



GKN Aerospace

Henrik Runnemalm | INNOVAIR annual meeting 2014

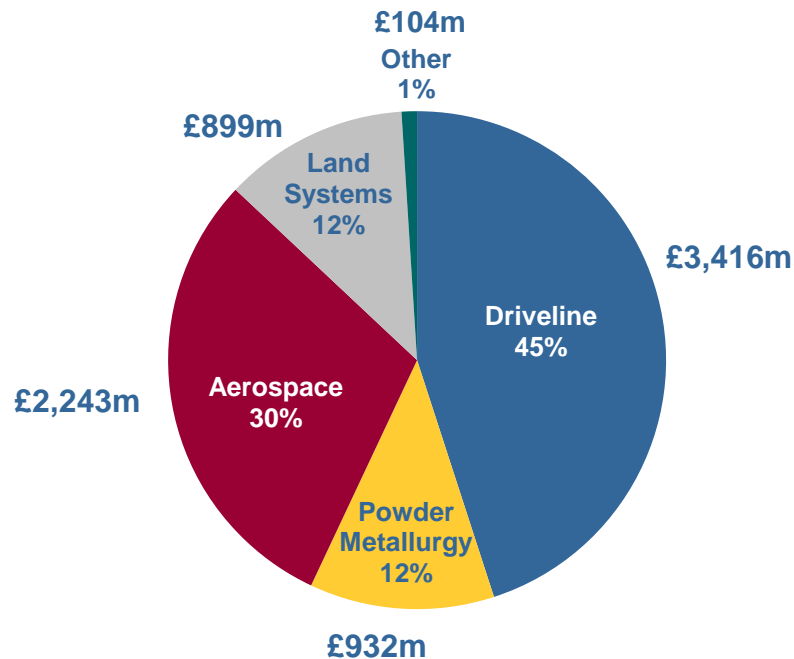


GKN Facts

GKN PLC: Delivering to our markets

We have four operating divisions: GKN Driveline and GKN Powder Metallurgy that focus on the automotive market; GKN Aerospace, and GKN Land Systems. Every division is a market leader, each outperforming its markets, giving unrivalled expertise and experience in delivering cutting-edge technology and engineering to our global customers:

2013 - Sales by division



GKN Aerospace
A leading first tier supplier to the global aviation industry focussing on aerostructures, engine systems and products and specialty products.



GKN Driveline
A world leading supplier of automotive driveline systems and solutions, including all-wheel drive.



GKN Powder Metallurgy
The world's largest manufacturer of sintered components, predominantly to the automotive sector.



GKN Land Systems
A leading supplier of technology-differentiated power management solutions and services to the agricultural, construction, industrial and mining sectors.

GKN Aerospace

\$3.5 billion Global Aerospace company, 35 sites in 9 countries, 11,700 people
Market leaders in airframe structures, engine components and transparencies
Increasing investment in technology and focus on deployment
Growing global footprint as part of drive for increasing competitiveness



