

aerospace  
defence  
security  
space



# 2017 INDUSTRY FACTS & FIGURES

A GUIDE TO THE UK'S AEROSPACE, DEFENCE, SECURITY & SPACE SECTORS

# CONTENTS

<b>1</b>	<b>Foreword</b>	<b>3</b>
<b>2</b>	<b>Spanning the length and breadth of the UK</b>	<b>4</b>
<b>3</b>	<b>Our sectors in numbers</b>	<b>5</b>
<b>4</b>	<b>Priorities for government and industry</b>	<b>6</b>
<b>5</b>	<b>The UK Aerospace sector</b>	<b>8</b>
<b>6</b>	<b>The UK Defence sector</b>	<b>12</b>
<b>7</b>	<b>The UK Security sector</b>	<b>16</b>
<b>8</b>	<b>The UK Space sector</b>	<b>20</b>

## FOREWORD

The UK's Aerospace, Defence, Security and Space industries make a significant and valuable contribution to both our economic prosperity and national security.

As the national trade association for these sectors, ADS works to promote and support their interests both in the UK and abroad.

Investing in innovation, skills and supply chains, our members contribute to growth in communities in every part of the UK. They compete successfully in global markets, create high value jobs and apprenticeships, and are pioneers of cutting edge technology.

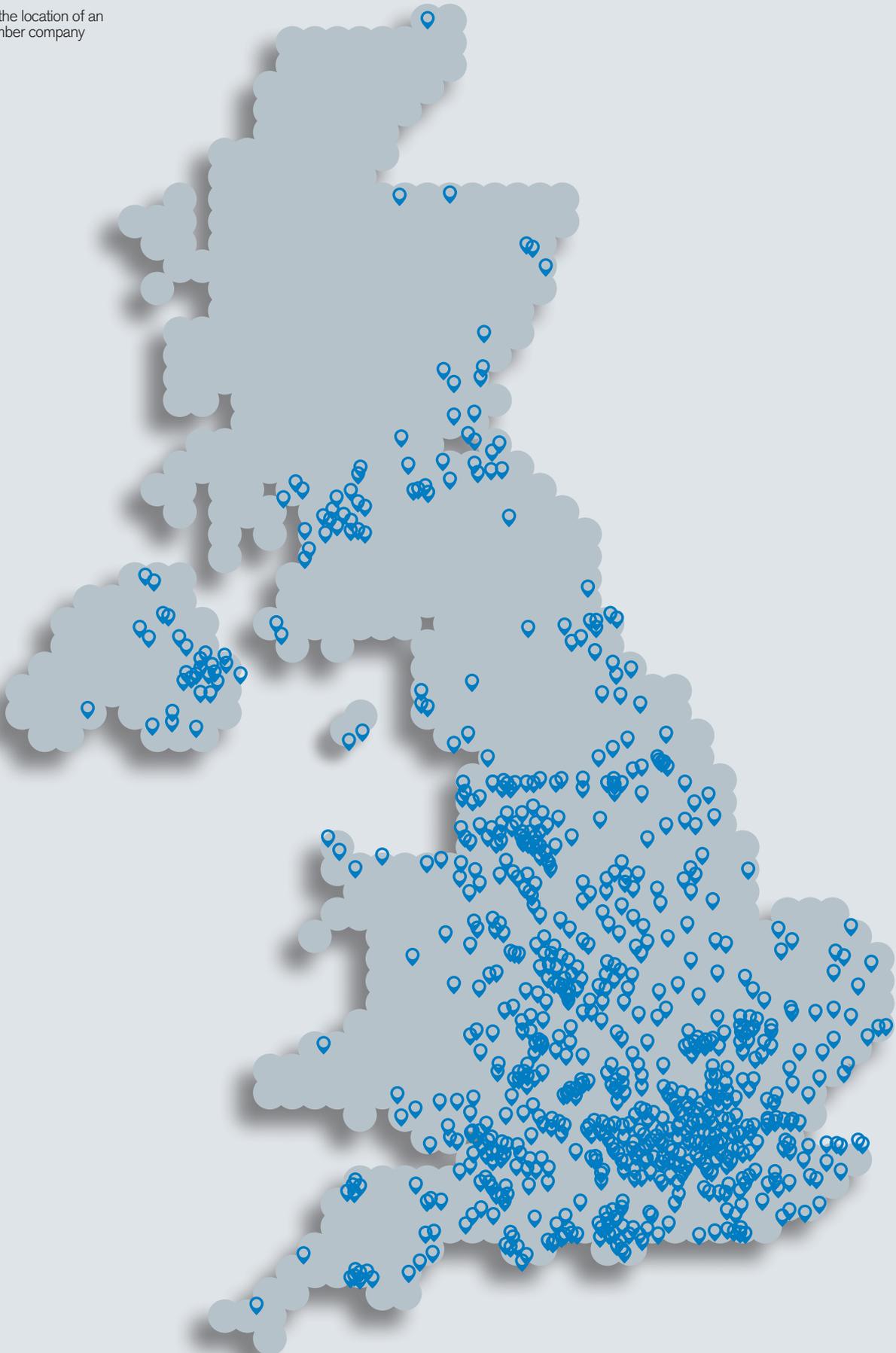
This Industry 2017 facts and figures guide sets out the strength of our sectors, their contribution to the UK's growth and how industry and government – working together – can deliver the well-paid jobs and high-tech exports we need to secure a prosperous future.

