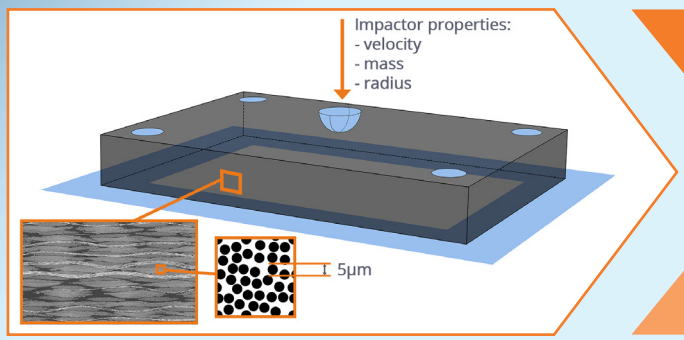
Dedicated to innovation in aerospace

Impact Damage Tolerance of Thick Composite Structures

- Fibre reinforced composite materials generally have a low damage tolerance
- Highly loaded aerospace components (e.g., landing gear parts) result in thick structures
- Impact events such as tool drops or runway debris are critical in a damage tolerant design

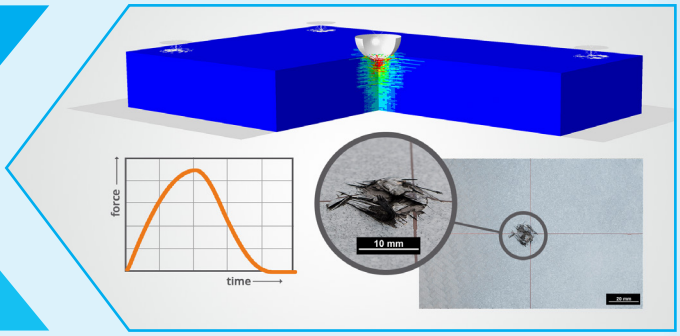


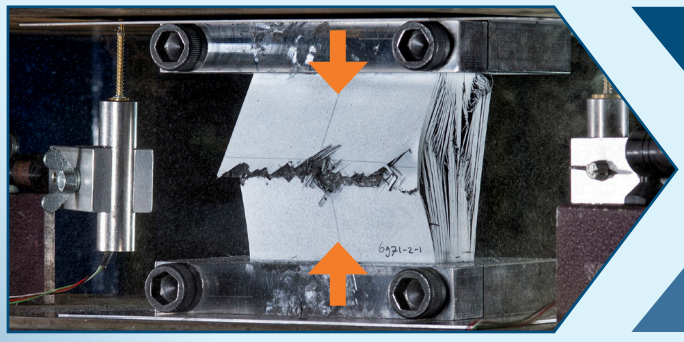
Impact problem

Improve the understanding and prediction capabilities of damage due to impact events on thick composite structures

Impact damage prediction

Advanced numerical simulations and analytical impact response predictions can aid the design and certification process





Experimental testing

Validation using experimental impact tests, Compression-After-Impact (CAI) tests, and detailed damage inspection performed at Royal NLR

In cooperation with:

Fokker

GKN AEROSPACE

TU Delft