

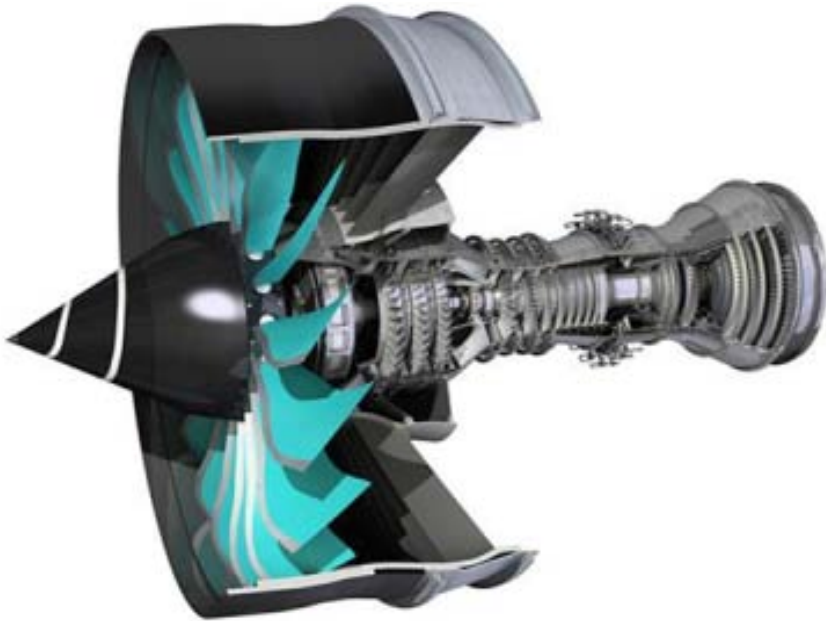


# Demonstratorer

## Innovair årskonferens

Robert Lundberg, Projektledare GF-MotorDemo

# Exempel på demonstrator-motorer

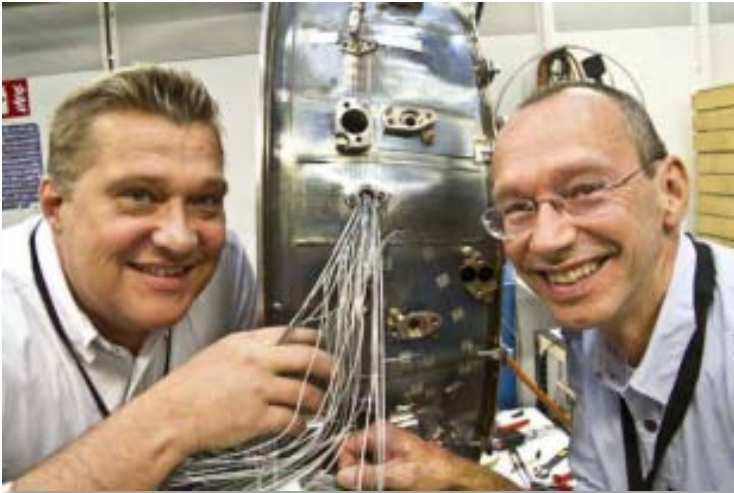


Rolls-Royce UltraFan



Snecma Open Rotor

# Turbinstruktur



Turbinstruktur, instrumenterad och klar för leverans till motorprov på MTU

## Teknologier

Laservetsning (GKN, PTC)

3D-printing (GKN, PTC)

Aero/termo-validering (GKN, Lund)