**Paul Everitt**  
Chief Executive, ADS Group  
Chairman, Farnborough International Ltd

# THE STRENGTH OF OUR SECTORS

SPANNING THE LENGTH AND BREADTH OF THE UK, ADS 1000 MEMBER COMPANIES INCLUDE OVER 950 SMEs.

 Indicates the location of an ADS Member company



Together the UK's Aerospace, Defence, Security and Space companies generate well-paid jobs, high-tech exports and sustainable growth in every region and nation of the country.

# MAJOR CONTRIBUTION TO UK JOBS, SKILLS, EXPORTS & GROWTH

Supporting 900,000 jobs across the country, our sectors offer global growth opportunities and are vital to the UK's future as a high-tech, high-skill, high-wage economy.

In 2016, the UK Aerospace, Defence, Security and Space sectors' contribution to the UK was:



5

## GOVERNMENT AND INDUSTRY

### INVEST IN UK'S GLOBAL GROWTH AND COMPETITIVENESS

*The government should work with industry to maximise global growth opportunities through a step change in UK productivity.*

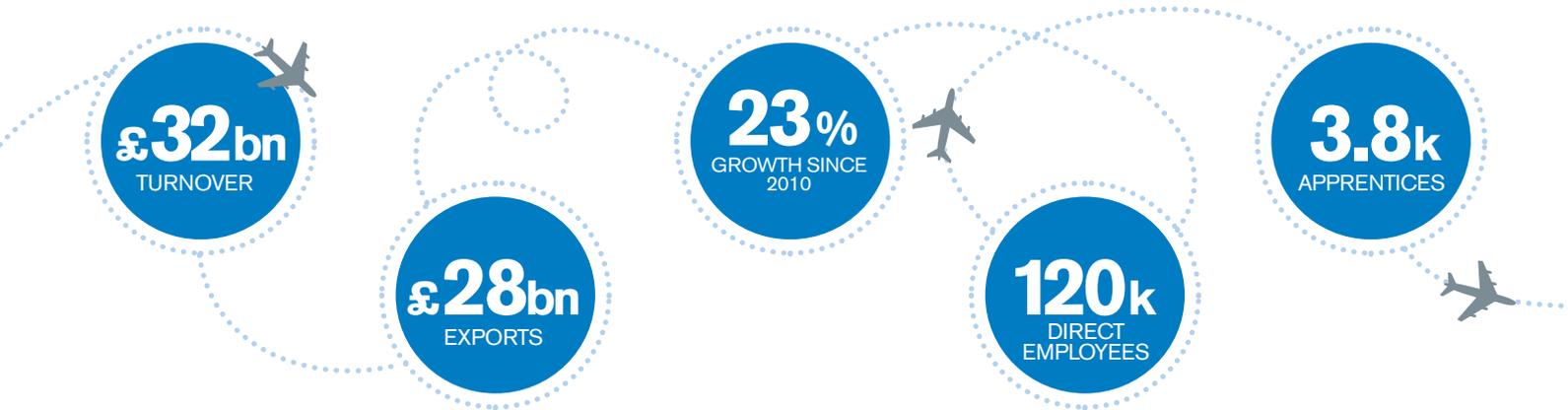
- 1** Develop an ambitious Industrial Strategy that attracts global investment and builds on our successful sector strategies
- 2** Prioritise productivity by supporting supply chain investment in new technologies, world-class skills and the latest manufacturing processes
- 3** Invest in industrial innovation to ensure the UK benefits from the jobs, exports and growth that flow from our creative ideas
- 4** Ensure public procurement drives innovation, delivers wider industrial benefit for the UK and enhances our national security
- 5** Deliver a Brexit deal that sustains our global competitiveness and ensures a stable transition

