



Project Information Sheet

Advanced pre-Commercialization of Eco rubber (ACE)

Programme area:	Recycling, New products from recycled material
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Partners:	Tyres Herco SA, Greece Business Interest Association ACS, Slovenia Karlsruher Institute of Technology, Germany
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Benefits:	The creating of Europe's first value chain of recycled rubber from end-of-life tyres to high quality rubber & plastic end products brings the beginning of a solution for the recycling of tires in Europe.
Keywords:	Hybrid material, recycling of rubber from tires, end-of-life tires
Sector:	C22.2.9 – Manufacture of other plastic products
Type of solution	New patented method for recycling of rubber. New hybrid material with high quality for products with tough usage.
Duration:	01/07/2010 – 30/06/2013
Budget:	€ 1 354 287 (EU contribution: 50%)
Contract number:	Eco/09/256151/SI2.565933



Summary

- The need to recycle tires into other products is very high. Each year, about 250 million tires are replaced in Europe, and several billion are piled up awaiting final disposal. It's four times higher on a global scale.
- The overall objective of the project is to make way for EcoRub's forerunning innovative hybrid material on European markets, resulting in a decrease of Europe's ecological footprint in terms of storing and burning used tires.
- EcoRub has a proprietary technology for recycling of discarded tires by mixing rubber powder with plastic and reinforce the bond in between with a patented molecule. The material is thermoplastic and elastic properties allows it to replace the rubber in numerous applications. In 2006, ca. 7500 tones of eco-rubber worth ca. 30 Mio Euro, was provided to the American automotive industry which has already approved eco-rubber as raw material for the production of 25 different products. If the same products were approved by European car manufacturer, this would create a market worth 500 Mio Euros and require an amount of rubber corresponding to Scandinavia's annual usage of tires (200 000 tones).
- The project aims to identify and adapt the innovative hybrid material to end users requirements, to integrate the primary raw material in the pre-commercial phase and to develop a clear cut strategy for sustainable exploitation of the innovation after the closure of the project.





Expected and/or achieved results

- Identification of 20 (100) possible customers on 3 (9) geographical markets, in 2 (6) different sectors worth at least 5 (25) Mio € at the end of this project
(results two years after the project are mentioned in parenthesis)
- Adapting the raw material and the composition of eco-rubber according to end-user specification resulting in an increased demand of eco-rubber corresponding to 200 (5000) tons per year.
- The creating of Europe´s first value chain of recycled rubber from end-of-life tires.
- An increased production capacity of eco-rubber to 200 (5000) tons per year. (The increased volume of eco-rubber production two years after the project finalization can be explained by the planed build up of a production facility with substantial increased capacity.)
- Decreased greenhouse gas emission corresponding to ca. 86.26 (3075) tons of CO₂ equivalent per year.

