification is complete, it will be available on repsol.com.

(2) Scope 1 (direct emissions deriving from Company activity).

(3) Scope 2 (indirect emissions related to purchase from third parties of electrical energy and steam).

(4) Includes LNG, LPG, lubricants and marketing.

(5) In terms of scope 3 emissions, the following indirect CO₂ emissions are considered significant: those associated with the purchase of goods and services; those associated with the transport and distribution of products and those arising from the marketing of these products, which are the most significant.

(6) CO₂ emissions included in Scope 3 in 2017 relate to an external energy content of approximately 2.2 million TJ, the same as in 2016.

(7) These emissions have been calculated with the factors provided by the UK Department for Environment, Food & Rural Affairs (DEFRA) for road transport of goods. These factors include the part of the trip made by the truck when empty. In the specific case of rail transport, only diesel locomotive voyages have been included, which account for 40% of such voyages, thus excluding the remaining 60% of electrical locomotives, according to the study published by the Rail Transport Observatory in Spain.

(8) These emissions have been calculated using the methodology published by CDP, following the production method, which includes production from Exploration and Production (crude, natural gas and liquefied natural gas) and LPG sales, naphta, gasoline, kerosene, gasoil, fuel oil and coke produced in our refineries. Emissions deriving from chemical products are not included, as the final figure reported in this category is not significant. To avoid double accounting, we subtract the amount of crude produced in Exploration and Production that is subsequently processed in our refineries.

Energy consumption

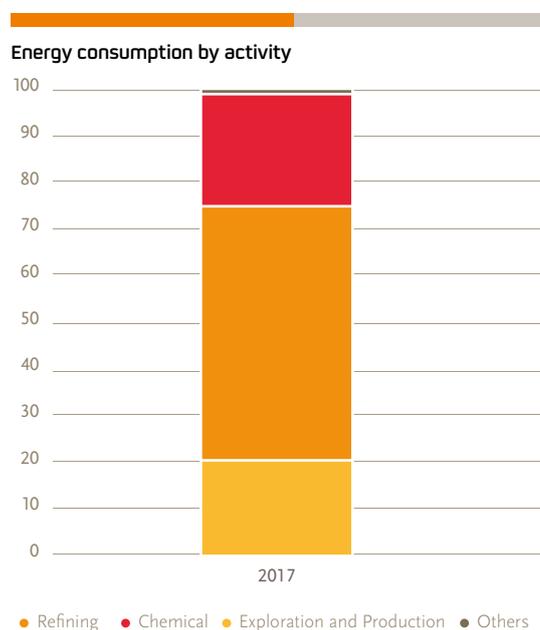
In 2017, Repsol carried out investment and operational improvements in all operations. This enabled the Company to save approximately 4.3 million GJ.

Internal energy consumption	2017 ⁽¹⁾	2016
Fuel (million of toe)	5.07	5.06
Electricity purchased (MWh) ⁽²⁾	0.72	0.93
Steam purchases (GJ) ⁽³⁾	2.65	2.72

(1) Data currently being verified. Once verification is complete, they will be available on www.repsol.com.

(2) Includes electricity purchased for consumption.

(3) Includes steam purchased for consumption.



Source: International Energy Agency (IEA) and Repsol Research Unit

Energy intensity

In the Oil & Gas sector, it is important to establish a clear distinction between Downstream and Upstream energy consumption owing to the difference between these operations. Energy intensity is calculated as energy consumption per ton of crude processed for the Refining sector. For Exploration and Production, this is calculated by barrel of oil equivalent (boe) produced.

	2017 ⁽¹⁾	2016
Energy intensity in Refining (GJ/t processed crude oil) ⁽²⁾	2.86	3.03
Energy intensity in Exploration and Production (GJ/boe produced) ⁽³⁾	0.298	0.381

- (1) Data currently being verified. Once verification is complete, they will be available on www.repsol.com.
- (2) The indicator doesn't include the energy consumption of the crackers. The 2016 indicator has been calculated according to this criteria.
- (3) The figures have been calculated using gross production of the operated assets of the Company, as reported energy consumption includes 100% of consumption of such assets, irrespective of Repsol's percentage of them.

Intensity of greenhouse gas emissions

The intensity of greenhouse gas emissions has been calculated including scope 1 and scope 2 emissions, in accordance with the foregoing.

	2017 ⁽¹⁾	2016
Intensity of greenhouse gas emissions in Refining (tCO ₂ e/t processed crude oil) ⁽²⁾	0.192	0.208
Intensity of greenhouse gas emissions in Exploration and Production (tCO ₂ e/ thousands of boe produced) ⁽³⁾	62.7	69.3

- (1) Data currently being verified. Once verification is complete, they will be available on www.repsol.com. Local emissions factors have been used to calculate scope 2 emissions.
- (2) The indicator doesn't include the emissions of the crackers. The 2016 indicator has been calculated according to this criteria.
- (3) The figures have been calculated using gross production of the operated assets of the Company, as reported energy consumption includes 100% of consumption of such assets, irrespective of Repsol's percentage of them.

Flared and vented hydrocarbon

In 2017, work continued to minimize the amount of hydrocarbon flaring and gas venting. It was sent a total of 0.29 million tons of gas for flaring, while in 2016 0.49 million tons were sent.

With respect to venting, a total of 3,52 million tons were vented. The majority of these emissions come from one of the assets of Malaysia, which has a high content of CO₂ (which is separated from the natural gas extracted), making energy reuse difficult. The Company is currently studying the best options for minimizing this venting. In 2016, 3,87 million tons of gas was vented.

New opportunities have been developed to reduce emissions from venting. Noteworthy of these was the replacement of pneumatic devices with use of new technologies, resulting in an approximately 8% reduction of our methane emissions in Canada. This strengthened our commitment to initiatives of which we are a member, such as the Climate & Clean Air Coalition-O&G Methane Partnership (CCAC-OGMP), Methane Guiding Principles and Principles for Responsible Investors - Methane Initiative (PRI).

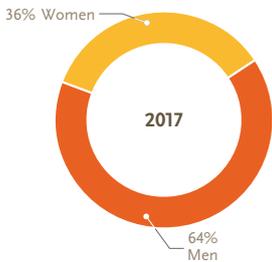
Repsol is part of the international Climate & Clean Air Coalition-O&G Methane Partnership of UN Environment for carrying out projects aimed at reducing methane emissions.

<https://www.oilandgasclimateinitiative.com>

Since 2016, Repsol is a part of the World Bank Zero Routine Flaring by 2030 initiative, to look for the most advanced technologies that minimize the routine gas flaring.

<https://www.worldbank.org>

Women in Repsol



6.2. People¹

6.2.1. Our people

In Repsol we believe the talent of our people constitutes a competitive advantage because it ensures the company's future. That is why it is important to identify, retain and develop it. It is key for achieving the company's objectives with outstanding performance and results, and therefore Repsol offers employees a distinctive value proposition that is reflected in our **People Management Policy²**.

To face new sector challenges and achieve the Company's objectives, Repsol has worked on streamlining its workforce following the acquisition of ROGCI, maintaining the same employment levels even though the organizational efficiency process, as set out in the 2016-2020 Strategic Plan, is still underway (ending in 2018). At year-end 2017, Repsol had 25,085 employees, compared to 25,469 in 2016. The average age was 42.6 (40.2 for women and 43.8 for men). In 2017, a total of 3,157 new employees³ joined the Company, compared to 2,445 in 2016.

The streamlining of the organization continued during the year and, along these lines, the Corporate Executive Committee approved a series of changes in the management team. The total reduction in this group was of 30 executives. These changes have strengthened the balance in the relationship model between the corporation and the Businesses.

1. All the data in this chapter, except sections where it is stated otherwise, refer to the number of employees that belong to companies in which Repsol establishes people management policies and guidelines, irrespective of the type of contract (fixed, temporary, partially retired, etc.). Information relating to 2016 has been recalculated using this new criterion to make it comparable, as the data previously reported reflected the FTE's (Full-time Equivalents). That is, they were weighted by the percentage of effective time of employment. In 2017, the Societat Catalana de Petrolis SA (Petrocat) is excluded, and the 2016 figure is adjusted as noted.

2. Our people policy can be found at www.repsol.com.

3. Only fixed or temporary employees with no prior working relationship with the Company are considered to be new hires. Some 31% of new employees in 2017 and 43% in 2016 had permanent contracts. The figures for 2017 relate mainly to new hires in Peru.

A renewed value proposal

Throughout 2017, the Company updated its attributes as employer, improving the employee value proposition on the basis of **five pillars** that differentiate and position Repsol vs. other companies.

1. Company attributes

Respect for people and preservation of the environment are the basis for all the Company activities. Repsol keeps working toward becoming an efficient company to ensure that it is best prepared to meet the challenges that lay ahead, with a focus on value generation; agile, flexible and innovative, capable not only of adapting to the future, but of creating it; performance oriented; with inspiring leaders that develop talent; integrated and inclusive, as a reflection of the society where we belong, and a benchmark of excellence in corporate governance.

2. Culture

Cultural evolution is a key factor for the Company. For this reason, Repsol is committed in 2018 to improving and achieving a 70% average of positive answers in group level surveys assessing its six cultural dimensions. Decision making, leadership, global management, results orientation, people development and collaboration. Periodic culture surveys are conducted among a representative sample of employees and help monitor progress in key behaviors, that is, progress toward working in a different way. The results provide the keys on where to place the focus in achieving the desired culture, which will ensure the success of the transformation and make the results sustainable over time.

In line with the actions committed in the Global Sustainability Plan (GSP) approved by the Corporate Executive Committee in 2017, The **Diversity and Work-Life Balance Committee**, who is chaired by the company senior executives, has renewed their activity. The Committee is composed by directors of different nationalities, areas and businesses that represent the different realities in which the organization operates.

The committee's objective is to set new goals to foster work-life balance and diversity. Five lines of work have been established for identifying and leading initiatives with internal objectives related to the following: different abilities, gender, age, cultural diversity and flexibility work-life balance.

GSP

2020

Target:
Improve employees' rate of satisfaction.

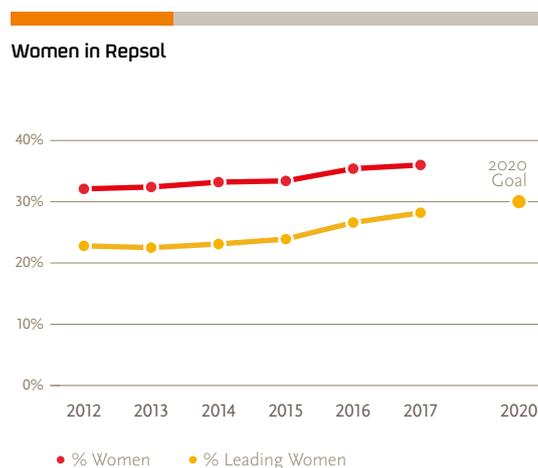
25,085
Staff

The GPS sets out the objectives for 2020 with respect to integration of people with disabilities, gender diversity and flexibility and work-life balance.

Regarding **disableable people**, Repsol also has an integration plan for this collective, which covers all areas of the organization. As of December 31, 2017, Repsol had 576 persons with disabilities, representing 2.3% of the staff. In Spain, the Company surpassed the requirements of the General Law on Disability (LGD) in 2017 reaching 2.6% of the staff 489 employees hired directly.

Integration	2017	2016
No. of employees with disabilities in Spain	492	499
No. of employees with disabilities in the rest of the world	84	87
Total no. of employees with disabilities	576	586
No. of new employees with disabilities	37	13

With regard to **gender diversity**, the percentage of women continues to increase in all groups and businesses. Repsol commitment is for 30% of leadership positions to be held by women in the year 2020. For the purposes of measurement, an organizational diagnosis was conducted on gender diversity throughout the Repsol value chain.



Gender indicators ⁽¹⁾	2017	2016
% women in the Company	36.0	35.4
% women among new hires	50.0	52.8
% of women in worldwide leadership positions ⁽²⁾	28.2	26.6
% women in leadership positions in Spain ⁽²⁾	33.1	31.9
% of women in worldwide management positions ⁽³⁾	35.7	35.6
% women in management positions in Spain ⁽³⁾	38.5	33.4

- (1) Gender indicators are calculated including employees managed with effective time of employment in excess of 20%.
- (2) Executives and leaders (exempt positions).
- (3) Positions of responsibility (exempt positions).

The Company has employees in 37 countries, of 84 different nationalities, and has over 1,799 employees working outside their home country. The value contributed by this **cultural diversity** is increasingly apparent throughout the Company.

The table below details the countries that have the greatest number of nationalities among their employees (excluding those of their own country):

Destination country	2017	2016
Spain	58	60
Canada	25	21
United States	24	22
Algeria	18	17
Vietnam	16	11
Malaysia	13	11
Portugal	12	15
Singapore	12	8
Brazil	10	13
Norway	10	10
Libya	8	1
Russia	8	8
Indonesia	7	7
Peru	7	7
Venezuela	6	6
Bolivia	6	5
Holland	6	5
Ecuador	4	4
Colombia	3	4
Trinidad and Tobago	2	7
Angola	1	3

In Spain, Repsol, S.A. is a company that has received the "Equality at the Company" Seal of Distinction from the Spanish Ministry of Health, Social Services and Equality.

GSP

2020

Target:
Exceed legal obligations in integration of people with disabilities.

Employees in 37 countries from 84 different nationalities

GSP

2020

Target:
Achieve a 30% of women in leadership positions.

SPG
a

Ambition:
Make a commitment to people and drive their development.

In **flexibility and work-life balance**, Repsol is a company recognized for promoting new ways of working that enhance the balance between one's personal and professional lives. The teleworking program is one of the most successful and highly rated programs among employees.

Teleworking indicators	2017	2016
No. of teleworkers worldwide	2,003	1,811

In 2017, Repsol reviewed the minimum requirements worldwide for work-life balance (marriage, maternity, paternity, breastfeeding leave and death of a family member) to adapt them to the Company's new reality, in line with the practices and customs and legislation of each country where Repsol is present.

3. Compensation and performance evaluation

Repsol has assumed a commitment with its employees to provide them with total rewards schemes that ensure external competitiveness and internal fairness, based on meritocracy, and that assess individual performance, cooperation and teamwork.

Repsol's total rewards model includes fixed compensation, benefits, and yearly and multi-year variable compensation.

Compensation	2017	2016
Average staff costs per employee (thousands of euros) ⁽¹⁾	71.6	76.0

(1) Among the accumulated managed FTE 's. Personnel expenses include social security costs and other expenses except severance pay, director's remuneration and travel expenses of effective time of employment.

Repsol had 26,644 FTE 's and 24,216 managed FTE 's as of 31st December 2017.

FTE 's (Full-Time Equivalent 's) ⁽¹⁾	2017	2016
Total FTE 's at December 31	26,644	26,877
Managed FTE 's	24,216	24,532
Non-managed FTE 's	2,428	2,345
Accumulated managed FTE 's	24,664	26,444

(1) Unlike the number of employees, FTE 's is calculated based on the percentage of occupation of each employee. Societat Catalana de Petrolis, S.A. (Petrocat) is included as managed FTE 's.

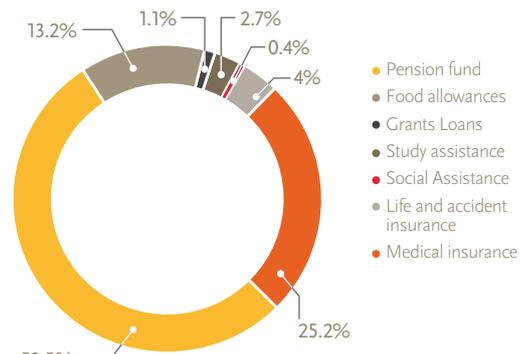
1. For further information, see Note 28.4 of the consolidated financial statements.

Repsol is committed to a flexible compensation system applicable to a majority of its companies that can meet the needs of each employee, such as the Share Purchase Plan and other products such as child care, medical insurance and additional contributions to the pension plan.

In 2017, total spending on employee benefits² was €102.6 million, compared to €122.5 million in 2016.

Repsol has a model of performance and merit-based annual variable remuneration. This model requirements evaluates achievement of company objectives, unit objectives and the individual objectives of each employee, and among them, it separately evaluates the How (performance) and the What (results).

% distribution of social benefits by type



4. Professional development

One of the main pillars of the Company's policy on talent management is to have a development model that is attractive and offers opportunities for professional growth.

In 2017, Repsol implemented a new model of professional development with clear and transparent criteria that strengthens integration by unifying the models in place at ROGCI and REPSOL. The model fosters meritocracy by setting out criteria for promotion and meeting the needs of the Company.

2. Expense of employees of managed FTE 's (includes Societat Catalana de Petrolis, S.A.).

It also enables differentiated career development for both technical and management profiles, boosts leadership as an instrument of cultural change and offers opportunities for development through mobility, training and promotion while taking into account the interests of individuals.

Mobility through different roles fosters learning and professional development through the acquisition of experience in different functions and/or functions of greater complexity. Mobility is playing a critical role in the implementation of organizational changes, where the challenge is to identify the best profiles for each position in the organization.

Mobility	2017	2016
Number of assignments	3,214	2,878
% of women (of number of assignments)	43%	39%

Repsol has also organized temporary assignments in some areas of the Company that have strengthened employees' development and cultural integration.

The Company maintains a complete and up to date **training** schedule in order to improve its employees skills throughout their professional careers. Continuous improvement of knowledge, skills and aptitudes is key for fostering personal development.

Training	2017	2016
Investment per employee (€)	519	490
Total investment in training (million euros)	12.4	11.9
Hours of training per employee	40	41
Dedication rate ⁽¹⁾	2.34%	2.25%
% of employees receiving training ⁽¹⁾	94.5%	86.2%

(1) Corresponds to the % of annual working hours dedicated to training. It is calculated based on the accumulated average FTE's, over managed employees with a working day of over a 20%, excluding Societat Catalana de Petrolis, S.A.

In 2017, the team leaders program was renewed in adaptation to the new model of professional progression, which accompanies the development of Repsol leaders throughout their career in the company, thus making the most of internal skills and knowledge.

For the purpose of continuing to strengthen the Company's international culture, Repsol has continued to increase the foreign language training, and broadening the range of available online training, thus allowing a larger number of employees to access these learning activities.

Repsol encourages its employees to be active agents in their development via systems of feedback,

coaching, mentoring, constant exchange of knowledge and training.

Repsol also remains committed to the incorporation of **young talent**. The Company has adapted to the current environment its Masters programs and is receiving university students and occupational students on internships.

Young talent	2017	2016
New professionals completing the Master program of the Company	52	75
University internship agreements to consolidate training	444	423
Medium and higher level vocational training internships ⁽¹⁾	100	109

(1) These figures include students from medium and higher level vocational training cycles, with a high percentage of these joining Repsol's workforce through various job vacancies. In 2017, Repsol continued the commitment it had assumed with the FP Dual program.

In 2017, 742¹ employees were promoted, of which 38% were women. Promotion criteria include performance, potential and development. 99.0% of total employees integrated in the new progression model was evaluated with respect to their stage of development (in terms of the degree of maturity required in their professional role) and 99.6% were evaluated in terms of their potential (employee's capacity to take on greater responsibilities).

5. Leadership

Repsol leaders must be an example of values and conduct for those around them, in the development of talent, management of their teams, and in the achievement of results in an efficient manner. They must also inspire and boost the team to their maximum potential, as they are the main drivers of the transformation the Company is undertaking.

Repsol has reviewed the leadership profile required, and used a 180° evaluation to measure how well its leaders fit that profile. This methodology incorporates the viewpoint of individuals, the team and of the leader themselves, and it is critical for reinforcing its management style. In 2017, 100% of the executives and 99% of the area leaders were evaluated in this way, and the methodology will be applied to the other team leaders in 2018. As a result of the evaluation process, global and individual action plans were launched.

1. In 2017 promotions are considered raising of professional role, regarding the new professional progression model. In 2016, the reported data is higher due to the existence of another model with a greater number of categories.

GSP



Ambition:

To establish solid relationships based in recognition, trust, mutual respect and shared value through active dialogue with communities.

This renewed value proposal, based on these five pillars, helped reduce the total turnover rate compared to 2016. The voluntary turnover rate that has remained stable at the same levels in recent years.

Retaining talent	2017	2016
Total turnover rate ⁽¹⁾	9%	13%
Voluntary turnover rate ⁽²⁾	4%	4%
Total executive turnover rate ⁽³⁾	11%	22%

- (1) Corresponds to the total turnover rate of permanent employees out of the total number of employees at year-end.
- (2) Corresponds to the voluntary turnover rate of permanent employees out of the total number of employees at year-end.
- (3) Corresponds to the total turnover rate of executives out of the total number of executives at year-end.

Collective bargaining

Repsol strives for continuous and constructive dialogue with the employees' representatives. This is one of the essential elements of its People Policy.

In November of this year, the Company signed the Ninth Framework Agreement for a majority of the Repsol Group companies in Spain in which it holds a majority of the share capital or exercises industrial and labor management. The agreement is valid until the end of 2019.

This agreement is aligned with the business model, which is focused on the creation of value. It emphasizes the conditions that can activate the organization in a way that everyone will contribute to achieving common objectives in a sustainable manner over time.

The Framework Agreement consolidates the priorities and people management principles of the Company: quality employment, promoting professional opportunities for persons with different abilities, the linking of variable remuneration to the Company's objectives and achievements, linking of the salary review due to changes in the CPI to the Company's net income, fostering of equal opportunities, work-life balance, and professional development and constant learning.

GSP



Targets:

Strengthen management of social risks and impacts in critical operations and contribute to local socio-economic development. Ensure that grievance mechanisms are effective in all critical operations.

6.2.2. Respect for human rights and community relations¹

Repsol has an international presence and, very often, in highly sensitive social, political and cultural settings. The Company continues to implement the commitments it has undertaken in its Human Rights and Community Relations Policy, which is aligned with the United Nations Guiding Principles for Business and Human Rights.

Repsol responsibility: respect and remedy

The Company uses all the means at its disposal to prevent its activities or decisions from having adverse impacts on human rights, and will do all it can to repair the damage when such impacts occur.

Repsol's vision is to establish and maintain sound relations with 100% of the communities in the area of influence of its projects and assets. Relations based on recognition, trust, mutual respect and shared value.

In 2017, the Company defined this vision as the starting point for its roadmap. It has conveyed this commitment by reviewing the internal rules that regulate its processes and activities as the first phase of this transition from reactive strategies of conflict resolution to preventive management based on risks, impacts and opportunities. For this reason, in 11 especially important countries in social matters, 11 workshops were conducted, with the participation of nearly 200 people, to shore up the management of risks, impacts and social opportunities, and to consolidate a network of professionals who manage these relations with communities.

Nevertheless, 100% of significant operations manage opportunities and risks by taking into account at least one of the following mechanisms: development mechanisms, impact assessments, or the participation of stakeholders. All the impact assessments performed in 2017 included social and human rights issues.

¹ For further information on the community relations model, see www.repsol.com.

Operational level grievance mechanisms

Answering the grievances, concerns and complaints of local communities helps anticipate and respond to potential disagreements that may affect the activities of the Company. The nature of such mechanisms is special and unique in each setting.

In 2017, the Company received 82 grievances related to human rights through 14 grievance mechanisms in 7 countries. Some 68 were resolved and 14 are still being handled.

Security and human rights

Repsol is a signatory to the Voluntary Principles on Security and Human Rights (VPSHR) initiative, which is aimed at ensuring the security of the operations in sensitive and conflict zones through working processes that uphold respect for human rights.

Repsol demands from private security firms that employees rendering services in its facilities should have training or take courses in human rights. In addition, in some countries like Colombia and Peru, the public security forces receive specific training in human rights.

Human rights	2017	2016
Number of employees trained in human rights (online)	519	1.307
Number of training hours in human rights (online)	1.040	2.614
Number of cases of violations of indigenous people's rights ⁽¹⁾	-	-
Number of involuntary resettlements	-	-
Contracts with security firms that include human rights clauses (%)	100	100
Contracted security personnel trained in human rights (%)	98 ⁽²⁾	90
Security providers evaluated according to human rights criteria (%)	100	100

(1) There have been no incidents related to violations of indigenous peoples rights reported to the whistleblower channel of the Company.

(2) The increase is due to consideration of employees and contracted personnel training.

6.3. Safe operation¹

In order to ensure that Repsol facilities are safe, and to protect the parties involved, the correct identification, assessment, and management of the risks associated with industrial processes and assets is critical.

Risks are assessed throughout the assets' life cycles, applying the best international standards in their design and strict maintenance and operating procedures, aimed to prevent incidents affecting the industrial processes involved. In addition, the new regulations on the Management of Safety and Environmental Incidents were approved. They substituted the previous standards on the Incidents Management and Management of improvement actions and lessons learned, and the Basic Rules Standard, and the global incident recording tool was also replaced.

This new approach enables Repsol to assess the seriousness of both real and potential consequences, thus facilitating management of each risk. It also encompasses quite unlikely risks that may, nevertheless, have very serious consequences for people, the environment, or the Company's facilities or reputation.



1. The figures and indicators in this section have been calculated in accordance with corporate standards that set out the criteria and common methodology to be applied in Safety and Environment (S&E). As a general rule, (S&E) information includes 100% of the data from companies in which Repsol holds a controlling interest or control over operation. Specifically, with regard to security, data is provided on contractors that provide services under a direct contract.

GSP

a

Ambition:
Guarantee people's security with full respect for human rights.

GSP

2020

Targets:
Implement 100% of the actions set out in the Implementation Plan according to the VPSHR in priority countries.

GSP

a

Ambition:
0 accidents.

0 fatalities in 2017

Process safety

Process safety is a key element in safety on which Repsol has been working for years, with a proactive safety plan called SMARTkeys. It is a set of initiatives that focus on process safety that is people, processes and plant-centered, thus helping Repsol keep risks under control and adequately managed.

The Company tracks its performance following the definitions established by IOGP¹, API² and CCPS³, which are sets of international best practices in the field. The Company highlights that process accidents decreased by 4.6% in 2017 from the previous year, also surpassing the annual target.

Process safety indicators ⁽¹⁾	2017	2016
PSIR ⁽²⁾ TIER 1 + TIER 2	0.62	0.65

(1) A process safety accident is one in which the first line of control has been breached, with the following happening simultaneously: i) A chemical product or process is involved ii) It occurs at a specific location: the incident takes place at a production, distribution, or storage facility, at an auxiliary services facility (utilities) or pilot plant related to the chemical process or product involved and iii) It gives rise to an unplanned or uncontrolled release of material, including non-toxic and non-flammable matter (e.g. vapor, hot water, nitrogen, compressed air or CO₂), with certain levels of consequence The process safety accident will be classified as Tier 1 or Tier 2 according to the defined thresholds.

(2) PSIR: *Process Safety Incident Rate*

1. IOGP: International Oil and Gas Producers.
 2. API: American Petroleum Institute.
 3. CCPS: Center for Chemical Process Safety.

Occupational safety

Repsol continues to work on reducing **occupational safety**.

Occupational safety indicators ⁽¹⁾	2017	2016
Lost time injury frequency rate (LTIFR) ⁽²⁾	0.71	0.69
Lost time injury frequency rate for company employees	0.78	0.73
Lost time injury frequency rate (FR) for contractor staff	0.65	0.66
Total Recordable Incident Rate (TRIR) ⁽³⁾	1.43	1.46
No. of company employee fatalities	0	0
No. of contractor staff fatalities	0	2
Number of training hours	200,080	211,182

(1) Repsol's corporate regulations set out a common methodology and criteria for recording incidents, which is complemented by an incident management indicator guide.
 (2) Lost Time Injury Frequency Rate: number of lost time injuries and accidents per million work hours.
 (3) Total Recordable Incident Rate: sum of accidents, lost work day cases, restricted work day cases and medical treatment cases, per million work hours.

Further, as shown in the above table, the LTIF remained virtually the same as the previous year, as the number of incidents with lost days decreased by 7% and worked hours by 10%. However, the TRIR decreased by 2% from the previous year due to a 14% decrease in incidents without lost days and a 7% decrease in incidents with lost days. This indicator includes fatalities and incidents both with and without lost days. The company has set TRIR targets since 2014.



Prevention and response to environmental incidents

Robust safety management minimizes the probability and consequences of spills. The company works in three phases: i) prevention of spills, ii) early detection and iii) emergency management.

Spills ⁽¹⁾	2017	2016
Number of hydrocarbon spills	17	11
Volume of hydrocarbon spills (t)	85	40

(1) Indicators were calculated for hydrocarbon spills greater than 1 barrel in size that reached the environment (volume of the substance that reached the natural environment: soil, surface or underground waterways, etc.).

In 2017, there were two significant spills¹. One of 46.35 tons of B5 diesel fuel in the Marketing Peru business, as a result of the derailment of a train transporting the product, and another of 15.84 tons of crude in the Exploration and Production business, due to a leak. In both cases, there was no contamination of agricultural lands or water sources. In Peru, the transporter took appropriate measures to remedy the affected area, and Repsol took additional measures in its contractual relationship with the transporter.

When a spill occurs, the company activates its emergency response mechanisms and subsequently implements new preventive actions to prevent recurrence.

Development of a safety culture

The safety culture is an inseparable part of the organizational culture, which is underpinned by the same value and is manifested in common behavior and attitudes. The Company is committed to comprehensive approach:

- Definition of its own model of culture that spells out the desired attributes and related working practices (developed in collaboration with the ICSI -*Institut pour une Culture de Sécurité Industrielle*-).
- Deployment and dissemination of the model.
- Evaluation, identification and measurement with local focus to determine areas of improvement.
- Definition of cross and facility/asset focused improvement plans.

1. Significant spill Repsol reports significant spills in accordance with the criteria in GRI-G4, Oil and gas sector disclosures.

Repsol has developed an evaluation methodology of safety culture based on questionnaires, interviews, focus groups and on-the-job support to assist in identifying strong and weak points. The results enable the development of improvement plans and identifying of cross-cutting projects that can help the organization as a whole advance towards excellence.

Diagnostics have been carried out in LPG (Spain), in the Bolivia business unit (E&P), in the area of Chemicals in Sines, (Portugal) and Puertollano, (Spain) and in the Cartagena, A Coruña and Puertollano refineries in Spain. Workshops have also been conducted in Norway, Canada and the US in order to disseminate the model and detect the main areas of improvement.

Good Practices

Nuevo Mundo Base Camp, Peru

The ship carrying fuel to the camp is escort (in a journey of almost 700 km) with another ship with anti-spill equipment, during the flooding period of the rivers Urubamba and Ucayali.

Review of fuel stocks and necessities in the field, for the prioritizing of fuel inflows during the river flooding times. Hence, the number of fuel shipments via river transport was reduced.

The performance of statistical analyses of the growth of internal/external corrosion in transmission pipes in order to prevent spills.



GSP

2020

Target:

Implement circular economy projects with a positive impact on society.

6.4. Environment¹

Repsol develops its activities consuming only the resources that are indispensable for generating the most efficient energy with the minor least possible impact.

The circular economy: our roadmap

The circular economy is one of the levers Repsol must rely on to contribute to the success of its sustainability model in the efficient use of

Spheres of circularity

1. Redefining raw materials

Inclusion of alternative raw materials in the production of the Company's products.

- Examples: use of CO₂ to manufacture plastics.
- Streams of external waste as a raw material for refinery processes.



5. New services and products

Search for new business opportunities.

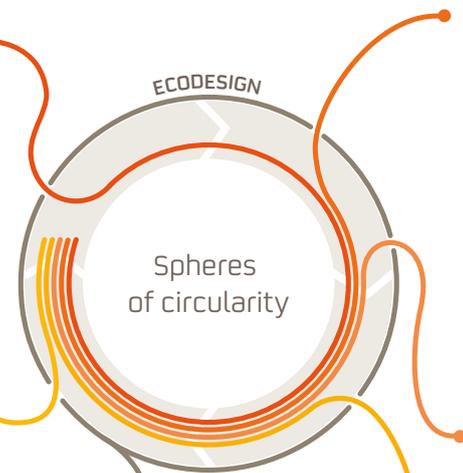
Example: corporate car-sharing based on renewable electricity.



Ecodesign

Development of more sustainable products in terms of their production, use or end of life.

Example: 100% recyclable asphalts.



2. Efficiency and innovation in the processes

Maximizing the water reused, minimizing the water discharged and increasing energy efficiency.

Example:

- Use of municipal water in refining.
- Alternative uses of water in *Upstream* production.
- Decontamination of drilling residues and diesel recovery.



3. Redefining waste

Harness waste as a raw material, product or energy.

Example:

- Recovery of hydrocarbon mud from the TAR plant in the coker unit.
- Use of potassium adipate as a fertilizer.
- Production of biodegradable plastics.



4. Reconsidering the value chain

Search for new business opportunities.

Example: use of products from pyrolysis of plastics from dumps for chemical recycling.



Impact points

Products Processes Services



Vectors

Water Energy Raw mat. Waste



1. The figures and indicators in this section have been calculated in accordance with corporate standards that set out the criteria and common methodology to be applied in Safety and Environment (S&E).

As a general rule, (S&E) information includes 100% of the data from companies in which the Company holds a controlling interest or control over operation.

natural resources, with criteria of maximum efficiency, maximum transparency and the minor environmental impact. Repsol's circular economy strategy was approved by the CEO in December 2016, and its implementation began in 2017.

The activities currently under way and their progress are shown below:

- Generation of a business network:
 - Collaboration with 46 external companies that may contribute to the definition and implementation of projects.
 - Active participation in 10 national and international circular economy working groups (CEOE¹, Chamber of Commerce, COTEC² CEPS³, the World Economic Forum, Plastics Europe, the European Commission, etc.).
 - Establishment of an internal professional network with experts from different businesses and areas of the Company comprising more than 70 people.
 - On October 23, 2017, Repsol became a signatory to the Circular Economy compact⁴.
- Conception, promotion and execution of projects:
 - Generation of new circular projects in the fields of water, waste and raw material.
 - Execution of 36 projects with external partners.
 - Preparation of circular initiatives catalog (CIC) with 120 initiatives for working in the coming years.

Repsol will also continue to deepen its search and implementation of innovative projects designed for efficient use of natural resources that meet criteria of maximum efficiency, maximum transparency and the least environmental impact, through a collaborative economy.

1. Spanish employers' association.

2. COTEC foundation for innovation.

3. Fundación Centro de Estudios Políticos y Sociales.

4. The Compact is part of the development of a Spanish circular economy strategy led by the Ministry of Economy, Industry and Competitiveness and the Ministry of Agriculture and Fisheries, Food and Environment, with the aim of involving the main economic and social actors in Spain in the transition to a new economic model. At the date of this document, 151 institutions and companies had signed the compact.

Water

Water is a scarce commodity that is essential for the production of energy, an activity in which the Company must compete with many other users. Ensuring a sufficient supply of quality water is critical for sustaining the operations of its facilities. Repsol's GSP targets include the development of water action plans in Refining, Chemicals and E&P to ensure excellent management of this vital resource.

Industrial facilities require water to refrigerate, produce steam, as a raw material in processes, and for other uses such as fire-prevention or cleaning. Conventional E&P assets require fresh water for the employees who live in camps where the company operates, and also for hydraulic fracturing (fracking) in shale gas assets⁵.

The main challenges for our businesses are as follows:

- Finding water alternatives that will ensure supply. For shale gas assets, the amount of water used is assessed in order to seek out groundwater aquifers; reuse of waste water; recirculation of flow back water and application of best technologies for water treatment. With respect to protection of groundwater aquifers, every wellbore has an engineered steel casing system that is cemented externally to prevent communication between the wellbore and different groundwater aquifers. The integrity of casing pipes are checked both before and after fracture operations. Potable water wells are much shallower than shale gas reservoirs and are typically located at a depth of 50 - 100 meters, which is far less than that of shale gas formations, which are normally several kilometers below the surface. For this reason, the probability of water contamination is remote.
- Becoming competitive in the generation of Company products, reducing the tons of water used per barrel processed to improve operational efficiency.

5. Hydraulic fracturing fluid is comprised of 99.5% water and sand, and 0.5% of other chemicals. The chemical classifications and the concentrations of ingredients used in the hydraulic fracturing activity are disclosed in: <http://fracfocus.ca> and <http://fracfocus.org>.

GSP



Ambition:
Neutral environmental impact in natural resource management.

28%

reused water as against withdrawn water

Water

For further information on water, see www.repsol.com

GSP

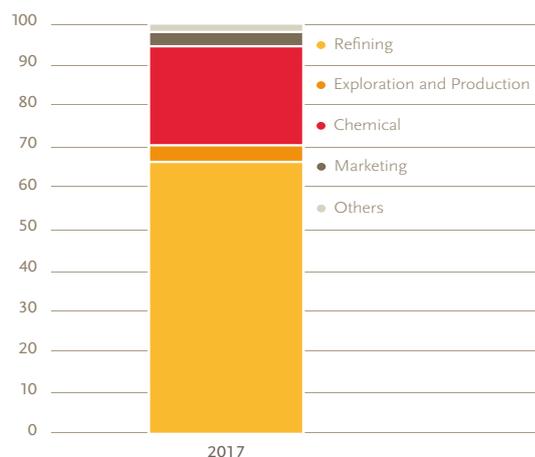
2020

Target:
Develop initiatives that optimize the use of fresh water and reduce the impact on the effluent.

- Adapting management of discharges to increasingly restrictive regulatory limits and company standards. Industrial facilities in Spain and Portugal are carrying out specific actions and investments to adapt to the new best available practices (BREF). In addition, all E&P assets are compliant with minimum common requirements, namely the Environmental Performance Practices (EPP) relating to the quality of the discharges from their sanitary effluents and production water, their environmental impact and the prohibition of practices that may result in contamination of underground soil and water.

The main fresh water sources, by business, are the public network (66.2%), surface resources (28.5%), and, to a minor extent, underground aquifers (5.3%).

Water withdrawal by activity



Water management	2017	2016
Fresh water withdrawn (kilotons)	53,497	52,022
Recycled water (kilotons) ⁽¹⁾	14,995	10,292
Water discharged (kilotons) ⁽²⁾	33,450	42,250
Hydrocarbons in water discharged (metric tons)	166	245
Water withdrawn in Refining/processed crude oil (tons) ⁽³⁾	0.74	0.82

- Increase in recycled water is mainly due to estimation and measurement improvements in Repsol's industrial facilities.
- Decrease in water discharged and hydrocarbons in water discharged is due to the fact that Repsol does not operate the assets of Trinidad and Tobago (TSP) and the alignment of the consolidation criteria of the assets of Talisman Legacy to Repsol standards.
- The Refining activity is the most intensive in the use of fresh water. Water withdrawn per ton of crude processed in our refineries has decreased by 10%.

GSP

2020

Target:
Minimize the generation of waste and improve its management.

Waste

Repsol is working to improve waste management throughout the lifecycle of our processes. In 2017, the Company reduced hazardous waste led to elimination (including landfill) by 11,369 tons and specific improvement steps were taken in management of mud and drill cuttings in the Upstream business.

In addition, new initiatives are being supported and analyzed with different waste managers within a collaborative economy approach in order to generate innovative opportunities to improve waste management in prevention, reuse, recycling, energy recovery and the disposal thereof. Minimizing the volume of waste sent to landfill sites is consistent with the objectives of the circular economy.

Waste management ^{(1) (2)}	2017	2016
Hazardous waste (metric tons)	40,065	56,920
Non-hazardous waste (metric tons)	352,148	217,552

- Additionally, waste related to drilling muds should be considered, amounting to 146,892 and 169,372 tons in 2017 and 2016, respectively.
- The increase observed in 2016 over the previous year is due to an increase in land management activities.

Good Practice

Waste management optimization program in Canada business unit

Increase economic efficiency and environmental performance in waste management is a priority in drilling activities. The drilling team of the Canadian business unit has made significant advances in this regard along two areas:

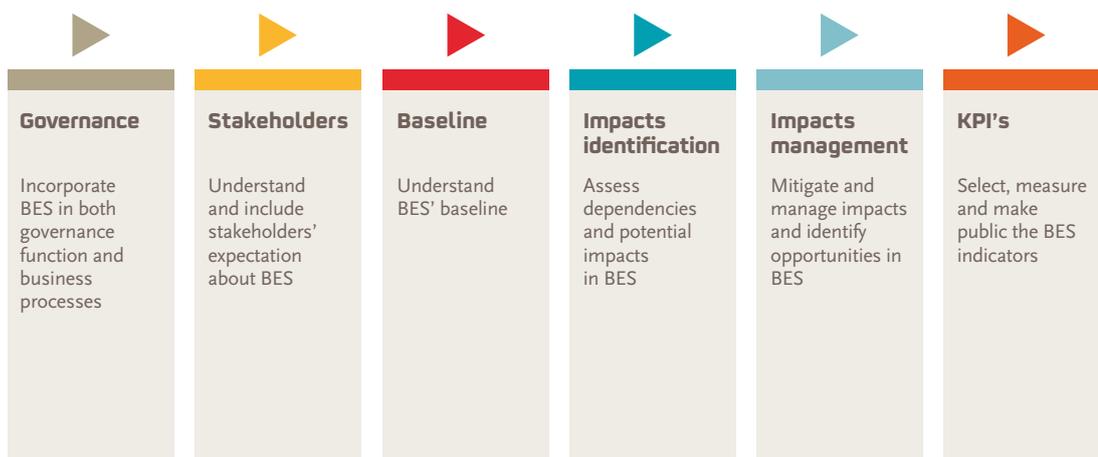
- Greater extraction of liquid through a second centrifuging, which generates a more solid waste, decreases the volume of sawdust necessary to solidify it and minimizes the volume sent to landfill.
- Greater recovery of mud present in waste, thus reducing the amount of mud sent to the landfill and increasing its rate of reuse.

Preserve Biodiversity and Ecosystem Services (BES)

Repsol is committed to mitigating potential impacts on biodiversity and the resources it provides (ecosystem services) in its planning and execution of projects and operations. To do so, it is guided by the following United Nations principles for sustainable development in carrying on its activities:

- Preventing, minimizing and restoring the environmental impact in all its operations, and especially in sensitive, protected or biologically diverse natural spaces.
- Integrating biodiversity and protection of ecosystem services in the Company's management systems and decision-making processes by including environmental and social assessments.
- Taking part in projects of research, conservation, education and awareness-raising.

Management model BES (Biodiversity and Ecosystem Services)



  In 2017, implementation of this methodology in the assets operated and projects from the old Legacy Talisman society of Canada, USA, Malaysia and Vietnam.

  Environmental Management Strategy of the Sagari pipeline construction project in the 57 lot of Peru.

  Acquisition and interpretation of satellite images in the Caipipendi Area of Bolivia.

  Publication of the book "Machiguenga, Una reserva para todos". Investigation of the Machiguenga Communal Reserve related to flora and fauna species and ecosystem services, an area of great biological value in Peru, carried out with the support of scientists, local communities and the National Service of Protected Natural Areas by the State – (SERNANP by its Spanish acronym).

PGS

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Ambition:

Drive technological innovation as a lever of transformation towards sustainable business models.

6.5. Innovation and technology

Innovation

For Repsol, and even more so in the current environment of uncertainty and volatility, innovation in management is the key to speeding up decision-making and creating and developing opportunities. To drive forward these processes of innovation and improvement, the company has a network of facilitators whose objective is to support business and areas to generate a work environment that encourages collaboration, and the generation of ideas, the transfer of good practices and continuous improvement. These facilitators accompany organizational or project teams in the application of these methodologies.

The efforts carried out in 2017 focused on different lines of work:

- Incorporation of new ways of working. Through different dynamics, teams are given responsibility, commitment and alignment is generated and/or solutions are generated for complex challenges, in a way that is agile and that brings together all involved parties. These methodologies have been applied not only to traditional challenges, but to initiatives of the high-impact Transformation Program due to their cross-cutting impact, such as the Corporate Business Relationship Model or the Control Model Optimization.
- Promotion of continuous improvement programs as a fundamental element in our management system for aligning day-to-day operations with the Company's strategy, by means of a cultural change aimed to maximize value contribution in a sustainable way. In 2017, new dynamics of daily improvement were incorporated in industrial facilities in both the Refining and Chemicals businesses, while work continued on the optimization of processes along the same lines as in previous years. In these dynamics, all individuals take part in identifying and executing improvements related to their work environment. It is this engagement that adds sustainability to the improvement.
- Capitalization of knowledge through the sharing of experiences and collective learning

is a key factor for the competitiveness of our Company. Communities of practices promoted by businesses are based on a successful model for channeling and fostering networked by learning and digitalization of knowledge.

These efforts have materialized in the accompaniment of more than 100 working teams that have achieved tangible results and created a network of facilitators consisting of more than 100 people.

Technology

The world is in the midst of a process of change and transformation in which the development of new technologies, their transfer and implementation are a guarantee that Repsol can offer quality products and services in the present, and also prepare for the future.

The development of R&D projects, the creation of basic knowledge to then scale it to new technologies being implemented and the collaborative work in network are some of the keys in Repsol's innovation strategy. In addition, Repsol considers it is critical to capture, incorporate and co-create the innovation developed in the external technology and entrepreneurial ecosystem.

To achieve its objective, Repsol works within an integrated model. Through a process of technology scouting in the academic environment and of R&D in technology partners and start-ups, a Company technology portfolio is built including R&D projects developed either internally or externally and projects that require investments in start-ups.

R&D projects

In 2017, further advances were made in the development of state-of-the-art technologies in hydrocarbon **exploration and production** and mainly in the deployment phase of technologies in company projects. As examples of new technology achievements, the Sherlock project completed installation of all capacities in digital petrophysics for hydrocarbon storage, characterization, and Pegasus has now accomplished its first artificial intelligence prototype for acquisition of assets

and optimization of development plans. The *Thor Hammer* project has begun the deployment of its geo-mechanical tools for the optimization of unconventional assets. Lastly, the Horus Project successfully completed its concept test, involving nano-sensors embedded in drilling cement to monitor wells' integrity, among other achievements.

Regarding **refinery** technology, processes have been designed in laboratories and pilot plants of the Repsol Technology Center that have been successfully implemented in our industrial facilities to improve their efficiency. Noteworthy is the knowledge developed to exploit the processing of opportunity crude oil, allowing for adjusting processes to the supply of such crude, while products are adapted to market demand. Also, prototypes have been developed that allow for offering products with a high technology load, such as smart asphalt, or lubricants designed to save fuel in state-of-the-art engines. In the industrial area, and within the strategic lines set out by the company, it should be pointed out the technology supporting decision-making based on advanced simulation and artificial intelligence.

New energy models are being assessed within the company, and the Technology Center has emerged as a testing ground for pilot projects. Its mission is to validate systems aiming to the establishment of a new commercial line for the company.

In R+D for **new energies and materials**, the first steps have been taken in advanced biology for real-scale hydrocarbon bioprospecting and the exploration of ways to apply biotechnology in our present processes and products.

Also, R&D projects are being undertaken for the next generation of batteries for electric vehicles development. The aim is to replace today's lithium-ion batteries, in a clear effort to maintain the company's position as a major actor facing the future electrification of transport. These projects are carried out in partnership with international leaders, and they give the scientists of the Company the opportunity to take part in a high potential petrochemical developments.

With regard to advances in materials, testing has begun on customers of polyol technology for evaluation in the market. Also, a number of projects have been launched in alignment with circular economy policies that support different lines of the Chemicals business in order to offer ever more

sustainable products. The development of materials for the automotive market is one of the most promising lines in our business orientation.

Repsol's goal is to market the intellectual property generated by the company, whether developed internally or purchased, that may have market value, provided such externalization does not involve a loss of know-how and or competitive edge for Repsol. One of the projects being marketed is HEADS, a system for the early detection of underwater hydrocarbons developed jointly with Indra.

Repsol's R&D investment has amounted to €72 million.

KPIs	2017	2016
R+D Investment (million euros) ⁽¹⁾⁽²⁾	72	78
No. of external scientific collaboration agreements	52	98
Projects supported by the Spanish government	6	10
Projects supported by the EU	8	11

(1) Indicator calculated in accordance with the Group's reporting model described in Note 5, "Segment Reporting," of the financial statements.

(2) Amounts calculated using the guidelines established in the Frascati Manual of the OECD and the EU Industrial R&D Investment Scoreboard presented annually by the European Commission.

All this activity is led by the Repsol Technology Center, the scientific heart of the company, which is located on a campus of more than 192,000 m² and has more than 56,000 m² of built-up space of facilities and laboratories, bringing Repsol international renown for its technology.

Investments in start-ups (venture capital)

In 2017, the new Repsol operational model for corporate venture capital was defined. It comprises five-year funds of investment in start-ups with the objective of enabling the early incorporation of new technologies and business models to the activities of the Company. For the 2016-2020 fund, Repsol has committed to making a contribution of €85 million. In 2017, the fund had €7 million invested.

The new operational model is focused on six search fields to incorporate external innovation in Repsol.

It currently holds eleven stakes and joint development projects in the fields defined in the model.

In addition to direct investments in start-ups, Repsol takes part, along with its partners, in OGCI **Climate Investments** (OCGI-CI), a vehicle for channeling \$1,000 million investment committed over ten years to develop and accelerate the commercial rollout of innovative technologies of low greenhouse gas emissions. In 2017, the first

investments were made in this vehicle: Solidia Technologies, a US company that can produce cement in a way that generates lower emissions; Achates Power, a company that is developing more efficient vehicle engines; and a project that aims to design a large-scale gas-fueled electrical plant with carbon capture and storage, including the industrial capacity to capture CO₂.

In 2017, Repsol has continued co-investing with CDTI in Spanish technology SMEs through the INNVIERTE program.

To capture innovation in Start-ups



WHAT'S IN IT FOR REPSOL?

- Quick access to new technologies and business models
- Adaptation of technology developed in a start-up ecosystem to the needs of the O&G industry (Oil & Gas)
- Stating at the forefront of technological development and generating synergies with other players in the industry

WHAT'S DOES REPSOL OFFER THE START-UPS?

- The opportunity to test its technology and/or business model on the Company's assets and businesses
- Access to technical expertise and industry knowledge
- Access to Repsol's sales channels and customers

1. WHAT IS IT ALL ABOUT?

Investing in start-ups that develop innovative business models or technology and promoting their implementation at Repsol

2. OBJECTIVE

Helping to create a competitive advantage for Company undertakings by investing in new innovative companies in order to speed up the development and implementation of new technologies and business models on behalf of Repsol. These activities complement the Company's internal R&D capacities

3. BUSINESS CHALLENGE

Identifying and prioritizing challenges and continuous updates

6.6. Responsible tax policy

Tax policy: evaluation and monitoring

The Group's tax policy, approved by the Board of Directors of Repsol, S.A., is aligned with the company's mission and values, and with its long-term business strategy, and can be summarized as follows:

"The Repsol Group is committed to managing its tax affairs through applying best tax practices and acting transparently, paying taxes in a responsible and efficient manner, and promoting cooperative relations with governments, avoiding significant risks and unnecessary disputes."

Following approval of the tax policy by the Board of Directors, multiple actions have been taken that are directly inspired by the **five principles** set out in the tax policy, and that reflect compliance thereof by the Group.

Tax contribution and impact

Taxes have a significant impact on the Group's **results**. Repsol is subject to various types of income tax in the countries where it operates. Each tax has its own structure and withholding rate. The tax rates applicable to profits on production of hydrocarbon (Upstream activities) are usually higher than general rates. In some cases, profits are not only taxed in the country where they are earned but also in the country where the companies that own the operations or their parent companies are domiciled, wherein cases of double taxation may arise.

Additionally, Repsol is subject to other taxes that reduce its profits and, particularly, its operating results. This is the case of taxes on hydrocarbon production (royalties and similar), local taxes and fees, employment taxes and social security contributions, etc.

Five Tax policy Principles

1 Responsible compliance

- Application of the Spanish Code of Good Tax Practices.
- Streamlining of Group's corporate structure, not using tax havens or non-transparent structures.
- Transfer prices in line with value creation and principle of full competition.
- First submission of country-by-country report (CBC) to the Spanish tax agency (AEAT).
- Implementation of immediate reporting system with Spanish tax agency (AEAT).

2 Tax efficiency and upholding the company interest

- Tax planning aligned with Business and oriented toward legitimate optimization.
- Application of tax benefits in accordance with letter and spirit of law and accessible to all economic operators (R%D deductions, freedom of amortization, capitalization reserve, etc.).

3 Prevention of significant tax risks

- Incorporation of tax risks to Group's comprehensive risk management system. Satisfactory definition and audit of the key controls in the tax area.
- Reporting to Board of Directors of tax strategy and management during year.
- Conclusion of amicable proceedings and agreements with tax administrators in different matters.

4 Transparency

- Leaders in Spain in transparency and tax responsibility according to studies by different social analysis observatories.
- Incorporation of tax objectives to Repsol Global Sustainability Plan.
- Member of B-Team working group and signatory of group's good tax governance principles.
- Active dialogue with NGOs.
- Publication of tax payments by country.

5 Cooperative relations

- Voluntary submission to Spanish tax agency of 2015 and 2016 tax transparency report.
- Participation in joint work forums with authorities (Spain, Portugal, Singapore, United Kingdom, Netherlands). Signatories to Good Tax Practices in Spain.
- Participation in the pilot program of the International Compliance Assurance Programme ICAP (BEPS initiative).
- Members of tax forums of the EU, OECD and the UN.

GSP

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Ambition:
Achieve public recognition as a responsible and transparent company in tax matters.

Responsible Tax Policy

The Group has a specific section on its corporate website with information on its tax policy and strategy, which is available at www.repsol.com

In 2017, the **tax impact** on net income was as follows:

Item	2017		2016	
	Amount	Rate	Amount	Rate
Income tax	1,122	37.9% ⁽¹⁾	238	14.4%
Total tax burden ⁽²⁾	2,118	53.5% ⁽³⁾	1,066	43.1%

Sign convention: (+) tax expense; (-) tax income

(1) Income tax/net income before tax

(2) Total tax burden includes: Income Tax + taxes and contributions that are deducted from the operating result.

(3) Total tax burden/net income before tax.

In 2017, Repsol paid more than €11,979 million in taxes and similar public charges¹, and filed more than 54.000 tax returns.

In order to enable monitoring and analysis of the Group's **tax contribution**, taxes paid are segmented into those that involve an actual expense for the company, reducing its results (for example, corporate income tax, tax on production, social insurance payable by the company) and those that do not reduce results because they are withheld or passed on to the final taxpayer (such as value-added tax, tax on the sale of hydrocarbons, withholding taxes, etc.). We classify the first group under "Tax burden" and the second under "Taxes collected."

Taxes effectively paid in 2017, by country

Million euros	Tax burden			Taxes collected				Total 2017	Total 2016
	Corporate income tax	Other	Total	VAT	TH ⁽¹⁾	Other	Total		
Spain	566	400	966	2,480	5,019	295	7,794	8,760	8,962
Portugal	48	11	59	281	806	18	1,105	1,164	1,126
Italy	0	3	3	(14)	109	1	96	99	171
Holland	59	0	59	0	0	0	0	59	90
Norway	0	1	1	27	0	21	48	49	44
United Kingdom	0	9	9	(6)	0	20	14	23	2
Rest	1	1	2	3	0	0	3	5	5
Europe	674	425	1,099	2,771	5,934	355	9,060	10,159	10,400
Peru	27	77	104	287	172	22	481	585	520
Brazil	0	163	163	1	0	30	31	194	103
Colombia	27	2	29	(1)	0	20	19	48	39
Bolivia	5	8	13	20	0	5	25	38	79
Venezuela	16	12	28	3	0	7	10	38	25
Ecuador	7	4	11	2	0	4	6	17	19
T&T	0	39	39	(47)	0	4	(43)	(4)	(1)
Rest	0	0	0	0	0	0	0	0	-
Latam & Caribbean	82	305	387	265	172	92	529	916	784
Indonesia	184	0	184	3	0	5	8	192	136
Malaysia	2	176	178	(12)	0	15	3	181	141
Russia	9	63	72	7	0	8	15	87	65
Vietnam	15	13	28	0	0	2	2	30	28
Singapore	0	0	0	10	0	1	11	11	6
Rest	0	0	0	0	0	5	5	5	15
Asia and Oceania	210	252	462	8	0	36	44	506	391
US	0	48	48	0	0	28	28	76	89
Canada	1	27	28	7	0	39	46	74	64
North America	1	75	76	7	0	67	74	150	153
Libya	196	28	224	0	0	1	1	225	1
Algeria	14	2	16	0	0	5	5	21	28
Rest	0	0	0	0	0	2	2	2	7
Africa	210	30	240	0	0	8	8	248	36
TOTAL	1,177	1,087	2,264	3,051	6,106	558	9,715	11,979	11,764

(1) Hydrocarbon tax. It includes what is received through the logistic operators when the Company is the ultimate responsible for the payment.

1. Only taxes actually paid during the year are counted; hence taxes accrued during the period but that will be paid in the future are not included. Refunds from previous years are not included.

Group presence in tax havens

In accordance with its tax policy, Repsol refrains from the use of opaque or artificial structures that aim to conceal or reduce the transparency of its activities. Repsol is committed to not having a presence in tax havens, unless it is for legitimate business reasons.

In the event it should have a presence in a tax haven, the following is guaranteed: (i) authorization by Board of Directors of the incorporation or acquisition of a company, along with periodic reporting on activity; (ii) strict compliance with regulations governing the pursuit of its business activities; (iii) application of the Group's general standards and procedures for management and control; and (iv) full transparency and cooperation with relevant authorities in supplying any information requested on the business activities carried on.

For the purposes of defining tax havens, the definition provided in Royal Decree 1080/1991 of July 5 will be used as the benchmark. In addition the Group carries out exhaustive monitoring of current international initiatives on the subject and their possible impact on the definition of the concept of tax haven and, therefore, the potential expansion of the listing to other countries or territories (list of the EU's non-cooperative tax jurisdictions¹, prepared by the Economic and Financial Affairs Council (ECOFIN) of the European Union).

The company is actively working to reduce its already limited presence in territories classified as tax havens or that are regarded as non-cooperative by tax authorities. In recent years, Repsol has significantly reduced its presence in these territories from more than 40 companies to a negligible level, as described below.

With respect to the Spanish list of tax havens, as of December 31, 2017, Repsol has no active controlled company with its registered address and tax residence in such territories.

Nevertheless, the following must be noted:

- The Group holds two controlled entities domiciled in a tax haven that are inactive and/or in the process of liquidation.
- The group holds minority, non-controlling interests in three companies located in tax havens.

Repsol's presence in these territories is not an attempt to reduce the transparency of our activities or engage in illicit or undesirable practices, but is related to appropriate purposes aligned with conventional sector standards.

Attached hereto is a list of Repsol Group companies resident in tax havens at December 31, 2017 (Spanish listing) with a breakdown, for information purposes, of certain economic figures of these companies:

Repsol's presence in tax havens according to Spanish listing

Company	Jurisdiction	Participation	Status	Total income (€ million)	Profit before tax (€ million)	Nominal income tax rate	Corporate income tax accrued (€ million)
Greenstone Assurance Ltd. ⁽¹⁾	Bermuda	100%	Inactive	0.03	(0.11)	0%	0.00
Branch in Liberia of Repsol Exploración Liberia B.V. ⁽²⁾	Liberia	100%	Inactive	0.50	(0.38)	25%	0.00
Oleoducto de Crudos Pesados (OCP) Ltd ⁽³⁾	Cayman Islands	29.66%	Active	3.52	3.22	0%	0.00
Oil Insurance Ltd. ⁽⁴⁾	Bermuda	5.81%	Active	36.39	10.19	0%	0.00
Transasia Pipeline, Co. ⁽⁵⁾	Mauritius	15%	Active	0.04	(0.34)	15%	0.00

Sign convention: positive sign indicates revenue/profit; negative sign indicates expense/loss.

(1) Insurance company whose current purpose is limited to liquidating risks assumed in the past. Currently in run off.

(2) Permanent establishment in Liberia of Repsol Exploración Liberia B.V., which previously carried out oil & gas exploration activities in Liberia. Presently inactive, now in the process of de-registration.

(3) A company that includes an international association agreement (joint venture), to channel the stake in an Ecuadoran operating company that manages oil activity infrastructures (Oleoducto de Crudos Pesados). Figures considered according to Repsol's stake.

(4) Mutual insurance companies of the Oil & Gas sector that covers Group risks from Bermuda, a typical jurisdiction for reinsurance activity of Upstream business assets; Figures for 2016, the latest data available. Figures considered according to Repsol's stake.

(5) Joint venture to channel the stake in an Indonesian operating company that manages oil activity infrastructures. Amounts for the year 2015.

1. It should be noted that this list of countries and territories is a dynamic list that does not have a regulatory status, but that will certainly influence and guide Spanish legislators when in their future reviews of the list contained in Royal Decree 1080/1991.

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2020

Target:

Eliminate presence in tax havens (except for unavoidable and legitimate business reasons) and streamline corporate structure.

Repsol has no companies domiciled in countries or territories classified by Spanish law as nil-tax jurisdictions other than those mentioned above.

Also, for illustrative purposes, below is a list of Group companies based in territories classified as non-cooperative tax jurisdictions on the aforementioned EU list.

Repsol's presence in non-cooperative tax jurisdictions on EU list

Company	Jurisdiction	Participation	Status	Total income (€ million)	Profit before tax (€ million)	Nominal income tax rate	Corporate income tax accrued (€ million)
Branch in Trinidad & Tobago of BP Amoco Trinidad & Tobago LLC ⁽¹⁾	Trinidad and Tobago	30%	Active	451.82	-63.10	57.25%	-16.22
Repsol Angostura Ltd. ⁽²⁾	Trinidad and Tobago	100%	Active	2.68	-25.34	55%	3.82
Branch in T&T of Repsol Exploración Tobago, S.A. ⁽³⁾	Trinidad and Tobago	100%	Active	0.08	0.02	55%	0
Repsol Exploration Namibia Pty, Ltd. ⁽⁴⁾	Namibia	100%	Inactive	0.46	0.26	35%	0.09

Sign convention: positive sign indicates revenue/profit; negative sign indicates expense/loss.

- (1) Branch in Trinidad and Tobago of a US joint venture between Repsol and the BP Group that holds exploration and production licenses in the country. Figures considered according to Repsol's stake.
- (2) Company incorporated in Trinidad and Tobago whose business is the provision of corporate services to Group companies.
- (3) Branch in Trinidad and Tobago of a Spanish company that current holds a stake in exploration assets in the country.
- (4) Inactive company incorporated in Namibia that previously held several exploration blocks (currently abandoned).

6% ↓

Net corporate reduction in 2017.

Corporate streamlining

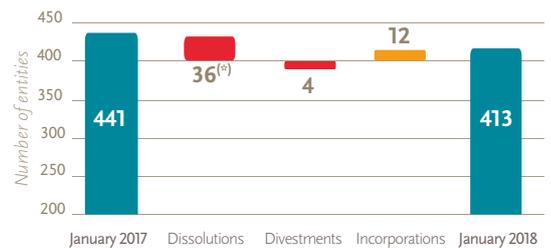
Maintenance of a simple and easily manageable corporate structure is an objective of the Repsol Group.

