

# Bringing environmentally-friendly coatings to the aeronautics industry

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A key objective of Europe's research and innovation policy is to take discoveries and breakthroughs from the lab and into the market place. A good example of this is the ECOPROT project, which aims to industrialise an innovative procedure for producing corrosion-protecting environmentally friendly coatings for aluminium and magnesium alloys, to be used in the aeronautics market.

Unlike other commercial solutions currently trying to penetrate the market, this coating provides a corrosion performance comparable to that of the toxic chromates, meeting the high standard requirements of the aeronautics industry. The slightly higher price of the product compared to current coatings will be paid off by its greener environmental impact.

The new process, which has been granted a patent, was developed through an FP6 project entitled MULTIPROTECT. While the coating has huge potential in the lucrative aeronautic market, scaling up production and achieving market penetration has proved difficult. The aim of ECOPROT therefore is to industrialise the procedure and raise awareness in the industry of this glass-like, environmentally-friendly and self-healing cerium-based coating.

The project began by focusing on the French aeronautic sector, with a view to extending this in order to address a wider geographical area. Scaling up the coating process for industrial applications will be carried out, with products validated according to the high standards of the

aeronautic industry.

A life cycle assessment of the entire process will also be conducted, taking into account all production stages, from raw materials to energy and water consumption and end-of-life. Finally, a business plan to ensure penetration of the final product into the French aeronautic market will be developed, before being extended to other geographical areas.

The end result will be the successful market penetration of a new protective [coating](#) for the [aeronautics](#) industry, which provides efficient corrosion protection for metal alloys and is safer better for the environment. The new product does not produce highly toxic waste material, as is the case for conventional chromate coatings currently used in the aeronautic industry.

ECOPROT is funded through the EU's Competitiveness and Innovation Framework Programme (CIP). With small and medium-sized enterprises (SMEs) as its main target, the CIP supports innovation activities - including eco-innovation - and provides better access to finance and support in the regions. Eco-Innovation includes any form of innovation aiming at significant and demonstrable progress towards the goal of sustainable development.

**More information:** [ecoprot.eu/](http://ecoprot.eu/)

Provided by CORDIS

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