SCOTLAND IN SPACE
EXPANDING YOUR HORIZONS

Image courtesy of Spire Global UK

#SCOTLANDISNOW
THINK SPACE, THINK SCOTLAND

When it comes to space, Scotland really has it all. Scotland will be home to the UK’s first vertical launch site and, with several promising vertical and horizontal sites in the pipeline, we can deliver across the full value chain. From design, manufacturing and testing, to launch and operation, Scotland is in a unique position to service all your needs. What’s more, we can also help you to bring value back down to earth by capitalising on the demand for space data.

We believe that space is the future. That’s why the industry has the full support of both the UK and Scottish Governments, and why we have ambitious growth plans to have a £4 billion space industry by 2030. This commitment is fuelled by our belief in our workforce and company base, which is backed by hard facts. Our homegrown talent packs a punch in the UK - representing 18% of all UK space roles - meaning you can take advantage of a talent pool that’s 7500 people strong. We’re also home to 132 companies operating in space, including renowned global companies and local emerging talent alike; Spire, AAC Clyde Space, STAR-Dundee, Orbex and Skyrora (to name a few) are all proud to call Scotland home.

In Scotland, you’ll find excellence in education, a flair for invention and a penchant for research. You can be confident that Scotland has a talent pool with the skills and experience required to grow your business and, with a highly responsive skills and education system, we will meet your needs both now and in the future. By locating to Scotland, you can access our highly educated workforce and renowned academic institutions, which have an outstanding record of industry engagement.

After all, it’s our connectedness that makes us stand out. Our small (but mighty) stature makes for a vibrant community, where there’s also an abundance of aerospace, defence and engineering expertise with space capabilities. Furthermore, you can access all European Space Agency funding programmes, UK wide funding – like the UK Space Agency’s - plus local Scottish grants to support innovative R&D. There is no ring-fencing of Scottish R&D funding into specific areas of interest, meaning we can support growth of individual companies based on their needs. There’s never been a better time to take advantage of all Scotland has to offer.

Beyond the office, Scotland is a land of great natural beauty and our warmth and hospitality are world-renowned; our friendly communities combine an exceptional quality of life with low cost of living, making the move to Scotland an attractive option for you and your employees. Our progressive government policies strive to make Scotland a fairer and better place to live and work, for citizens and residents alike.

We’d love you to join the many global businesses that choose to locate, operate and grow in Scotland alongside our ambitious local companies. We’re here for you throughout the journey – you’ll be supported before, during and after you locate.

Now is the time to invest in Scotland so come on in - be part of Scotland’s space journey.
DID YOU KNOW?

• Glasgow manufactures more satellites than any other city in Europe

• Edinburgh launch vehicle firm Skyrora was the first in the UK to successfully complete a commercial suborbital mission, launched from Scotland

• Scotland is home to Orbex’s UK HQ in Forres - the first UK facility to manufacture orbital launch vehicles

• The replacement Hubble telescope - James Webb Space Telescope - is being developed with the expertise of Edinburgh’s Astronomy Technology Centre

• The University of Glasgow lead the development of gravitational wave research via the LISA Pathfinder and LISA missions

And, if that wasn’t impressive enough, costs can be up to 40% lower in Scotland than other parts of the UK.
Scotland has a proud manufacturing heritage. We are builders; makers of ships, trains and bridges built to last. Today, our renowned work ethic is being channelled into our dynamic and growing space sector, thanks to our combination of manufacturing knowhow and a flair for invention.

From ship building to space ships, we’ve come a long way – Scotland now builds more satellites than anywhere else in Europe. Homegrown manufacturers like AAC Clyde Space have led the way in this space, showing the world that Scotland is the place to be for small satellite production. And with industry pioneers like US inward investor Spire now designing, building and testing their own satellites entirely in Scotland, you’ll be in great company.

In fact, the supportive environment was one of the reasons the company chose to set up in Scotland. Along with access to risk capital, talent and the ease of doing business, Scotland stood out as a place to do business.

