

Structures and Manufacturing Technology

The main focus when designing aircraft structures is the structure's ability to carry loads and its aerodynamic characteristics. The demands for performance, availability, survivability and affordable solutions are increasing and have become more complex. This has resulted in the industry facing new challenges in particular regarding structural design and material selection. Interdisciplinary working methods, including the fields of aerodynamics, design, structural integrity, material & process and manufacturing technology are required in order to find the right balance between performance, cost effective manufacturing and maintenance.

Current main focus for the cluster is:

- Design
 - Integrated structures
 - Structural Integrity incl. strength, loads & aeroelasticity
 - Model based engineering
- Manufacturing
 - Cost effective manufacturing of complex 3D structures
 - Tools for future products
 - Simulation tools
 - Man/machine interface
- Multifunctionality
 - Multifunctional materials – materials and coatings with tailored properties
 - Multifunctional structures