Accordingly, it would be useful to outline the efforts made in 2017 toward streamlining the corporate structure.

Although it is well known, we should mention that the acquisition of the Talisman Group entailed substantial work in this regard. It required the integration of an intrinsically complex structure that encompasses more than 200 entities in 25 different jurisdictions.

Throughout 2017, significant progress was made in streamlining the Group's corporate structure, the main highlights of which were as follows:

(Net) reduction of entities in 2017



(*) Out of the 36 dissolutions, 1 of them corresponds to a company domiciled in a tax haven and 18 in controversial territories, from a tax perspective.

This net reduction (6%) contributes to achieving the Repsol Group's objective of maintaining a transparent corporate structure, while projecting a unified and uniform image and strengthening the company's market position with a unique identity.

6.7. Ethics and compliance

Repsol has procedures and a global framework in place to ensure the appropriateness and observance of all its obligations, whether internal or external, in every regulatory area. The Company's Compliance function helped strengthen the global compliance culture and improve identification, monitoring and support in management of ethics and conduct risks.

Ethics and conduct code

Repsol has a Board of Directors-approved **Ethics and Conduct Code** that applies to all Repsol directors, executive personnel and employees, regardless of the type of contract governing their professional or employment relationship. The Code establishes a framework of reference to understand and put into practice the behavior and expectations the company places in each of them, under the guidance of the values of the Group. In 2017, a dissemination plan was launched, including a specific training program for all employees on the Ethics and Conduct Code. The Ethics and Conduct Code is available at www.repsol.com.

The Company has an **Ethics and Compliance Channel** (ethicscompliancechannel.repsol.com) that is accessible 24 hours a day, 7 days a week and is managed by an external supplier. The channel allows employees or any third party to report, with absolute confidentiality, queries and possible breaches of the Ethics and Conduct Code or the Crime Prevention Model.

Fight against corruption and bribery

In order to prevent corruption and bribery, Repsol's **anti-corruption policy** enshrines the company's commitment to carrying out all its activities in accordance with current legislation wherever it operates, and to reject all forms of corruption. The Company also has a Crime Prevention Model and an internal investigations procedure that implements the crime prevention model and response mechanisms for potentially unlawful conduct attributed to Group companies, with the aim of preventing the risk of occurrence of such

conduct. During the year, a Crime Prevention Manual was designed to explain what conduct is prohibited, and what Repsol expects from all its employees in this regard, with the aim of completing existing rules and regulations and improving their dissemination and comprehension. The mission of the Ethics and Compliance Committee is to manage monitoring and compliance system of the Repsol Group's Ethics and Conduct Code, and it is also Repsol's Crime Prevention Body for the purposes of the Crime Prevention Model.

Ethics and compliance	2017	2016
Number of employees trained online in Ethics and Conduct Code ⁽¹⁾	11.296	2.483
Number of communications received through the ethics and compliance channel	45	32
Number of corruption mitigation controls	306	229
Number of audit projects related to compliance of the Ethics and Conduct Code ⁽²⁾	31	22
Number of ICFR controls related to mitigation of fraud	990	800
Number of serious and very serious incidents due to breach of the Ethics and Conduct Code:	192	124
Written warnings	13	20
Work and salary suspensions	133	102
Resignations	46	2
Number of dismissals due to breach of the Ethics and Conduct Code	91	60

(1) Includes anti-corruption training.

(2) Generally, in all Internal Audit projects matters related to compliance of the Ethics and Conduct Code (ECC) are reviewed, although specific reviews of ECC-related or corporate social responsibility-related matters were conducted in 31 projects in 2017.

GSP

2020

Target:

100% of employees informed on what is expected of them in the prevention of and fight against corruption.

GSP

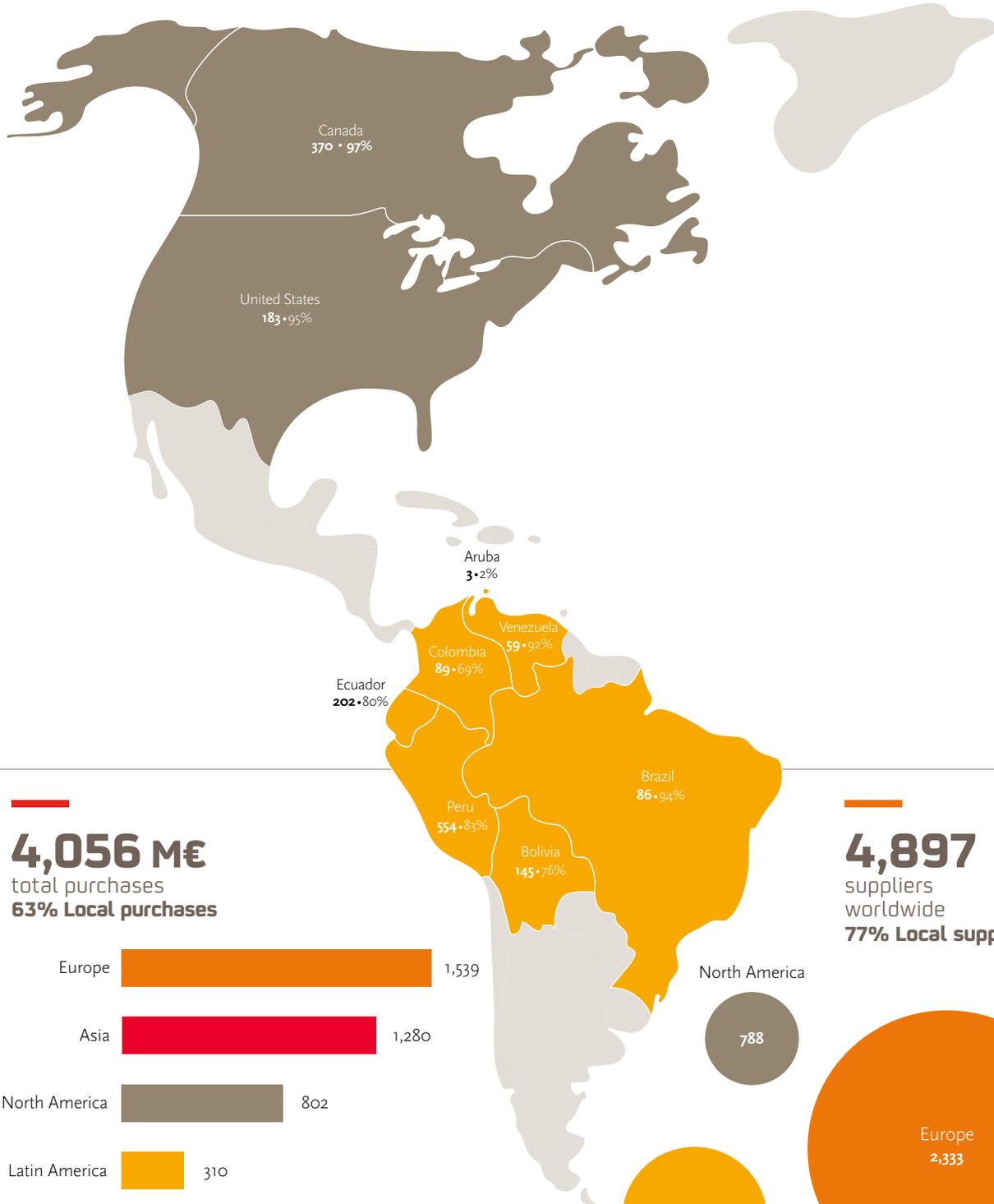
a

Ambition:

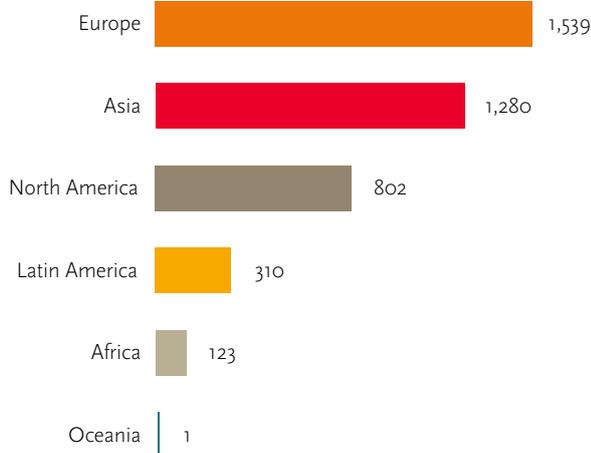
No cases of corruption.

6.8. Supply Chain¹

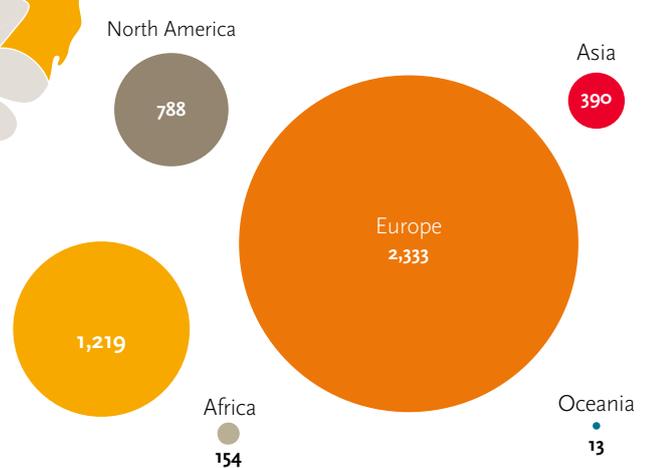
A responsible management of the supply chain is one of the fundamental factors on Sustainability, as it presents specific risks and is linked to the generation of employment and local economic development. It constitutes one of the most important expectations of the communities where the Group operates.



4,056 M€
total purchases
63% Local purchases

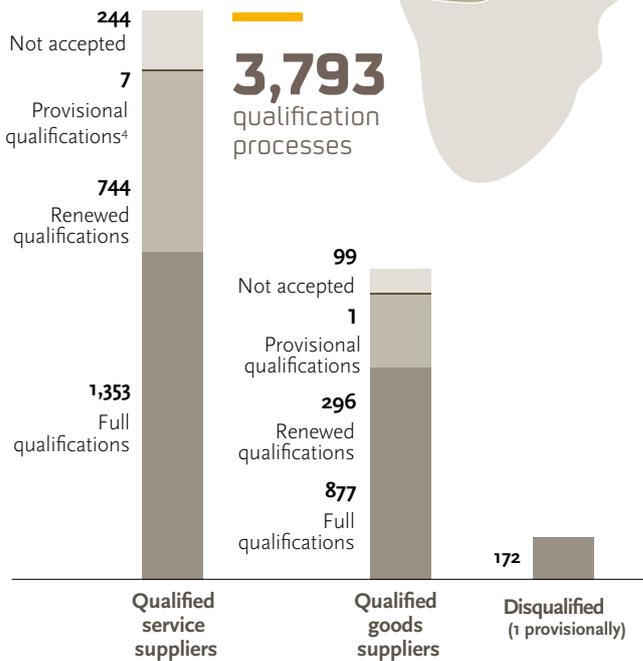


4,897
suppliers
worldwide
77% Local suppliers²

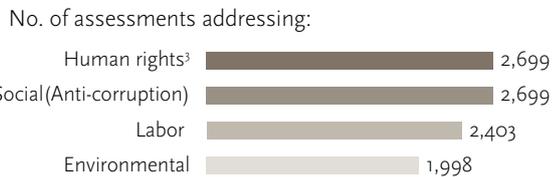


1. This information has been prepared considering only the purchases the Group makes (excluding crude oil, gas and materials) via formal procurement processes managed by the central procurement unit and that represent the most relevant purchases and most important contracts, of the highest volume. See further information in Appendix IV.

2. Repsol considers "local suppliers" as companies established or nationalised under the laws of the country in which Repsol undertakes operations as part of which the supply will be made or service provided.



2,699
Performance assessments of 1,343 suppliers



100%
of new suppliers examined in accordance with human rights, social, labor and environmental criteria

24
rating audits
2 Social audit

100%
of contracts include human rights, anticorruption and environmental clauses

0
breaches of contract

3. In 2017, as part of qualification and audit processes, no supplier has been identified that breached the rights of freedom of association or collective bargaining of its employees, that has participated in child labour or that has submitted its employees to forced labor in any way.

4. A provider may be assigned a "Provisional qualification" when it is detected that it fails to meet a minor requirement.

7. Outlook

3.9% 
 Spanish GDP
 in 2018

7.1. General outlook

Macroeconomic outlook

World economic growth has been strengthening recently, and this is expected to continue into 2018. The latest forecasts of the International Monetary Fund (IMF WEO Update, January 2018), estimates 2018 global growth at 3.9%, after 3.7% in 2017 and 3.2% in 2016.

It is worth noting that because the recovery is synchronized by regions, it is more robust as it is also catalyzing international investment and trade. The rebound in the advanced economies is occurring against a backdrop in which tax policy has become more expansive, and the balance sheets of private sector actors is healthier. In addition, with inflation levels still low, monetary policies are expected to remain accommodative, with only a very gradual normalization. Accordingly, growth in the advanced economies, which apparently averaged 2.3% in 2017, is expected to continue in 2018, on the back of the US tax reform.

The Spanish economy continues to grow at robust rates (3.1% in 2017). The European Commission and the IMF are forecasting a moderate slowdown of economic growth for 2018 of about 2.5%, given the uncertainty deriving from political instability in Catalonia. However, rising exports and the recent robustness shown by the economy mean that the favorable momentum may continue, with possible upside surprises.

Emerging economy growth is expected to accelerate, going from 4.7% in 2017 to 4.9% in 2018. This upturn is occurring against a backdrop of: stabilization of the Chinese economy, (ii) recovery of commodity prices and (iii) capital inflows. In addition, Brazil and Russia, countries of weight, have begun to leave behind their own crises.

Macroeconomic forecasts, key figures

	Real GDP growth (%)		Average inflation (%)	
	2018	2017	2018	2017
World economy	3.9	3.7	3.3 ⁽¹⁾	3.1
Advanced countries	2.3	2.3	1.9	1.7
Spain	2.4	3.1	1.5	2.0
Emerging countries	4.9	4.7	4.5	4.1

(1) Data from IMF (*World Economic Outlook October 2017*).

Source: IMF (*World Economic Outlook Update January 2018*) and Repsol Research Unit.

Overall, risks to world growth have decreased recently. However, the improving economic outlook has been accompanied by increasing geopolitical tensions, such as the advance of North Korea's nuclear program, the Brexit process and the worsening of the political situation in Catalonia.

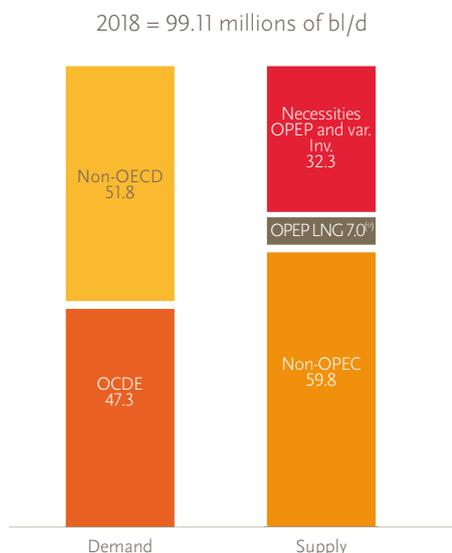
Energy sector outlook

Short term energy sector outlook

In the short term, according to the International Energy Agency (IEA), the balance between supply and demand for oil will be determined mainly by an agreed reduction in OPEC production and some non-OPEC countries. On the non-OPEC side, the International Energy Agency (IEA) is expecting a recovery in their production for 2018 of about +1.7 million barrels a day bbl/d, nearly all of which would be supplied by the US (+1.35 million bbl/d) and much more modest contributions from Canada and Brazil. On the OPEC side, the market is keenly watching for fulfillment of the commitments to a production cutback, which would have a direct effect on crude oil prices.

The increase in demand would again be driven by non-OECD countries, with expected growth for 2017 off +1.27 million barrels a day; while in OECD countries, the change will be virtually zero. This scenario involves a reduction of 600 thousand barrels a day in OPEC crude oil needs and inventory changes of up to 32.3 million barrels a day. In short, the AIE expects a deficit market globally for 2018, with a fall in global inventories of about 100 thousand bbl/d on average.

Short-term outlook for the global supply demand balance



Source: IEA and Repsol Research Unit

(*) Natural gas liquids in the OPEC which are not taken into account in the production cuts.

With regard to the **movement of crude oil prices** in the short term, the analyst consensus points to an average Brent crude price for 2018 and 2019 of \$58 and \$64/bbl, respectively.

With regard to the **movement of gas prices** in the short term, the adjustment of the balance begun in 2017 is expected to continue into 2018 and 2019. Here, the key will be the performance of production in an environment where the recovery in crude prices may lead to larger volumes of gas associated to oil production. Hence, if the growth in the production of dry gas outstrips demand this year (i.e., domestic plus exports), the price could fall from the past year.

In spite of doubts about production trends, on the demand side, strong growth of exports is expected (both of liquefied natural gas - LNG - and gas via pipeline). In 2018 and 2019, both the liquefaction capacity due to the commissioning of new export terminals (Cove Point, Elba Island, Freeport and Cameron LNG) and the capacity of gas via pipeline to Mexico will continue to increase. New industrial plants (petrochemicals, fertilizers and methanol) are also expected to commence operations, particularly from 2019. Also, the climate should be more favorable to the consumption of gas (a colder winter and warmer summer than last year). These factors helps push prices upward.

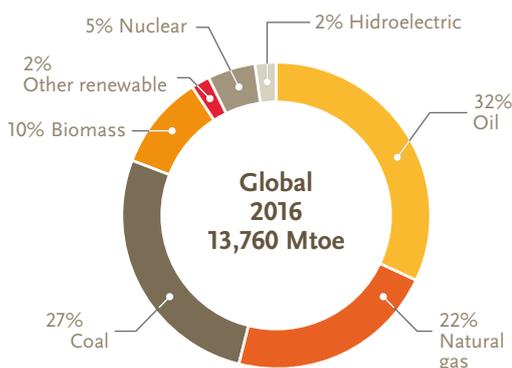
Long-term energy sector outlook

On a global scale, hydrocarbons contribute more than half of the primary energy consumed. Specifically, 32% of global primary energy consumption is derived from oil, which is the most commonly used energy source.

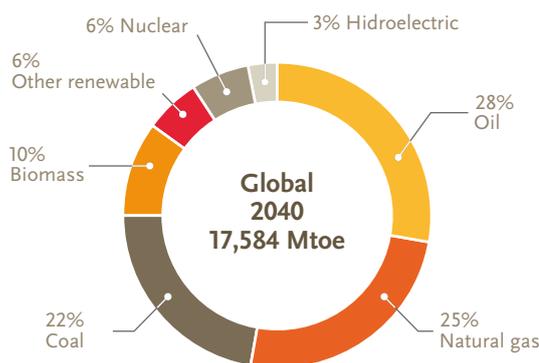
No major changes are expected in the coming years. According to the International Energy Agency (IEA), in the baseline scenario of its World Energy Outlook 2017, oil will contract by four percentage points in the 2040 entry matrix compared to 2016. For its part, natural gas will reach a 25% share of the estimated total energy demand of 17,584 million tons of oil equivalent.

3% ↑
Natural gas in the energy matrix in 2040 vs 2016

Long-term outlook of world primary energy matrix



Source: IEA and Repsol Research Unit



Source: IEA and Repsol Research Unit

7.2. Outlook for business

In October 2015, Repsol presented its Strategic Plan for the 2016-2020 period, in which the Company undertook to capitalize on the growth achieved through its fulfillment of the objectives set out in the previous Strategic Plan.

The robustness of our business model has proved itself throughout 2017. This was the case in figures and results, and in the change being undergone by the Company owing to the rollout of the Transformation Program, which is in line with the objectives of the 2016-2020 Strategic Plan.

The Efficiency Program, launched under the framework of the Strategic Plan and which applies throughout the Company, has exceeded expectations, surpassing and bringing forward to 2017 the objective that had been set for the year 2018. The program incorporates savings in Capex and Opex that, along with synergies from integration with ROGCI, contributed more than €2,400 million. Therefore, Repsol looks forward to the coming years with substantial strength built on solid pillars of efficiency and profitability, which is the basis for future growth.

After two years of work to meet the challenge of value creation and boosting resilience, as set out in the 2016-2020 Strategic Plan, in 2018 the company will have fulfilled its primary objectives and it will be ready to redefine and present a new future project.

In Repsol, we are going to keep working on the essential mainstays, such as efficiency and resilience, and we will rely on new levers, essential in today's world, such as Digitalization and Technology, in order to achieve sustainable growth.

Digitalization will lead us to promote new forms of working to earn profits and gain efficiencies with a tangible impact on Company results, and where new technologies will play a fundamental role. The future requires agility and efficiency, and our Technology strategy will allow us to have the best alliances and partners in innovative disciplines, giving support to businesses to improve their competitiveness in the medium and long term.

Regarding our businesses, in 2018, the Exploration and Production area will remain focused on our three core regions: North America, Latin America and Southeast Asia, regions with high organic development potential, combined with the better performance in Libya, the recent launch of the Reggane and Sagari projects and the increase in

fields in Norway, will keep production volumes above 700,000 barrels/day in 2018.

In 2018, our organic investment is expected to be around \$2,800 million with the aim of developing our productive assets and opening new avenues for future growth. The investment effort by country will be concentrated especially in Canada, USA, Trinidad, Vietnam, Brazil, Malaysia, Algeria, Bolivia, Venezuela, UK, Indonesia, Colombia, Peru and Libya.

And, additionally, this will be performed without increasing the price above which crude oil generates a positive cash flow, increasing the return on average capital employed (ROACE).

The greater degree of efficiency in the Exploration and Production area will be supplemented by the strengths shown by the Downstream area, which has continued to reaffirm the benefits Repsol has gained as an integrated company.

Our current refining system, following the investments made in the Cartagena and Petronor refineries, and the corresponding improvement in the global margin, have been key to placing Repsol at the head of the integrated European companies in terms of efficiency. The targets set for 2018 are:

- In refining and chemical facilities, increased plant reliability and orientation, via the Efficiency Program, toward the reduction of energy costs and CO₂ emissions, which will maintain the continuous improvement of margins;
- Maximize business value of Marketing and consolidate competitive position, streamlining operations and developing new markets.
- Develop new growth opportunities while bearing in mind the quest for continuous improvement in efficiency and cost containment.

In addition, in 2018 the focus will stay on efficiency in corporate areas, with shared service centers established, processes automated such as to contribute to the profitability of the entire organization.

In the expected price environment, and owing to the integration of our businesses, digitization and technology, among other factors, Repsol expects it will generate sufficient cash to fund its investment needs, remunerate its shareholders and reduce its debt.

Appendix

Appendix I.

Alternative performance measures

Repsol's financial information contains indicators and measures prepared in accordance with applicable financial information regulations, as well as other measures prepared in accordance with the Group's Reporting Model¹ defined as Alternative Performance Measures (APMs). APMs are measures which are "adjusted" compared to those presented as IFRS-EU or with Supplementary Information on Oil and Gas Exploration and Production Activities², and the reader should therefore consider them in addition to, but not instead of, the latter.

APM are highly useful for users of financial information as they are the measures employed by Repsol's Management to evaluate its financial performance, cash flows, or its financial position when making operational or strategic decisions for the Group.

Alternative performance measures

For further information,
www.repsol.com.

1. Financial performance measures

Adjusted net income

Adjusted net income is the key financial performance measure which Management (the Corporate Executive Committee, E&P Corporate Executive Committee, and Downstream Executive Committee) consults when making decisions in accordance with IFRS 8 "Operating segments".

Repsol presents its segment results including joint ventures or other companies which are jointly managed³ in accordance with the Group's investment percentage, considering its operational and economic indicators within the same perspective and degree of detail as those for companies consolidated under the full consolidation method. Thus, the Group considers that

the nature of its businesses and the way in which results are analyzed for decision-making purposes is adequately reflected.

Adjusted net income is calculated as the **Result from continuing operations at Current Cost of Supply** (Current Cost of Supply or CCS⁴) net of taxes and the result from investments minority interests. It does not include certain income and expense (**Special Items**), and the **Inventory effect. Financial income** corresponds to the adjusted net income under "Corporate and other."

Adjusted net income is a useful APM for investors in order to be able to evaluate the performance of operating segments while permitting increased comparability with Oil & Gas sector companies using different inventory measurement methods (see the following section).

Inventory effect

This is the difference between the **Result from continuing operations at CCS** and the result calculated as the average weighted cost (AWC, which is an inventory valuation method used by the company to determine its results in accordance with European accounting regulations). It only affects the *Downstream* segment, in that for the Result from continuing operation at CCS, the cost of volume sold during the period is determined in accordance with supply costs, and production during the year. Apart from the above effect, the **inventory effect** includes other adjustments to the valuation of inventories (write-offs, economic hedges) and is presented net of taxes and minority interests. Repsol management considers that this measure is useful for investors, considering the significant variations arising in the prices of inventory between periods.

The AWC is a generally-accepted European accounting method which measures inventories, in that it contemplates purchase prices and historic production costs, valuing inventory at the lower between said cost and its market value.

1. See Note 4, "Segment reporting," in the consolidated financial statements.

2. The hydrocarbon Exploration and Production information, which is compiled and disclosed by the Group annually, is prepared in accordance with the principles generally accepted in the oil and gas industry and, specifically, is based on the disclosure criteria outlined in Topic 932 issued by the Financial Accounting Standards Board (FASB).

3. See Note 12 "Investments accounted for using the equity method" and Appendix I "Main companies comprising the Repsol Group at December 31, 2017" of the consolidated financial statements, where the Group's main joint ventures are identified.

4. The Current Cost of Supply (CCS) is commonly used in this industry to present the results of Downstream businesses which must work with huge inventories subject to continual price fluctuations is not an accepted European accounting regulation, yet does enable the comparability with other sector companies as well as monitoring businesses independently of the impact of price variations on their inventories. As a result of the foregoing, Net Income does not include the so-called Inventory Effect.

Special items

Significant items of which separate presentation is considered convenient to easily monitor the ordinary management of business operation. It includes capital gains/losses arising from divestitures, restructuring costs, impairments, and provisions for risks and expenses. Special items are presented net of taxes and minority interests. Section 4.1 "Results" includes the cumulative **special items** for 2017 and 2016. We present below the special items for the fourth quarter of 2017 and 2016.

Million euros	Fourth Quarter	
	2017	2016
Divestments	(72)	104
Workforce restructuring charges	(12)	(22)
Impairment	(612)	(400)
Provisions and other	377	99
Total	(319)	(219)

The following is a reconciliation of the Adjusted Income under the Group's reporting model with the Income prepared according to IFRS-EU:

Million euros	Fourth Quarter											
	Adjusted Result		Adjustments									
			Joint Arrangements reclassification		Special items		Inventory Effect ⁽²⁾		Total Adjustments		IFRS-EU profit/loss	
2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	
Operating income	807 ⁽¹⁾	564 ⁽¹⁾	(257)	214	120	(478)	209	193	72	(71)	879	493
Financial result	(17)	70	76	(63)	(103)	47	-	-	(27)	(16)	(44)	54
Income from equity affiliates - net of taxes	128	77	376	(135)	(1)	-	-	-	375	(135)	503	(58)
Profit before tax	918	711	195	16	16	(431)	209	193	420	(222)	1,338	489
Income tax	(208)	(3)	(195)	(16)	(336)	(90)	(52)	(50)	(583)	(156)	(791)	(159)
Net income from continuing operations	710	708	-	-	(320)	(521)	157	143	(163)	(378)	547	330
Income attributable to minority interests	(7)	(10)	-	-	1	3	(3)	(6)	(2)	(3)	(9)	(13)
Net income from continuing activities attributable to the parent	703	698	-	-	(319)	(518)	154	137	(165)	(381)	538	317
Profit from discontinued operations	-	-	-	-	-	299	-	-	-	299	-	299
TOTAL NET INCOME ATTRIBUTABLE TO THE PARENT COMPANY	703	698	-	-	(319)	(219)	154	137	(165)	(82)	538	616

(1) Result from continuing operations at current cost of supply (CCS).

(2) The inventory effect represents an adjustment to "Consumption of raw materials and other consumables" and "Changes in inventory of finished goods and work in progress" of the income statement under IFRS-EU.

At December 31												
Million euros	Adjustments											
	Adjusted Result		Joint Arrangements reclassification		Special items		Inventory Effect ⁽²⁾		Total Adjustments		EU-IFRS profit/loss	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Operating income	3,214 ⁽¹⁾	2,067 ⁽¹⁾	(610)	98	42	(448)	143	194	(425)	(156)	2,789	1,911
Financial result	(356)	(315)	126	(68)	(82)	149	-	-	44	81	(312)	(234)
Income from equity affiliates- net of tax	323	371	580	(177)	1	-	-	-	581	(177)	904	194
Net income before tax	3,181	2,123	96	(147)	(39)	(299)	143	194	200	(252)	3,381	1,871
Income tax	(738)	(164)	(96)	147	(350)	(323)	(36)	(51)	(482)	(227)	(1,220)	(391)
Net income from continuing operations	2,443	1,959	-	-	(389)	(622)	107	143	(282)	(479)	2,161	1,480
Income attributed to minority interests	(38)	(37)	-	-	1	4	(3)	(10)	(2)	(6)	(40)	(43)
Net income from continuing activities attributable to the parent	2,405	1,922	-	-	(388)	(618)	104	133	(284)	(485)	2,121	1,437
Profit from discontinued operations	-	-	-	-	-	299	-	-	-	299	-	299
TOTAL NET INCOME ATTRIBUTABLE TO THE PARENT COMPANY	2,405	1,922	-	-	(388)	(319)	104	133	(284)	(186)	2,121	1,736

(1) Result from continuing operations at current cost of supply (CCS).

(2) The inventory effect represents an adjustment to "Consumption of raw materials and other consumables" and "Changes in inventory of finished goods and work in progress" of the income statement under IFRS-EU.

EBITDA:

EBITDA is defined as "Earnings Before Interest, Taxes, Depreciation, and Amortization," and is a financial indicator which determines the operating margin of a company prior to deducting interest, taxes, impairments, restructuring costs, and amortization. Since it does not include financial and tax indicators or accounting expenses not involving cash outflow, it is used by Management to evaluate the company's results over time, thereby making comparisons with other Oil & Gas sector companies a more straightforward exercise.

EBITDA is calculated as Operating Income + Amortization + Impairments + Restructuring costs as well as other items which do not represent cash entry or outflows from transactions (capital gains/losses from divestitures, provisions, etc.). Operating income corresponds to the result from continuing operations at average weighted average costs (AWC). In cases in which the **result from continuing operations at current cost of supply (CCS)** is used, it is considered **EBITDA at CCS**.

Fourth Quarter								
	Group Reporting Model		Joint arrangements reclassification and others		Inventory effect		EU-IFRS ⁽¹⁾	
	2017	2016	2017	2016	2017	2016	2017	2016
Upstream	1,086	637	(483)	(241)	-	-	603	396
Downstream	964	1,094	(3)	(4)	-	-	961	1,090
Corporate and other	(42)	(63)	(11)	(8)	-	-	(53)	(71)
EBITDA	2,008	1,668	(497)	(253)	-	-	1,511	1,415
EBITDA CCS	1,799	1,475	(497)	(253)	209	193	1,511	1,415

(1) Corresponds to "Profit before tax" and "Result adjustments" on the consolidated Cash Flow Statement prepared under IFRS-EU.

At December 31								
	Group Reporting Model		Joint arrangements reclassification and others		Inventory effect		EU-IFRS ⁽¹⁾	
	2017	2016	2017	2016	2017	2016	2017	2016
Upstream	3,507	2,072	(1,459)	(796)	-	-	2,048	1,276
Downstream	3,386	3,367	(12)	(12)	-	-	3,374	3,355
Corporate and other	(170)	(213)	1	-	-	-	(169)	(213)
EBITDA	6,723	5,226	(1,470)	(808)	-	-	5,253	4,418
EBITDA CCS	6,580	5,032	(1,470)	(808)	143	194	5,253	4,418

(1) Corresponds to "Profit before tax" and "Result adjustments" on the consolidated Cash Flow Statement prepared under IFRS-EU.

ROACE:

This APM is used by Repsol Management to evaluate the capacity of its operating assets to generate profit, and therefore measures invested capital (equity and debt).

The **ROACE** ("Return on average capital employed") is calculated as: (operating results adjusted for joint ventures outcomes excluding "**Special items**" + Income taxes + Recurrent results from investees) / (Capital employed during the continuing operations period).

Capital employed measures own and external capital invested in the company, and corresponds to Total Equity + **Net debt**. It includes that which corresponds to joint ventures or other companies whose operations are generated as such.

NUMERATOR	2017	2016
Operating profit EU-IFRS	2,789	1,911
Joint Arrangements reclassification	610	(98)
Special items	(42)	448
Income tax ⁽¹⁾	(873)	(340)
Share of profit (loss) of entities accounted for using the equity method - net of dividends	323	371
I. ROACE result at average weighted cost	2,807	2,292

DENOMINATOR	2017	2016
Total equity	30,063	31,111
Net financial debt	6,267	8,144
Capital employed at year end	36,330	39,255
II. Average capital employed⁽²⁾	37,793	39,818
CCS ROACE (I/II)	7.4%	5.8%

(1) Does not include income tax corresponding to financial results.

(2) Corresponds to the average balance of capital employed at the beginning and end of the year.

2. Cash flow measures

Free cash flow, cash generated and liquidity:

The two main measures used by the Group's management to evaluate the generation of cash flow in the period are **free cash flow** and **cash flow generated**.

Free cash flow measures cash flow generation from operating and investment activities, and is quite useful for evaluating the funds available for paying shareholder dividends, and debt service payments.

Cash flow generated corresponds to **free cash flow** after deducting all payments for dividends, remuneration of other

equity instruments such as net interest and payments for leasing and treasury stock. This APM measures the funds generated by the Company before financial transactions (mainly from debt issuance and repayments).

The following is a reconciliation of **free cash flow** and **cash flow generated** with the consolidated statements of cash flow prepared under IFRS-EU:

	Fourth Quarter					
	Adjusted cash flow		Joint arrangements reclassification and others		EU-IFRS cash flow statement	
	2017	2016	2017	2016	2017	2016
I. Cash flows from / (used in) operating activities	1,929	1,402	(84)	246	1,845	1,648
II. Cash flows from / (used in) investing activities	(1,045)	29	157	(482)	(888)	(453)
Free cash flow (I+II)	884	1,431	73	(236)	957	1,195
Cash generated	683	1,314	298	206	981	1,520
III. Cash flows from / (used in) financing activities and others ⁽¹⁾	(894)	(85)	(50)	190	(944)	105
Net increase / (decrease) in cash and cash equivalents (I+II+III)	(10)	1,346	23	(46)	13	1,300
Cash and cash equivalents at the beginning of the period	4,830	3,572	(242)	(185)	4,588	3,387
Cash and cash equivalents at the end of the period	4,820	4,918	(219)	(231)	4,601	4,687

	At December 31					
	Adjusted cash flow		Joint arrangements reclassification and others		EU-IFRS cash flow statement	
	2017	2016	2017	2016	2017	2016
I. Cash flows from / (used in) operating activities	5,506	3,832	(393)	58	5,113	3,890
II. Cash flows from / (used in) investing activities	(2,946)	491	157	(100)	(2,789)	391
Free cash flow (I+II)	2,560	4,323	(236)	(42)	2,324	4,281
Cash flow generated	1,391	3,211	(229)	(33)	1,162	3,178
III. Cash flows from / (used in) financing activities and others ⁽¹⁾	(2,658)	(2,174)	248	132	(2,410)	(2,042)
Net increase / (decrease) in cash and cash equivalents (I+II+III)	(98)	2,149	12	90	(86)	2,239
Cash and cash equivalents at the beginning of the period	4,918	2,769	(231)	(321)	4,687	2,448
Cash and cash equivalents at the end of the period	4,820	4,918	(219)	(231)	4,601	4,687

(1) Includes payments for dividends and payments on other equity instruments, interest payments, other proceeds from / (payments for) financing activities, proceeds from / (payments for) equity instruments, proceeds from / (payments for) financial liabilities and the exchange rate fluctuations effect.

The Group measures **Liquidity** as the total of “Cash and cash equivalents”, the cash deposits of immediate availability contracted with financial institutions and undrawn long- and short-term committed credit lines at year end under facilities

granted by financial institutions which may be drawn down by the company in installments, the amount, and the remaining terms of the agreement.

	At December 31					
	Group Reporting Model		Joint arrangements reclassification and others		EU-IFRS	
	2017	2016	2017	2016	2017	2016
Cash and cash equivalents	4,820	4,918	(219)	(231)	4,601	4,687
Undrawn credit lines	2,503	4,429	-	-	2,503	4,429
Cash deposits of immediate availability ⁽¹⁾	231	-	-	-	231	-
Liquidity	7,554	9,347	(219)	(231)	7,335	9,116

(1) New component. In a market situation with high levels of liquidity and negative remuneration rates, Repsol has contracted in this quarter time deposits but with immediate availability that have been recorded under the heading “Other current financial assets” in Consolidated Financial Accounts (see Note 7) and that do not meet the criteria to be classified as cash and cash equivalents.

Net operating investments:

Group management uses this APM to measure each period’s investment effort, as well as its allocation by businesses segment, and corresponds to investments, net of divestments, in the exploitation of resources made by different Group

businesses. It includes that which corresponds to joint ventures or other companies whose operations are generated as such.

	Fourth Quarter					
	Group Reporting Model		Joint arrangements reclassification and others		EU-IFRS ⁽¹⁾	
	2017	2016	2017	2016	2017	2016
Upstream	677	164	(32)	(77)	645	87
Downstream	349	(42)	(1)	(163)	348	(205)
Corporate and other	11	(15)	3	(5)	14	(20)
Total	1,037	107⁽²⁾	(30)	(245)	1,007	(138)

	At December 31					
	Group Reporting Model		Joint arrangements reclassification and others		EU-IFRS ⁽¹⁾	
	2017	2016	2017	2016	2017	2016
Upstream	2,072	1,889	(324)	(565)	1,748	1,324
Downstream	757	(496)	(2)	1	755	(495)
Corporate and other	27	(1,893)	3	6	30	(1,887)
Total	2,856	(500)⁽²⁾	(323)	(558)	2,533	(1,058)

(1) This corresponds to “Proceeds from divestments” and “Payments on investments” on the consolidated statement of cash flows prepared under IFRS-EU, and does not include items corresponding to “Other financial assets”.

(2) Gross capital expenditure amounted to 2,936 million euros in 2017 (1,093 million euros in Q4).

3. Financial position measures

Debt and financial position ratios:

Net Debt is the main APM used by management to measure the Company's level of debt. It is comprised of financial liabilities less financial assets, cash and cash equivalents, and the effect arising from net market valuation of financial derivative (ex -

exchange rates). It also includes the net debt corresponding to joint ventures and other companies operationally managed as such.

	Reporting Model Group		Joint arrangements reclassification ⁽¹⁾		EU-IFRS balance sheet	
	Dec-17	Dec-16	Dec-17	Dec-16	Dec-17	Dec-16
Non-current assets						
Non-current financial instruments ⁽²⁾	360	424	1,560	657	1,920	1,081
Current assets						
Other current financial assets	254	52	3	1,228	257	1,280
Cash and cash equivalents	4,820	4,918	(219)	(231)	4,601	4,687
Non-current liabilities⁽³⁾						
Non-current financial debt	(7,611)	(9,540)	(2,469)	58	(10,080)	(9,482)
Current liabilities⁽³⁾						
Current financial liabilities	(4,160)	(4,085)	(46)	(2,824)	(4,206)	(6,909)
Items not included on the balance sheet						
Net mark to market valuation of financial derivatives (ex: exchange rate) ⁽⁴⁾	70	87	-	-	70	87
NET DEBT	(6,267)	(8,144)	(1,171)	(1,112)	(7,438)	(9,256)

(1) Mainly includes the net financing of the Repsol Sinopec Brazil Group, broken down in the following sections:

December 2017: (cash and cash equivalents of €28 million and non-current financial liabilities as a result of an intra-group loan of €2,624 million, less a €275million third-party loan).

December 2016: (Cash and cash equivalents of €43 million and current financial liabilities as a result of an intra-group loan of €2,942 million, less €344 million in third-party loans)

(2) Corresponds to the consolidated balance sheet heading, "Non-current financial assets" (but does not include available-for-sale financial assets).

(3) Does not include finance lease obligations.

(4) The net mark to market value of financial derivatives different from exchange rate derivatives has been eliminated from this section.

Gross Debt is a measure used to analyze the Group's solvency; it includes its financial liabilities and the net fair value of its exchange rate derivatives.

	Net Debt		Joint arrangements reclassification and others		Figure according to EU-IFRS balance sheet	
	Dec-17	Dec-16	Dec-17	Dec-16	Dec-17	Dec-16
Current financial liabilities	(4,133)	(4,061)	(2,670)	(2,824)	(6,803)	(6,885)
Net valuation at the market rates of financial derivative, such as current exchange rate	(9)	7	-	-	(9)	7
Current gross debt	(4,142)	(4,054)	(2,670)	(2,824)	(6,811)	(6,878)
Non-current financial liabilities	(7,542)	(9,452)	155	57	(7,388)	(9,395)
Non-current gross debt	(7,542)	(9,452)	155	57	(7,388)	(9,395)
TOTAL GROSS DEBT	(11,684)	(13,506)	(2,515)	(2,767)	(14,199)	(16,273)

The following ratios are based on **Debt** and are used by Group management to evaluate leverage ratios as well as Group solvency.

The **Leverage** ratio corresponds to **Net Debt** divided by **Capital employed** at year end. This ratio can be used to determine the financial structure and degree of indebtedness with regard to capital contributed by shareholders and entities which provide financing. It is the chief measure used to evaluate and compare the Company's financial position with others in the Oil & Gas sector.

Hedging instruments correspond to **Net debt** divided by **EBITDA**, and makes it possible to evaluate the company's

capacity for repaying external financing over a number of years (x times), as well as to compare it to similar sector companies.

The **Solvency ratio** is calculated as **Liquidity** (section 2 of this Appendix) divided by **Current Gross debt**, and is used to determine the number of times the Group may handle its current debt using its existing liquidity.

Interest cover is calculated in the same way as debt interest (which comprises finance income and expense, see Note 22 "Finance income and expense" of the 2017 consolidated financial statements) divided by EBITDA. This ratio is a measurement that can determine the company's ability to cover interest payments with its EBITDA.

Million euros	Fourth Quarter					
	Group Reporting Model		Reclassification Joint Arrangements		EU-IFRS	
	Dec-17	Dec-16	Dec-17	Dec-16	Dec-17	Dec-16
Interest	82	98	(14)	(18)	68	80
EBITDA	2,008	1,668	(497)	(253)	1,511	1,415
Interest cover	4.1%	5.9%			4.5%	5.6%

Million euros	At December 31					
	Group Reporting Model		Reclassification Joint Arrangements		EU-IFRS	
	Dec-17	Dec-16	Dec-17	Dec-16	Dec-17	Dec-16
Interest	350	426	(63)	(73)	287	353
EBITDA	6,723	5,226	(1,470)	(808)	5,253	4,418
Interest cover	5.2%	8.2%			5.5%	8.0%

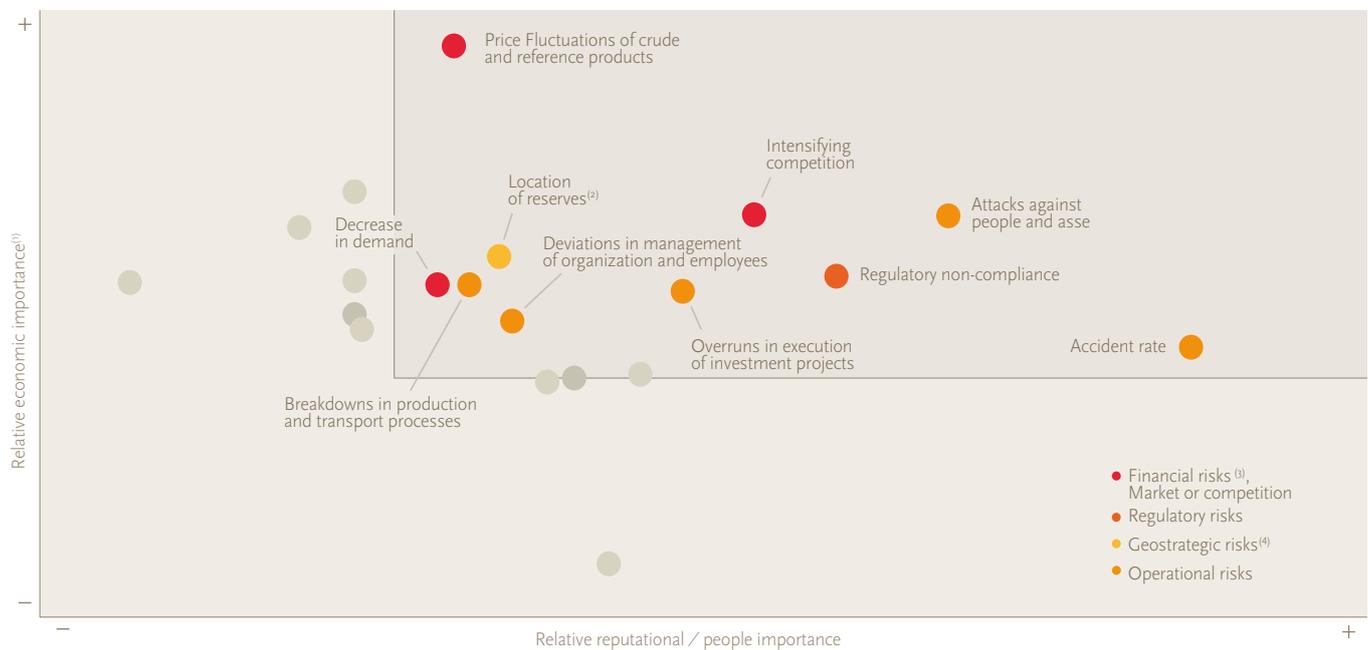
Appendix II. Risk

Risk management

As a global and integrated oil company, Repsol is exposed to different types of risk that may affect the future performance of the organization, and which must be mitigated in the most effective manner possible. For Repsol, the Risk Map is the centerpiece providing an overview of key risks with common metric, and identifying efficient mitigation measures,

identifying significant risks and classifying them by importance. To build it, the Company has a methodology for characterizing risks in a simple, understandable and robust manner and quantifying their potential economic, reputational and people impact in each business unit or area, and in Repsol as a whole, if they should materialize. The following are the Group's main risks in order of their relative economic and reputational/ personnel weight:

Main Risks



NOTE: Appendix II, "Risk Factors" provides a detailed description current risk, as well as currently unknown. With regard to risks relating to administrative and legal proceedings or arbitration, see Note 16 "Litigation" and 23.4 "Government and legal proceedings with tax implications" of the consolidated financial statements.

- (1) Relative weight is measured in terms of loss at the 95th percentile (potential loss in scenario) according to distribution of probability of losses for each risk.
- (2) These mainly relate to arbitrary actions by governments or institutions in the form of tax and royalty increases, the establishment of production and volume limits for export, and mandatory renegotiations or cancellation of contracts.
- (3) For further information on the financial risks to which the Group is exposed, see Note 9 "Financial Risks".
- (4) See Note 21.3 "Geopolitical risks" of the Consolidated financial statements.

Repsol's Integrated Risk Management System - (SGIR)

The Company has an organization, procedures and systems that allow it to reasonably manage the risks to which the group is exposed, as an integral part of decision-making processes in both corporate governance bodies and business management.

Repsol has an integrated risk management model designed to anticipate, manage, and control risks from a global perspective. The Integrated Risk Management System (SGIR in Spanish)

provides a comprehensive and reliable view of all risks that might affect the Company.

The SGIR relies on a Risk Management Policy and its principles are specified in the Integrated Risk Management Standard approved by the Company's Board of Directors. This management model is based on the ISO 31000 international standard and the Three Lines of Defense Model.

The fundamental pillars of the SGIR are:

- Senior Management leads integrated risk management.
- It is integrated with management processes of the Company, with the overall approach of the Risk Division.
- Businesses and corporate areas play a role in the implementation of the model as units with different levels of responsibility and specialization (risk management units, supervisory units and audit units) as well as the Risk Division, which governs and coordinates system.
- Assurance that all risks are managed in accordance with a common process of identification, assessment and treatment.
- Promotion of continuous improvement to gain efficiency and responsiveness.

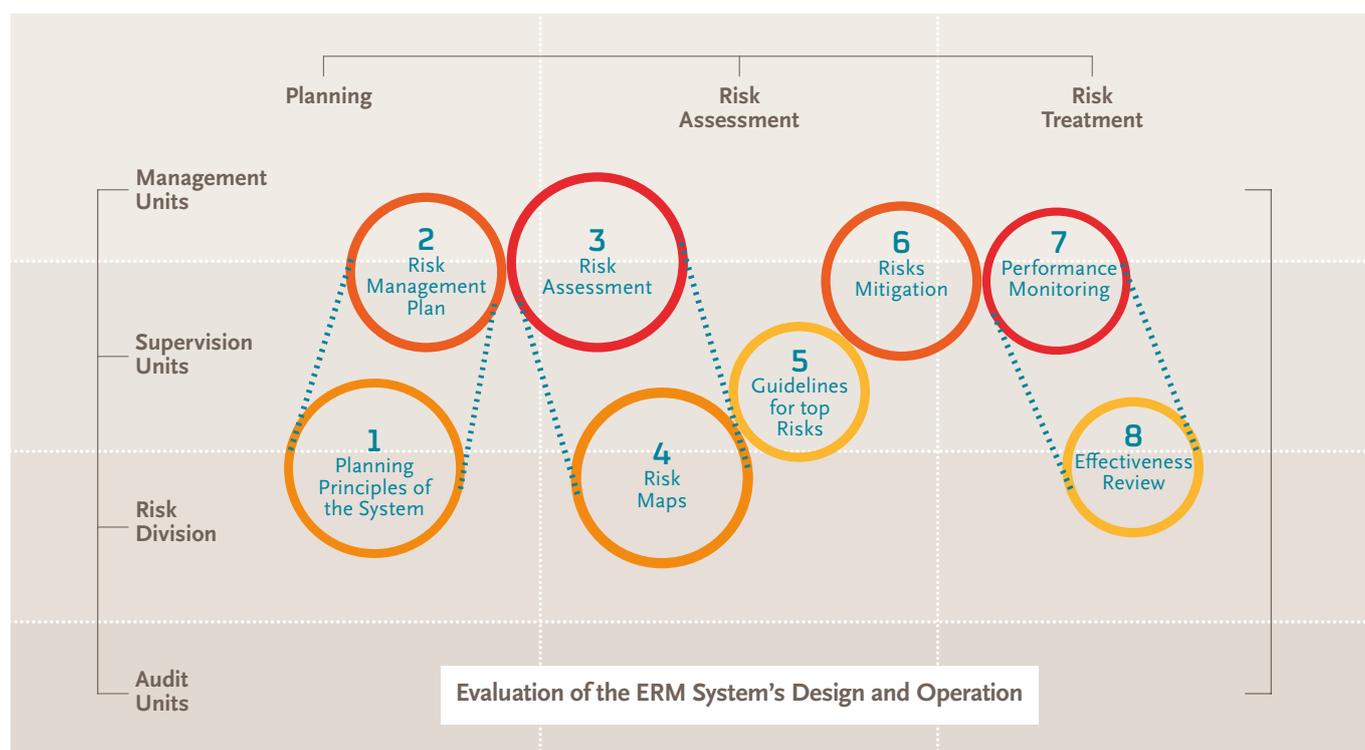
Another key element of risk management is the risk tolerance declaration, which is set out in the Policy along with the above principles. The declaration states that Repsol aspires to a low-to-medium risk profile that is appropriate for a global, integrated and diversified energy company. It also differentiates between risks to which the company wishes to expose itself within its overall tolerance threshold, and others that it seeks to reduce to levels as low as reasonably possible. The latter type would include accident, environmental, health, safety, ethics and conduct, reputation and compliance risks.

Repsol's Senior Management sees the SGIR not only as tool to define corporate strategy, but also to improve operations and approach critical situations with flexibility so as to strengthen the company.

Internal Control System on Financial Reporting (ICFR)

The Repsol Group has a system of internal control system over financial reporting (ICFR) whose correct functioning can reasonably ensure the reliability of the Group's financial reporting. The ICFR model is based on the methodological framework of COSO 2013 (Committee of Sponsoring Organizations of the Treadway Commission) as set out in their report Internal Control-Integrated Framework, which provides an integrated framework for internal control over financial reporting that is designed to ensure that transactions are recorded faithfully, in conformity with the applicable accounting framework, providing reasonable assurance in the prevention or detection of errors that might have a material impact on the information contained in consolidated financial statements. The Audit and Control Managing Division annually evaluates the design and functioning of the Group ICFR and draws conclusions on its effectiveness.

Repsol's Integrated Risk Management System (SGIR)



Risk factors

Repsol's operations and earnings are subject to risks as a result of changes in competitive, economic, political, legal, regulatory, social, industrial, business and financial conditions, such as those listed below.

Strategic and operational risks

Uncertainty in the current economic landscape

Against a backdrop in which global growth is consolidating and perspectives have improved, short-term economic risks have eased and balanced out. However, this process has been accompanied by increasing geopolitical tensions, such as the advance of North Korea's nuclear program, the Brexit process, and the aggravation of the political situation in Catalonia.

To date, markets have exhibited a very limited reaction to these geopolitical tensions. Even so, some of these events could end up having a greater impact, especially those related to Brexit and North Korea. If political tensions in Catalonia persist, it could have a greater impact on investor confidence, which would generate an increase in Spain's cost of financing and a weakening of the country's growth. The Trump administration also has the potential for becoming a destabilizing factor for markets. This is due both to the possible turn toward protectionist policies and/or financial deregulation, or due to advances in the investigation on links to Russia. In Europe, the electoral results in Germany and, especially, in Netherlands and France, have shown limited support for the anti-EU movement and reduced political risk. But the upcoming approval of the labor law reform in France and the elections in Italy could still generate instability.

In addition, there are still major uncertainties in the global economy arising from the difficulties in managing various economic transitions that are taking place simultaneously. First, the necessity for China to move towards a new, more sustainable development model taking into account the country's high levels of debt. Secondly, the normalization of monetary policy in the advanced economies, which has included unconventional policies for the first time. The third transition is the adjustment of the basic products cycle.

With the recent OPEC meeting of November 30, 2017, which decided to extend to the end of 2018 the production cutback agreements in order to backstop prices, the future of the market appears to be more balanced. However, there are factors that may add uncertainty to the market; but given the scale of

OPEC's output cut of 1.2 million bl/d, and of the non-OPEC countries' cut of 0.6 million, the adverse impact will tend to be low. These factors include: i) lower-than-expected demand from emerging countries; ii) a quicker-than expected response to non-conventional US shale to the expected price rise; iii) a very low level of fulfillment by OPEC and non-OPEC countries of their individual commitments to production cutbacks. The risk of a surprising increase of production in Libya and Nigeria has almost completely disappeared for 2018. These countries had been excluded from the production cutback agreements, although in the latest OPEC meeting they committed to not exceeding in 2018 their maximum production levels of 2017.

Climate change¹

Repsol is exposed to possible changes in the regulatory framework for greenhouse gas emissions arising from either our industrial operations or the use of our products.

Also, following the Paris Agreement, country's commitments under their respective National Determined Contributions (NDC) will have a significant impact on climate policies. The agreement is undoubtedly another step toward a low-emissions economy in which a more sustainable model of company will be crucial.

Repsol's assets are subject to risks arising from physical changes caused by climate change, and risks deriving from the rising level of the sea, changes in precipitation patterns, changes in extreme temperatures or droughts, or even more frequent occurrence of extreme meteorological phenomena (cyclones, hurricanes, etc.). Repsol is present in areas that are liable to suffering these effects.

Further, a change in consumers' behavior as they seek out less carbon-intensive products could also affect Repsol's competitiveness if it fails to adapt to these changes.

Repsol, and the oil and gas industry, are exposed to adverse trends of opinion that may affect the share price. Initiatives that promote disinvestment in fossil fuel extraction companies to reduce the impact of their products on climate change may affect the shareholding base of the company.

Repsol cannot predict the exact impact that the described risks may have on its activities, the income from its operations or the financial position of the Repsol Group, or its competitiveness.

¹ For further information see section 6.1 of this document.

Fluctuations in international prices of crude and reference products and in demand owing to factors beyond Repsol's control

World oil prices have fluctuated widely in recent years, and are driven by international supply and demand factors over which Repsol has no control.

The international prices of products are influenced by the price of crude oil and by demand for such products. Also, international prices of crude oil and of products impact the refining margin. International oil prices and demand for crude oil may also fluctuate significantly during economic cycles.

Reductions in oil prices adversely affect Repsol's profitability, the value of its assets and its plans for investment, which may be altered as a result of delays. Similarly, a significant drop in capital investment could negatively affect Repsol's ability to replace its crude oil reserves.

Regulatory and tax framework of Repsol's operations

The oil industry is subject to comprehensive state regulation and intervention. This is the case in Upstream activities, such as the award of exploration and production permits, the imposition of specific drilling and exploration obligations, restrictions on production, price controls, divestments of assets, foreign currency controls, and the nationalization, expropriation or cancellation of contractual rights.

Likewise, in Downstream, oil refining and petrochemical activities, in general, are subject to extensive government regulation and intervention in matters such as safety and environmental controls.

Also, the energy sector, particularly the oil industry, is subject to a unique tax framework. In Upstream activities there are often energy taxes on profit and production, while in Downstream activities, taxes on consumption products are common.

Repsol cannot foresee the exact scope of changes to such laws or their interpretation, which could adversely affect its business, results and financial position.

Repsol is subject to extensive environmental and safety legislation and risks

Repsol is subject to a wide variety of environmental and safety legislation and regulations in every country where it operates. These regulations govern, among other matters, Repsol's operations, environmental quality standards for products, air emissions and climate change, energy efficiency, extractive technologies, water discharges, remediation of soil and groundwater and the generation, storage, transport, treatment and final disposal of waste materials and safety thereof.

Additionally, following the acquisition of ROGCI, the company increased its activity in non-convention hydrocarbons. From an environmental standpoint, concern over the environmental impact of exploring for and producing this type of resources could prompt governments and authorities to approve new regulations or impose new requirements on their development. If they do, it could have an adverse impact on the Company.

Repsol cannot predict the exact scope of the changes in environmental and safety regulations, or how they will be interpreted or if certain policies will be implemented. Any regulatory change could cause an adverse impact on the Repsol Group's operations, the income from its operations and financial position.

Operating risks of Repsol's activities

Repsol's activities are generally exposed to specific risks, many of them beyond Repsol's control. Such risks relate to production and facilities, transport, management of operations, supply of products and services, natural disasters, organizational and employee management.

Hydrocarbon exploration and production (Upstream): reliance on the cost-effective acquisition or discovery of, and, thereafter, development of, new oil and gas reserves.

Oil and gas exploration and production activities are subject to uncertainties relating to the physical characteristics of oil and natural gas fields and their dismantling.

Furthermore, exploration projects are complex in terms of their scale and are susceptible to delays in execution and cost overruns with respect to initially-approved budgets. In addition, some of the development projects are located in deep waters, mature areas and other difficult environments, such as the Gulf of Mexico, Alaska, the North Sea, Brazil and the Amazon rainforest, or in complex oilfields that could aggravate these

risks further. It should also be noted that any form of transport of oil products always has inherent risks: by road, rail or sea transport, or by pipeline, oil or another hazardous substances could leak; this poses a significant risk due to the potential impact a spill could have on the environment and on people, especially considering the high volume of products that can be carried at any one time. Should these risks materialize, Repsol may suffer major losses, interruptions to its operations and harm to its reputation.

Moreover, Repsol must replace depleted oil and gas reserves with new proven reserves in a cost-effective manner for subsequent production to be economically viable. Repsol's ability to acquire or discover new reserves is, however, subject to a number of risks. For example, drilling may involve negative results, not only with respect to dry wells, but also with respect to wells that are productive but do not produce sufficient net revenues to return a profit after drilling, operating and other costs are taken into account. In addition, Repsol generally faces intense competition in bidding for exploratory blocks, in particular those blocks offering the most attractive potential reserves. Such competition may result in Repsol failing to obtain desirable production blocks, or otherwise acquiring them at a higher price, which could render subsequent production economically unviable.

If Repsol fails to acquire or discover, and, thereafter, develop new oil and gas reserves in a cost-effective manner, or if any of the aforementioned risks materializes, its business, results of operations and financial situation could be significantly and adversely affected.

Industrial businesses and marketing of oil products (Downstream)

Refining, Chemical, Trading, production, and distribution activities related to oil derivative products and LPG are exposed to the risk inherent to their activities, and are related to the products' specific characteristics (flammability and toxicity), their use (including that of clients), emissions resulting from the production process (such as greenhouse gas effects), as well as the materials and waste used (dangerous waste, as well as water and energy management), which might impact health, safety, and the environment. Repsol's industrial assets (refineries, regasification plants, warehouses, ports, ducts, sea vessels, cistern trucks, service stations, etc.) are exposed to accidents such as fire, explosions, leaks of toxic products, as well as large-scale contaminating environmental incidents. Such accidents may cause death and injury to employees, contractors, residents in surrounding areas, as well as damage to the assets and property owned by Repsol as well as third parties.

Downstream activities take place in a highly competitive environment. Refining and commercialization margins may be affected by a number of factors, such as low demand arising from a deterioration of the economic situation in the countries where it operates, the high price of crude oil and other raw materials, trends in production-related energy costs and other commodities, excess refining capacity in Europe, and the growing competition from refineries in areas such as Russia, the Middle East, East Asia, and the US, where production costs are lower. Commercial businesses compete with international hydrocarbons industry operators as well as with other non-oil operators (supermarket chains as well as other commercial operators) to acquire or open service stations. Repsol service stations mainly compete based on price, service, and the availability of non-oil products.

If any of the above risks materialize, the Repsol's business, results of operations and financial position could be significantly and adversely affected.

Location of reserves

Part of Repsol's oil and gas reserves are located in countries that are or could be economically or politically unstable¹.

Reserves in these areas as well as related production operations may be exposed to risks, including increases in taxes and royalties, the establishment of limits on production and export volumes, the compulsory renegotiation or cancellation of contracts, the nationalization or denationalization of assets, changes in local government regimes and policies, changes in business customs and practices, payment delays, currency exchange restrictions and losses and impairment of operations due to the attacks of armed groups. In addition, political changes may lead to changes in the business environment. Economic downturns, political instability or civil disturbances may disrupt the supply chain or limit sales in the markets affected by such events and affect the safety of employees and contractors.