Underpinning this unique environment which investors find so attractive are our innovation and R&D centres - continually working hard to make manufacturing faster, cheaper and smarter. A key asset is the National Manufacturing Institute Scotland (NMIS), an industry led innovation centre hosted by the University of Strathclyde, bringing together the private and public sectors to transform skills, productivity and innovation. A key component of the NMIS is the Lightweight Manufacturing Centre (LMC), with a focus on manufacturing lightweight components for space and other industries where lighter weight materials offer significant cost-savings and efficiency benefits. The LMC delivers cutting-edge research projects in partnership with companies across Scotland, helping them to compete globally at the highest level.
READY FOR LAUNCH

A First for the UK and Beyond
Scotland has a long history of producing pioneers. We’re scientists and inventors who lead the way - from initiating the use of radar to discovering the composition of Saturn’s rings, we’re accustomed to being first. Not only are we at the frontier for launch in the UK, we will also be home to one of the first orbital spaceports in mainland Europe.

Our launch sites will complete the end-to-end capability to design, build and launch small satellites - all in Scotland. Not only do we have three sites in the beautiful Highlands & Islands - Sutherland, the Western Isles and Shetland - positioning as a viable option for vertical launch, there’s plenty of opportunity for horizontal launch too. With potential horizontal launch sites at Prestwick and Machrihanish providing even greater flexibility for operators, there’s never been a better time to consider Scotland for launch.

Design, build and launch – the Scottish spaceport completes the end-to-end capability in the small satellite value chain and is unique in Europe.
Our geography makes us an obvious choice for launch. The Highlands & Islands of Scotland offer a strategic location to easily reach low earth orbits using vertical launch. The rugged landscape also benefits from a sparsely populated area and its proximity to the coast, reducing risk from launch vehicles. What’s more, our northerly position is in close proximity to poles, enabling superior direct access to polar and sun-synchronous orbits. Shorter trajectories also mean reduced risk, enabling your satellites to reach their destination more quickly.

Both indigenous companies and multinationals alike can benefit from the planned spaceport developments. British launch company Orbex and US aerospace giant Lockheed Martin have been awarded a total of £29 million in funding to develop launch operations from Scotland. Orbex is working with Highlands and Islands Enterprise to develop launch capabilities from Space Hub Sutherland and has set up a rocket manufacturing facility in Forres, while Lockheed Martin is developing launch operations from Shetland Space Centre. The development of both of these vertical spaceports evidences the attractiveness of a move to Scotland for companies in this space.

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**WHY SCOTLAND FOR LAUNCH**

- Flexible opportunities for vertical and horizontal launch
- Cost-effective means for small sat launch without ride sharing - putting you back in control
- A unique geographic advantage
- Low risk environment
- Proximity to customers and new spaceports
- Vibrant engineering community
- A supportive government
- Access to R&D expertise and support
Now is an exciting time for the data industry in Scotland. Satellite data and its associated applications are accelerating, and the possibilities for data analysis are endless. From agriculture and marine to construction and humanitarian efforts, Scottish companies like the ones below are using satellite driven intelligence to commercialise real time applications across the globe.

Bird.i, Ecometrica, Global Surface Intelligence (GSI), Astrosat, Spire, D-Cat, Trade in Space, Carbomap, DDK Positioning.

It’s clear that the data opportunity is booming and Scotland has an abundance of talent you need to take your business to the next level. Often the supply of talent cannot keep up with technological change but, in Scotland, we’ve not only acknowledged this problem but are committed to solving it. The result is an environment that not only generates a consistent talent pipeline but also ensures that businesses have the future skills they need to capitalise on this exciting opportunity. As part of the £661 million decade-long Data Driven Innovation initiative, the University of Edinburgh and its partners will train 100,000 people in the application of data across major sectors, ensuring Scotland has a future-proof workforce who are ready to face any challenge.

