



Universities



Aerospace

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The UK science and academic community has an international reputation for excellence across the aerospace industry. The UK aerospace Industrial Strategy and its focus on productivity, innovation and skills relies on great science research and a flow of top-quality students into aerospace careers.”

Paul Everitt, Chief Executive, ADS

ADS is the premier trade organisation for companies in the UK aerospace, defence, security and space sectors. Membership is made up of over 1,000 UK registered businesses.

Key Messages

The West Midlands is a global centre for aerospace design and manufacturing.

The key West Midlands aerospace business cluster is organised around Rolls-Royce Control Systems, Meggitt, Moog and UTC Aerospace Systems.

The West Midlands is also home to the UK's specialist aerospace materials producers, including Alcoa (aluminium) and Timet (titanium) in Birmingham.

University Specialisms

Our universities maintain close links with industry partners:

- Developing the industry's expertise in specialist aerospace engineering subjects
- Strengthening the skills of the next generation of engineers through applied technical work and access to the latest technology.

Universities advance our understanding of:

- Lightweight materials for aerospace applications
- Rapid prototyping and product lifecycle management
- Information processing and pattern analysis to model faults and monitor human performance.



Thriving Cities

Birmingham, Coventry and Wolverhampton



A £92bn Economy



15,000 Engineers

Students following technology & engineering courses each year



Local 45 Companies

Supporting 4 global players: Airbus, BAE Systems, Boeing, Rolls Royce



2,400 Jobs

2,400 people employed in the aerospace sector in the West Midlands



West Midlands Growth Company

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Key University Facilities/Projects



Aston University

Institute of Photonic Technologies

- A 20 year track record of innovation in optical technologies.
- Providing sector contextualised access to optical technologies such as femtosecond laser inscription, polymetric fibre design and fabrication, biophotonics and optical sensing.
- Delivering practical solutions for the aerospace sector, such as advising on the application and utilisation of Fibre Bragg gratings to next generation composite wing and fuselage structures.



Birmingham City University

Institute of Sustainable Futures

- The Magnesium Innovation Group develops sustainable aerospace uses for magnesium which deliver fuel efficiency through weight savings.
- An exclusive partnership with Meridian Lightweight Technologies UK, the world's largest producer of magnesium components.



Coventry University

Engineering, Environment and Computing

- Business-focused research reflected in important relationships with Emirates, Airbus, Rolls Royce and Birmingham Airport.
- Large-scale research with BAE Systems, General Electric, Rolls Royce and DLR into next generation flight deck technologies.
- Multi-simulation facilities at the High-Performance Engineering Centre.
- Human Systems Integration Group adopting a systemic approach to the implementation of human factors in the aviation industry.

Your Contact:

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University of Birmingham

Advanced Materials Engineering

- Advanced resource-efficient metal processing techniques at the School of Metallurgy and Materials.
- 3D metal printing (additive manufacturing) techniques, developed in partnership with groups such as BAE Systems, Rolls-Royce and the European Space Agency, give the ability to 'print' complex items such as engine components in their finished state.



University of Warwick

WMG

Lightweight Technologies Centre of Excellence

- Designs and manufactures the next generation of lightweighting solutions to deliver low-carbon transportation.
- 10-year track record in delivering solutions to industry.
- Working with aerospace, defence, rail and automotive partners to identify and exploit cross-sector opportunities.



University of Wolverhampton

Centre for Engineering Innovation and Research

- Develops innovative technologies through the application of material science.
- The Advanced Materials and Composites group is focused on optimisation of materials for aerospace applications.