If any of the above risks materializes, the Group's business, results of operations and financial situation could be significantly and adversely affected.

1. For further information see note "Geopolitics risk" of the consolidated annual accounts.

Estimations of oil and gas reserves

To estimate proved and unproved reserves and oil and gas resources, Repsol uses the criteria established by the SPE/WPC/AAPG/SPEE Petroleum Resources Management System, commonly referred to by its acronym SPE-PRMS (SPE standing for Society of Petroleum Engineers).

The accuracy of these estimates depends on a number of different factors, including: development activities and operations, including drilling, production testing and studies. After the date of the estimate, the results of activities may entail substantial upward or downward corrections based on the quality of available geological, technical and economic data used - including changes in hydrocarbon prices - and their interpretation and evaluation. Moreover, the production performance of reservoirs and recovery rates depend significantly on available technologies as well as Repsol's ability to implement them.

Therefore, measurements of reserves are not precise and are subject to revision. The estimate of proven and unproven reserves of oil and gas will also be subject to correction due to errors in the application of published standards and changes in such standards. Any downward revision in estimated quantities of proven reserves could adversely impact company results, and would lead to increased depreciation, depletion and amortization charges and/or impairment charges, thus reducing earnings or shareholders' equity.

Projects and operations in joint ventures and partnerships

Many of the Repsol Group's projects and operations are conducted through joint ventures and partnerships. Where Repsol does not act as the operator, its ability to control and influence the performance and management of the operations, and to identify and manage risks is limited.

Additionally, any of Repsol's partners or another member in a joint venture or associated company may fail to comply with its financial obligations, or they may commit another breach that could affect a project's viability.

Acquisitions, investments and disposals

As part of Repsol's strategy, the company may engage in acquisitions, investments and disposals of ownership interests. There can be no assurance that Repsol will identify suitable acquisition opportunities, obtain the financing necessary to complete and support such acquisitions or investments, acquire businesses on satisfactory terms, or that any acquired business will prove to be profitable. In addition, acquisitions and investments involve a number of risks, including possible adverse effects on Repsol's operating income, risks

associated with unanticipated events or liabilities relating to the acquired assets or businesses which may not have been disclosed during due diligence investigations, difficulties in the assimilation of the acquired operations, technologies, systems, services and products, and risks arising from provisions in contracts that are triggered by a change of control of an acquired company. In any business combination, Repsol's ability to reap the strategic benefits expected from the acquisition will depend on its ability to integrate equipment, processes and procedures and maintain existing relationships with its customers and partners.

Any failure to successfully integrate such acquisitions could have a material adverse effect upon Repsol's business, results of operations or financial position. Any disposal of an ownership interest may also adversely affect Repsol's financial position, if such disposal results in a loss.

Repsol's current insurance coverage may not be sufficient for all operational risks

Repsol holds insurance coverage against certain risks inherent to the oil and gas industry, in line with industry practice. Insurance coverage is subject to deductibles and limits that, in certain cases, may be significantly lower than its losses and/or liabilities. In addition, Repsol's insurance policies contain exclusions that could leave the Group with limited coverage in certain circumstances, or indemnities may not be totally or partially collectible in case of insolvency of the insurers. Furthermore, Repsol may not be able to maintain adequate insurance at rates or on terms considered reasonable or acceptable, or be able to obtain insurance against certain risks that could materialize in the future. If the company experiences an incident against which it is not insured, or the costs of which materially exceed its coverage, it could have a material adverse effect on its business, financial position and results of operations.

Repsol's natural gas operations are subject to particular operational and market risks

Natural gas prices tend to vary between the different regions in which Repsol operates as a result of significantly different supply, demand and regulatory conditions, and such prices may be lower than current prices in other regions of the world. In addition, excess supply conditions that exist in some regions cannot be utilized in other regions due to a lack of infrastructure and difficulties in transporting natural gas.

In addition, Repsol has entered into long-term contracts to purchase and supply natural gas in various parts of the world. These contracts have different price formulas, which could result in higher purchase prices than the price at which

such gas could be sold in increasingly liberalized markets. Furthermore, gas availability could be subject to the risk of counterparty breach of contractual obligations. Thus, it might be necessary to look for other sources of natural gas in the event of non-delivery from any of these sources, which could require payment of higher prices than those envisaged under the breached contracts.

Repsol also has long-term contracts to sell and deliver gas to customers, which present a different type of risk to the Group as they are pegged to existing proven reserves in these countries. Should such reserves in these countries prove insufficient, Repsol might not be able to satisfy its obligations under these contracts, some of which include penalty clauses for breach of contract.

The above risks may adversely affect Repsol's business, results and financial position.

Cyclical nature of petrochemical activity

The petrochemicals industry is subject to wide fluctuations in supply and demand, reflecting the cyclical nature of the chemicals market on a regional and global scale. These fluctuations affect the prices and profitability of petrochemicals companies, including Repsol. Repsol's petrochemicals business is also subject to extensive governmental regulation and intervention in such matters as safety and environmental controls. Any fluctuations and changes in regulations may have an adverse effect on the Repsol's business, financial position and results of operations.

Repsol Group's strategy requires efficiency and innovation in a highly competitive market

The oil, gas and petrochemical industry operates in the context of a highly competitive energy sector. This competition influences the conditions for accessing markets or following new business leads, the costs of licenses and the pricing and marketing of products.

The implementation of the Group's strategy requires a significant ability to anticipate and adapt to the market and continuous investment in technological advances and innovation.

The Repsol Group is subject to the effects of administrative, judicial and arbitration proceedings

The Repsol Group is subject to the effects of administrative, judicial and arbitration proceedings arising in the ordinary course of business, in relation to which it is unable to predict the scope, subject-matter or outcome. Any present or future litigation involves a high degree of uncertainty and, therefore, the resolution of these disputes could affect the business, results or financial position of the Repsol Group.

Information technology and its reliability and robustness are a key factor in maintaining our operations

The reliability and security of the Group's information technology (IT) systems are critical to maintaining the availability of its business processes and the confidentiality and integrity of the data owned by the company and by third parties. Given that cyber-attacks are constantly increasing, the Repsol Group cannot guarantee that it will not suffer economic or/and material losses in the future as a result of such attacks.

Misconduct or violations of applicable legislation by our employees can damage the reputation of the Repsol Group

Repsol's Ethics and Conduct Code, which is mandatory for all Repsol directors, executives and employees, regardless of the type of contracting governing their professional or employment relationship, establishes the overall framework for understanding and putting into practice the conduct and expectations the company places in each of them, in line with the principles of loyalty to the company, good faith, integrity and respect for the law and the ethical values defined by the Group.

The Company's diverse models of compliance and control include controls aimed at detecting and mitigating significant aspects of compliance, such as improper conduct or breach of applicable regulations. Their occurrence could cause reputational damage to the Company, while resulting in sanctions and legal liability."

Repsol is exposed to negative opinion trends which could have an adverse impact on its image and reputation, thereby affecting its business opportunities

The company carries on its operations in multiple environments with diverse stakeholders, which are mainly local communities in the areas of influence of its operations, as well as local and national civil, political, labor, and consumer organizations, among others.

Should the interests of the above groups be contrary to the Company's activities, and attempts to reach agreements prove unsuccessful, Repsol may be affected by the publication of biased or manipulated information that generates opinion contrary to the company's activities.

This could result in an adverse impact on the social or media acceptance of Repsol's activities, leading to erosion of the Company's image as well as loss business opportunities in the area or country in question, with potential adverse effects on its business, financial position, and the result of its operations.

Financial risks

Repsol has a risk management structure and systems that enable it to identify, measure and control the financial risks to which the Group is exposed. Note 9 "Financial risks" in the Group's audited consolidated financial statements analyzes the exposure to those risks and measures the impact they may have on those financial statements.

The main financial risks are described below:

Liquidity risk

Liquidity risk is associated to the ability of the Group to finance its obligations at reasonable market prices, as well as to carry out its business plans with stable financing sources.

In the case that Repsol were unable to meet its needs for liquidity in the future or had to incur increased costs to meet them, this could have an adverse effect on its business, financial position and results of operations.,

Credit risk

Credit risk is defined as the possibility of a third party not complying with his contractual obligations, thus creating losses for the Group.

The Group's credit risk exposure mainly relates to trade accounts payable, which are measured and controlled by individual client or third party. To this end, the Group has its own systems, in line with best practices, for constantly monitoring the creditworthiness of all its debtors and for determining the risk limits of third parties.

As a general rule, the Group considers a bank guarantee issued by financial entities to be the most suitable instrument of protection from credit risk. In some cases, the Group has taken out credit insurance policies to partially transfer to third parties the credit risk related to the trade of some of its businesses.

The Group also has exposure to counterparty risk arising from non-trade contractual operations that may lead to defaults. In these cases, the Group also analyzes the solvency of counterparties with which it maintains or could maintain non-trade contractual relations. Any breach of payment obligations by Repsol's customers and counterparties, in the agreed time frame and form, could have an adverse effect on Repsol's business, results or financial position.

Credit rating risk

Credit rating agencies regularly rate the Group, and their ratings are based on external factors, such as the conditions that affect the oil & gas sector, the general state of the economy and the performance of the financial markets.

Credit ratings affect the cost and other conditions under which the Repsol Group is able to obtain finance. Any downgrade in Repsol S.A.'s credit rating could restrict or limit the access of the Group to financial markets, increase the cost of any new finance, and have a negative effect on its liquidity.

See credit rating table in section 4 "Credit rating" in this document.

Market risks

The Repsol Group is exposed to various types of market risk: exchange rate, commodity price and interest rate risk, which are described below:

- **Exchange rate fluctuation risk:** Changes in exchange rates may adversely affect Repsol's operational result and the value of its assets.

In general, this exposure to exchange rate risk stems from the existence in the Group companies of assets, liabilities and cash flows denominated in a currency other than the company's functional currency, with particular emphasis on the fact that: (i) Cash flows generated by oil, natural gas and refined product sales are generally denominated in United States dollars, (ii) A large portion of Repsol's assets and investments are also denominated in United States dollars.

Furthermore, it should be borne in mind that: (i) Cash flows from transactions carried out in the countries in which Repsol conducts its activities are exposed to fluctuations in currency exchange rates of the respective local currencies against the major currencies in which the commodities used as reference for the fixing of prices in the local currency are traded, (ii) Repsol's consolidated financial statements are expressed in euros and, consequently, the assets and liabilities of subsidiary investee companies with a different functional currency are translated into euros.

To mitigate exchange rate risks, and if it deems appropriate, Repsol carries out investments or transactions in those currencies in which foreign exchange risk exposures have been identified and it can hedge the risk with derivative financial instruments in currencies where there is a liquid market and reasonable transaction costs.

Notes 9 "Financial risks" and 8 "Derivative and other transactions" in the consolidated financial statements

include additional details on the financial risks described in this section and the hedging transactions performed.

- **Commodity price risk:** In the normal course of operations and trading activities, the earnings of the Repsol Group are exposed to volatility in the price of oil, natural gas, and related derivative products (see the risk factors titled "*Fluctuations in crude oil and reference products' international prices and demand owing to factors beyond Repsol's control*" and "*Repsol's natural gas operations are subject to particular operational and market risks*" above). Note 8 "*Derivative and other transactions*" in the consolidated financial statements include additional details on the financial risks described in this section.
- **Interest rate risk:** The market value of the Group's net financing and net interest expenses could be affected as a consequence of changes in interest rates which could affect interest income and expenses of financial assets and liabilities tied to floating interest rates and the fair value of financial assets and liabilities tied to a fixed rate. Fluctuations in interest rates may also affect the value of assets and liabilities due to a change in the applicable cash flow discount rate, investments' profitability and the future cost of raising funds.

To mitigate interest rate risks, and when it deems appropriate, Repsol can hedge the risk with derivative financial instruments where there is a liquid market and with reasonable transaction costs.

Notes 9 "Financial risks" and 8 "Derivative and other transactions" in the consolidated financial statements include additional details on the financial risks described in this section and the hedging transactions performed.

Appendix III. GRI indicators

Part I. Profile

Company profile

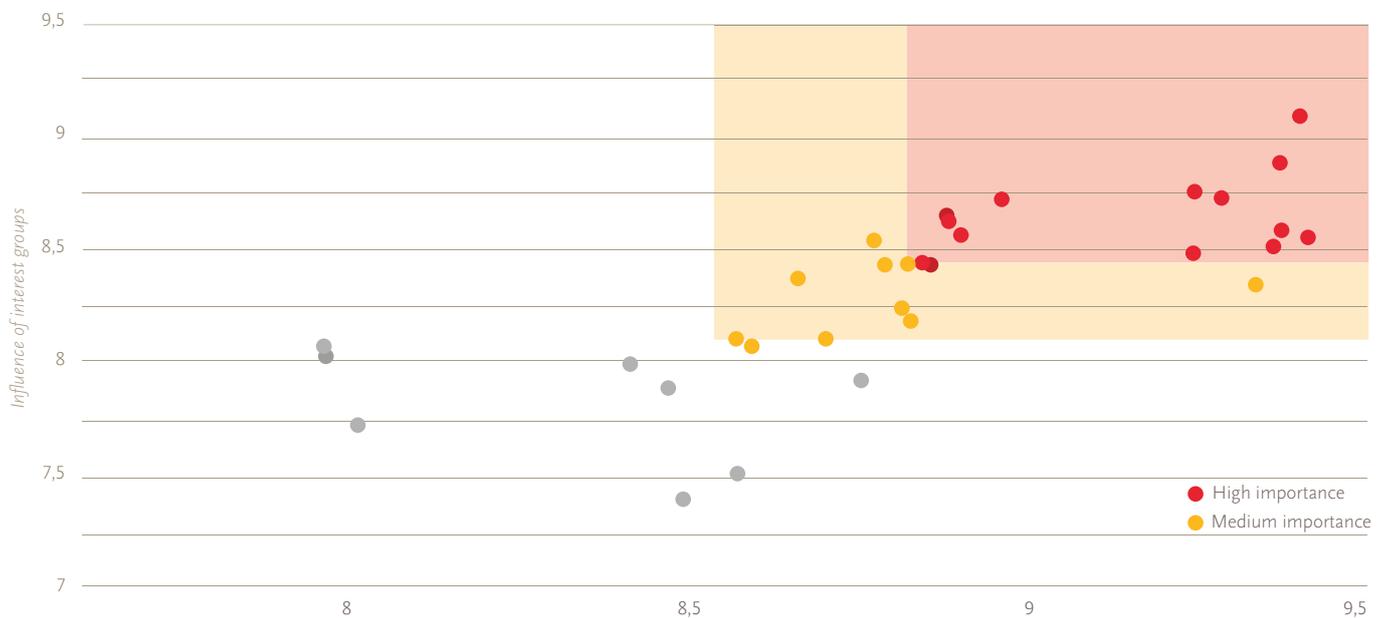
Materiality (G4-18 to 19) and stakeholders (G4-24 to 27)

Repsol has updated the materiality study carried out in 2016, which is based on online surveys for stakeholders to identify and prioritize economic, social and environmental issues that are deemed to have a high impact and importance. This year, the consultation was expanded, including customers within the

groups consulted in the previous study: employees, suppliers and contractors, investors, international bodies and representatives of civil society.

The following chart shows the results of the materiality study with regard to sustainability:

Matters identified by the stakeholders



High importance figures represented are rated over 8.8 in the Repsol importance and over 8.4 in influence of stakeholders, on a scale from 0 to 10.

Aspect	IGI 2017 Chapter	IGI 2017 Code	IGI 2017 Description	
● Climate Change	Climate change	6.1	Climate change	
● No discrimination, equality and diversity	People	6.2	People	
● Human rights impact assessment (Due diligence)		6.2.2	Respect for Human rights and Community relations	
● Human rights assessment and qualification (Supply chain)		6.2.2	Respect for Human rights and Community relations	
● Stable working conditions		6.2.1	Our people	
● Labor Relations		6.2.1	Our people	
● Indigenous peoples' rights		6.2.2	Respect for Human rights and Community relations	
● Economic and social development		6.2.2	Respect for Human rights and Community relations	
● Community relations		6.2.2	Respect for Human rights and Community relations	
● Accidentability		Safe Operation	6.3	Safe Operation
● Incidents, spills, leaks, explosions, etc			6.3	Safe Operation
● Emergency response	6.3		Safe Operation	
● Water management	Environment	6.4.	Environment (Water)	
● Biodiversity		6.4.	Environment (Biodiversity)	
● Gestión de residuos		6.4.	Environment (Waste)	
● Innovatiónn	Innovation and Technology	6.5	Innovation and Technology	
● Compliance	Ethic and Transparency	6.7	Ethic and Compliance	
● Impacts and risks management		2.4	Gestión del riesgo	
● Tax payment		6.6	Responsible tax policy	
● Fight against corruption		6.7	Ethic and Compliance	
● Qualification of Suppliers and contractors		6.8	Supply Chain	
● Training and awareness on sustainability		6.	Sustainability	
● Code of conduct		6.7	Ethic and Compliance	
● Code of conduct for the supply chain		6.8	Supply Chain	

Matters identified by stakeholders consulted:

Customers: They choose according to “Product Quality,” “Price,” “Product availability,” and “Punctuality/delivery times.” They positively rate the service Repsol provides as a supplier and the quality of its products. The aspects to be improved are incidence management and product price.

Employees: They hope that necessary measures are taken to facilitate a participative dialogue, active listening and continuous cooperation. For this reason, employees are informed at all times of matters related to sustainability and the companies actions in this regard.

Trade union organizations: The company has channels of communication and dialogue with workers, and negotiating committees to discuss issues of interest and reach agreements. Repsol holds meetings through committees and commissions in order to monitor and guarantee collective bargaining agreements and pacts applicable in group companies. Noteworthy: the European Works Council of the Repsol Group stands out for their dialogue with workers’ representatives at an international level.

Suppliers and contractors: They strive to ensure Repsol shares best practices to improve its performance and be able to participate in bids and contract their services. They also request greater clarity in the information on their performance evaluations.

Investors: They demand from the company transparency on a continuous basis on its social, environmental and governance performance for decision making. Repsol engages in continuous communication and dialog with this group. The CEO of the Company, Josu Jon Imaz, directs and leads senior management roadshows to respond to their requests for information in this field. And for the second year, it led Sustainability Day, in its fourth edition. The total number of investors visited during the year represents 56% of the total socially responsible shareholders.

International organizations: They call upon companies to implement their recommendations and good practices. For instance, they should reduce their environmental impacts, seek out local opportunities through training or promoting employment, and collaborate with other companies or organizations. Repsol believes that companies play a significant role in helping drive progress toward sustainable development.

Civil society: They aim for companies to prevent and mitigate environmental and social impacts. They also expect companies to be more proactive and transparent in providing information on sustainability performance, and to engage in more dialog and collaboration with stakeholders. In addition to the sustainability information that Repsol discloses, all requests for information are answered and it participates in talks, congresses and debates on this subject.

G4-10 Workforce by employment contract, employment types, region and gender

		2017	2016
Number of employees by contract type and gender			
Permanent Contract	Men	14,675	15,306
	Women	7,750	7,851
	Total	22,425	23,157
Temporary Contract	Men	1,597	1,388
	Women	1,063	924
	Total	2,660	2,312
Total		25,085	25,469

The number of employees was the same as in 2016. The ratio of employees with permanent contracts is lower due to the downsizing currently under way, which mainly affects this group of employees.

		2017	2016
Number of fixed employees by job type and gender			
Full time	Men	14,641	15,267
	Women	7,684	7,782
Part time	Men	34	39
	Women	66	69
Total		22,425	23,157

The data published reflect the number of fixed employees, irrespective of their percentage of employment.

		2017	2016
Number of employees by region and gender			
Africa	Men	150	126
	Women	26	22
	Total	176	148
Asia	Men	770	809
	Women	281	286
	Total	1,051	1,095
Europe	Men	12,325	12,491
	Women	6,291	6,200
	Total	18,616	18,691
Latin America	Men	2,164	2,234
	Women	1,658	1,624
	Total	3,822	3,858
North America	Men	861	989
	Women	556	623
	Total	1,417	1,612
Oceania	Men	2	45
	Women	1	20
	Total	3	65
Total employees	Men	16,272	16,694
	Women	8,813	8,775
Total		25,085	25,469

The reduction in employees has occurred mainly in the following regions: North America due to the downsizing of the Company and in Oceania, as the main activity of the Company has ended in Australia. In Africa, the increase in employees is due to the development of a number of assets, especially in Libya.

G4-11 Percentage of total employees covered by collective bargaining agreements

In Spain, 100% of Repsol employees are covered by the collective bargaining agreement of their company. However, there is a certain percentage excluded from the agreement in different fields, due to the individual contract in force for these groups.

According to currently available data, in countries other than Spain, the following employees are covered by collective bargaining agreements:

- **Brazil:** The Company collective bargaining agreement applies to local employees of Repsol Sinopec Brasil who render services in the country.
- **Norway:** 100% of the offshore employees are covered by union agreement, but no covered onshore staff.
- **Peru (La Pampilla refinery):** 43% of employees are covered by the company-wide collective bargaining agreement.
- **Portugal:**
 - At Repsol Portuguesa, S.A and Repsol Gas, S.A: 100% of employees covered by sector agreement.
 - At Repsol Polimieros, S.A.: the 2016-2018 company collective bargaining agreement applies to 98.5% of non-excluded employees.

Governance

G4-39 Indicate whether the Chair of the highest governance body is also an executive officer

Antonio Brufau Niubó is the Chairman of the Repsol's Board of Directors. His position is non-executive, as his duties are institutional, with a key role in setting and overseeing the medium and long-term strategy, institutional relations with the authorities, shareholders and other stakeholders, and in overseeing management tasks.

Josu Jon Imaz was appointed CEO and member of the Delegate Committee of Repsol by virtue of a resolution of the Board of Directors on April 30, 2014, and was subsequently ratified and re-elected by the General Shareholders' Meeting of April 30, 2015. The meeting of the Board of Directors of April 30, 2015 resolved to vest all executive functions in the CEO, who chairs the company's three management bodies: Corporate Executive Committee, the Exploration and Production Executive Committee and the Downstream Executive Committee.

G4-53 Mechanisms for seeking and taking into account the opinion of stakeholders regarding remuneration including, the results of votes on remuneration policies and proposals

The Annual Report on the Remuneration of Repsol Directors is submitted to an advisory vote of shareholders. In the General Meeting of May 19, 2017, the report received wide support, as it was approved by a majority of the 97.09% of the capital attending the meeting.

Further, and with the aim of assisting shareholders in understanding the information in the official model of the Report on Remuneration, and to continue increasing the transparency of remuneration schemes, the Company also publishes a voluntary report on this topic that contains further information on the objectives and degrees of compliance of annual and multi-year variable remuneration of Executive Directors.

The General Shareholders' Meeting of May 19, 2017 also approved, with 95.9% of votes in favor, the new Remuneration Policy of Directors of Repsol, S.A. for 2018, 2019 and 2020. The policy contains, among other matters, forecasts on the partial payment in shares of multi-year variable remuneration and the policy on holding of shares.

G4-54 and G4-55 Ratios for the compensation for the organization's highest-paid individual in each country of significant operations to the median compensation for all employees (excluding the highest-paid individual) of the same country

Repsol analyzes wage markets in the countries and business sectors in which the Company operates and sets its internal objectives on the average wage position of its employees with these external market wage benchmarks. The criteria for establishing the sought-after wage positioning are generally similar in all employee and executive groups. Accordingly, with the compensation policy, in general terms, the data in the table are affected by the typical wage dispersion of the country and business sector in which the Company operates.

On an annual basis, the budgets for wage increases are decided by employee group, and criteria are established for maximum individual increases. The increase of the average wage of the entire workforce reflects the wage bills of the workforce of each professional group and the wage increase percentages applied to each group, both those approved by the company and those established through collective bargaining or by legal requirement. Further, the compensation of the highest-paid individual may also increase or decrease owing to variable components, which take on greater weight in positions involving higher responsibilities, even if the base wage remains unchanged.

The year 2017 continued to be marked by wage restraint. Combined with programs of workforce downsizing and divestments from non-core assets, this has resulted in negative increases in the average wage of all employees in some countries.

In Spain, as a result of the collective dismissal, there has been a decrease in both the workforce and average remuneration, and this is reflected in the increase on the ratio of compensation of the highest-paid individual. This effect is seen in both the figure for Spain and for Grupo Repsol, S.A.

Also in Brazil, North America and the southeast Asian countries, workforces have been streamlined, affecting highly qualified personnel. This has also caused a decrease in average remuneration and an increase in the ratio of compensation of the highest-paid individual.

In Ecuador, there was a considerable decrease in median compensation in 2017 due to the profit effect (distribution of business profit according to law), increasing the distance with the highest remuneration.

Country	Annual total compensation of the highest-paid individual ⁽¹⁾ / median annual total compensation for all employees ⁽²⁾	Percentage increase of annual total compensation of highest-paid individual / Percentage increase of median annual total compensation of all employees
Bolivia	2.34	1.08
Brazil	3.27	-1.06
Canada	14.45	-3.57
Ecuador	8.64	-0.08
Spain ⁽³⁾	13.69	-0.68
United States	3.15	49.16
Indonesia	2.72	0.29
Malaysia	2.82	3.25
Peru	9.47	1.05
Portugal	4.59	3.49
Repsol S.A. ⁽³⁾	28.43	-1.99

(1) The highest-paid individual has been identified without taking into account expatriate staff from other origins or employees who departed prior to December 31 of the year in question and the compensation corresponds with the amount effectively paid.

(2) Median annual total compensation for all employees has been considered as median annual cash compensation. The following items of personnel costs have been included: Base salary and fixed supplements, seniority, variable supplements, overtime and other remuneration

(3) Senior executives have been included in the line called "Group (Repsol, S.A.)" and are compared with the median compensation of all employees of the Group's parent company (Repsol, S.A.). Their functions are worldwide in scope and are not limited to any particular country in isolation. Senior management, for the purposes of this report, includes members of the Corporate Executive Committee receiving compensation for performance of executive duties, and not including any compensation received for performance of duties as a member of the Board of Directors of Repsol, S.A. or any of the subsidiaries.

Part II: specific standard disclosures

Economic Performance

Contribution to economic development where the company conducts its operations.

G4-EC1: Direct economic value generated and distributed and G4-EC4: Economic aid granted by government entities

Item	2017	2016
Direct economic value generated (I)	42,613	36,815
Sales and other operating income	42,378	35,679
Finance income	194	176
Gains on disposal of fixed assets	41	960
Economic value distributed (II)	39,422	34,166
Operating expenses (payments for raw materials, product components, facilities and services acquired; property rentals, license fees, facilitation payments, royalties, subcontracting of workers, employee training or protective equipment costs)	28,781	23,699
Salaries and employee benefits (except training)	1,880	2,488
Payments to capital providers (dividends to shareholders and interest payments to interest providers)	864	999
Public Administrations: Tax accrued in the year and included as expenses in the company's consolidated financial statements, including Corporate Income Tax and Excise Duties	7,897	6,960
Investments in communities (calculated by the CR area)	23	20
Retained economic value (I-II)	3,168	2,649
Economic aid granted by government entities (Subsidies received)	23	25

G4-EC5 Ratio of standard entry level wage by gender compared to local minimum wage at significant locations of operation

Country	Country minimum wage (local currency/month)	Repsol minimum wage (local currency/month)	Repsol/national minimum wage
Bolivia	2,000	11,912	5.96
Brazil	937	4,809	5.13
Canada	2,357	3,467	1.47
Ecuador	375	890	2.37
USA	1,257	3,268	2.60
Spain	708	1,206	1.70
Indonesia	3,355,750	11,520,600	3.43
Maylasia	1,000	3,816	3.82
Peru	850	850	1
Portugal	557	565	1.01

In accordance with Repsol's equal opportunities policy, wages are established for a position without taking into account the gender of the person holding the position, including entry-level wages.

Repsol's entry-level wages are above the local minimum wage.

G4-EC6 Proportion of senior management hired from the local community at significant locations of operation

Country	% of Executives, Managers and Technical managers from the local community in 2017	Country	% of Executives, Managers and Technical managers from the local community in 2017
Algeria	8	Indonesia	65
Bolivia	88	Libya	35
Brazil	56	Malaysia	72
Canada	61	Norway	70
Colombia	79	Peru	74
Ecuador	90	Portugal	94
USA	36	Russia	47
Spain	87	Venezuela	76
		Vietnam	30

Includes executives and technical managers excluded from the collective bargaining agreement in countries with more than 50 employees.

Repsol remains committed to, and continues to increase its management teams with individuals from the local community in most countries where it has a significant presence. This enhances the Company's cultural diversity, enabling it to better respond to the needs of the societies in which it is present, while also contributing to their development.

G4-EC7 Development and impact of infrastructure investments and services supported y G4-EC8 Significant indirect economic impacts, including the extent of impacts

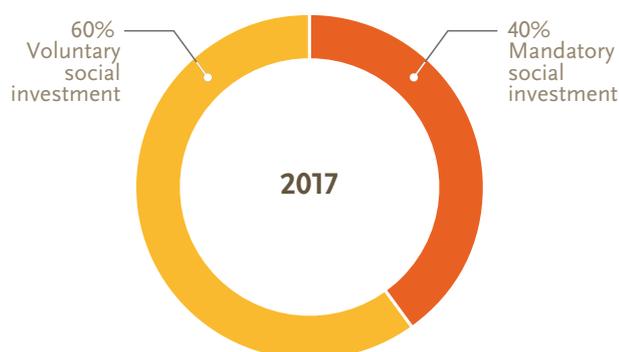
Repsol identifies and strengthens positive impacts and the shared value of regions where the Company is present as a result of a consensus with communities. The context determines the scope and configuration of the investment. A series of examples are offered below:

Country	Project
Bolivia	<i>"Construction of potable water system"</i> Project in collaboration with the autonomous municipal Government of Entre Rios carried out in Izarzama, Cochabamba district, to improve the quality of the potable water service for more than 7,000 people, pursuant to the needs expressed. This involves a reduction of the risks of contracting stomach and intestinal diseases from the water consumption and use. Investment: more than €12,000.
Spain (Petronor)	<i>"Social economy enterprise in primary sector"</i> Project that aimed at training unemployed people over the age of 45 in order to develop their professional career in the agro-fishing sector. The company made available to beneficiaries more than 35,000 m ² of land for the production, transformation and marketing of agricultural products.
Libya	<i>"Support for the resilience of local communities"</i> The project is designed to provide basic services of health, education, energy and water access to the local communities in Ubari, Zintan, Zawiya and Rujban, or about 300,000 people in its area of influence. Investment: more than €3.6million.
Malaysia	<i>"Development of fishing skills"</i> With a contribution of €8,000, the program is focused on the socio-economic development of fishermen in Marang, Terengganu through activities of production and/or sale of fish, seafood and by-products.
Papua New Guinea	<i>"Organic Vegetable Farming"</i> Project in the area of influence of the Stanley gas project More than 120 people have benefited from the program, with an investment of €43,000, consisting of training in modern horticulture that will enable them to grow vegetables for both marketing and to improve diets in the area. The project also assisted in the creation of model farms with instruments and seeds, plants and planting materials.
Peru	<i>"Technical support for installation and maintenance of 300 ha of Cocoa"</i> Multi-year project (2014-2018) aimed at empowering the indigenous population of the Nuevo Mundo community through sustainable development in the region. Given the conditions of the area, focused on cocoa crops. In 2017, some €59,000 were invested, and more than 80 beneficiaries learned how to increase productivity through knowledge of good practices in the sector.

Figures of social investment

In 2017, the social investment of the Repsol Group, including its two foundations, amounted to €39 million, of which €23.48 million consisted of voluntary contributions and €15.81 million were made under a legal or contractual obligation.

Social investment



Voluntary social investment

This includes the social programs Repsol carries out voluntarily, or which arise from voluntary agreements with communities.

Voluntary social investment (million euros)⁽¹⁾

	2017	2016
Repsol	14.86	10.00
Repsol Foundations	8.62	9.83
Total	23.48	19.83

* Does not include contributions to associations.

Voluntary social investment by type of contribution (million euros)

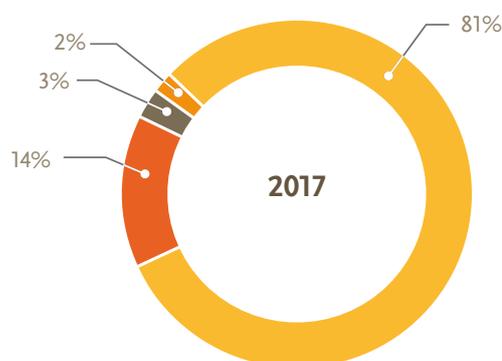
	2017	2016
Contribution in cash	22.21	18.27
Contributions in time	0.42	0.39
Contributions in kind	0.14	0.36
Management costs	0.71	0.81
Total	23.48	19.83

Voluntary social investment by type of project

	2017	2016
Increase and strengthen skills and knowledge within local communities.	18.44	13.69
Local development of business and opportunities for local suppliers	3.25	4.02
Development synergies of local infrastructures	0.58	0.50
Greater energy access	0.05	0.47
Preservation of local environment	0.55	0.59
Others ⁽¹⁾	0.61	0.56
Total	23.48	19.83

(1) Management costs not assigned to a specific Project €0.61 million.

Voluntary social investment by project type



- Boosting and strengthening capacities and knowledge in local communities
- Local development of business and opportunities for local suppliers
- Synergies in development of local infrastructures
- Conservation of the local environment

Voluntary social investment by country (million euros)

	2017	2016
Algeria	0.12	0.01
Bolivia	1.81	1.49
Brazil	0.71	0.59
Canada	0.93	1.28
Colombia	1.14	0.89
Ecuador	1.12	1.31
Spain	9.22	10.64
United States	0.17	0.32
Indonesia	0.01	0.06
Libya	3.87	-
Malaysia	0.41	0.28
Norway	0.25	0.22
Papua New Guinea	0.18	0.04
Peru	1.80	1.77
Portugal	0.51	0.39
Russia	1.07	-
Venezuela	0.05	0.18
Vietnam	0.11	0.11
Total	23.48	19.83⁽¹⁾

(1) The total amount in 2016 includes €253,000 of investment in Trinidad and Tobago.

Mandatory social investment

The Company makes contributions owing to legal or regulatory requirements, or stipulations set out in the operating contract. These contributions may be fully managed by the company – through social programs – or by a third party (such as the national hydrocarbon company, institution or government agency) to whom Repsol delivers the due sum.

Mandatory investment in 2017 amounted to €15.81million and was made in Brazil, Canada, Colombia, the United States and Venezuela.

Mandatory social investment by country (millions of euros)		
	2017	2016
Brazil	6.09	6.09
Canada	0.80	0.89
Colombia	0.03	0.76
Ecuador	0.36	0.92
United States	8.39	8.28
Indonesia	0.14	-
Venezuela	0.002	0.14
Total	15.81	17.08

Management of the supply chain and its impacts where the company operates

G4-EN33 Significant actual and potential negative environmental impacts in the supply chain and actions taken

A total of 1,998 evaluations were made of environmental aspects on 965 suppliers. Some 40 evaluations on 36 suppliers were found with an environmental performance score below 5 out of 10. Negative scores are related to logistics contracts, and equipment installation and maintenance, among others. After the negative evaluations were identified, improvements were agreed with 100% of the suppliers.

No relationship was ended with a supplier for environmental reasons.

G4-LA15 Significant actual and potential negative labor impacts in the supply chain and actions taken

A total of 2,403 evaluations were made on safety issues on 1,195 suppliers. Some 93 evaluations on 71 suppliers were found with a safety performance score below 5 out of 10. Negative scores are related to equipment installation and maintenance work, and consulting services and IT systems, among others. After the negative evaluations were identified, improvements were agreed with 100% of the suppliers. No relationship was ended with a supplier for safety reasons.

G4-HR11/SO10: G4-HR11/SO10: Significant negative impacts in human/social impacts, real and potential, in the supply chain, and actions taken

A total of 2,699 evaluations were carried out related to management aspects on 1,343 suppliers (including human rights and social issues). Some 92 evaluations on 76 suppliers were found with a management performance score below 5 out of 10 (including human rights and social issues). Negative scores are related to equipment installation and maintenance contracts and waste transport and management. After the negative evaluations were identified, improvements were agreed with 100% of the suppliers.

No relationship was ended with a supplier for human or social rights reasons.

Environmental performance

Energy efficiency and climate change

G4-OG2 and G4-OG3 Total amount of renewable energy generated

Repsol Energy Ventures has a ownership interest in the American company Power Inc. This company owns a patent for semi-submersible floating structures for offshore wind generation. In 2011, it installed the first full-scale prototype, called Windfloat, off the Portuguese coast. It was equipped with a 2MW Vestas wind turbine and generated more than 17 GWh until it was decommissioned in July 2016.

The next step is the installation off the Portuguese coast of three structures with a total power of 24 MW (Windfloat Atlantic project).

The project has a remuneration scheme approved by the Portuguese Government, and with from both the European Union, through the NER 300 program, and from the Portuguese Environmental Agency (APA). It has also been selected in the InnovFin Program of the European Investment Bank.

The investment in this project in 2017 has amounted to €0.3 million and the project is scheduled to commence operation in 2019.

G4-EN7 Reductions in energy requirements of products and services

Repsol invests in sustainable mobility through projects of electric mobility, new systems of hybrid propulsion, and support for automotive gas.

Electric-mobility

Since 2010, Repsol has promoted electric mobility through the company **IBIL**, which is a 50% investee of Repsol and the Basque Energy Agency (EVE), for a comprehensive energy charging service that is 100% renewable, with smart facilities and terminals and an infrastructure control center.

IBIL has installed 1,055 charging points, of which 25 are quick charge points in Repsol service stations. The Ministry of Agriculture and Fisheries, Food and the Environment selected Repsol's CLIMA electric car project, operated by IBIL, during the maximum eligible time period. Repsol is the first company in the history of such projects in Spain to verify a reduction in greenhouse gas emissions. This project promotes the use of electric vehicles through the acquisition of CO₂ reductions generated by the use of such vehicles. The first, second and third activity have been granted (2012 – 2017; 2013 – 2018; 2014 – 2019). The reduction in CO₂ greenhouse gases has been verified by an entity certified by the Ministry of Environment, and amounts to 848t of CO₂ to date.

Corporate **car-sharing** program with electric vehicles. In late 2016, autogas vehicles managed by **IBIL** were also added to the program. As part of the INNVIERTE¹ program.

The **Scutum** Project is a company that has been a Repsol investee since 2014. It designs, produces and sells electric motorbikes under the Silence brand name.

One of the competitive advantages of this company compared to others is its removable battery pack system, which has been patented throughout Europe, along with the industrial design of the electrical platform, which is adaptable to customer needs. Scutum's turnover has reached a total of 840 units of electric motorbikes sold.

It has opened a new motorbike assembly plant, with space for the assembly of electrical batteries. The company has continued to supply motorbikes to major corporate clients.

Digitization in mobility

The **Westmartpark** project is a Spanish company that has set up and manages a network of low-cost collaborative parking where customers can park with savings of up to 50%, and owners of the spaces can monetize them during hours of off-peak use through an online platform and IoT technology sensors. The investment was made as part of the INNVIERTE program, with the CDTI.

The Drivesmart project is a Spanish company that owns the Drivesmart application which applies metrics of safe, social and sustainable driving. Through a user's smartphone, **Drivesmart** compiles and processes information on a person's driving style. The result is an objective measurement of the quality user's driving, and it fosters improvement. The investment was made as part of the INNVIERTE program, with the CDTI.

New hybrid propulsion systems

Serial hybrid propulsion system that combines electric propulsion, an extended range system based on a gasoline engine, battery and the recovery of kinetic energy in braking and of thermal energy in exhaust gases. It offers a flexible alternative for meeting the challenges of mobility in urban environments for the light/medium-duty segment (3.5 – 6.5 tons). The project is being developed in a consortium with five other Spanish companies and in collaboration with a number of research institutes that are also Spanish. It tackles objectives of efficiency, low CO₂ emissions and of unitary, overall functionality. Funded by the CIEN program of the CDTI.

AutoGas

AutoGas is the most widely used alternative fuel for vehicles because it enables fuel savings of up to 40%. Repsol currently has 767 AutoGas supply points and is gradually expanding this network.

There are already many manufacturers who market AutoGas vehicles, but many gasoline vehicles can also be adapted to AutoGas. AutoGas with bifuel vehicles are fitted with two tanks: one for gasoline and another for AutoGas, thus doubling the vehicle's autonomy. Their equipment and features are similar to vehicles using conventional fuels.

At Repsol we have taken a step further in the use of LPG. The company has launched a technology development project with the Spanish company Begas Motor S.L. to develop engines for heavy vehicles (buses) fueled with autogas (LPG), so that they can be certified as ECO vehicles. The project includes a pilot test in a public bus in the city of Valladolid.

Commercially, this will generate new business opportunities by clearing the way for new tenders for fleets fueled by LPG, and an expansion of the potential market of customers for goods transport.

(1) The conversion program with CDTI in Spanish technology SMEs.

G4-OG14 Volume of biofuels produced and purchased meeting sustainability criteria

Repsol helps to reduce CO₂ emissions through the use of biofuels incorporated in gasoline and gasoil.

In addition, the Company is focusing on the promotion of projects of advanced biofuels (based on non-food raw materials, biomass) with a strong technological content and high reduction of the carbon footprint. The work is currently under way at the Repsol Technology Center.

To ensure the sustainability of biofuels, Repsol complies with international schemes that certify the traceability of raw materials which are incorporated throughout the production chain. In particular, Repsol is operating according to ISCC¹ schemes in all plants and industrial facilities.

The percentage of biofuels incorporated into gasoline and diesel fuel is higher than the limits mandated by law.

CO₂ offsetting

Repsol offsets the carbon footprint of some of its activities and events.

The following table shows the tons offset and carbon credits purchased to compensate:

2017 event	Tons of CO ₂ compensated
Shareholder Annual Meeting	49
Moto GP World Championship (participation of Repsol teams)	2,140
Organization and participation in the Spanish Speed Championship	353

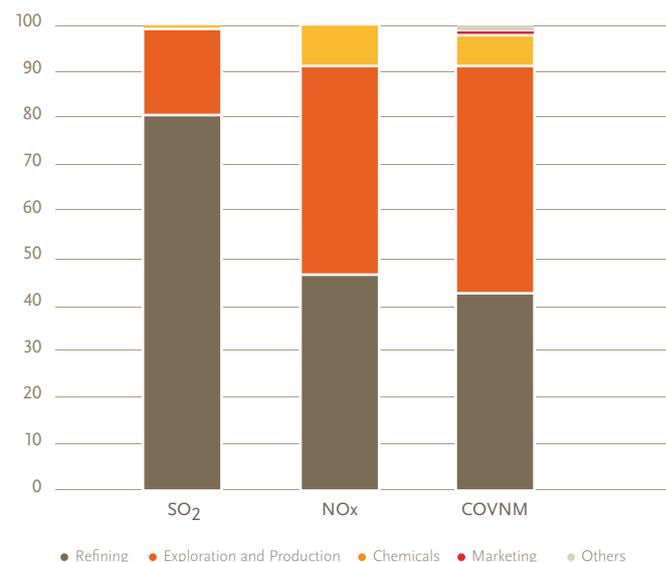
Repsol has verified with an independent entity the number of tonnes of CO₂ of each of the events.

1. International Sustainability & Carbon Certification.

Non-GHG emissions

G4-EN21 NO_x, SO_x, and other significant air emissions

Disclosure of major atmospheric emissions by activity



More than 80% of SO₂ emissions have occurred in the refineries of the Company.

Intensity of significant air emissions

Atmospheric emissions per ton of processed crude oil in refineries and per barrel of oil equivalent (boe) in exploration and production assets are as follows:

Refining	2017	2016
Tons of SO ₂ /thousands of tons of processed crude oil	0.477	0.563
Tons of NO _x /thousands of tons of processed crude oil	0.252	0.314
Tons of COVNM/thousands of tons of processed crude oil	0.358	0.354

Exploration and production ⁽¹⁾	2017	2016
Tons of SO ₂ /thousands of boe produced	0.030	0.026
Tons of NO _x /thousands of boe produced	0.068	0.094
Tons of COVNM/thousands of boe produced	0.118	0.188

(1) The intensive figures have been calculated using gross production of the operated assets of the Company, as reported atmospheric emissions include 100% of emissions for such assets, irrespective of Repsol's percentage of them.

G4-OG8 Benzene, lead and sulfur content in fuels

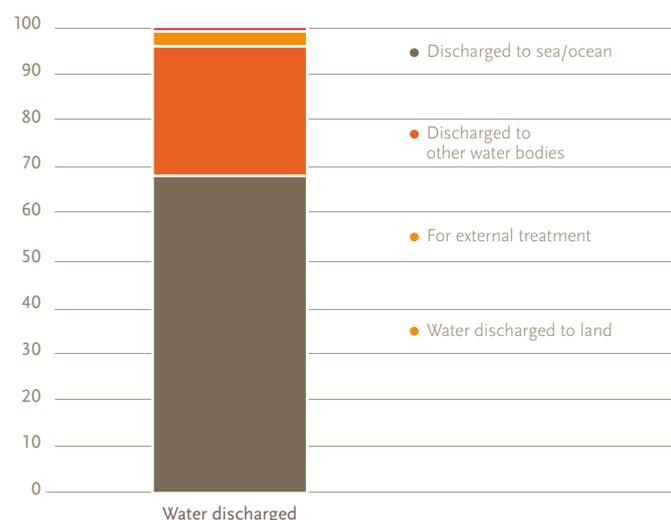
All the fuel the Company supplies to the market meets current quality specifications. In the refineries in Spain, it is applied the EN228 standard for gasoline and EN590 for gasoil. Under these specifications, gasoline and gasoil must be free of sulfur compounds (maximum 10 mg/kg) and have a low content of aromatic compounds (less than 1% v/v of benzene in gasoline), greatly helping to improve the environment by reducing emissions of volatile components. Repsol has improved its processes in order to achieve these objectives.

The Company also continues to enhance the quality of fuel in the La Pampilla Refinery of Peru with a project that will enable us to produce diesel and gasoline with 0.005% sulfur content. The new facilities are capable of desulfurizing the diesel produced in the refinery, and in 2018 the gasoline block will start up, which will enable us to produce gasoline with a maximum of 50 ppm sulfur and limit the content of other compounds, such as the aromatics, olefin and benzene.

Water management

G4-EN22 Total water discharges by nature and destination

Water discharged by destination



Treatment of discharged water

The fluid effluents from the facilities of the Company are subjected to purification processes to minimize their environmental impact and ensure compliance with legal requirements. The type of wastewater treatment process is specific to the activity and the characteristics of the site. Treatment may be a physical-chemical

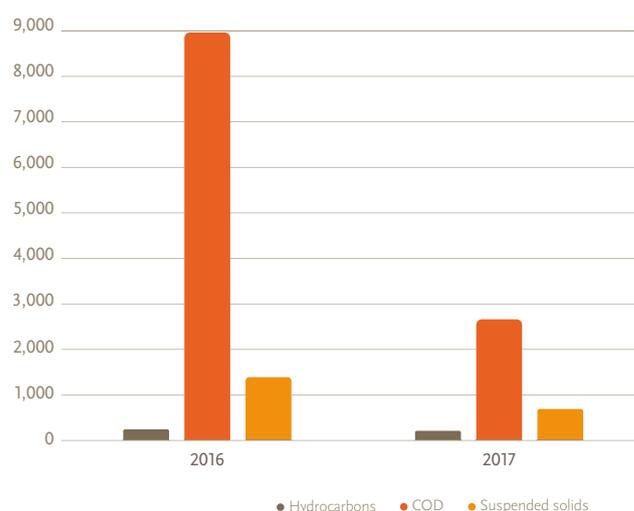
(primary) process, completed with a biological (secondary) process, or even include more advanced treatment (tertiary process) or other specific processes for contaminants that are non-degradable using non-conventional treatments.

Therefore 45% of water discharged undergoes advanced treatment processes, 29% undergoes secondary processes and the remaining 26% undergoes primary processes as the quality of the discharged water does not require more complex treatment.

Main contaminants discharged

The main contaminants discharged in Repsol's facilities are: hydrocarbons, suspended solids, and organic matter likely to undergo oxidation, measured as chemical oxygen demand (COD).

Principales contaminantes vertidos



The decrease in the amount of contaminants discharged is due to the fact that Repsol no longer operates the Trinidad and Tobago asset.

Hydrocarbons discharged in 2017, by activity

Activity	Tons	%
Exploration and production	45	27%
Refining	102	61%
Chemicals	15	9%
Marketing	4	2%
Other	0	0%
Total	166	100%

G4-OG5 Volume and disposal of formation or produced water

The following is the water produced and injected in the Company's exploration and production assets:

Water	2017	2016
Produced (thousands of tons)	60,255	68,313
Injected (thousands of tons)	55,231	52,191

Waste management

G4-EN23 Total weight of waste by type and disposal method

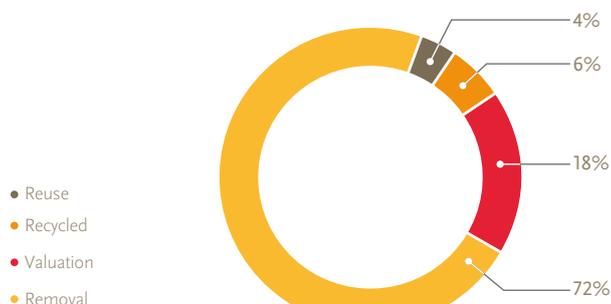
Disclosure of hazardous and non-hazardous waste per activity in 2017.

Activity	Hazardous waste (metric tons)	Non-hazardous waste (metric tons)
Exploration and Production	13,008	262,428 ⁽¹⁾
Refining	12,092	71,145
Chemicals	10,452	10,472
Marketing	4,176	5,336
Lubricants and Specialist Products	139	1,450
LPG	88	813
Other	111	503
Total	40,065	352,148

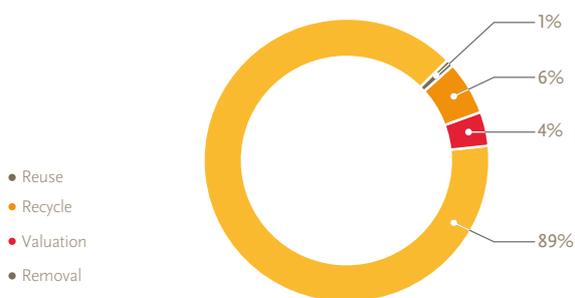
(1) Aproximately 90% of Upstream non-hazardous waste corresponds to remediation of contaminated lands in Canada, punctual activity not linked to ordinary activity.

The charts below report the actions carried out in 2017 for each category:

Hazardous waste management



Non-hazardous waste management



G4-OG7 Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal

These data do not include the amount of waste generated in drilling activities, the figures for which are shown below.

	2017	2016
Water-based cuttings and fluids	86,265	131,240
Non water-based cuttings and fluids	60,627	38,132

Management of waste from drilling operations (cuttings and fluids) is regulated by the company's Environmental Performance Practices (EPP). These guidelines establish a set of standards applicable to all geographical areas in which the company operates and regardless each country's specific legislation.

Biodiversity and ecosystem services

G4-EN11 Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas

Repsol has an internal screening tool to assess potential overlapping of operating blocks with protected areas. The input data come from the Proteus consortium with the UNEP-WCMC, from where the World Database on Protected Areas (WDPA)¹ is obtained. The data is incorporated to the internal tool and taken into account as one of the criteria throughout the lifecycle of the Company's projects.

In addition, Repsol has implemented the IPIECA² and IOGP³ management framework for biodiversity and ecosystem services (BES). The framework quantifies the risk to biodiversity (species and habitats) and to ecosystem services, and the data is added to the business case of each asset.

1. United Nations Environment Programme's World Conservation Monitoring Centre.

2. The Global Oil and Gas Industry Association for Environmental and Social Issues.

3. The International Association of Oil & Gas Producers.

The following assets are located in areas adjacent to protected areas and/or areas of major value to biodiversity:

Bolivia	Adjacent to a IUCN area Cat. Not reported/not assigned.
Ecuador	34% of Block 16 and 100% of the Tivacuno block are in IUCN Cat. II.
Peru	93% of Block 57 is in a Key Biodiversity Area and 15% in IUCN Cat. VI.

Although there is overlap in the areas under concession by the state (blocks), the facilities of the Company do not overlap with areas protected by the IUCN nor any international convention. Even so, due to the high biodiversity that exists in these three sites and as has been disclosed in recent years, a biodiversity action plan in each of these assets to avoid, minimize and restore the impacts is being implemented.

G4-EN12 Description of significant impacts of activities, products and services on biodiversity on protected areas and areas of high biodiversity value outside protected areas

Applying the mitigation hierarchy of potential impacts on biodiversity is fundamental for Repsol, which applies the IPIECA methodology BES Management Ladder. This methodology can be used to analyze the current situation of current exploration and production assets and projects and identify next steps to be taken. In addition, it is based on the study of the following areas: Integration of biodiversity and ecosystem services in management of the business, relations with stakeholders, construction of a biodiversity baseline, identification and management of potential impacts and selection of indicators.

Repsol has been working on the implementation of this methodology in operated assets and projects of ROGCI, mainly in Canada, the US, Malaysia and Vietnam. Throughout the year, an initial assessment was made in each business unit, asset and project. An analysis was made of the current status, with medium-term objectives set and an action plan developed to achieve them.

Repsol plans to submit a report in the upcoming SPE congress to be held in April 2018 in Abu Dhabi: "Biodiversity Management in an Oil and Gas Company: From Theory To Practice". The report aims to describe how biodiversity management has been put into practice in Repsol with the use of a simple, yet effective tool.

G4-EN13 Habitats protected or restored

Restoration is the third steps in the mitigation hierarchy. It consists of a process to assist in the recovery of an ecosystem that has been degraded, damaged or destroyed.

Repsol is implementing asset abandonment plans that ensure the restoration of habitats. An example of this is the restoration project being carried out in Block 57 (Peru), where the Company is monitoring the revegetation of the pipeline and the abandonment of the platforms.

These activities led to the presentation, in December 2016, of the book "Machiguenga, una Reserva para todos." The purpose of the book is to disseminate facts of interest about the biodiversity that is found in the Machiguenga Communal Reserve. They have become more widely known owing to the investigation carried out in Block 57 relating to the flora and fauna and ecosystem services of this area of great biological value. Since 2014, and as part of the Study of Biodiversity and Ecosystem Services of the Machiguenga Communal Reserve, Repsol is performing studies and research with the support of scientists, residents of local communities, and with the active participation of technicians from the National Service for State-Protected Natural Areas (SERNANP), which allowed for the gathering of information on diverse species, many of them of great importance for the knowledge and management of biodiversity.

G4-EN14 Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk

Repsol participates in the Proteus Consortium, where the UNEP WCMC make available to participating extractive companies information related to the distribution of the species listed in the IUCN Red List of Threatened Species and the protected areas. Repsol uses this information as one of the criteria in its decision making.

In 2017, the Proteus Consortium began to include information related to Cultural World Heritage Sites, including 832 records of places of interest, based on the world heritage list arising from the 41st meeting of the World Heritage Committee in Krakow, Poland. Similarly, Repsol prepares environmental impact studies in all new projects, with the compilation of detailed information. Related to the presence of species in the territory. In this regard, it has the book created with the Smithsonian Institute that provides a catalog of indicator species of the largest habitats of the planet, thus enabling greater effectiveness in management of impacts.

The following table shows the number of species classified by the IUCN with a potential presence in the Company's Exploration and Production assets

Number of species in areas affected by exploration and production operation ⁽¹⁾	
Critically endangered species	20
Endangered species	70
Vulnerable species	342
Endangered species	420

(1) The data reported includes species of Exploration and Production assets with activity in 2017.

G4-OG4 – Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored

To determine the performance of the Company in this field, Repsol measures series of indicators for the exploration and production business, resulting in the data shown in the following table:

	Result (%)
Centers where biodiversity-related risks have been assessed	100
Centers where biodiversity-related risks have been found	100 ⁽¹⁾
Centers in which the area of influence has been calculated	100
Centers with specific biodiversity management and ecosystem services	100
Degree of implementation of specific biodiversity management and ecosystem services	100

(1) The indicator is 100% under the assumption that all assets the Company operates have potential biodiversity-related risks.

G4-EN26 - Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff

Repsol has an internal screening tool to assess potential overlapping of the operated blocks with protected areas (see G4-EN14). The input data come from the Proteus Consortium, where the World Database on Protected Areas (WDPA) is obtained. The data is incorporated to the own internal tool and taken into account as one of the criteria throughout the lifecycle of projects. In addition, the methodology Repsol uses for the management of biodiversity and ecosystem services analyzes and quantifies risk to biodiversity (species and habitats) and to ecosystem services, and the data are integrated to the business case of each asset. Bodies of water and related habitats are not a separate case, and they are included in both the tool and in the methodology.

Specifically for offshore operations, Repsol is using the Ocean Data Viewer¹ (ODV), which publishes global databases on marine and coastal biodiversity (such as coral reefs, mangroves and seagrass beds). These databases are used for marine spatial planning, mapping of habitats and the analysis of biodiversity and ecosystems.

In addition, Repsol has internal requirements for Environmental Performance Practices (EPP) relating to the management of wastewater. In particular, the Company establishes water disposal plans (WDPs), where it assesses the impact of effluents on the environment where they are discharged and, in simultaneously, it uses the internal Repsol Water Tool (RWT) to identify the bodies of water involved, analyzes the risks and adopts mitigation plans.

1. UN Environmental World Conservation Monitoring Center facilita a través de su web una herramienta para acceder a una gama de datos que ayuda a la toma de decisiones sobre conservación marina. <http://unep-wcmc.org>

Mitigation of the environmental impact of products and services

G4-EN27 Extent of mitigation of the environmental impact of products and services

Repsol worked throughout 2017 on a number of technology development projects related to environmental sustainability, such as circular economy, climate change or resource management. For instance:

Circular economy	<p>BIBOP Project: Research to increase the biodegradability of polyolefins through the use of peptide-based additives to facilitate disposal of plastic waste in the environment.</p> <p>MADRASS Project: Research into a biotechnology solution to the sustainability challenge of polyurethane foam (PU) of the comfort sector. The aim is to develop a biology platform based on an microorganism, or consortium of microorganisms, capable of transforming these waste liquids from the lysis of PU foam (polyester urethane) into a product of value that can make the process cost-effective. Implementation of a solution would benefit other agents in the value chain such as makers of foam, waste managers and/or producers of fine chemicals and society at large and the environment, by reducing the amount of waste sent to dumps and CO₂ emissions resulting from the combustion of mattresses to produce energy.</p> <p>NEOSPOL Project: Research on conversion of CO₂ to polymeric materials, which allows for replacement of raw materials of fossil origin. Applications explored allow for replacing other materials, while maintaining the benefits as new materials with distinct properties. Repsol is working on the development of polyol polycarbonate for polyurethane and polymer thermoplastic applications. To do so, it is developing specific catalysts, investing in more efficient processes and working to find new product applications, such as adhesives, elastomers, foam and coating, that have a smaller carbon footprint.</p>
Climate change	<p>LUXHOR Project: Development of a photo-electrocatalytic system for converting solar energy into storable chemical energy, in what are known as processes of artificial photosynthesis. Based on water and carbon dioxide, low carbon footprint and high added-value products can be obtained with no external energy input other than sunlight. The idea, accordingly, is to develop an autonomous system that can generate hydrogen from water and high value-added products based on CO₂ products with a potential emissions reduction of up to 90%.</p> <p>POLARIS-POPC Project: Development of a new product family based on propylene oxide (OP) and CO₂ for polyurethane applications with the company's own production process.</p> <p>Research to reduce the amounts of CO₂ currently emitted in E&P assets, from the very stream of gas produced, from which must be separated in order to comply with the specifications of the gas. The following three options are envisioned: Use of CO₂ as a raw material for the production of fuel and other materials and chemical products, re-injection in crude oil fields to improve recovery (Enhanced Oil Recovery, or EOR), and geological storage in depleted gas fields among company assets. The initiative was supported by the OGCI.</p> <p>SynBioGas Project: Research on the production of biofuels from the fermentation of gaseous streams from Repsol's industrial complexes (synthesis gas, carbon dioxide, sulfane, natural gas) or other sources (biogas). Achievement of expected results will have a significant impact in reducing the CO₂ emissions of the company's industrial complexes.</p>
Resource management	<p>Research into the use of technologies based on electrogenic batteries for treatment of wastewater from refineries and petrochemical plants. The advantage of this technology compared to current methods is the elimination of the organic load in less time and with less energy consumption and without producing sludge. In the Tarragona OPSM plants, pioneering technological solutions are being sought after for the control and limitation of the environmental impact of soil contamination by hydrocarbons. Solutions might include use of active barriers based on these bacteria that can limit on site the possible spread of hydrocarbon leaks, or the use of sensors based on these bacteria as an early warning system of leaks of hydrocarbons and related compounds.</p> <p>Research into the use of biological tools linked to DNA sequencing as a tool capable of minimizing uncertainty and supporting decision-making in hydrocarbon exploration. The development of this microbiology and/or meta-genomic methodology is based on the fact that there is no completely sealed pool of hydrocarbons, because they can have small leaks. Such leaks migrate to the surface, thus creating the conditions for the differential growth of microorganisms in areas related to the existence of deep hydrocarbons.</p> <p>W4Shale Project: Development of tools and methodologies to enhance the management of water (reduction of supplies, estimation of flow-back water, selection of treatments) in unconventional assets.</p> <p>HEADS Project (Hydrocarbon Early Automatic Detection System): This is a system that can detect hydrocarbons in aquatic surfaces. HEADS is a pioneering technology developed by Repsol jointly with INDRA, and a patent is pending.</p> <p>In 2017, it was installed in the Petronor refinery and installation of the system was launched in the A Coruña refinery, in addition to an extension of the initial system in operation at the Tarragona refinery. Its use in the Cartagena refinery is scheduled for 2018.</p>

In the New Ventures Area, Repsol invests in companies that have potentially scalable technologies or innovations that are of interest to the Company's activities. The target companies are

innovative firms that are proposing solutions in energy efficiency, resource management and circular economy. Some examples are as follows:

Graphenea Project

The Graphenea Project is an investment within the INNVIERTE program in a graphene production company based on San Sebastian, Spain.

Graphene is an cutting-edge material for which countless applications are being discovered in a number of sectors, including energy (a component of batteries, photovoltaic panels, catalyzers, etc.). Major milestones were reached in 2017:

- Start-up of the new pre-commercial plant of graphene oxide.
- Revenue of over one and a half million euros in 2017.
- Exports its products to more than 40 countries, with customers including universities and research institutes as well as large companies (Philips, Nokia, Sigma-Aldrich, etc.).

Rocsole Project

The Rocsole project is an investment in a Finnish company that owns a technology based on Electrical Capacitance Tomography (ECT) to generate imagery of the flow of multiphase fluids (water, crude oil, air) inside piping and monitor the rates of deposition build-up, thus optimizing maintenance costs and preventing unscheduled stoppages.

