

A new surface treatment to meet aerospace industry requirements

Supporting Innovation

The **Zinc-Nickel process** enables to protect against corrosion surfaces subject to high stress, particularly in the aerospace sector. The usual method, which is based on the use of products that have a high degree of toxicity, such as Cadmium and Chromium, had to be replaced for compliance with applicable international regulations. Many years of research have been necessary to develop a new type of environmentally-friendly electrolyte. Mécaprotec today is in possession of a unique process recognised by leading aircraft manufacturers worldwide where the benefits compel for competitive advantage and revenue increase.



The client needs

Mécaprotec Industries is a Toulouse-based medium-sized business of 400 employees facing fierce competition and growing demand from manufacturers. Committed very early to a programme of environmentally-friendly improvements, Mécaprotec Industries have developed from a supply-based business to a proactive-based 'prescriber-advisor' [OU from an executor to an experienced innovator]. By soliciting a Research partner Mécaprotec has succeeded in developing its own exclusive process, opening access to foreign markets while meeting the highest standards of the most demanding industries. Beyond the commercial dimension and the posting of regular growth in revenues Mécaprotec continues to collaborate with Research centres, thus ensuring successful strategy in terms of, innovation combined with the flexibility and responsiveness of a human scale company.

Partnership

The Toulouse-based Inter-university Material Research and Engineering Centre (Centre Inter-universitaire de Recherche et d'Ingénierie des Matériaux, **Cirimat**) is part of the **Chimie Balard Cirimat Carnot Institute**. Its team of researchers work on the design, development, characterisation and study of basic physical-chemical properties and other ceramic, metal or polymeric materials in usable conditions. Cirimat contributions to the Zinc-Nickel process development has been essential for determining the new electrolyte formulation without altering the resistance characteristics treatment. A key to successful Research and knowledge transfer, yet another example of the Carnot Institute's commitment to its local industrial partners on a large variety of skills and tools.