

10

years
2011/2021

Entrepreneurs
Fund
Repsol
Foundation

240 million euros of funding, ten of them from Repsol Foundation

5,500 Proposals
65 Startups

390 new jobs

Between
60,000 and
120,000
Euros received by the winning startups

75%
Survival rate among the incubated companies

185 Patents
850 Prototypes

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The Repsol Foundation Entrepreneurs Fund: 10 years driving technological innovation in the energy field

Ten years after the launch of the Entrepreneurs Fund, it has collaborated with close to 100 startups with disruptive technologies for the energy industry and 65 of them have gone through this “business accelerator”. Since 2011, data such as a 75% survival rate among the incubated companies or the 185 patents registered by these startups endorse the trajectory of this innovation promoter of the **Repsol Foundation**.

“This decade’s balance is very positive and from the Entrepreneurs Fund we continue to focus on promoting the energy transition by accelerating startups that provide innovative solutions or technological advances”, explains Javier Torres, Entrepreneurship Director at the Repsol Foundation.

In its ten editions, the Repsol Foundation has donated more than 10 million euros to the incubated companies, which have also raised more than 230 million euros in public and private funding and created 390 new jobs in areas such as low-emission technologies, biotechnology, advanced mobility, nanotechnology, circular economy and digitalization.

Supporting business entrepreneurship

In each call, the Repsol Foundation Entrepreneurs Fund chooses between six and eight innovative technology startups for a one-year acceleration program and they also receive between 60,000 and 120,000 euros as a grant for their development. In addition, a group of some 50 mentors, ranging from former Repsol executives with extensive experience in business development and active experts from Repsol Technology Lab and the different business areas of the company, offer them technical and business advice.

The carrying out of pilot tests for the validation and scaling of its technology in Repsol assets under real operating conditions and access to the investment ecosystem complete the startup acceleration process. This combination of support measures “is one of the strengths of the Entrepreneurs Fund and sets us apart from other accelerators in the energy sector”, Torres continues.

The Repsol Foundation Entrepreneurs Fund has a global projection with startups participating on all continents



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The high survival rate among the accelerated technology companies can be attributed “to the careful selection of the startups that enter the program”, chosen from among the almost 5,500 proposals submitted in its ten editions, and “to the opportunities that open up for them, especially with the validation in a real industrial environment”, which has resulted in more than 850 prototypes, proofs of concept, and pilots being carried out during this decade.

A total of 713 projects from 20 countries have been submitted to the last edition

A decade of learning

The business accelerator has been evolving “to adapt to a changing environment, particularly in the energy sector”, in aspects such as the internationalization of the Entrepreneurs Fund. When it started, it had a more local impact, “but we are looking for the best startups for our company’s technological challenges”. As an example of this global projection, 713 projects from 20 countries such as Spain, the United Kingdom, Canada, the United States, Germany, and the Netherlands were submitted to the latest edition of the fund. Future plans include “expanding the coverage of our call in Asia. This year we have initiated its dissemination in India and Japan”.

The program is now aimed at technology startups in the pre-commercial phase or which will reach that stage in one or two years. This profile of companies “has been given to us by experience because at the beginning we also supported ideas in an earlier phase”. But in the final stage of technological maturity “is when we contribute more value, with a work plan that leads to testing in a real environment and brings it closer to its market launch”.

The **Repsol Foundation** provides this support without demanding any intellectual property rights in return. “As a company we get a double return from the startups: we are in direct contact with cutting-edge technologies of interest to us. And, if we manage to make their technology sufficiently mature, we are open to continue collaborating after their acceleration by investing in the companies or incorporating them as service providers”, says Torres.

In this decade “there have been many success stories among the startups that have gone through the Fund, with many of which Repsol has continued to work”. The most recent example is the biotech company EvoEnzyme, recently out of the accelerator, “with whom we have scaled its process of obtaining super-producing enzymes for plastic degradation” and are participating in a research project with scientists from Repsol Technology Lab.