GKN Aerospace – World class product portfolio

Aerostructures

45% of Sales 2013

Global #3

Wing



A380 Fixed Trailing Edge



A350XWB Rear Spar



A330 Flap Skins



B767 Winglet

Fuselage



J-UCAS Fuselage



CH53K Aft Fuselage



B787 Floor Grid



HondaJet Fuselage

Engine structures

50% of Sales 2013

Global #2

Nacelle and Pylon



B747-8 Exhaust



A400M Engine Intake



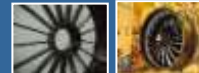
B787 Inner Core Cowl



Ariane 5 Exhaust nozzle

Engine Systems and Services

Engine structures



Engine rotatives



Full Engine MRO and support



Special products

5% of Sales 2013

Global #1/2

Transparencies and Protection Systems



B787 Anti-icing System



V22 Fuel Tanks

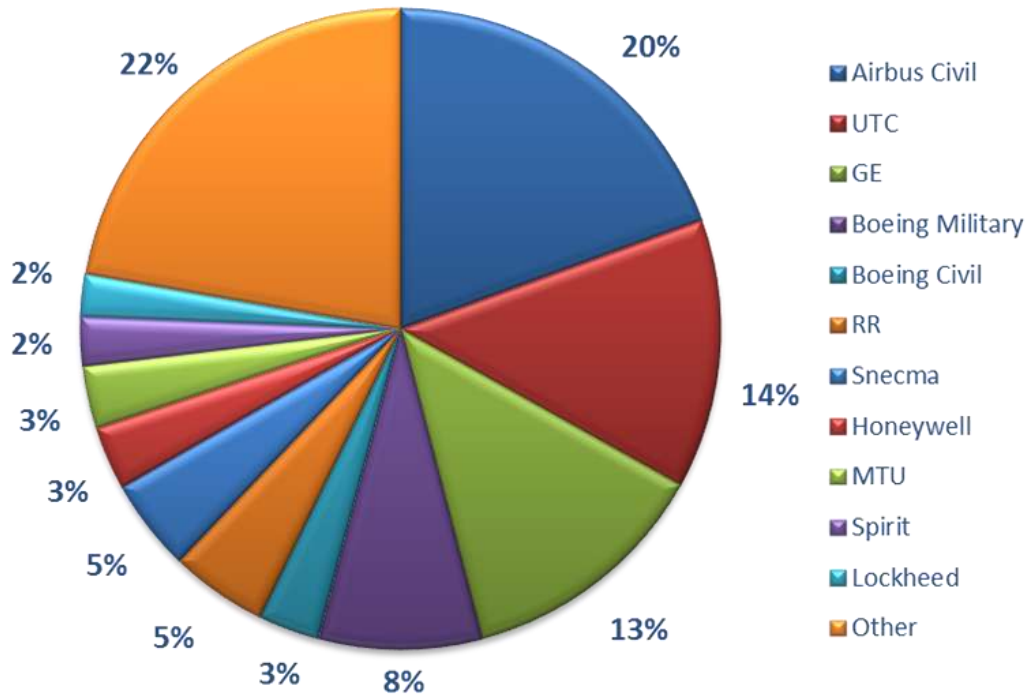


B787 Cabin Windows



F35 Canopy

A broad customer base



Military 27%

Civil 73%

2013 Sales

Targeted Innovation – Technology



Engine
Statics

Engine
Rotatives

Future Wing
Technologies

Advanced
Fuselage

Nacelle,
Pylon &
Exhaust

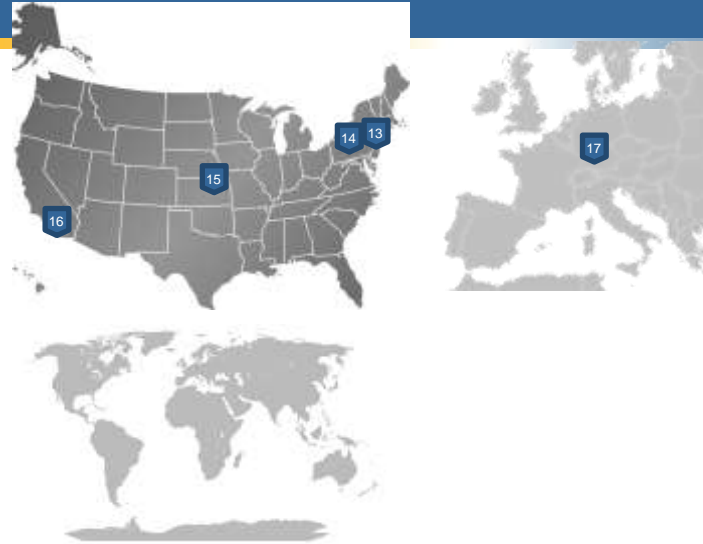
Transparencies & Coatings
Protection
Systems

