

**BRIEFING FOR THE FIRST MINISTER
ANNOUNCEMENT OF FUNDING FOR LIGHTWEIGHT MANUFACTURING CENTRE**

19 June 2017

<p>Key messages</p>	<ul style="list-style-type: none"> • This £8.9m investment by the Scottish Government, Scottish Enterprise and the University of Strathclyde will help put Scottish industry at the forefront of lightweight manufacturing. • Lightweight manufacturing provides a great opportunity for Scottish companies to be part of the aerospace, automotive and other industries of our low carbon future. • New manufacturing processes for lightweight materials such as titanium and carbon fibre, which reduce fuel consumption and environmental impact, pose challenges for industry but also create exciting new supply chain opportunities. The Lightweight Manufacturing Centre will help Scottish companies address those challenges and take advantage of the opportunities. • Great that there are over 75 businesses here today to hear about opportunities in the aerospace sector. This reflects the strengths and diversity of our manufacturing base and the huge opportunities that aerospace presents. • Especially pleased that, given recent redundancies at Doosan Babcock, the Centre will be located within the Doosan Babcock site – providing a platform for future growth in the area. • This is a significant first step towards realising the Manufacturing Action Plan’s commitment to establish a National Manufacturing Institute for Scotland
<p>What</p>	<p>Official announcement on funding for the Lightweight Manufacturing Centre.</p>
<p>Why</p>	<p>The Scottish Government has allocated funding for the Lightweight Manufacturing Centre in conjunction with Scottish Enterprise. You are announcing the launch / funding for the new facility.</p>
<p>Who</p>	<p>You will be met by Professor Sir Jim McDonald, Principal and Vice-Chancellor, University of Strathclyde. Sir Jim will then introduce you to:</p> <ul style="list-style-type: none"> • Professor Keith Ridgeway, Executive Chairman, AFRC. • David Jones, COO, AFRC • Professor Graham Wren, Special Advisor to the Principal, University of Strathclyde • Dr Lynne O’Hare, Chief Business Development Manager, AFRC • Dr Michael Ward, Chief Technology Officer, AFRC • Denzil Lawrence, Supplier Management, Boeing • Simon Foster, Director of Engineering, Spirit AeroSystems (EU) • Dr Steven Halliday, Partnership Manager, AFRC, Rolls-Royce • Malcolm James, Operations Executive, Sharing in Growth UK Ltd • Andrew Colquhoun, Chief Executive Officer, Doosan Babcock • [redacted]

Where	Advanced Forming Research Centre (AFRC), 85 Inchinnan Drive, Renfrewshire, PA4 9LJ.
When	Monday 19 June 2017 <u>Agenda: Opportunities in the UK aerospace supply chain</u> 08:00 - Registration with breakfast provided 08:20 - Sector overview – <i>Denzil Lawrence, Boeing</i> 08:45 - Opportunities in aero structures – <i>Simon Foster, Spirit AeroSystems</i> 09:10 - Aerospace presentation - <i>Dr Steven Halliday, Rolls-Royce</i> 09:35 - The Sharing in Growth programme – <i>Malcolm James, Sharing in Growth</i> <u>10:00 - Address by The Right Honourable Nicola Sturgeon MSP, First Minister of Scotland</u> 10:30 - Refreshments and networking Full detail of the agenda is available in Annex B
Media	Scottish Government, Scottish Enterprise, and University of Strathclyde Communications teams have been engaged. There will be opportunities for both photographs, broadcast media interviews and social media activity.
Supporting officials	[redacted]
Attached documents	Annex A: Summary (p3-5) Annex B: Agenda and Running Order (p6-7) Annex C: Event Leaflet (p8) Annex D: Biographies and Delegates (p9-12) Annex E: National Manufacturing Institute for Scotland (p13-14) Annex F: Scotland’s Aerospace Sector (p15-16) Annex G: UK Industrial Strategy (p17) Annex H: Scottish Growth Scheme – Announcement 16 June (p18) Annex I: Manufacturing Action Plan (p19-20)