6

7

# UK AEROSPACE SECTOR

The UK's Aerospace sector is the largest in Europe and second globally to the USA, generating well-paid jobs, high-tech exports and sustainable growth across the country.

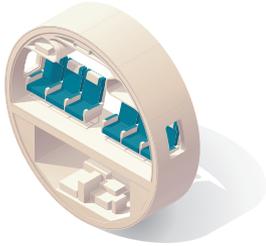


## AEROSPACE GROWTH PARTNERSHIP (AGP)

The AGP is the UK's Aerospace Industrial Strategy, with industry and government working in partnership to attract global investment to the UK.

Purpose 	Delivered 	Impact 	What next 
<ul style="list-style-type: none"> <li>• Maintain UK Aerospace's global position as number two in the world</li> <li>• Attract long-term global investment to the UK</li> <li>• Improve the UK's global competitiveness through technology, skills and supply chains</li> </ul>	<ul style="list-style-type: none"> <li>• £3.9bn investment in R&amp;D secured for the Aerospace Technology Institute (ATI)</li> <li>• Supporting SMEs and new technologies with £40m from NATEP to help SMEs commercialise innovations</li> <li>• A new 'UK Aerospace Supply Chain Competitiveness Charter'</li> <li>• Funded 500 future engineers to study Aerospace MScs</li> </ul>	<ul style="list-style-type: none"> <li>• Changed global perceptions of UK as a place to invest</li> <li>• ATI invested £1.45bn in R&amp;D to date, involving over 180 companies</li> <li>• Funded 130 collaborative technology projects in over 250 SMEs</li> <li>• Sharing in Growth helped over 60 supply chain companies, securing 10,000 jobs by 2022</li> </ul>	<ul style="list-style-type: none"> <li>• Support supply chain to invest in competitiveness, including through the new UK Aerospace Supply Chain Charter and productivity programmes</li> <li>• Develop new initiatives to build on the UK's High Value Design capabilities in Aerospace and the ATI's Technology Strategy</li> </ul>

## UPGRADING AIRCRAFT INTERIORS



**10,000**

Aircraft flying with UK patented emergency floor path lighting

**£550m**

value of UK aircraft seats exported in 2016

Value of global interior upgrade and retrofit investment spending over the next 20+ years

**£160 billion**

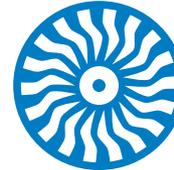
GLOBAL GROWTH OPPORTUNITY

## DELIVERING MORE EFFICIENT WINGS AND ENGINES

Total wing area of an A380 is

**845m<sup>2</sup>**

enough space to park 124 Mini Coopers



Rolls-Royce Trent XWB Engines deliver a

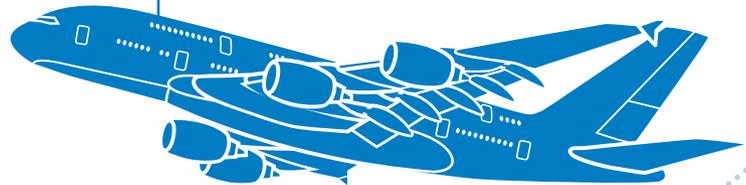
**50%**

lower noise footprint

Value of global market opportunity over next 20 years

**\$5.7 trillion**

GLOBAL GROWTH OPPORTUNITY



**1000**

Wings produced per year by Airbus in UK, produced by over 6000 employees



**1000+**

aircraft installed with or under contract for Inmarsat's new in-flight broadband offering, GX Aviation

