

Transferkolleg 2015 - High performance composite materials and industrial production

Increasing demands on energy efficiency in cars, trains, aircraft, and also in industrial processes foster the need for lighter, stronger and stiffer materials. One of the most promising classes of materials to fulfill these needs are the fiber-reinforced composite materials. Traditionally used in niche applications and known to be both cost and labor intensive in their manufacturing chain, developments are ongoing to pave the way for the use of these materials on an industrial scale in large series production. This Transferkolleg aims at supporting these activities in order to help the Swiss industry to stay ahead of these recent developments and also secure a competitive edge in future trends.

Projects in the frame of this Transferkolleg should cover any of the following areas:

- Development of materials, processes, tools, systems and software to increase production rate and reduce production costs in the manufacturing chain for high performance composite parts.
- Development of methods and processes for recycling of high performance composite materials or for the reduction of material usage in composite parts production.
- Innovative ideas in the areas of nanocomposites and biobased composites.
- Hybrid or multifunctional composite structures.

The 2015 initiative was organized in collaboration with CTI's National Thematic Network Carbon Composites Schweiz (CC Schweiz).

Project team

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