In addition, it has open several lines of research and development, one of which is its possible use in subsea pipes.

Sorbwater Project

The Sorbwater project is an investment in a Norwegian company that owns a technology for the elimination of crude oil in water, which is part of the primary treatment of water in production and, in general, of any wastewater.

This investment boosts the development of hydrocarbons separation in water, improves the carbon footprint and the use of this technology in settings where formation water treated for livestock can be reused.

Social performance

Labor Practices and decent work

G4-LA1 Total number and rates of new employee hires and employee turnover by age group, gender and region

Percentage of new hires

Region		<30	30-50	>50		2017	2016
Africa	Women	50	4	0	Total	2	2
	Men	0	2	0			
Asia	Women	18	5	0	Total	4	1
	Men	7	4	1			
Europe	Women	71	11	5	Total	11	7
	Men	68	7	2			
Latin America	Women	68	20	3	Total	26	27
	Men	58	10	3			
North America	Women	0	2	2	Total	2	1
	Men	4	2	0			
Oceania	Women	NA	NA	0	Total	0	10
	Men	NA	0	NA			
Total	Women	66	12	4	Total	13	10
	Men	59	7	2			

Number of new hires

Region		<30	30-50	>50	2017 Total	2016 Total
Africa	Women	1	1	-	Total	4
	Men	-	2	-		
Asia	Women	6	11	-	Total	43
	Men	3	21	2		
Europe	Women	352	542	46	Total	2,092
	Men	531	553	68		
Latin America	Women	407	203	2	Total	23
	Men	247	125	11		
North America	Women	-	6	3	Total	2
	Men	3	11	-		
Oceania	Women				Total	0
	Men					
Total	Women	766	763	51	Total	3,157
	Men	784	712	81		

The rate reflects the new hires with no previous working relationship with company compared to the origin population of the tranche analyzed at December 31, 2017. 31% of these new hires have permanent contracts and, of these, 81% are in Peru.

Voluntary employee turnover

Region		<30	30-50	>50	2017 Total	2016 Total
Africa	Women	0	0	0	Total	1
	Men	0	1	0		
Asia	Women	6	7	4	Total	6
	Men	5	6	10		
Europe	Women	1	1	1	Total	1
	Men	1	1	0		
Latin America	Women	44	15	5	Total	17
	Men	32	7	2		
North America	Women	10	6	1	Total	6
	Men	15	7	3		
Oceania	Women	NA	NA	0	Total	167
	Men	NA	150	NA		
Total	Women	24	4	1	Total	4
	Men	12	2	1		

The Latin America turnover rate is concentrated in the Marketing business and is aligned with the economic growth and labor market of the country, and in Oceania, as a result of the reduction of activity in non-core businesses.

Total employee turnover							
Region		<30	30-50	>50		2017	2016
Africa	Women	0	4	0	Total	4	13
	Men	0	3	7			
Asia	Women	9	9	4	Total	9	5
	Men	5	7	19			
Europe	Women	2	2	15	Total	5	8
	Men	1	2	14			
Latin America	Women	60	20	18	Total	25	33
	Men	44	12	13			
North America	Women	13	12	16	Total	14	23
	Men	24	12	16			
Oceania	Women	NA	NA	0	Total	700	15
	Men	NA	450	NA			
Total	Women	33	6	15	Total	9	13
	Men	16	4	15			

This is calculated as the turnover of permanent employees out of the total number of employees at 12.31.2017.

G4-LA2 Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation

Social benefits by region (thousands of euros)

Region	Life insurance	Medical insurance	Pension fund	Food allowances	Subsidized loans	Study assistance	Other
Africa	91.3	442.8	(8.8)	106.2	0	75.2	1.4
Asia	188.8	72	2,769.2	77.3	0	173.4	0
Europe	2,737.9	11,804.3	31,621.6	10,223.6	1,136.5	2,107.5	280.5
Latin America	829.2	5,762.2	1,455.6	3,021	0	192.3	83.01
North America	210.8	7,758.1	18,737.2	83	0	228.9	0
Oceania	0	0	337.4	0	0	2.9	0
Total	4,058	25,839.4	54,912.2	13,511.1	1,136.5	2,780.2	365

The information shows the benefits for all employees (full-time, part-time, temporary and permanent).

G4-LA3 Return to work and retention rates after parental leave, by gender

The figures of this indicator are based on the number of employees. Reported data only includes Spain and personnel with permanent and temporary contracts during the year and the previous year.

Return to work		2017	2016
Total employees entitled to take leave	Women	230	250
	Men	424	466
	Total	654	716
Total employees that took maternity or paternity leave	Women	227	243
	Men	400	424
	Total	627	667
Total employees that returned to work after leave	Women	214	233
	Men	397	416
	Total	611	649
Index of those returning to work ⁽¹⁾	Women	94%	96%
	Men	99%	98%
	Total	97%	97%
Retention		2017	2016
Total employees who kept their position twelve months after re-joining	Women	223	230
	Men	411	404
	Total	634	634
Attrition Rate ⁽²⁾	Women	96%	95%
	Men	99%	95%
	Total	98%	95%

(1) Number of employees returning to work after maternity or paternity leave/ Number of employees due to return after leave.

(2) Number of employees keeping job 12 months after returning from maternity or paternity leave/ Number of employees returning after leave in reporting period.

The difference between individuals who have taken maternity or paternity leave and those who have returned to work after leave it's because they continue to enjoy such leave or they take a leave for child care.

Health

G4-LA5 Percentage of total workforce represented in formal joint management' worker health and safety committees, set up to help monitor and advise on occupational health and safety programs

Repsol has health and safety committees on a parity basis between company management and workers. The committees are local (workplace) or national, although this depends on the applicable legislation in each country. Some countries have coordination committees for risk prevention activities between Repsol and contractors. 100% of workers in countries where this mechanism is in place are represented on the committees.

The general areas of action of these committees are as follows: information on potential risks, assessment and preventive and mitigation measures of risks; monitoring of collective health; information and research on incidents and improvement actions; health promotion plans at the workplace; training related to risk prevention, among others.

Health and safety committees meet at least once per half year.

Country	Corporate
Bolivia	Committees in Santa Cruz and Mamore. The employer representatives are designated by the UN Director (personnel of Health and Safety areas, and UN managers), while employees themselves elect their own representatives. In Caipipendi, the process is begun to formalize and establish the Committee. The committees are parity-based.
Canada	Monthly meetings on health and safety, with the participation of the specialist from occupational health. Line and worker representatives attend.
Colombia	COPASST (Joint Committee on Health and Safety in the workplace) works with representatives of management and employees. It consists of 50% management representatives and 50% employee representatives. There is also a Cooperation Committee, with representatives of workers and of management, the main responsibilities of which include preventing and dealing with cases of workplace harassment.
Ecuador	Central Committee in Quito and two subcommittees in Block 16 (NPF and SPF). Each committee or subcommittee has representatives of the employer (Repsol) and representatives of the workers. The information managed in the committees must be sent annually to the authorities.
Spain	Parity-based health, safety and environment committees by workplace and/or company. They represent all Group employees in Spain. In the main workplaces, coordination committees of business activities with contractors. Group Health and Safety Committee (under Framework Agreement).
United States	Monthly meetings on safety and the environment, with the inclusion of health topics when deemed appropriate.
Malaysia	There is a central committee and a field committee. Monthly meetings.
Peru	Three committees and four workplace health and safety subcommittees. These committees and subcommittees have a parity-based membership, with an equal number of representatives of management and of employees.
Portugal	Industrial: Occupational Health and Safety Committee which examines health issues Marketing and LPG: There is no formal committee. Periodic technical meetings with the technical managers of workplace health and safety, and technical visits to facilities.
Russia	There is no formal committee, although there are good practices pursuant to Company policy.
Venezuela	Internal committee with three delegates representing workers.

G4-LA6 Type and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender

Rate of employee occupational illness		2017 Total	2016 Total
Region			
Africa	Women	0	0
	Men	0	0
	Total	0	0
Asia	Women	0	0
	Men	0	0
	Total	0	0
Europe	Women	0	0
	Men	0	0
	Total	0	0
Latin America	Women	0.2	0
	Men	0	0.2
	Total	0.2	0.2
North America	Women	0	0
	Men	0	0
	Total	0	0
Oceania	Women	0	0
	Men	0	0
	Total	0	0

In 2017 there was one case of occupational illness among Group employees (in Peru).

As a general rule, in countries where Repsol operates, the health information of individuals hired is not accessible for reasons of data protection laws/confidentiality, owing to regulations on protection of health information aimed at preventing illegal data transfers. Controls are in place to ensure that employees have an aptitude certificate for the work they are to perform. Also, in some countries such as Spain, risk prevention issues among contractor workers are managed through the co-ordination of business activities.

G4-LA7 Workers with high incidence or high risks of diseases related to their occupation

In some units and positions, there is a remote risk owing to exposure to noise, physical exertion and/or repetitive movements, the prolonged use of screens for viewing data (pvds), or exposure to toxic substances (chemical risks). Preventive measures are applied in all cases.

In some locations there may also be a risk of contracting contagious illnesses, such as dengue fever, malaria, yellow fever, leishamiasis, among others). Repsol provides vaccination programs, fumigation and pest control, continuous monitoring of vectors with these biological studies, among other relevant preventive measures.

As a general rule, the Company performs a general risk assessment as a prerequisite for planning and implementing preventive action. The specific procedure includes an analysis of risks, an assessment of them and corrective/mitigating measures with their corresponding periodic controls. Ergonomic and psycho-social risks are also assessed as a part of monitoring of collective health.

Preventive action is planned with the aim of eliminating or controlling and reducing the hazards identified. Planning also includes the appropriate emergency measures and health surveillance activities (collective and individual, using different protocols depending on the risks), as well as informing and training workers.

Individual monitoring is carried out through both pre-employment and periodic examinations, with application of appropriate protocols for occupational risks and the clinical and employment history of each individual.

The following are some significant actions against specific risks in 2017:

Malaria	Dissemination and operating deployment of procedure in areas of high risk of malaria for company's non-health care staff, including employee family members, to enable them to understand and follow guidelines for preventing or making a diagnosis in suspicious cases, and to carry out tests for confirmation and act in the event of contagion of the illness.
Vaccination	Updating of the internal scheme of health risk assessment by country, with the inclusion of new information and extending the scheme to Legacy Talisman countries. In addition, the international vaccination plan was updated. Dissemination and deployment of the procedure for required vaccination in situations of travel on company business and for expatriates.

A new website for travel has been launched, with significant information on health and safety issues to be considered in travel, especially to risk countries.

In addition to these general actions, the Company undertake various activities, by country:

Country	Corporate
Algeria	Mandatory use of bottled water in drilling rig and building awareness of the malaria risk.
Bolivia	Health and safety training program, including all issues related to occupational, endemic, and workplace health. Instruction on safety for new hires and for all personnel visiting facilities. 24-Hour a day medical care in medical services, with appropriate equipment and ambulances for communities that live in the vicinity of areas of activity.
Canada	Monitoring and control plan of exposure limits in activities Pre-employment and periodic examinations of individuals in positions with risks. Ergonomy programs Alcohol and drug prevention.
Italy	Periodic health and safety training Awareness-raising and training for contractors. Periodic health monitoring.
Malaysia	Risk mitigation through health monitoring, exposure control and follow-up.
Peru	Annual occupational health program with five basic pillars: Workplace health management system; emergency response program; health promotion program; health and safety training program; health monitoring program.
Russia	Introduction to safety, training in first aid and fire fighting. Health promotion campaigns: cardiovascular, colon cancer, prostate cancer, among others, and vaccination.

G4-LA8 Health and safety topics covered in formal agreements with trade unions

The Company has instruments in place in countries where it operates to effectively monitor the implementation of policies, rules and procedures on occupational health and safety.

The following agreements have been reached with trade unions on health and safety-related issues:

- **Brazil:** The Repsol Sinopec collective bargaining agreement includes health and safety issues.
- **Spain:** Occupational health and safety committee consisting of three representatives of management and three representatives of each of the trade unions on the negotiating commission of the 7th Framework Agreement of the Repsol Group. The committee analyzes the philosophy and basic outlines of prevention plans, general occupational health and safety policies and promotes measures to improve risk prevention levels of Repsol Group companies in Spain, and it covers 100% of related issues.
- **Peru:** Collective agreements of the La Pampilla Refinery (RELAPASAA).
- **Portugal:** In this country, the following agreements address health and safety-related issues:

– Acordo de empresa 2016-2018 entre a Repsol Polímeros, SA e a Federação de Sindicatos da Indústria, Energia e Transportes - COFESINT e outra – Alteração salarial e outras.

– Acordo coletivo entre a BP Portugal - Comércio de Combustíveis e Lubrificantes, SA e outras empresas petrolíferas e o Sindicato dos Trabalhadores e Técnicos de Serviços - SITESE - Alteração salarial e outras e texto consolidado.

– Acordo coletivo entre a BP Portugal - Comércio de Combustíveis e Lubrificantes, SA e outras empresas petrolíferas e a Federação de Sindicatos da Indústria, Energia e Transportes - COFESINT e outra -Alteração salarial e outras/texto consolidado.

– AE Repsol Polímeros 2009 - FIEQUIMETAL

– AE Repsol Polímeros 2012 - FETESE

Training and development

G4-LA9 Average hours of training per year per employee by gender, and by employee category

Average training hours year by person and by gender				
Category	Training hours year	2017 Total	2016 Total	
Executives	Training hours Year	9,232	10,349	
	Person	36	37	
	Women	49	48	
	Men	33	35	
Technical managers	Training hours Year	84,498	74,691	
	Person	37	32	
	Women	42	34	
	Men	35	31	
Technicians	Training hours Year	528,213	588,197	
	Person	46	49	
	Women	44	43	
	Men	47	52	
Administrative staff	Training hours Year	20,367	20,229	
	Person	20	18	
	Women	19	17	
	Men	21	19	
Operatives and subordinates	Training hours Year	314,558	304,578	
	Person	36	35	
	Women	16	13	
	Men	45	44	
Total	Training hours Year	956,868	998,045	
	Person	40	41	
	Women	33	31	
	Men	44	46	

G4-LA10 Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings

Learning in Repsol aims to develop the professional capacities needed for effective performance in pursuit of the company's strategic goals.

Programs carried out in 2017 were based on initiatives designed to acquire knowledge, develop skills and encourage the commitment of everyone in the company to its plans, culture and values throughout their working lives:

Area	Subject
General	<p>Leadership and management Programs aimed at the developing employees in their professional career in the company to improve their leadership skills and develop their important role in achieving a safe and efficient operation.</p> <p>Training for Executives: External training programs selected for each specific type of position, and pilot for internal strategic program for all senior managers to promote the achievement a common vision, sense of team and identification with the strategic plan.</p> <p>Programs of generic skills and languages.</p> <p>Programs available at all times for all Repsol employees.</p> <p>Generic: No. of employees: 10,995 Hours of training: 100,195 Technical: Number of employees: 11,046 Hours of training: 472,003 Management: Number of employees: 13,242 Hours of training: 66,552 Foreign languages Number of employees: 2,576 Hours of training: 90,858</p>
Health, Safety and Environment	<p>Training in the new Incident Management Rules and tools for management of incidents. In addition, ten basic safety rules were disseminated and deployed, including online training program.</p> <p>No. of employees: 21,777 Hours of training: 227,260</p>
Master programs (general; Upstream; Refining and Chemicals) Upstream	<p>Training for recruitment of new university degreeholders. A total of 73 students from 13 different countries completed these programs during the year.</p> <p>Technical training programs for the dissemination of corporate and safety policies tools to ensure permanent refreshing and training of professionals in the business.</p>
Refining and Chemical	<p>Program to reinforce defined safety and environment conduct that can help achieve the goal of zero accidents.</p> <p>Program for the dissemination of Repsol values, targeted at operators of chemical plants and of dual occupational training.</p> <p>Training program with process simulators to improve knowledge and operation of plants and practice situations of emergency.</p>
Marketing and LPG	<p>University expert programs in commercial management.</p> <p>Program for leadership in service quality excellence in service stations In Portugal, program for service station managers and, in Peru, annual refresher course in sales training.</p> <p>In LPG, in safety, training programs in emergencies and first aid in all factories and central office staff.</p>
Training in other areas	<p>Training programs and non-employment internships for disabled persons and other vulnerable groups (non-employees) to promote their employability in the sector.</p> <p>No. of training actions: 8</p> <p>No. of beneficiaries: 80 people.</p> <p>Vocational training programs in Spain.</p> <p>A total of 180 students undertook internships in the Company. Some 130 students from six training phases in dual modality, and 50 students in training modality in workplaces.</p>

Performance assessment

G4-LA11 Percentage of employees receiving regular performance and career development reviews, by gender and employee category

Performance assessments and social development at Repsol

Category	2017 ⁽²⁾			2017 ⁽¹⁾		
	Women	Men	Total	Women	Men	Total
Executives	45	217	262	47	240	287
Technical managers	690	1,650	2,340	672	1,746	2,418
Technicians	2,950	5,656	8,606	3,106	6,129	9,235
Administrative staff	613	301	914	677	302	979
Operatives and subordinates	374	2,719	3,093	340	2,769	3,109
Total	4,672	10,543	15,215	4,842	11,186	16,028

(1) The figures of 2016 have been recalculated considering 2017 reporting criteria.

(2) Information regarding 2017, is the best data available, because a part of the evaluation process has not been completed at the date of disclosure of this report.

Diversity and equal opportunities

G4-LA12 Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity

Number of employees by employee category, age and gender

Job category		2017			2016		
		<30	30-50	>50	<30	30-50	>50
Executive	Female	0	25	21	0	27	20
	Male	0	90	126	0	96	137
	Total	0	115	147	0	123	157
	% Female	0	22	14	0	22	13
Technical manager	Female	1	499	181	1	474	179
	Male	2	1,012	662	5	993	731
	Total	3	1,511	843	6	1,467	910
	% Female	33	33	21	17	32	20
Technician	Female	758	3,254	464	828	3,239	463
	Male	626	4,840	2,034	726	5,020	2,132
	Total	1,384	8,094	2,498	1,554	8,259	2,595
	% Female	55	40	19	53	39	18
Administrative staff	Female	30	509	208	37	538	230
	Male	23	264	91	27	253	103
	Total	53	773	299	64	791	333
	% Female	57	66	70	58	68	69
Operatives and subordinates	Female	369	2,111	383	344	2,056	339
	Male	679	4,063	1,760	630	4,051	1,790
	Total	1,048	6,174	2,143	974	6,107	2,129
	% Female	35	34	18	35	34	16
Total	Female		8,813			8,775	
	Male		16,272			16,694	
	Total		25,085			25,469	
	% Female		35			34	

The percentage of women in this section includes all employees, including those that have working hours of less than 80%.

G4-LA13 Ratio of basic salary and remuneration of women to men by employee category ,by significant locations of activity**Ratio of basic salary of women to men**

Country	Executive	Technical manager	Technician	Administrative staff	Operatives and subordinates
Bolivia	n.a.	1.03	1.01	n.a.	n.a.
Brazil	n.a.	1.15	1.04	n.a.	n.a.
Canada	1.05	1.09	1.10	n.a.	n.a.
Ecuador	n.a.	n.a.	1.36	n.a.	n.a.
Spain	1.12	1.09	1.10	n.a.	n.a.
United States	n.a.	1.10	1.23	n.a.	n.a.
Indonesia	n.a.	n.a.	1.32	n.a.	n.a.
Malaysia	n.a.	1.14	1.34	n.a.	n.a.
Peru	n.a.	1.23	1.14	n.a.	n.a.
Portugal	n.a.	1.00	1.09	n.a.	n.a.

n.a. No data is published in categories with no information available (administrative assistants and operations staff and subordinates) or for staff that is representative in one of the genders (technical managers in Ecuador and Indonesia, and Executives in the United States and Peru).

The differences compared to the previous year are small, especially in countries with a greater company presence.

The year 2017 was one of wage restraint, and the main cause of variations were the changes in the composition of the workforce. In countries and categories where the workforce is small or with an insignificant presence of one of the genders, the ratio is sharply affected by small variations caused by new hires or departures.

Human rights**G4-HR2 Total hours of employee training on human right policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of trained employees**

Repsol promotes a culture of respect for human rights among its employees.

Since 2012, an online course has been provided on Human Rights Principles based on the United Nations Guiding Principles on Business and Human Rights. Up to 2017, the course has been taken by a cumulative total of 10,670 employees, which is equivalent to 21,484 hours of training.

Furthermore, the Latin America Legal Services team, comprising 30 people throughout the region, have strengthened their knowledge of the rights of indigenous peoples and provide consultation with a focus on legislative changes and developments in the region on this topic. This training was carried out by experts (Baker & McKenzie) and provided as part of the offsite program conducted in Lima on and November 6 and 7.

In addition, online training is available to employees on the workplace integration of disabled people, called *Superando Barreras* (Overcoming Barriers), which was taken by 217 employees; and prevention of harassment, taken by 50 employees in 2017.

G4-HR3 Total number of incidents of discrimination and corrective actions taken

In 2017, three harassment cases were undertaken in Spain pursuant to the protocol for the prevention of harassment of the Repsol Group. All the claims have been dismissed with no harassment perceived. Nevertheless, as a result of one case, other infractions have been detected that gave rise to a disciplinary proceeding for the employee.

Under Spanish legislation, the company is unable to provide any further details on the claims, investigations, handling or resolution of harassment cases for reasons of confidentiality.

In the US, there were three claims of discrimination, which are currently ongoing.

In Canada, a discrimination complaint was filed by a former employee, and it is currently in progress.

G4-OG9 Operations where indigenous communities are present or affected by activities and where specific engagement strategies are in place

Repsol is currently conducting seventeen operations in seven countries (Bolivia, Canada, Colombia, Ecuador, Papua New Guinea, Peru and Russia) that are taking place near or are adjacent to the territories of indigenous communities.

All the aforementioned operations have at least one of the following elements: public consultation and consultation plans; reference studies; social impact assessments and action plans; relocation plans, community development plans; claim and complaint procedures; and other documents from community information centers.

100% of significant assets have development programs for local communities based on the needs of the latter and participation plans for stakeholders based on their geographic distribution.

Social development and performance reviews in repsol

Country	Description	Participation strategy
Bolivia	Margarita: Caipipendi and Huacaya. 5 indigenous communities belonging to the Guaraní people. Caimbeiti: 1 indigenous community belonging to the Guaraní people.	Process of prior consultation for environmental license in new projects and ongoing dialog with communities in active projects. Impacts are assessed and monitored. Continuous execution of action plans and continuous contact with communities through participative dialogue. Monthly meetings with communal and community leaders. Operational level formal grievance mechanisms in place. Social investment projects carried out with communities and in conjunction with municipality of Huacaya and Entre Ríos.
Canada	Greater Edson, North Duvernay & South Duvernay, Chauvin 16 indigenous communities of First Nations and Metis.	Participative dialogue is carried out on a continuous basis with indigenous groups (First Nations and Metis). Formalization of dialog gave rise to five management plans with communities. Inclusion of local development, social investment plans, etc. In addition, there are specific consultation processes in accordance with regulatory requirements for both First Nations and for Metis.
Colombia	RC-12: 18 Wayuu communities; CPE-8: Four Sikuani and Curripaco ethnic communities; PUT-30: One Pijao community	Prior consultation process according to permanent interactive participative model. Impact assessment in human rights with communities within area of direct influence. Establishment of communication and grievance mechanism according to model of requests, complaints, claims and suggestions. Relationship strategies that engage these communities directly, taking into account their cultural particularities: whether they are desert communities, Pie de Monte communities and high plains or rainforest communities. Their representative organizations, leaders and traditional authorities have been identified in order to build a smooth and ongoing relationship. Social investment projects are undertaken with indigenous communities.
Ecuador	Active Block 16 - Waorani community and the Kichwa people in the eight communities of direct influence	There is a permanent dialog of cooperation and management of agreements and commitments, including a current agreement for compensation for the Wait project, and permanent voluntary cooperation via a cooperation agreement pursuant to "Waemo Kewingi" (Good Living) with the Waorani Nationality of Ecuador (NAWE), the representative body of the entire Waorani ethnic group. Projects are governed by Ecuadorian legislation and by the Environmental Management Plan. Plans are being made for community development, emergency plans, environment and an anthropological contingency plan.
Papua New Guinea	9 operating licenses: indigenous communities organized into 137 clans and sub-clans (population of approximately 5,000 people).	Strategy based on continuous participation of communities through dialog plans that identify key stakeholders, frequency of contacts and periodic meetings, etc. In addition, local development projects are carried out, such as specific training courses for farmers and women, and social investment projects.
Peru	Block 57: 8 native communities in area of direct influence.	Operations of activities being carried out are covered during three stages of community relationship (insertion, residence and abandonment) through participation strategies, which are carried out in accordance with the Community Relations Plan under social impact management programs (community monitoring and citizen vigilance; compensations and indemnities; grievance register; promotion of local employment; community communication and relations) and social investment and contribution to local development. Relations with communities are carried out with respect for the culture of each ethnic group (Machiguenga, Kakinte, Ashaninka, Yine) In addition, account has been taken of the socio-economic situation of each community and stakeholder.
Russia	6 indigenous communities of Khanty and Mansy ethnic groups in area of activity.	Strategy is based on studies of identification of stakeholders carried out previously, including indigenous communities in our area of influence. The country's legal requirements for participation have been met.

Society

Impacts on local communities

G4-SO2 Operations with significant actual and potential negative impacts on local communities

To the extent that the activities are consistent with those of previous years, the impacts are too. No different negative impacts have been reported.

Activity	Potential impacts identified
Downstream Industrial complexes	Smells, noise, gas emissions into the atmosphere, dust, visual impacts and, to a lesser extent, discharges.
Onshore exploration and production	Potential health effects on the people living locally as a result of the inhalation of gases associated with exploration activities Temporary use of land to carry out the exploration work. Hiring of local manpower to carry out the exploration work. Migratory movements toward operations they may cause on use of local services.
Offshore exploration and production	Temporary change in fishing routes to accommodate the presence of boats and other equipment related to oil and gas operations. Temporary change in fishing sector revenue due to the installation of equipment and facilities for offshore exploration purposes. Economic activity related to tourism. Hiring of local manpower to carry out the exploration work.

Anti-corruption

G4-SO4 Communication and training practices on anti-corruption practices and procedures

The fight against corruption is one of the principles included in Repsol's Suppliers' Code Ethics and Conduct. This code is provided to all suppliers through the General Conditions for Purchasing and Contracts in the bidding processes and tenders in which they take part, and it is required from suppliers in rating and audit questionnaires. This is why the Company may consider that 100% of Repsol's suppliers are informed of Repsol's position in this regard. The following table shows the number of Repsol's suppliers.

Employee training

The company has three online training courses on the fight against corruption:

- "Ethics and Conduct Code": includes anti-corruption policies (available to all employees).
- "Crime Prevention Model" (available to all employees).
- "Anti-Money Laundering and Counter Terrorist Financing" (available to employees in Peru).

Number of employees receiving anti-corruption training by region

	Executives	Technical managers	Technicians	Clerical staff	Manual workers junior personnel
Africa	2	32	64	1	
Asia	5	109	529	145	
Europe	138	1,091	4,169	441	1,406
Latin America	19	227	1,807	17	7
North America	16	261	581	56	145
Oceania	2	15	15	1	
Total	182	1,735	7,165	661	1,558

Percentage of employees receiving anti-corruption training by region

	Executives	Technical managers	Technicians	Clerical staff	Manual workers junior personnel
Africa	50	64	54	25	
Asia	63	68	79	85	
Europe	68	75	64	58	17
Latin America	97	92	53	83	10
North America	80	73	77	75	78
Oceania	67	79	75	33	
Total	70	76	62	64	18

Region	Suppliers informed on anti-corruption policies and procedures by region ⁽¹⁾	
Africa	963	100%
Asia	1,703	100%
Europe	22,655	100%
Latin America	28,207	100%
North America	4,666	100%
Oceania	231	100%

(1) The figure includes supplier informed in the year, as well as all those who settle in the supplier history by region.

Responsible participation in public policy**G4-SO6 Total value of political contributions by country and recipient/beneficiary**

In 2017, Repsol made no political contributions. Accordingly, there were no breaches of the Ethics and Conduct Code with respect to contributions to political parties. Repsol is in favor of lobbying activity being carried out in a transparent manner.

In Europe and in Spain, the Company has taken part in debates and public consultations, with the aim of working with the institutions and society in the development of different legislative initiatives. Accordingly, the Company reports such activity in all areas where formal registration is required, and pursuant to the requests made by competent authorities, where such information is public and accessible.

Specifically, such activity is registered in the following jurisdictions: the European Union, the United States at federal and state level (in the states of Pennsylvania and Texas) and in Canada at federal and provincial level (Alberta and British Columbia).

Links to official lobby registration pages and further information at www.repsol.com.

Compliance**G4-EN29 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations**

In 2017 and 2016, there were no significant (for Repsol) fines or sanctions levied as a result of lawsuits or administrative proceedings ending with a final decision.

G4-SO7 Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes**litigation^(*) due to allegations of anti-competitive practices (number of cases initiated)^(*)**

	2017	2016
	1	0

(*) Number from lawsuits or administrative procedures begun in the year that are significant for the Repsol Group.

In order to foster growing awareness and stay permanently abreast of anti-trust legislative developments, the company continued to provide subject-specific training throughout 2017.

Appendix IV. GRI-G4 index

Part I. General standard disclosures

GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
Strategy and Analysis			
G4-1	Statement about the relevance of sustainability to the organization and its strategy for addressing sustainability	Message from the CEO	√
G4-2	Key effects, risks and opportunities	Section 1. Summary of main events Section 2.4. Corporate Governance Section 6.1. Climate change Appendix II: Risks	√
Organization profile			
G4-3	Name of the organization	2017 Consolidated Financial Statements - Note 1 General Information	√
G4-4	Primary brands and products and services	Section 2.1 Business model Section 5.1 Upstream Section 5.2 Downstream	√
G4-5	Location of organization's headquarters	2017 Consolidated Financial Statements - Note 1 General Information	√
G4-6	Number of countries where the organization operates, and names of countries where either the organization has significant operations or that are specifically relevant to the sustainability topics covered in the report	Section 2.2 Repsol around the world Section 5. Performance by business areas	√
G4-7	Nature of ownership and legal form	2017 Consolidated Financial Statements - Note 1 General Information 2017 Consolidated Financial Statements - Note 6 Intangible Assets	√
G4-8	Markets served (including geographical breakdown, sectors served and types of customers/ and beneficiaries)	Section 2.2. Repsol around the world Section 5.1. Upstream Section 5.2. Downstream	√
G4-9	Scale of the organization	Section 2.1. Business model Section 2.2. Repsol around the world Section 2.3. Corporate Structure	√
G4-10	Workforce by employment contract, employment types, region and gender	Section 6. Sustainability - 6.2. People - Our human team Appendix III: GRI Indicators - PART I Company profile	√ (1)
G4-11	Percentage of total employees covered by collective agreements	Appendix III: GRI Indicators - PART I Company profile	√
G4-12	Description of the organization's supply chain	Section 6.8. Supply chain	√ (2)
G4-13	Significant changes during the reporting period regarding the organization's size, structure, ownership or its supply chain	2017 Consolidated Financial Statements - Note 1 General Information- 1.4. Main changes in consolidation perimeter	√
G4-14	Description of the how the precautionary principle is addressed by the organization	Section 2.4. Corporate Governance Section 6.1 Climate change Section 6.3 Safe operation Section 6.4 Environment Appendix II: Risks	√
G4-15	List of externally developed economic, environmental and social charters, principles, or other initiatives to which the organization subscribes	https://repsol.energy/es/sostenibilidad/iniciativas-y-adhesiones/index.cshtml	√
G4-16	List of national and international advocacy organizations and memberships of associations to which the organization belongs	https://repsol.energy/es/sostenibilidad/iniciativas-y-adhesiones/index.cshtml	√
Identified material aspects and boundary			
G4-17	List of entities included in the organization's consolidated financial statements and equivalent documents	Section 2.3. Organizational structure 2017 Consolidated Financial Statements - Appendix I: Main companies comprising the Repsol Group	√
G4-18	Process for defining the report content	Appendix III: GRI Indicators - PART I Materiality and stakeholders	√
G4-19	Material aspects identified in the process for defining report content	Appendix III: GRI Indicators - PART I Materiality and stakeholders	√
G4-20	Scope of the report	About this report	√
G4-21	Limits in terms of Aspect Boundaries	About this report	√
G4-22	Effects of any restatement of information provided in previous reports and the reasons for such restatements	There were no significant restatements in the period. The scope used for preparation of supply chain information published in 2016 has been revised	√
G4-23	Significant changes from previous reporting periods in the Scope and Aspect Boundaries	About this report Section 6.8. Supply chain	√
Stakeholder engagement			
G4-24	Stakeholders groups engaged by the organization	Section 2.4. Corporate Governance Appendix III: GRI Indicators - PART I - Materiality and stakeholders	√
G4-25	Criteria for identification and selection of stakeholders	https://repsol.energy/es/sostenibilidad/nuestro-modelo/index.cshtml	√
G4-26	Organization's approach to stakeholder engagement	Appendix III: GRI Indicators - PART I - Materiality and stakeholders	√

GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
G4-27	Key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns, including through its reporting.	Appendix III: GRI Indicators - Materiality and stakeholders	√
Report profile			
G4-28	Reporting period for information provided	2017	√
G4-29	Date of most recent previous report	For 2016, which was published in the first half of 2017	√
G4-30	Reporting cycle	Yearly	√
G4-31	Contact point for questions regarding the report or its contents	Questions, queries, suggestions or any other questions related to this report can be sent to the Shareholders' Office, by telephone at +34 900 100 100 or via email, to infoaccionistas@repsol.com or to repsolteescucha@repsol.com	√
G4-32	"In accordance" option chosen by the organization	About this report	√
G4-33	Organization's policy and current practice with regard to seeking external assurance for the report	See Deloitte letter of verification at Repsol.com	√
Governance			
G4-34	Governance structure of the organization	Section 2.4 Corporate Governance Appendix VI: 2017 Annual Corporate Governance Report - A2. Give details on the direct and indirect holders of significant interests excluding directors Appendix VI: 2017 Annual Corporate Governance Report - C1.2 Members of the Board of Directors Appendix VI: 2017 Annual Corporate Governance Report - C1.16 Members of top management Appendix VI: 2017 Annual Corporate Governance Report - C2. Committees of the Board	√
G4-35	Process for delegating authority for economic, environmental and social topics from the highest governance body to senior executives and other employees	Section 2.4. Corporate Governance Section 6.1 Climate change	√
G4-36	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics	Appendix VI: 2017 Annual Corporate Governance Report - C2 Committees of the Board - Audit and Control Committee Appendix VI: 2017 Annual Corporate Governance Report - C2 Committees of the Board - Sustainability Committee Section 2.4 Corporate Governance	√
G4-37	Processes for consultation between stakeholders and the highest governance body on economic, environmental and social topics	Section 2.4 Corporate Governance	√
G4-38	Composition of the highest governance body and its committees	Appendix VI: 2017 Annual Corporate Governance Report - C1.2 Members of the Board of Directors Appendix VI: 2017 Annual Corporate Governance Report - C2. Committees of the Board	√
G4-39	Indicate whether the Chair of the highest governance body is also an executive officer	Appendix III: GRI Indicators - PART I Company profile	√
G4-40	Nomination and selection processes for the highest governance body and its committees	Directors selection policy: https://repsol.energy/es/accionistas-inversores/gobierno-corporativo/comisiones-del-consejo-de-administracion/comision-de-nombramientos/index.cshtrmlhttps://www.repsol.energy/imagenes/global/es/politica_de_seleccion_consejeros_tcm13-66877.pdf Anexo VI: 2017 Annual Corporate Governance Report - C1.19. Procedures for selection, appointment, re-election, assessment and removal of directors.	√
G4-41	Processes for the highest governance body to ensure conflicts of interest are avoided and managed	Appendix VI: 2017 Annual Corporate Governance Report - D.1 Competent body and procedure for approving related party and inter-company transactions Appendix VI: 2017 Annual Corporate Governance Report - D.6. Mechanisms to detect, define and resolve possible conflicts of interest between the company and/or its group, and its directors, executives or controlling shareholders	√
G4-42	Highest governance body's and senior executives' roles in the development, approval and updating of the organization's purpose, value or mission statements, strategies, policies and goals related to economic, environmental and social impacts of the organization	Regulations of the Board of Directors - Article 5 https://www.repsol.energy/imagenes/global/es/reglamento_consejo_administracion_27072016_tcm13-13029.pdf	√
G4-43	Measures taken to develop and enhance the highest governance body's collective knowledge of economic, environmental and social topics	Section 2.4. Corporate Governance	√
G4-44	Processes for evaluation of the highest governance body's performance with respect to governance of economic, environmental and social topics and actions taken in response	Bylaws of Repsol S.A.- Article 45 quarter. Assessment of the Board Regulations of the Board of Directors - Article 11 https://www.repsol.energy/imagenes/global/es/reglamento_consejo_administracion_27072016_tcm13-13029.pdf Appendix VI: 2017 Annual Corporate Governance Report - C1.20 Describe the process of assessment and the areas assessed by the Board of Directors Section 2.4. Corporate Governance	√

GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
G4-45	Highest governance body's role in the identification and management of the economic, environmental and social impacts, risks and opportunities and in the implementation of due diligence processes	Appendix VI: 2017 Annual Corporate Governance Report - E. Risk control and management systems Appendix VI: 2017 Annual Corporate Governance Report - F. Internal risks management and control systems over financial reporting (ICFR)	√
G4-46	Highest governance body's role in reviewing the effectiveness of the organization's risk management processes for economic, environmental and social topics	Appendix VI: 2017 Annual Corporate Governance Report - E. Risk control and management systems Appendix VI: 2017 Annual Corporate Governance Report - F. Internal risks management and control systems over financial reporting (ICFR)	√
G4-47	Frequency of the highest governance body's review of economic, environmental and social impacts, risks and opportunities	Appendix VI: 2017 Annual Corporate Governance Report - E. Risk control and management systems Appendix VI: 2017 Annual Corporate Governance Report - F. Internal risks management and control systems over financial reporting (ICFR)	√
G4-48	Highest committee or position that formally reviews and approves the organization's sustainability report and ensures that all material Aspects are covered	Appendix VI: 2017 Annual Corporate Governance Report - C2 Committees of the Board - Sustainability Committee	√
G4-49	Process for communicating critical concerns to the highest governance body	Section 2.4. Corporate Governance	√
G4-50	Nature and total number of critical concerns that were communicated to the highest governance body and the mechanisms used to address and resolve them	Section 2.4. Corporate Governance	√
G4-51	Remuneration policies for the highest governance body and senior executives in relation to the organization's performance	Appendix VI: 2017 Annual Corporate Governance Report - C2 Committees of the Board - Sustainability Committee Compensation Committee 2017 Annual report on the remuneration of Directors Remuneration Policy of the Directors of Repsol, S.A. - https://www.repsol.energy/imagenes/global/en/Pol%C3%ADtica_de_Remuneraciones_EN_VF_tcm14-64095.pdf	√
G4-52	Process for determining remuneration	2017 Consolidated Financial Statements - Note 27. Remuneration of Board members and executive officers Compensation Committee 2017 Annual report on the remuneration of Directors Appendix VI: 2017 Annual Corporate Governance Report - C2 Committees of the Board - Sustainability Committee	√
G4-53	Mechanisms for seeking and taking into account the opinion of stakeholders regarding remuneration	Appendix III: GRI Indicators - PART I Company profile	√
G4-54	Ratio for the annual total compensation for the organization's highest-paid individual in each country of significant operations to the median annual total compensation for all employees in the same country	Appendix III: GRI Indicators - PART I Company profile	√
G4-55	Ratio of percentage increase in annual total compensation for the organization's highest-paid individual in each country of significant operations to the median percentage increase in annual total compensation for all employees in the same country	Appendix III: GRI Indicators - PART I Company profile	√
Ethics and Integrity			
G4-56	Organization's values, principles, standards and norms of behavior	Code of ethics and conduct. Section 6.7. Ethics and Compliance About this report	√
G4-57	Internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organizational integrity	Repsol Ethics & Compliance Channel. Section 6.7. Ethics and Compliance	√
G4-58	Internal and external mechanisms for reporting concerns about unethical and lawful conduct, and matters related to organizational integrity	Repsol Ethics & Compliance Channel. Section 6.7. Ethics and Compliance	√

Part II. Specific standard disclosures

GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
1. Economic			
1.1. Economic Performance			
G4-EC1	Direct economic value generated and distributed	Section 6.6. Responsible Tax Policy 2017 Consolidated report of payments to public administrations relating to hydrocarbon exploration and production operations Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance	√ (3)
G4-EC2	Financial implications and other risks and opportunities for the organization's activities due to climate change	Section 6.1. Climate change	√
G4-EC3	Coverage of the organization's defined benefit plan obligations	2017 Consolidated Financial Statements - Note 28 Personnel obligations	√
G4-EC4	Financial assistance received from government	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance	√
1.2. Market Presence			
G4-EC5	Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance	√
G4-EC6	Proportion of senior management hired from the local community at significant locations of operation	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance	√
1.3. Indirect Economic Impacts			
G4-EC7	Development and impact of infrastructure investments and services supported	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance	√
G4-EC8	Significant indirect economic impacts, including the extent of impacts	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance	√
1.4. Procurement Practices			
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	Section 6.8. Supply chain	√ (2)
G4-OG1	Volume and type of estimated proven reserves and production	Section 1. Summary of main events - Main figures and indicators Section 5.1 Upstream 2017 Hydrocarbon exploration and production activities report	√
2. Environmental			
2.1. Materials			
G4-EN1	Materials used by weight or volume	Section 5. Performance by business areas	√ (4)
G4-EN2	Percentage of materials used that are recycled input materials	Not material	Not verified
2.2. Energy			
G4-EN3	Energy consumption within the organization	Section 6.1. Climate Change	√ (5)
G4-EN4	Energy consumption outside of the organization	Section 6.1. Climate Change	√
G4-EN5	Energy intensity	Section 6.1. Climate Change	√ (5)
G4-OC2	Total amount invested in renewable energy	Section 6.1. Climate Change	√
G4-OC3	Total amount of renewable energy generated by source	Section 6.1. Climate Change	√ (6)
G4-EN6	Reduction of energy consumption	Section 6.1. Climate Change	√ (5)
G4-EN7	Reductions in energy requirements of products and services	Section 6.1. Climate Change	√
2.3. Water			
G4-EN8	Total water withdrawal by source.	Section 6.4. Environment	√
G4-EN9	Water sources significantly affected by withdrawal of water	Section 6.4. Environment	√ (8)
G4-EN10	Percentage and total volume of water recycled and reused	Section 6.4. Environment	√

2.4. Biodiversity

GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
G4-EN11	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Biodiversity and ecosystem services	√ (9)
G4-EN12	Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Biodiversity and ecosystem services	√ (10)
G4-EN13	Habitats protected or restored	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Biodiversity and ecosystem services	√ (7)
G4-EN14	Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Biodiversity and ecosystem services	√
G4-OG4	Number and percentage of significant operating sites in which biodiversity risk has been assessed and monitored	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Biodiversity and ecosystem services	√

2.5. Emissions

G4-EN15	Direct greenhouse gas (GHG) emissions (scope 1)	Section 6.1. Climate Change	√ (5)
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (scope 2)	Section 6.1. Climate Change	√ (5)
G4-EN17	Other indirect greenhouse gas (GHG) emissions (scope 3)	Section 6.1. Climate Change	√ (11)
G4-EN18	Greenhouse gas (GHG) emissions intensity	Section 6.1. Climate Change	√
G4-EN19	Reduction of greenhouse gas (GHG) emissions	Section 6.1. Climate Change	√ (5)
G4-EN20	Emissions of ozone-depleting substances (ODS)	Not material	Not verified
G4-EN21	NO _x , SO _x , and other significant air emissions	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance - Non-GHG emissions	√

2.6. Effluents and Waste

G4-EN22	Total water discharges by quality and destination.	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environment performance - Water management	√
G4-EN23	Total weight of waste managed by type and disposal method.	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance - Waste management	√
G4-EN24	Total number and volume of significant spills.	Section 6.3. - Safe Operation	√
G4-OG5	Volume and disposal of formation or produced water	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance - Water management	√
G4-OG6	Volume of flared and vented hydrocarbon	Section 6.1. Climate Change	√
G4-OG7	Amount of drilling waste (drill mud and cuttings) and strategies for treatment and disposal	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance - Waste management	√
G4-EN25	Weight of transported, imported, exported or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally	Not material	Not verified
G4-EN26	Identity, size, protected status, and biodiversity value of water bodies and related habitats significantly affected by the organization's discharges of water and runoff	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Biodiversity and ecosystem services	(7)

2.7. Products and Services

G4-EN27	Extent of mitigation of environmental impacts of products and services	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Mitigation of the environmental impact of products and services	√
G4-OG8	Benzene, lead and sulfur content in fuels	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Energy efficient and climate change - Non-GHG emissions	√ (7)
G4-EN28	Percentage of products sold and their packaging materials that are reclaimed by category	Not material	Not verified

2.8. Compliance

G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Society - Regulatory compliance	√
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2.9. Transport

G4-EN30	Significant environmental impacts of transporting products and other goods and materials for the organization's operations, and transporting members of the workforce	Major environmental impacts associated with the transportation and distribution of our products are listed in section 6.1. Climate Change in Scope 3 indicators	√ (11)
GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
	2.10. Overall		
G4-EN31	Total environmental protection expenditures and investments by type	2017 Consolidated Financial Statements - Note 29 Environmental information	√
	2.11. Supplier Environmental Assessment		
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	Section 6.8 Supply chain	√
G4-EN33	Significant actual and potential negative environmental impacts in the supply chain and actions taken	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Economic performance - Supply chain management and its impact where the company performs its operations	√
	2.12. Environmental Grievance Mechanisms		
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved through formal grievance mechanisms	Section 6.2.2 Respect for Human Rights and the relationship with local communities	√ (12)
	2.13. Biofuels		
G4-OG14	Volume of biofuels produced and purchased meeting sustainability criteria	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Environmental performance - Energy efficient and climate change	√ (7)
	3. Social		
	3.1. Labor Practices and Decent Work		
	3.1.1. Employment		
G4-LA1	Total number and rates of new employee hires and employee turnover by age group, gender and region	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Labor Practices and Decent Work	√
G4-LA2	Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Labor Practices and Decent Work	√
G4-LA3	Return to work and retention rates after parental leave, by gender	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Labor Practices and Decent Work	√
	3.1.2. Labor/Management Relations		
G4-LA4	Minimum notice periods regarding operational changes, including whether these are specified in collective agreements	Repsol adheres to the periods of minimum notice established by law in the countries in which Repsol operates, and also those laid down in collective agreements or policies, where applicable.	√
	3.1.3. Occupational Health and Safety		
G4-LA5	Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Health	√
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender	Section 6.3. Safe Operation Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Health	√
G4-LA7	Workers with high incidence or high risk of diseases related to their occupation	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Health	√
G4-LA8	Health and safety topics covered in formal agreements with trade unions	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Health	√
	3.1.4. Training and Education		
G4-LA9	Average hours of training per year per employee by gender, and by employee category	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Training and development	√
G4-LA10	Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Training and development	√
G4-LA11	Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Performance appraisals	√

3.1.5. Diversity and equal opportunities			
G4-LA12	Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership, and other indicators of diversity	Section 2.4. Corporate Governance Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Diversity and equal opportunities	√
GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
3.1.6. Equal Remuneration for Women and Men			
G4-LA13	Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Diversity and equal opportunities	√ (13)
3.1.7. Supplier Assessment for Labor Practices			
G4-LA14	Percentage of new suppliers that were screened using labor practices criteria	Section 6.8. Supply chain	√
G4-LA15	Significant actual and potential negative impacts for labor practices in the supply chain and actions taken	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Contribution to economic development where the company performs its operations	√
3.1.8. Labor Practices Grievance Mechanisms			
G4-LA16	Number of grievances about labor practices filed, addressed and resolved through formal grievance mechanisms	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√ (12)
3.2. Human Rights			
3.2.1. Investment			
G4-HR1	Total number and percentage of significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Section 6.8. Supply chain	√
G4-HR2	Hours of employee training on human rights policies or procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Human Rights	√
3.2.2. Non-discrimination			
G4-HR3	Total number of incidents of discrimination and corrective actions taken	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Human Rights	√ (14)
3.2.3. Freedom of Association and Collective Bargaining			
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	Section 6.8. Supply chain	√
3.2.4. Child Labor			
G4-HR5	Operations and suppliers identified as having significant risk for incidents of child labor, and measures taken to contribute to the effective abolition of child labor	Section 6.8. Supply chain	√
3.2.5. Forced or Compulsory Labor			
G4-HR6	Operations and suppliers identified as having significant risk for incidents of forced or compulsory labor, and measures to contribute to the elimination of all forms of forced or compulsory labor	Section 6.8. Supply chain	√
3.2.6. Security Practices			
G4-HR7	Percentage of security personnel trained in the organization's human rights policies or procedures that are relevant to operations	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√
3.2.7. Indigenous Rights			
G4-HR8	Total number of incidents of violations involving rights of indigenous peoples and actions taken	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√
G4-OG9	Operations where indigenous communities are present or affected by activities and where specific engagement strategies are in place	Section 2.2 Repsol around the world Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Human Rights	√

3.2.8. Assessment			
GRI	Description of the indicator	Reference in the Management Report, Reports or online	Verification
3.2.8. Assessment			
G4-HR9	Total number and percentage of operations that have been subject to human rights reviews or impact assessments	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√
3.2.9. Supplier Human Rights Assessment			
G4-HR10	Percentage of new suppliers that were screened using human rights criteria	Section 6.8. Supply chain	√
G4-HR11	Significant actual and potential negative human rights impacts in the supply chain and actions taken	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Contribution to economic development where the company performs its operations	√
3.2.10. Human Rights Grievance Mechanisms			
G4-HR12	Number of grievances about human rights practices filed, addressed, and resolved through formal grievance mechanisms	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√
3.3. Society			
3.3.1. Local Communities			
G4-SO1	Percentage of operations with implemented local community engagement, impact assessments, and development programs	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√
G4-SO2	Operations with significant actual or potential negative impacts on local communities	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Society - Impact on local communities	√
G4-OC10	Number and description of significant disputes with local communities and indigenous peoples	Section 5.1. Upstream	√
G4-OC11	Number of sites that have been decommissioned and sites that are in the process of being decommissioned	Section 5.1. Upstream Section 5.2. Downstream	√
3.3.2. Anti-corruption			
G4-SO3	Total number and percentage of operations assessed for risks related to corruption and the significant risks identified	Section 6.7. Ethics and compliance	√
G4-SO4	Communication and training on anti-corruption policies and procedures	Section 6.7. Ethics and compliance Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Society - Fight against corruption	√
G4-SO5	Confirmed incidents of corruption and actions taken	Section 6.7. Ethics and compliance	√ (15)
3.3.3. Public Policy			
G4-SO6	Total value of political contributions by country and recipient/beneficiary	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Society - Responsible participation in public policy	√ (15)
3.3.4. Anti-competitive Behaviour			
G4-SO7	Total number of legal actions for anti-competitive behavior, anti-trust, and monopoly practices and their outcomes	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Social performance - Society - Regulatory compliance	√
3.3.5. Compliance			
G4-SO8	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations	The information on legal and tax contingencies can be found in Notes 16 and 23 of the 2017 Consolidated Financial Statements	√
3.3.6. Supplier Assessment for Impacts on Society			
G4-SO9	Percentage of new suppliers that were screened using criteria for impacts on society	Section 6.8. Supply chain	√
G4-SO10	Significant actual and potential negative impacts on society in the supply chain and actions taken	Appendix III: GRI Indicators - PART II: SPECIFIC STANDARD DISCLOSURES - Contribution to economic development where the company performs its operations	√
3.3.7. Grievance Mechanisms for Impacts on Society			
G4-SO11	Number of grievances about impacts on society filed, addressed and resolved through formal grievance mechanisms	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√

3.3.8. Involuntary Resettlement			
G4-OG12	Operations where involuntary resettlement took place, the number of households resettled in each and how their livelihoods were affected in the process	Section 6.2.2 Respect for Human Rights and the Relationship with Local Communities	√
GRI	Referencia en el informe RC	Referencia en Informes o web	Verificación
3.3.9. Asset Integrity and Process Safety			
G4-OG13	Number of process safety events, by business activity	Section 6.3. Safe Operation	√
3.4. Product Responsibility			
3.4.1. Customer Health and Safety			
G4-PR1	Percentage of significant product and service categories for which health and safety impacts are assessed for improvement	Not material	Not verified
G4-PR2	Total number of incidents of non-compliance with regulations and voluntary codes concerning the health and safety impacts of products and services during their life cycle, by type of outcomes	Not material	Not verified
3.4.2. Product and Service Labeling			
G4-PR3	Type of product and service information required by the organization's procedures for product and service information and labeling, and percentage of significant product and service categories subject to such information requirements	Not material	Not verified
G4-PR4	Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes	Not material	Not verified
G4-PR5	Results of surveys measuring customer satisfaction	Not material	Not verified
3.4.3. Marketing Communications			
G4-PR6	Sale of banned or disputed products	Not material	Not verified
G4-PR7	Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship, by type of outcomes	Not material	Not verified
3.4.4. Customer privacy			
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	Not material	Not verified
3.4.5. Compliance			
G4-PR9	Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services	Not material	Not verified

√ Content reviewed according to the scope of the information described in the Deloitte's Independent Assurance Report.

- (1) Information on contractors and subcontractors is not provided.
- (2) Information about supply chain only makes reference to the significant purchases carried out by the contracting and purchasing department. It excludes purchases of crude oil, gas and materials.
- (3) The referenced report about payments to Public Administrations by countries has not been audited, only the global evolution of payments
- (4) Processed crude oil, which is the main material, is itemized.
- (5) The overall reasonableness of the data has been verified. The data are subject to modification once the audits of the emissions of each facility and asset under the ISO 14064 standard are carried out.
- (6) It relates to the installed power.
- (7) The information is qualitative.
- (8) Soley information on water withdrawn by water sources is provided.
- (9) Information on the biodiversity value is not provided.
- (10) Information on the nature of the impacts is not provided.
- (11) Scope 3 emissions do not include E&P transport and distribution categories nor investments on operated and equity share categories.
- (12) Breakdown by nature is not reported.
- (13) Information on remuneration by category and gender is not provided.
- (14) Relevant discrimination incidents involving employees are reported.
- (15) Labor sanctions and warnings due to breaches of the Code of Ethics and Conduct are reported.

Appendix V.

Table of conversions and abbreviations

			Oil				Gas		Electricity
			Liters	Barrels	Cubic meters	toe	Cubic meters	Cubic feet	kWh
Oil	1 barrel ⁽¹⁾	bbl	158.99	1	0.16	0.14	162.60	5,615	1.7x10 ⁶
	1 cubic meter ⁽¹⁾	m ³	1,000	6.29	1	0.86	1,033	36,481	10,691.5
	1 ton of oil equivalent ⁽¹⁾	tep	1,160.49	7.30	1.16	1	1,187	41,911	12,407.4
Gas	1 cubic meter	m ³	0.98	0.01	0.001	0.001	1	35.32	10.35
	1,000 cubic feet=1.04x10 ⁶ Btu	ft ³	27.64	0.18	0.03	0.02	28.3	1,000	293.1
Electricity	1 megawatt hour	MWh	93.53	0.59	0.10	0.08	96.62	3,412.14	1,000

			Meter	Inch	Foot	Yard
Length	Meter	m	1	39.37	3.281	1.093
	Inch	in	0.025	1	0.083	0.028
	Foot	ft	0.305	12	1	0.333
	Yard	yd	0.914	36	3	1

			Kilogram	Pound	Ton
Mass	Kilogram	kg	1	2.2046	0.001
	Pound	lb	0.45	1	0.00045
	Ton	t	1,000	22.046	1

			Cubic feet	Barrel	Liter	Cubic meter
Volume	Cubic foot	ft ³	1	0.1781	28.32	0.0283
	Barrel	bbl	5,615	1	158.984	0.1590
	Liter	l	0.0353	0.0063	1	0.001
	Cubic meter	m ³	35.3147	6.2898	1,000	1

(1) Reference average: 32.35° API and relative density 0.8636.

Term	Description	Term	Description	Term	Description
bbl / bbl/d	Barrel/ Barrel per day	Mb	Thousand barrels of oil	Mm³/d	Million cubic meters per day
bcf	Bcf Billion cubic feet	kbb/d	Thousand barrels per day	Mscf/d	Million standard cubic feet per day
Bm³	Billion cubic meters	Mboe	Thousand barrels of oil equivalent	kscf/d	Thousand standard cubic feet per day
Boe	Barrel of oil equivalent	Mboe/d	Thousand barrels of oil equivalent per day	MMW	Million watts
Btu/MBtu	British thermal unit/ Btu/millions of Btu	km²	Square kilometer	MWh	Megawatt hour
LPG	Liquefied petroleum gas	Kt/Mt	Thousand tons/Million tons	Tcf	Trillion cubic feet
LNG	Liquefied natural gas	MMb	Million barrels	toe	Tons of oil equivalent
GWh	Gigawatts per hour	MMboe	Million barrels of oil equivalent	USD / Dollar / \$	US dollar

Appendix VI. Annual corporate governance report

The Annual Corporate Governance Report for 2017 is included as Appendix to this document, and as an integral part of the whole document, as required under Article 538 to the Spanish Companies Act (“Ley de Sociedades de Capital”).

Independent Assurance Report on the Sustainability information of the 2017 Consolidated Management Report of Repsol S.A. and Subsidiaries

To the shareholders of Repsol S.A:

Scope of our work

We have performed the review, with a limited assurance, of the sustainability information of the 2017 Consolidated Management Report (MR) of Repsol S.A. and Subsidiaries (Repsol Group), the scope of which is defined in the chapter "About this report". Our work consisted of the review of:

- The reliability and adherence of the contents of the MR to the GRI Sustainability Reporting Guidelines version 4 (hereinafter referred to as G4 Guidelines), including the *Oil&Gas Sector Supplement*.
- The information included in the MR relating to the application of the principles of inclusivity, materiality and responsiveness set out in the AccountAbility's AA1000 *Accountability Principles Standard* (AA1000APS).

Procedures performed

We conducted a limited assurance engagement in accordance with International Standard on Assurance Engagements Other than Audits or Reviews of Historical Financial Information (ISAE 3000) issued by the *International Auditing and Assurance Standards Board* (IAASB) of the *International Federation of Accountants* (IFAC) and with Guidelines for engagements relating to the review of Corporate Responsibility Reports issued by the Spanish Institute of Certified Public Accountants to achieve limited assurance. Additionally, we have applied *AccountAbility's 1000 Assurance Standard* (AA1000AS) to provide moderate assurance on the application of the principles established in standard AA1000APS and on the sustainability performance indicators (type 2 moderate assurance).

Our work consisted of making enquiries to Management and certain business units and corporate units of Repsol and subsidiaries involved in the preparation of the MR and in carrying out the following analytical procedures and sample-based review tests:

- Meetings with Repsol personnel to ascertain the principles, systems and sustainability management approaches applied.
- Review of the 2017 meetings minutes of the Sustainability Committee.
- Review of the steps taken in relation to the identification and consideration of the stakeholders throughout the year and of the stakeholders' participation processes through the analysis of the available internal information and third-party reports.
- Analysis of the coverage, materiality and completeness of the information included in the MR on the basis of the understanding of Repsol Group of its stakeholders' requirements in relation to the relevant issues identified by the organization and described in the 'Appendix III. GRI Indicators', section "Materiality and Stakeholders" of the MR.
- Review of the information related to the management approaches applied to sustainability and verification of the existence and scope of the policies, systems and sustainability procedures.
- Analysis of the adherence of the contents of the MR to those recommended in the G4 Guidelines, comprehensive option, and verification that the contents included agree with those recommended by the GRI Guidelines.
- Review on a sample basis, of the quantitative and qualitative information relating to the GRI G4 indicators included in the MR and of the adequate compilation thereof based on the data furnished by the information sources of Repsol Group.

Responsibilities of Repsol Group and of Deloitte

- The preparation and contents of the MR are the responsibility of the Board of Directors of Repsol S.A., who are also responsible for defining, adapting and maintaining the management and internal control systems from which the information is obtained.
- Our responsibility is to issue a limited assurance report based on the procedures applied in our review.
- Since a limited assurance is substantially less in scope than a reasonable assurance engagement, we do not provide reasonable assurance on the MR.
- This report has been prepared in the interest of Repsol in accordance with the terms and conditions of our Engagement Letter.
- We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.
- Deloitte maintains, in accordance with the International Standard on Quality Control 1 (ISQC1), a global system of quality control including policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.
- Our team consisted of professionals with assurance on Corporate Responsibility Reports qualifications and, specifically, on economic, social and environmental performance and stakeholders' participation processes.

Conclusions

"Appendix IV" of the MR, GRI- G4 Index, provides details of the contents reviewed and of the limitations in the scope of our work, and identifies any contents that do not cover all the areas recommended by the GRI. Based on the procedures performed and evidence obtained, except for the issues identified in the GRI-G4 Index, nothing has come to our attention that causes us to believe that:

- The Sustainability information included in the MR has not been prepared in accordance with the guidelines of the GRI G4, including the reliability and adequacy of the contents, in all material aspects.
- Repsol Group has not applied the principles of inclusivity, materiality and responsiveness as described in the chapter "*About this Report*", in accordance with standard AA1000 APS:
 - Inclusivity: Repsol Group has carried out a participation process for stakeholders that facilitates their involvement in the development of a responsible approach to sustainability management.
 - Materiality: the process of determining materiality requires an understanding of the important or relevant issues for Repsol Group and its stakeholders.
 - Responsiveness: Repsol Group responds with specific actions and commitments related to the material issues identified previously.

Observations and recommendations

In addition, we presented to the Sustainability Direction of the Repsol Group our recommendations related to the areas of improvement in sustainability management and information and, specifically, to the application of the principles of inclusivity, materiality and responsiveness. Hereunder is a summary of the most significant ones, which do not modify the conclusions presented in this report:

Inclusivity and materiality

As stated in the section "*Materiality and Stakeholders*", included in the "Appendix III" of the MR, Repsol Group employs a materiality study based on thorough analyses and consultations to its stakeholders. In order to improve the representativeness of the stakeholder groups consulted, as well as their inclusivity, it would be advisable to adapt the sample used to the different business units of Repsol Group, and to broaden its scope to all the different geographies in which Repsol Group has a significant presence.