**90%**

GLOBAL GROWTH OPPORTUNITY

of all aircraft in the global aircraft fleet will be 'passenger connected' by 2034



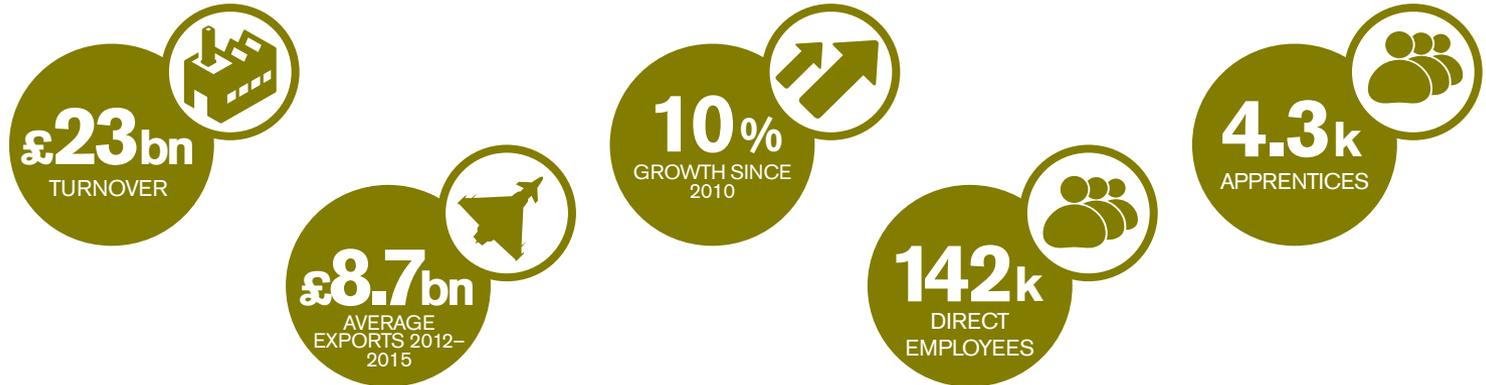
**130,000**

passengers a day experience in flight entertainment designed and developed by Thales UK

## ENHANCING CONNECTIVITY

# UK DEFENCE SECTOR

The UK is the second largest defence exporter in the world, which helps deliver the equipment and services our armed forces and security services need to safeguard national security.



## DEFENCE GROWTH PARTNERSHIP (DGP)

Industry and government are working in partnership, through the DGP, to help the UK establish long-term relationships in competitive global markets, delivering security, growth and prosperity for our nation.

Purpose 	Delivered 	Impact 	What next 
<ul style="list-style-type: none"> <li>• Grow the UK's global market share through exports</li> <li>• Greater collaboration and innovation across defence industry to attract and focus investment</li> <li>• Improve productivity and competitiveness throughout the whole sector</li> </ul>	<ul style="list-style-type: none"> <li>• UK Defence Solutions Centre has analysed export market opportunities and developed strategic market plans</li> <li>• Innovation Challenges addressed gaps in UK capabilities</li> <li>• Secured £20m of Dual Use Technology Exploitation (DUTE) programme funding</li> <li>• Launched Systems Engineering Masters Programme</li> </ul>	<ul style="list-style-type: none"> <li>• Longer-term and strategic assessment of defence export opportunities</li> <li>• Maximising UK's global competitiveness, ensuring the right skills, capability, supply chains and technology are in place to win export orders</li> </ul>	<ul style="list-style-type: none"> <li>• Build Team UK approach to increase exports</li> <li>• Align UK capabilities with growth opportunities</li> <li>• Develop a Defence Sector Deal in partnership with the government as part of the Modern Industrial Strategy</li> </ul>

# UK DEFENCE – DELIVERING PROSPERITY & NATIONAL SECURITY

The UK's vibrant Defence industry plays a vital role at every stage of the value chain, helping to safeguard our national security and making a significant contribution to the UK's economic prosperity.

