

ECOPULP – part of the consortium which pitches in on producing automotive parts made from recycled plastic and used waste paper

- ECOPULP, together with five other partners from Slovenia, Spain and Poland, has participated in the CEPLAFIB project, in which a new composite material has been successfully developed from post-consumer recycled plastics, reinforced with newsprint fiber used.
- With this material it has been possible to produce a new range of sustainable products: containers, protective covers for pipes, fastening and protection parts for motorhomes, soundproofing walls or decorative panels for building facades.
- Of the 275 million tons of plastic waste that is generated each year around the world, only 9% is recycled and almost 80% accumulates in landfills or is abandoned in nature. CEPLAFIB proposes a new approach of circular economy to put an end to the “single-use” plastics.

Every year around 275 million tons of plastic waste is generated worldwide. Only 9% is recycled and around 12% is incinerated, while the remaining 79% accumulates in landfills or is abandoned in the wild. However, both plastic and newsprint are a valuable resource to be reused. In this sense, the LIFE CEPLAFIB project, after more than three years of research in which the ECOPULP has participated, has managed to offer itself as a sustainable alternative to solve the problem of »single-use« plastic, thanks to the development of a new material (recycled plastic + fiber from used newsprint). With this material, several prototypes of sustainable products have been manufactured for the construction and transport industries: containers or protective covers for pipes, fastening and protection parts for motorhomes, decorative panels for facades and soundproofing walls for construction.

CEPLAFIB proposes the circular economy as a transversal solution to the environmental problem of pollution caused by this type of waste, favoring sustainability throughout the plastic value chain. The two new marketable compounds developed within the framework of CEPLAFIB (base of recycled polypropylene or polyethylene matrix reinforced with fibers of used newsprint) have high mechanical properties. They offer 40% more strength, almost 200% more elasticity and, in addition, provide an overall economic advantage, as they are between 25% and 35% cheaper than standard virgin PP / PE polymers and between 40% and 50% lower than the plastic-wood composites currently available on the market.

Circular economy: a second life for plastic and newsprint paper

Nowadays, awareness of the need to recover materials is increasing, because little by little more areas of application are discovered, with polyolefins being particularly attractive in recycling lines. Recycled plastic is a valuable resource to be used, which is why the recycling of plastic waste becomes a determining factor in the context of the circular economy proposed by CEPLAFIB. So much so, that, in addition to the first range of prototypes manufactured, the project partners have successfully tested the material in another product line: storage boxes, shoe inserts or children's toys that were once jars of yogurt.

Technology centers, public institutes and private companies from four European countries have been involved in the project, including **ECOPULP**. CEPLAFIB has been coordinated by the Slovenian technology center TECOS, joined as partners by the plastic recycling company OMAPLAST (Slovenia), the world-renowned motorhome manufacturer ADRIA Mobil (Slovenia), ITB (Poland) and **AITIIP Technology Center (Spain)**.

LIFE Programme

CEPLAFIB is part of the LIFE Programme, the European Union financial instrument, dedicated exclusively to environmental objectives. The current LIFE Programme covers the 2014-2020 period and has a budget of 3.5 billion euros. It supports small-scale projects, the aim of which is to share best practices, test technologies and accelerate the implementation of relevant EU policy and legislation. The co-legislators reached a provisional agreement for the new LIFE program for 2021-2027, which was approved by the ENVI commission on January 15, 2021. The agreement sets the LIFE budget at 5,432 million euros, of which 64% will go to environmental actions.