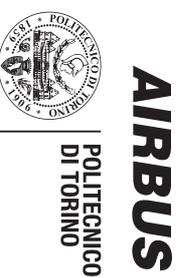


The mission of COMPOSELECTOR project is to develop a Business Decision Support System, which integrates materials modelling, business tools and databases into a single workflow. Complex decision processes involved in the selection and design of composite materials are supported by means of an open integration platform which enables interoperability and information management of materials models, data and connects a material modeling layer with industry standard business process.



Horizon 2020
European Union funding
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COMPOSELECTOR

Polymer Composites
Business Decision Support System

www.composelector.net



Project Duration
1 January 2017 to 31 December 2021

**Multi-scale Composite Material
Selection Platform with a Seamless
Integration of Materials Models and
Multidisciplinary Design Framework**

Project Coordinator:

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WHAT ARE THE OBJECTIVES OF COMPOSELECTOR?

Tailored knowledge apps to support decision makers: Making the BDSS tool available to and usable by decision makers is the overarching goal of COMPOSELECTOR. There will be technical as well as business decision makers at different levels, requiring the accumulated knowledge to be presented in a way that is tailored on their needs.

Provide actionable choices: Decision Makers require actionable choices that are the result of multi-criteria optimisation over all stages of product development, taking uncertainties, risks and opportunities into account.

Integrated materials and process modelling: COMPOSELECTOR will develop innovative methodologies to connect existing and future models and how to use them in varying contexts.

Integration and analytics of structured and unstructured data: COMPOSELECTOR aims at developing a coherent and comprehensive PMCs database and information management system that integrates the materials models with structured and unstructured data from multiple databases containing materials data, commercial data and information on market trends, pricing, customer needs and demands.

A BDSS validated by Decision Makers: An easy-to-use, cooperative and inter-disciplinary decision support and selection platform for PMCs that has been tested and validated towards applications in the aerospace sector.

HOW WILL WE ACHIEVE THESE OBJECTIVES?

To meet this objective, COMPOSELECTOR will build “Apps” that cansupport and guide their managerial decision situations. The supportand guidance will be strengthened by advanced analytics tools, presenting integrated knowledge from materials modelling, business tools and databases. Typically, the tools will be presented in web based and mobile environments.

In order to support this requirement, COMPOSELECTOR has a strong focus on the integration and innovative development of a Multi-Disciplinary Optimization framework, which will allow for time, resources and costs saving while increasing performance and functionality.

This will be achieved by enriching an integrated materials and manufacturing process modelling framework with metadata schema and semantic interoperability. Methodologies for KPI-driven property calculations and the implementation of model selection and model adaptivity.

The metadata schemas for materials and processes models will be further extended to describe also materials and related business and Life Cycle Engineering data. Relevant APIs to materials and business databases will be developed.

The COMPOSELECTOR BDSS will be validated against measurements, existing data and real financial arguments by the end users in the project in applications of the transport and aerospace value chains.

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