

## Integration of the composite's lifecycle

2013-2017



### Axe(s)

Composites  
& Processes

### Industries

Techspace Aero  
GDTech  
Coexpair  
Samtech  
e-Xstream

### Research Bodies

Sirris  
ULg  
UCL

### Total Budget

7,1 M€

### Type

R&amp;D

The project's objective is to achieve a greater integration of composite materials in the low-pressure compressor, major product of Techspace Aero. Research will be conducted through three axes covering the entire lifecycle of the product.

A first axis "Design & Integration" is oriented towards an extension of the composite technology for large size engines. These activities will open the market of large (commercial) engines and therefore large compressors, where the impact of the contribution of composites is the most spectacular in terms of weight reduction.

A second axis "Materials & Methods " will be dedicated to the improvement of manufacturing processes that fully integrate the specificities of composites with particular Co-moulding and Overmolding processes. This integrated approach of composites takes into account the objectives of keeping recurring costs low, allowing the involved companies to remain competitive on the market.

Finally, an axis "Product Life Cycle" will focus on the recovery and repair processes of composite parts which will help reducing the volume of raw materials used and the share of energy that would have been necessary to produce spare parts. Moreover a part of the project will be devoted to a first approach of reprocessing materials