SUMMARY: LIGHTWEIGHT MANUFACTURING CENTRE**TOP LINES/KEY MESSAGES**

- £8.9m of funding for the building and operating cost of the Lightweight Manufacturing Centre over 2017 – 2020. (Scottish Government - £3.9m; Scottish Enterprise £3.4m; and AFRC £1.6m).
- Lightweight manufacturing provides a great opportunity for Scottish companies to be part of the aerospace, automotive and other industries of our low carbon future.
- New manufacturing processes for lightweight materials such as titanium and carbon fibre, which reduce fuel consumption and environmental impact, pose challenges for industry but also create exciting new supply chain opportunities. The Lightweight Manufacturing Centre will help Scottish companies address those challenges and take advantage of the opportunities.
- The Centre will operate as an open access facility - equipping manufacturers of all sizes to compete in international markets and supporting the transformation of Scotland's manufacturing industry in terms of innovation, increasing exports and creating sustainable, high-value and highly skilled jobs.
- Great that there are over 75 businesses here today to hear about opportunities in the aerospace sector. This reflects the strengths and diversity of our manufacturing base and the huge opportunities that aerospace presents.
- The Lightweight Manufacturing Centre will give companies a competitive edge in a global market place. It will also support the efficiency and productivity of Scotland's manufacturing sector generally.
- Especially pleased that, given recent redundancies at Doosan Babcock, the Centre will be located within the Doosan Babcock site – providing a platform for future growth in the area.
- This is a significant first step towards realising the Manufacturing Action Plan's commitment to establish a National Manufacturing Institute for Scotland.

KEY FACTS**Lightweight Manufacturing Centre (LWC)**

- The Lightweight Manufacturing Centre, led by the University of Strathclyde's Advanced Forming and Research Centre (AFRC), will deliver cutting-edge research and development projects involving lightweight materials with, and for, companies in Scotland.
- The opening of the new Centre early next year will bring about a considerable opportunity for Scotland to play a vital role in the development of these lighter, next generation, components using multiple new material types.
- Lightweight components offer increased efficiency and performance, alongside achieving a reduction in emissions and are attractive to organisations involved in high-value manufacturing across many sectors.

- Due to a lack of locally based and accessible expertise in lightweight manufacturing technology, many companies in the aerospace and automotive sectors in Scotland currently outsource production overseas. The Lightweight Manufacturing Centre will bring this expertise to Scotland and return production to these shores.
- The Lightweight Manufacturing Centre will be at the existing Doosan Babcock facility in Renfrew and will fill a significant gap in Scottish technical capability in light weighting and advanced materials development.
- The Centre will support high-value manufacturing sectors such as aerospace, automotive, oil and gas, renewables, medical, marine and off-highway transport – any industry in which lighter, lower-cost, more efficient materials offer benefits.
- By developing materials such as light alloys, composites, hybrid materials and building unique expertise in advanced materials such as metal matrix composites and ceramic matrix composites the Lightweight Manufacturing Centre will truly revolutionise how Scotland interacts with high-value manufacturers across the world.
- The Scottish Government has been working with partners to develop the National Manufacturing Institute for Scotland (NMIS), including consulting businesses on what they would find valuable in terms of support. As part of this process a priority requirement for a 'light-weighting' manufacturing centre emerged.

Lightweight Manufacturing Centre and the Aerospace Sector

- The Centre responds to a significant, urgent and valuable market opportunity for the manufacture and repair of composite and hybrid products for use in the aerospace sector.
- Due to increasing competition and demand for cheaper air travel, airlines need cheaper, more efficient, lighter and more environmentally friendly aircraft.
- Scotland's future competitiveness in the aerospace industry will depend on responding to the global trend for aeroplanes to be made of 70% composites / 30% metal, compared to the current ratio of 70% metal / 30% composites.
- The Centre will support the process development of production line automation for new composite wings and once established, will be central to new collaborative Research & Development (R&D) projects leading to significant benefits economically (including increases in manufacturing, productivity, exports and jobs) and environmentally (use of lighter weight materials reducing fuel consumption).
- [redacted]

Examples of lightweight materials and their uses

- Lightweight Manufacturing or Light-weighting is a term used primarily in the automotive and aerospace industries. Both aerospace and automotive sectors are continually striving to reduce the weight of the aircraft and cars.
- Reducing the weight reduces the fuel consumption and reduces environmental impact.
- Weight is reduced in cars by replacing steels with aluminium in the body and engine and with carbon fibre and aluminium for body panels.
- In aerospace aluminium aircraft parts are being replaced by carbon fibre and titanium. This again reduces fuel consumption and environmental impact
- These new lightweight materials such as titanium and carbon fibre use new manufacturing processes, posing new manufacturing problems but also creating new supply chain opportunities.

- The Lightweight Manufacturing Centre will assist companies in Scotland to make lighter, stronger parts and become competitive members of the supply chain.

