

SERVING UK MIDLANDS USER NEEDS WITH RESPECT TO SPACE EXPLORATION

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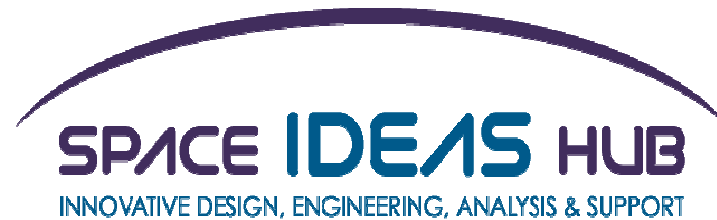
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SERVING UK MIDLANDS USER NEEDS



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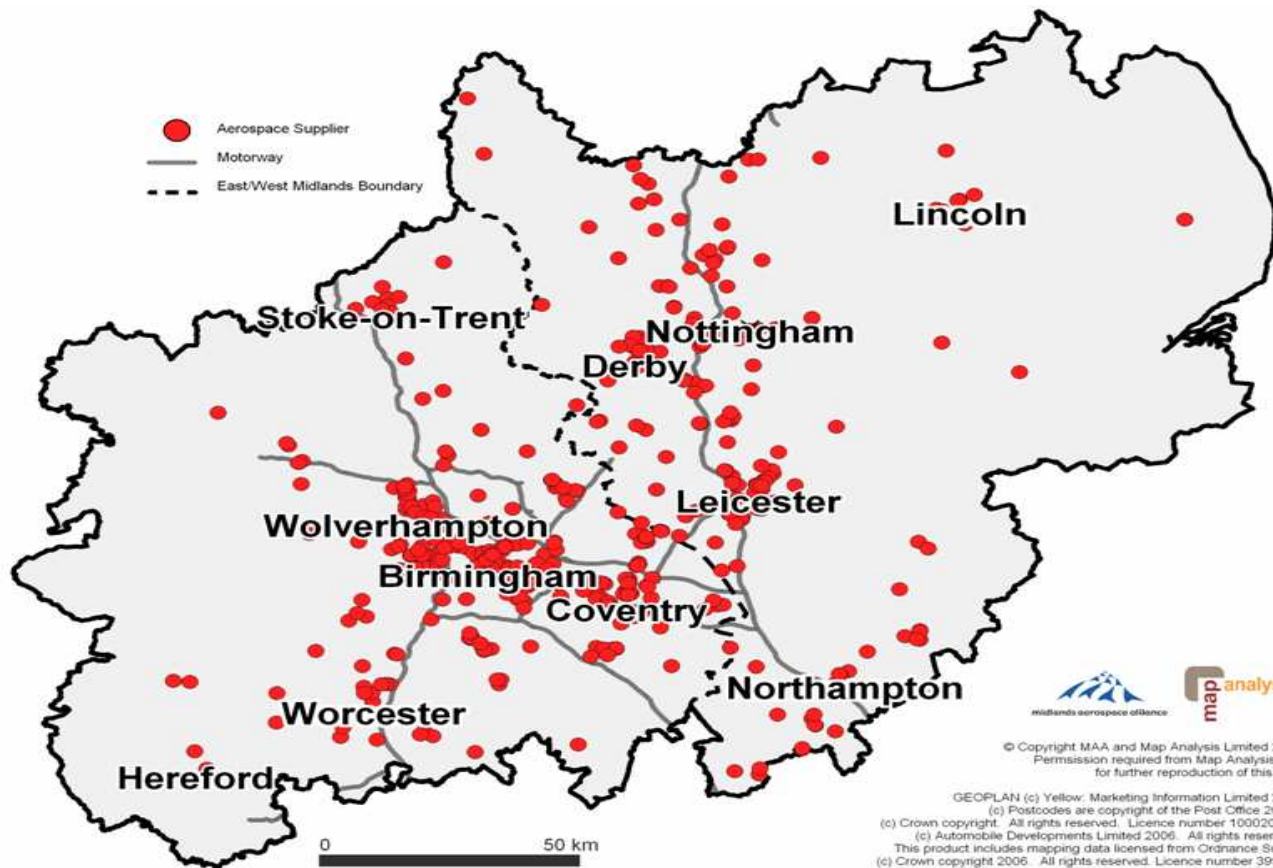
UK MIDLANDS AEROSPACE CLUSTER

