

FullComp

A multidisciplinary, intersectoral and international research training network focused on the full spectrum of composite materials.



PROJECT

Inspiration

Composite structures are massively exploited in many engineering fields. For instance, the state-of-the-art civil aircraft B787 and A350 are mostly made of composite materials. However, designing for composite materials poses a challenge as the skills and competencies in working with classic metal materials often prove inadequate. Insight into many different disciplines and close academic-industrial cooperation is required to fully exploit the capabilities of composite structures, but existing training programmes are often focused on specific themes and disciplines rather than on a broad interdisciplinary approach integrating academic and industrial perspectives.

Innovation

Funded by the European Commission through the Marie Skłodowska-Curie programme within Horizon2020, the FULLCOMP project aims to create a unique multidisciplinary, intersectoral and international research training network with a strong academic basis and industrial partnerships in order to train a new generation of top young researchers for academic and industrial positions across Europe. The multidisciplinary nature of the programme is guaranteed by the participation of seven universities, a research centre and an industrial manufacturer, located in eight different countries.

Within the project, researchers will also develop integrated analysis tools to improve the design of composite structures. The full spectrum of the design of composite structures will be dealt with: manufacturing, health monitoring, failure, modelling, multi-scale approaches, design, optimisation, experimental testing, prognosis and prognostic. Entrepreneurship in the composite materials and structures sectors will also be addressed.

Impact

The skills and the employability of young researchers will be greatly enhanced through this interdisciplinary and intersectoral training programme, while the results of the research carried out within FULLCOMP will be applicable to many engineering fields: aeronautics, automotive, mechanical, wind energy and space.

Partners

RMIT University (AU) , Ecole Nationale Supérieure d'arts et Métiers (FR) , ELAN-AUSY (DE) , Politecnico di Torino (IT) , University of Bristol (UK) , University of Hannover (DE) , University of Porto (PT) , University of Washington (US)

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