



The Prestwick Proposition - Investing For Growth

Home of Scottish Aerospace and Aviation

Prepared by:



Prestwick Aerospace – Home of Scottish Aerospace and Aviation:



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Introduction

The Prestwick Aerospace Cluster

Internationally-recognised, Prestwick Aerospace is already one of three main aerospace hubs in the UK, and has the potential to become the location of the first spaceport in western Europe.

An established centre of excellence for aeronautical design and engineering, the manufacture of aero structures and aviation related maintenance, repair and overhaul (MRO) operations, the Prestwick Aerospace Campus directly supports more than 50% of Scotland's aerospace workforce.

Spirit AeroSystems, BAE Systems, GE Caledonian, UTC Aerospace and Woodward Inc. are just some of the global aerospace companies with long term operations at Prestwick, with Glasgow Prestwick Airport at its core.

The Case for Investment

Transformative opportunities are presented that, if exploited, will enable significant growth in Scotland's AEROSPACE sector and the creation of a globally recognised SPACE cluster.

The value of the global market opportunity over the next 20 years is estimated at \$5.7trillion, but the UK aerospace sector is not keeping pace with global growth and must remain competitive, particularly in the face of emerging markets in the Far East.

With the potential to deliver new and innovative solutions to meet market demand and respond to significant shifts in technology and materials, Prestwick is well placed to retain its position as a global leader in aerospace.

The UK is targeting 10% of the global space market by 2030, over 100,000 employees and £40bn turnover. Spaceport development at Prestwick will be a key enabler in reducing cost of access to space and achieving the growth forecast. Building on the vast knowledge and experience of the existing aerospace cluster, Prestwick will maximise the economic benefit of space sector development to the UK and Scotland.

Investment Proposals

The Prestwick Proposition has been developed in consultation with the sector. Focused on creating the business environment that will enable improved productivity, increasing UK supply chain content in the Aerospace and Space Sector, and realising the upstream and downstream benefits from western Europe's first Spaceport.

This will be achieved through the provision of 21st century physical and digital infrastructure, providing lower cost green energy, speculative development to capture and facilitate growth, developing compete on merit supply chains, workforce development, and the enabling Spaceport infrastructure whilst delivering inclusive growth.

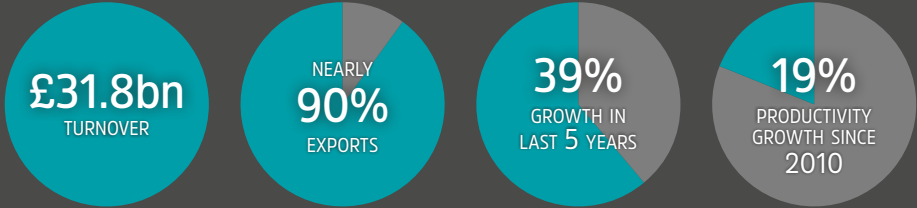
Six inter-connected projects form the Prestwick Proposition, with an estimated total investment of £121.5 million funded through a mix of public and private investment, creating 4,000 direct and supply chain jobs, plus a further 2,000 jobs in the tourism sector.

- ✓ Spaceport Infrastructure
- ✓ National Aerospace and Space Supply Chain Centre
- ✓ Rail Station Upgrade
- ✓ Roads Infrastructure
- ✓ Speculative Build
- ✓ Low Cost Energy Infrastructure



The Case for Investment - Aerospace

UK Aerospace sector



The value of the global market opportunity over the next 20 years is estimated at \$5.7trillion, but the UK aerospace sector is not keeping pace with global growth and must remain competitive, particularly in the face of emerging markets in the Far East.

The sector is undergoing a significant shift in materials, with a move towards much higher composite materials content. To illustrate this, a Spirit AeroSystems Airbus A320 has a composite material content of 15%; a Spirit AeroSystems Airbus A350 in 2018/19 will have a composite content of 53%.

New supply chain arrangements will be required to support this change and these will have a life span of between 10-15 years.

There is a sizeable opportunity for the Scottish supply chain. To realise the maximum value from the aerospace market over the next two decades, businesses will need support to innovate and increase productivity within this globally competitive market.