Responsiveness

In 2017, Repsol Group approved the Global Sustainability Plan, which includes objectives for 2020 based on the six pillars of Repsol's Sustainability Model: ethics and transparency, climate change, people, safe operation, resource and impact management, and innovation and technology. To facilitate the monitoring and evaluation of the Plan, it would be advisable to continue working on a global scorecard that provides overall control and consolidates the progress updates of the local sustainability plans, including both the level of attainment of each objective and its impact.

Additionally, during 2017, Repsol has worked on aligning the climate change related information to the recommendations provided by the *Task Force on Climate-related Financial Disclosures* (TCFD). Similarly, Repsol is working on the development of climate scenario analyses that are compatible with the Sustainable Development scenario presented by the International Energy Agency. The application of indicators and metrics that facilitate the monitoring of the adherence of each of the business units to Repsol's climate change strategy, not only from an energy efficiency perspective, will enable Repsol to focus investment decisions on new technologies and solutions that enable an efficient transition to low carbon business models.

DELOITTE, S.L.



Helena Redondo

27 de febrero de 2018



AA1000

Licensed Assurance Provider

000-14

REPSOL S.A.

2017 Annual Corporate
Governance Report

*Translation of a report
originally issued in Spanish.
In the event of a discrepancy,
the Spanish language version prevails*



ANNUAL CORPORATE GOVERNANCE REPORT FOR LISTED COMPANIES

LISTED COMPANIES

DETAILS OF ISSUER

DATED END OF YEAR

2017

TAX REGISTRATION NUMBER: A78374725

Name: REPSOL, S.A.

Registered office: C/ Méndez Álvaro, 44 28045 Madrid

**ANNUAL CORPORATE GOVERNANCE REPORT FOR
LISTED COMPANIES**

A OWNERSHIP STRUCTURE

A.1 Complete the following table on the capital of the company:

Date latest modification	Capital (€)	Number of shares	Number of voting rights
7-07-2017	1,527,396,053	1,527,396,053	1,527,396,053

Indicate whether there are different classes of shares with different associated rights:

Yes No

A.2 Give details on the direct and indirect holders of significant interests in your company at year-end, excluding directors:

Name of shareholder	Number of direct voting rights	Indirect voting rights		Interest / total voting rights (%)
		Direct holder of the interest	Number of voting rights	
CaixaBank, S.A.	147,246,412	-	-	9.64
Sacyr , S.A.	0	Sacyr Investments,S.A.	30,000,000	8.03
		Sacyr Investments II,S.A.	72,704,410	
		Sacyr Securities,S.A.	20,000,000	
Temasek Holdings (Private) Limited	0	Chembra Investments Pte. Ltd	63,347,167	4.15

Indicate the principal movements in the shareholding structure during the year:

Name of shareholder	Date of transaction	Description of the transaction
CaixaBank, S.A.	17/01/2017	Interest lowered to below 10% of capital

A.3 Complete the following tables on directors' voting rights corresponding to shares in the company:

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Name of director	Number of direct voting rights	Indirect voting rights		Interest / total voting rights (%)
		Direct holder of the interest	Number of voting rights	
Antonio Brufau Niubó	489,114			0.03
Gonzalo Gortázar Rotaeché	11,327	-	-	0.00
Manuel Manrique Cecilia	133	Cymofag, S.L.U.	1.182	0.00
Josu Jon Imaz	162,943	-	-	0.01
Maria Teresa Ballester Fornés	-	-	-	-
Artur Carulla Font	94,790	-	-	0.01
Luis Carlos Croissier Batista	1,672			0.00
Rene Dahan	57,625	-	-	0.00
Ángel Duráñez Adeva	12,126	-	-	0.00

Mario Fernández Pelaz	5,588	-	-	0.00
Jordi Gual Solé	-	-	-	0.00
José Manuel Loureda Mantiñán	75	Prilou, S.L.	85,605	0.01
Mariano Marzo Carpio	-	-	-	0.00
Isabel Torremocha Ferrezuelo	5,000	0	0	0.00
J. Robinson West				0.00
Luis Suárez de Lezo Mantilla	47,580	0		0.00

Total % of voting rights held by board members	0.06%
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Complete the following tables on directors with stock options in the company:

Name or corporate name of the director	Number of direct stock options	Indirect options		Equivalent number of shares	% of total stock options
		Direct holder	Number of options		

A.4 Indicate family, commercial, contractual or corporate relationships among controlling shareholders known to the company, if any, except any that are insignificant and those deriving from ordinary commercial business:

Name of related parties	Type of relationship	Brief description

A.5 Indicate commercial, contractual or corporate relationships between controlling shareholders and the company and/or its group, if any, except any that are insignificant and those deriving from ordinary commercial business:

Name of related parties	Type of relationship	Brief description

A.6 State whether the company has been notified of any shareholders' agreements that may affect it pursuant to the Companies Act articles 530 and 531. If any, describe them briefly and list the shareholders related by the agreement:

Yes No

Parties to shareholders' agreement	% of capital affected	Brief description of agreement

Indicate and describe any concerted actions among company shareholders of which the company is aware:

Yes No

Parties to concerted action	% of capital affected	Brief description of arrangement

Expressly indicate any change or break-up of those agreements or concerted actions, if any, that has taken place during the year:

A.7 Indicate any individuals or entities that exercise or may exercise control over the company in pursuance of section 5 of the Securities Market Act:

Yes No

Name

Comments

A.8 Complete the following tables on the company's treasury stock:

At year-end:

Number of direct shares	Number of indirect shares (*)	Treasury stock/capital (%)
79,966	51,954	0.01%

(*) Through:

Name of direct holder of the shares	Number of direct shares
Repsol Tesorería y Gestión Financiera, S.A.	51,954

Give details on any significant variations during the year, according to the provisions of Royal Decree 1362/2007:

Explain the significant variations	

A.9. Indicate the term and conditions of the authorisation granted by the General Meeting to the Board to issue, buy back or sell own shares.

The Annual General Meeting of Shareholders of Repsol, S.A. held on first call on March 28, 2014, adopted the following resolution under item twenty on the Agenda:

“First. To authorize the Board of Directors for the derivative acquisition of shares of Repsol, S.A., by sale, purchase, exchange or any other onerous legal business modality, directly or through subsidiaries, up to a maximum number of shares, that added to those already own by Repsol, S.A. and its subsidiaries, not exceeding 10% of the share capital and for a price or equivalent value that may not be lower than the nominal value of the shares nor exceed the quoted price on the stock market.

The authorization includes the acquisition of shares that, if any, may be disbursed among the employees and directors of the Company and its Group or used to satisfy the exercise of option rights that such persons may hold.

This authorization, which is subject to the compliance of all other applicable legal requirements, shall be valid for 5 years, counted as from the date of the present General Shareholders Meeting, and leaves without effect the authorization granted by the Ordinary General Shareholders Meeting held on April 30, 2010 under the sixth point on the Agenda.

Second. To authorize the Board of Directors to delegate, pursuant to the provisions of article 249.2 of Companies Act, the delegated powers contemplated in section first of these resolutions.”

A.9. bis Estimated free float share capital

	%
Estimated free float share capital	78

A.10 State whether there are any constraints on the transferability of shares and/or any restrictions on voting rights. In particular, indicate the existence of any type of constraint or limitation that may hamper takeover of the company through the acquisition of its shares on the market.

Yes No

Description of constraints
Article 34 of Royal Decree-Law 6/2000 establishes certain constraints on the exercise of voting rights in more than one principal operator in any one market or sector. Among

others, it lists the fuel production and distribution, liquefied petroleum gas production and supply and natural gas production and supply markets. The principal operators are the entities holding the five largest shares of the market in question.

These constraints are as follows:

- Individuals or entities directly or indirectly holding more than 3% of the capital or voting rights of two or more principal operators on the same market may not exercise the voting rights corresponding to the excess over that percentage in more than one of such operators.
- No principal operator may exercise the voting rights corresponding to an interest of more than 3% in the capital of another principal operator on the same market.

These constraints shall not be applicable to parent companies that are principal operators in respect of their subsidiaries that are in the same position, provided this structure is imposed by law or the result of a mere redistribution of securities or assets among group companies.

The Comisión Nacional de los Mercados y Competencia, regulator of the energy market, may authorise exercise of the voting rights corresponding to the excess provided this does not favour the exchanging of strategic information or imply any risks of coordination of their strategic actions.

Act 3/2013, of 4 June, which created the National Markets and Competition Commission (Comisión Nacional de los Mercados y de la Competencia, CNMC) establishes a procedure for controlling certain business operations in the energy sector, among them the acquisition of interests in companies involved in certain activities related to liquid hydrocarbons or that own shares in the strategic energy sector (oil refineries, oil pipelines and oil product storage). In particular, in cases where a buyer acquires part of the capital of an energy company affected by this Law which gives the buyer significant influence over the management of that company, the buyer will be obligated to notify the CNMC of the transaction. If the buyer is not a national of the EU or the EEE and if it were considered to pose a real and sufficiently serious threat to the supply of hydrocarbons, special conditions could be established for the business operations of the affected companies or the buyer.

A.11 Indicate whether the General Meeting has resolved to apply the breakthrough rule against a takeover bid, under Act 6/2007:

Yes No

If yes, explain the measures approved and the terms on which the restrictions will become ineffective:

A.12 State whether the company has issued any shares that are not traded on an EU regulated

market:

Yes No

If yes, indicate the different classes of shares and, for each class, the rights and obligations conferred.

All the shares of Repsol's share capital are of the same class and serie and have the same political and economic rights; there aren't different voting rights for any shareholder. There are no shares that are not represented in the share capital.

Repsol shares are represented by book entries and are listed on the continuous market of the Spanish Stock Exchanges (Madrid, Barcelona, Bilbao and Valencia) and of Buenos Aires (Buenos Aires Stock Exchange). The American Depositary Shares (ADSs) of Repsol are listed on the OTCQX Market.

In addition, the shares in Refinería La Pampilla, S.A. are listed on the Lima Stock Exchange.

B GENERAL MEETING

B.1 Indicate whether there are any differences between the quorums established for General Meetings and the minimums stipulated in the Companies Act and, if any, explain:

Yes No

	% quorum differing from that stipulated in the Companies Act article 193 for ordinary resolutions	% quorum differing from that stipulated in the Companies Act article 194 for special resolutions
Quorum required on 1st call		
Quorum required on 2nd call		

Description of the differences

B.2 Indicate whether there are any differences in respect of the system stipulated in the Companies Act for adopting corporate resolutions and, if any, explain:

Yes No

What differences exist in respect of the system stipulated in the Companies Act?

	Larger majority than that established in the Companies Act article 201.2 for cases contemplated in article 194.1	Other cases requiring a larger majority
% established by the company for adopting resolutions		75%
Describe the differences		
<p>On both, first and second call the favourable vote of 75% of the voting capital attending the general meeting is required to validly adopt resolutions on the following matters:</p> <ul style="list-style-type: none"> • Alteration of Articles 22A and 44A of the Articles of Association on related party transactions and directors' prohibition from competing. • Authorisation of related party transactions in the cases contemplated in Article 22A of the Articles of Association. • Releasing of a director from his obligation to not compete, pursuant to Article 44A of the Articles of Association. • The amendment of this special regulation. 		

B.3 Indicate the rules to amend the company's Articles of Association. In particular, indicate the majorities stipulated for amend the Articles of Association and the rules, if any, protecting shareholders' rights in any amendment of the articles.

The Articles of Association of Repsol do not establish different conditions for altering articles of association from those set down in the Companies Act, except as provided in Article 22, which provides that to alter Articles 22A ("Related party transactions"), 44A ("No competition obligation"), and the special rule on alteration of the Articles of Association set out in Article 22, which requires the favourable vote of seventy-five per cent (75%) of the voting capital attending the general meeting on both first and second call.

Article 22 provides that annual and extraordinary general meetings must be attended on first call, in person or by proxy, by shareholders holding at least fifty per cent (50%) of the voting capital in order to adopt valid resolutions to alter the Articles of Association. On second call, the attendance of twenty-five per cent (25%) of that capital will be sufficient.

If a general meeting is attended by less than fifty per cent (50%) of the voting capital, resolutions altering the articles may only be validly adopted with the favourable vote of two-thirds of the capital present or represented at the general meeting.

B.4 Give details of attendance of general meetings held during the year of this report and the previous year:

Date General Meeting	Details of Attendance				Total
	% in person	% by proxy	% distance voting		
			Electronic vote	Others	
20-05-2016	20.44	32.43	0.02	1.53	54.42
19-05-2017	8.35	46.74	0.02	1.88	56.99

B.5 Indicate if there are any restrictions established in the articles of association requiring a minimum number of shares to attend general meetings

Yes No

Number of shares required to attend general meetings

B.6 Section repealed.

B.7 Indicate the address and the way to access to the company's website, and where to find information on corporate governance and other information on general meetings that must be made available to shareholders through the company's website.

The contents of corporate governance and other information about the last general meetings are directly accessible through the corporate website of Repsol, S.A., www.repsol.com, in the section "Information for shareholders and investors, Corporate Governance".

C MANAGEMENT STRUCTURE OF THE COMPANY

C.1 Board of Directors

C.1.1 Maximum and minimum numbers of directors stipulated in the articles of association:

Maximum number of directors	16
Minimum number of directors	9

C.1.2 Give details of the board members:

Name of director	Representative	Condition	Position on Board	Date first appointment	Date latest appointment	Election procedure
Antonio Brufau Niubó		External	Chairman	23-07-1996	30-04-2015	Vote at General Meeting
Gonzalo Gortázar Rotaèche		Proprietary	1 st Deputy-Chairman	30-04-2015	20-05-2016	Vote at General Meeting
Manuel Manrique Cecilia		Proprietary	2 nd Deputy-Chairman	25-04-2013	19-05-2017	Vote at General Meeting

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Josu Jon Imaz		Executive	CEO	30-04-2014	30-04-2015	Vote at General Meeting
Maria Teresa Ballester Fornés		Independent	Member	19-05-2017	19-05-2017	Vote at General Meeting
Artur Carulla Font		Independent	Member	16-06-2006	28-03-2014	Vote at General Meeting
Luis Carlos Croissier Batista		Independent	Member	09-05-2007	30-04-2015	Vote at General Meeting
Rene Dahan		Proprietary	Member	31-05-2013	19-05-2017	Vote at General Meeting
Ángel Durández Adeva		Independent	Member	09-05-2007	30-04-2015	Vote at General Meeting
Mario Fernández Pelaz		Independent	Member	15-04-2011	30-04-2015	Vote at General Meeting
Jordi Gual Solé		Proprietary	Member	20-12-2017	20-12-2017	Cooptation
José Manuel Loureda Mantiñán		Proprietary	Member	31-01-2007	30-04-2015	Vote at General Meeting
Mariano Marzo Carpio		Independent	Member	19-05-2017	19-05-2017	Vote at General Meeting
Isabel Torremocha Ferrezuelo		Independent	Member	19-05-2017	19-05-2017	Vote at General Meeting
J. Robinson West		Independent	Member	28-01-2015	30-04-2015	Vote at General Meeting
Luis Suárez de Lezo Mantilla		Executive	Member & Secretary	02-02-2005	19-05-2017	Vote at General Meeting

Total Number of Directors	16
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Indicate any retirements from the board during the reporting period:

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Name of director	Type of director at time of retirement	Date of retirement
Javier Echenique Landiribar	Independent	19-05-2017
María Isabel Gabarró Miquel	Independent	19-05-2017
Henri Philippe Reichstul	Independent	19-05-2017
Antonio Massanell Lavilla	Proprietary	20-12-2017

C.1.3 Complete the following tables on the categories of the board members:

EXECUTIVE DIRECTORS

Name of Director	Position in company's organisation
Josu Jon Imaz	CEO
Luis Suárez de Lezo Mantilla	Director, Company Secretary and Secretary of the Board

Total number of executive directors	2
% of board	12.5

NON-EXECUTIVE PROPRIETARY DIRECTORS

Name of Director	Name of controlling shareholder represented or that proposed appointment
Gonzalo Gortázar Rotaache	CaixaBank, S.A.
Jordi Gual Solé	CaixaBank, S.A.
Manuel Manrique Cecilia	Sacyr, S.A.
José Manuel Loureda Mantiñán	Sacyr, S.A.
Rene Dahan	Temasek Holdings (Private) Limited

Total number of proprietary directors	5
% of board	31.25

NON-EXECUTIVE INDEPENDENT DIRECTORS

Name of director	Profile
María Teresa Ballester Fornés	Graduated Cum Laude in Finance and Political Science from Boston College and holds an MBA from Columbia University in New York City.

	<p>Her career began at GTE Corporation (Verizon) in the United States as a financial executive, later joining the consulting firm Booz, Allen & Hamilton as a strategy consultant for leading multinationals in Mexico, United Kingdom, Spain and Portugal.</p> <p>She has been CEO of 3i in Spain, where she developed extensive experience in the international private equity sector, leading many investments and divestments, and participating in the recruitment process of institutional investors for global funds promoted by 3i. He has also led numerous refinancing operations, IPOs and has wide-ranging experience on boards of directors of several companies, both listed and non-listed.</p> <p>Between 2014 and January 2017 Ms. Ballester provided services to EY as external advisor of the Transaction Services (TAS) division to support the positioning of the firm in private equity services. She is currently the founder and managing partner of the private equity fund Nexxus Iberia I.</p> <p>Ms. Ballester was also President of the Spanish Association Capital Risk Entities (ASCRI) and is currently a Director of Grupo Lar and Prisa Radio, S.A. Member of the "Circulo de Empresarios", the Institute of Counselors and Administrators (ICA), the Women Corporate Directors (WCD), Member of the International Women's Forum (IWF) and frequently participates as a speaker at business schools and professional associations.</p>
<p>Artur Carulla Font</p>	<p>Graduate in Economics. His professional career began in 1972 when he joined Arbora & Ausonia, S.L., where he occupied various positions before being named its Managing Director. In 1988 he joined Agrolimen as Director of Strategy. In 2001 he was named Managing Director of Agrolimen, S.A. Currently, he is Chairman of Agrolimen, S.A.</p>

	<p>and its participated companies; Affinity Petcare, S.A. and the GB Foods, S.A.; member of Advisory Board of EXEA Empresarial, S.L. and member of Advisory Board of Roca Junyent. He is also member of Círculo de Economía, Member of the Management Board of Instituto de la Empresa Familiar and Member of Foundation MACBA (Museo de Arte Contemporaneo de Barcelona).</p>
<p>Luis Carlos Croissier Batista</p>	<p>He has been the professor in charge of economic policy of the Universidad Complutense of Madrid. During his long professional tenure, amongst other positions, he was Subsecretary of the Ministry of Industry and Energy, President of the National Institute of Industry (Instituto Nacional de Industria, I.N.I.), Minister of Industry and Energy and President of Spanish Securities Market Commission (Comisión Nacional del Mercado de Valores). Currently he is Director of Adveo, S.A., Alantra Partners, S.A. and Sole Director of Eurofocus Consultores, S.L.</p>
<p>Mario Fernández Pelaz</p>	<p>Graduate in Law at Deusto University in 1965. He has been Professor of Mercantile Law in the Faculty of Law of Deusto University and in the Faculty of Business Science at the same University, and Professor of different Masters at Deusto University. In his long professional career, he has served, among other charges, as Minister and later Vice-president of the Basque Government, Chairman of the Central Administration-Basque Government Transfers Mixed Committee, Chairman of the Basque Financial Council, Chairman of the Economic Committee of the Basque Government, Member of the Arbitration Committee of the Basque Autonomous Community. He was also Executive Director of BBVA Group and member of the Executive Committee from 1997 to 2002, and Main Partner of Uría Menéndez from that date to June 2009. From July 2009 to November</p>

	<p>2013 he has been Chairman of BBK. He has been Executive Chairman of Kutxabank, S.A. Chairman of its Risk Delegate Committee and Chairman of its Executive Committee, and Vicechairman of Confederación Española de Cajas de Ahorros (CECA). He has the title of Consul of the Bilbao Consulate and Illustrious of Bilbao. He has also published on mercantile and financial matters.</p>
<p>Ángel Durández Adeva</p>	<p>BA Economics, Professor of Commerce, chartered accountant and founding member of the Registry of Economic Auditors. He joined Arthur Andersen in 1965 where he was Partner from 1976 to 2000. Up to March, 2004 he headed the Euroamerica Foundation, of which he was founder, entity dedicated to the development of business, political and cultural relationships between the European Union and the different Latin American Countries. He was also Chairman of OJD-Oficina de Justificación de la Difusión,S.A., from 2004 to 2016. Currently he is Director of Prosegur, S.A., Director of Quantica Producciones, S.L., Director of Ideas4all, S.L., Chairman of Arcadia Capital, S.L. Member of Foundation Independiente and Vice-President of Foundation Euroamérica and Chairman of Foundation Foros, dedicated to the promotion of intergenerational dialogue.</p>
<p>Mariano Marzo Carpio</p>	<p>Bachelor's degree in geology from the University of Barcelona. PhD in geological sciences.</p> <p>Mr. Marzo has been Professor of Stratigraphy, Energy Resources and Petroleum Geology in the Earth Sciences Department of the University of Barcelona since 1989, from where he has worked as a researcher, academic, columnist and lecturer.</p> <p>Mr. Marzo has worked in Europe, the United States, South America, the Middle East and North Africa, and is a member of the</p>

	<p>American Association of Petroleum Geologists and the European Association of Petroleum Geoscientists & Engineers. He is also a member of the Advisory Board of the Club Español de la Energía [Spanish Energy Club] and was the head of Section 4 (Earth Sciences) of the Reial Acadèmia de Ciències i Arts de Barcelona [Royal Academy of Sciences and Arts of Barcelona].</p> <p>Mr. Marzo has also served on several advisory boards on energy for central and regional government and other bodies, and maintains an ongoing relationship with the oil and gas industry through applied research on the exploration and sedimentological characterisation of sites.</p> <p>Mr. Marzo has also been a member of the editorial boards of internationally renowned magazines in the field of geology, such as Basin Research, Geology and Sedimentology, published several papers and delivered a large number of lectures. His work in education was recognised in 2014 when he was awarded the Distinció de la Universitat de Barcelona a las Mejores Actividades de Divulgación Científica y Humanista [University of Barcelona Award for Best Contribution to Scientific and Humanist Education].</p>
<p>Isabel Torremocha Ferrezuelo</p>	<p>Degree in Chemistry from the Universidad Autónoma of Madrid in 1989. Specialization course in Plastics and Rubber from the CSIC, Leadership Program of the IMD Business School, PDD from IESE Business School and Corporate Finance Course of the IE Business School.</p> <p>Ms. Torremocha began her career at Philips Iberia, joining Andersen Consulting (currently Accenture) in 1991 where she followed her career in the Telecommunications, Media and High-Tech sector. In Accenture has been Managing Director and member of the Board of</p>

	<p>Directors of Accenture España.</p> <p>During her last period of tenure at Accenture, as Director of Transformation Opportunities, Ms. Torremocha spearheaded the creation and development of opportunities related to strategic transformation in the areas of information technology, outsourcing of business processes and digital transformation in Spain, Portugal and Africa.</p> <p>She has held international positions beforehand, notably as Director of Operations in Europe, Africa and Latin America, with responsibility for the implementation of the business strategies in these regions.</p> <p>She has also been responsible for diversity and equality in the division of Telecommunications, Media and High Technology for Europe, Africa and Latin America, defining plans for the fast-tracking of professional women in managerial positions and succession plans.</p>
<p>J. Robinson West</p>	<p>Graduate of the University of North Carolina Chapel Hill and Jurist Doctor from Temple University Law School in Philadelphia. West is an international expert in energy markets, especially all areas related to oil & gas. In 1984 he founded PFC Energy, a company over which he presided until 2013.</p> <p>Before founding PFC Energy, he held positions of responsibility in government with different administrations. During the Reagan administration, as an Assistant Secretary of the Interior, he developed and implemented the five-year leasing plan for the U.S. Outer Continental Shelf (OCS), the largest non-financial auction in the world at that time. He served in the Ford administration on the White House Staff and as Deputy Assistant Secretary of Defense for International Economic Affairs, receiving the Secretary of Defense Medal for Outstanding Civilian Service.</p> <p>He is currently the Managing Director of The Boston Consulting Group, Center for Energy</p>

	Impact and is also a Member of the National Petroleum Council, the Council on Foreign Relations, Chairman Emeritus of the United States Institute of Peace, and Chairman of the German Marshall Fund of the United States.
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Total number of independent directors	8
% of board	50

State whether any director qualified as independent receives from the company or any other company in the same group any sum or gain other than directors' emoluments, or has or has had a business relationship with the company or any other company in its group during the past year, in his/her own name or as controlling shareholder, director or senior executive of a company which has or has had such a relationship.

If appropriate, include a reasoned statement by the board explaining why it considers that the director in question can perform his/her duties as an independent director.

Name of director	Description of relationship	Reasoned statement

OTHER EXTERNAL DIRECTORS

State other external directors and explain why they cannot be considered proprietary or independent directors and their relationships, with the company or its executives or with the shareholders:

Name of director	Reasons	Company, executive or shareholder with which the director is related
Antonio Brufau Niubó	Mr. Brufau was the Executive Chairman of Repsol until 30 April 2015.	Repsol, S.A.

Total number of other non-executive directors	1
% of board	6.25

Indicate any variations during the reporting period in the category of each director:

Name of director	Date of change	Previous category	Present type

C.1.4 Complete the following table with details of the number of female directors at the year-end for the past 4 years and the category of female directors:

	Number of female directors				Female directors / total directors of each category (%)			
	Year t	Year t-1	Year t-2	Year t-3	Year t	Year t-1	Year t-2	Year t-3
Executive	-	-	-	-	-	-	-	-
Proprietary	-	-	-	-	-	-	-	-
Independent	2	1	1	1	25%	12.5%	12.25%	14.28%
Other non-executive	-	-	-	-	-	-	-	-
Total	2	1	1	1	12.5%	6.25 %	6.25%	6.67%

C.1.5 Explain any measures taken to endeavour to include in the board a number of women to give a balanced composition of men and women directors

Explanation of measures
<p>The Board of Directors Regulations expressly state that the Nominations Committee must ensure that, when new vacancies arise or when new Directors are appointed, the selection procedures are not implicitly biased in such a way that could lead to discrimination of any type and that women who have the desired professional profile are deliberately sought and included among the potential candidates, and it must inform the Board of the initiatives adopted with respect thereto and the outcome.</p> <p>Article 32 of the Articles of Association states that both the General Shareholders' Meeting and the Board of Directors, performing their functions of submitting proposals to the General Shareholders' Meeting and co-option to fill vacancies, must attempt to ensure, in relation to the composition of the Board of Directors, that professional, knowledge and experience, international and gender diversity policies are applied.</p> <p>The Board of Directors Regulations also include the above provision and also expressly confer on the Nominations Committee the following functions of: (i) ensuring that the Director selection policy fosters diversity of knowledge, experience and gender; and (ii) establishing a representation target for the least represented gender on the Board of Directors and preparing guidelines on how to reach the aforementioned target.</p> <p>In this connection, on 16 December 2015, the Board of Directors, with the previous favorable report of the Nomination Committee, approved the Director Selection Policy for Repsol, S.A. that, in addition to containing the specific target of 30% female representation on the Board of Directors in 2020</p>

and the functions of the Nominations Committee throughout the selection process, establishes that candidates for Director must be individuals whose appointment fosters professional, knowledge, nationality and gender diversity within the Board of Directors.

In addition, Repsol's Global Sustainability Plan includes 6 aspirations and 10 goals for 2020 including, "*Ensure that female Directors represent 30% of all members of the Board of Directors*". Each year, the guidelines for reaching these goals are updated.

To facilitate and prepare the proposals it must submit to the General Shareholders' Meeting in relation to the appointment of Independent Directors and, to that end, to have a variety of candidates enabling the Committee to select them, in 2017 the Nominations Committee agreed to hire an external advisor specialized in the selection of candidates.

The General Shareholders' Meeting held on 19 May 2017, approved the appointment of two new female Independent Directors (María Teresa Ballester Fornés and Isabel Torremocha Ferrezuelo).

C.1.6 Explain any measures agreed by the nomination committee to ensure that the selection procedures are not implicitly biased against the selection of female directors and that a conscious effort is made to include women with the target profile among the candidates:

Explanation of measures
See previous section above.
The Nomination Committee is responsible for ensuring that the Director Selection Policy promotes professional diversity of knowledge, nationality and gender in the Board of Directors. In this sense, the Policy contains, among other guidelines, that Director candidates must be individuals, the appointment of whom should favour that diversity in the Board of Directors, as well as the specific target for the presence of women on the Board of Directors by 2020.

If, despite the measures taken, if any, there are few or no female directors, explain the reasons that justify this situation:

Explanation of reasons
See sections above.

C.1.6 bis Explain the conclusions of the nomination committee on the verification of compliance with the directors' selection policy. In particular, how the policy is promoting the goal that by 2020 the number of female directors represent at least 30% of the total members of the board.

The Nomination Committee has verified the compliance with the Director Selection Policy, which includes the specific objective concerning the presence of 30% of women on the Board of Directors in 2020.

During year 2017, there were a total of four vacancies on the Board of Directors corresponding three of them to Independent Directors and the other one to a Proprietary Director.

With respect to the vacancies related to Independent Directors, to facilitate and prepare the proposals it had to submit to the General Shareholders' Meeting in relation to the appointment of Independent Directors and, to that end, to have a variety of candidates that would enable the Committee to select them, the Nominations Committee agreed to hire an external advisor specialized on the selection of candidates.

After analyzing the various profiles submitted, and in compliance with the Articles of Association, the Board of Directors Regulations and the Director Selection Policy of Repsol, S.A., the Nominations Committee agreed to propose to the Board of Directors — to subsequently be submitted to the General Shareholders' Meeting —, the appointment of Ms. María Teresa Ballester Fornés, Ms. Isabel Torremocha Ferrezuelo and Mr. Mariano Marzo Carpio as Independent Directors of the Company. During the General Shareholders' Meeting held on 19 May 2017, the aforementioned appointments were approved, thereby fostering diversity in the make-up of the Board and remaining consistent with the target contained in Repsol's Director Selection Policy, in relation to 30% female representation on the board of directors in 2020.

With respect to the Proprietary Director vacancy that opened on 20 December 2017, the Nominations Committee has submitted the proposal for the appointment, prepared by the significant shareholder CaixaBank, S.A., to fill the aforementioned vacancy, in accordance with the applicable legislation and the Director Selection Policy.

C.1.7 Explain the form of representation on the board of shareholders with significant interests.

All controlling shareholders with the right to proportional representation are represented on the Repsol board of directors.

C.1.8 Explain, if appropriate, why proprietary directors have been appointed at the request of shareholders holding less than 3% of the capital:

Name of shareholder	Explanation

State whether any formal requests for presence on the board have been rejected from shareholders holding interests equal to or greater than others at whose request proprietary directors have been appointed. If appropriate, explain why such requests were not met.

Yes No

Name of shareholder	Explanation

C.1.9 State whether any director has retired before the end of his/her term of office, whether said director explained the reasons for such decision to the Board and through what means, and if the explanations were sent in writing to the entire Board, explain below at least the reasons given by the director:

Name of director	Reason for retirement
Antonio Massanell Lavilla	Mr. Massanell communicate his resignation as Director, dated on 20 December 2017, by letter communicating his retirement.

C.1.10 Indicate the powers delegated to the Managing Director(s), if any:

Name of director	Brief description
Josu Jon Imaz	All powers of the Board except those that are legally or statutory non delegable.

C.1.11 Name Board members, if any, who are also directors or executives of other companies in the same group as the listed company:

Name of director	Name of Group company	Position

C.1.12 Name the company directors, if any, who are on the Boards of non-group companies listed on stock exchanges, insofar as the company has been notified:

Name of director	Listed company	Position
Josu Jon Imaz San Miguel	Gas Natural SDG,S.A.	Vice-Chairman
Luis Suárez de Lezo Mantilla	Gas Natural SDG, S.A.	Director
Manuel Manrique Cecilia	Sacyr, S.A.	Chairman and CEO
Gonzalo Gortázar Rotaache	CaixaBank, S.A.	CEO
Gonzalo Gortázar Rotaache	Banco Português de Investimento, S.A. (BPI)	Director
Jordi Gual Solé	CaixaBank,S.A.	Chairman
Jordi Gual Solé	ERSTE Group Bank	Director
Luis Carlos Croissier Batista	Adveo, S.A.	Director

Luis Carlos Croissier Batista	Alantra Partners, S.A.	Director
Ángel Durández Adeva	Prosegur S.A.	Director

C.1.13 Explain whether the board regulations provides rules on the maximum number of directorships its directors may hold:

Yes No

Explanation of the rules
<p>Article 18 of the Board of Directors Regulations provides in its section 3 the following:</p> <p><i>“Directors may not hold more than four (4) other mandates in other listed companies different from Repsol, S.A. To these effects:</i></p> <p><i>a) It will be considered as one single mandate all those mandates held in companies belonging to the same group as well as those Board memberships held as proprietary director proposed by a company of said group although the stock held in the company or the level of control may not qualify to consider said company as part of the group; and</i></p> <p><i>b) Board memberships in holding companies or companies ancillary to the development of the professional services of the own Director, the spouse, persons having equivalent emotional ties or closest family.</i></p> <p><i>Exceptionally and due to reasons properly justified, the Board may waive the Director from this prohibition. In addition, the Director shall inform the Nomination Committee of any other professional obligations they may have and any material changes in their professional situation, as well as any that may affect the nature or condition by virtue of which they have been appointed Director.”</i></p>

C.1.14 Section repealed.

C.1.15 Indicate the overall remuneration of the board:

Remuneration of the board (thousand euros)	14,458
Amount of the vested rights of current directors in pension schemes (thousand euros)	4,308
Amount of the vested rights of former directors in pension schemes (thousand euros)	0

C.1.16 Name the members of top management who are not executive directors and indicate the aggregate remuneration accrued in their favour during the year:

Name or corporate name	Position/s
Luis Cabra Dueñas	ED Exploration & Production
Begoña Elices García	ED Communication & Chairman’s Office

Translation of a report originally issued in Spanish.
In the event of a discrepancy, the Spanish-language version prevails.

Arturo Gonzalo Aizpiri	Corporate Director of People & Organisation
Miguel Klingenberg Calvo	Corporate Director of Legal Affairs
Antonio Lorenzo Sierra	Corporate Director of Strategy , Control and Resources
Isidoro Mansilla Barreiro	Corporate Director of Audit and Control (through 17 July 2017)
Miguel Martínez San Martín	CFO
Isabel Moreno Salas	Director of Audit and Control (from 18 July 2017)
Jaime Martín Juez	Director of Sustainability and Technology (through 30 April 2017)
Fernando Ruiz Fernandez	Director of Sustainability (from 1 May 2017)
M ^a Victoria Zingoni	ED Downstream
Total remuneration top management (thousand euros)	11,664

C.1.17 Name any board members who are also on the boards of companies of significant shareholders and/or in companies of its group:

Name of director	Name of significant shareholder	Position
Gonzalo Gortázar Rotaeché	VidaCaixa, S.A.(CaixaBank Group)	Chairman
José Manuel Loureda Mantiñán	Valoriza Gestión, S.A (Sacyr Group)	Chairman
José Manuel Loureda Mantiñán	Sacyr Construcción, S.A.U. (Sacyr Group)	Director
Manuel Manrique Cecilia	Sacyr, S.A.	Chairman & CEO
Manuel Manrique Cecilia	Sacyr Construcción, S.A.U. (Grupo Sacyr)	Chairman & CEO
Manuel Manrique Cecilia	Sacyr Concesiones, S.L. (Grupo Sacyr)	Chairman & CEO
Manuel Manrique Cecilia	Valoriza Gestión, S.A. (Grupo Sacyr)	Director
Manuel Manrique Cecilia	Sacyr Fluor, S.A. (Grupo Sacyr)	Director

Describe the significant relationships other than those contemplated above of the board members with the controlling shareholders and/or companies in their group:

Name of related director	Name of related controlling shareholder	Description of relationship
José Manuel Loureda Mantiñán	Sacyr , S.A.	Indirect holder of 7.81% of the capital of Sacyr, S.A. through

		Prilou, S.L. and Prilomi, S.L.
José Manuel Loureda Mantiñán	Sacyr, S.A.	Representative of Prilou, S.L. on the board of Sacyr Vallehermoso, S.A.
Manuel Manrique Cecilia	Sacyr, S.A.	Indirect holder of 1.555% of the capital of Sacyr Vallehermoso, S.A. through Cymofag, S.L.U.
Manuel Manrique Cecilia	Sacyr Vallehermoso Participaciones Mobiliarias,S.L.	Representative of Sacyr, S.A. as Sole Director of Sacyr Vallehermoso Participaciones Mobiliarias,S.L.
Manuel Manrique Cecilia	Sacyr Gestión de Activos, S.L.	Representative of Sacyr, S.A. as Sole Director of Sacyr Gestión de Activos, S.L.
Manuel Manrique Cecilia	Sacyr Finance, S.A.	Representative of Sacyr, S.A. as Sole Director of Sacyr Finance,S.A.

C.1.18 State whether any modifications have been made during the year to the Regulations of the Board:

Yes No

Description of modifications

C.1.19 Describe the procedures for selection, appointment, re-election, assessment and removal of directors. Indicate the competent bodies, the formalities and the criteria to be followed in each of these procedures.

Selection: The Nomination Committee, which is exclusively composed by External Directors, assesses the knowledge, expertise and experience required on the Board and defines accordingly the duties and skills required in the candidates who are to fill each vacancy and assess the time and dedication necessary for them to perform their duties adequately.

In turn, that committee is responsible for ensuring that the procedures for selecting directors promote the professional diversity of knowledge, nationality and gender and for setting a target for the gender least represented on the board of directors and devising a strategy to achieve that goal.

Additionally, the Board of Directors has approved on December 16th, 2015 the Directors Selection Police.

Appointment: Board members are appointed by the General Meeting, without prejudice to the right of the Board to nominate shareholders by co-optation to fill any vacancies that arise, up to the next General Meeting.

Within its powers of proposal to the General Meeting or appointment by cooptation, the Board may not propose as candidates or appoint as Directors any persons affected by any of the incompatibilities or prohibitions established in law, the Articles of Association or regulations or any persons, companies or entities in a situation of permanent conflict of interest with the company, including competitors of the company or their directors, executives or employees, or any persons related to or proposed by them.

Directors shall be persons who, apart from meeting the requirements stipulated for the position in the law and the Articles of Association, have recognised prestige and sufficient professional experience and expertise to perform their duties as such.

Furthermore, those persons indicated in section 2 of Article 13 of the Board's Regulations may not be nominated or appointed as Independent Directors. In addition, External Proprietary Directors who lose this status when the shareholder they represent sells its shares in the Company may only be re-elected as External Independent Directors when the shareholder they represented up to that time has sold all of its shares in the Company. A Director who holds a shareholding interest in the Company may be appointed as External Independent Director, provided he meets all the conditions established in this article and does not hold a significant interest.

Nominations for the appointment or ratification of directors submitted by the Board to the General Meeting and appointments made by cooptation must be approved by the Board (i) upon proposal of the Nomination Committee, in the case of Independent Directors, or (ii) subject to a report by said Committee for other directors.

Re-election: Directors shall hold office for a maximum of four years, after which they shall be eligible for re-election for one or several periods with an equal duration. Directors appointed by cooptation shall hold office up to the next General Meeting following their appointment at which their appointment shall be subject to ratification.

The Nomination Committee shall be responsible for assessing the quality of their work and dedication of the directors proposed during their previous term in office.

Proposals to the General Meeting for the re-election of Directors shall be approved by the Board (i) upon proposal of the Nomination Committee, in the case of Independent Directors, or (ii) subject to a report by said Committee for other directors.

Assessment: At least once a year, the Board of Directors shall assess its functioning and the quality and efficiency of its work. It shall also annually assess the work of its Committees, based on the reports they submit to it. The Chairman shall organise and coordinate this regular assessment of the Board with the Chairmen of the Committees.

The Board, with the periodicity that determines, shall commission an external assessment of its performance to an independent specialized firm at least once every three years.

Cessation: Directors shall retire from office upon expiry of the term for which they were appointed and in all other cases stipulated in law, the Articles of Association and the Regulations of the Board of Directors.

The Board shall not propose the removal of any Independent Director before the end of the period for which he was appointed, unless it has justified reasons for doing so, based on a report by the Nomination Committee. In particular, such a proposal shall be justified if the Director (i) has defaulted the duties corresponding to his position; (ii) is in any of the situations described in section C.1.21 below; or (iii) falls into any of the circumstances by virtue of which he may no longer be considered an Independent Director.

The removal of Independent Directors may also be proposed following takeover bids, mergers or other similar corporate operations causing a change in the shareholding structure of the Company, insofar as may be necessary to establish a reasonable balance between Proprietary Directors and Independent Directors.

Directors shall also tender their resignations in any of the circumstances defined in section C.1.21.

C.1.20. Explain to what extent the annual assessment of the Board has given rise to major changes in its internal organisation and the procedures applicable to its activities:

Description of modifications
<p>Repsol is fully committed to the development of its corporate governance, adopting the best international practices that are applicable to it. With the aim of continuous improvement, Repsol annually evaluates the functioning of the Board of Directors and its Committees, and, based on the conclusions reached, draws up an action plan with the main areas of work. In accordance with the provisions of article 45ter of the Articles of Association and in article 11.2 of the Regulations of the Board of Directors, during the year 2017, the independent firm KPMG assisted the Board of Directors with the external assessment of performance of the Board of Directors of Repsol, S.A. and its Committees, presenting the report with the conclusions of said assessment at the meeting of the Board of Directors on February 27, 2018.</p> <p>In view of the conclusions of the assessment process, the Board of Directors has approved, following the report from the Nominations Committee, an action plan that includes, among other measures, actions related to the strategic planning process, the establishment of a repository – Directors Site – to afford easier access to the documentation provided to the Directors; the formalization of the initial training plan and the holding of specific training sessions for the Directors; the way of presenting the issues during the meetings or the analysis of the functioning of the Committees in the face of legislative developments and best practices.</p>

C.1.20 bis Describe the process of assessment and the assessed areas carried out by the board of directors assisted, where appropriate, by an external consultant, regarding the diversity in its composition and powers, the operation and composition of its committees, the performance of the chairman of the board and of the chief executive of the company and the performance and contribution of each director.

<p>According to the provisions of Article 45quater of the Bylaws and Article 11 of the Regulations of the Board, at least once a year the Board will evaluate its performance and the quality and efficiency of its work. The performance of Board Committees will likewise be assessed annually, based on the annual reports submitted by each one. The Chairman will organize and coordinate three periodic evaluations with the Committee Chairs. At least once every three years, the Board will be assisted in the evaluation process by an external consulting firm.</p> <p>In this regard, on 27 September 2017, the Board of Directors agreed — with the proposal of the Nominations Committee — to launch the selection process for the firm in charge of carrying out the external assessment of the Board and its Committees, appointing KPMG Asesores, S.L. as the entity in charge of performing the 2017 assessment.</p> <p>In accordance with the foregoing, the independent company KPMG has</p>
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helped the Board to make an external assessment of the performance of the Board of Directors of Repsol, S.A. and of its Committees in 2017 and, specifically, the performance of the Chairman of the Board of Directors, the CEO, the General Counsel Director Secretary of the Board. The process was coordinated by the Chairman of the Nominations Committee and the General Counsel Director Secretary of the Board and completed with the approval of the Conclusions Report and the Action Plan in the Board of Directors' meeting on 27 February 2018.

The evaluation process has been carried out through the conduct of personal interviews conducted by KPMG with each one of the Directors in order to know their opinion regarding questions related to the performance of the Board and its Committees (among others, organization composition, training, advisory services, incorporation of new directors, information provided, conduct of the meetings, quality of debate, responsibilities and competencies), as well as the performance of the Chairman of the Board of Directors, the CEO and the General Counsel Director Secretary of the Board, in order to evaluate the perception of the Directors with respect to the practices of the Board and its Committees. The interviews had been preceded by the fulfillment of an individual questionnaire where are reflected the previous questions.

In view of the report prepared by KPMG and after analyzing the information collected, the Board of Directors has approved an Action Plan, with the previous report of the Nominations Committee, in the Board of Directors' Meeting on 27 February 2017.

C.1.20. ter Breakdown, if any, business relations that the consultant or any company of its group has with the company or any company of its group.

The business relationship between the external consulting group and the Repsol Group in 2017 amounted to €4.9 million and mainly related to the following services:

- Advisory services related to tax matters
- Advisory services related to computer applications and services
- Advisory services related to legal and litigation matters
- Advisory services related to training programs
- Advisory services related to corporate and business development matters

The worldwide annual turnover of the KPMG Group amounts to approximately 26,400 million euros and in Spain to 382 million euros, so the amounts paid by the Repsol Group do not represent a significant percentage of the total business figure of KPMG, both worldwide as for Spain.

There are no objective reasons to question the independence of KPMG as an external consultant for the advice in carrying out the external assessment of the Board and its Committees.

C.1.21 State the events in which directors are obliged to step down.

Directors shall tender their resignations and step down from the Board, should the latter consider this appropriate, in the following events:

- a) If they fall into circumstances of incompatibility or prohibition contemplated in law, the Articles of Association or applicable regulations.
- b) If they receive a serious warning from the Nomination Committee or the Audit and Control Committee for defaulting their obligations as directors.
- c) If, in the opinion of the board, in view of a report by the Nomination Committee:
 - (i) Their remaining on the Board could jeopardise the interests of the company or adversely affect the functioning of the Board or the standing and reputation of the Company; or
 - (ii) If the reasons why they were appointed disappear. Directors shall find themselves in this position, particularly in the following cases:
 - External Proprietary Directors, when the shareholder they represent or that nominated them directors transfers its entire shareholding interest. They shall also offer their resignation and, should the Board deem fit, step down from the Board, in the corresponding proportion, if the shareholder reduces its shareholding interest to a level requiring a reduction in the number of its External Proprietary Directors.
 - Executive Directors, when they cease to hold the executive positions outside the board to which their appointment as director was linked.

C.1.22 Section repealed

C.1.23 Are special majorities differing from those stipulated in law required for any type of decision?

Yes No

If yes, describe the differences:

Description of the differences
<p>The alteration of Articles 20 and 23 of the Regulations of the Board regarding the no competition obligation and related party transactions, respectively, requires the favourable vote of three-quarters of the board members.</p> <p>The favourable vote of two-thirds of the members not involved in a conflict of interest is required to authorise the directors to provide counselling or representation services to the company's rivals, subject to a favourable report by the Nomination Committee.</p> <p>The favourable vote of two-thirds of the members not involved in a conflict of interest is also required to release from disqualification due to conflict of interest in respect of a proposal put to the general meeting or an appointment of candidates or directors by cooptation.</p> <p>Finally, the favourable vote of two-thirds of the members not involved in a conflict of interest is also required to authorise related party transactions of the company with directors, controlling shareholders represented on the board or persons related to them for a sum exceeding 5% of the Group's assets according to the latest consolidated annual accounts approved by the general meeting, in respect of strategic assets of the company, involving the transfer of significant technology of the company, intended to establish strategic alliances and which are not mere agreements of action or execution of existing alliances. This is conditional upon the transaction being fair and efficient for the interests of the company, the Nomination Committee having issued a favourable report after obtaining the corresponding report from a reputed independent financial expert indicating that the related party transaction will be made on reasonable, arm's length terms and if it is considered unadvisable to wait for the next general meeting to obtain authorisation, for reasons of opportunity.</p>

C.1.24 Are there any specific requirements, other than those established for directors, to be appointed Chairman of the Board of Directors?

Yes No

Description of requirements

C.1.25 Does the Chairman have a casting vote?

Yes No

Matters on which there is a casting vote
According to Article 36 of the Articles of Association, save where greater majorities have been specifically established, resolutions of the Board shall be approved by the absolute majority of directors attending, and in the event of a tie, the Chairman or acting chairman shall have the casting vote.

C.1.26 Do the Articles of Association or Regulations of the Board establish an age limit for directors?

Yes No

C.1.27 Do the Articles of Association or Regulations of the Board establish a limited term of office for independent directors other than as stipulated in law?

Yes No

Maximum number of years in office	

C.1.28 Do the Articles of Association or Regulations of the Board establish specific rules for the delegation of votes at board meetings, how they are to be delegated and, in particular, the maximum number of delegations that a director may hold, and whether there is any limitation as to the categories of directors that can be delegated beyond the limitations imposed by legislation. If yes, include a brief description.

Without prejudice to the directors' duty to attend the meetings of the bodies they belong to or, if they are unable for justified reasons to attend the meetings to which they have been called, to issue the appropriate instructions to the director who is to represent them, if any, each Board member may grant a proxy to another member, with no limit on the number of proxies that may be held by any director for attendance of Board meetings, all subject to the provisions of the applicable laws.

Absent directors may grant proxies by any written means, including telegram, telex or telefax addressed to the Chairman or Secretary of the Board.

C.1.29 State the number of meetings held by the Board of Directors during the year, indicating, if appropriate, how many times the Board has met without the Chairman. Proxies made with specific instructions shall be considered attendance:

Number of board meetings	11
Number of board meetings held without the chairman	0

If the chairman is an executive director, indicate the number of meetings held without the attendance or representation of any executive directors and chaired by the coordinating director

Number of meetings	
--------------------	--

Indicate the number of meetings held by the different Committees of the Board:

Number of meetings of the Executive or Delegate Committee	7
Number of meetings of the Audit and Control Committee	9
Number of meetings of the Nomination Committee	9
Number of meetings of the Remuneration Committee	2
Number of meetings of Sustainability Committee	4

C.1.30 State the number of meetings held by the Board during the period attended by all its members. Proxies made with specific instructions will be considered attendances:

Number of meeting with the attendance of all directors	11
% attendance over total votes during the year	100%

C.1.31 Are the separate and consolidated annual accounts submitted to the Board for approval previously certified?

Yes No

If yes, name the person(s) who certify the separate or consolidated annual accounts of the company before they are approved by the Board:

Name	Position
Josu Jon Imaz San Miguel	CEO
Miguel Martínez San Martín	Managing Director and CFO

C.1.32 Explain the mechanisms, if any, established by the Board to avoid a qualified auditors' report on the separate and consolidated accounts laid before the General Meeting.

The Audit and Control Committee, set up on 27 February 1995, has as main duty, the supporting to the Board in its supervisory duties, through regular checking of the preparation of economic and financial reporting, the effectiveness of its executive controls and the independence of the external auditors, as well as supervising the internal audit department, and checking the compliance with all the legal provisions and internal regulations applicable to the Company.

This Committee has the following duties, among others:

- Supervise the integrity and process of preparing the mandatory financial information on the company and its group, ensuring compliance with all requirements, adequate definition of the consolidated group and correct

application of the accounting principles.

- Regularly check the internal control, internal audit and risk management systems, including tax risks, to ensure that the principal risks are identified, handled and reported on adequately.
- Prior to their submission to the board, analyse the financial statements of the company and its consolidated group included in the annual, half-year and quarterly reports and any other financial information that the company is obliged to publish regularly by virtue of being a listed company, with the necessary requirements to ensure that they are correct, reliable, adequate and clear. For this purpose it shall have all the necessary information and such degree of aggregation as it may deem fit, assisted as necessary by the top management of the group. It shall, in particular, see that the annual accounts that are to be submitted to the board are certified pursuant to the internal or external regulations applicable from time to time.
- Ensure that the Board of Directors submits the accounts to the General Meeting without there being any reservations or provisos in the auditor's opinion and that in those exceptional cases where there are provisos, both the Chairman of this Committee and the auditors provide the shareholders with a clear explanation of the scope and contents of the reservations or provisos.
- Regularly receive information from the external auditors on the audit plan and results of their work, and check that the executives heed their recommendations.
- Regularly require the external auditors, and at least one a year, to assess the quality of the group's internal control procedures and systems.
- Be informed of any situations requiring adjustments that may be detected during the work of the external auditors whenever they are significant, considering this to mean any situations which, per se or in combination with others, may cause a material impact or damage to the net worth, results or reputation of the group. This consideration shall be left to the discretion of the external auditors, who shall, in case of doubt, opt for notification. The Chairman of the Committee shall be notified accordingly as soon as the auditors become aware of the situation in question.
- Oversee the degree of fulfilment by the audited units of the corrective measures recommended by the internal audit department in previous audits.

The committee shall be informed of any significant irregularities, anomalies or defaults detected by the internal audit department in the course of its work.

For this purpose, the members of this Committee shall have the necessary experience, capacity and dedication to perform their duties. Moreover, the Chairman shall have experience in business or risk management and a working knowledge of accounting procedures, and at least one of the members shall have the financial experience that

may be required by the regulatory bodies of the stock markets on which the stocks or shares of the company are listed.

C.1.33 Is the Secretary of the Board a Director?

Yes No

C.1.34 Section repealed.

C.1.35 Describe any concrete mechanisms established by the company to preserve the independence of the external auditor, financial analysts, investment banks and rating agencies.

Article 34 of the Board Regulations states that one of the duties of the Audit and Control Committee is to ensure the independence of the External Auditors, in two ways:

- a) Avoiding any factors that may compromise the warnings, opinions and recommendations of the External Auditors, and
- b) Establishing and overseeing any incompatibilities between auditing and consultancy services and any others, the limits on concentration of the External Auditor's business and, in general, all other rules established to guarantee the auditor's independence.

The Audit and Control Committee has established a procedure to approve previously all the services, auditing or otherwise, provided by the External Auditor, whatever their extent, scope and nature. This procedure is regulated in an Internal Rule mandatory for the whole of the Repsol Group.

In addition, article 34 of the Regulations of the Board of Directors provides that the Committee shall receive, annually, from the External Auditor written confirmation of its independence towards the Company or entities related to the same directly or indirectly, as well as information on the additional services of any kind to these entities by the Auditors or by individuals or entities related to them and the fees charged, in accordance with the regulations governing the activity of auditors. The Committee shall issue annually, prior to the delivery of the Auditing report, a report stating an opinion on the independence of the Auditors. This report must necessarily contain a motivated assessment of any non-auditing services rendered, considered both individually and as a whole, vis-à-vis the rules governing independence or the regulations of the auditing profession.

On the other hand, a part of the meetings with the auditor takes place without the presence of the entity's management, so that the specific issues arising from the reviews carried out can be discussed exclusively with them.

Furthermore, Repsol Group has the Investor Relation Corporate Division whose responsibilities include ensuring that the information supplied by the Company to the market (financial analysts and investment banks, amount other) is transmitted fairly, commensurate and in useful time and, according with the Repsol Group Internal Conduct Regulations Regarding the Securities Market, that such information is accurate, clear, complete and, when required by the nature of the information, quantified, and

shall by no means be misleading or confusing.

The Repsol Group has also approved and published a communication and contact policy for shareholders, institutional investors and proxy advisors which defines and establishes the principles and guidelines for contacting and communicating with these groups.

C.1.36 Indicate whether the external auditors have changed during the year. If so, name the incoming and outgoing auditors:

Yes No

Outgoing auditor	Incoming auditor

Explain any disagreements with the outgoing auditor:

Yes No

Explanation of disagreements

C.1.37 State whether the firm of auditors does any work for the company and/or its group other than standard audit work and if so, declare the amount of the fees received for such work and the percentage it represents of the total fees invoiced to the company and/or its group:

Yes No

	Company	Group	Total
Cost of work other than auditing (thousand euro)	851	866	1,717
Cost of work other than auditing / Total amount invoiced by the auditors (%)	25	21	23

C.1.38 Indicate whether the auditors' report on the annual accounts of the previous year was qualified. If so, state the reasons given by the Chairman of the Audit Committee to explain the content and scope of the qualifications.

Yes No

Explanation of reasons

C.1.39 State the number of years in succession that the current firm of auditors has been auditing the annual accounts of the company and/or its group. Indicate the ratio of the number of years audited by the current auditors to the total number of years

that the annual accounts have been audited:

	Company	Group
Number of years in succession	28	28

	Company	Group
Number of years audited by current auditors / Number of years that the company has been audited (%)	100%	100%

C.1.40 Indicate, giving details if appropriate, whether a procedure has been established for directors to receive external counselling:

Yes No

Details of procedure
<p>The Regulations of the Board of Repsol, S.A. expressly recognise the directors' right to advisory services. Article 25 provides as follows:</p> <ul style="list-style-type: none"> - The Directors shall likewise have the power to propose to the Board, by majority vote, the contracting at the Company's expense of legal advisers, accountants, technical, financial, and commercial experts, and experts of any other kind they consider necessary to the Company's interests, to provide assistance in the performance of the Directors' functions in regard to concrete problems of some magnitude and complexity relating to their positions. - Said proposals must be submitted to the Chairman of the Company through the Secretary of the Board. The Board of Directors may veto their approval on the grounds that they are unnecessary to the performance of the assigned functions, or that the number is disproportionate to the importance of the problem and to the Company's assets and income, or that the technical assistance in question could be adequately provided by experts within the Company. <p>Furthermore, the Regulations of the Board of Directors establish that the Audit and Control Committee, the Nomination Committee, the Remuneration Committee and the Sustainability Committee may obtain counselling from lawyers or other independent professionals, in which case the Secretary of the Board shall, at the request of the Chairman of the Committee, take whatever action may be necessary to engage the services of such lawyers or other professionals, which shall be provided directly to the corresponding Committee.</p>

C.1.41 Indicate, with details if appropriate, whether there is an established procedure for

directors to obtain sufficiently in advance any information they may need to prepare the meetings of the governing bodies:

Yes No

Details of procedure
<p>The Regulations of the Board of Directors of Repsol, S.A. establish that the notice of call to Board meetings shall be sent to each director at least 48 hours prior to the date specified for the meeting, and shall include the agenda. The minutes of the previous meeting shall be enclosed, regardless of whether they have been approved, and any information considered necessary and that is available.</p> <p>The Regulations of the Board of Directors of Repsol, S.A. contemplate procedures to ensure that directors have the necessary information sufficiently in advance to prepare Board meetings. In this regard, Article 25 provides as follows:</p> <ul style="list-style-type: none">– The Directors shall have access to all the Company's services and may obtain, with the broadest possible powers, the information and advising they need on any aspect of the Company provided they request it in connection with the performance of their functions. The right to information extends to the subsidiaries, whether national or foreign, and shall be channelled through the Chairman or the Secretary of the Board of Directors or of the appropriate Board Committee, who shall respond to Directors' requests and directly furnish them the information, offering them access to appropriate sources or taking all necessary measures to answer questions.

C.1.42 Indicate, with details if appropriate, whether the company has established any rules obliging Directors to report and, if necessary, retire in any situations that could be detrimental to the prestige and reputation of the company:

Yes No

Explain the rules
<p>According to Article 16 of the Regulations of the Board of Directors, Directors shall offer their resignation and, should the board deem fit, step down as directors if, in the opinion of the Board, in view of a report by the Nomination Committee, their remaining on the board could jeopardise the interests of the company or adversely affect the functioning of the board or the standing and reputation of the company.</p> <p>In this regard, Article 19 of the Regulations of the Board of Directors provides that Directors shall notify the board as soon as possible and keep it up to date on any situations in which they may be involved and that could be detrimental to the standing and reputation of the company, to enable the board to assess the circumstances, particularly in pursuance of the preceding paragraph.</p>

C.1.43 Has any member of the Board informed the company that he/she has been sued or brought to trial for any of the offences contemplated in article 213 of the Companies Act?

Yes No

Name of Director	Prosecution	Comments
Mario Fernández Peláz	Misappropriation	Mr. Fernandez reported at the meeting of the Nomination Committee on March 27, 2017 and at the meeting of the Board of Directors on March 29 that on March 20, 2017, the Provincial Court of Vizcaya issued a judgment declaring him responsible for a crime of misappropriation in relation to the entity Kutxabank, S.A .This ruling was not final and has been appealed by Mr. Fernández before the Supreme Court. In light of the facts and circumstances of the case, including, among others, the absence of any personal gain and the measures adopted by Mr. Fernández to ensure that there was no harm to the affected entity, the Board of Directors decided that it was appropriate for the Director to continue in his position.

Has the Board studied the case? If so, indicate and explain the decision made as to whether or not the director should remain in office or, if appropriate, describe the actions taken by the board up to the date of this report, or which it plans to take.

Yes No

Decision made / action taken	Reasoned explanation
Continuity of Mr. Fernández in his position of Director	In light of the facts and circumstances of the case, including, among others, the absence of any personal gain and the measures adopted by Mr. Fernández to ensure the absence of

	any prejudice for Kutxabank, S.A. and that the judgment issued by the Provincial Court of Vizcaya was not final and has been appealed by Mr. Fernández before the Supreme Court, the Board of Directors decided that the continuity of the Director in his position should proceed.
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C.1.44 Describe any significant agreements entered into by the company which enter into force, are modified or terminated in the event of a takeover of the company following a takeover bid, and the effects thereof.

<p>The company usually participates in the exploration and exploitation of hydrocarbons through consortiums or joint ventures with other oil companies, both public and private. The agreements regulating the relations among partners of the joint ventures commonly grant the other partners a right of pre-emption on the participation of the member who intends to directly transfer all or part of its participation. This also applies to indirect transfers, that is, when there is a change of control in a particular partner's company and the value of the participation is significant in relation to the total assets included in the transaction, or other circumstances which are contractually regulated.</p> <p>The laws regulating the oil and gas industry in several countries in which the company operates also submit to prior authorisation by the competent government of any transfer of all or part of licences for hydrocarbon exploration and exploitation concessions, and such authorisation is sometimes also required for takeovers of the concessionary company or companies, especially the one that operates the mining business.</p>

C.1.45 Indicate globally and describe in detail any agreements made between the company and its directors, executives or employees contemplating golden handshake clauses in the event of resignation or unfair dismissal or termination of employment following a takeover bid or any other type of transaction.

Number of beneficiaries	241
Type of beneficiary	Description of the agreement
Directors: 4 members of the Executive Committee (excluding the Executive Directors) and 235 Directors	The company has established a single statute for executives, defined in the Executive Contract, regulating the severance pay applicable in cases of termination of their employment, contemplating the grounds for compensation stipulated in law. For members of the Executive Committee they include resignation by the Executive as a result of takeover of the company or a major

	<p>change in its ownership, leading to a renewal of its governing bodies or the content of and approach to its main business activity.</p> <p>The amount of severance pay of the current members of the Executive Committee and of the rest of Directors appointed before December 2012 is calculated according to the age, seniority and salary of each executive. In the case of directors appointed after that date, the amount is calculated based on salary and years of management, within a range between 12 and 24 months, or the legal, if this higher.</p> <p>Further compensation is set to pledge not post-contractual competition of an annuity of total annual remuneration in the case of members of the Executive Committee (six months the case of one of them) and an annuity of fixed remuneration in the rest of Directors. . In the management agreements of some countries it is not contemplated the post-contractual commitment of non-competition or no compensation whatsoever is established for the same is not contemplated.</p>
Executive Directors: 2	<p>A deferred economic compensation is contemplated for executive directors in the event of termination of their relationship with the company, provided it does not occur as a result of default of their obligations or at their own will without one of the justifying causes contemplated in their contract. The details of such deferred economic compensation are set out in the Annual Remuneration Report for the Directors</p>

State whether these contracts have to be notified to and/or approved by the governing bodies of the company/group companies:

	Board of Directors	General Meeting
Body authorising the clauses	YES	NO

Is the General Meeting informed on the clauses?	YES
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C.2. Committees of the Board

C.2.1 Give details of the different committees, their members and the proportion of executive, proprietary, independent and other non-executive directors in each committee:

EXECUTIVE COMMITTEE

Name	Position	Category
Antonio Brufau Niubó	Chairman	Other external
Josu Jon Imaz	Member	Executive
Gonzalo Gortázar Rotaeché	Member	Proprietary
Manuel Manrique Cecilia	Member	Proprietary
Rene Dahan	Member	Proprietary
Artur Carulla Font	Member	Independent
J. Robinson West	Member	Independent
Luis Suárez de Lezo Mantilla	Member & Secretary	Executive

% executive directors	25%
% proprietary directors	37.5%
% independent directors	25%
% other non-executive directors	12.5%

Explain the committee's functions. Describe the procedures and the rules of organisation and operation of the committee and summarise its most important achievements during the year.

