

# School of Engineering

IMPE Institute of Materials and Process Engineering

## Carbon Composites

#### **Technologies and Processes**

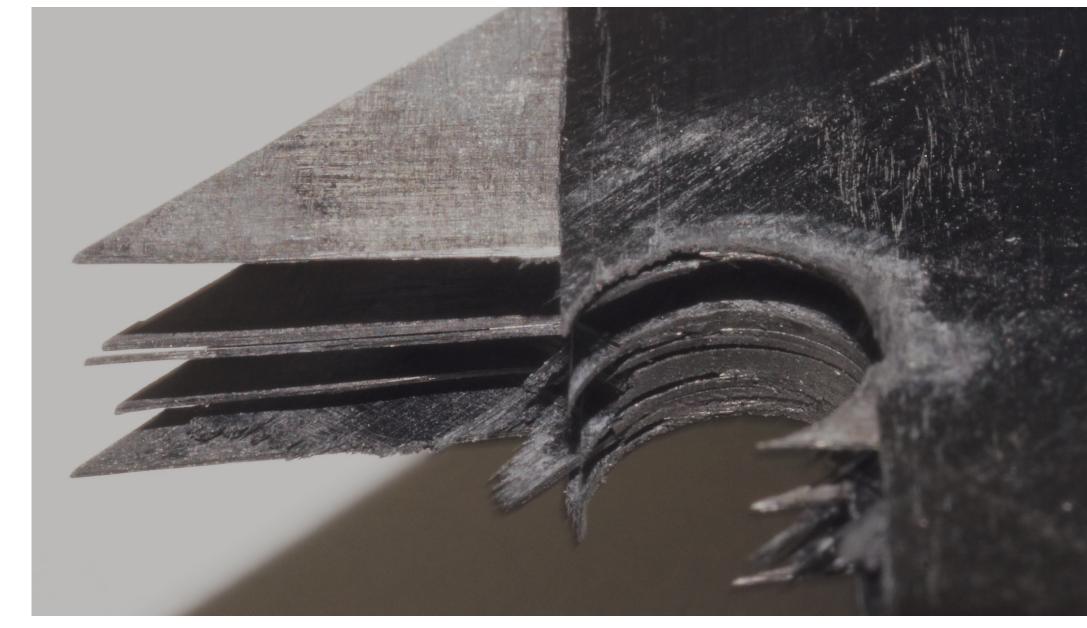
- Prepreg processes
- Out-of-autoclave processes
- Sandwich technologies
- Repair processes
- Joining processes
- Design and analysis



Airbus A340

#### **Testing and Inspection**

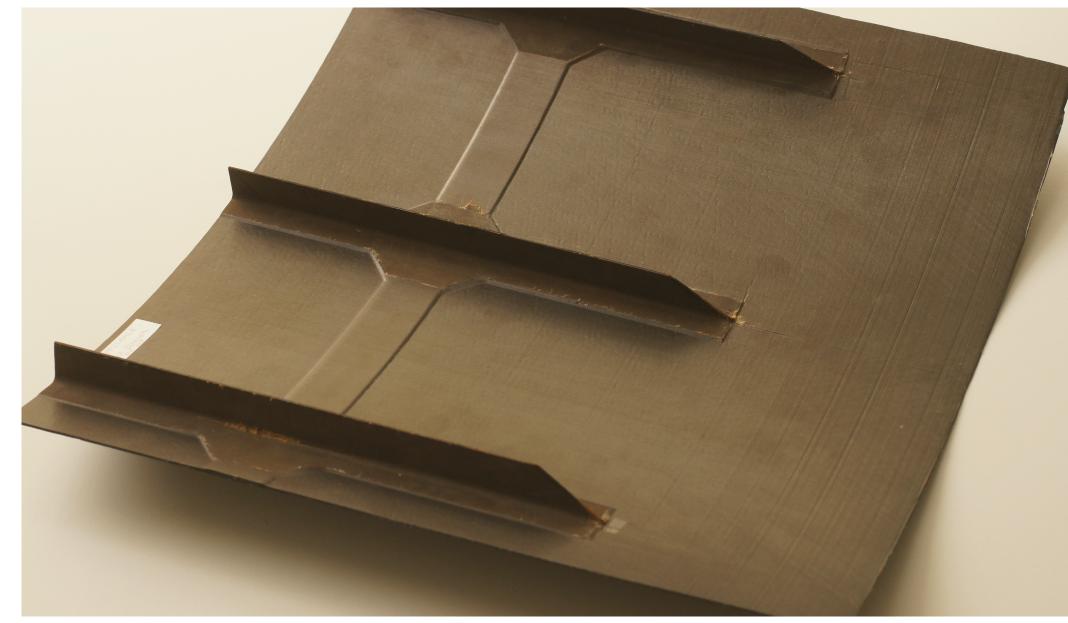
- Mechanical testing
- Qualification testing
- Building block tests (E- to C-level)
- Contamination inspections
- Materials analysis
- Damage analysis



CFRP bearing sample after rupture

#### **Applications**

- Aerospace structures
- Lightweight structures
- Structural repairs
- Bonded and bolted joints
- Industrial applications
- EU FP7 project CERFAC; cost effective reinforcements
- EU FP7 project BOPACS;
   bonded primary structures



CFRP fuselage with intergrated stringers

#### **ZHAW School of Engineering**

Technikumstrasse 9, P.O. Box 8401 Winterthur, Switzerland info.engineering@zhaw.ch www.zhaw.ch/engineering

### IMPE Institute of Materials and Process Engineering

Dr. Oliver Döbrich
Phone +41 58 934 40 53
oliver.doebrich@zhaw.ch
www.zhaw.ch/impe