

Manufacturing for Growth

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Scottish Government
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Strategic context in Scotland

- Scottish Economic Strategy
- Programme for Government
- Manufacturing Action Plan for Scotland



Scottish Economic Strategy

- Overarching framework with four priorities:
 - **investing** in people and infrastructure to safeguard Scotland's future
 - fostering a culture of **innovation**, entrepreneurship and research & development
 - stimulating **inclusive** growth and creating opportunity through a fair and inclusive jobs market
 - promoting Scotland's **international** trade, investment, influence and networks



Programme for Government

- Scotland as an inventor and producer, not just a consumer.
- Commitments to:
 - Confirm location and lead partners for the National Manufacturing Institute for Scotland
 - Directly supporting the Lightweight Manufacturing Centre
 - Launching a new service 'Manufacturing 4.0 Improvement Plan'
 - Circular Economy Investment Fund



Manufacturing Action Plan for Scotland

- Plan reaffirms the Scottish Government's commitment to growing and investing in the sector.
- Action plan based on a commitment to raising productivity through increased investment and innovation and a long-term partnership between government, industry, our Enterprise Agencies and other key stakeholders.



National Manufacturing Institute for Scotland - NMIS

- Commitment within the Manufacturing Action Plan to have a new joint centre of manufacturing excellence and skills academy - NMIS
- Lightweight Manufacturing Centre currently under development as a 'proof of concept'



Aerospace - sectoral trends

- Global aerospace market is growing
 - UK market alone is forecast to grow by 6.8%
- Sector undergoing a step-change in technology and materials development



Aerospace in Scotland

- Real industrial strengths*:
 - 149 companies
 - 8,262 employees
 - £1.6 billion annual sales
 - £520 million Gross Value Added to the Scottish economy
- Strong academic and public sector support



* Source: AD&M Industry Baseline Study 2013



Aerospace in Scotland



THALES

WOODWARD

BAE SYSTEMS



UTC Aerospace Systems



SPRINT
AEROSYSTEMS

RYANAIR



Raytheon

STAR-Dundee

BRITISH AIRWAYS
ENGINEERING

Honeywell

VECTOR
AEROSPACE

LEONARDO



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Scotland's industrial strengths

- Aerospace MRO eg:
 - GE Aviation, Rolls-Royce, UTC Aerospace Systems, BA, Woodward, Vector Aerospace, Chevron
- Aerospace manufacture - aerostructures/ engines, eg:
 - Spirit Aerosystems, Rolls-Royce
- Defence electronics, sensors, lasers
 - eg Thales, Leonardo UK, Raytheon, BAE Systems



Prestwick – ingredients for success

- Established centre of excellence for MRO, aero structures and design engineering
- Comprehensive transport infrastructure
- Access to training and research
- Strong industrial base



Spirit Aerosystems

- New composite spoiler
 - A step-change in technology using state of the art automation and robotics and a new composite technology solution
 - Reducing costs, increasing efficiency of production, and efficiency of the final component



Future developments at Prestwick

- Proposed Aerospace Innovation Centre
 - Collaborative partnership to support innovation and training in the sector
- Potential Spaceport at Prestwick Airport
 - Prestwick Airport working with partners to develop proposals for satellite launch facilities



Other major Scottish players

- Rolls-Royce, Inchinnan



- Vector Aerospace, Perth



Scotland's industrial strengths

- Underpinned by:
 - Engineering skills and expertise
 - Availability of cost-effective workforce
 - Company research base
 - Relevant university research
 - Strong Industry Leadership Group and sectoral strategy for Scotland



Scotland's strengths - academic

- University of Glasgow
 - Department of Aeronautical Sciences
 - aerospace structures & materials; autonomous vehicle systems; flight dynamics; fluid mechanics; space systems engineering
- University of Strathclyde
 - Department of Mechanical & Aerospace Engineering; future air-space transportation technology; Advanced Space Concepts Lab; Institute of Photonics; Advanced Composites Group; space mechatronics (with CALT)



Scotland's strengths - academic

- **University of Edinburgh:** Dept of Mechanical Engineering; Computer-controlled electro-mechanical solutions
- **University of West of Scotland:** Composite materials and coatings research
- **University of Dundee:** Space Technology Centre
- **Further Education colleges:** eg Ayr College, Aeronautical Engineering Training Centre; and Perth College, Aircraft Engineering



Support for aerospace

- Company Growth support:
 - Job creation / safeguarding (RSA); R&D Grants; Training Aid; Environmental Aid
- SE Sector Team support through:
 - collaborative projects; NATEP; partnership with AGP; partnership with South Ayrshire Council
- Supply Chain Specialists Project
- Scottish Development International
 - inward investment & export support
- National Manufacturing Competitiveness Levels Project



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