## SMF (exempel)

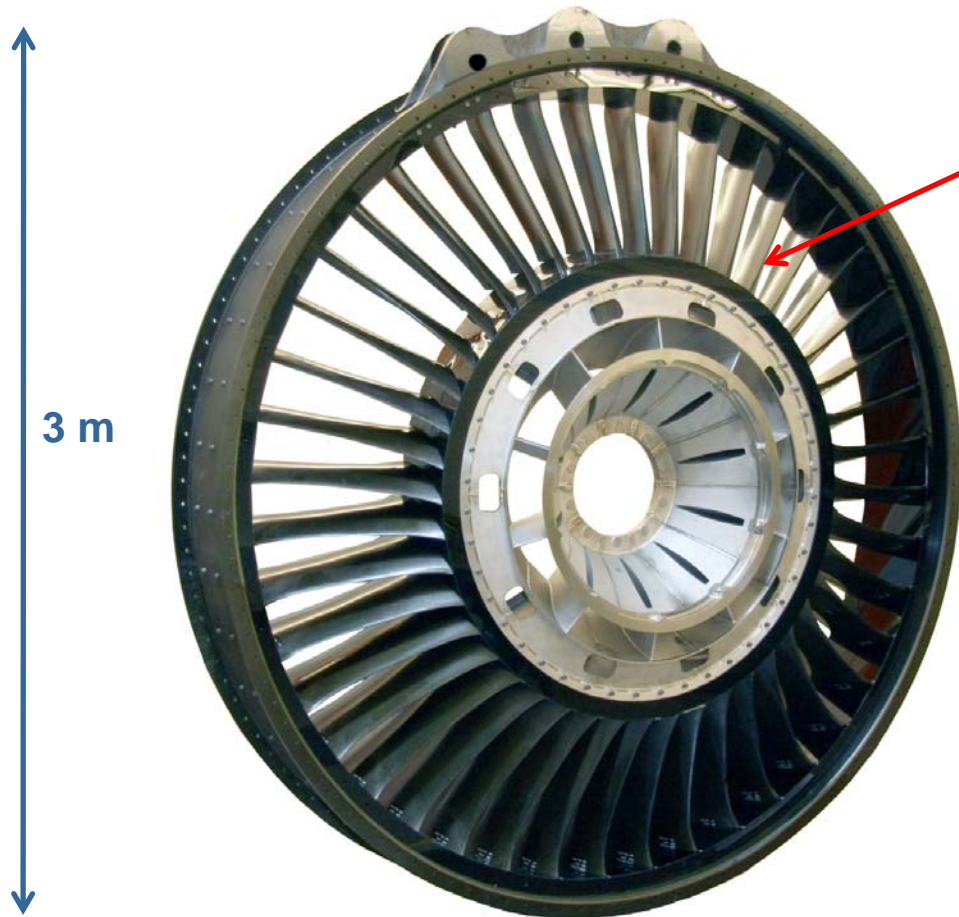
Brogren, Tooltec

Permanova



GKNs turbinstruktur monteras i motor på MTU (motorprov november 2015)

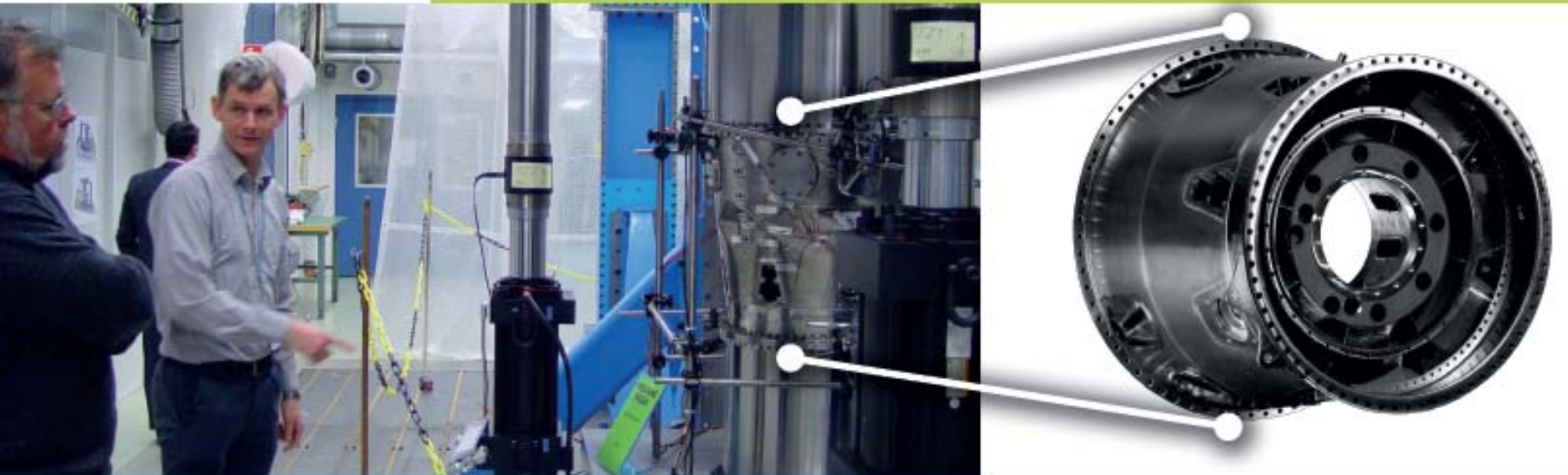
# Fläktstruktur-demonstrator



## Komposit OGVer

- Pick-and-place (kolfibervävar)
  - Resin Transfer Moulding (RTM)
  - Metallframkant
  - Dynamiska förlopp  
(is-, fågel-kollision)
- (GKN, ACAB, Swerea SICOMP)**

# SAGE 3 Intermediate Compressor Case Demonstrator



- The Intermediate Compressor Case (ICC) is developed and manufactured by GKN Aerospace Sweden in the Rolls-Royce SAGE 3 demonstrator project.
- The ICC is a laser welded lightweight engine structure made of a new high strength steel material, thus replacing expensive titanium at competitive weight and opening up for a new European supply chain.
- The ICC was tested in a full scale mechanical test which confirmed its ultimate load carrying capability.