The Case for Investment - Space

UK Space sector



£14bn
TURNOVER

£5bn
EXPORT

71%
GROWTH IN
SINCE 2010

3 in 4
EMPLOYEES WITH
DEGREE OR
HIGHER

The UK Space Innovation and Growth Strategy has set a target to capture 10% of global market by 2030. This would realise c100,000 new jobs and a sector value of £40bn.

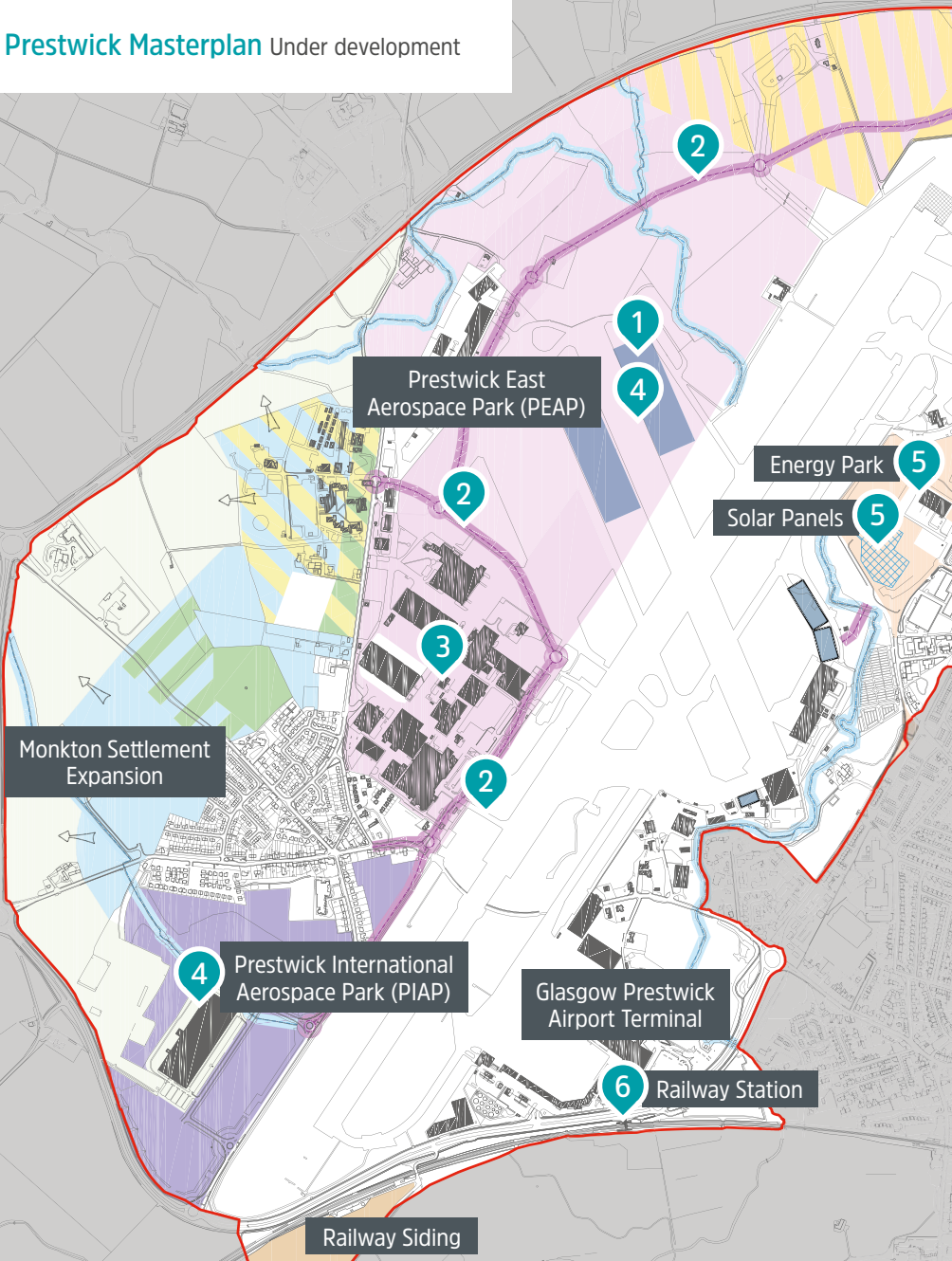
The UK Government is committed to having indigenously based spaceflight capabilities by 2020. A UK spaceport will remove one of the major barriers to sector growth by providing low cost access to space.