Composite Technology

Metallic Technology

Supporting Technology

GKN centers of excellence and R&T partners



20 Loughborough U.

- Intercase compressor duct aero

19 SWEREA

- Composite design material, manufacturing
- Casting technology
- Machining
- Material properties

1 Bath University

- Product and production development
- Materials technology
- Solid mechanics
- Aerothermodynamics

2 NCC Bristol

- Composite manufacturing methods

3 CRC Cowes

- Composite manufacturing methods

4 MTC Coventry

- Advanced assembly and automation technology

5 AMRC Sheffield

- Advanced metallic manufacturing

6 Chalmers Univ.

- Product and production development
- Materials technology
- Solid mechanics
- Aerothermodynamics

7 University West

- Welding technology
- Machining technology
- Spraying technology
- Manufacturing simulation
- Automation
- NDT

8 ERC Trollhättan

- Product technology
- Design solutions
- Manufacturing technology
- Advanced process technology
- Automation
- Design methods

9 Luleå University

- Solid mechanics
- Manufacturing simulation
- Materials technology
- Composite analysis

10 KTH Royal Institute

- Aerothermodynamics
- Aero elasticity
- Composite material

11 COMPRASER

- Manufacturing of composite material

12 Lund University

- Aero rig validation
- High temperature/pressure testing

13 UCON Hartford

- Composite manufacturing
- Additive manufacturing

14 NACC (North America composite center)

- Composite manufacturing
- RTM

15 NAMC (North America metallic center)

- Linear friction welding
- Additive manufacturing
- Advanced machining

16 Univ. of San Diego

- Metallic manufacturing

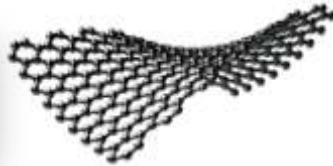
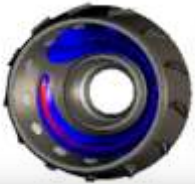
17 Stuttgart University

- Turbine aero rig validation

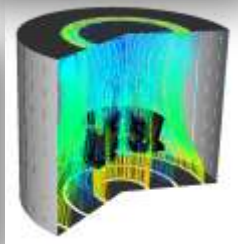
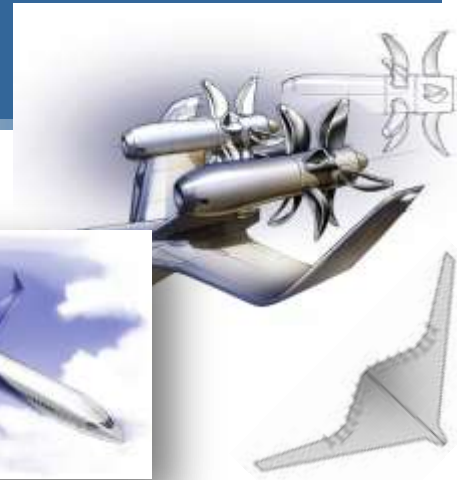
18 Oxford Univ.

- Heat transfer and turbine aero

Novel Technologies



Source: Chalmers University



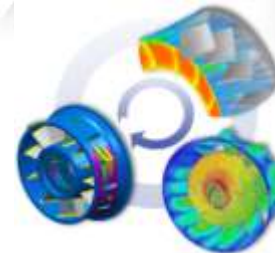
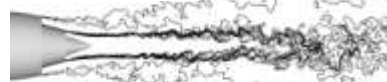
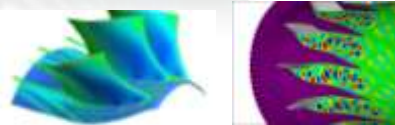
Advanced Manufacturing