Repsol, in addition to supporting the innovative ecosystem of startups through the Repsol Foundation, also has a strategic investment fund, Repsol Corporate Venturing. Both are tools that complement each other: while the Entrepreneurs Fund focuses on mentoring technologies that are at an early stage, the investment fund is focused on detecting technologies that are at a stage of development closer to their commercial deployment and with a high potential for incorporation into the company’s businesses. Repsol Corporate Venturing’s activity intensified as of 2016. Since then it has 85 million euros to make investments in 5-year cycles. Its activity has materialized through the acceleration of business models in more than 30 startups in which it has invested.

Collecting energy since 2014

Selected in the 4th edition, that of 2015, AEInnova is one of the veterans of the Fund. Three doctors and an engineer in Microelectronics from the Autonomous University of Barcelona created this startup to develop their idea of generating electricity that could be returned to the network by harnessing waste heat from industrial processes. Inspired by the thermoelectric technology used to power space vehicles, “we thought that this technology could help the industry to be more efficient since almost a fifth of Europe’s energy is lost in industrial heat”, recalls Raúl Aragonés, President and main founder of AEInnova.

The Repsol Foundation also liked this proposal and it was the backing they needed: “if not, it would not have gone beyond an idea. Initiatives such as the Entrepreneurs Fund are fundamental to take the leap”, Aragonés continues. Today, AEInnova now has 20 employees, has been invested by the European Commission through



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The technological challenges launched by the Fund are aligned with Repsol’s decarbonization strategy

its investment fund EIC FUND, and is preparing to go public on the Paris Stock Exchange in 2023. Its proposal has evolved to also make the most of this energy harvesting in the digitalization of industry. Sensors that are used to monitor industrial processes and continuously collect and send data to the cloud with 5G connection, are now energetically autonomous thanks to AEInnova’s technology, because they are able to use the electricity that is recycled by taking advantage of the residual heat in other processes.

Of the incubation period, he highlights “the first-class business orientation we received. We came from the laboratory world and they helped us to adapt our proposal to the market”. It was also in a pilot developed at the Repsol refinery in Puertollano when they confirmed the applications of their thermoelectric technology to the Internet of Things (IoT). Their solution is an alternative to the lithium batteries used by many of the IoT devices on the market, “of which only 5% are recycled and are not sustainable for digitalizing smart cities and industry”.

Virtual laboratory for new materials

Four editions later, in 2019, among those selected was Nextmol, a spin-off of the Barcelona Supercomputing Center specializing in computational chemistry. Its founders, Monica de Mier and Stephan Mohr, have developed a virtual laboratory that uses computational techniques to reduce the time and cost of designing new materials. They virtually simulate the tests that are done in laboratories today, which allows “to characterize hundreds of new molecules in an automated way and to select the most promising ones for the desired properties, making the search process up to ten times faster”, summarizes de Mier, CEO of Nextmol.

To test their technology, during the acceleration they carried out a pilot project at the Repsol Technology Lab applying their molecular modeling and Artificial Intelligence techniques to the study of new lubricant formulations. This collaboration with Repsol’s technology center has continued with new chemical research projects and, currently, Nextmol is also working with the cosmetics sector in areas such as the identification of biodegradable molecules for its products.

Today they are targeting large corporations, “which are more open to this type of advanced technologies. Having participated in the Entrepreneurs Fund and having Repsol now also as a client gives us credibility and has paved the way for us”. Less than two years after completing their acceleration, there are now seven people in the team: “when you start you never know how long you are going to survive and, on the other hand, now we have our product and services perfectly defined and we are growing”.

Repsol’s decarbonization tool

Since Repsol announced its commitment to be a company with net zero emissions by 2050 “the technological challenges that we launch in each call of the Entrepreneurs Fund are 100% aligned with that goal of decarbonization”, continues Javier Torres, Entrepreneurship Director at the Repsol Foundation. “As of today, all the technologies that are going to help us meet this goal are not sufficiently mature, and that is precisely why we have to promote their development”. In the call for its tenth anniversary, proposals have been selected such as the Spanish startup Qualifyng Photovoltaics and its digital methodology to optimize photovoltaic parks, or the British one Mission Zero with its technology for direct capture of CO₂ from the air, both already in acceleration.

The Repsol Foundation Entrepreneurs Fund was a pioneering initiative launched ten years ago “to support talent and innovation in the energy sector. Experience has confirmed to us that if we complement the dynamism that startups have due to their size with all the power that their collaboration with corporations gives them, it is a winning bet”, Torres concludes.