Doosan Babcock

- The Lightweight Manufacturing Centre will be located in leased property at the Doosan Babcock location at Westway, Renfrew for at least 3 years. This will help mitigate some of the impact of Doosan Babcock's decision to cease manufacturing in Renfrew and provide a platform for further development of the area.
- [redacted]

The Advanced Forming Research Centre

- The University of Strathclyde's Advanced Forming Research Centre (AFRC) is a globally-recognised centre of excellence in innovative manufacturing technologies, R&D, and metal forming and forging research.
- The £60 million facility was established in 2009 with 12 members of staff. It now employs 133 highly skilled engineers, researchers and business professionals and is proud of its diverse and international community. It also forms part of the UK's High Value Manufacturing (HVM) Catapult.
- The Centre's physical presence doubled in size in 2014 to meet industry demand, and now consists of 5,680m² of dedicated research space with multiple pieces of one-of-a-kind industrial scale kit. It has a turnover of over £22 million, an increase of around 38% in the past five years. It has a £40 million project portfolio and, in the past year alone, has engaged with 166 Scottish SMEs.
- Founding members of the AFRC include Rolls-Royce, Boeing and TIMET (the leading supplier of mill and melted titanium products, supplying nearly one-fifth of the world's demand).

How the Lightweight Manufacturing Centre and plans for a National Manufacturing Institute for Scotland (NMIS) fit together

- The Lightweight Manufacturing Centre is a first step in proving the concept of and delivering NMIS.
- Funding for the Lightweight Manufacturing Centre has been agreed as part of developing the business case for the wider NMIS initiative. It is aimed at proving the concept that providing a central resource and R&D capacity for developing innovative manufacturing processes can attract private sector interest and, in the longer term, private sector investment.
- **SG are still developing the business case for NMIS.** [redacted]

AGENDA AND DRAFT RUNNING ORDER

Event Agenda

- 08:00 - Registration with breakfast provided
- 08:20 - Sector overview – *Denzil Lawrence, Boeing*
- 08:45 - Opportunities in aero structures – *Simon Foster, Spirit AeroSystems*
- 09:10 - Aerospace presentation - *Dr Steven Halliday, Rolls-Royce*
- 09:35 - The Sharing in Growth programme – *Malcolm James, Sharing in Growth*
- 10:00 - Address by The Right Honourable Nicola Sturgeon MSP, First Minister of Scotland
- 10:30 - Refreshments and networking

First Minister and Cabinet Secretary Visit Running Order

- 09:50 - You will be met by Professor Sir Jim McDonald, Principal and Vice-Chancellor, University of Strathclyde. Sir Jim will introduce you to:
 - Professor Keith Ridgeway, Executive Chairman, AFRC.
 - David Jones, CEO, AFRC
 - Professor Graham Wren, Special Advisor to the Principal
 - Dr Lynne O’Hare, Chief Business Development Manager, AFRC
 - Dr Michael Ward, Chief Technology Officer, AFRCSir Jim will then accompany you to the front of the event area.

- 10:00 - First Minister will be introduced by Sir Jim before her speech. A lectern with microphone and water will be on the stage for the First Minister to present from.

- 10:15 - Sir Jim will then escort you from the stage into meeting room 1 for informal discussions with the speakers from the morning event. You will meet:
 - Denzil Lawrence, Supplier Management, Boeing
 - Simon Foster, Director of Engineering, Spirit AeroSystems (EU)
 - Dr Steven Halliday, Partnership Manager, AFRC, Rolls-Royce
 - Malcolm James, Operations Executive, Sharing in Growth UK Ltd
 - Andrew Colquhoun, Chief Executive Officer, Doosan Babcock

- 10:25 - Sir Jim, Professor Ridgeway and Lynne O’Hare will accompany you to the digital suite where you will meet:
 - Daniel McMahon, Digital Team Lead and David Grant, Partnership Development Leader.

10:35 - Sir Jim, Professor Ridgway and Lynne O'Hare will accompany you to see the Vertical Flow Former and Radial Forge Machines. These have been newly installed in the facility. The Vertical Flow Former allows the AFRC to form intricate components (such as hubs, gear shafts and pulleys) suited to a variety of markets, including the oil and gas and automotive sectors. It also has the capacity to form larger products, like alloy wheels. The radial forge is the only machine of its kind available in the UK for R&D and demonstration purposes. It will allow manufacturers to try new composites, alloys, and other materials in a range of applications. Featuring two pairs of hammers, it allows engineers to incrementally develop more complex shapes, improve materials and work at lower temperatures.