WHY SCOTLAND FOR DATA
• Access to talent now and in the future
• Thriving data community
• World-class universities
• Reduced costs thanks to innovation
• A strong base to access global opportunities
• Explore the art of the possible – your sector could capitalise

It’s this willingness to tackle challenges that has seen Scotland take on a global role in protecting our planet. The University of Edinburgh’s School of Geosciences have worked on several projects to improve ecosystem management, using satellite data combined with innovative analysis techniques to allow faster response times to environmental threats. Working with homegrown success story Ecometrica, the university is involved in the Forests 2020 project to help protect and restore up to 300 million hectares of tropical forests. This is achieved through forest monitoring, exploiting advanced uses of satellite data for the benefit of life on Earth.

We believe data is the future – that’s why we are investing £661 million into our vision of turning our capital city into the Data Capital of Europe.
THE RIGHT TALENT FOR YOUR BUSINESS

Scotland: Where Academia and Industry Unite

When it comes to talent, Scotland is punching above its weight – although we make up 9% of the UK population, we are home to 18% of all space roles. For the investor, this equates to a pool of 7500 talented individuals and counting, meaning we can meet all your needs when it comes to finding the right people. Scotland is also strongly represented in complimentary sectors such as advanced engineering, manufacturing and aerospace. These industries can offer supply-chain skill sets well suited to diversification into space-based opportunities, meaning you can unlock new value from our well-established expertise.

As well as a strong workforce, we create more than 21,000 graduates every year, across subjects in engineering, information technology, mathematical and physical sciences alone. Our deep talent pool is filled by our world-class universities, who have research strengths in everything from propulsion and space radiation, to orbital dynamics and advanced materials. Another area where we really shine is data, with 13 universities across Scotland offering graduate qualifications in data-related subjects. A key asset is the University of Edinburgh, who recently launched the £45 million Bayes Centre with the aim of becoming a world-class centre for data science and artificial intelligence. And, with the university and its partners committed to training 100,000 people in the application of data, you can be assured we have graduates who are ready to be the workforce of the future.

Beyond academia, we know that industry engagement is paramount in utilising research to solve real-world problems. That’s why our research excellence is aligned with - and supported by - a network of eight innovation centres that have been designed by industry for industry-led collaborations. Our centres blend academic creativity and invention with industrial insights, offering sector specialist knowledge to help companies address specific market opportunities. Here’s a flavour of how our centres are exploring topics relevant to the space industry:

CENSIS

CENSIS is the centre of excellence for sensing and imaging systems and Internet of Things (IoT) technologies. Located in Glasgow, CENSIS helps organisations innovate and overcome technological barriers to achieve business transformation, generate economic growth and reach global markets. Via CENSIS, companies can access skilled staff, state-of-the-art facilities and training and development opportunities.

The Data Lab

The Data Lab is an innovation centre which enables industry, the public sector and world-class researchers to develop new data science capabilities in a collaborative environment. With a Scotland-wide presence, the Data Lab is focused on delivering a range of activities that span across the areas of collaborative innovation, skills and talent and community building. Companies can get access to funding, cutting-edge expertise and the talent required to develop truly innovative solutions that will help them stay ahead of the game.

Scotland has a 7500 strong talent pool - home to 18% of all UK space roles.
A WELL CONNECTED AND SUPPORTIVE BUSINESS ENVIRONMENT

Small Enough to Care, Big Enough to Matter

Community is an important part of doing business in Scotland. Here you’ll find plenty of opportunities to network and exchange ideas with like-minded individuals:

DATA.SPACE - raising awareness of the commercial opportunities that are being created by the accessibility of new space, this event provides a platform for start-ups, investors, decision-makers to network and discover our tomorrow, today.

DATA.FEST

DataFest shines a light on Scotland’s role in data science and artificial intelligence on the international stage. Part of the annual programme of events is Data Talent, a showcase of Scotland’s talent which brings together aspiring data science and engineering students with employers looking for the ideal candidate.

Engage Invest Exploit (EIE) is Scotland’s premier technology investor showcase, drawing global investors and businesses to meet Scotland’s most dynamic high growth start-ups and scale-ups.

SMAS: Future Fit Manufacturing Conference will showcase how businesses are already adopting digital technologies, and signpost companies to an abundance of support to help you on your own industry 4.0 journey.