The Delegate Committee is composed of the Chairman of the Board and up to a maximum of eight Directors from the three existing categories, maintaining a similar proportion to that existing on the Board of Directors. Its members shall be appointed with a majority of at least two-thirds of the current Board members. The Chairman and the Secretary of the Delegate Committee shall be those of the Board.

All the powers of the Board are permanently delegated to the Delegate Committee, except those that may not be lawfully delegated. Whenever the business is sufficiently important, in the opinion of the Chairman or three members of the Delegate Committee, the resolutions adopted by the Delegate Committee shall be submitted to the full Board for ratification. The same shall be applicable in any business referred by the Board to be studied by the Delegate Committee, while reserving the ultimate decision thereon. In all other cases, the resolutions adopted by the Delegate Committee shall be valid and binding with no need for subsequent ratification by the Board.

In 2017, the Delegate Committee has analysed, among other questions, energy scenario provided for the next decades and the positioning of the company, investments proposals and reports from the Corporate and Business Units and the strategic lines in the different business.

State whether the composition of the Delegate or Executive Committee reflects the percentage of the different board members by category:

Yes No

If not, explain the composition of the Delegate or Executive Committee

AUDIT AND CONTROL COMMITTEE

Name	Title	Category
Ángel Durández Adeva	Chairman	Independent
María Teresa Ballester Fornés	Member	Independent
Luis Carlos Croissier Batista	Member	Independent
Mario Fernández Pelaz	Member	Independent
Isabel Torremocha Ferrezuelo	Member	Independent

% of proprietary directors	-
% of independent directors	100%
% of other external directors	-

Explain the committee's functions. Describe the procedures and the rules of organisation and operation of the committee and summarise its most important achievements during the year.

The Audit and Control Committee is composed exclusively of Independent Directors, no fewer than three in number, appointed by the Board on the basis of their experience and expertise in accounting, auditing or risk management. The Board shall appoint the members of this Committee for a term of four years. Without prejudice to one or several re-elections, they shall retire at the end of that term, when they retire from the Board, in case they cease to be considered as Independent Directors or whenever so resolved by the Board, subject to a prior report by the Nomination Committee. The chairman shall hold office as such for a maximum of four years, after which he shall not be eligible for re-election until one year has passed, without prejudice to his continuation or re-election as member of the Committee. The Secretary shall be the same of the Board.

This Committee supports the Board in its supervisory duties, through regular checking of the preparation of economic and financial reporting, the efficacy of executive controls, and the independence of the external auditors, as well as checking compliance with all the legal provisions and internal regulations applicable to the company. This Committee is competent to submit proposals regarding the appointment, renewal and removal of external auditors, drawing up an Annual Report on its activities which is submitted to the Board and is public.

The Committee establishes an annual calendar of meetings, as well as an Action Plan for each year. Meetings shall be called whenever so requested by any two of its members.

In 2017, the Committee analysed the financial statements of the company and the consolidated group, made a proposal to re-elect Deloitte as the external auditors for the year 2017 and the appointment of PricewaterhouseCoopers as external auditor for the years 2018,2019 and 2020

and supervised internal risk control and information systems.

Identify the board member named to the Audit Committee because of his or her knowledge of accounting, auditing or both and state how many years the Chairman of this committee has held the position.

Name(s) of director (s) with experience	Ángel Durández Adeva
No. of years chairman has held office	0

NOMINATION COMMITTEE

Name	Title	Category
Mario Fernández Pelaz	Chairman	Independent
Artur Carulla Font	Member	Independent
Jordi Gual Solé	Member	Proprietary
José Manuel Loureda Mantiñán	Member	Proprietary
Mariano Marzo Carpio	Member	Independent

% of proprietary directors	40%
% of independent directors	60%
% of other external directors	-

Explain the committee's functions. Describe the procedures and the rules of organisation and operation of the committee and summarise its most important achievements during the year.

The Nomination Committee consists of no fewer than three External Directors, being the majority Independent, taking account of the expertise, skills and experience of the directors and the duties of the Committee. The Board shall appoint the members of this Committee for a term of four years. Without prejudice to one or several re-elections, they shall retire at the end of that term, when they retire from the Board or whenever so resolved by the Board, subject to a prior report by the Audit and Control Committee. The Chairman of this Committee shall be one of its members, who shall necessarily be an External Independent Director, and the Secretary shall be the Secretary of the Board.

This Committee has the duties of proposing and reporting to the Board on the selection, appointment, re-election and removal of Directors, establishing a target for the gender that is underrepresented on the board, reporting on the proposed appointment and removal of senior executives and the directors' compliance with the principles of corporate governance and other obligations.

The Committee shall meet whenever the Board or Chairman of the Board requests reports or proposals within the scope of its duties, and whenever called by the Chairman of the Committee, requested by two Committee members or when reports are required.

In 2017 the Nomination Committee analysed, among others, the selection of the directors Ms. Maria Teresa Ballester Fornés, Ms. Isabel Torremocha Ferrezuelo, Mr. Mariano Marzo Carpio

and Mr. Jordi Gual Solé, the external assessment of the Board and its Committees with the help of an external consultant and the operations of the significant shareholders and the companies of the group.

COMPENSATION COMMITTEE

Name	Title	Category
Artur Carulla Font	Chairman	Independent
Ángel Durández Adeva	Member	Independent
Mario Fernández Pelaz	Member	Independent
José Manuel Loureda Mantiñán	Member	Proprietary
Gonzalo Gortázar Rotaeché	Member	Proprietary

% of proprietary directors	40%
% of independent directors	60%
% of other external directors	-

Explain the committee's functions. Describe the procedures and the rules of organisation and operation of the committee and summarise its most important achievements during the year.

The Compensation Committee consists of no fewer than three External Directors, being the majority Independent, taking account of the expertise, skills and experience of the directors and the duties of the Committee. The Board shall appoint the members of this Committee for a term of four years. Without prejudice to one or several re-elections, they shall retire at the end of that term, when they retire from the Board or whenever so resolved by the Board, subject to a prior report by the Audit and Control Committee. The Chairman of this Committee shall be one of its members, who shall necessarily be an External Independent Director, and the Secretary shall be the Secretary of the Board.

This Committee has the duties of making proposals and reporting to the Board of Directors on the compensation policy for senior management and the basic contractual conditions of senior management, verifying compliance with the Company's established compensation policy, verifying the compensation information contained in corporate documents and reporting on the use of company information and assets for private purposes, among others.

The Committee shall meet whenever the Board or Chairman of the Board requests reports or proposals within the scope of its duties, and whenever called by the Chairman of the Committee, requested by two Committee members or when reports are required.

During 2017 the Committee has reported and proposed to the Board of Directors, among other matters, the Annual Remuneration report and the voluntary report for 2016, the inclusion of a target tied to share value and the total return for shareholder in the annual variable remuneration for 2017 of the CEO and and in the 2017-2020 Long-Term Variable Remuneration Plan, respectively, the delivery of shares to the Executive Directors as part of the payment of their multi-year variable remuneration and the Remuneration Policy of the Directors for the period 2018-2020.

SUSTAINABILITY COMMITTEE

Name	Title	Category
Mariano Marzo Carpio	Chairman	Independent
Luis Carlos Croissier Batista	Member	Independent
Jordi Gual Solé	Member	Proprietary
José Manuel Loureda Mantiñán	Member	Proprietary
% of executive directors		-
% of proprietary directors		50%
% of independent directors		50%
% of other external		-

Explain the committee’s functions. Describe the procedures and the rules of organisation and operation of the committee and summarise its most important achievements during the year.

The Sustainability Committee is composed by of fewer than three directors, the majority of whom must be external directors. They are appointed by the Board taking account of the expertise, skills and experience of the directors and the duties of the Committee. The Board shall appoint the members of this Committee for a term of four years. Without prejudice to one or several re-elections, they shall retire at the end of that term, when they retire from the Board or whenever so resolved by the Board, subject to a prior report by the Nomination Committee. One of the members of this Committee shall be appointed Chairman and the secretary shall be the Secretary of the Board.

This Committee has, among others, the duties of shaping the Group’s policies, objectives and guidelines on environmental, safety and social responsibility matters, analysing and reporting to the Board of Directors on the expectations of the Company’s stakeholders and supervising the relations with them, proposing to the Board of Directors the approval of a Sustainability Policy and reviewing and evaluating the management and control systems for non-financial risks.

The Committee meets with the established frequency, whenever called by its Chairman or requested by two of its members.

During 2017 the Committee has reviewed, among other matters, the sustainability report for year 2016 the Sustainability Policy, the Group's risk map, the Global Sustainability Plan, the Company initiatives regarding climate change and the monitoring system of safety and environmental protection indicators.

The respective Chairmen of the Committee shall regularly report to the Board on the actions taken by the Committees. At least once a year, the Committee shall assess its functioning and the quality and efficiency of its work, reporting to the full Board. The Secretary of the Committee shall issue minutes of the resolutions adopted at each meeting, which shall be made available to Board members.

C.2.2 Complete the following table with information on the number of directors who sat on Board Committees at the close of the last four fiscal years:

	Number of directors			
	FY t Number - %	FY t-1 Number - %	FY t-2 Number - %	FY t-3 Number - %
Delegate Committee	-	-	-	-
Audit and Control Committee	2-40%	-	-	
Nomination Committee	-	1 – 20%	1 – 20%	N.A.
Compensation Committee	-	1 – 20%	1 – 20%	N.A.
Sustainability Committee	-	1 – 20%	1 – 20%	N.A.

C.2.3 Section repealed.

C.2.4 Section repealed.

C.2.5 Indicate the existence, if appropriate, of regulations of the board committees, where they are available for consultation and any modifications made during the year. State whether an annual report has been issued voluntarily on the activities of each committee.

Delegate Committee

The internal regulation of the Delegate Committee is currently set out in the Articles of Association and the Regulations of the Board of Directors. The Articles of Association and the Regulations of the Board of Directors are entered in the Madrid Trade Registry and accessible to the public through the company's web site (www.repsol.com).

Audit and Control Committee

The internal regulation of the Audit and Control Committee is currently set out in the Articles of Association and the Regulations of the Board of Directors. The Articles of Association and the Regulations of the Board of Directors are entered in the Madrid Trade Registry and accessible to the public through the company's web site (www.repsol.com). The Audit and Control Committee has drawn up a Report of its activities during 2017 which will be available to shareholders for the General Shareholders Meeting 2018.

Nomination Committee

The internal regulation of the Nomination Committee is currently set out in the Regulations of the Board of Directors. The Regulations of the Board of Directors are entered in the Madrid Trade Registry and accessible to the public through the company's web site (www.repsol.com).

Compensation Committee

The internal regulation of the Compensation Committee is currently set out in the Regulations of the Board of Directors, which are entered in the Madrid Trade Registry and accessible to the public through the company's web site (www.repsol.com).

Sustainability Committee

The internal regulation of the Sustainability Committee is currently set out in the Regulations of the Board of Directors, which are entered in the Madrid Trade Registry and accessible to the public through the company's web site (www.repsol.com).

C.2.6 Section repealed.

D **RELATED PARTY AND INTER-COMPANY TRANSACTIONS**

D.1 Name the competent body and explain the procedure, if any, for approving related party and inter-company transactions:

Procedure for reporting the approval of related party transactions
<p>According to Article 22bis of the Articles of Association, any transaction that the company makes directly or indirectly with directors, controlling shareholders represented on the board or persons related thereto which (i) are for a sum exceeding 5% of the Group's assets according to the latest consolidated annual accounts approved by the general meeting; (ii) involve strategic assets of the company; (iii) involve the transfer of significant technology of the company; or (iv) are intended to establish strategic alliances and are not mere agreements of action or execution of existing alliances, can only be made if they meet the following conditions:</p> <ul style="list-style-type: none">a) the transaction is fair and efficient for the interests of the company;b) after obtaining the corresponding report from a reputed independent financial expert indicating that the related party transaction will be made on reasonable, arm's length terms, the Nomination Committee will issue a report assessing fulfilment of the requirement of (a) above; andc) the General Meeting authorises the related party transaction with a favourable vote of seventy-five per cent (75%) of the capital present and represented at the general meeting. This notwithstanding, if it is considered unadvisable to wait for the next general meeting to obtain authorisation, for reasons of opportunity, the transaction may be approved by the board, provided (i) the report by the Nomination and Compensation Committee contemplated in (b) above is favourable for the transaction, and (ii) the resolution is adopted with the favourable vote of at least two-thirds of the board members not affected by a conflict of interest. In this case, the board shall inform shareholders at the next general meeting on the terms and conditions of the transaction. <p>When calling the general meeting to discuss or be informed on the authorisation of the related party transaction, the board shall make available to shareholders the reports issued by the Nomination Committee and the independent expert contemplated in (b) above and, should it so deem fit, its own report on the matter.</p> <p>Other related party transactions must be authorised by the Board of Directors after obtaining a report from the Nomination Committee. On an exceptional basis, related party transactions that would normally require Board approval may be authorised by the Delegate Committee, subject to prior ratification by the full board, whenever so required in cases of emergency.</p>

The board's authorisation is not needed for related party transactions that meet all three of the following conditions:

- i. the transaction is made under contracts with standard terms and conditions which are applied across the board to a large number of clients;
- ii. it is made at prices or rates generally established by the person acting as supplier of the good or provider of the service in question or, if the transaction refers to goods or services for which there are no prices established, on arm's length terms, similar to those applied in commercial relations with clients of a similar nature; and
- iii. the amount of the transaction does not exceed 1% of the company's annual income.

Related party transactions are assessed from the point of view of equal treatment and arm's length terms and are described in the Annual Corporate Governance Report and the regular public information on the terms set out in the applicable laws and regulations.

D.2 List any transactions for a significant amount or object between the company and/or companies in its group and controlling shareholders of the company:

Name of controlling shareholder	Name of company or group company	Relationship	Type of transaction	Amount (thousand euros)
SACYR, S.A.	REPSOL GROUP	Contractual	Operating lease contracts	19
SACYR, S.A.	REPSOL GROUP	Commercial	Receipt of services	17,178
SACYR, S.A.	REPSOL GROUP	Contractual	Purchase of goods finished or not	153
SACYR, S.A.	REPSOL GROUP	Commercial	Rendering of services	4,256
SACYR, S.A.	REPSOL GROUP	Commercial	Sale of goods finished or not	6,503
SACYR, S.A.	REPSOL GROUP	Commercial	Others	160,164
SACYR, S.A.	REPSOL GROUP	Commercial	Purchase of property and equipment	105,125
SACYR, S.A.	REPSOL GROUP	Contractual	Guarantees & bonds	30,576
SACYR, S.A.	REPSOL GROUP	Corporate	Dividends and other distributed profits	61,628
CAIXABANK ,S.A.	REPSOL GROUP	Contractual	Interest paid	7,152
		Contractual	Interest accrued but not paid	12
CAIXABANK ,S.A.	REPSOL GROUP	Contractual	Operated leases	4
CAIXABANK ,S.A.	REPSOL GROUP	Commercial	Receipt of services	2,245
CAIXABANK ,S.A.	REPSOL GROUP	Commercial	Contributions to pension plans and life insurance	13,174

CAIXABANK ,S.A.	REPSOL GROUP	Contractual	Interest charged	7,741
CAIXABANK ,S.A.	REPSOL GROUP	Commercial	Rendering of services	3,607
CAIXABANK ,S.A.	REPSOL GROUP	Commercial	Sale of goods finished or not	12
CAIXABANK ,S.A.	REPSOL GROUP	Contractual	Financing agreements: loans	288,837
CAIXABANK ,S.A.	REPSOL GROUP	Contractual	Guarantees & bonds	279,261
CAIXABANK ,S.A.	REPSOL GROUP	Corporate	Dividends and other distributed profits	112,055
CAIXABANK ,S.A.	REPSOL GROUP	Contractual	Others	1,209,715
TEMASEK HOLDINGS (PRIVATE) LIMITED	REPSOL GROUP	Commercial	Sale of goods finished or not	149,586

D.3 List any significant transactions for a significant amount or object between the company and/or companies in its group and the directors or executives of the company:

Name of directors or executives	Name of related party	Relationship	Nature of the transaction	Amount (thousand euros)
Company executives	Repsol Group	Contractual	Financing agreements: loans	145

D.4 Report any significant transactions with other companies in the group that are not eliminated in the consolidated financial statements and which do not, by virtue of their object or terms, correspond to the normal business of the Company:

In any case, inform on any inter-company transaction with companies established in countries or territories considered tax havens:

Name of group company	Brief description of the transaction	Amount (thousand euros)
Greenstone Assurance Ltd.	Commitments/Guarantees cancelled	989
OCP,Ltd.	Other operations	38,586

D.5 State the amount of transactions made with other related parties.

D.6 Describe the mechanisms established to detect, define and resolve possible conflicts of interest between the company and/or its group, and its directors, executives or controlling shareholders:

The Regulations of the Board of Directors require that directors must notify the Board of Directors through the Chairman or Secretary of any direct or indirect conflict of interest with the Company's interests involving them or anyone related to them.

Directors must abstain from deliberating and voting on resolutions or decisions in which they or someone related to them have a direct or indirect conflict of interest. Moreover, directors must take the necessary measures to avoid situations in which their direct or indirect interests conflict with the company's interests and their obligations to the Company.

Directors shall inform the Nomination Committee of any other professional obligations and remunerated activities of any kind, as well as any material change in their professional situation or changes that affect the nature or condition by virtue of which they have been appointed Directors.

Finally, directors shall tender their resignations and step down from the Board, should the latter deem fit, whenever they incur in any of the events of incompatibility or disqualification established in law, the Articles of Association or Regulations.

Articles 19 to 23 of the Regulations of the Board of Directors set out the obligations to be met by Directors in accordance with their duty of loyalty vis-à-vis non-competition, use of corporate information and assets and taking advantage of business opportunities, and the requirements established in respect of related party transactions between the Company and the Directors, significant shareholders represented on the Board or persons related to them.

Similarly, the Repsol Group Internal Conduct Regulations regarding the Securities Market, applicable to directors, top management and the executives of certain departments and divisions with access to privileged information of the company or its group and who carry out tasks related with the Securities Market, contemplates the preclusion and solving of conflicts of interest in Articles 8.3. and 8.4. and the proceeding that shall be followed in those situations that could potentially create a conflict of interest with Repsol Group, setting *abstention* as the general principle to be considered in the resolution of all kind of conflicts of interest and the duty to act in all moments with loyalty to the Repsol Group, giving preference to the interest of the Repsol Group over its own interests.

Finally, the Ethics and Conduct Code which applies to all employees of Repsol including its executives and its Directors also provides the action proceeding in case of a potential conflict of interest.

D.7 Is more than one company of the Group listed in Spain?

Yes No

Name the subsidiaries listed in Spain:

Listed subsidiaries

Indicate whether the respective areas of activity and possible business relations between them have been precisely defined publicly and those of the listed subsidiary with other companies in the group:

Yes No

Define any business relations between the parent company and listed subsidiary, and between the latter and other group companies

Describe the mechanisms established to solve any conflicts of interest between the listed subsidiary and other group companies:

Mechanisms to solve conflicts of interest

E RISK CONTROL AND MANAGEMENT SYSTEMS

E.1 Explain the scope of the company's Risk Management System, including those of tax nature.

The Repsol Group operates in a variety of countries, conditions and environments and in all phases of the energy business value chain. As a result, it is exposed to a variety of risks (strategic, operational and financial), which can affect the future performance of the organization and must be mitigated as effectively as possible.

Because of this, the Company has an organization, procedures and system that enable it to manage these risks to a reasonable extent. Risk management is therefore an integral element of the Group's decision-making processes, both within the corporate governance bodies and in business management.

Repsol has been working for years on an integrated risk management model in order to anticipate, manage and control the risks with an overall vision. The Repsol Integrated Risk Management System (ICFR) provides an accurate overview of all risks of any kind to which the Company may be exposed.

Repsol's commitment to implementing the IRMS is reflected in the Repsol Risk Management Policy, and its principles are clarified in the Integrated Risk Management Rule approved by the company's Corporate Executive Committee. This management model was inspired by ISO 31000, the international benchmark standard, and the Three Lines of Defence model.

The key pillars of the ICFR are:

- Senior Management as the leader of integrated risk management
- Integration in all management processes and activities of the company from a global perspective provided by Risk Management.
- Participation of all corporate departments and areas, converting them into units with varying levels of responsibility and specialisation (risk management units, supervision units and audit units), as well as by Risk Management, which manages and coordinates the integrated management system.
- Guarantees that all risks are managed by a unified process for identifying, assessing and dealing with them.
- Promotes continuous improvement for enhanced efficiency and responsiveness.

E.2 Name the corporate bodies responsible for preparing and implementing the Risk Management System, including tax.

Board of Directors

The full Board of Directors reserves the right to approve the Company's general policies and strategies, which includes its risk management and control policies, tax risks among them, and to oversee the internal reporting and control systems:

Audit and Control Committee of the Board of Directors

According to the Regulations of the Board of Directors of Repsol, the Audit and Control Committee regularly checks the efficiency of the internal control, internal audit and risk management systems, including tax risks, to ensure that the principal risks are identified, managed and reported adequately.

Sustainability Committee

According to the Regulations of the Board of Directors of Repsol, the Sustainability Committee reviews and evaluates the systems in place for managing and controlling non-financial risks, especially those related to the matters falling under its jurisdiction.

Corporate Executive Committee

The Corporate Executive Committee approves the governance elements required within the area of risk management, oversees their correct application and monitors the company's performance in respect of risks.

The Senior Management at Repsol views the Integrated Risk Management System as not only a tool for defining the company's strategy but also as a way of improving operations and of flexibly managing critical situations and becoming stronger in the process.

Repsol's Integrated Risk Management System is aligned with the Three Lines of Defence Model on the assignment of responsibilities in risk management and control. In this regard, Repsol is organized as follows:

Risk Management Units (1st Line of Defence). These units are responsible for direct management of risk in day-to-day operations, which encompasses the tasks of identification, analysis, evaluation and mitigation of risks.

Risk Supervision Units (2nd Line of Defence). As governance units specializing in the management of certain types of risks, they have the mission of furthering and overseeing the implementation of effective risk management practices in the Management Units and providing counselling for continuous improvement in risk management.

Risk Department: The Risk Department oversees the integrated risk management tasks and ensures that this management is performed in a global, homogeneous and comprehensive manner while effectively influencing decision-making processes. To achieve this, the Risk Department ensures that Repsol has a risk evaluation process based on a common and homogeneous methodology for identifying and appraising risks in all responsible departments, that allows risks to be characterised in a simple, understandable and reliable manner, and to quantify the frequency or probability and potential consequences of risks according to three types of impact (economic, reputation/image and on people) that could befall the department or unit in the event of such risks materialising.

Each year, and for the purpose of obtaining a consolidated Risk Map at Group level, the Risk Department coordinates the preparation of individual risk maps by each of the Business Units. This task is performed by groups of experts from the Business Units, providing an overview of the key risks according to common metrics and identifying efficient mitigation measures. For Repsol, the Risk Map is a crucial tool that identifies the relevant risks and classifies them according to their importance.

Risk Audit Units (3rd Line of Defence). These units are responsible for evaluating the design and functioning of the Group's risk management systems to ensure that the risks are adequately identified, measured, prioritized and controlled according to the laws and regulations in place and good practice in the industry.

E.3 Define the main risks, including those of tax nature, that could have a bearing on achievement of the company's business goals.

Repsol's transactions and income are exposed to risks as a consequence of changing competitive, economic, political, legal, regulatory, social, industrial, business and financial risks such as the ones discussed below:

Strategic and Operational Risks:

- Uncertainty in the current economic context
- Climate change
- Fluctuations in international prices of crude and reference products and in demand owing to factors beyond Repsol's control
- Tax and regulatory framework of Repsol's activities
- Repsol is subject to extensive environmental and safety legislation and risks
- Operating risks inherent in Repsol's activities both in the oil and gas exploration and exploitation activities (Upstream), which depend on the acquisition or the discovery of reserves at a reasonable cost and the subsequent development of the new reserves of oil and gas, and in the industrial business units and the marketing of oil by-products (Downstream). Some of these risks are:
 - Attacks on assets /people
 - Wars, armed conflicts and socio-political instability
 - Accidents
 - Natural catastrophes
 - Deviations in the execution of investment projects
 - Changes in the supply of goods or provision of services by suppliers and contractors

○ Errors and failures in productive systems or transport facilities

- Location of reserves
- Estimates of oil reserves and gas deposits
- Projects and operations developed through joint ventures and associates
- Repsol can make acquisitions, investments and disposals as part of its strategy
- The insurance cover for all operating risks to which Repsol is exposed might not be sufficient
- Exposure of operations in the natural gas sector to certain operational and market risks
- Cyclical nature of the petrochemicals business
- The strategy of the Repsol Group requires efficiency and innovation in a highly competitive market
- The Repsol Group is exposed to potential interpretative discrepancies and administrative, judicial and arbitration procedures
- The reliability and robustness of information technology are key factors in keeping our operations up and running
- Inadequate conduct or breaches of the applicable laws and regulations by our employees can damage the reputation of the Repsol Group
- Repsol is sensitive to negative public opinion that can damage our image and reputation, which can in turn impact business opportunities

Financial Risks:

- Liquidity Risk
- Credit Risk
- Market Risk
 - Exchange rate risk
 - Commodity price risk
 - Interest rate risk
 - Credit rating risk

For more information: See chapter Risk Management (section “Risk factors”) in the Repsol Consolidated Management Report 2017.

E.4 State whether the company has a risk tolerance level, including tax.

The Company's Risk Management Policy establishes a risk profile with a medium-low risk tolerance appropriate for the business model of a global and integrated energy company that is present throughout the entire value chain and develops its activities in a diversified manner.

In order to fulfil this commitment, the Company agrees to:

- Actively manage and maintain within the tolerance thresholds and defined targets the majority of the strategic, operational and financial risks specific to its activity, including, among others, liquidity, market, rating and counterparty financial risks. Specifically, for risks of a tax nature, balance responsible compliance with its tax obligations with its commitment to create value for the Company's shareholders by efficiently managing tax costs and benefits.

- Avoid, transfer and/or mitigate risks related to health, accident rates, the environment, safety, ethics and conduct, compliance (including tax) and reputation and image, which the Group unequivocally rejects, and minimizing in any case and by any means the probability of occurrence and/or associated impact, through the necessary procedures, resources and enabled for such purposes.

E.5 What risks, including those of tax nature, have occurred during the year?

Although risks deriving from the Company's business materialised during the year, the control systems established by the company worked properly, enabling adequate handling of those risks.

For more information, see the Repsol Consolidated Management Report for 2017, which contains detailed descriptions of the year's events.

E.6 Explain the response and supervision plans for the main risks to which the company is exposed, including those of tax nature.

Repsol has an organization, procedures and system that enable it to identify, measure, evaluate, prioritize, control and reasonably manage the risks to which the group is exposed, and decide to what extent those risks are accepted, mitigated, hedged or avoided as far as possible.

The response plans are adapted to the peculiarities of each risk. The principal measures taken by the company include:

- Establishing targets, strategic lines and internal regulations (policy, rules, procedures, manuals and guidelines).
- Analysing and measuring different variables associated mainly with financial risks (VaR, CFaR) and analysing sensitivity to risk factors.
- Defining, monitoring and continuously assessing the design and functioning of the internal control and compliance systems: Financial Reporting Internal Control System, Program for Regulatory Compliance with the formal legal obligations of legal persons belonging to the Repsol Group; Crime Prevention Model in the Group's Spanish companies.
- Taking out insurance coverage.

In this regard, within the framework of the periodic updating of the Risk Map, the Company works on identifying new lines of response and consolidation above and beyond the current practice, primarily through mitigating actions, for the risks most relevant to the company.

For some extremely critical risks, the organization is working on a methodology that will provide a comprehensive overview of the factors that impact the materialisation of a risk event and its consequences in order to prevent them from occurring and/or reduce the impact. This will make it possible to focus efforts on dealing with the risk by emphasising detection and the management of barriers and controls (preventive and contingency measures).

In addition, the company also has several independent analysis, supervision and control units and response units specializing in different areas of risk management, such as:

- Sustainability
- Corporate Security
- Legal Affairs
- Communication
- Digitalization and Information Technologies
- Institutional Relations
- Strategy and Planning
- Tax Issues
- Economic and Administrative
- Financial Development and Rating Agencies
- Technology and Emerging Businesses
- Corporate Governance and CCO
- People and Organization
- Procurement and contracts
- Technical Development and Safety and Environment E & P
- Industrial Technical Area
- Downstream Engineering

Finally, the company has an Internal Audit Unit which evaluates and enhances existing controls to make sure that the potential risks (strategic, operational and financial) that may hamper achievement of the Repsol Group goals are reasonably identified, measured and controlled.



INTERNAL CONTROL SYSTEMS AND RISK MANAGEMENT OVER FINANCIAL REPORTING (ICFR)

Describe the mechanisms comprising the system of internal control over financial reporting (ICFR) of your company

F.1 Control environment

Report on at least the following, describing their principal features:

F.1.1. Which bodies and/or duties are responsible for: (i) the existence and maintenance of an adequate and effective ICFR system; (ii) its implementation; and (iii) its supervision.

As indicated in its Bylaws, the Board of Directors of Repsol, S.A. is responsible for the governance, management and administration of the Company's businesses and interests save insofar as is reserved for the General Shareholders' Meeting. It focuses on the general function of supervision and the consideration of especially important issues for the Company.

The Regulations of the Board of Directors define the powers reserved for the Board, such as drafting the individual and consolidated Annual Financial Statements and Directors' Report and submitting them to the General Shareholders' Meeting. The Board must draw these documents up in clear, precise terms. It must also make sure they give a true and fair view of the net worth, financial position and results of the company and the group, as stipulated in law. Approval of the risk management and control policy, including tax risks, supervision of internal reporting and control systems, the determination of the Group's fiscal strategy, the definition of the corporate structure and approval of the financial information which Repsol, as a publicly listed company, is obliged to publish regularly, are also reserved for the Board of Directors.

The Regulations also establish the Board's responsibility for approving the company's codes of conduct and ethics, its own organization and functioning and that of the Senior Management, as well as specific duties referring to the company's activity on the securities market.

The Board of Directors has a direct relationship with the members of the Senior Management and the company's auditors, respecting their independence at all times.

Point C.1 of this Report contains information on the structure and composition of the Board of Directors.

The Board of Directors has appointed members to sit on several Committees, such as the Audit and Control Committee, whose main purpose according to the Regulations of the Board of Directors is to support the Board in its supervisory duties, through regular checking of the economic-financial reporting process, the effectiveness of its executive controls and the independence of the external auditors, as well as checking fulfilment of all applicable laws and internal regulations.

All the members of the Audit and Control Committee are independent outside directors, with accounting, auditing and/or risk management expertise and experience. The Committee Chairman also has extensive experience in business, risk and financial management and a sound knowledge of accounting procedures. The structure and functioning of this committee are described in point C.2.1 of this Report, which expressly references the procedure for appointing the Committee Chairman.

As established in the Regulations of the Board of Directors regarding internal control and reporting systems, the Audit and Control Committee is responsible, among other duties, for regularly checking the efficacy of the internal control, internal audit and risk management systems, including tax risk, ensuring that the principal risks are identified, managed and reported adequately.

Moreover, according to the aforesaid Regulations, the Audit and Control Committee is responsible for the following duties related to financial reporting process:

- Supervise the preparation and presentation of mandatory financial reporting on the Company and the Group and its integrity, compliance with legal requirements, adequate definition of the consolidated group and correct application of the accounting principles.
- Before they are presented to the Board and with the necessary requirements of checking that they are correct, reliable, sufficient and clear, analyse the Financial Statements of the Company and its consolidated Group contained in the annual, half-year and quarterly reports, and any other financial information which, as a listed company, the Company is obliged to publish regularly, obtaining all the necessary information with the level of aggregation it considers appropriate, for which it will receive the necessary support from the Group's executive management.
- Ensure that the Annual Financial Statements to be presented to the Board of Directors to be authorized for issue are certified as required by the internal or external regulations applicable from time to time.
- Check all significant changes in the accounting principles used and the presentation of the financial statements and make sure they are adequately publicized.
- Strive to ensure that the board of directors can present the company's accounts to the general meeting without limitations or qualifications in the auditor's report. In the exceptional case that qualifications exist, both the chairman of the audit committee and the auditors should give a clear account to shareholders of their scope and content.
- Examine draft Codes of Conduct and Ethics and modifications thereto, as prepared by the corresponding department of the Group, and issue its prior opinion on the proposals that are to be put to the corporate bodies.

- Take particular care in ensuring compliance with the applicable market conduct regulations and overseeing the actions of the Company's Internal Transparency Committee.
- Make sure that the internal control and recording procedures and systems are sufficient, adequate and effective in the measurement, valuation, classification and accounting of the Group's hydrocarbon reserves, so that their inclusion in the periodical financial reporting complies at all times with the sector standards and applicable legislation.
- Protect the independence and efficacy of internal auditing; and that it has the training and adequate means to perform its functions in the Group; analyse and approve, if appropriate, the annual planning of the Internal Audit Department and obtain information on the extent to which the audited units have implemented the corrective measures recommended by the Internal Audit Department in previous inspections. The Audit and Control Committee reports to the Board any situations that may entail a substantial risk for the Group.

F.1.2. State whether the following elements exist, especially in respect of the financial reporting process:

- **Departments and/or mechanisms responsible for: (i) designing and reviewing the organizational structure; (ii) clearly defining the lines of responsibility and authority, with an adequate distribution of tasks and duties; and (iii) ensuring that there are sufficient procedures for adequately informing the company.**

The internal regulations assign to the People and Organization Corporate Division the duties and responsibilities associated with the study, design, approval and implementation of organizational structures and sizing in the company.

According to those regulations, the organizational structure establishes the hierarchical and functional level for the normal development of the different areas of activity of the Group and determines the levels of responsibility, decision and the functions of each of the organizational units.

The organizational structure is represented by means of an organization chart and the sizing defined. Approval of a structure requires two approving roles, the line approver and the People and Organization Corporate Division, according to the levels established in the regulations.

The organizational principle that governs structure approval is based on the premise that a structure cannot be approved by the person who is directly responsible for it, but by his or her hierarchical superior.

There is also an organizational unit responsible for inputting the approved organizational changes in the computer system, according to the implementation plan defined, which makes it possible to ensure compliance with the requirements established as regards internal control.

- **Code of conduct, approval body, degree of dissemination and information, principles and values included (stating whether there is any specific mention of the operations register and preparation of financial reporting), body responsible for analyzing default and non-compliance and proposing remedial action and penalties**

Repsol has a "Code of Ethics and Conduct", approved by the Board of Directors, based on the favourable report of the Audit and Control Committee, the Sustainability Committee and the Ethics and Compliance Committee, which applies to all directors, managers and employees of the Repsol Group. The Code establishes the minimum conduct guidelines that should govern the behaviour of all employees when performing their professional duties and the penalty regime applicable in the event of failure to comply with those rules.

The Code contemplates, among others aspects, the basic principles of performance in relation to integrity and conduct, reliability of information and control of records, as well as the processing of sensitive information and intellectual property. It also specifies obligations in relation to human rights, community relations, measures against bribery, corruption, and money laundering and the commitment to carry out activities in accordance with prevailing legislation in all the areas of performance and countries.

The company also has a Welcome Manual supplied to those entering the company and that contains the basic rules that every employee should know and respect when they join, regardless of the area or business they will be working in, including a direct channel for employee consultations. The first of these rules is the "Code of Ethics and Conduct".

In addition, employees are involved in communication campaigns and attend training courses on the "Code of Ethics and Conduct", to strengthen their knowledge and compliance with its contents. Specifically, in 2017 a new communication plan was launched, which includes a specific training program on the Code of Ethics and Conduct addressed to all employees of the group.

Furthermore, Company managers accept to comply with the Management Personnel Statute attached to their employment contracts. This Statute refers to the principles on which their professional actions must be based, as well the Company's values and standards, with special emphasis on the "Code of Ethics and Conduct".

There is a communications channel, the "Repsol Ethics and Compliance Channel", that allows Company employees and any third party to make consultations or to communicate, among others, possible breaches of the Code of Ethics and Conduct and Crime Prevention Model,

confidentially and without fear of reprisal. The channel is managed by an independent company and is available 24 hours a day, 7 days a week, by phone and online.

The Ethics and Compliance Committee oversees and monitors compliance with the Code and is responsible for resolving on the communications received through the channel.

According to the provisions of the Regulations of the Ethics and Compliance Committee, this is multidisciplinary and made up of representatives of the General Division of the Secretary's Office and Board of Directors, the People and Organisation Corporate Division, the Audit and Control Division, the Legal Services Corporate Division, and the Legal and Employment Affairs Management and Occupational Health and Safety Division.

Eleven policies compose Repsol's regulatory corpus within the framework of its Ethics Code of and Conduct. These policies define its public commitment and management fundamentals, establishing principles and guidelines for all Repsol employees for the purpose of fostering relationships, processes and decision-making that align with the Company's values.

These policies include the "Anti-corruption Policy" reiterating Repsol's commitment to strict compliance with legislation on the prevention and fight against corruption, rejecting any form of corruption and extending its compliance not only to all employees of the companies in which the Repsol Group exercises direct or indirect management control, but also to our Business Partners.

Likewise, in its "Third-Party Commercial Relationships Policy", Repsol agrees to ensure that its commercial and business relationships with partners, suppliers, contractors and customers are legal and based on Repsol's ethical principles and values.

Furthermore, Repsol also has a mandatory "Tax Policy" for all of its employees and Group companies that includes various commitments aimed at ensuring that tax matters are managed according to best tax practices and acting with transparency, including responsible and efficient payment of taxes, the fostering of cooperative relationships with governments and the firm intention to strive to avoid significant risks and unnecessary conflicts.

In addition, there are "Internal Conduct Regulations Regarding the Securities Market", approved by the Board of Directors, with the prior favourable report of the Audit and Control Committee, which responds to the requirements of European and Spanish legislation containing aspects such as the rules of conduct, for people affected by this Regulation, relating to transactions with financial securities and instruments issued by the Group that are traded on securities markets, treatment and communication of insider information, own-share transactions, prohibitions against manipulating stock prices and the treatment and management of conflicts of interest. The Company has formally established mechanisms in those regulations to promote its communication and compliance with its provisions. For these purposes, in accordance with the provisions of the Regulations, the Audit and Control Committee will be in charge of supervising the obligations set out therein and any breach of its provisions will be considered labour violation, the severity of which will be determined in the procedure conducted in accordance with the current provisions. This shall be without

prejudice that the infringement that might stem from violation of securities market laws as well as the civil or criminal liability to which the violator may be subject.

Finally, in the field of Spanish companies and under the framework of Spanish regulations on the criminal liability of legal entities, the Ethics and Compliance Committee has been appointed as the Crime Prevention Body. Likewise, there is a "Crime Prevention Model" and an "Internal Investigations" procedure through which the prevention model is structured and the mechanism to respond to potentially illegal behaviour concerning, among others, ethical issues attributable to legal entities, in order to prevent the risk or, at least, reduce the risk of such violations from being committed. In 2017, to complete the existing regulations and improve their dissemination and understanding, a Criminal Prevention Manual has been prepared for informative use to explain those behaviors that are prohibited and what Repsol expects of all its employees in relation to them.

- **Whistleblowing channel, through which the audit committee can be informed of any financial or accounting irregularities, any breaches of the code of conduct and irregular activities within the organization, indicating whether this channel is confidential**

In accordance with the Regulations of the Board of Directors, the Audit and Control Committee is responsible for establishing a mechanism that allows employees to report confidentially and, if possible, anonymously, irregularities of potential significance, especially of a financial and accounting nature.

In this sense, the Company has an "Ethics and Compliance Channel" through which Company employees and any third party may communicate confidentially and, if possible according to the different jurisdictions, anonymously, any matters related to accounting, internal control and audit. The channel is managed by an independent company and is available 24 hours a day, 7 days a week, by phone and online.

- **Training programs and regular refresher courses for personnel involved in the preparation and review of financial reporting and ICFR system assessment, covering at least accounting standards, auditing, internal control and risk management.**

Training in Repsol is geared towards developing the professional capacities required for effective performance of the employees' work, supplemented with further training to support and foster progression in their careers. It is based on initiatives intended to structure knowledge, develop skills and foster employees' commitment to the Company's plans, culture and values throughout their careers.

To achieve this, the Company has a broad selection of training activities covering issues ranging from technical aspects, organized specifically for given groups, to other more general aspects, such as management, safety awareness.

Through collaboration between the Repsol Training Centre and each of the units of the Group, Repsol ensures the acquisition and updating of essential knowledge to perform the economic administrative, risks management and internal audit and control duties. The training needs are planned to meet both short and medium-term requirements and the corresponding annual plan is drawn up, identifying and paying attention not only to the form of training best suited to each group but also time enabling the Company to monitor the stated objectives and the quality of training given to each employee. As part of this plan, there are actions designed to distribute the internal control models, in particular the Internal Control over Financial Reporting (ICFR) system, to the different people and areas affected by these models.

These needs are met by both internal resources, with training activities designed and given by its own staff with experience and references in their respective fields, and by reputed firms contracted for their quality and specialization. Other resources are also used, such as conferences, talks, discussion forums, workshops and virtual libraries.

F.2 Evaluation of financial reporting risks

Report at least on the following:

F.2.1. What are the main features of the risk identification process, including risks of error or fraud, indicating:

- **Whether the process exists and is documented.**

The Repsol Group has an integrated risk management process as indicated in point E.1 of this report. This process establishes a homogenous methodology of risk identification and assessment by all responsible divisions in the Organization. As a result of the described process, the Repsol Group Risk Map was created, which includes financial reporting risks.

The identification of the principal risks that could affect the financial reporting objectives related to the integrity, valuation and presentation of operations, rights and obligations and which could therefore have a material impact on the reliability of the financial reporting leads to the development of a Risk Map of Financial Reporting grouped into the following categories:

- Definition of the general control environment
- Monitoring of regulatory changes
- Making of estimates and subjective calculations
- Identification and recording of business transactions
- Preparation of consolidated financial statements
- Financial reporting

The risk of fraud in financial reporting, which is part of the inventory of financial reporting risks in the category of “General Control Environment” is analysed precisely

because of its relevance to the design, implementation and evaluation of the internal control model. This analysis is made taking account mainly of the references to consideration of fraud in risk assessment established within COSO 2013 (“Assesses Fraud Risk” Principle 8) and by the AICPA (*American Institute of Certified Public Accountants*) in its document “*Consideration of Fraud in a Financial Statement Audit*”, Section 316 (Standard Auditing Statement 99). To this end, the following categories of financial reporting fraud risk have been defined:

- Management’s ability to elude internal controls.
 - Intentional error on the financial statements.
 - Inappropriate use of assets
- **Whether the process covers all financial reporting objectives (existence and occurrence; integrity; valuation; presentation, disclosure and comparability; and rights & obligations), whether it is updated and how frequently.**

The Risk Map of Financial Reporting covers the main risks associated with the process of preparing the financial statements and other types of risks (operating, financial, tax compliance, labour, regulatory, etc.) that may affect to the financial information objectives related to the existence and occurrence of operations, rights and obligations, integrity, valuation and presentation as well as their breakdown and comparability and that, therefore, may have a significant impact on the reliability of the financial information.

Each of the aforementioned risk categories consists, in turn, of one or more specific risks, which are linked to the corresponding headings of the financial statements, the respective processes and to the different companies of the Group.

Lastly, the potential impact value of each of the financial reporting risks is established, as well as the probability of this occurring. From these two factors, the severity of each of the risks is established.

The risks inventory is reviewed annually in accordance with the integrated risk management process of the Repsol Group, as indicated in section E.1 of the Annual Corporate Governance Report.

- **There is a process for identifying the scope of consolidation, taking into account, among other aspects, the possible existence of complex corporate structures or special purpose vehicles.**

There is a process in place for identifying changes in shareholding structure of Group companies. Once the changes are reported, the control structure is analysed on the basis of the applicable accounting standards and principles in order to determine which consolidation method should be used for that company.

From the scope of consolidation and in coordination with the process of identification and regular updating of the inventory of financial reporting risks, a scope ICFR model is determined, along with the and companies that should be included in the scope on account of their relevance and materiality. Said identification is made with the basis of both quantitative and qualitative criteria.

The determination of companies that are part of the model takes into account those in which control is exercised directly or indirectly. For these purposes, an investor is deemed to control an investee when it is exposed, or has rights, to variable returns from its involvement in the Group and has the ability to affect those returns through its power over the investee. Therefore, companies in which there is joint control are not included in the model, since the strategic decisions require the unanimous consent of the parties sharing control. However, controls are established in the model to ensure the homogeneity, validity and reliability of the financial information validated by them for incorporation into the consolidated financial statements.

- **The process takes account of the effects of other types of risk (operational, technological, financial, legal, reputational, environmental, etc.) insofar as they may affect the financial statements.**

In the process of identifying and evaluating financial reporting risk, the Repsol Group considers other types of risk that could have a relevant impact on the attainment of the organization's operational and strategic goals, such as compliance, insofar as these may have a significant effect on the preparation of financial statements.

- **Which governing body supervises the process.**

The Board of Directors reserves the power to approve the risk management and control policies, including financial reporting and tax risks, and to supervise internal information and control systems.

In accordance with the Regulations of the Board of Directors of Repsol, the Audit and Control Committee periodically reviews the efficiency of internal control, internal audit and risk management systems, including tax risks, so as to identify, manage and properly communicate the main risks.

The Corporate Executive Committee approves the necessary elements of governance in the area of risk management. It will also supervise their proper application and monitor the Company's performance in terms of risks.

The Internal Audit Department is responsible for evaluating the design and operation of the Group's risk management systems.

F.3 Control activities

State whether the company has at least the following, indicating their main features:

F.3.1. Procedures for review and authorization of financial information to be published in the securities markets and description of the ICFR system, naming the persons responsible, and documentation describing the flows of activities and controls (including those concerning fraud risk) of the different types of transaction that might have a material effect on the financial statements, including the procedure for closing accounts and specific review of significant value judgments, estimates, valuations and projections.

The Repsol Group has a system of Internal Control over Financial Reporting (ICFR) that allows it to meet the requirements established by the applicable regulations for listed companies and it's included through the annual corporate governance report.

The ICFR model is defined from the COSO (2013) methodological framework (*Committee of Sponsoring Organizations of the Treadway Commission*) contained in its report, *Internal Control-Integrated Framework*, with the object of ensure that all transactions are properly accounted for according to the accounting framework, providing reasonable assurance of the prevention or detection of errors that could have a material impact on the information in the consolidated annual accounts. This financial reporting internal control model is organised around an integrated process that includes the five components developed in seventeen principles, as established in the COSO 2013 framework.

1. The existence of an adequate **control environment**.
2. The identification, analysis and **evaluation of risks**.
3. The definition and implementation of **control activities** to mitigate the identified risks.
4. **Reporting and communication** to facilitate understanding and the assumption of risk control responsibilities.
5. **Supervision of system operations** in order to evaluate design, performance quality, adaptation, implementation and effectiveness.

The system of Internal Control over Financial Reporting (ICFR) is integrated in the organization through the establishment of structure of roles and responsibilities for the different bodies and functions, which are described in procedures that have been duly approved and distributed within the Group. In addition to the indications in F.1.1 of this Report regarding the processes for checking and authorization of financial reporting by the Board of Directors and the Audit and Control Committee, below are detailed the

other governing bodies and organizational units of the Group assigned relevant roles on this matter:

- ***Chief Executive Officer (CEO and Chief Financial Officer (CFO):***

All owners of the controls comprising the ICFR system, in relation to compliance with the requirements established in terms of internal control, certify that all controls associated with processes and risks, of which they are owners, are in force at the closing of the fiscal year and operate properly on that date. These are annual certificates which, through a hierarchical process rising up through the organizational structure, conclude with a certificate issued by the Chief Executive Officer (CEO) and Chief Financial Officer (CFO).

- ***Internal Transparency Committee:***

The mission of the Internal Transparency Committee is to promote and bolster the necessary policies to ensure that the information provided for shareholders, markets and regulatory authorities is true and complete, adequately reflects the Company's financial position and the results of its operations and is presented in a timely manner and in accordance with the other requirements established in the standards and general principles for markets and good governance applied by the Company. This Committee provides support and assistance to the Chairman of the Board of Directors and the Chief Executive Officer.

According to the Regulations on the Internal Transparency Committee, it is assigned the following duties, among others:

- Supervising the establishment and maintenance of procedures for compiling the information to be published by the Company according to the applicable laws and regulations or which it reports generally to the markets, and all controls and procedures established to make sure that (i) the information is promptly and accurately recorded, processed, summarized and reported, and (ii) the information is compiled and reported to the Group's Senior Management, enabling them to decide in advance on the information that should be published, proposing such improvements as they may deem fit.
- Checking and assessing the accuracy, reliability, adequacy and clarity of the information contained in the documents to be presented publicly, especially any disclosures to be made to the regulating authorities and brokers on the securities markets in which the Company's shares are traded.

The Internal Transparency Committee is made up of the heads of the units responsible for the economic, tax, legal, communication, strategy, audit & control, investor relations, corporate governance, reserves control, management control & planning, people & organization and the different business areas.

- ***Business Units and Corporate Areas identified as “owners of the controls”:***

Within the Group, the different Business Units and Corporate Areas identified as “owners of the controls” are those responsible for ensuring the validity, execution and adequate functioning of the controls associated therewith. Of these, the Units with an especially important role in the development, maintenance and functioning of the ICFR system are:

- The Unit that prepares the financial statements and economic-financial reporting, the inventory of controls and processes of the ICFR system required to guarantee the reliability of the financial information, coordinating with the Division of Audit and Control, as a result of its process of defining and assessing the Group ICFR system.
- The Unit that guarantees fulfilment of tax obligations, tax counselling, monitoring, evaluation and implementation of changes in law and regulations, identification, control, monitoring, assessment and management of tax risks, and tax information for the financial statements. Moreover, according to the Code of Good Tax Practice, Law 31/2014 which amended the Capital Companies Act for enhanced corporate governance and the Repsol’s Group Tax Policy, the Board of Directors, as part of its inalienable powers in the fiscal realm, verifies that the Company’s tax policies are being properly applied on a yearly basis.
- The Unit that monitors, analyses, reviews and interprets the accounting standards contained in the different regulatory frameworks applicable to the Group.
- The Units that guarantee the efficient use of financial resources, optimization of financial earnings and an adequate monitoring and control of financial, market and credit risks so as to ensure the continuity and development of business plans.
- The Unit that establishes the criteria for defining the organizational structure and sizing of the Group and sets the guidelines and criteria governing development of the internal regulatory framework and defines the Annual Training Plan.
- The Unit that ensures that the estimates of the Group’s proven reserves of hydrocarbons conform to the regulations issued by the different securities markets on which the Company’s shares are listed, makes the internal audits of reserves, coordinates the certificates of the external auditors of reserves and assesses the quality controls regarding information on reserves.
- The Units responsible for legal and tax affairs in the Group, which provide legal counselling, legal defence and handling of its legal affairs in all contentious proceedings and processes, providing legal support for the Group’s actions, rights and expectations with a view to giving them legal security and efficacy and minimizing possible legal risks.

- The unit that defines the guidelines, criteria and indicators of management control monitors the business activities and the approved investments and oversees compliance with the commitments assumed, proposing corrective measures as needed.

Processes, activities and controls

The ICFR system documents basically comprise the following:

- Financial reporting risk map
- Model of scopes
- Descriptive documentation for processes through ICFR system
- Inventory of controls identified in the different processes
- Outcome of design tests and functioning of controls
- Certificates of validity and effectiveness of the controls issued for each financial year.

The ICFR model is supported by a set of standards and procedures and is described in the Manual of Internal Control over Financial Reporting.

The system of Internal Control over Financial Reporting is articulated through a process which, based on the identification and evaluation of financial reporting risks, defines a scope model that includes the most important headings in the financial statements, the companies affected, the relevant and material processes involved in preparing, reviewing and subsequently distributing the financial information and the control activities intended to prevent and detect potential errors, including fraud.

In order to define the companies involved, the first step is to update the list of consolidated companies. As explained in section F.2.1 of this report, there is a process for updating the list of consolidated companies based on changes to the stockholding composition and the control structure of investee companies according to applicable accounting standards. The ICFR includes operating controls for those companies that are directly or indirectly controlled by Repsol. For all other relevant non controlled companies not included in the scope of consolidation, it also includes controls designed to protect the homogeneity, validity and reliability of the financial information submitted by the companies for inclusion in the consolidated financial statements.

For each one of the relevant processes and companies included on the consolidation list, the significant financial reporting risks are identified along with the control activities to mitigate those risks.

At the same time, the following types of controls are distinguished in the ICFR system:

- **Manual:** those carried out by human actions, using computerized tools or applications.
- **Automatic:** those carried out with computerized tools or applications.
- **General computer controls:** those that reasonably guarantee the reliability, integrity, availability and confidentiality of the information contained in applications relevant to the financial reporting.

As well, these three types of controls are characterized as:

- **Preventive:** created to prevent errors or cases of fraud that could result in an error in the Repsol Group's financial reporting.
- **Detective:** their goal is to detect existing errors or cases of fraud that could result in an error in the Repsol Group's financial reporting.

Relevant judgments, estimates, valuations forecasts

The financial reporting process sometimes requires making judgments and estimations e, which may affect the amount of assets and liabilities recognized the presentation of contingent assets and liabilities and the recognized income and expenses. These estimates may be affected, among other causes, by changes in competitive, economic, political, legal, regulatory, social, industrial, business and financial conditions.

In this regard, the Group's methodology is designed to identify the areas responsible and establish homogenous criteria for estimates and value judgments in the processes considered important for the preparation of financial reporting, namely, and in accordance with that set forth in Note 3 "Estimates and judgments" of the Consolidated Financial Statements 2017 of the Repsol Group, those concerning reserves of crude and gas, business combinations, provisions for litigation, breakdowns and other contingencies, calculation of income tax and deferred tax assets and liabilities, impairment tests of the recoverable value of assets and the market valuation of financial instruments. The results of these estimates are reported to the management and governing bodies of the Group.

In addition, the aforementioned bodies are regularly informed of any business affecting its business development and which could have a material effect on the Group's financial statements.

It also periodically monitors the main variables which have or may have an impact, directly or through estimates and judgments, in quantifying assets, liabilities, income and expenses of the Group.

F.3.2. Reporting system policies and procedures for internal control (including, among others, access security, control of changes, operation, operating continuity and

separation of duties) of the significant processes in the company referring to the preparation and publication of financial information

The Repsol Group has a specific body of regulations in its IT Systems area based on ISO 27001, laying down the general principles for the different processes in that area.

Considering that the Group's transaction flows are mainly made through IT Systems, an Information Systems Control Framework, consisting of a set of controls called "general computer controls", has been established which reasonably guarantee the trustworthiness, integrity, availability and confidentiality of the information contained and processed in the relevant applications for financial reporting.

The systems linked to the process of preparing financial information conform to the security standards established in the regulations and are audited to ensure proper functioning of the Information Systems Control Framework by validating its constituent general computer controls.

These general computer controls grouped into the areas of: access security, life cycle systems, and process of assuring the validity of data and assurance operations, help to guarantee that several control targets are obtained within the ICFR system assessment, since they have the following features:

- Contribute towards ensuring the precision, accuracy and validity of the transactions executed in the applications, since they are integrated in the logics of those applications in order to prevent and/or detect unauthorized transactions.
- They are applied to the interfaces with other systems, in order to check that information input is complete and precise, and that output is correct.

The scope of the general computer controls covers applications relevant for financial reporting and infrastructure elements that serve these applications (e.g. technical platforms, servers, databases, data processing centres, etc.).

The Repsol Group has developed a segregation of duties model in the systems for preventing and reducing the risk of errors (intentional or otherwise), especially the fraud factor in the financial reporting process. Incompatibility matrices have been installed in the applications used by the relevant processes covered by the ICFR system, with which it is possible to monitor conflicts continuously and detect cases in which the functions are not exercised according to defined profiles.

F.3.3. Internal control policies and procedures for supervising management of the activities subcontracted to third parties and any aspects of assessment, calculation or valuation outsourced to independent experts that may produce a material effect on the financial statements

The Repsol group has a procedure for identifying, establishing control criteria and supervising the activities of third party subcontractors in different business processes. According to this procedure, the group analyses the types of activities carried out by these suppliers and their impact and draws conclusions as to whether the activities have a material impact on the financial statements from the following perspectives:

- Significant transactions for the Group's financial statements.
- Manual or automated procedures for initiating, recording, processing or reporting significant transactions from the beginning until they are included in the financial statements.
- Manual or automatic accounting records that support the collection, recognition, processing and reporting of specific transactions, information or accounts on the Group's financial statements.
- Relevant information systems for capturing significant events and conditions for inclusion in the operating results and preparation of the financial statements.
- Financial reporting process used to prepare the financial statements, including the accounting estimates and the disclosure of significant information.

Once the subcontracted activities that can have a material effect on the financial statements have been identified, the internal controls of the services rendered are supervised to ensure their adequacy. In this regard, according to the COSO 2013 methodology and ISA 402 (International Standard on Auditing), the Repsol Group has chosen the following approaches:

- Conducting independent evaluations of the supplier's internal control systems.
- Requesting independent auditors' reports from third party subcontractors to obtain relevant information on their internal control systems. Some examples of the reports include SOC (Service Organization Control) under Standard SSAE 16 of AICPA (American Institute of Certified Public Accountants) or standard ISAE 3402 (International Standards on Assurance Engagements 3402).
- Understanding on the part of the user of the service of the nature of the service and identification of mitigating controls within the financial reporting process of the Repsol Group.

The Reserves Control Unit audits the estimates of reserves made by the Group's operating units, through internal and external audits. The significant aspects identified in those audits are taken as the basis for determining the reserves, according to the Norm "System of Control of Reserves and Contingent Resources", which are presented to the Corporate Executive Committee and the Audit and Control Committee.

F.4 Information and communication

Report, indicating whether the company has at least the following, indicating their main features:

- F.4.1. A specific function designed to define and keep the accounting policies up to date (accounting policy department or division) and solve any queries or conflicts deriving from their interpretation, maintaining fluent communication with those responsible for operations in the organization, and an updated accounting policy manual distributed among the units through which the company operates**

The Group has a Unit responsible for monitoring, analyzing and reviewing the accounting principles and policies established in the regulatory framework that applies to the preparation of financial statements, analyzing and answering consultations on their interpretation and adequate application. The organizational units involved in preparing financial information are periodically informed of any new aspects of accounting techniques and regulations and the outcome of the different analyses made.

There are also accounting principles manuals, which establish the accounting standards, policies and principles applied by the Group. These manuals are revised and updated periodically and whenever there is a material change in the applicable regulations. The manuals are available on the internal communication network.

In year 2017, the Group accounting manuals were updated as a result mainly of changes in International Financial Reporting Standards adopted by the European Union and of mandatory application from 1 January 2017.

- F.4.2. Mechanisms for collecting and preparing financial information with homogenous formats, application and use by all units of the company or group, covering the principal financial statements and notes and the information given on the ICFR system**

The Group has integrated IT systems for both recognizing transactions in the accounts and preparing the individual and consolidated financial statements. It also has processes for centralized coding and parameterization processes which, together with the accounting principles manuals, guarantee the integrity and homogeneity of the information. Finally, there are also tools used for processing the information in order to obtain and prepare the breakdowns provided in the notes to the financial statements. The systems linked to the preparation and reporting of financial information meet the

security standards established by the general computer controls defined for IT systems.
(See section F.3.2. of this Report.)

F.5 Supervision of the functioning of the system

State whether the company has at least the following, indicating their main features:

F.5.1. ICFR system supervisory activities performed by the audit committee and whether the company has an internal audit department which, among other duties, assists the committee in its supervision of the internal control system, including the ICFR system. Indicate the scope of assessment of the ICFR system made in the year and the procedure through which the person responsible for making the assessment reports on its outcome, whether the company has an action plan describing possible corrective measures and whether its impact on financial reporting has been considered

According to the Regulations of the Board of Directors, the Audit and Control Committee is responsible for supervising the assessment and presentation, as well as the integrity of the financial information on the Company and the Group, checking compliance with legal provisions, adequate definition of the consolidated group and correct application of the accounting principles, and regularly checking the effectiveness of the internal control, internal audit and risk management systems, including tax risks, ensuring that the principal risks, are identified, managed and reported adequately.

The Audit and Control Committee also analyses and approves, where appropriate, the annual planning of the Internal Audit Department and other occasional or specific additional plans required as a result of changes in legislation or the needs of the business organization of the Group.

The annual planning of the Internal Audit Department is structured to assess and supervise the correct functioning and adequacy of the Group's internal control and risk management systems (operational, strategic, financial and compliance).

The Audit and Control Division reports to the Audit and Control Committee and performs its duties established in international standards in line with the best market practices, as well as the requirements of the different regulatory frameworks applicable in the countries in which the Repsol Group has businesses and activities. It has a "Quality Assurance and Enhancement Plan", assessed regularly, to assure quality in its duties, the results of which are reported to the Audit and Control Committee.

The Audit and Control Division is responsible for seeing that the design and functioning of the Internal Control and Risk Management Systems in the Group are reasonable and adequate, contributing towards their improvement and covering the following control objectives:

- Any risks that may affect the organization are adequately identified, measured, prioritized and controlled
- Transactions are efficient and effective
- Transactions are made in compliance of applicable laws, regulations and contracts and prevailing policies, rules or procedures
- The assets are adequately protected and reasonably controlled
- The most significant financial, management and operating information is prepared and reported adequately.

The Audit and Control Division supports the supervisory work of the Board of Directors, Audit and Control Committee and Internal Transparency Committee over the Financial Reporting Internal Control System (ICFR).