You will meet:

- Alastair Conway, Rotary Processes Team Lead
- Lisa Muir, Manufacturing Engineer.

10:40 - Sir Jim, Professor Ridgway and Lynne O'Hare will accompany you to the VIEWS workshop, where broadcast media interviews with First Minister will occur. The VIEWS workshop houses the AFRC's flexible automation robot cell comprising three KUKA Quantec series robots that can all be operational.

10:55 - Sir Jim will accompany you to the reception and formally close the visit.

EVENT LEAFLET



Opportunities in the UK aerospace supply chain

Breakfast seminar, Monday 19 June 2017

There are ample opportunities for companies of all sizes to become members of the aerospace supply chain in the future. BUT what are the opportunities and what do companies need to do to become part of this growing sector now?

UK aerospace sector

- Second biggest aerospace sector in the world
- Reported sales of over £30 billion per annum
- Employing over 230,000 people in over 3,000 companies
- Expected to double in size by 2030

Find out more

This short breakfast seminar will hear from major aerospace companies including Boeing, Spirit AeroSystems, Rolls-Royce, and from Sharing In Growth.

Sharing In Growth was established in 2013 to deliver an extensive supplier development programme to assist UK companies in becoming effective members of the UK aerospace supply chain.



Agenda

08:00: Registration with breakfast provided

08:20: Sector overview
Boeing

08:45: Opportunities in aero structures
Spirit AeroSystems

09:10: Opportunities in aero engines
Rolls-Royce

09:35: The *Sharing in Growth* programme

10:00: Address by The Right Honourable Nicola Sturgeon MSP, First Minister of Scotland

To register, please email Tracy McCarroll at:

events@afrc.org.uk

Monday 19 June 2017

08:00 - 10:30

Tel: +44 (0)141 534 5200
www.afrc.org.uk

Advanced Forming Research Centre,
85 Inchinnan Drive, Renfrewshire, PA4 9LJ



BIOGRAPHIES AND DELEGATE LIST



Professor Sir Jim McDonald BSc, MSc, PhD, DSc, CEng, Principal and Vice-Chancellor of the University of Strathclyde

Professor Sir Jim McDonald joined the University of Strathclyde in 1984 following six years in the UK electricity supply industry, having worked for SSEB and Scottish Hydro Electric. He became Head of Department in Electronic and Electrical Engineering in 2003 and acts as Chairman of Strathclyde's Institute for Energy and Environment. He advises government, industry and commerce on the generation, transmission and distribution of electrical energy. He became Principal and Vice-Chancellor of the University of Strathclyde in March 2009. He is a member of the Scottish Enterprise (SE) Board and has served as a member of the UK Trade and Investment Energy Excellence Board. He co-chairs - with the First Minister - the Scottish Government's Energy Advisory Board.



Professor Keith Ridgeway OBE, Executive Chairman, AFRC

Keith Ridgeway is the Executive Chair of the AFRC at the University of Strathclyde where he is also a Professor of Manufacturing in the Department of Design Manufacture and Engineering Management. He is also professor of Design and Manufacture and Executive Dean of the Advanced Manufacturing Research Centre (AMRC) at the University of Sheffield.



Professor Graham Wren, Special Advisor to the Principal

Graham is Special Advisor to the Principal, Chairman of the Business Engagement Group and Major Projects Director at the University of Strathclyde in the UK. He has represented the UK Government on OECD and NEA committees as an expert in nuclear technology, has given evidence to UK Parliamentary select committees and has sat on numerous government and industry committees.



David Jones MBA, Chief Operating Officer, Advanced Forming Research Centre

David Jones joined the AFRC as Chief Operating Officer in 2016. He has a BSc (Hons) in Chemistry with Materials Science from the University of Liverpool and has had a varied career in metals and advanced materials businesses. During a previous role at Rio Tinto Aluminium David gained an MBA and also held senior roles within the company in commercial, HR and operations management.



Dr Lynne O'Hare, Chief Business Development Officer, Advanced Forming Research Centre

Dr Lynne O'Hare is a Chartered Engineer who is responsible for developing the AFRC's commercial business. Lynne is also heavily involved in supporting the Scottish Government with the development of a National Manufacturing Institute for Scotland. Lynne joined the AFRC as part of its launch team in 2009, delivering research in superplastic forming to some of the world's leading aerospace companies.