## FROM DESIGN & DEVELOPMENT...

- Sustained investment in R&D enables the UK to stay ahead of rapidly evolving national security threats and strengthens our global competitiveness by generating high-tech exports
- **30,000** British R&D and design and development jobs depend on the UK Defence industry

## ...TO ADVANCED MANUFACTURING...

- The UK is a world-leader in the production of defence platforms, such as Queen Elizabeth-class aircraft carriers, the Typhoon aircraft and its radar system
- Thousands of defence companies across the UK form competitive supply chains, while over **7,500** SMEs directly supplied the MOD in 2015/16

## ...AND TAILORED SUPPORT SERVICES...

- Whether its managing infrastructure, offering in-equipment support or delivering military training, the UK defence industry ensures operational requirements can always be met.
- The UK has been chosen as a global repair hub for F-35 avionic and aircraft components, creating hundreds of jobs and securing thousands more

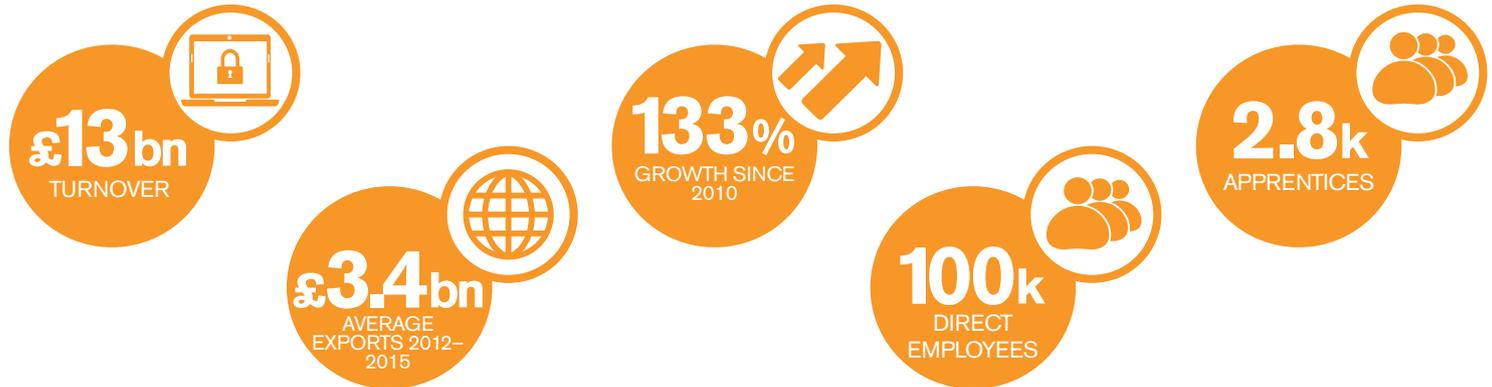
## ...THE UK DEFENCE INDUSTRY DELIVERS NATIONAL PROSPERITY

The Defence industry delivered **£8.7bn** GVA for the UK in 2016, including via exports which help to:

- Deliver world-class capability to our Armed Forces
- Sustain our industrial base and high-skill jobs
- Reduce the cost of UK programmes
- Facilitate interoperability with allies
- Strengthen security relationships with strategic partners

# UK SECURITY & RESILIENCE SECTOR

The UK's Security and Resilience sector provides solutions to the challenges we all face today, from cyber security to products and services which address the threats of terrorism and all other aspects of national security.



## SECURITY & RESILIENCE GROWTH PARTNERSHIP (SRGP)

The SRGP brings industry, academia, and government together to demonstrate the UK's security expertise and capabilities, especially our ability to innovate and respond to new and emerging threats.

Purpose 	Delivered 	Impact 	What next 
<ul style="list-style-type: none"> <li>• Help deliver national security through partnership between the government and the Security &amp; Resilience sector</li> <li>• Establish a joint approach to the promotion of UK security exports</li> </ul>	<ul style="list-style-type: none"> <li>• Secured £22m combined government and industry support over next five years for establishment of the Joint Security and Resilience Centre (JSaRC)</li> <li>• Expanded industry reach through membership growth of the UK Security and Resilience Industry Suppliers Community</li> </ul>	<ul style="list-style-type: none"> <li>• New security contracts and export opportunities available to industry</li> <li>• Greater opportunities for SMEs to engage on national security and export opportunities with the government</li> </ul>	<ul style="list-style-type: none"> <li>• A reinvigorated and expanded focus on security and resilience exports under SRGP</li> <li>• Formal launch of JSaRC to enable government and industry to work together to respond to national security threats and support the growth of the sector</li> </ul>

# HOW THE SECURITY & RESILIENCE SECTOR BENEFITS THE UK

The UK's Security & Resilience sector touches many aspects of our daily lives...