The Audit and Control Division reports to the Audit and Control Committee on the conclusions of all work done, the corrective measures proposed and the degree of fulfilment of each one. This Department provides supporting any significant irregularities, anomalies or non-compliance committed by the audited units, reporting to the Board any cases that may entail a major risk for the Group.

The Audit and Control Division reports any weakness or incident detected in the updating or assessment of the ICFR system to the owners of the controls.

After year-end, the Audit and Control Division informs the Internal Transparency Committee, the Audit and Control Committee and the Board of Directors on the outcome of the ICFR system assessment and any defects found during the assessment.

The Audit and Control Division has assessed the effectiveness of the ICFR system corresponding to 2017, and did not find any significant or material weaknesses, concluding that it is effective, in accordance with the criteria established by COSO 2013.

F.5.2. If there is a discussion procedure through which the accounts auditor (as established in the technical audit standards), the internal audit department and other experts can inform the senior management and audit committee or company directors of any significant weaknesses in internal control detected during their checking of the annual financial statements or such others commissioned to them. State also whether it has an action plan to correct or mitigate the weaknesses observed.

As mentioned in point F.5.1 of this Report, the Audit and Control Division reports to the Audit and Control Committee on the conclusions of all work done, the corrective measures proposed and the degree of fulfilment of each one.

One of the duties of the Audit and Control Committee is to establish appropriate relations with the External Auditor to receive regular information on the audit plan and the results of

its implementation, and on any other issues concerning the audit process and corresponding rules and regulations. It also verifies that the management team bears in mind the recommendations made by the External Auditor.

The Audit and Control Committee also requires the External Auditor periodically, at least once a year, to assess the quality of the internal control procedures and systems and discuss with it any significant weaknesses detected during audit, and requests the External Auditor's opinion on the effectiveness of the ICFR system.

F.6 Other relevant information

On 8 May 2015, Repsol acquired 100% of Talisman Energy Inc. (on 1 January 2016 it changed its name to Repsol Oil & Gas Canada Inc., "ROGCI"), a company incorporated under the Canada Business Corporations Act.

Until 29 September 2017, ROGCI, pursuant to Canadian law and the agreements reached with its bondholders, maintained its status as a Reporting Issuer and, therefore, was subject to the reporting obligations in force with regard to Canadian regulators. In this regard, until that time, in all material aspects, ROGCI, maintained its own internal control and risk management system based on the guidelines established by the Committee of Sponsoring Organisations of the Treadway Commission (COSO) in its Internal Control Integrated Framework report (2013 Framework).

At the closing of 2017, the relevant processes and controls related to the financial information of ROGCI were integrated in the Internal Control Risk Management System of the Repsol Group.

F.7 External Auditor's report

Report on:

F.7.1. Whether the ICFR system information remitted to the markets has been checked by the external auditor, in which case the Company should include the latter's report in an annex hereto. Otherwise, state reasons.

The Group has asked the External Auditor (Deloitte,S.L.) to check the effectiveness of the system of internal control over financial reporting (ICFR) in respect of the financial information contained in the consolidated annual financial statements of the Repsol Group as at 31 December 2017.

G

EXTENT OF COMPLIANCE WITH THE CORPORATE GOVERNANCE RECOMMENDATIONS

Indicate the degree of compliance by the company with the recommendations of the Good Governance Code for listed companies.

If any recommendation is not followed or is only partly followed, include a detailed explanation of the reasons so that shareholders, investors and the market in general have sufficient information to assess the company's actions. General explanations are not acceptable.

- 1. The Articles of Association of listed companies should not limit the maximum number of votes that may be cast by an individual shareholder or impose other restrictions hampering takeover of the company via the market acquisition of its shares.**

Complies Explanation

- 2. When both the parent company and a subsidiary are listed, they should both publish a document specifying exactly:**

a) The types of activity they are respectively engaged in and any business dealings between them, and between the listed subsidiary and other group companies;

b) The mechanisms in place to solve any conflicts of interest.

Complies Partial compliance Explanation N/A

- 3. During the annual general meeting the chairman of the board should verbally inform shareholders in sufficient detail of the most relevant aspects of the company's corporate governance, supplementing the written information circulated in the annual corporate governance report. In particular:**

a) Changes taking place since the previous annual general meeting.

b) The specific reasons for the company not following a given Good Governance Code recommendation, and any alternative procedures followed in its stead.

Complies Partial compliance Explanation

The information regarding the fulfilment by Repsol of the Code recommendations are include in section G of the Annual Corporate Governance Report, which is published as a Relevant Fact and is available for the shareholders and for any interested party in the Company's web site and in the National Securities Market Commission. Also, shareholders may request the sending of the Annual Corporate Governance Report in paper format prior to the holding of the AGM and it is also provided in the meeting. Therefore, it is not considered that a verbal report of the Chairman during the AGM on the follow-up of the recommendations provides additional information relevant to shareholders.

- 4. The company should draw up and implement a policy of communication and contacts with shareholders, institutional investors and proxy advisors that complies in full with market abuse regulations and accords equitable treatment to shareholders in the same**

position. This policy should be disclosed on the company's website, complete with details of how it has been put into practice and the identities of the relevant interlocutors or those charged with its implementation.

Complies Partial compliance Explanation

5. The board of directors should not make a proposal to the general meeting for the delegation of powers to issue shares or convertible securities without pre-emptive subscription rights for an amount exceeding 20% of capital at the time of such delegation.

When a board approves the issuance of shares or convertible securities without pre-emptive subscription rights, the company should immediately post a report on its website explaining the exclusion as envisaged in company legislation.

Complies Partial compliance Explanation

6. Listed companies drawing up the following reports on a voluntary or compulsory basis should publish them on their website well in advance of the annual general meeting, even if their distribution is not obligatory:

a) Report on auditor's independence.

b) Reviews of the operation of the audit committee and the nomination and remuneration committee.

c) Audit committee report on third-party transactions.

d) Report on corporate social responsibility policy.

Complies Partial compliance Explanation

7. The company should broadcast its general meetings live on the corporate website.

Complies Explanation

8. The audit committee should strive to ensure that the board of directors can present the company's accounts to the general meeting without limitations or qualifications in the auditor's report. In the exceptional case that qualifications exist, both the chairman of the audit committee and the auditors should give a clear account to shareholders of their scope and content.

Complies Partial compliance Explanation

9. The company should disclose its conditions and procedures for admitting share ownership,

the right to attend general meetings and the exercise or delegation of voting rights, and display them permanently on its website.

Such conditions and procedures should encourage shareholders to attend and exercise their rights and be applied in a non-discriminatory manner.

Complies Partial compliance Explanation

10. When an accredited shareholder exercises the right to supplement the agenda or submit new proposals prior to the general meeting, the company should:

a) Immediately circulate the supplementary items and new proposals.

b) Disclose the model of attendance card or proxy appointment or remote voting form duly modified so that new agenda items and alternative proposals can be voted on in the same terms as those submitted by the board of directors.

c) Put all these items or alternative proposals to the vote applying the same voting rules as for those submitted by the board of directors, with particular regard to presumptions or deductions about the direction of votes.

d) After the general meeting, disclose the breakdown of votes on such supplementary items or alternative proposals.

Complies Partial compliance Explanation N/A

11. In the event that a company plans to pay for attendance at the general meeting, it should first establish a general, long-term policy in this respect.

Complies Partial compliance Explanation N/A

12. The Board of Directors should perform its duties with unity of purpose and independent judgement, according the same treatment to all shareholders in the same position. It should be guided at all times by the company's best interest, understood as the creation of a profitable business that promotes its sustainable success over time, while maximising its economic value. In pursuing the corporate interest, it should not only abide by laws and regulations and conduct itself according to principles of good faith, ethics and respect for commonly accepted customs and good practices, but also strive to reconcile its own interests with the legitimate interests of its employees, suppliers, clients and other stakeholders, as well as with the impact of its activities on the broader community and the natural environment .

Complies Partial compliance Explanation

13. The board of directors should have an optimal size to promote its efficient functioning and maximise participation. The recommended range is accordingly between five and fifteen members.

Complies Explanation

Considering the capital structure and how the capital is represented on the Company's governing bodies, the General Meeting considered it to be in the company's best interest to add to the governing bodies persons of the highest professional repute from different sectors whose points of view can enhance the decision-making capacity of the board of directors.

To this end, the Board of Directors proposed to the General Shareholders Meeting held on 30 April 2014 that the number of board members be set at 16 (within the minimum and maximum limits of 9 and 16 established in the Bylaws).

14. The board of directors should approve a director selection policy that:

a) Is concrete and verifiable;

b) Ensures that appointment or re-election proposals are based on a prior analysis of the board's needs; and

c) Favours a diversity of knowledge, experience and gender.

The results of the prior analysis of board needs should be written up in the nomination committee's explanatory report, to be published when the general meeting is convened that will ratify the appointment and re-election of each director.

The director selection policy should pursue the goal of having at least 30% of total board places occupied by women directors before the year 2020.

The nomination committee should run an annual check on compliance with the director selection policy and set out its findings in the annual corporate governance report.

Complies Partial compliance Explanation

15. Proprietary and independent directors should constitute an ample majority on the board of directors, while the number of executive directors should be the minimum practical bearing in mind the complexity of the corporate group and the ownership interests they control.

Complies Partial compliance Explanation

16. The percentage of proprietary directors out of all non-executive directors should be no greater than the proportion between the ownership stake of the shareholders they represent and the remainder of the company's capital. This criterion can be relaxed:

a) In large cap companies where few or no equity stakes attain the legal threshold for significant shareholdings.

b) In companies with a plurality of shareholders represented on the board but not otherwise related.

Complies Explanation

17. Independent directors should be at least half of all board members.

However, when the company does not have a large market capitalisation, or when a large cap company has shareholders individually or concertedly controlling over 30 percent of capital, independent directors should occupy, at least, a third of board places.

Complies Explanation

18. Companies should disclose the following director particulars on their websites and keep them regularly updated:

a) Background and professional experience.

b) Directorships held in other companies, listed or otherwise, and other paid activities they engage in, of whatever nature.

c) Statement of the director class to which they belong, in the case of proprietary directors indicating the shareholder they represent or have links with.

d) Dates of their first appointment as a board member and subsequent re-elections.

e) Shares held in the company, and any options on the same.

Complies Partial compliance Explanation

19. Following verification by the nomination committee, the annual corporate governance report should disclose the reasons for the appointment of proprietary directors at the urging of shareholders controlling less than 3 percent of capital; and explain any rejection of a formal request for a board place from shareholders whose equity stake is equal to or greater than that of others applying successfully for a proprietary directorship.

Complies Partial compliance Explanation N/A

20. Proprietary directors should resign when the shareholders they represent dispose of their ownership interest in its entirety. If such shareholders reduce their stakes, thereby losing some of their entitlement to proprietary directors, the latter's number should be reduced accordingly.

Complies Partial compliance Explanation N/A

21. The board of directors should not propose the removal of independent directors before the expiry of their tenure as mandated by the bylaws, except where they find just cause, based on a proposal from the nomination committee. In particular, just cause will be presumed when directors take up new posts or responsibilities that prevent them allocating sufficient time to the work of a board member, or are in breach of their fiduciary duties or come under one of the disqualifying grounds for classification as independent enumerated in the applicable legislation.

The removal of independent directors may also be proposed when a takeover bid, merger or similar corporate transaction alters the company's capital structure, provided the changes in board membership ensue from the proportionality criterion set out in recommendation 16.

Complies Explanation

22. Companies should establish rules obliging directors to disclose any circumstance that might harm the organisation's name or reputation, tendering their resignation as the case may be, and, in particular, to inform the board of any criminal charges brought against them and the progress of any subsequent trial.

The moment a director is indicted or tried for any of the offences stated in company legislation, the board of directors should open an investigation and, in light of the particular circumstances, decide whether or not he or she should be called on to resign. The board should give a reasoned account of all such determinations in the annual corporate governance report.

Complies Partial compliance Explanation

23. Directors should express their clear opposition when they feel a proposal submitted for the board's approval might damage the corporate interest. In particular, independents and other directors not subject to potential conflicts of interest should strenuously challenge any decision that could harm the interests of shareholders lacking board representation.

When the board makes material or reiterated decisions about which a director has expressed serious reservations, then he or she must draw the pertinent conclusions. Directors resigning for such causes should set out their reasons in the letter referred to in the next recommendation.

The terms of this recommendation also apply to the secretary of the board, even if he or she is not a director.

Complies Partial compliance Explanation N/A

24. Directors who give up their place before their tenure expires, through resignation or otherwise, should state their reasons in a letter to be sent to all members of the board. Whether or not such resignation is disclosed as a material event, the motivating factors should be explained in the annual corporate governance report.

Complies Partial compliance Explanation N/A

25. The nomination committee should ensure that non-executive directors have sufficient time available to discharge their responsibilities effectively.

The board of directors regulations should lay down the maximum number of company boards on which directors can serve.

Complies Partial compliance Explanation

- 26. The board should meet with the necessary frequency to properly perform its functions, eight times a year at least, in accordance with a calendar and agendas set at the start of the year, to which each director may propose the addition of initially unscheduled items.**

Complies Partial compliance Explanation

- 27. Director absences should be kept to a strict minimum and quantified in the annual corporate governance report. In the event of absence, directors should delegate their powers of representation with the appropriate instructions:**

Complies Partial compliance Explanation

- 28. When directors or the secretary express concerns about some proposal or, in the case of directors, about the company's performance, and such concerns are not resolved at the meeting, they should be recorded in the minute book if the person expressing them so requests.**

Complies Partial compliance Explanation N/A

- 29. The company should provide suitable channels for directors to obtain the advice they need to carry out their duties, extending if necessary to external assistance at the company's expense.**

Complies Partial compliance Explanation

- 30. Regardless of the knowledge directors must possess to carry out their duties, they should also be offered refresher programmes when circumstances so advise.**

Complies Partial compliance Explanation

- 31. The agendas of board meetings should clearly indicate on which points directors must arrive at a decision, so they can study the matter beforehand or gather together the material they need.**

For reasons of urgency, the chairman may wish to present decisions or resolutions for board approval that were not on the meeting agenda. In such exceptional circumstances, their inclusion will require the express prior consent, duly minuted, of the majority of directors present.

Complies Partial compliance Explanation

- 32. Directors should be regularly informed of movements in share ownership and of the views of major shareholders, investors and rating agencies on the company and its group.**

Complies Partial compliance Explanation

- 33. The chairman, as the person charged with the efficient functioning of the board of directors, in addition to the functions assigned by law and the company's bylaws, should prepare and submit to the board a schedule of meeting dates and agendas; organise and coordinate regular evaluations of the board and, where appropriate, the company's chief executive officer; exercise leadership of the board and be accountable for its proper functioning; ensure that sufficient time is given to the discussion of strategic issues, and approve and review refresher courses for each director, when circumstances so advise.**

Complies Partial compliance Explanation

- 34. When a lead independent director has been appointed, the bylaws or board of directors regulations should grant him or her the following powers over and above those conferred by law: chair the board of directors in the absence of the chairman or vice chairmen give voice to the concerns of non-executive directors; maintain contacts with investors and shareholders to hear their views and develop a balanced understanding of their concerns, especially those to do with the company's corporate governance; and coordinate the chairman's succession plan.**

Complies Partial compliance Explanation N/A

- 35. The board secretary should strive to ensure that the board's actions and decisions are informed by the governance recommendations of the Good Governance Code of relevance to the company.**

Complies Explanation

- 36. The board in full should conduct an annual evaluation, adopting, where necessary, an action plan to correct weakness detected in:**

a) The quality and efficiency of the board's operation.

b) The performance and membership of its committees.

c) The diversity of board membership and competences.

d) The performance of the chairman of the board of directors and the company's chief executive.

e) The performance and contribution of individual directors, with particular attention to the chairmen of board committees.

The evaluation of board committees should start from the reports they send the board of directors, while that of the board itself should start from the report of the nomination committee.

Every three years, the board of directors should engage an external facilitator to aid in the evaluation process. This facilitator's independence should be verified by the nomination committee.

Any business dealings that the facilitator or members of its corporate group maintain with the company or members of its corporate group should be detailed in the annual corporate governance report.

The process followed and areas evaluated should be detailed in the annual corporate governance report.

Complies Partial compliance Explanation

37. When an executive committee exists, its membership mix by director class should resemble that of the board. The secretary of the board should also act as secretary to the executive committee.

Complies Partial compliance Explanation N/A

38. When an executive committee exists, its membership mix by director class should resemble that of the board. The secretary of the board should also act as secretary to the executive committee.

Complies Partial compliance Explanation N/A

39. All members of the audit committee, particularly its chairman, should be appointed with regard to their knowledge and experience in accounting, auditing and risk management matters. A majority of committee places should be held by independent directors.

Complies Partial compliance Explanation

40. Listed companies should have a unit in charge of the internal audit function, under the supervision of the audit committee, to monitor the effectiveness of reporting and control systems. This unit should report functionally to the board's non-executive chairman or the chairman of the audit committee.

Complies Partial compliance Explanation

41. The head of the unit handling the internal audit function should present an annual work programme to the audit committee, inform it directly of any incidents arising during its implementation and submit an activities report at the end of each year.

Complies Partial compliance Explanation N/A

42. The audit committee should have the following functions over and above those legally assigned:

1. With respect to internal control and reporting systems:

a) Monitor the preparation and the integrity of the financial information prepared on the company and, where appropriate, the group, checking for compliance with legal provisions, the accurate demarcation of the consolidation perimeter, and the correct application of accounting principles.

b) Monitor the independence of the unit handling the internal audit function; propose the selection, appointment, re-election and removal of the head of the internal audit service; propose the service's budget; approve its priorities and work programmes, ensuring that it focuses primarily on the main risks the company is exposed to; receive regular report-backs on its activities; and verify that senior management are acting on the findings and recommendations of its reports.

c) Establish and supervise a mechanism whereby staff can report, confidentially and, if appropriate and feasible, anonymously, any significant irregularities that they detect in the course of their duties, in particular financial or accounting irregularities.

2. With regard to the external auditor:

a) Investigate the issues giving rise to the resignation of the external auditor, should this come about.

b) Ensure that the remuneration of the external auditor does not compromise its quality or independence.

c) Ensure that the company notifies any change of external auditor to the CNMV as a material event, accompanied by a statement of any disagreements arising with the outgoing auditor and the reasons for the same.

d) Ensure that the external auditor has a yearly meeting with the board in full to inform it of the work undertaken and developments in the company's risk and accounting positions.

e) Ensure that the company and the external auditor adhere to current regulations on the provision of non-audit services, limits on the concentration of the auditor's business and other requirements concerning auditor independence.

Complies Partial compliance Explanation

- 43. The audit committee should be empowered to meet with any company employee or manager, even ordering their appearance without the presence of another senior officer.**

Complies Partial compliance Explanation

- 44. The audit committee should be informed of any fundamental changes or corporate transactions the company is planning, so the committee can analyse the operation and report to the board beforehand on its economic conditions and accounting impact and, when applicable, the exchange ratio proposed.**

Complies Partial compliance Explanation N/A

- 45. Risk control and management policy should identify at least: a) The different types of financial and non-financial risk the company is exposed to (including operational, technological, financial, legal, social, environmental, political and reputational risks), with the inclusion under financial or economic risks of contingent liabilities and other off-balance sheet risks. b) The determination of the risk level the company sees as acceptable. c) The measures in place to mitigate the impact of identified risk events should they occur. d) The internal control and reporting systems to be used to control and manage the above risks, including contingent liabilities and off-balance sheet risks.**

Complies Partial compliance Explanation

- 46. Companies should establish a risk control and management function in the charge of one of the company's internal department or units and under the direct supervision of the audit committee or some other dedicated board committee. This function should be expressly charged with the following responsibilities: a) Ensure that risk control and management systems are functioning correctly and, specifically, that major risks the company is exposed to are correctly identified, managed and quantified. b) Participate actively in the preparation of risk strategies and in key decisions about their management. c) Ensure that risk control and management systems are mitigating risks effectively in the frame of the policy drawn up by the board of directors.**

Complies Partial compliance Explanation

- 47. Appointees to the nomination and remuneration committee – or of the nomination committee and remuneration committee, if separately constituted – should have the right balance of knowledge, skills and experience for the functions they are called on to discharge. The majority of their members should be independent directors.**

Complies Partial compliance Explanation

48. Large cap companies should operate separately constituted nomination and remuneration committees.

Complies Partial compliance Explanation

49. The nomination committee should consult with the company's chairman and chief executive, especially on matters relating to executive directors. When there are vacancies on the board, any director may approach the nomination committee to propose candidates that it might consider suitable.

Complies Partial compliance Explanation

50. The remuneration committee should operate independently and have the following functions in addition to those assigned by law:

a) Propose to the board the standard conditions for senior officer contracts.

b) Monitor compliance with the remuneration policy set by the company.

c) Periodically review the remuneration policy for directors and senior officers, including share-based remuneration systems and their application, and ensure that their individual compensation is proportionate to the amounts paid to other directors and senior officers in the company.

d) Ensure that conflicts of interest do not undermine the independence of any external advice the committee engages.

e) Verify the information on director and senior officers' pay contained in corporate documents, including the annual directors' remuneration statement.

Complies Partial compliance Explanation

51. The remuneration committee should consult with the company's chairman and chief executive, especially on matters relating to executive directors and senior officers.

Complies Partial compliance Explanation

52. The terms of reference of supervision and control committees should be set out in the board of directors regulations and aligned with those governing legally mandatory board committees as specified in the preceding sets of recommendations. They should include at least the following terms:

a) Committees should be formed exclusively by non-executive directors, with a majority of independents.

b) They should be chaired by independent directors.

c) The board should appoint the members of such committees with regard to the knowledge, skills and experience of its directors and each committee's terms of reference; discuss their proposals and reports; and provide report-backs on their activities and work at the first board plenary following each committee meeting.

d) They may engage external advice, when they feel it necessary for the discharge of their functions.

e) Meeting proceedings should be minuted and a copy made available to all board members.

Complies Partial compliance Explanation N/A

53. The task of supervising compliance with corporate governance rules, internal codes of conduct and corporate social responsibility policy should be assigned to one board committee or split between several, which could be the audit committee, the nomination committee, the corporate social responsibility committee, where one exists, or a dedicated committee established ad hoc by the board under its powers of self-organisation, with at the least the following functions:

a) Monitor compliance with the company's internal codes of conduct and corporate governance rules.

b) Oversee the communication and relations strategy with shareholders and investors, including small and medium-sized shareholders.

c) Periodically evaluate the effectiveness of the company's corporate governance system, to confirm that it is fulfilling its mission to promote the corporate interest and catering, as appropriate, to the legitimate interests of remaining stakeholders.

d) Review the company's corporate social responsibility policy, ensuring that it is geared to value creation.

e) Monitor corporate social responsibility strategy and practices and assess compliance in their respect.

f) Monitor and evaluate the company's interaction with its stakeholder groups.

g) Evaluate all aspects of the non-financial risks the company is exposed to, including operational, technological, legal, social, environmental, political and reputational risks.

h) Coordinate non-financial and diversity reporting processes in accordance with applicable legislation and international benchmarks.

Complies Partial compliance Explanation

54. The corporate social responsibility policy should state the principles or commitments the company will voluntarily adhere to in its dealings with stakeholder groups, specifying at least:

a) The goals of its corporate social responsibility policy and the support instruments to be deployed.

b) The corporate strategy with regard to sustainability, the environment and social issues.

c) Concrete practices in matters relative to: shareholders, employees, clients, suppliers, social welfare issues, the environment, diversity, fiscal responsibility, respect for human rights and the prevention of illegal conducts.

d) The methods or systems for monitoring the results of the practices referred to above, and identifying and managing related risks.

e) The mechanisms for supervising non-financial risk, ethics and business conduct.

f) Channels for stakeholder communication, participation and dialogue.

g) Responsible communication practices that prevent the manipulation of information and protect the company's honour and integrity.

Complies Partial compliance Explanation

55. The company should report on corporate social responsibility developments in its directors' report or in a separate document, using an internationally accepted methodology.

Complies Partial compliance Explanation

56. Director remuneration should be sufficient to attract individuals with the desired profile and compensate the commitment, abilities and responsibility that the post demands, but not so high as to compromise the independent judgement of non-executive directors.

Complies Explanation

57. Variable remuneration linked to the company and the director's performance, the award of shares, options or any other right to acquire shares or to be remunerated on the basis of share price movements, and membership of long-term savings schemes such as pension plans should be confined to executive directors.

The company may consider the share-based remuneration of non-executive directors provided they retain such shares until the end of their mandate. This condition, however, will not apply to shares that the director must dispose of to defray costs related to their acquisition.

Complies Partial compliance Explanation

58. In the case of variable awards, remuneration policies should include limits and technical safeguards to ensure they reflect the professional performance of the beneficiaries and not simply the general progress of the markets or the company's sector, or circumstances of that kind.

In particular, variable remuneration items should meet the following conditions:

a) Be subject to predetermined and measurable performance criteria that factor the risk assumed to obtain a given outcome.

b) Promote the long-term sustainability of the company and include non-financial criteria that are relevant for the company's long-term value, such as compliance with its internal rules and procedures and its risk control and management policies.

c) Be focused on achieving a balance between the delivery of short, medium and long-term objectives, such that performance-related pay rewards ongoing achievement, maintained over sufficient time to appreciate its contribution to long-term value creation. This will ensure that performance measurement is not based solely on one-off, occasional or extraordinary events.

Complies Partial compliance Explanation N/A

59. A major part of variable remuneration components should be deferred for a long enough period to ensure that predetermined performance criteria have effectively been met.

Complies Partial compliance Explanation N/A

60. Remuneration linked to company earnings should bear in mind any qualifications stated in the external auditor's report that reduce their amount.

Complies Partial compliance Explanation N/A

61. A major part of executive directors' variable remuneration should be linked to the award of shares or financial instruments whose value is linked to the share price.

Complies Partial compliance Explanation N/A

62. Following the award of shares, share options or other rights on shares derived from the remuneration system, directors should not be allowed to transfer a number of shares equivalent to twice their annual fixed remuneration, or to exercise the share options or other rights on shares for at least three years after their award.

The above condition will not apply to any shares that the director must dispose of to defray costs related to their acquisition.

Complies Partial compliance Explanation N/A

63. Contractual arrangements should include provisions that permit the company to reclaim variable components of remuneration when payment was out of step with the director's actual performance or based on data subsequently found to be misstated.

Complies Partial compliance Explanation N/A

64. Termination payments should not exceed a fixed amount equivalent to two years of the director's total annual remuneration and should not be paid until the company confirms that he or she has met the predetermined performance criteria.

Complies Partial compliance Explanation N/A

H OTHER INFORMATION OF INTEREST

- 1. If you consider there to be any important aspect regarding the corporate governance practices applied by your company or other companies in the group that have not been mentioned in this report, but which should be included to obtain more complete, reasoned information on the corporate governance practices and structure in the company or group, describe them below and give a brief explanation.**

It is noted that the data contained in this report relate to the fiscal year ended 31 December, 2017, except in those cases where a different date of reference is explicitly stated.

1. Note to A.1.

On 9 January 2018 the Chief Executive Officer of Repsol, exercising the powers delegated to him by the Board of Directors on 30 April 2015 (in turn exercising the powers delegated in the resolution passed to increase the capital under item seven on the agenda for the Annual General Meeting held on 19 May 2017), resolved to complete and declare closed the capital increase made by Repsol, bringing the company's capital to 1,556,464,965 euros, divided into 1,556,464,965 shares and 1,556,464,965 voting rights.

2. Note to A.2.

The details set out in this section, as of December 31, 2017, are obtained from the information supplied by Sociedad de Gestión de los Sistemas de Registro, Compensación y Liquidación de Valores, Sociedad Anónima Unipersonal (IBERCLEAR), and from the information sent by shareholders to the Company and to the Comisión Nacional del Mercado de Valores (CNMV).

Additionally, in accordance with the statement filed by Blackrock Inc. at the CNMV on January 15, 2016 and based on the amount of share capital in force as of that date, this entity held an indirect of 3.04% of the Company's share capital.

Notwithstanding the foregoing, it is not included in section A.2. the aforementioned indirect interest of Blackrock, Inc. given that, taking into account the number of voting rights declared by said entity to the

CNMV on January 15, 2016, and the share capital included in section A.1, the participation of Blackrock Inc.'s closing date in the Company would not reach 3%.

According to the latest information available from the Company at the time of preparation of the annual accounts, the shareholders of the Company are as follows:

Name of shareholder	Interest / total voting rights (%)
Caixabank,S.A.	9.460
Sacyr,S.A.(1)	7.884
Temasek Holdings (Private) Limited (2)	4.027
BlackRock, Inc	4.270

(1) Sacyr, S.A. holds its stake through Sacyr Investments,S.A., Sacyr Investments II,S.A. and Sacyr Securities,S.A.

(2) Temasek holds its stake through its subsidiary Chembra Investment PTE, Ltd.

(3) BlackRock Inc. holds its stake through various controlled entities

3. Note on section A.8

The 0.01% treasury stock percentage indicated as of December 31, 2017 has been calculated considering the shares issued on the free-of-charge capital increase that, within the framework of the shareholders' pay-out programme "Repsol Flexible Dividend", was recorded on the Madrid Commercial Registry on January 15, 2018 and that for accounting effects has been recorded on the financial statements of the Group as of December 31, 2017. As a result of said capital increase and in relation to the referred calculation, the Group received the proportional amount of new shares corresponding to the shares held as treasury stock before said capital increase.

4. Note on section C.1.16

The paragraph referred to "Total remuneration senior management" includes the amount of the items indicated below, for the period in which they were part of Senior Management during 2017:

- Fixed remuneration and remuneration in kind of the senior management during 2017.
- The annual and Multi-Annual Variable Remuneration Long-Term Incentive Program for 2014-2017 and other items accrued by members of senior management during 2017.
- Share Acquisition Plan by Beneficiaries of Long-Term Incentive Programmes: On May 30, 2017 the consolidation period of the 4rd Cycle of the Scheme was completed. As a result and pursuant to the provisions in Note 28 of the Consolidated Annual Report, senior management rights 6,568 delivering gross shares valued at a price of 14.82 euros per share. These amounts are included within the concept of pay in kind.

For these purposes, it should be noted that Mr. Isidoro Mansilla has been responsible for internal audit until July 17, 2017, being replaced as of that date by Ms. María Isabel Moreno.

On the other hand, the cumulative rights corresponding to pension commitments contracted with the current members of the senior management total 13,377 thousand euros, of which 1,125 thousand euros were contributed in 2017.

The amount indicated in this section does not include the amounts paid to executives who caused leave in the Company and as a compensation for termination of the employment relationship and compensation for non-competition agreement amounting to 3.747 million euros.

5. Note on section C.1.39.

In relation to the calculation of uninterrupted exercises of an audit assignment in entities of public interest, the Institute of Accounting and Auditing of Accounts (ICAC) stated, on March 30, 2017, the need to also compute the audits audited by companies audit with which the current auditor has merged or would have acquired. For this reason, the calculation includes the years ended December 31, 1990 to 2001, audited by Arthur Andersen.

6. Note on section C.1.43

Regarding the information of section C.1.43, it is inform that on February 20, 2018, the Director Mr. Mario Fernández Pelaz has tendered his resignation as member of the Board of Directors of Repsol, S.A.

The reason for his resignation has been the notice of the Supreme Court decision dismissing his appeal against the judgment given by the Provincial Court of Vizcaya on March 20, 2017.

7. Note on section C.2.2.

In the information corresponding to exercise t-3 the reference of Not Applicable (NA) was included because in 2014 the structure of the Committees of the Board of Directors was different since the current Sustainability Committee did not exist, but rather the Strategy, Investments and Corporate Responsibility Committee and the Nomination and Compensation Committees were not separated into two different commissions, but there was a single Nomination and Compensation Committee.

The information in section C.2.2 relating to fiscal year t-3 is detailed below, in accordance with the structure of the Commissions in force during said period:

	FY t Number - %
Delegate Committee	-
Audit and Control Committee	-
Nomination and Compensation Committee	1 – 20%
Strategy, Investments and Corporate Responsibility Committee	1 – 20%

8. Note on section D.2

The information on operations identified in the category titled "Leases" refers to those in which the Group is lessee, net of those in which it is lessor.

The transactions identified as "Other" with "La Caixa" group refer primarily to current short term deposits.

The transactions identified as "Other" with Sacyr, S.A. refer primarily to purchase commitments in effect at 31 December 2017.

9. Note on section D.4.

For related party transactions with group companies established in tax havens or territories considered tax havens, the transactions carried out by Repsol with such companies are reported, broken down by the amounts corresponding to the individual companies, without considering eliminations for consolidation.

We have considered those transactions with Group companies whose tax domicile is established within any of the territories on the list of tax havens contained in RD 1080/1991, excluding those with which there is double taxation treaty in place with Spain that includes a clause for sharing tax information in which it is explicitly stated that they are not considered tax havens.

Regarding the transaction identified in "Other Operations" category, Repsol, S.A. in the past, granted a guarantee in favour of its Ecuadorian subsidiary Repsol Ecuador, S.A. to ensure compliance with the contractual obligations in accordance with the transport agreement signed between Repsol Ecuador, S.A. and Oleoducto de Crudos Pesados (OCP) Ecuador, S.A (ISTA, Initial Shipper Transportation Agreement). By virtue of this guarantee, in 2017 the entity has recognized payment obligations to the entity beneficiary of the guarantee (OCP Limited, a resident entity in the Cayman Islands) for an amount of 46.3 million dollars (38.6 million euros).

- 2. This section may be used to include any other information, clarification or qualification relating to the previous sections of the report, provided it is relevant and not repetitive.**

In particular, state whether the company is subject to any laws other than the laws of Spain on corporate governance and, if this is the case, include whatever information the company may be obliged to supply that differs from the information included in this report.

- 3. The company may also state whether it has voluntarily applied any international, sector-based or other codes of ethical principles or good practices. If so, it should name the code in question and the date of its accession. In particular, the company should state whether it has signed onto the Code of Best Tax Practices of 20 June 2010.**

Repsol signed the Code of Best Tax Practices (Codigo de Buenas Practicas Tributarias) on 23 September

2010 promoted by the Forum of Large Enterprises and the Spanish Tax Administration Agency (AEAT) and the Company complies with the provisions thereof.

This annual corporate governance report was approved by the Company's Board of Directors on 27th February 2018.

Indicate whether any board members have voted against or abstained with respect to the approval of this report.

Yes No

Name of director who did not vote in favour of approved this report	Reasons (against, abstention, non-attendance)	Explain the reasons

Repsol, S.A.

Auditors' Report on the System of
Internal Control over Financial
Reporting

*Translation of a report originally issued in
Spanish. In the event of a discrepancy,
the Spanish-language version prevails.*

Translation of a report originally issued in Spanish. In the event of a discrepancy, the Spanish-language version prevails.

INDEPENDENT REPORT ON THE SYSTEM OF INTERNAL CONTROL OVER FINANCIAL REPORTING (ICFR)

To the shareholders of Repsol, S.A.,

Scope of the Work

We have conducted the reasonable assurance review of the information relating to the System of Internal Control over Financial Reporting (ICFR) of Repsol, S.A. and Subsidiaries (the Repsol Group) for the year ended 31 December 2017.

The objective of this system is to contribute to the faithful representation of the transactions performed and to the provision of reasonable assurance in relation to the prevention or detection of any errors that might have a material effect on the consolidated financial statements.

The aforementioned system is based on the rules and policies defined by the Board of Directors of Repsol, S.A. in accordance with the guidelines established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its Internal Control-Integrated Framework (2013) report.

A system of internal control over financial reporting is a process designed to provide reasonable assurance on the reliability of financial information in accordance with the accounting principles and standards applicable to it. A system of internal control over financial reporting includes policies and procedures that: (i) enable the records reflecting the transactions performed to be kept accurately and with a reasonable level of detail; (ii) guarantee that these transactions are performed only in accordance with the authorisations established; (iii) provide reasonable assurance that transactions are recognised appropriately to enable the preparation of the financial information in accordance with the accounting principles and standards applicable to it; and (iv) provide reasonable assurance in relation to the prevention or timely detection of unauthorised acquisition, use or sale of the company's assets that could have a material effect on the financial information. In view of the limitations inherent to any system of internal control over financial reporting, certain errors, irregularities or fraud might not be detected. Also, the projection to future periods of an evaluation of internal control is subject to risks, including the risk that internal control may be rendered inadequate as a result of future changes in the applicable conditions or that there may be a reduction in the future of the degree of compliance with the policies or procedures established.

Directors' Responsibility

The Board of Directors of Repsol, S.A. is responsible for maintaining the System of Internal Control over the Financial Information included in the consolidated financial statements and for evaluating its effectiveness.

Our Responsibility

Our responsibility is to issue a report on the independent reasonable assurance review of the effectiveness of the System of Internal Control over Financial Reporting (ICFR) based on the work performed by us.

Our work includes an evaluation of the effectiveness of the system of ICFR in relation to the financial information contained in the consolidated financial statements of the Repsol Group as at 31 December 2017 prepared in accordance with International Financial Reporting Standards as adopted by the European Union and the other provisions of the regulatory financial reporting framework applicable to the Repsol Group.

Our work was performed in accordance with the requirements established in Standard ISAE 3000 "Assurance Engagements Other than Audits or Reviews of Historical Financial Information" issued by the International Auditing and Assurance Standards Board (IAASB) of the International Federation of Accountants (IFAC) for the issuance of reasonable assurance reports.

This standard requires the planning and performance of procedures and the obtainment of sufficient evidence to reduce engagement risk to an acceptably low level in the circumstances of the engagement, and the issuance of a positive conclusion.

Independence

Our work was performed in accordance with the independence standards required by the Code of Ethics of the International Ethics Standards Board for Accountants (IESBA), which are based on the fundamental principles of integrity, objectivity, professional competence, due care, confidentiality and professional behaviour.

In accordance with International Standard on Quality Control (ISQC) 1, Deloitte has in place a global system of quality control which includes documented policies and procedures in relation to compliance with ethical requirements, professional standards and applicable legislation.

Conclusion

In our opinion, as at 31 December 2017, the Repsol Group maintained, in all material respects, an effective System of Internal Control over the Financial Information contained in its consolidated financial statements, and this internal control system is based on the rules and policies defined by the Board of Directors of Repsol, S.A. in accordance with the guidelines established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in its report "Internal Control-Integrated Framework (2013)". Furthermore, the disclosures contained in the information relating to the system of ICFR which is included in Note F of the Repsol Group's Annual Corporate Governance Report as at 31 December 2017 are in compliance, in all material respects, with the requirements established by the Corporate Enterprises Act, the Order ECC/461/2013, of 20 March and Circular 7/2015, of 22 December, as amended by the Spanish Securities Market Commission Circular 5/2013, of 12 June.

As described in the accompanying Note F of the Annual Corporate Governance Report, the system of ICFR does not include controls on companies integrated in the consolidated financial statements in which control is not exercised directly or indirectly since the strategic decisions regarding operational and financial activities require the unanimous consent of the parties sharing control. Nevertheless, Repsol Group includes controls designed to protect the homogeneity, validity and reliability of the financial information submitted by the companies for inclusion in the consolidated financial statements. Consequently, our work did not include an examination of the effectiveness of the system of internal control over the generation of the financial information of the aforementioned companies included in the consolidated financial statements of the Repsol Group.

DELOITTE, S.L.

A handwritten signature in blue ink, consisting of several overlapping, fluid strokes that form a complex, abstract shape. The signature is positioned to the right of the printed name and date.

Jorge Izquierdo Mazón
27 February 2018

REPSOL Group

2017 Report on payments
to governments on oil
and gas exploration
and production activities

*Translation of a report
originally issued in Spanish.
In the event of a discrepancy,
the Spanish language version prevails*



(1) PRESENTATION

Spanish¹ and European² regulations require that large undertakings and public interest entities which are active in the extractive industry prepare and publish an annual report on payments made to the Governments as a result of their Extractive Operations³.

The Report on Payments to Governments of Repsol, S.A. (the “Report”) complies with said regulations and has been approved by the Board of Directors of Repsol, S.A. at a meeting held on February 27, 2018.

For more information on taxes paid, please see section 6.6.2 *Taxation* of the Consolidated management report and section *Responsible Tax Policy* of our corporate website (<https://www.repsol.energy/es/sostenibilidad/fiscalidad-responsable/index.cshtml>).

(2) BASIS FOR THE ELABORATION OF THE INFORMATION

2.1) Basis of presentation

This Report discloses the payments made to Governments in 2017 by Repsol, S.A. and its controlled⁴ companies (hereinafter ‘Repsol’) as a result of its Extractive Operations, according to the definitions given below.

This Report does not include payments made by companies over which Repsol, S.A. has ‘joint control’ or ‘significant influence’ (as such terms are defined by the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) adopted by the European Union).

This Report only includes payments made directly by Repsol to Governments.

When Repsol makes payments directly to a Government as an operator, the Report presents the payments in full, even where Repsol is proportionally reimbursed by its non-operating project partners through a partner billing process.

On the other hand, when Repsol is not the project operator and payments are made directly by the operator of the project, this amount is not included in this Report even if Repsol pays its proportionate share to the operating partner. Any other payment made by Repsol directly to the Government is included in the Report, even when it is not the operator of the project.

The payments are presented in this Report by project when the payments have been attributed to a specific project. However, payments made by Repsol in relation to obligations imposed at company level are presented as the entity that made such payment.

This Report is presented in millions of euros to one decimal place. Payments made in currencies other than the Euro are converted for the purposes of this Report, using the cumulative average exchange rate for the

¹ Tenth Additional Provision of Law 22/2015, of July 20, on Audit of Accounts.

² Chapter 10 of Directive 2013/34 / EU of the European Parliament and of the Council of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC of the European Parliament and of the Council and repealing Council Directives 78/660/EEC and 83/349/EEC.

³ For further information on exploration and production activities, see section 5.1 *Upstream* of the Consolidated management report and the Information on oil and gas exploration and production activities, which can be found in the corporate website.

⁴ Controlled companies are those which Repsol, S.A. directly or indirectly, controls and fully consolidates in the Consolidated financial statements of the Repsol Group. For further information on the Group’s consolidation scope, see Appendix I of the Repsol Group’s Consolidated financial statements.

period.

Below are presented the main exchange rates used in the preparation of this Report:

Currency	US Dollar (USD)	Indonesian Rupee (IDR)	Malaysian Ringgit (MYR)	Vietnamese Dong (VND)	Bolivian Peso (BOB)	Peruvian Sol (PES)
Exch. vs. Euro	1.13	15,115.40	4.85	25,657.84	7.86	3.64

Payments are reported on a cash basis. In-kind payments are converted to an equivalent cash value based on the most appropriate and relevant valuation method for each payment, which can be at cost or market value or such other value as stated in the contract. In-kind payments are reported in both volume and equivalent cash value.

This report does not include, where appropriate, information that has not been approved by the corresponding governments.

2.2) Definitions

Extractive Operations

The Report includes payments to Governments made by Repsol, S.A. and its controlled companies whose activities consist, in whole or in part, of the exploration, prospection, discovery, development and extraction of minerals, oil, natural gas deposits or other materials (Extractive Operations).

Government

Any national, regional or local authority of a country, including a department, agency or undertaking controlled by that authority.

Project

Operational activities that are governed by a single contract, license, lease, concession or similar legal agreements and form the basis for payment liabilities with a government. Nonetheless, if multiple such agreements are substantially interconnected, this shall be considered a project.

Payments

The payments included in the report are classified as follows:

- *Taxes*

Includes taxes levied on the income, profits or taxes levied on production. Excludes taxes levied on consumption such as value added taxes, personal income taxes or sales taxes. Payments are reported net of refunds.

- *Production Entitlements*

Share of production allocated to the Government of the country where the Extractive Operations derived from projects operated by the Group are carried out. This includes the government's share as a sovereign entity or through its participation as an equity or interest holder in projects within its sovereign jurisdiction.

Production entitlements arising from activities carried out by state oil companies outside of their respective home countries are excluded.

- *Signature, discovery and production bonuses*

Payments related to signature, discovery and production bonuses. These are usually paid upon the signing of an agreement or contract, or when a commercial discovery is declared, or production has commenced or reached a milestone.

- *Licence fees, rental fees, entry fees and other considerations for licenses and/or concessions*

Payments related to licence fees, rental fees, entry fees and other considerations for licenses or concessions. These are fees and other sums paid as consideration for acquiring a license in order to gain access to an area where extractive activities are being performed.

- *Other*

This heading includes dividends, royalties and payments for infrastructure improvements, grouped together for presentation purposes in this Report. All individual payments in this column are identified by their proper payment category.

Translation of a report originally issued in Spanish.
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(3) INFORMATION BY COUNTRY

Million euros												
	Taxes		Production entitlement		Signature, discovery and production bonuses		License fees, rental fees and other considerations for licenses and/or concessions		Other ⁽¹⁾		TOTAL	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Africa	-	-	-	-	-	-	1.6	2.2	-	-	1.6	2.2
Algeria	-	-	-	-	-	-	1.3	1.8	-	-	1.3	1.8
Gabon	-	-	-	-	-	-	0.3	0.4	-	-	0.3	0.4
Asia	446.5	232.4	606.1	482.9	31.0	9.5	2.0	-	-	-	1,085.6	724.8
Indonesia	325.1	129.5	-	-	-	-	-	-	-	-	325.1	129.5
Malaysia	63.6	52.1	399.7	335.5	30.5	8.9	-	-	-	-	493.8	396.5
Region of the Iraqi Kurdistan	-	-	-	-	-	-	2.0	-	-	-	2.0	-
Vietnam	57.8	50.8	206.4	147.4	0.5	0.6	-	-	-	-	264.7	198.8
Europe	1.2	(70)	-	-	-	-	4.1	5.8	-	-	5.3	(64.3)
Spain	17.5	(3.1)	-	-	-	-	0.2	0.4	-	-	17.7	(2.7)
Norway	(16.3)	(67.0)	-	-	-	-	2.5	3.9	-	-	(13.8)	(63.1)
Portugal	-	-	-	-	-	-	1.4	1.5	-	-	1.4	1.5
Latin America	40.3	58.6	576.1	478.9	7.7	2.5	3.1	3.5	-	-	627.2	543.5
Bolivia	5.3	34.8	509.0	420.1	-	-	1.8	2.5	-	-	516.1	457.4
Colombia	2.0	(5.6)	-	-	-	-	-	-	-	-	2.0	(5.6)
Ecuador	20.4	14.5	67.1	58.8	-	-	1.2	1.0	-	-	88.7	74.3
Guyana	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Mexico	-	-	-	-	7.7	2.5	-	-	-	-	7.7	2.5
Peru	12.6	(12.6)	-	-	-	-	-	-	-	-	12.6	(12.6)
Trinidad and Tobago	-	27.5	-	-	-	-	-	-	-	-	-	27.5
North America	47.1	35.2	-	-	0.8	0.5	31.4	21.5	0.3	0.3	79.6	57.5
Canada	14.8	6.6	-	-	-	-	18.1	6.7	-	-	32.9	13.3
United States Of America	32.3	28.6	-	-	0.8	0.5	13.3	14.8	0.3	0.3	46.7	44.2
Oceania	-	-	-	-	-	-	0.5	0.1	-	-	0.5	0.1
Papua New Guinea	-	-	-	-	-	-	0.5	0.1	-	-	0.5	0.1
	535.1	256.1	1,182.2	961.8	39.5	12.5	42.7	33.1	0.3	0.3	1,799.8	1,263.8

⁽¹⁾ The amount included in "Other" corresponds to payments for infrastructure improvements in 2017 and 2016.

(4) INFORMATION PER PROJECT AND PER GOVERNMENT

Million euros

	Taxes		Production entitlement		Signature, discovery and production bonuses		License fees, rental fees and other considerations for licenses and/or concessions		Other		TOTAL	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
	Algeria											
Payments per project												
Boughezoul	-	-	-	-	-	-	1.2	1.1	-	-	1.2	1.1
Illizi	-	-	-	-	-	-	0.1	0.7	-	-	0.1	0.7
Total	-	-	-	-	-	-	1.3	1.8	-	-	1.3	1.8
Payments per government												
DGE (Ministere des Finances)	-	-	-	-	-	-	1.3	1.8	-	-	1.3	1.8
Total	-	-	-	-	-	-	1.3	1.8	-	-	1.3	1.8
Bolivia												
Payments per project												
Margarita (Caipipendi)/Huacaya	-	-	496.5	405.0	-	-	1.3	1.2	-	-	497.8	406.2
Surubi Noroeste (Mamore)	-	-	5.4	5.3	-	-	0.2	0.1	-	-	5.6	5.4
Monteagudo	-	-	0.6	0.8	-	-	-	-	-	-	0.6	0.8
Paloma, Surubi y Surubi (Bloque Bajo)	-	-	6.3	8.8	-	-	0.3	0.2	-	-	6.6	9.0
Cambeiti	-	-	0.2	0.2	-	-	-	-	-	-	0.2	0.2
Tuichi	-	-	-	-	-	-	-	0.8	-	-	-	0.8
Repsol E&P Bolivia, S.A.	5.3	34.8	-	-	-	-	-	0.2	-	-	5.3	35.0
Total	5.3	34.8	509.0	420.1	-	-	1.8	2.5	-	-	516.1	457.4
Payments per government												
Ministerio de Hidrocarburos y Energía	-	-	509.0	420.1	-	-	-	-	-	-	509.0	420.1
Tributos Fiscales	5.3	34.8	-	-	-	-	-	-	-	-	5.3	34.8
Yacimientos Petrolíferos Fiscales Bolivianos (YPFB)	-	-	-	-	-	-	1.8	2.5	-	-	1.8	2.5
Total	5.3	34.8	509.0	420.1	-	-	1.8	2.5	-	-	516.1	457.4
Canada												
Payments per project												
Chauvin Alberta/Chauvin Saskatchewan	5.0	2.9	-	-	-	-	1.4	1.3	-	-	6.4	4.2
Duvernay	0.6	0.4	-	-	-	-	12.1	0.5	-	-	12.7	0.9
EL1114	-	-	-	-	-	-	-	1.5	-	-	-	1.5
Greater Edson	8.5	4.6	-	-	-	-	4.6	2.6	-	-	13.1	7.2
Groundbirch	0.4	-	-	-	-	-	-	0.1	-	-	0.4	0.1
Repsol Oil & Gas Canada, Inc.	0.3	(1.3)	-	-	-	-	-	0.7	-	-	0.3	(0.6)
Total	14.8	6.6	-	-	-	-	18.1	6.7	-	-	32.9	13.3
Payments per government												
Alberta Energy Regulator	-	-	-	-	-	-	3.0	2.9	-	-	3.0	2.9
Alberta Petroleum Marketing Commission	4.8	2.2	-	-	-	-	-	-	-	-	4.8	2.2
Clearwater County	-	-	-	-	-	-	-	0.3	-	-	-	0.3
Ministry of Energy Mines and Petroleum - British	0.4	-	-	-	-	-	-	0.4	-	-	0.4	0.4
Ministry of Energy and Resources - Saskatchewan	-	-	-	-	-	-	-	0.3	-	-	-	0.3
Ministry of Finance - Saskatchewan	0.2	0.2	-	-	-	-	-	-	-	-	0.2	0.2
Ministry of Finance - Alberta	-	-	-	-	-	-	-	0.3	-	-	-	0.3
Provincial Treasurer of Alberta	9.4	4.1	-	-	-	-	14.2	1.0	-	-	23.6	5.1
Revenu Québec	-	0.1	-	-	-	-	-	-	-	-	-	0.1
Sustainable Resource Development - Alberta	-	-	-	-	-	-	0.6	0.7	-	-	0.6	0.7
The City Of Calgary	-	-	-	-	-	-	-	0.6	-	-	-	0.6
Yellowhead County	-	-	-	-	-	-	0.3	0.2	-	-	0.3	0.2
Total	14.8	6.6	-	-	-	-	18.1	6.7	-	-	32.9	13.3
Colombia												
Payments per project												
Repsol Exploración Colombia, S.A.	0.4	(6.2)	-	-	-	-	-	-	-	-	0.4	(6.2)
Talisman (Colombia) Oil & Gas, Ltd.	1.6	0.6	-	-	-	-	-	-	-	-	1.6	0.6
Total	2.0	(5.6)	-	-	-	-	-	-	-	-	2.0	(5.6)
Payments per government												
Administración de Impuestos y Aduanas Nacionales	2.0	(5.6)	-	-	-	-	-	-	-	-	2.0	(5.6)
Total	2.0	(5.6)	-	-	-	-	-	-	-	-	2.0	(5.6)

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Million euros

	Taxes		Production entitlement		Signature, discovery and production bonuses		License fees, rental fees and other considerations for licenses and/or concessions		Other ⁽¹⁾		TOTAL	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Ecuador												
Payments per project												
Bloque 16	9.6	11.9	55.8	49.4	-	-	0.9	0.8	-	-	66.3	62.1
Tivacuno	1.4	2.4	11.3	9.4	-	-	0.3	0.2	-	-	13.0	12.0
Repsol Ecuador, S.A.	9.4	0.2	-	-	-	-	-	-	-	-	9.4	0.2
Total	20.4	14.5	67.1	58.8	-	-	1.2	1.0	-	-	88.7	74.3
Payments per government												
Servicio de Rentas Internas	20.4	14.5	-	-	-	-	-	-	-	-	20.4	14.5
Agencia de Regularizacion y Control	-	-	-	-	-	-	0.4	0.3	-	-	0.4	0.3
Ministerio de Hidrocarburos	-	-	-	-	-	-	0.1	0.1	-	-	0.1	0.1
Ministerio del Ambiente	-	-	-	-	-	-	0.5	0.4	-	-	0.5	0.4
Secretaria de Hidrocarburos	-	-	67.1	58.8	-	-	0.2	0.2	-	-	67.3	59.0
Total	20.4	14.5	67.1	58.8	-	-	1.2	1.0	-	-	88.7	74.3
United States of America												
Payments per project												
Alaska North Slope	-	-	-	-	-	-	-	0.4	-	-	-	0.4
Alaska Beafourt Sea	-	-	-	-	-	-	-	0.8	-	-	-	0.8
Buckskin	-	-	-	-	-	-	-	0.2	-	-	-	0.2
Eagle Ford	5.2	6.8	-	-	-	-	-	-	-	-	5.2	6.8
GOM	-	-	-	-	0.8	0.5	2.6	4.0	-	-	3.4	4.5
Leon	-	-	-	-	-	-	0.3	0.4	-	-	0.3	0.4
Marcellus	5.9	4.9	-	-	-	-	10.4	9.0	0.3	0.3	16.6	14.2
Shenzi	21.2	17.2	-	-	-	-	-	-	-	-	21.2	17.2
Repsol E&P USA, Inc.	-	(0.3)	-	-	-	-	-	-	-	-	-	(0.3)
Total	32.3	28.6	-	-	0.8	0.5	13.3	14.8	0.3	0.3	46.7	44.2
Payments per government												
Bureau of Ocean Energy Management	21.2	17.3	-	-	0.8	0.5	2.9	5.8	-	-	24.9	23.6
City of Runge	0.1	0.2	-	-	-	-	-	-	-	-	0.1	0.2
Commissioner of the General Land	0.3	0.3	-	-	-	-	-	-	-	-	0.3	0.3
Commonwealth of Pennsylvania	5.5	4.7	-	-	-	-	9.7	8.5	-	-	15.2	13.2
Department of Natural Resources	-	-	-	-	-	-	-	0.1	-	-	-	0.1
Kenedy Independent School District	0.2	-	-	-	-	-	-	-	-	-	0.2	-
New York State Department of Environmental Conservation	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Northeast Bradford School District	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Northern Tier Solid Waste Authority	0.1	-	-	-	-	-	-	-	-	-	0.1	-
Pa Department of Transportation	-	-	-	-	-	-	0.1	-	0.3	0.3	0.4	0.3
Pennsylvania Game Commission	0.1	-	-	-	-	-	-	-	-	-	0.1	-
Runge Independent School District	0.1	0.1	-	-	-	-	-	-	-	-	0.1	0.1
State Comptroller	4.6	6.1	-	-	-	-	-	-	-	-	4.6	6.1
State of Alaska	-	(0.2)	-	-	-	-	-	-	-	-	-	(0.2)
Susquehanna River Basin Commission	-	-	-	-	-	-	0.3	0.3	-	-	0.3	0.3
Troy Area School District	0.1	0.1	-	-	-	-	-	-	-	-	0.1	0.1
United States Geological Survey	-	-	-	-	-	-	0.1	0.1	-	-	0.1	0.1
Total	32.3	28.6	-	-	0.8	0.5	13.3	14.8	0.3	0.3	46.7	44.2
Spain												
Payments per project												
Repsol Investigaciones Petrolíferas, S.A	17.5	(3.1)	-	-	-	-	0.2	0.4	-	-	17.7	(2.7)
Total	17.5	(3.1)	-	-	-	-	0.2	0.4	-	-	17.7	(2.7)
Payments per government												
Agencia Estatal de Administración Tributaria (AEAT)	-	(3.2)	-	-	-	-	0.1	0.3	-	-	0.1	(2.9)
Autoridad Portuaria Tarragona	-	-	-	-	-	-	0.1	0.1	-	-	0.1	0.1
Tesoro Público	17.5	0.1	-	-	-	-	-	-	-	-	17.5	0.1
Total	17.5	(3.1)	-	-	-	-	0.2	0.4	-	-	17.7	(2.7)
Gabon												
Payments per project												
Luna Muetse	-	-	-	-	-	-	0.3	0.3	-	-	0.3	0.3
Repsol Libreville, S.A. avec A.G.	-	-	-	-	-	-	-	0.1	-	-	-	0.1
Total	-	-	-	-	-	-	0.3	0.4	-	-	0.3	0.4
Payments per government												
Direction General des Hydrocarbures	-	-	-	-	-	-	0.3	0.4	-	-	0.3	0.4
Total	-	-	-	-	-	-	0.3	0.4	-	-	0.3	0.4

⁽¹⁾ The amount included in "Other" corresponds to payments for infrastructure improvements in 2017 and 2016.

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Million euros

	Taxes		Production entitlement		Signature, discovery and production bonuses		License fees, rental fees and other considerations for licenses and/or concessions		Other		TOTAL	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Guyana												
Payments per project												
Kanuku	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Total	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Payments per government												
Guyana Geology and Mines Commission	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Total	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Indonesia												
Payments per project												
Corridor	259.3	109.7	-	-	-	-	-	-	-	-	259.3	109.7
Jambi Merang	22.5	8.7	-	-	-	-	-	-	-	-	22.5	8.7
Ogan Komering	0.8	0.9	-	-	-	-	-	-	-	-	0.8	0.9
Tangguh	42.5	10.2	-	-	-	-	-	-	-	-	42.5	10.2
Total	325.1	129.5	-	-	-	-	-	-	-	-	325.1	129.5
Payments per government												
Directorate General Tax	325.1	129.5	-	-	-	-	-	-	-	-	325.1	129.5
Total	325.1	129.5	-	-	-	-	-	-	-	-	325.1	129.5
Malaysia												
Payments per project												
PM3-CAA	39.1 ⁽¹⁾	31.5	301.6 ⁽³⁾	251.6	26.6	2.2	-	-	-	-	367.3	285.3
PM305	4.4	3.4	15.4 ⁽⁴⁾	14.4	-	3.3	-	-	-	-	19.8	21.1
PM314	0.6	0.5	2.5	1.9	-	0.2	-	-	-	-	3.1	2.6
SB1 Kinabalu Oil	22.5 ⁽²⁾	16.8	80.2 ⁽⁵⁾	67.6	3.9	3.2	-	-	-	-	106.6	87.6
Repsol Oil & Gas Malaysia, Ltd.	(3.0)	(0.1)	-	-	-	-	-	-	-	-	(3.0)	(0.1)
Total	63.6	52.1	399.7	335.5	30.5	8.9	-	-	-	-	493.8	396.5
Payments per government												
Inland Revenue Board	(3.0)	(0.2)	-	-	-	-	-	-	-	-	(3.0)	(0.2)
PETRONAS	66.6	52.3	399.7	335.5	30.5	8.9	-	-	-	-	496.8	396.7
Total	63.6	52.1	399.7	335.5	30.5	8.9	-	-	-	-	493.8	396.5
Mexico												
Payments per project												
Bloque 11	-	-	-	-	7.6	-	-	-	-	-	7.6	-
Repsol Exploración México, S.A. de C.V.	-	-	-	-	0.1	2.5	-	-	-	-	0.1	2.5
Total	-	-	-	-	7.7	2.5	-	-	-	-	7.7	2.5
Payments per government												
Comisión Nacional de Hidrocarburos	-	-	-	-	7.6	-	-	-	-	-	7.6	-
Fondo Mexicano de Petróleo	-	-	-	-	0.1	-	-	-	-	-	0.1	-
Servicio de Administración Tributaria	-	-	-	-	-	2.5	-	-	-	-	-	2.5
Total	-	-	-	-	7.7	2.5	-	-	-	-	7.7	2.5
Norway												
Payments per project												
Repsol Norge, AS	(16.3)	(67.0)	-	-	-	-	2.5	3.9	-	-	(14)	(63.1)
Total	(16.3)	(67.0)	-	-	-	-	2.5	3.9	-	-	(13.8)	(63.1)
Payments per government												
Oljedirektoratet	-	-	-	-	-	-	2.5	3.9	-	-	2.5	3.9
Skatteetaten	(16.3)	(67.0)	-	-	-	-	-	-	-	-	(16)	(67.0)
Total	(16.3)	(67.0)	-	-	-	-	2.5	3.9	-	-	(13.8)	(63.1)
Papua New Guinea												
Payments per project												
PDL 10	-	-	-	-	-	-	0.1	0.1	-	-	0.1	0.1
PPL235	-	-	-	-	-	-	0.1	-	-	-	0.1	-
PPL261	-	-	-	-	-	-	0.1	-	-	-	0.1	-
PPL269	-	-	-	-	-	-	0.1	-	-	-	0.1	-
PPL426	-	-	-	-	-	-	0.1	-	-	-	0.1	-
Total	-	-	-	-	-	-	0.5	0.1	-	-	0.5	0.1
Payments per government												
Department of Petroleum & Energy	-	-	-	-	-	-	0.5	0.1	-	-	0.5	0.1
Total	-	-	-	-	-	-	0.5	0.1	-	-	0.5	0.1

(1) Includes payments in kind amounting to 1.3 million barrels of oil equivalent (42 million euros).

(2) Includes payments in kind amounting to 0.3 million barrels of oil equivalent (16.6 million euros).

(3) Includes payments in kind amounting to 10.5 million barrels of oil equivalent (301.6 million euros).

(4) Includes payments in kind amounting to 0.3 million barrels of oil equivalent (15.4 million euros).

(5) Includes payments in kind amounting to 1.5 million barrels of oil equivalent (80.2 million euros).