Dr Michael Ward, Chief Technical Officer, Advanced Forming Research Centre

As Chief Technical Officer Michael is the technical lead for the AFRC, with responsibilities for strategy, technical excellence and capability of the technical team. Michael previously worked in Rolls-Royce, where as Corporate Chief of Capability

Acquisition, he was responsible for the definition and leadership of Capability Acquisition across aerospace, marine, energy, and nuclear sectors.



Dr Steven Halliday, Partnership Manager for the Advanced Forming Research Centre, Rolls-Royce

As Rolls-Royce's Partnership Manager for the Advanced Forming Research Centre (AFRC), Steven has global responsibility for coordinating Material Forming and Forging Research for the Company. He sits on the editorial committee for the Proceedings of the Institution of Mechanical Engineers, is a member of the Rolls-Royce Papers & Conferences Committee and has a leading role in Health & Safety for Manufacturing

Technology in the Company.



Malcolm James, Operations Executive, Sharing in Growth UK Ltd

Malcolm has worked for over 20 years within supplier development organisations for both the Aerospace and Automotive industries. He is currently Operations Executive for Sharing in Growth UK Ltd (www.sig-uk.org) which has been set up specifically to deliver an ambitious and innovative £250M programme of intensive business development, with support from Rolls-Royce and the Regional Growth Fund.



Denzil Lawrence, Supplier Management, Boeing

Denzil has a broad engineering background, with over 25 years' experience in large and small organisations in aerospace, defence, marine, petrochemical and energy sectors. More recently Denzil has been active in supply chain collaborations between industry, academia and government helping UK companies access, develop and make sense of emerging manufacturing technologies.



Simon Foster, Director of Engineering, Spirit AeroSystems (Europe)

Simon Foster is Director of Engineering based at Spirit AeroSystems in Prestwick and has responsibility for the engineering function, new product development and Spirit's advanced technology centre. He is also the Chairman of the Ayrshire Engineering Alliance, a member of the Engineering Skills Leadership Group and a member of the Scottish Engineering Executive Committee.

Delegate List

It is expected that there will be around 80 delegates in attendance. Event registration closes on Friday 16th June and therefore, this list is subject to change.

First name	Surname	Organisation
[redacted]		Scottish Government
		Scottish Enterprise
		Scottish Enterprise
		BEIS
		Scottish Government
		Scottish Government
		Highlands and Islands Enterprise
		Skills Development Scotland
		DMG Mori
		CENSIS
		ShapeSpace
		University of Strathclyde
		Pascoe Engineering Ltd
		HSSMI
		Russell Consulting Scotland Ltd
		Russell Consulting Scotland Ltd
		Renishaw Edinburgh
		Kuka
		Sandvick
		Sandvick
		Siemens
		SpiritAerosystems
		Q-Mass Ltd
		University of Strathclyde
		SPTechnology
		Bifrangi UK
		Hexagon
		AECOM
		Scottish Enterprise
		Doosan Babcock
		Bank of Scotland
		Precision Tooling Services
		Castle Precision Engineering
		McDowell Machine Tools Ltd
		Kennametal UK North
		APH Hydraulic Engineering
		Walker Precision
		University of West of Scotland
		Wallace McDowall ltd
		University of Strathclyde
		Ayrshire College
		PK Forming

[redacted]

Renfrewshire Council
Renfrewshire Council
AECOM
Vance Precision Engineering Ltd
SpiritAerosystems
Aubert & Duval
Alba bonsai
Festo Didactic
Festo Didactic
Mitsubishi
Clansman Dynamics
Scottish Enterprise
James Bolland Engineering Ltd
Pryme Group
Walker Precision
Supply Technologies
Ministry of Defence
BMT
Glenamond Group
Caledonian Industries Ltd
Spincraft
Spincraft
Engineering & Track Services

NATIONAL MANUFACTURING INSTITUTE FOR SCOTLAND

Background:

- On 15 February 2016 we launched the Manufacturing Action Plan for Scotland – ‘A Manufacturing Future for Scotland’, a commitment in the previous Programme for Government.
- Delivery of the plan has been led by Scottish Enterprise in partnership with Highlands & Islands Enterprise, the Scottish Funding Council, Skills Development Scotland, Zero Waste Scotland and SG.
- A key commitment in the Plan was for a new joint centre for manufacturing excellence and skills academy - a National Manufacturing Institute for Scotland (NMIS).
- The 2016/17 Programme for Government states: “A key action for the forthcoming year is developing the business case for a new manufacturing centre of excellence and skills academy, the National Manufacturing Institute for Scotland”. This commitment was confirmed in the draft Budget 2017/18.