Currently the cost to access space is having a negative impact on the development of the UK satellite industry.

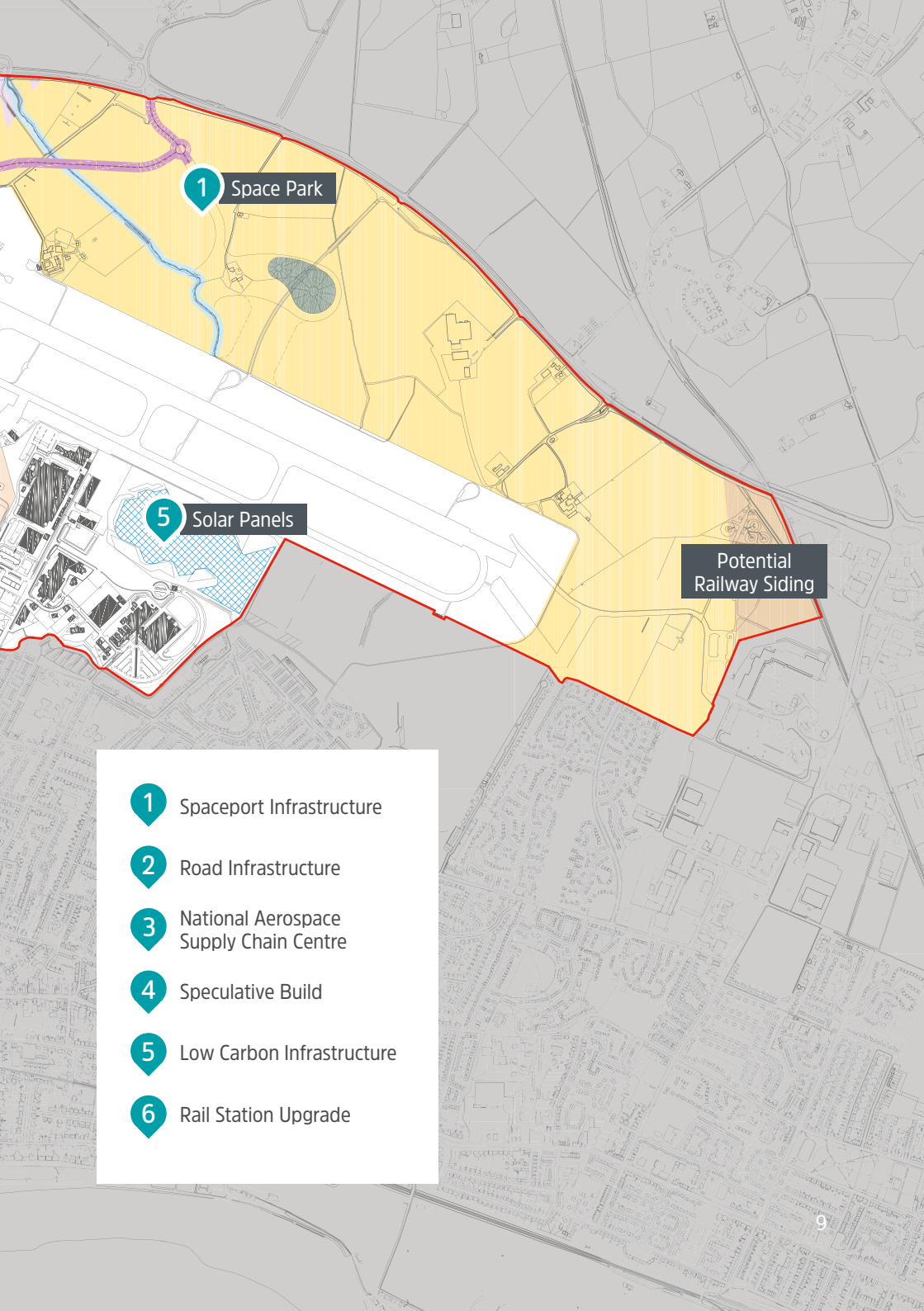
Addressing this issue will provide opportunities to UK start-ups and small SME's seeking to commercialise pure research, as well as providing opportunities to the established aerospace and defence OEM's to diversify.