*Translation of a report originally issued in Spanish.
In the event of a discrepancy, the Spanish language version prevails.*

Million euros

	Taxes		Production entitlement		Signature, discovery and production bonuses		License fees, rental fees and other considerations for licenses and/or concessions		Other		TOTAL	
	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016	2017	2016
Peru												
Payments per project												
Lote 56	0.1	(7.8)	-	-	-	-	-	-	-	-	0.1	(7.8)
Lote 57	11.4	6.4	-	-	-	-	-	-	-	-	11.4	6.4
Lote 76	-	(0.2)	-	-	-	-	-	-	-	-	-	(0.2)
Lote 88	0.1	(11.5)	-	-	-	-	-	-	-	-	0.1	(11.5)
Repsof Exploración Perú (Branch)	1.0	0.5	-	-	-	-	-	-	-	-	1.0	0.5
Total	12.6	(12.6)	-	-	-	-	-	-	-	-	12.6	(12.6)
Payments per government												
SUNAT	1.0	(19.3)	-	-	-	-	-	-	-	-	1.0	(19.3)
Organismo de Evaluación y Fiscalización	0.1	0.1	-	-	-	-	-	-	-	-	0.1	0.1
Organismo Supervisor de la Inversión en Energía y Minería	0.2	-	-	-	-	-	-	-	-	-	0.2	-
Perupetro S.A.	11.3	6.6	-	-	-	-	-	-	-	-	11.3	6.6
Total	12.6	(12.6)	-	-	-	-	-	-	-	-	12.6	(12.6)
Portugal												
Payments per project												
Ameijoa	-	-	-	-	-	-	0.1	0.3	-	-	0.1	0.3
Camarao	-	-	-	-	-	-	0.3	0.2	-	-	0.3	0.2
Caranguejo	-	-	-	-	-	-	0.1	0.1	-	-	0.1	0.1
Lagosta	-	-	-	-	-	-	0.2	0.1	-	-	0.2	0.1
Lagostim	-	-	-	-	-	-	0.1	0.2	-	-	0.1	0.2
Mexilhao	-	-	-	-	-	-	0.3	0.2	-	-	0.3	0.2
Ostra	-	-	-	-	-	-	0.2	0.3	-	-	0.2	0.3
Sapateira	-	-	-	-	-	-	0.1	0.1	-	-	0.1	0.1
Total	-	-	-	-	-	-	1.4	1.5	-	-	1.4	1.5
Payments per government												
Entidade Nacional para o Mercado de Combustíveis (ENMC)	-	-	-	-	-	-	1.4	1.5	-	-	1.4	1.5
Total	-	-	-	-	-	-	1.4	1.5	-	-	1.4	1.5
Region of the Iraqi Kurdistan												
Payments per project												
Topkhana	-	-	-	-	-	-	0.8	-	-	-	0.8	-
Kurdamir	-	-	-	-	-	-	1.2	-	-	-	1.2	-
Total	-	-	-	-	-	-	2.0	-	-	-	2.0	-
Payments per government												
Ministry of Natural Resources	-	-	-	-	-	-	2.0	-	-	-	2.0	-
Total	-	-	-	-	-	-	2.0	-	-	-	2.0	-
Trinidad and Tobago												
Payments per project												
TSP	-	27.5	-	-	-	-	-	-	-	-	-	27.5
Total	-	27.5	-	-	-	-	-	-	-	-	-	27.5
Payments per government												
Board of Inland Revenue	-	0.9	-	-	-	-	-	-	-	-	-	0.9
Ministry of Energy	-	26.6	-	-	-	-	-	-	-	-	-	26.6
Total	-	27.5	-	-	-	-	-	-	-	-	-	27.5
Vietnam												
Payments per project												
Block 15-2/01 PC	20.2	18.4	-	-	-	-	-	-	-	-	20.2	18.4
Block 07/03 (CRD)	-	-	-	-	0.2	0.3	-	-	-	-	0.2	0.3
Block 133-134 BCC	-	-	-	-	0.1	0.1	-	-	-	-	0.1	0.1
Block 135-136	-	-	-	-	0.1	0.1	-	-	-	-	0.1	0.1
Block 46 Cai Nuoc	-	2.2	6.3 ⁽²⁾	13.6	-	-	-	-	-	-	6.3	15.8
PM3-CAA	37.6 ⁽¹⁾	30.2	200.1 ⁽³⁾	133.8	-	-	-	-	-	-	237.7	164.0
Vung May 156-159	-	-	-	-	0.1	0.1	-	-	-	-	0.1	0.1
Total	57.8	50.8	206.4	147.4	0.5	0.6	-	-	-	-	264.7	198.8
Payments per government												
Vietnam Tax Authority	20.2	18.4	-	-	-	-	-	-	-	-	20.2	18.4
Vietnam Oil and Gas Group	37.6	32.4	206.4	147.4	0.5	0.6	-	-	-	-	244.5	180.4
Total	57.8	50.8	206.4	147.4	0.5	0.6	-	-	-	-	264.7	198.8

⁽¹⁾ Includes payments in kind amounting to 1.3 million barrels of oil equivalent (37.6 million euros).

⁽²⁾ Includes payments in kind amounting to 0.2 million barrels of oil equivalent (6.3 million euros).

⁽³⁾ Includes payments in kind amounting to 5.9 million barrels of oil equivalent (200.1 million euros).

REPSOL Group

2017 Information on oil
and gas exploration
and production activities

*Translation of a report
originally issued in Spanish.
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(1) Information on oil and gas exploration and production activities

This document contains information on the Repsol Group's oil and gas exploration and production activities. This unaudited information is published on an annual basis and is prepared in accordance with the criteria contained in Topic 932 of the "Financial Accounting Standards Boards" (FASB), which contains the principles that are generally applied in the oil and gas industry.

This information includes:

- **Information on acreage.**
- **Exploration and development activities.**
- **Net proven reserves**, which represent the volume of proven developed and undeveloped reserves of oil and gas.
- **Future net cash flows**, which represents an estimate of standardized measure of discounted future net cash flows relating to proven oil and gas reserves.
- **Changes in Future net cash flows**, which reflects the changes in standardized measure of discounted future net cash flows relating to proven oil and gas reserves with respect to those presented for the previous year
- **Production of oil and gas of the year.**
- **Results of oil and gas exploration and production activities**, including revenue and expenses directly associated to this activity.
- **Accumulated investment** (Capitalized cost), which shows capitalized historical costs.
- **Investments of the year** (Cost incurred), which represent the amounts capitalized during the year, including the dismantling obligations.

The financial information included in this document is consistent with that stated in the Group financial statements and management report (accessible at www.repsol.com), but there might be some differences due to the fact that the information included in the current document is presented in accordance with US GAAP (Topic 932 FASB) and the Group's official financial information is presented accordingly to International Financial Reporting Standards endorsed by the European Union (IFRS-UE).

Repsol Group estimates its proven reserves according to the standards established by the SPE-PRMS system.

The information here contained refers to the last three years (2017, 2016 and 2015). From 2016 on, the Group capitalizes the costs of geology and geophysics (G&G), net of tax benefits, in the exploratory phase. In 2017 Oceania has been integrated in the geographic area 'Asia and Oceania'. To facilitate the comparability of the information, data corresponding to year 2016 and 2015 have been re-stated applying the same accounting standard.

(2) Information on acreage

The following tables disclose details of Repsol's acreage and exploration and development activities by geographical region:

(km ²)	Developed and undeveloped acreage											
	2017				2016				2015			
	Developed ⁽¹⁾		Undeveloped ⁽²⁾		Developed ⁽¹⁾		Undeveloped ⁽²⁾		Developed ⁽¹⁾		Undeveloped ⁽²⁾	
	Gross ⁽³⁾	Net ⁽⁴⁾	Gross ⁽³⁾	Net ⁽⁴⁾	Gross ⁽³⁾	Net ⁽⁴⁾	Gross ⁽³⁾	Net ⁽⁴⁾	Gross ⁽³⁾	Net ⁽⁴⁾	Gross ⁽³⁾	Net ⁽⁴⁾
Europe	1,816	680	37,775	15,891	1,892	686	60,186	28,888	1,428	525	68,862	32,409
Norway	303	107	4,609	1,660	303	107	9,842	4,539	324	92	10,676	4,608
United Kingdom	1,490	555	430	105	1,567	561	699	236	1,082	416	2,148	684
Rest of Europe	22	17	32,736	14,126	22	17	49,645	24,113	22	17	56,038	27,117
Latin America	3,006	688	117,655	51,550	3,131	715	132,471	57,207	2,974	698	142,580	61,725
Brazil	838	80	2,236	316	838	80	2,448	363	549	36	2,736	407
Colombia	369	78	73,382	27,525	509	112	74,956	28,036	651	134	73,357	27,460
Peru	238	48	12,755	10,348	225	41	21,748	13,346	200	28	21,772	13,359
Trinidad & Tobago	151	45	3,653	1,076	152	45	6,238	2,109	180	66	7,973	3,327
Venezuela	806	192	2,185	661	803	192	2,187	661	789	189	2,200	664
Rest of Latin America	606	245	23,443	11,624	604	245	24,895	12,691	605	245	34,542	16,508
North America	6,028	2,199	17,213	8,538	5,606	2,184	35,745	20,473	5,435	2,358	44,054	24,540
Canada	2,517	1,580	10,673	5,567	2,586	1,570	27,171	16,651	2,518	1,747	27,730	17,400
United States	3,511	620	5,947	2,615	3,020	614	8,574	3,822	2,917	611	16,324	7,140
Rest of North America	-	-	593	356	-	-	-	-	-	-	-	-
Africa	4,347	1,234	51,793	23,899	2,566	713	87,592	56,825	2,670	673	97,921	59,966
Asia and Oceania	2,290	982	136,872	99,721	1,402	564	160,302	113,633	1,759	724	144,956	91,872
Indonesia	615	219	15,583	12,261	661	242	20,613	16,737	1,010	390	27,940	23,818
Malaysia	1,221	560	4,108	2,566	414	193	4,984	2,952	414	199	8,456	4,162
Russia	46	23	3,386	2,418	222	109	4,692	4,135	221	108	10,771	9,670
Rest of Asia and Oceania	408	180	113,794	82,476	104	20	130,012	89,808	114	27	97,789	54,222
Total	17,487	5,783	361,308	199,599	14,598	4,862	476,297	277,027	14,266	4,978	498,373	270,512

(1) Developed acreage is the number of acres that are allocated or assignable to productive wells. The figures shown reflect operating acreage.

(2) Undeveloped acreage is acreage on which wells have not been drilled or completed to a point that would permit the production of commercial quantities of oil and gas, regardless of whether or not the acreage contains proved reserves.. Also includes exploration surface area.

(3) Gross acreage is the total acres in which Repsol owns an interest.

(4) Net acreage is the total of the fractional interest in the gross acreage position.

	Acreage											
	Gross area (km²) ⁽¹⁾						Gross area (km²) ⁽¹⁾					
	Development			Exploration			Development			Exploration		
	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
Europe	2,743	2,845	2,882	36,848	59,233	67,408	1,199	1,230	1,312	15,373	28,344	31,622
Norway	851	876	853	4,062	9,269	10,147	324	343	411	1,444	4,304	4,289
United Kingdom	1,492	1,570	1,630	428	695	1,600	543	555	569	117	242	531
Rest of Europe	400	399	399	32,358	49,269	55,661	331	332	332	13,812	23,798	26,802
Latin America	15,236	16,883	18,119	105,425	118,719	127,435	4,475	4,736	5,884	47,763	53,186	56,539
Brazil	973	1,185	1,185	2,100	2,100	2,100	100	147	147	296	296	296
Colombia	1,357	2,196	1,647	72,394	73,270	72,360	219	375	276	27,383	27,773	27,318
Peru	1,413	2,020	2,020	11,580	19,952	19,952	141	202	202	10,255	13,185	13,185
Trinidad & Tobago	3,804	3,804	5,579	-	2,585	2,574	1,121	1,121	2,363	-	1,034	1,030
Venezuela	2,990	2,990	2,990	-	-	-	853	853	853	-	-	-
Rest of Latin America	4,698	4,688	4,698	19,351	20,812	30,449	2,041	2,038	2,043	9,828	10,899	14,710
North America	10,252	10,881	16,205	12,989	30,470	33,284	5,234	5,316	6,442	5,503	17,342	20,456
Canada	5,180	5,549	5,934	8,009	24,208	24,314	3,779	3,813	4,375	3,368	14,408	14,772
United States	5,072	5,332	10,271	4,387	6,262	8,970	1,455	1,503	2,067	1,780	2,934	5,684
Rest of North America	-	-	-	593	-	-	-	-	-	356	-	-
Africa	12,725	12,725	12,846	43,416	77,434	87,745	2,744	2,744	2,709	22,389	54,794	57,930
Asia and Oceania	10,060	11,280	10,328	129,101	150,423	136,387	4,105	4,638	4,319	96,598	109,560	88,277
Indonesia	3,124	4,279	4,837	13,074	16,996	24,113	1,011	1,589	1,809	11,469	15,391	22,399
Malaysia	2,324	2,393	2,311	3,005	3,005	6,559	1,022	1,041	1,014	2,104	2,104	3,347
Russia	346	1,312	1,411	3,085	3,602	9,581	169	642	691	2,272	3,602	9,088
Rest of Asia and Oceania	4,267	3,297	1,769	109,935	126,820	96,134	1,902	1,365	805	80,754	88,463	53,443
Total	51,016	54,614	60,380	327,779	436,280	452,259	17,757	18,664	20,666	187,625	263,226	254,824

(1) Gross acreage surface area is the area in which Repsol owns an interest. Net acreage surface area is the sum of the gross surface areas of each acreage, in respect of Repsol's respective interests.

(3) Exploration and development activities

The following tables show Repsol's completed exploratory wells by geographical region:

	Exploration wells completed and in progress ⁽¹⁾														
	Positive			Negative			Under assessment			Total			In progress		
	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
Europe	-	-	-	2	-	6	-	1	-	2	1	6	-	1	1
Norway	-	-	-	1	-	4	-	-	-	1	-	4	-	-	-
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rest of Europe	-	-	-	1	-	2	-	1	-	1	1	2	-	1	1
Latin America	3	-	-	4	2	2	-	-	1	7	2	3	5	1	1
Brazil	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-
Colombia	-	-	-	2	2	-	-	-	-	2	2	-	3	-	1
Peru	-	-	-	1	-	2	-	-	-	1	-	2	-	1	-
Trinidad & Tobago	2	-	-	-	-	-	-	-	-	2	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rest of Latin America	1	-	-	1	-	-	-	-	-	2	-	-	2	-	-
North America	1	-	1	-	-	2	-	-	-	1	-	3	2	-	-
Canada	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-
United States	1	-	1	-	-	1	-	-	-	1	-	2	2	-	-
Africa	-	-	2	1	1	3	-	1	-	1	2	5	1	-	-
Asia and Oceania	1	-	1	2	6	-	-	2	1	3	8	2	-	-	2
Indonesia	-	-	-	1	1	-	-	2	-	1	3	-	-	-	2
Malaysia	-	-	-	-	3	-	-	-	1	-	3	1	-	-	-
Russia	-	-	1	1	-	-	-	-	-	1	-	1	-	-	-
Rest of Asia and Oceania	1	-	-	-	2	-	-	-	-	1	2	-	-	-	-
Total	5	-	4	9	9	13	-	4	2	14	13	19	8	2	4

(1) Excluding appraisal wells (2 in 2017: 1 positive y 1 negative; 8 in 2016: 3 positive, 2 negative, 1 in evaluation y 2 still in progress; 14 in 2015: 12 positive, 1 in evaluation y 1 still in progress. The Hendrix well was declared negative, although it was still in progress at December 31, 2017.

	Completed development wells											
	Positive			Negative			Under assessment			Total		
	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
Europe	4	3	4	-	-	-	-	-	-	4	3	4
Norway	3	1	3	-	-	-	-	-	-	3	1	3
United Kingdom	1	2	1	-	-	-	-	-	-	1	2	1
Rest of Europe	-	-	-	-	-	-	-	-	-	-	-	-
Latin America	69	52	62	2	2	3	3	7	5	74	61	70
Brazil	3	4	10	-	-	-	-	-	1	3	4	11
Colombia	25	3	20	-	-	-	1	1	-	26	4	20
Peru	-	3	-	-	-	-	-	1	-	-	4	-
Trinidad & Tobago	17	8	3	-	-	-	1	5	2	18	13	5
Venezuela	17	25	22	-	-	2	-	-	-	17	25	24
Rest of Latin America	7	9	7	2	2	1	1	-	2	10	11	10
North America	153	150	282	-	-	1	-	-	16	153	150	299
Canada	57	31	30	-	-	-	-	-	6	57	31	36
United States	96	119	252	-	-	1	-	-	10	96	119	263
Africa	12	8	2	1	1	1	-	1	-	13	10	3
Asia and Oceania	31	46	43	1	-	3	3	-	-	35	46	46
Indonesia	-	1	1	-	-	-	-	-	-	-	1	1
Malaysia	-	-	-	-	-	-	3	-	-	3	-	-
Russia	25	45	42	1	-	2	-	-	-	26	45	44
Rest of Asia and Oceania	6	-	-	-	-	1	-	-	-	6	-	1
Total	269	259	393	4	3	8	6	8	21	279	270	422

(4) Net proven oil and gas reserves

The tables below reflect the net developed and undeveloped proved reserves of crude oil, condensates, LPG and natural gas, including the volume of reserves equivalent to the financial income obtained under certain production-sharing contracts in force as of December 31, 2017, 2016 and 2015, and the variations therein.

In determining net reserves, we exclude from our reported reserves royalties due to others, whether payable in cash or in kind, where the royalty owner has a direct interest in the underlying production and is able to make lifting and sales arrangements independently. By contrast, to the extent that royalty payments required to be made to a third party, whether payable in cash or in kind, are a financial obligation, or are substantially equivalent to a production or severance tax, the related reserves are not excluded from our reported reserves despite the fact that such payments are referred to as “royalties” under local rules. We follow the same methodology in reporting our production amounts.

Repsol applies the criteria established by the Society of Petroleum Engineers’ Petroleum Resource Management System (SPE-PRMS) to estimate its proven, probable and possible reserves. See Note 3 “Accounting estimates and judgments” of the 2017 Consolidated Financial Statements.

In accordance with these rules, proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be commercially recoverable – from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations – prior to the time at which contracts providing the right to operate expire, regardless of whether deterministic or probabilistic methods are used for the estimation. The project to extract the hydrocarbons must have commenced or the operator must be reasonable certain that it will commence the project within a reasonable time.

All of Repsol’s oil and gas reserves have been estimated by the company’s petroleum engineers.

To control the quality of reserves booked, Repsol has established a process that is integrated into Repsol’s internal control system. The process to manage reserves booking is centrally controlled by the Reserve Control Direction which is independent from the upstream activities and it is overseen by the Audit and Control Committee. Furthermore, the volumes booked are submitted to third party engineers for a reserves audit on a periodic basis (at least 95% of the reserves are externally audited on a three years cycle).

For those areas submitted to third party audit, Repsol’s proved reserves figures have to be within 7% of the third party reserves audit figures for Repsol to declare that the reserves information meets the third party reserves audit standards. In the event that the difference is greater than 7% tolerance, Repsol reestimates its proved reserves to achieve this tolerance level or discloses the third party reserves audit figures. In 2017, Repsol commissioned an external audit for various areas of South America, North America, Africa and Asia.

Proved developed and undeveloped reserves of crude oil, condensate GPL:

Millions of barrels

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Reserves at December 31st, 2014 (1)(2)	278	3	-	84	45	40	105	-
Revisions of previous estimates	20	7	-	-	4	10	(1)	2
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	17	-	-	-	10	6	-	-
Purchases of minerals in place	138	8	-	-	48	53	8	20
Sales of minerals in place	(13)	-	-	-	(13)	-	-	-
Production (1)	(44)	(4)	-	(4)	(13)	(14)	(3)	(5)
Reserves at December 31st, 2015 (1)(2)	396	13	-	80	82	96	110	16
Revisions of previous estimates	28	9	-	4	1	3	1	10
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	27	-	-	17	6	4	-	-
Purchases of minerals in place	1	-	-	-	-	1	-	-
Sales of minerals in place	(20)	-	-	-	-	(19)	-	(1)
Production (1)	(51)	(8)	-	(5)	(12)	(16)	(3)	(7)
Reserves at December 31st, 2016 (1)(2)	380	14	-	96	77	68	107	18
Revisions of previous estimates	42	5	-	-	(6)	10	13	19
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	19	-	-	-	16	3	-	-
Purchases of minerals in place	2	-	-	-	-	-	-	2
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(52)	(6)	-	(5)	(10)	(13)	(12)	(5)
Reserves at December 31st, 2017 (1)	391	12	-	92	77	68	108	34

Millions of barrels

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Equity-accounted investees								
Reserves at December 31st, 2014 (1)(2)	163	-	42	-	-	90	-	30
Revisions of previous estimates	8	(9)	4	-	-	9	-	3
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	52	44	-	-	-	9	-	-
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(31)	(5)	(5)	-	-	(17)	-	(4)
Reserves at December 31st, 2015 (1)(2)	192	30	42	-	-	91	-	29
Revisions of previous estimates	30	18	11	-	-	(3)	-	4
Improved recovery	19	-	-	-	-	19	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	-	-	-	-	-	-	-	-
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(38)	(8)	(5)	-	-	(21)	-	(4)
Reserves at December 31st, 2016 (1)(2)	204	40	48	-	-	87	-	29
Revisions of previous estimates	63	9	15	-	-	35	-	4
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	-	-	-	-	-	-	-	-
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(41)	(9)	(5)	-	-	(23)	-	(4)
Reserves at December 31st, 2017 (1)	226	40	59	-	-	99	-	29
Total reserves ad Decemeber 31st, 2017	617	52	59	92	77	167	108	63

Proved developed reserves of crude oil, condensate GPL:

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
At December 31st, 2014 (2)	265	3	31	52	25	65	65	24
Fully-consolidated entities	181	3	-	52	25	36	65	-
Equity-accounted investees	84	-	31	-	-	29	-	24
At December 31st, 2015 (2)	418	36	32	50	52	137	71	40
Fully-consolidated entities	283	13	-	50	52	82	71	15
Equity-accounted investees	135	23	32	-	-	55	-	25
At December 31st, 2016 (2)	407	50	33	48	46	123	68	40
Fully-consolidated entities	250	13	-	48	46	59	68	17
Equity-accounted investees	157	37	33	-	-	64	-	23
At December 31st, 2017	430	47	37	60	38	148	63	37
Fully-consolidated entities	248	11	-	60	38	61	63	16
Equity-accounted investees	182	36	37	-	-	88	-	21

Note: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

(1) Total net proved developed and undeveloped reserves at December 31, 2017, 2016, 2015 and 2014 include an estimated volume of approximately 47, 45, 45 and 46 million barrels of oil equivalent, respectively, corresponding to royalty payments which, as described above, constitute a financial obligation or are substantially equivalent to a production or equivalent tax. Net production in 2017, 2016, 2015 and 2014 includes an estimated volume of 5, 4, 4 and 4 million barrels of oil equivalent, respectively, in connection with such

(2) Figures for 2016, 2015 and 2014 have been restated as a result of the change of geographical areas established in 2017 following which Asia and Oceania are presented together.

Developed and undeveloped proved reserves of natural Gas:

Thousand Millions of Standard Cubic Feet

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Reserves at December 31st, 2014 (1)(2)	2,088	-	82	1,553	83	256	113	-
Revisions of previous estimates	120	3	(29)	48	(51)	121	5	23
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	278	-	-	-	194	85	-	-
Purchases of minerals in place	2,985	16	-	-	1,691	419	-	858
Sales of minerals in place	(49)	-	-	-	(49)	-	-	-
Production (1)	(383)	(6)	(6)	(52)	(134)	(86)	(16)	(82)
Reserves at December 31st, 2015 (1)(2)	5,039	14	47	1,549	1,733	794	103	799
Revisions of previous estimates	247	24	2	106	(28)	(7)	11	140
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	545	-	-	310	111	95	-	30
Purchases of minerals in place	15	-	-	-	10	4	-	-
Sales of minerals in place	(198)	-	-	-	(6)	(6)	-	(192)
Production (1)	(533)	(16)	(5)	(68)	(180)	(124)	(16)	(124)
Reserves at December 31st, 2016 (1)(2)	5,116	21	44	1,897	1,646	757	98	653
Revisions of previous estimates	59	11	4	-	(87)	39	20	72
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	387	-	-	-	343	44	-	-
Purchases of minerals in place	13	-	-	-	1	4	-	8
Sales of minerals in place	(17)	-	-	-	(5)	(12)	-	(1)
Production (1)	(494)	(13)	(5)	(67)	(174)	(116)	(8)	(111)
Reserves at December 31st, 2017 (1)	5,064	20	42	1,830	1,724	717	110	620

Thousand Millions of Standard Cubic Feet

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Equity-accounted investees								
Reserves at December 31st, 2014 (1)(2)	4,076	-	2,177	-	-	1,844	-	55
Revisions of previous estimates	1,173	5	952	-	-	216	-	-
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	75	25	-	-	-	51	-	-
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(338)	(1)	(63)	-	-	(260)	-	(15)
Reserves at December 31st, 2015 (1)(2)	4,986	28	3,067	-	-	1,851	-	40
Revisions of previous estimates	369	(1)	86	-	-	253	-	32
Improved recovery	7	-	-	-	-	7	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	-	-	-	-	-	-	-	-
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(385)	(1)	(124)	-	-	(247)	-	(14)
Reserves at December 31st, 2016 (1)(2)	4,977	26	3,029	-	-	1,864	-	58
Revisions of previous estimates	177	(1)	(33)	-	-	205	-	6
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	-	-	-	-	-	-	-	-
Sales of minerals in place	(53)	-	-	-	-	-	-	(53)
Production (1)	(407)	(4)	(125)	-	-	(267)	-	(11)
Reserves at December 31st, 2017 (1)	4,693	20	2,871	-	-	1,802	-	-
Total reserves ad Decemeber 31st, 2017	9,757	40	2,913	1,830	1,724	2,519	110	620

Proved developed reserves of natural gas:

Thousand Millions of Standard Cubic Feet

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
At December 31st, 2014 (2)	2,251	-	195	926	49	1,016	65	-
Fully-consolidated entities	1,262	-	37	926	49	218	32	-
Equity-accounted investees	989	-	158	-	-	798	33	-
At December 31st, 2015 (2)	5,697	15	1,308	926	1,120	1,622	33	673
Fully-consolidated entities	3,475	14	47	926	1,120	681	33	654
Equity-accounted investees	2,222	1	1,261	-	-	941	-	19
At December 31st, 2016 (2)	6,054	21	2,014	933	1,112	1,403	18	554
Fully-consolidated entities	3,249	19	44	933	1,112	596	18	528
Equity-accounted investees	2,805	2	1,971	-	-	807	-	26
At December 31st, 2017	6,212	35	1,945	1,163	1,158	1,447	11	452
Fully-consolidated entities	3,486	16	39	1,163	1,158	646	11	452
Equity-accounted investees	2,726	19	1,906	-	-	801	-	-

Notes: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

(1) Total net proved developed and undeveloped reserves at December 31, 2017, 2016, 2015 and 2014 include an estimated volume of approximately 1,245, 1,273, 1,264 and 1,144 billion cubic feet of gas, respectively, corresponding to royalty payments which, as described above, constitute a financial obligation or are substantially equivalent to a production or equivalent tax. Net production in 2017, 2016, 2015 and 2014 includes an estimated volume of 50, 64, 47 and 32 billion cubic feet of gas, respectively, in connection with such payments.

(2) Figures for 2016, 2015 and 2014 have been restated as a result of the change of geographical areas established in 2017 following which Asia and Oceania are presented together.

Proved developed and undeveloped reserves of crude oil, condensate, natural gas liquids and natural gas:

Millions of Barrels of Oil Equivalent

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Reserves at December 31st, 2014 (1)(2)	650	3	15	361	60	86	125	-
Revisions of previous estimates	42	7	(5)	9	(5)	31	-	6
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	66	-	-	-	45	21	-	-
Purchases of minerals in place	669	11	-	-	350	128	8	173
Sales of minerals in place	(22)	-	-	-	(22)	-	-	-
Production (1)	(112)	(6)	(1)	(13)	(37)	(30)	(5)	(20)
Reserves at December 31st, 2015 (1)(2)	1,293	16	8	356	390	237	128	158
Revisions of previous estimates	72	13	-	23	(4)	2	3	35
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	124	-	-	72	25	21	-	6
Purchases of minerals in place	4	-	-	-	2	1	-	-
Sales of minerals in place	(55)	-	-	-	-	(20)	-	(35)
Production (1)	(146)	(11)	(1)	(17)	(44)	(38)	(6)	(29)
Reserves at December 31st, 2016 (1)(2)	1,291	17	8	434	370	203	125	135
Revisions of previous estimates	52	7	1	-	(21)	17	17	32
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	88	-	-	-	77	11	-	-
Purchases of minerals in place	5	-	-	-	-	1	-	3
Sales of minerals in place	(3)	-	-	-	(1)	(2)	-	-
Production (1)	(140)	(9)	(1)	(17)	(41)	(34)	(14)	(25)
Reserves at December 31st, 2017 (1)	1,293	15	8	417	384	196	128	145

Millions of Barrels of Oil Equivalent

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Equity-accounted investees								
Reserves at December 31st, 2014 (1)(2)	889	-	430	-	-	419	-	40
Revisions of previous estimates	216	(8)	174	-	-	47	-	3
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	66	48	-	-	-	18	-	-
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(92)	(5)	(16)	-	-	(63)	-	(7)
Reserves at December 31st, 2015 (1)(2)	1,080	35	588	-	-	420	-	36
Revisions of previous estimates	96	18	27	-	-	42	-	9
Improved recovery	21	-	-	-	-	21	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	-	-	-	-	-	-	-	-
Sales of minerals in place	-	-	-	-	-	-	-	-
Production (1)	(106)	(8)	(27)	-	-	(65)	-	(7)
Reserves at December 31st, 2016 (1)(2)	1,090	45	588	-	-	419	-	39
Revisions of previous estimates	95	9	9	-	-	71	-	5
Improved recovery	-	-	-	-	-	-	-	-
Extensions and discoveries	-	-	-	-	-	-	-	-
Purchases of minerals in place	-	-	-	-	-	-	-	-
Sales of minerals in place	(9)	-	-	-	-	-	-	(9)
Production (1)	(114)	(10)	(27)	-	-	(71)	-	(6)
Reserves at December 31st, 2017 (1)	1,062	43	570	-	-	420	-	29
Total reserves ad Decemeber 31st, 2017	2,355	59	577	417	384	615	128	174

Proved developed reserves of crude oil, condensate, natural gas liquids and natural gas

Millions of Barrels of Oil Equivalent

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
At December 31st, 2014 (2)	666	3	66	217	33	245	102	-
Fully-consolidated entities	405	3	7	217	33	74	71	-
Equity-accounted investees	261	-	59	-	-	171	31	-
At December 31st, 2015 (2)	1,430	38	264	214	251	426	77	160
Fully-consolidated entities	901	15	8	214	251	204	77	132
Equity-accounted investees	529	23	256	-	-	222	-	28
At December 31st, 2016 (2)	1,485	53	392	214	244	373	71	139
Fully-consolidated entities	829	16	8	214	244	165	71	111
Equity-accounted investees	656	37	384	-	-	208	-	28
At December 31st, 2017	1,536	53	383	267	244	406	65	118
Fully-consolidated entities	869	13	7	267	244	176	65	97
Equity-accounted investees	667	40	376	-	-	230	-	21

Notes: The aggregated changes in reserves and total reserves at December 31 may differ from the individual values shown because the calculations use more precise figures than those shown in the table.

(1) Total net proved developed and undeveloped reserves at December 31, 2017, 2016, 2015 and 2014 include an estimated volume of approximately 269, 272, 271 and 250 million barrels of oil equivalent, respectively, corresponding to royalty payments which, as described above, constitute a financial obligation or are substantially equivalent to a production or equivalent tax. Net production in 2017, 2016, 2015 and 2014 includes an estimated volume of 14, 15, 12 and 10 million barrels of oil equivalent, respectively, in connection with such payments.

(2) Figures for 2016, 2015 and 2014 have been restated as a result of the change of geographical areas established in 2017 following which Asia and Oceania are presented together.

(5) Standardized future cash flows

Standardized measure of discounted future net cash flows and changes therein relating to proved oil and gas reserves

Projected net cash flows were estimated in accordance with the criteria established by the “SPE/WPC/AAPG/SPEE Petroleum Resources Management System, commonly referred to by its acronym, SPE-PRMS (SPE standing for the Society of Petroleum Engineers)”. Oil and gas prices and other financial assumptions regarding the outlook for costs reflect the Company's best estimates for the purposes of valuing its assets. These assumptions are applied to estimated future production in respect of its proved oil and gas reserves as of the most recent reporting date, less estimated future development and production costs (based on current costs) in respect of these same proved reserves, all of which assuming that prevailing economic conditions are sustained.

Future production costs were estimated on based on the cost structure at the end of the year and are projected on the basis of the above-mentioned assumptions. Future development costs were calculated on the basis of technical studies conducted by Repsol and by the operators holding joint title with Repsol. The taxes projected for each of the future years were determined under the contractual and tax regime prevailing at the end of the year. The rate used to discount the future net revenues was 10%.

The present value of the future net cash flows estimated on the basis of the aforementioned assumptions is not intended to be interpreted, and should not be interpreted, as the fair value of the Group's oil and gas reserves. An estimation of the fair value of these reserves should also include the future exploitation of reserves not yet classified as proved reserves and costs and a discount rate which represents the time value of money at the calculation date and the uncertainties inherent to estimating the reserves.

The following table shows the present value of the future net revenues relating to proved oil and gas reserves, calculated on the basis of the aforementioned assumptions.

Millions of euros

At December 31st 2015	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Future cash inflows	47,888	792	123	8,255	14,679	8,570	8,521	6,948
Future production costs	(17,649)	(648)	(32)	(3,731)	(6,047)	(4,405)	(1,131)	(1,655)
Future development and abandonment costs	(8,115)	(1,477)	(1)	(969)	(2,017)	(2,744)	(404)	(503)
Future income tax expenses	(6,433)	1,622	(28)	(1,136)	(448)	(242)	(4,197)	(2,004)
Future net cash flows after taxes	15,691	289	62	2,419	6,167	1,179	2,789	2,786
10% annual discount for estimated timing of cash flows	(6,996)	(429)	(24)	(1,545)	(3,151)	287	(1,176)	(958)
Discounted future net cash flows	8,695	(140)	38	874	3,016	1,466	1,613	1,828
Equity-accounted investees								
Future cash inflows	29,182	2,149	16,313	-	-	9,153	-	1,567
Future production costs	(12,127)	(2,293)	(5,315)	-	-	(3,642)	-	(877)
Future development and abandonment costs	(7,488)	(4,249)	(951)	-	-	(2,187)	-	(101)
Future income tax expenses	(3,740)	997	(3,904)	-	-	(690)	-	(143)
Future net cash flows after taxes	5,827	(3,396)	6,143	-	-	2,634	-	446
10% annual discount for estimated timing of cash flows	(2,642)	1,786	(3,656)	-	-	(570)	-	(202)
Discounted future net cash flows	3,185	(1,610)	2,487	-	-	2,064	-	244
Total discounted future net cash flows (1)	11,880	(1,750)	2,525	874	3,016	3,530	1,613	2,072

Millions of euros

At December 31st 2016	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Future cash inflows	48,018	1,014	120	11,673	12,744	7,195	8,969	6,303
Future production costs	(11,034)	(602)	(34)	(5,048)	(1,845)	(877)	(1,086)	(1,542)
Future development and abandonment costs	(7,938)	(1,650)	(6)	(607)	(1,141)	(2,987)	(682)	(865)
Future income tax expenses	(7,722)	1,536	(27)	(2,011)	(951)	(227)	(4,441)	(1,601)
Future net cash flows after taxes	21,324	298	53	4,007	8,807	3,104	2,760	2,295
10% annual discount for estimated timing of cash flows	(11,361)	(477)	(25)	(2,677)	(5,335)	(1,178)	(1,044)	(625)
Discounted future net cash flows	9,963	(179)	28	1,330	3,472	1,926	1,716	1,670
Equity-accounted investees								
Future cash inflows	33,358	3,166	17,310	-	-	11,167	-	1,715
Future production costs	(13,832)	(2,967)	(5,826)	-	-	(4,129)	-	(910)
Future development and abandonment costs	(8,139)	(4,480)	(1,041)	-	-	(2,495)	-	(123)
Future income tax expenses	(4,376)	1,020	(4,160)	-	-	(1,123)	-	(113)
Future net cash flows after taxes	7,011	(3,261)	6,283	-	-	3,420	-	569
10% annual discount for estimated timing of cash flows	(2,784)	1,874	(3,675)	-	-	(728)	-	(255)
Discounted future net cash flows	4,227	(1,387)	2,608	-	-	2,692	-	314
Total discounted future net cash flows (1)	14,190	(1,566)	2,636	1,330	3,472	4,618	1,716	1,984

Millions of euros

At December 31st
2017

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Future cash inflows	40,133	796	91	9,185	11,091	5,141	7,674	6,155
Future production costs	(12,634)	(510)	(33)	(4,278)	(3,126)	(2,014)	(956)	(1,717)
Future development and abandonment costs	(7,408)	(1,209)	(10)	(428)	(1,918)	(2,220)	(565)	(1,058)
Future income tax expenses	(5,627)	1,144	(19)	(1,343)	(275)	(194)	(3,694)	(1,246)
Future net cash flows after taxes	14,464	221	29	3,136	5,772	713	2,459	2,134
10% annual discount for estimated timing of cash flows	(6,494)	(451)	(16)	(2,056)	(2,895)	351	(852)	(575)
Discounted future net cash flows	7,970	(230)	13	1,080	2,877	1,064	1,607	1,559
Equity-accounted investees								
Future cash inflows	30,323	2,658	15,157	-	-	11,006	-	1,502
Future production costs	(12,713)	(2,247)	(4,616)	-	-	(4,912)	-	(938)
Future development and abandonment costs	(6,284)	(3,349)	(902)	-	-	(1,926)	-	(107)
Future income tax expenses	(3,954)	1,038	(3,780)	-	-	(1,130)	-	(82)
Future net cash flows after taxes	7,372	(1,900)	5,859	-	-	3,038	-	375
10% annual discount for estimated timing of cash flows	(2,789)	1,278	(3,257)	-	-	(617)	-	(193)
Discounted future net cash flows	4,583	(622)	2,602	-	-	2,421	-	182
Total discounted future net cash flows	12,553	(852)	2,615	1,080	2,877	3,485	1,607	1,741

(1) Figures for 2016 and 2015 have been restated as a result of the change of geographical areas established in 2017 following which Asia and Oceania are presented together.

Changes in Standardized measure of discounted future net cash flows relating to proved oil and gas reserves

The detail of the changes in the standardized measure of discounted future net cash flows for 2015, 2016 and 2017 as follows:

Millions of euros

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Balance at December 31st, 2014 (1)	5,006	70	47	773	1,369	870	1,877	-
Changes due to sale or transfer prices of future production costs	(4,465)	(67)	4	(65)	(942)	(847)	(2,251)	(297)
Changes in future development costs	210	(7)	7	113	78	(33)	52	-
Oil and gas sales and transfers in the period	(2,032)	(82)	(4)	(129)	(852)	(485)	(91)	(389)
Net changes due to extensions, discoveries and improvements in the recovery of reserves	460	-	-	-	324	136	-	-
Net changes due to purchases/sales of assets	5,204	163	-	-	1,729	920	190	2,202
Net changes due to revisions in quantity estimates	340	12	(33)	(31)	231	288	(174)	47
Previously estimated development costs incurred in the year	1,270	104	17	62	474	336	153	124
Effect of discounting to a different date and exchange rate effect	1,084	6	11	170	296	180	386	35
Other non-specific changes	-	-	-	-	-	-	-	-
Changes in income tax	1,618	(339)	(11)	(19)	309	101	1,471	106
Net change	3,689	(210)	(9)	101	1,647	596	(264)	1,828
Balance at December 31st, 2015 (1)	8,695	(140)	38	874	3,016	1,466	1,613	1,828
Changes due to sale or transfer prices of future production costs	(352)	71	(6)	69	(255)	(261)	(83)	113
Changes in future development costs	(477)	(162)	(2)	161	(105)	(50)	(192)	(127)
Oil and gas sales and transfers in the period	(1,273)	(41)	(12)	(50)	(436)	(246)	(36)	(452)
Net changes due to extensions, discoveries and improvements in the recovery of reserves	642	-	-	311	198	120	-	13
Net changes due to purchases/sales of assets	(195)	5	-	-	21	23	-	(244)
Net changes due to revisions in quantity estimates	871	108	1	(90)	61	525	85	181
Previously estimated development costs incurred in the year	620	47	1	64	216	121	63	108
Effect of discounting to a different date and exchange rate effect	1,119	(18)	3	137	399	200	220	178
Other non-specific changes	-	-	-	-	-	-	-	-
Changes in income tax	313	(49)	5	(146)	357	28	46	72
Net change	1,268	(39)	(10)	456	456	460	103	(158)
Balance at December 31st, 2016 (1)	9,963	(179)	28	1,330	3,472	1,926	1,716	1,670
Changes due to sale or transfer prices of future production costs	(2,528)	50	(20)	(368)	(791)	(438)	(463)	(498)
Changes in future development costs	424	532	(2)	(2)	45	(191)	(19)	61
Oil and gas sales and transfers in the period	(1,807)	(133)	-	(116)	(528)	(289)	(215)	(526)
Net changes due to extensions, discoveries and improvements in the recovery of reserves	619	-	-	-	574	45	-	-
Net changes due to purchases/sales of assets	33	-	-	-	(5)	(6)	-	44
Net changes due to revisions in quantity estimates	237	(208)	4	(47)	(238)	37	200	489
Previously estimated development costs incurred in the year	773	65	-	106	232	36	134	200
Effect of discounting to a different date and exchange rate effect	(336)	1	-	(30)	(114)	(73)	(51)	(69)
Other non-specific changes	-	-	-	-	-	-	-	-
Changes in income tax	592	(358)	3	207	230	17	305	188
Net change	(1,993)	(51)	(15)	(250)	(595)	(862)	(109)	(111)
Balance at December 31st, 2017	7,970	(230)	13	1,080	2,877	1,064	1,607	1,559

Millions of euros

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Equity-accounted investees								
Balance at December 31st, 2014 (1)	4,328	-	1,475	-	-	2,522	-	331
Changes due to sale or transfer prices of future production costs	(2,120)	(236)	120	-	-	(1,843)	-	(161)
Changes in future development costs	304	-	111	-	-	201	-	(8)
Oil and gas sales and transfers in the period	(1,662)	25	(282)	-	-	(1,317)	-	(88)
Net changes due to extensions, discoveries and improvements in the recovery of reserves	-	-	-	-	-	-	-	-
Net changes due to purchases/sales of assets	(1,355)	(1,624)	-	-	-	269	-	-
Net changes due to revisions in quantity estimates	1,748	98	1,111	-	-	492	-	47
Previously estimated development costs incurred in the year	1,235	196	318	-	-	701	-	20
Effect of discounting to a different date and exchange rate effect	914	(29)	358	-	-	517	-	68
Other non-specific changes	-	-	-	-	-	-	-	-
Changes in income tax	(208)	(40)	(724)	-	-	521	-	35
Net change	(1,144)	(1,610)	1,012	-	-	(459)	-	(87)
Balance at December 31st, 2015 (1)	3,185	(1,610)	2,487	-	-	2,064	-	244
Changes due to sale or transfer prices of future production costs	236	184	(84)	-	-	104	-	32
Changes in future development costs	(617)	(141)	(182)	-	-	(275)	-	(19)
Oil and gas sales and transfers in the period	(992)	85	(355)	-	-	(681)	-	(41)
Net changes due to extensions, discoveries and improvements in the recovery of reserves	579	-	-	-	-	579	-	-
Net changes due to purchases/sales of assets	-	-	-	-	-	-	-	-
Net changes due to revisions in quantity estimates	510	(8)	152	-	-	335	-	31
Previously estimated development costs incurred in the year	1,031	292	231	-	-	493	-	15
Effect of discounting to a different date and exchange rate effect	481	(160)	328	-	-	281	-	32
Other non-specific changes	-	-	-	-	-	-	-	-
Changes in income tax	(186)	(29)	31	-	-	(208)	-	20
Net change	1,042	223	121	-	-	628	-	70
Balance at December 31st, 2016 (1)	4,227	(1,387)	2,608	-	-	2,692	-	314
Changes due to sale or transfer prices of future production costs	(603)	230	16	-	-	(722)	-	(127)
Changes in future development costs	861	599	51	-	-	237	-	(26)
Oil and gas sales and transfers in the period	(1,201)	(144)	(302)	-	-	(699)	-	(56)
Net changes due to extensions, discoveries and improvements in the recovery of reserves	-	-	-	-	-	-	-	-
Net changes due to purchases/sales of assets	(1)	-	-	-	-	-	-	(1)
Net changes due to revisions in quantity estimates	791	(150)	119	-	-	777	-	45
Previously estimated development costs incurred in the year	615	201	89	-	-	307	-	18
Effect of discounting to a different date and exchange rate effect	(213)	6	(101)	-	-	(112)	-	(6)
Other non-specific changes	-	-	-	-	-	-	-	-
Changes in income tax	107	23	122	-	-	(59)	-	21
Net change	356	765	(6)	-	-	(271)	-	(132)
Balance at December 31st, 2017	4,583	(622)	2,602	-	-	2,421	-	182
TOTAL	12,553	(852)	2,615	1,080	2,877	3,485	1,607	1,741

(1) Figures for 2016, 2015 and 2014 have been restated as a result of the change of geographical areas established in 2017 following which Asia and Oceania are presented together.

(6) Production of oil and gas

The next table shows the productions in volume and the number of Repsol's productive wells by geographic area:

	Net Production of liquids and natural gas by area									Productive wells by area					
	Liquids (Mbbbl)			Natural gas (bcf)			Total (Mbep)			Oil			Gas		
	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
Europe	16	16	9	17	17	7	19	19	10	222	236	231	6	3	2
Norway	6	7	3	13	16	6	8	10	4	55	60	67	3	1	-
United Kingdom	9	8	5	4	1	1	10	8	5	157	166	154	2	1	1
Rest of Europe	1	1	1	-	-	-	1	1	1	10	10	10	1	1	1
Latin America	38	39	35	498	486	419	127	125	110	873	953	1,130	241	216	233
Brazil	17	14	11	9	5	3	18	15	12	30	28	26	-	-	-
Colombia	5	5	4	7	11	10	6	7	6	398	395	414	-	-	17
Peru	5	5	4	67	68	52	17	17	13	-	-	-	27	27	27
Trinidad & Tobago	1	4	4	217	188	216	40	37	43	1	-	91	73	55	55
Venezuela	5	5	5	130	129	69	28	28	17	247	324	376	32	32	34
Rest of Latin America	5	6	7	68	85	69	17	21	19	197	206	223	109	102	100
North America	18	20	18	256	262	182	63	67	51	2,657	2,924	2,852	2,219	2,610	2,664
Canada	8	8	5	82	82	48	22	23	14	1,098	1,126	1,151	1,055	1,574	1,593
United States	10	12	13	174	180	134	41	44	37	1,559	1,798	1,701	1,164	1,036	1,071
Africa	12	3	3	8	16	16	14	6	5	248	128	86	84	79	78
Asia and Oceania	9	11	10	122	137	98	31	36	28	606	621	619	78	91	99
Indonesia	0	1	1	80	94	63	15	18	12	6	55	89	42	45	55
Malaysia	3	4	3	30	28	19	8	9	6	75	90	87	33	38	36
Russia	4	4	4	11	14	15	6	7	7	472	448	403	-	8	8
Rest of Asia and Oceania	2	2	2	1	1	1	2	2	3	53	28	40	3	-	-
Total	93	89	75	901	918	722	254	253	204	4,606	4,862	4,918	2,628	2,999	3,076

(7) Results of oil and gas exploration and production activities

The following table shows the revenues and expenses associated directly with the Group's oil and gas exploration and production activities. It does not include any allocation of the finance costs or general expenses, except for the accretion expense, and, therefore, is not necessarily indicative of the contribution to consolidated net profit of the oil and gas activities.

Millions of euros

At December 31st
2015

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Income								
Sales to non-Group companies	2,043	169	12	178	387	606	36	655
Sales between business segments and to Group Companies	698	63	-	30	383	130	92	-
Total income	2,741	232	12	208	770	736	128	655
Production costs (1)	(1,316)	(180)	(63)	(147)	(184)	(353)	(81)	(308)
Exploration expenses (2)	(1,805)	(350)	-	(46)	(590)	(96)	(602)	(121)
Other operating expenses	(76)	(26)	-	-	(6)	(20)	(17)	(7)
Depreciation and amortisation charge (3)	(4,056)	(370)	(66)	(42)	(1,417)	(1,004)	(292)	(865)
Profit (Loss) before taxes and charges	(4,512)	(694)	(117)	(27)	(1,427)	(737)	(864)	(646)
Taxes and charges	1,359	278	12	6	455	176	267	165
Results of oil and gas production activities	(3,153)	(416)	(105)	(21)	(972)	(561)	(597)	(481)
Equity-accounted investees								
Income								
Sales to non-Group companies..	1,716	253	363	-	-	962	-	138
Sales between business segments and to Group Companies	294	-	-	-	-	294	-	-
Total income	2,010	253	363	-	-	1,256	-	138
Production costs (1)	(1,457)	(249)	(386)	-	-	(741)	-	(81)
Exploration expenses (2)	(7)	(1)	-	-	-	22	(28)	-
Other operating expenses	(15)	-	(3)	-	-	(12)	-	-
Depreciation and amortisation charge (3)	(1,073)	(2)	(452)	-	-	(598)	-	(21)
Profit (Loss) before taxes and charges .	(542)	1	(478)	-	-	(73)	(28)	36
Taxes and charges	(56)	-	50	-	-	(107)	8	(7)
Results of oil and gas production activities	(598)	1	(428)	-	-	(180)	(20)	29
Total results of oil and gas activities (4)(5)	(3,751)	(415)	(533)	(21)	(972)	(741)	(617)	(452)

Millions of euros

At December 31st
2016

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Income								
Sales to non-Group companies	2,445	366	11	210	464	538	20	836
Sales between business segments and to Group Companies	460	29	-	12	271	42	106	-
Total income	2,905	395	11	222	735	580	126	836
Production costs (1)								
Production costs (1)	(1,525)	(223)	(22)	(152)	(317)	(375)	(70)	(366)
Exploration expenses (2)	(541)	(133)	-	(60)	(103)	(10)	(140)	(95)
Other operating expenses	11	128	(113)	25	17	(26)	(23)	3
Depreciation and amortisation charge (3)	(1,548)	(137)	42	(50)	(604)	(354)	(159)	(286)
Profit (Loss) before taxes and charges	(698)	30	(82)	(15)	(272)	(185)	(266)	92
Taxes and charges	(41)	(151)	(137)	4	264	28	86	(135)
Results of oil and gas production activities	(739)	(121)	(219)	(11)	(8)	(157)	(180)	(43)
Equity-accounted investees								
Income								
Sales to non-Group companies..	1,686	322	480	-	-	752	-	132
Sales between business segments and to Group Companies	345	-	-	-	-	345	-	-
Total income	2,031	322	480	-	-	1,097	-	132
Production costs (1)								
Production costs (1)	(1,296)	(358)	(255)	-	-	(600)	-	(83)
Exploration expenses (2)	(36)	(2)	-	-	-	(34)	-	-
Other operating expenses	111	46	(25)	-	-	91	-	(1)
Depreciation and amortisation charge (3)	(821)	(9)	(326)	-	-	(470)	-	(16)
Profit (Loss) before taxes and charges .	(11)	(1)	(126)	-	-	84	-	32
Taxes and charges	(88)	-	(188)	-	-	108	-	(8)
Results of oil and gas production activities	(99)	(1)	(314)	-	-	192	-	24
Total results of oil and gas activities (4)(5)	(838)	(122)	(533)	(11)	(8)	35	(180)	(19)

Millions of euros

At December 31st
2017

	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Income								
Sales to non-Group companies	2,577	347	2	283	560	528	6	851
Sales between business segments and to Group Companies	688	32	-	8	312	61	275	-
Total income	3,265	379	2	291	872	589	281	851
Production costs (1)	(1,394)	(181)	(15)	(159)	(326)	(320)	(100)	(293)
Exploration expenses (2)	(547)	(136)	-	43	(145)	(135)	(54)	(120)
Other operating expenses	328	20	(2)	20	(60)	5	310	35
Depreciation and amortisation charge (3)	(1,152)	(99)	(67)	(42)	(556)	81	(102)	(367)
Profit (Loss) before taxes and charges	500	(17)	(82)	153	(215)	220	335	106
Taxes and charges	(880)	(57)	22	(7)	(236)	(292)	(239)	(71)
Results of oil and gas production activities	(380)	(74)	(60)	146	(451)	(72)	96	35
Equity-accounted investees								
Income								
Sales to non-Group companies..	2,226	431	525	-	-	1,106	-	164
Sales between business segments and to Group Companies	494	-	-	-	-	494	-	-
Total income	2,720	431	525	-	-	1,600	-	164
Production costs (1)	(1,363)	(325)	(164)	-	-	(786)	-	(88)
Exploration expenses (2)	(27)	-	-	-	-	(17)	-	(10)
Other operating expenses	693	902	(265)	-	-	62	-	(6)
Depreciation and amortisation charge (3)	(1,353)	(103)	(638)	-	-	(598)	-	(14)
Profit (Loss) before taxes and charges .	670	905	(542)	-	-	261	-	46
Taxes and charges	56	-	146	-	-	(74)	-	(16)
Results of oil and gas production activities	726	905	(396)	-	-	187	-	30
Total results of oil and gas activities (5)	346	831	(456)	146	(451)	115	96	65

- (1) Production costs include local taxes, production taxes and other similar payments amounting to €526, €361 and €347 million in 2017, 2016 and 2015, respectively. It also includes transport and other costs totalling €808, €856 and €893 million in 2017, 2016 and 2015, respectively. Additionally, to facilitate the comparability of the information, €231 million corresponding to 2016 has been reclassified among production cost and other operating expenses
- (2) Operating expenses include charges for the impairment of exploration assets of €339, €74 and €588 million in 2017, 2016 and 2015, respectively. This same heading also includes provisions for onerous drilling platform contracts in the amount of €109 in 2016.
- (3) The depreciation and provisions heading includes charges for the impairment of producing and development assets and provisions for onerous contracts totaling €335, €267 and €2,933 million in 2017, 2016 and 2015, respectively.
- (4) Figures for 2016 and 2015 have been restated as a result of a change in the Group's accounting principles and as a result of the change of geographical areas established in 2017, following which Asia and Oceania are presented together. This has resulted in a decrease in 2015 results of 179 million euros.
- (5) Results generated for divestments are not included

(8) Investments

Investments of the year (cost incurred)

The costs incurred represent amounts capitalised during the year relating to acquisitions of properties and for exploration and development activities, including dismantling costs.

Millions of euros

At December 31st
2015 (1)

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Acquisition of proved properties	6,666	354	-	-	2,191	1,217	203	2,701
Acquisition of unproved properties	7,213	102	-	-	2,217	2,631	165	2,098
Exploration costs	1,287	179	-	34	552	111	261	150
Development costs	760	65	2	(41)	367	185	100	82
Costs Incurred	15,926	700	2	(7)	5,327	4,144	729	5,031
Equity-accounted investees								
Acquisition of proved properties	358	-	-	-	-	358	-	-
Acquisition of unproved properties	91	-	-	-	-	91	-	-
Exploration costs	118	12	-	-	-	104	1	1
Development costs	1,481	200	535	-	-	728	-	18
Costs Incurred	2,048	212	535	-	-	1,281	1	19
Total Costs Incurred (2)	17,974	912	537	(7)	5,327	5,425	730	5,050

Millions of euros

At December 31st
2016

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Acquisition of proved properties	54	-	-	-	2	52	-	-
Acquisition of unproved properties	-	-	-	-	-	-	-	-
Exploration costs	556	90	-	13	100	57	72	224
Development costs	1,085	20	2	56	274	256	225	252
Costs Incurred	1,695	110	2	69	376	365	297	476
Equity-accounted investees								
Acquisition of proved properties	-	-	-	-	-	-	-	-
Acquisition of unproved properties	-	-	-	-	-	-	-	-
Exploration costs	79	1	-	-	-	78	-	-
Development costs	1,091	145	107	-	-	822	-	17
Costs Incurred	1,170	146	107	-	-	900	-	17
Total Costs Incurred (2)	2,865	256	109	69	376	1,265	297	493

Millions of euros

At December 31st
2017

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Acquisition of proved properties	5	-	-	-	-	-	-	5
Acquisition of unproved properties	-	-	-	-	-	-	-	-
Exploration costs	528	104	-	1	74	186	48	115
Development costs	968	56	1	32	376	194	168	141
Costs Incurred	1,501	160	1	33	450	380	216	261
Equity-accounted investees								
Acquisition of proved properties	-	-	-	-	-	-	-	-
Acquisition of unproved properties	-	-	-	-	-	-	-	-
Exploration costs	48	(1)	-	-	-	35	-	14
Development costs	534	(27)	26	-	-	522	-	13
Costs Incurred	582	(28)	26	-	-	557	-	27
Total Costs Incurred	2,083	132	27	33	450	937	216	288

- (1) At December 31, 2015, this heading mainly includes the addition of exploration, development and producing assets related to the acquisition of Talisman Energy Inc. amounting to €14,178 million, of which €13,729 million correspond to fully-consolidated companies and €449 million to investees.
- (2) Figures for 2016 and 2015 have been restated as a result of a change in the Group's accounting principles and as a result of the change of geographical areas established in 2017, following which Asia and Oceania are presented together. This has resulted in a decrease in 2015 results of 78 million euros.

Accumulated investments (capitalised costs)

Capitalised costs represent the historical costs capitalised related to oil and gas exploration and production activities, including auxiliary equipment and facilities, and the related accumulated depreciation and accumulated impairment losses.

Millions of euros

At December 31st
2015

	<u>Total</u>	<u>Europe</u>	<u>Venezuela</u>	<u>Peru</u>	<u>United States</u>	<u>Rest of America</u>	<u>Africa</u>	<u>Asia and Oceania</u>
Fully-consolidated entities								
Capitalised costs of proved oil and gas properties	16,311	713	74	1,026	6,296	3,486	1,900	2,816
Capitalised costs of unproved oil and gas properties	10,102	156	-	71	4,250	2,847	373	2,405
	26,413	869	74	1,097	10,546	6,333	2,273	5,221
Auxiliary equipment and facilities	1,972	330	18	22	1,021	189	390	2
Total capitalised costs	28,385	1,199	92	1,119	11,567	6,522	2,663	5,223
Accumulated depreciation and impairment losses	(9,665)	(768)	(72)	(192)	(4,129)	(2,192)	(1,440)	(872)
Net amount	18,720	431	20	927	7,438	4,330	1,223	4,351
Equity-accounted investees								
Capitalised costs of proved oil and gas properties	7,524	-	1,243	-	-	6,102	-	179
Capitalised costs of unproved oil and gas properties	1,081	-	-	-	-	1,044	-	37
	8,605	-	1,243	-	-	7,146	-	216
Auxiliary equipment and facilities	2,362	-	1,139	-	-	1,223	-	0
Total capitalised costs	10,967	-	2,382	-	-	8,369	-	216
Accumulated depreciation and impairment losses	(4,535)	-	(568)	-	-	(3,900)	-	(67)
Net amount	6,432	-	1,814	-	-	4,469	-	149
Total Net amounts (1)	25,152	431	1,834	927	7,438	8,799	1,223	4,500

Millions of euros

At December 31st 2016	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Capitalised costs of proved oil and gas properties	17,527	812	77	1,112	6,748	3,592	2,261	2,925
Capitalised costs of unproved oil and gas properties	9,223	184	-	48	4,377	2,162	320	2,132
	26,750	996	77	1,160	11,125	5,754	2,581	5,057
Auxiliary equipment and facilities	1,890	340	22	19	1,074	32	399	4
Total capitalised costs	28,640	1,336	99	1,179	12,199	5,786	2,980	5,061
Accumulated depreciation and impairment losses	(10,643)	(921)	(95)	(248)	(4,862)	(1,939)	(1,627)	(951)
Net amount	17,997	415	4	931	7,337	3,847	1,353	4,110
Equity-accounted investees								
Capitalised costs of proved oil and gas properties	9,579	912	1,400	-	-	7,034	-	233
Capitalised costs of unproved oil and gas properties	1,664	-	67	-	-	1,543	-	54
	11,243	912	1,467	-	-	8,577	-	287
Auxiliary equipment and facilities	2,934	-	1,172	-	-	1,761	-	1
Total capitalised costs	14,177	912	2,639	-	-	10,338	-	288
Accumulated depreciation and impairment losses	(6,032)	(324)	(924)	-	-	(4,682)	-	(102)
Net amount	8,145	588	1,715	-	-	5,656	-	186
Total Net amounts (1)	26,142	1,003	1,719	931	7,337	9,503	1,353	4,296

Millions of euros

At December 31st 2017	Total	Europe	Venezuela	Peru	United States	Rest of America	Africa	Asia and Oceania
Fully-consolidated entities								
Capitalised costs of proved oil and gas properties	14,525	776	67	521	6,374	2,679	1,520	2,588
Capitalised costs of unproved oil and gas properties	8,282	174	-	20	3,534	2,551	278	1,725
	22,807	950	67	541	9,908	5,230	1,798	4,313
Auxiliary equipment and facilities	3,784	303	36	526	1,025	754	955	185
Total capitalised costs	26,591	1,253	103	1,067	10,933	5,984	2,753	4,498
Accumulated depreciation and impairment losses	(10,547)	(919)	(99)	(265)	(4,706)	(1,836)	(1,525)	(1,197)
Net amount	16,044	334	4	802	6,227	4,148	1,228	3,301
Equity-accounted investees								
Capitalised costs of proved oil and gas properties	8,665	829	1,561	-	-	6,096	-	179
Capitalised costs of unproved oil and gas properties	2,136	1,154	-	-	-	866	-	116
	10,801	1,983	1,561	-	-	6,962	-	295
Auxiliary equipment and facilities	3,156	351	757	-	-	2,047	-	1
Total capitalised costs	13,957	2,334	2,318	-	-	9,009	-	296
Accumulated depreciation and impairment losses	(6,909)	(795)	(1,389)	-	-	(4,652)	-	(73)
Net amount	7,048	1,539	929	-	-	4,357	-	223
Total Net amounts	23,092	1,873	933	802	6,227	8,505	1,228	3,524

(1) Figures for 2016 and 2015 have been restated as a result of a change in the Group's accounting principles and as a result of the change of geographical areas established in 2017, following which Asia and Oceania are presented together. As a result, total figures for 2015 have increased by 84 million euros.