Top Lines

- There should be no doubt about **the importance of our manufacturing industry** - which employs over 180,000 people in Scotland - to our future success.
- The Manufacturing Action Plan ‘A Manufacturing Future for Scotland’ reaffirms the **government's commitment to growing and investing in the sector**.
- A key commitment in the plan is for a new centre for manufacturing excellence and skills academy, the National Manufacturing Institute for Scotland (NMIS).
- This is a significant proposal with the potential to **support step-changes in the efficiency and productivity of Scotland's manufacturing sector**. Decisions on its establishment and location(s) will depend on the business case, which is currently being developed

The National Manufacturing Institute for Scotland will help strengthen the Scotland's manufacturing sector

- We will establish a new National Manufacturing Institute for Scotland to act as a **hub for continuous innovation in manufacturing** that can sustain globally competitive businesses in Scotland.
- NMIS will equip manufacturers of all sizes to **compete in future international markets** and support the transformation of Scotland's manufacturing industry in terms of innovation and digital opportunities, creating **sustainable, high-value and highly skilled jobs**.

We are working in partnership with the public and private sectors to deliver on this ambition

- We have established a multi-partner approach to take forward the development of the **NMIS**.
- The partners include: Scottish Enterprise, Highlands and Islands Enterprise, Scottish Funding Council, Skills Development Scotland, Zero Waste Scotland, the wider innovation network including the Advanced Forming Research Centre, part of the High Value Manufacturing Catapult, and the Scottish Government.
- We are taking an **evidence-based approach** to the establishment of the institute to ensure that we achieve our ambition of **manufacturing growth**.
- The first stage is the **development of a detailed business plan in consultation with business**. As an initial step, Scottish Enterprise has been working to identify **industry needs and demand, targeting large scale businesses** in a range of sectors including defence; automotive; space; and oil and gas. These businesses would then **attract others and their supply chains, helping SMEs access support**.
- We have also commissioned an **independent study** into the **success factors of innovation districts** to inform the development of the business case for NMIS.
- The expectation is that this is a **co-funding/ co-investment model between the public and private sectors**. We are also assessing the potential for UK and EU funding streams.
- Options for the location(s) of NMIS will be considered as part of the business case process. Wherever the Institute is located we are determined it will be **for the benefit for the whole of Scotland**.

[redacted]

SCOTLAND'S AEROSPACE SECTOR

Top Lines: National Level

- Scotland is a strong contributor to the UK's 13% share of the global aerospace market.
- The aerospace, defence and marine (AD&M) industry in Scotland is one of our highest value sectors, employing nearly 40,000 staff.
- Aerospace in Scotland is a mature and highly developed industry with annual sales in the sector of £1.6 billion and well over 8,000 direct aerospace employees.
- All the key elements of an internationally competitive aerospace environment exist in Scotland today. Scotland's highly skilled workforce, with a very high proportion of graduates and industry leading apprenticeship programmes, is at the very heart of our success and is evidence of Scotland's commitment to future success.

Ayrshire level

- Prestwick and the surrounding area accounts for 50% of the aerospace industry in Scotland: with both assembly/manufacture and a significant proportion of Scotland's Maintenance, Repair & Overhaul (MRO) taking place on site for both aerostructures and engines.
- Prestwick is also a centre for industrial research and design through the excellent engineering capabilities of BAE Regional Aircraft, Spirit and others.
- The companies at Prestwick are key members of industry groupings such as the Aerospace, Defence, Marine & Security Industry Leadership Group; the Prestwick Aerospace Operations Group and the Council of ADS Scotland (the Scottish branch of a business body representing the aerospace, defence and security sectors).
- The new national strategy for Aerospace, Defence, Marine & Security was published in March 2016. The sector strategy connects directly with 'A Manufacturing Future for Scotland' with key activities into the development of the manufacturing supply chain to engage with the aerospace market and the use of the latest equipment and processes to increase productivity and reduce costs aimed at parallel delivery of both strategies.

Opportunities and progress

- The main opportunity at Prestwick comes in the form of significant production rate increase of aircraft components by Boeing and Airbus in order to meet record global demand fuelled by the Mid and Far East markets.
- The extension of the timescale and expansion of the Enterprise Zone at Prestwick will support SE/Scottish Development International's efforts to encourage companies to locate to the area and join the cluster.
- SE through the Aerospace, Defence, Marine and Security (ADMS) Industry Leadership Group, Account Management, the Sector team and stakeholders like the Prestwick Aerospace Operations Group and ADS Scotland are supporting the internal projects of the companies to capture the opportunity coming from the global demand as well as highlighting the scale of the opportunity to engineering companies (struggling with the downturn in Oil & Gas) to explore a shift into Aerospace.