The provision of horizontal launch capability will provide lower cost access to space and Prestwick, with its existing infrastructure, is well placed to become western Europe's first spaceport, providing the UK with first mover advantage in this high value sector.

Prestwick Masterplan Under development



Red line area extends to 920.55 hectares / 2,275 acres



1 Space Park

5 Solar Panels

Potential
Railway Siding

- 1 Spaceport Infrastructure
- 2 Road Infrastructure
- 3 National Aerospace Supply Chain Centre
- 4 Speculative Build
- 5 Low Carbon Infrastructure
- 6 Rail Station Upgrade

Investment Projects

Spaceport Infrastructure

This project will provide the strategic assets required to secure the UK's first spaceport at Glasgow Prestwick Airport (GPA) and lever significant private sector investment through the spin-off benefits from upstream and downstream investment opportunities and tourism visitor growth to the UK and Scotland.

WORKS INCLUDE:

Aerodrome expansion; fuel storage and mixing areas and launch craft hangar space to enable competitive spaceport operation that supports horizontal satellite launch; creating a visitor centre to capture the tourism-education spin-offs.

Delivery Timeframe: 2018-2022

Essential Infrastructure: £2,250,000

Operator Infrastructure: £5,750,000

Hangar: £15,000,000

Visitor Centre: £10,000,000

The adjacent works identifies “essential infrastructure” at GPA with a further infrastructure requirements for operators. An application for grant funding towards these works has been applied for from the UK Space Agency (UKSA) as part of their Launch UK programme. These applications were made jointly with potential operator partners who bid for grant funding to meet their own requirements. Operator specifications vary across the separate applications made to the UKSA. Outcomes of these applications are due in Autumn 2017. Once operators at GPA are known, there will be collaborative talks to identify economies of scale for the project. This may include shared hangar space and other facilities.

Investment objectives:

- ✓ Prestwick Spaceport operational by 2020
- ✓ Secure commercial spaceflight operators at Prestwick
- ✓ Make Prestwick the European centre for the space industry supply chain
- ✓ Capitalise on the emerging space tourism sector
- ✓ Ensure the economic benefits of the spaceport impact on people across Ayrshire and help create inclusive growth across the region

Investment Projects

Delivery Timeframe: 2023–2026

Investment: £19,300,000

National Aerospace Supply Chain Centre (NASCC)

The NASCC will be a state of the art facility providing business and technical innovation support to the Aerospace and Space businesses in Scotland and the UK. The 5,000m² facility will also support the skills development and training of the sectors specific needs in partnership with local and national higher and further education establishments, including University of Strathclyde, University West of Scotland and the Ayrshire College. The NASCC will provide the focus, coordination and support to sustain and grow the sectors businesses. The development of robust supply chains to OEM and Tier 1 businesses is a key element for the sectors growth.

NASCC will specifically address the area with dedicated support to the development of national businesses to enable re-shoring through productivity improvement and development of international competitive supply chains. The NASCC will be developed alongside Scottish Governments National Manufacturing Institute for Scotland (NMIS) providing the regional access and focus to the aerospace cluster.

WORKS INCLUDE:

Building and fitting out an in-situ innovation centre to enable the delivery and manufacture of new products in Scotland.