CENSIS Technology Summit is Scotland’s leading sensing, imaging and IoT event. The event showcases new technologies and demonstrates how businesses are delivering these technologies across a range of markets.
Beyond networking, Scotland is a place where businesses get a hand up and the entrepreneurial spirit is strong. This ethos is supported by our strong ecosystem of innovation centres, incubators and accelerators across the country, which provide inspiring environments for businesses to spark ideas and find likeminded talent:

**Higgs Centre for Innovation** - a business-focused facility that supports start-ups and SMEs working in the satellite, space and data-intensive sectors. Located within the UK Astronomy Technology Centre in Edinburgh, this ESA and UKSA incubator has been specifically designed for collaborative use by industry, academic and research institutions.

**Tontine Tech Acceleration and Growth Space** - located in Glasgow, Tontine is a growth accelerator for innovative space and tech businesses. Tontine’s aim is to support the impact of businesses by providing flexible workspace, networking opportunities support and a positive environment to thrive.

**Bayes Centre** - working with innovative companies in the areas of data and AI, the innovation programme at Bayes is focused on industry engagement, company acceleration and access to finance, meaning all your needs are taken care of.

The industry itself is taking the lead when it comes to developing and growing the Scottish space sector. The Scottish Space Leadership Council (SSLC) aims to bring together businesses in commercial space to increase opportunities, efficiencies and growth through collaboration, partnering and mutual support. The SSLC aspires to raise the profile of Scotland as the home of agile space, positioning the country as a leading global destination for access to space and space services, in an environment conducive to growth and success.

As well as taking advantage of the complementary skill sets on your doorstep, you can enjoy the benefits of a multi-million-pound investment into Prestwick Airport and its surrounding area. The UK and Scottish Governments, along with local government, will position the area as one of the UK’s leading hubs for aerospace and space. £80 million is being invested to develop Prestwick as an area of excellence for space and aerospace and will support ambitions to establish a horizontal space launch facility. So, no matter what space you play in, you’ll be in great company.
THRIVE IN SCOTLAND WITH ONGOING BUSINESS SUPPORT

Locating to a new area can be a daunting task. But thanks to our connections, Scottish Development International and its partners can make the move to Scotland an easy transition by assisting you with:

PROPERTY SEARCHES AND ADVICE – we can help you find the right office and lab facilities fast, and get help with feasibility studies

FINANCIAL SUPPORT – we can offer a range of attractive incentives, to help you upskill your staff, develop new products and services and access growth capital

CONNECTIONS – we can introduce you to our university and supply-chain contacts, enabling you to access cutting-edge research and exceptional talent

TALENT – we will listen to your business, giving you the opportunity to influence skills, education and training provision to maximise your human capital

PROFESSIONAL ADVICE – we can connect you to expert advice on pressing issues like visas and contracts, to help you get up and running in Scotland. You can also access a dedicated business advisor, via our Account Management service (subject to eligibility)

And the support doesn’t end when you make the move. We are committed to your growth in Scotland, by taking the time to understand your needs now and in the future. We have the tools to take your business to the next level, whether it’s identifying investment, developing your business strategy, upskilling your staff or improving your business processes.
GET IN TOUCH
WE’D LOVE TO WELCOME YOU

Connected business support from Scotland’s enterprise agencies will ensure that you are supported before, during and after you locate in Scotland.

We aim to make it quick and easy for your business to settle in Scotland so we will help you to identify premises, academic partners and investment opportunities, recruit staff and access funding for employment creation, R&D and training programmes.

Working together, everyone from national government and local authorities to universities and advisors, will make the connections which ensure your investment goes smoothly, so that you can focus on growing your business.

To find out why #SCOTLANDISNOW for your company or to arrange a visit to experience Scotland for yourself, get in touch and we will be happy to arrange this for you.

NOW IS THE TIME TO INVEST IN SCOTLAND. WE’D LOVE TO WELCOME YOU.

www.sdi.co.uk
investment@scotent.co.uk
+44 300 013 2734
www.linkedin.com/company/scottish-development-international
@ScotDevInt
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