- The opportunity for new supply chain entrants into aerospace is being developed by SE in partnership with BAE Systems Regional Aircraft, Spirit, Vector Aerospace and others by highlighting the needs of the Tier 1s (primary contractor) and then supporting the SMEs through Account Management, Scottish Manufacturing Advisory Service etc to invest in the skills, equipment and approvals to be globally competitive as an aerospace supplier which will allow the Tier 1s to procure from them in the future.

BAE Systems Regional Aircraft

250 employees maintaining the Avro RJ aircraft and designing modifications for new roles.

UTC Aerospace Systems

300 staff undertaking maintenance, repair and overhaul (MRO) of Aero Engine Nacelles, Thrust Reversers serving medium/large civil aircraft.

GE Caledonian

547 employees doing the maintenance, repair and overhaul (MRO) of GE engines (historically mainly the CF6 family of aero engines but more recently the new GenX engine).

Inter-tec Services Ltd

An AS9100/EN9100 approved one-stop stress analysis and design consultancy.

Woodward Aircraft Engine Systems

Woodward staff continually work to develop innovative repair and overhaul methods that minimise downtime and provide lowest on-wing cost, while providing world-class service to their customer base.

[redacted]

UK INDUSTRIAL STRATEGY**Background**

- On 23 January 2017 the UK Government published the consultation document 'Building our Industrial Strategy'. Its stated aim is to 'build on our strengths and extend excellence into the future; close the gap between the UK's most productive companies, industries, places and people and the rest; and make the UK one of the most competitive places in the world to start or grow a business.
- The consultation is grouped around ten 'pillars': investing in science, research & innovation; upgrading infrastructure; improving procurement; delivering affordable energy & clean growth; driving growth across the whole country; developing skills; supporting businesses to start & grow; encouraging trade & inward investment; cultivating world-leading sectors; and creating the right local institutions. The consultation was open to all to respond until 17 April 2017.
- There was a lack of consultation from the UK government in the development of the draft strategy, including for a proposal to establish a Ministerial Forum on Industrial Strategy with each of the devolved administrations.
- The UK Industrial Strategy will articulate the UK Government's priorities for business support, and our Enterprise & Skills review is quite separate from that process. The Enterprise and Skills Review is concerned with ensuring that we have the right structures and processes in place in Scotland to ensure that the public sector can support the delivery of maximum economic impact.

Top lines

- [redacted]
- We are working closely with the UK Government to ensure that we realise maximum economic benefit from the planned UK Industrial Strategy and associated funding.
- Many of the areas set out in the Industrial Strategy, such as skills, business support and trade and investment support, are devolved to the Scottish Government.
- The UK Industrial Strategy should take account of Scotland's strengths and the structure of the Scottish economy eg Scotland's integrated approach to business growth
- The 10 'pillars' in the UK paper resonate closely with existing Scottish Government priorities and action as laid out in Scotland's Economic Strategy
- Although there was a lack of consultation from the UK government in the development of the paper, pleased to see the efforts being made to engage with our industry leadership groups and businesses within Scotland.
- We will continue to look for ways to further strengthen our support for industry through the Enterprise & Skills Review and wider work, and will seek to maintain an open dialogue as our work develops, and monitor the impact of this on business support.

[redacted]

SCOTTISH GROWTH SCHEME: SCOTTISH-EUROPEAN GROWTH CO-INVESTMENT PROGRAMME**Top Lines**

- Announced in the 2016 Programme for Government, the Scottish Growth Scheme is a £500m package of financial support, backed by the Scottish Government, to help companies thrive and grow.
- The first investment under the Scottish Growth Scheme, the Scottish-European Growth Co-investment Programme, was announced by the Cabinet Secretary for Finance and Constitution on 16 June 2017.
- The Scottish-European Growth Co-investment Programme is a £200m initiative - bringing together investment from Scottish Government (through Scottish Enterprise), the EIF and private sector fund managers,
- Under the Programme, £50 million from Scottish Enterprise and £50 million from the European Investment Fund (EIF) is expected to lever over £100 million from fund managers across Europe for investment in Scottish companies.
- Companies can access the Programme from the 16th June – applications and due diligence will take some time but money is expected to reach companies in late summer
- Further support under the Scottish Growth Scheme, through equity, loans and guarantees, to help businesses access the finance they need to grow will be announced over the coming months

