

AEROPLAN - Composites repairs, monitoring and validation

There is an increasing need for innovative repair solutions, both for metallic and for composite structures, to restore their structural integrity or to reinforce areas prone to damage. These repair solutions could reduce operating costs by providing easy and low cost repair procedures, significantly extending their economic life while also guaranteeing their airworthiness and flight safety.



Project objective

During the last ten years, the European Commission (EC) has funded research projects providing composite-based aircraft repair solutions through the development of innovative elements that could assist in performing safer and more efficient repairs in a faster and more economical way. These innovations have been developed as the main or secondary target of a large number of upstream research projects. Their combination and adaptation into the aeronautical composite repair market is needed to maximise the impact of results facilitated by EC investment.

The research projects funded by the EC include dissemination and exploitation plans which, for the projects already finished, have been successfully concluded. However, it is evident that due to the fragmentation of the research activities on the same topic (i.e. bonded composite repairs) in ten different projects, none of these projects were able to provide autonomously a global overview of advancements achieved in this field to the stakeholders of the aeronautical industry.

The AEROPLAN project has aimed to fill this gap by disseminating the technological innovations from the COMPRES, SENARIO, PLASER, INDUCER, IAPETUS, COMPARE, EXPECT, INDUCTOR, COMPARE and ADVANCED projects, and targeted all the key players of the aeronautical industry directly. The project has ensured that both existing aircraft and future designs would benefit from these innovations.



AEROPLAN was a collaboration between the following organisations: TWI Ltd, National Technical University of Athens, Laser Zentrum Hannover E.V., Fundación Tecnalia Research & Innovation, GMI Aero, Inasco – Integrated Aerospace Sciences Corporation O.E. and EADS Deutschland GMBH.

For further information, please visit the project website at www.aeroplanproject.eu

This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 285089.