## AT HOME

The UK Security and Resilience sector offers innovative and efficient technology that helps to protect people and critical infrastructure in the UK

£1.3 billion

Government investment to deliver state of the art technology at borders in 2019-20

Innovative technology can screen high volumes of people to identify real time threats

80%

UK critical national infrastructure is owned and run by private sector

\$47bn

value of home security systems to the global market

Equips emergency services with efficient hard-ware systems such as body worn cameras to help them safety in their jobs.

## ONLINE

Cyber crime is a growing threat directly affecting individuals and companies

The UK Security & Resilience sector is helping to:



Protect online profiles

Secure online banking



Store sensitive information

Allow safe payments



Industry provides both off-the-shelf and personalised solutions giving companies a range of support

45%

of UK Security exports are Cyber-related

100

average number of cyber attacks a company faces in a year

Cyber crime is more common than domestic burglary – awareness is key to individuals protecting themselves

## IN THE SKIES

UK companies bolster aviation security at home and abroad, making travelling safer using cutting-edge security equipment to screen people, luggage and cargo

£26 million

Government investment to develop and exploit technology for airport screening by 2021

The UK Security sector provides safe connections, communications and navigation in aircraft

252m

passengers used UK airports in 2016

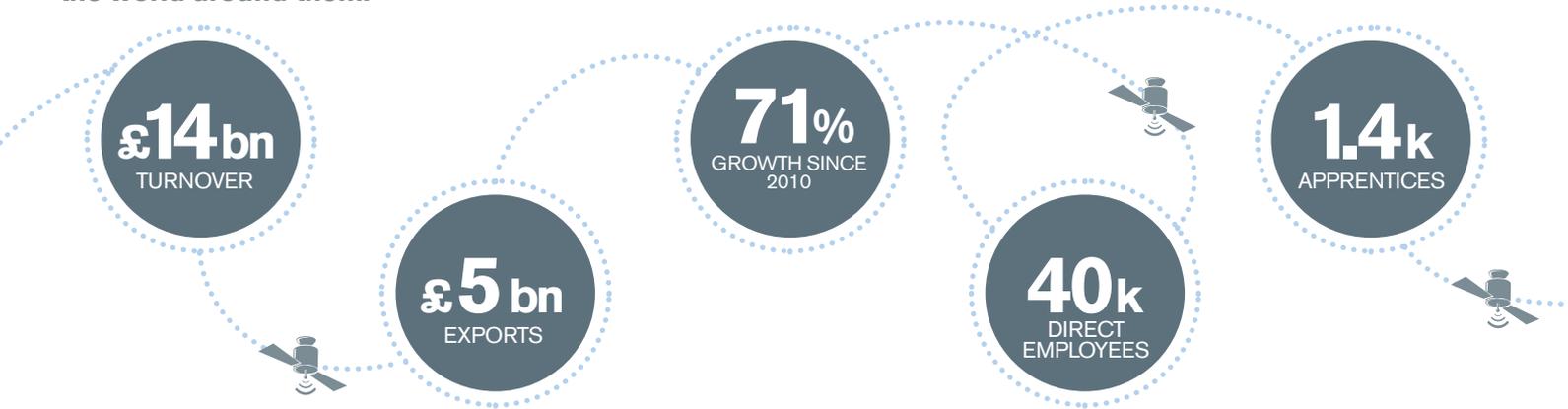
200k

bags put through security every day at Heathrow

UK experts provide advice to airports abroad to ensure you are safe wherever you travel

# UK SPACE SECTOR

The UK's Space sector is at the cutting edge of exploring the universe and connecting people to the world around them.