Background

- The Scottish Growth Scheme (up to £500 million over three years) was announced in last year's PfG to target SMEs that have significant growth potential, both here and through exports, in particular those that are technology intensive and which struggle to obtain finance through conventional means.
- [redacted]
- We are now looking at a combination of support such as equity finance, loans, microfinance and guarantees to be delivered under the Scottish Growth Scheme brand. The new Scottish–European Growth Co-Investment Programme is the first tranche of investment under this approach.
- The Scheme will therefore encompass a broad “package” of financial support, to be delivered in stages but still supporting the original intention to unlock investment for the private sector. The first stage is focused on addressing a gap in Scotland's supply of risk capital to provide equity funding to some of Scotland's most ambitious companies looking for significant investment for growth.

[redacted]

MANUFACTURING ACTION PLAN

ISSUE SUMMARY

- On 15 February 2016 we launched the manufacturing action plan (MAP) for Scotland – ‘A Manufacturing Future for Scotland’, a commitment in the Programme for Government.
- Development of the plan has been led by Scottish Enterprise in partnership with Highlands & Islands Enterprise, the Scottish Funding Council, Skills Development Scotland, Zero Waste Scotland and the Scottish Government.
- As part of the launch the First Minister announced £70m of funding for the circular economy: £30m of European Structural Funds, and £40m of public sector match-funding, to 2018.
- Plans for the proposed new National Manufacturing Institute for Scotland are under development.

Top Lines

- There should be no doubt about the importance of our manufacturing industry - which employs over 180,000 people in Scotland - to our future success.
- This plan reaffirms the government's commitment to growing and investing in the sector.
- The action plan is 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.

A Manufacturing Future for Scotland sets out the following actions to help strengthen the sector in Scotland:

- A new joint centre for manufacturing excellence and skills academy, the National Manufacturing Institute for Scotland. The new institute will aim to stimulate innovation, improve productivity and increase investment in the Scottish manufacturing sector.
- Scottish Enterprise and Zero Waste Scotland’s new Circular Economy Investment Fund and Service, helping businesses to design new products and change their business models helping to improve productivity, open up new markets, create jobs and improve business resilience
- A new capital asset review service to assist companies in assessing the benefits of investing in advanced manufacturing technologies and equipment, delivered through an enhanced Scottish Manufacturing Advisory Service (SMAS). The review is free to all manufacturers. Following the review, businesses are encouraged to develop compelling investment plans that will drive their competitiveness through plant, machinery and new technology options to aid overall effectiveness and productivity.
- Setting up advanced manufacturing demonstrator facilities to support companies to evaluate and de-risk acquisition of new process equipment.
- Tackle long-term future skills shortages by promoting STEM subjects throughout the school curriculum and improving engagement between industry and education.
- The new Workplace Innovation service to provide support for firms to increase workplace innovation.

- Support manufacturing SMEs to keep pace with technology and process developments by working in partnership with industry to develop and deliver a Smart Manufacturing Excellence Programme.
- Support more Scottish companies to achieve supply chain excellence by reviewing sector and cross-sector supply chain capabilities; and launching two re-shoring pilot projects.

Progress update:

- A major conference was held by SMAS in September attended by around 400 manufacturing leaders to reinforce the importance of manufacturing to the economy and the ambitions of “A Manufacturing Future for Scotland”
- Over 125 business leaders have taken part in workshops and learning journeys to strengthen ambition and increase understanding of the latest available technology and its application to manufacturing
- A new Capital Asset Review service was launched by SE and delivered through SMAS at the start of the summer and over 100 reviews have already been carried out to support manufacturers to develop investment plans to future proof their businesses.
- Nine proposals for manufacturing have reached the final stage of evaluation to receive funding from the new £18M Circular Economy Investment Fund established by Zero Waste Scotland and the new Circular Economy Business Service will be launched in the very near future increasing the support available to manufacturers to adopt circular economy business practices.
- 18 case studies on Digital World and 200 manufacturing related job profiles and case studies have been added to “My World of Work” site to improve awareness of careers in manufacturing and a major refresh of skills investment plans is underway led by SDS.
- New support for firms to increase workplace innovation through Scottish Enterprise’s new Workplace Innovation service launched in 2016.
- A number of Industry Leadership Groups have refreshed their sector strategies with an increased emphasis on investing in capabilities which will enhance manufacturing competitiveness going forward, including Life and Chemical Sciences, Aerospace, Defence, Marine and Security and Food and Drink.

[redacted]