Investment objectives:

- ✓ Provide supply chain entry points to new and existing small and medium-sized enterprise aerospace suppliers
- ✓ Build and equip a 5,000m² manufacturing innovation, technology demonstration, applied research and technology development and training facility
- ✓ Develop a programme to support the integration of composite and lightweight materials and expertise in the aerospace and engineering sectors
- ✓ Develop a programme to support the development and demonstration of automation, robotics and technological integration across the supply chain and expertise in the aerospace and engineering sectors
- ✓ Develop off-site training provision, in conjunction with Ayrshire College and other training providers, to support the introduction of new methods, processes and technologies into the local supply chain

Investment Projects

Delivery Timeframe: Phase 1 - 2018-2020
Phase 2 - 2023-2026
Phase 3 - 2029-2031

Investment: £31,500,000

Speculative build

This project will provide high-specification industrial and office space aimed at meeting the needs of the growing aerospace and space sectors, positively positioning Prestwick to attract inward investment.

WORKS INCLUDE:

Creating an additional 240,000ft² of high-quality, secure, landside factory and serviced plots extending to 350,000ft² to meet projected future growth; creating 100,000ft² of airside hangar space.

Investment objectives:

- ✓ Provide modern industrial airside and landside commercial floor space that will enable Ayrshire to take advantage of strong growth forecasts in the aerospace and space sectors
- ✓ Improve the commercial attractiveness of the Prestwick Aerospace campus through increased commercial activity and stimulate a 20% annual increase in private sector investment in the area
- ✓ Maximise the economic benefits of Prestwick Spaceport by providing the facilities needed to accommodate space-related industry and create the critical mass of activity required for the creation of a space cluster at Prestwick

Investment Projects

Delivery Timeframe: Phase 1 - 2019-2020
Phase 2 - 2023-2024
Investment: £17,200,000

Road Infrastructure

This project will create an effective service roads network to enable the growth potential of the aerospace and space-related sectors. It will provide road routes capable of sustaining future heavy freight transport requirements, and create a distributor road network to link the various industrial estates and that will service future development land to support aerospace and space sector development.

WORKS INCLUDE:

Creating a service road infrastructure to open up spaceport development land; upgrading the local road infrastructure to provide direct freight and workforce connectivity to trunk road network to bypass Monkton conservation village; and building an internal distributor road network to connect aerospace and space parks.

Investment objectives:

- ✓ Transform the business environment at Prestwick Aerospace campus by providing efficient and effective internal road infrastructure
- ✓ Provide road infrastructure to open up spaceport development land in a timescale that complements the construction of spaceport airside facilities
- ✓ Transform road freight and workforce commuter connectivity between the campus and the trunk road network
- ✓ Relieve aerospace-related traffic congestion in Monkton village
- ✓ Support complementary projects by installing ducting for utilities

Investment Projects

Delivery Timeframe: 2021-2022
Investment: £12,500,000

Low Carbon Infrastructure

This project will provide a low-carbon infrastructure solution to support a reduction in both the carbon footprint and the energy costs for the site (circa 5% annual savings anticipated) and create a resilient power supply for existing and future occupiers.

WORKS INCLUDE:

Developing a technical solution based on Solar PV and combined heat and power (CHP) to provide a resilient supply of both electricity and heat.

Investment objectives:

- ✓ Create a low-carbon energy solution, leading to total carbon reductions of more than 3,500 tonnes of CO² per annum
- ✓ Secure existing tenants by offering average annual energy savings of around 5%
- ✓ Create a resilient power supply for existing and future tenants through a zero power failure rate following implementation of a Distributed Energy Network (DEN)
- ✓ Increase the attractiveness of Prestwick for inward investors through the delivery of the DEN, offering a low-carbon, low-cost, resilient energy supply

Investment Projects

Delivery Timeframe: 2028-2029
Investment: £8,000,000

Rail Station Upgrade

This project will upgrade the existing rail station facility (Prestwick International Airport) to meet the technical station design principles required by strategic rail providers and to create a positive passenger experience.

WORKS INCLUDE:

Undertaking a comprehensive renovation of the platform, station superstructure and the sky bridge link walkway.

Investment objectives:

- ✓ Provide transport connectivity to meet Glasgow Prestwick Airport's growth projections
- ✓ Provide low-carbon transport connectivity to reduce environmental impact
- ✓ Provide a safe, accessible, inclusive, sustainable station facility

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