- One quarter of the UK aerospace industry,
- 7% per cent of Europe
- 3% of the world
- over 40,000 full-time-equivalent jobs due wholly to revenues from manufacturing for global aerospace markets



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UK MIDLANDS



UK MIDLANDS AEROSPACE TECHNOLOGY COMPETENCIES

- **Four core technology competencies:**
 - systems that power aircraft: gas turbine engines and other aircraft propulsion systems
 - systems that control the moving parts of aircraft and engines: electrical, mechanical, electronic, hydraulic, pneumatic
 - specialist metal and composite materials for these systems
 - engineering design services, factory equipment and tooling
- **Seven universities with aerospace research interests**

MIDLANDS AEROSPACE ALLIANCE

- **Membership organisation with three-fold strategy:**
- **Share knowledge and information**
 - to improve market and business opportunities
- **Deliver support programmes to members**
 - to improve performance
- **Coordinate shared strategy**
 - to develop an overall aerospace cluster strategy through pro-active partnering



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MIDLANDS AEROSPACE ALLIANCE

- **Established 2003, 250 members**
- **Management Board**
 - Aero Engine Controls, Goodrich, Meggitt, Moog, Rolls-Royce
 - six elected supply chain leaders
 - university academic, trade union.
- **Business-led working groups**
 - Business development
 - Innovation and technology
 - SC21/best practice
- **Principal activities**
 - knowledge transfer/networking
 - direct support programmes for companies



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MIDLANDS AEROSPACE ALLIANCE

- **Contact**

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SPACE IDEAS HUB

INNOVATIVE DESIGN, ENGINEERING, ANALYSIS & SUPPORT



University of
Leicester



Project Part-Financed
by the European Union
European Regional
Development Fund

UK SPACE INDUSTRY

- Flagship engineering industry for the UK:
- £7.5bn national turnover
- Annual 9% growth since 2007
- Employment rising at 15% per year
- Recent formation of UK Space Agency
- Inspirational for future scientists and engineers





THE UNIVERSITY OF LEICESTER

- World class university with ambitions for future growth
- Ranked 15th out of 120 in UK - Guardian University Guide
- Ranked top 3% in world – Times Higher Education



UNIVERSITY of LEICESTER

SPACE RESEARCH CENTRE

- The Space Research Centre (SRC) has been building space flight instruments for >40 years
- Centre of excellence for the development of space research instrumentation
- Working in partnership with some of the largest engineering organisations in the world



SPACE IDEAS HUB - THE PROJECT

- £2m, 3 year project - focusing upon technology transfer to businesses in the East Midlands
- Financed by EU + the University
- Dedicated team to help businesses exploit space-related technologies
- To improve productivity, performance and competitiveness of Small Businesses (“SMEs”)



TRANSFERABLE EXPERTISE

- EMC – design and validation
- Data archiving
- Validation & verification
- Structural Analysis
- Design for radiation / harsh environments
- Cryogenic testing
- Control theory
- Embedded systems
- X-ray / Gamma / IR detectors
- Imaging spectroscopy
- Signal Processing
- Vacuum Engineering
- High Speed Electronics
- GPS for timing
- Miniaturisation
- Project management



PROJECT OUTPUT TARGETS

- Businesses assisted (SME engagement)
- New businesses created
- Companies new to East Midlands
- Graduates placed
- Investment leveraged
- New collaborations between SME and University
- Patents / Licensing





ANY QUESTIONS??

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