## SPACE INNOVATION & GROWTH STRATEGY

The Space Innovation and Growth Strategy brings together a partnership of industry, government and academia to identify opportunities and remove barriers to growth for the UK Space sector.

Purpose 	Delivered 	Impact 	What next 
<ul style="list-style-type: none"> <li>Putting the UK at the forefront of an expanding and high-tech market</li> <li>Boost UK productivity and growth through trade and investment</li> <li>Grow the UK's share of the global space economy to 10% by 2030</li> </ul>	<ul style="list-style-type: none"> <li>Government commitment to UK spaceflight capabilities by 2020</li> <li>UK Space sector has trebled in size since 2000</li> <li>Major Tim Peake - the first British astronaut in Space for more than 20 years</li> </ul>	<ul style="list-style-type: none"> <li>Investment in R&amp;D has generated new knowledge, products and processes</li> <li>Added over £5bn of value to the UK economy</li> <li>£80m from private finance to support SME growth and start-up ventures</li> </ul>	<ul style="list-style-type: none"> <li>Grow UK Space sector to £40bn of annual turnover by 2030</li> <li>Create 100,000 new jobs in the Space sector by 2030</li> <li>Grow UK space-related exports to £15bn by 2030</li> </ul>

# UK SPACE SECTOR

Growing at 8% a year, the UK's Space Industry designs, develops and manufactures....

## TECHNOLOGY THAT SUPPORTS EVERYDAY LIVES...

Supporting the UK economy and boosting global competitiveness...

**40%**  
of the world's small satellites are built in the UK

**£5.1bn**  
of value (GVA) to the UK economy

**25%**  
of the world's telecomm satellites are built in the UK

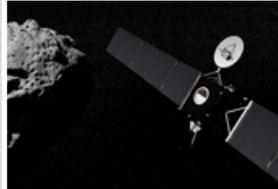


## From tweeting at your favourite celebrity to facetimeing your family, Space...

- Gives you access to ATMs and card services
- Stops you from getting lost with GPS
- Warns you of that rainy day
- Allows you to watch TV on your day off

## TECHNOLOGY THAT EXPLORES & INSPIRES...

- The Rosetta comet landing and Tim Peake's mission has boosted interest in STEM, inspiring the next generation of scientists & engineers
- UK Space Agency's Education Team have reached over 1.3m young people with the aim of using space to encourage young people into STEM
- The UK plays a leading role in the ExoMars Rover which is due to be launched in July 2020



## TECHNOLOGY THAT SUPPORTS OTHER INDUSTRIES...

- NovaSAR satellites will provide Earth observation data for:



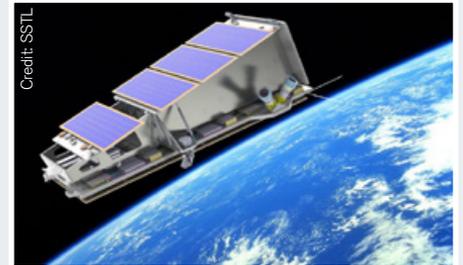
**Disaster monitoring**

**Drug trafficking**



**Environmental management**

- This project is estimated to attract **£150m** of investment in the UK.



**Drones rely on secure satellite signals to routinely deliver goods, monitor crops, and provide security**

**ADS Group is the UK trade organisation representing the Aerospace, Defence, Security and Space sectors. ADS is focused on representing the interests of these valuable wealth producing industries in the UK and overseas to key stakeholders, government and the media. Farnborough International Limited, which runs the Farnborough International Airshow, is a wholly owned subsidiary.**

## **ADS contacts:**

**Duncan Sinclair** Head of Public Affairs

**t:** +44 (0) 20 7091 1128 [duncan.sinclair@adsgroup.org.uk](mailto:duncan.sinclair@adsgroup.org.uk)

**Alex Hamilton** Head of Media & PR

**t:** +44 (0) 20 7091 1127 [alex.hamilton@adsgroup.org.uk](mailto:alex.hamilton@adsgroup.org.uk)

Twitter: [@ADSGGroupUK](https://twitter.com/ADSGGroupUK)

[www.adsgroup.org.uk/Facts2017](http://www.adsgroup.org.uk/Facts2017)