

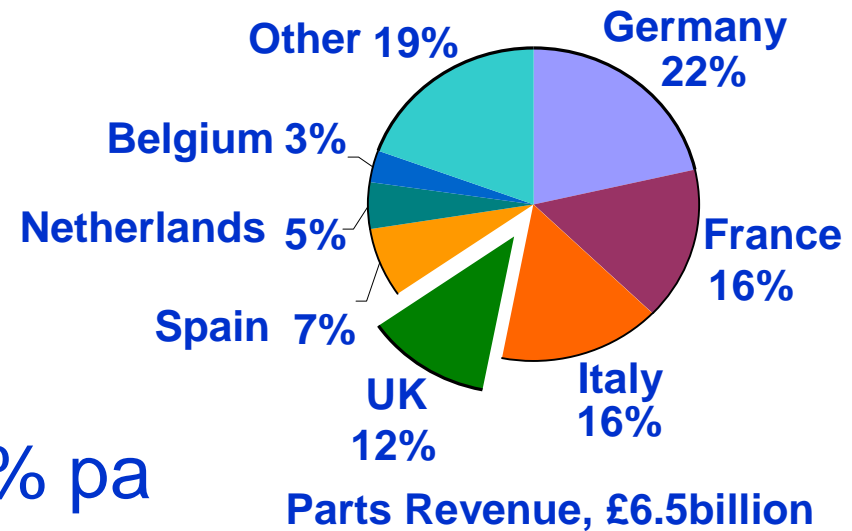


National Composites Network

Composite Materials for Aerospace,
Defence and Security Applications
Glasgow, 5 December 2007
Marcus Warwick - TWI

UK Composites Market

- Employees: 15000-20000
- Turnover: £800 million finished parts (£25billion)
- Key sectors
 - Aerospace & defence
 - Motorsport/F1
 - Marine
 - Construction
- Forecast 5 yr growth: 4% pa
- Export: 40%



What is the NCN?

- A UK government-funded initiative to represent and support the UK composites industry
- 5 year initial funding of £30M, national and regional
- A virtual 'network of networks'
- All industry sectors of relevance
- 5 Centres of Excellence strategically linked

NCN Priorities

- **Strategy** - Where should the UK focus its efforts for maximum business growth?
- **Signposting** - What capabilities do we have now and mechanisms to access them?
- **Outreach** - Technology insertion in key areas for quicker response to the market

NCN Centres



NDT Validation Centre
Key focus on validation of NDT techniques
Launched Feb 2006

North West Centre
Key focus on 3D fibre structures and high speed composite cure
Launched May 2006

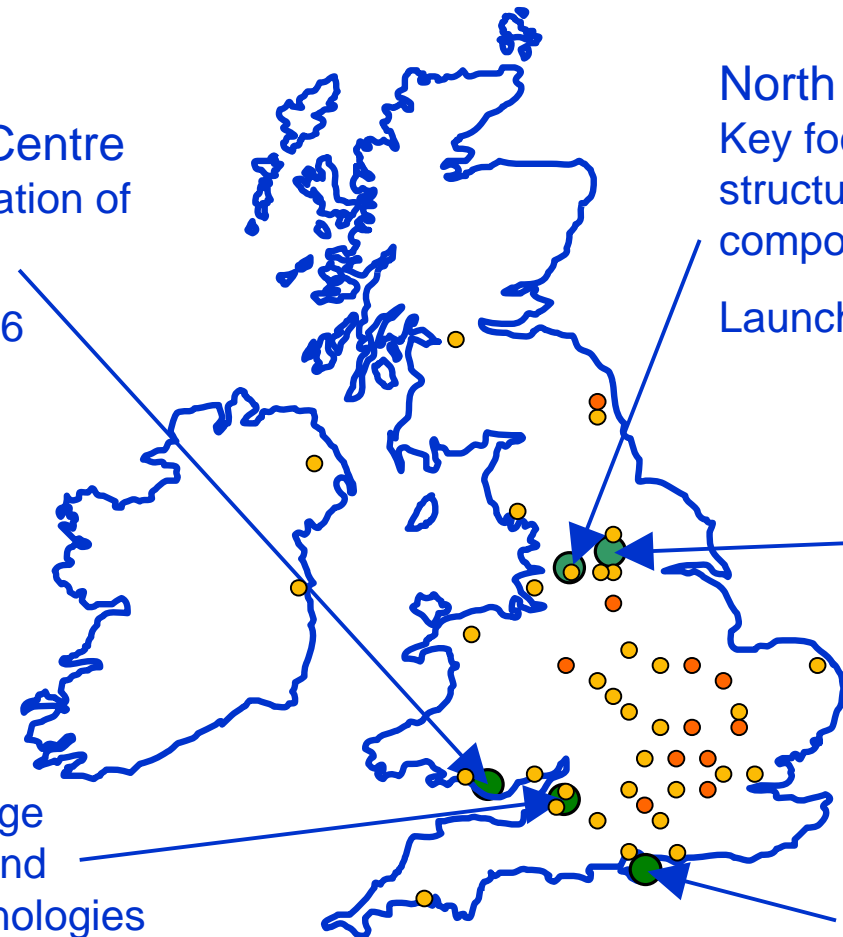


CaMTEC
Key focus on machining and joining
Launched 2006



AIRBUS
Airbus Centre
Key focus on large aerostructures and associated technologies
Launched Feb 2005

GKN Centre
Key focus on automated manufacture of sub-assemblies
Launched July 2005



- NCN Centre
- University
- RTO/Other



Technology Outreach

- Information
 - Helpdesk
 - Website
 - Workshops
- Diagnostics
 - Consultations
 - Technology audits
- Solutions
 - Feasibility studies
 - Demonstrators





Information

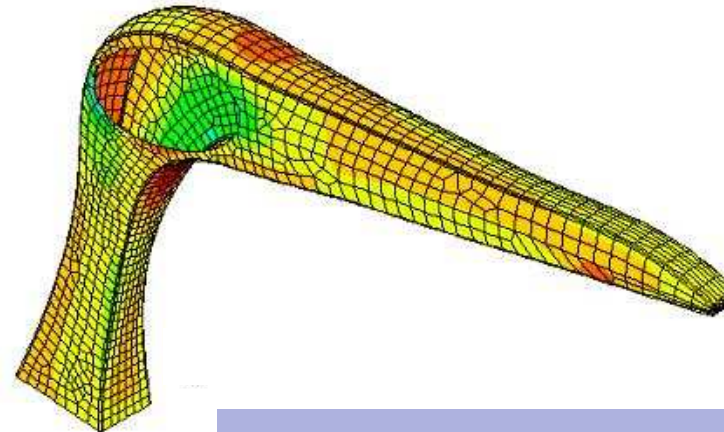
- Roadmaps:
 - Automotive, Aerospace, Marine, Construction, Oil & Gas, MMCs
- Composites Foresight Report 2007
- Technology Reviews:
 - Recycling, re-use and disposal, structural monitoring, design tools, low-cost manufacturing, repair, NDE techniques, nano-composites
- Case studies





Composite Davit

- Cooney Marine
- Originally made of stainless steel
- TWI via NCN carried out FEA stress analysis of the composite design
- 3D CAD Geometry supplied





Contacting NCN

- Web: www.ncn-uk.co.uk
- Email: info@ncn-uk.co.uk
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Materials

Knowledge Transfer Network



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National Composites Network