Light Weight Designs



Testing and Repair

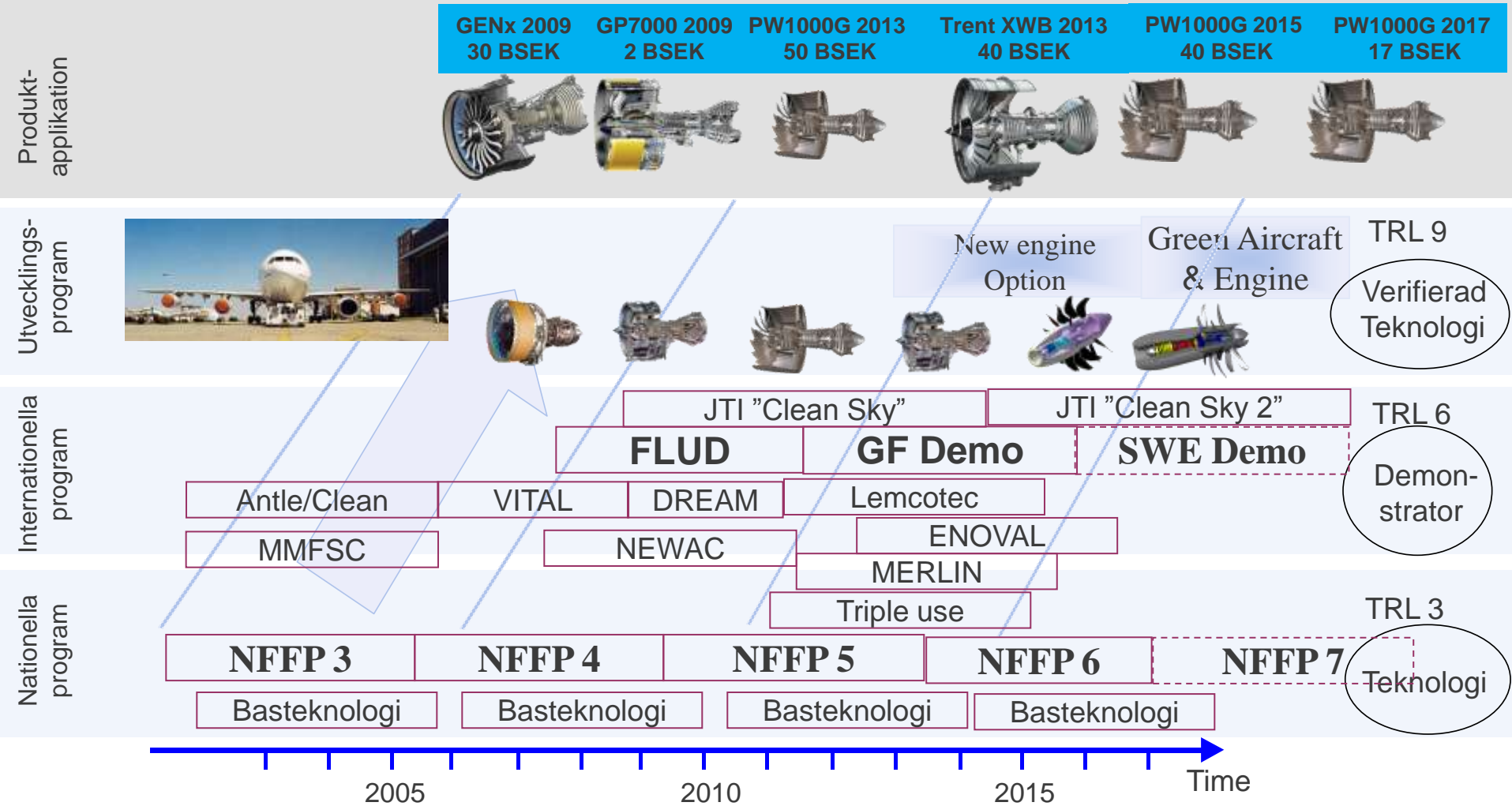


Advanced Computer Simulations



Forskning och Innovationsstrategi

"Snedå vågens princip"



Questions?



Source: Airbus