REPSOL REINFORCES ITS COMMITMENT WITH THE DEVELOPMENT OF BIODEGRADABLE POLYOLEFINS OF FOSSIL ORIGIN

- **Repsol and PEP have signed a new alliance which allows the use of enzymatic technology for the development of biodegradable polyolefins.**
- **Repsol's new polyolefins will be respectful with the environment as they will be designed to biodegrade after their use under certain environmental conditions.**
- **The manufacture of these new polyolefins will not affect their functionalities with standard machinery.**

Repsol has signed a new technological and supply alliance with PEP Licensing Limited, an innovative company in the development of new enzymatic applications. This alliance will allow the use of its enzymatic technology for the development of two ranges of biodegradable polyolefins of fossil origin, one will biodegrade in soil conditions and the other will be compostable, depending on the requirements of the final application.

This agreement strengthens the previous alliance, established in 2015, for the development of biodegradable polyethylene films for agriculture, extending it now to all possible polyolefin applications, both for polyethylene and polypropylene.

The project will allow the manufacture of biodegradable and compostable polyolefins that will biodegrade after their use, in specific applications and conditions, contributing to respect the environment.

This technology requires a long-term development plan for the different final applications. Tests will be carried out throughout this year in different locations to offer evidence-based results to accompany the certifications achieved.

These new materials will retain all the mechanical properties and functionalities which will allow them to be processed with standard machinery and will be employed in an identical way for conventional uses.

This solution will preserve the quality of the different recycling streams, which will facilitate the task to the end user and will not affect the current separation and recycling value chain of plastic waste. In this way, Repsol supports the development of sustainable products and the circular economy, with the aim of avoiding the generation of plastic waste in the landfill.

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NOTE TO THE EDITOR

Repsol is one of the world's leading publicly-traded oil and gas companies. The company operates in the areas with the most energy potential around the world and has one of the most efficient refining systems in Europe. Repsol is present in 37 countries employing over 24,000 people. The company has business activity across the entire value chain, including hydrocarbon exploration and production, refining, transport, chemicals, service stations and the development of new energy solutions.

Repsol manufactures and markets a wide variety of chemical products, ranging from basic petrochemicals to derivatives. In addition, the company has three large petrochemical facilities in Europe where high added-value differentiated products are developed.

The products from Repsol's Chemicals Division are used to manufacture everyday objects that improve people's quality of life, their well-being and their safety.

PEP Licensing is specialised in enzyme technology (Pepzyme™) for the polymer industry. Its biotechnological focus is to combine chemistry and nature. The core competence is a range of mixtures of plant-based extracts like peptides, enzymes and proteins to biologically breakdown polymers. This green platform technology can be used for both, pre or post production of materials. Polyolefin already infused with Pepzyme™ will biodegrade at end-of-life whereas for bio-remediation, the liquid solution can be used on non-degradable polymers for the same effect.

Supplementary graphic material and photographs to illustrate the information in the press release: