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AVIATION
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UK AVIATION INDUSTRY SOCIO-ECONOMIC REPORT

10
YEAR
ANNIVERSARY

Rolls-Royce
Innovation Prize

 Rolls-Royce

Inspirational in
Science or Maths?
PROVE IT.



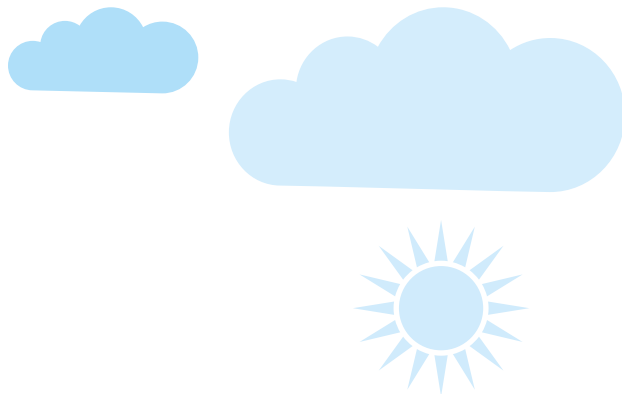
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Foreword

Aviation is a UK success story. It enables travel and business, and brings with it benefits including economic growth, skills, employment and investment in local communities, either through charitable donations or by providing career opportunities.

Today the UK has third-largest aviation network in the world, and the second largest aerospace manufacturing sector. The aviation sector has a turnover of over £60 billion, contributes over £22 billion to our GDP and almost one million UK jobs are directly or indirectly supported by it. In addition our aerospace manufacturing sector generates annual exports of £26 billion and has a global market opportunity of £3.5 trillion over the next twenty years. It also employs over 100,000 highly skilled British workers and provides technology and research that has significant catalytic spin off benefits to the wider UK economy.

I am pleased that the report also looks at the social benefits that are often overlooked in the discussion about aviation, including the highly productive skills, apprenticeships and employment offered in our aerospace manufacturing, airline and airport operations and air navigation industries across the whole of the UK. There is hardly a constituency in this country without an aviation business.

And the industry and its passengers are also generous contributors to charities and other causes in the UK and overseas. Aviation allows people the freedom and ability to travel for

holidays, to study or to see friends and relatives. The UK is the eighth largest international tourism destination ranked with nearly three quarters of overseas visitors to the UK in 2014 arriving by air.

But alongside those benefits comes challenges. We recognise that the benefits must be balanced against aviation's environmental impacts, such as noise, local air quality and CO₂; but the work that Sustainable Aviation has been doing over the past 10 years demonstrates our ability and desire to ensure aviation can continue delivering the benefits essential to our economic wellbeing whilst managing our environmental impacts.

Sustainable Aviation has achieved a significant amount in that time, and I am in no doubt that we will see further achievements during its next 10 years.

Sustainable Aviation and its members remain committed to achieving a sustainable future for this UK success story.

Ian Jopson
Chair Sustainable Aviation

1. Introduction

Launched in June 2005, Sustainable Aviation (SA) brings together the main players from UK airlines, airports, aerospace manufacturers and air navigation service providers to set out a collective and long term strategy to ensure a sustainable future for UK aviation. In 2016, ten years on, our guiding principles of cleaner, quieter and smarter are as relevant as ever. The industry remains committed to making a positive contribution to UK society and its economy, and meeting the needs for air transport whilst minimising its environmental impacts. Our current membership covers over 90 per cent of the UK aviation industry.

MEMBERS



SIGNATORIES



2015 marked our 10th anniversary, and since being established we have been entirely focused on finding collaborative ways of improving our environmental performance and ensuring sustainable growth. Over those ten years, SA has published a series of Road-Maps on CO₂, Noise and Sustainable Aviation Fuels which focus on how we can continue to deliver growth whilst continuing to develop sustainably.

During the last ten years over 20 million tonnes of CO₂ emissions have been saved by UK aviation and the combined noise contour area used by the Government to define community annoyance has been reduced by 14 per cent at major UK airports¹.

Whilst we continue our work to address environmental impacts, we also believe it is important to consider the social benefits and economic contributions that the UK aviation industry delivers. This report presents information on these aspects of sustainable development.

This report collates a range of existing reported information as set out in the table below to begin to present a unified UK aviation industry position. More information on the work of SA members can be found on their individual company websites.

Social benefits



Economic Contributions



Direct Benefits	Direct Contributions
Jobs provided by direct employment in the aviation sector	UK turnover generated by aviation sector companies
Training and skills for employees	Contribution to UK GDP by aviation sector companies
Apprenticeships provided	Passengers and freight carried
Work carried out by employees in the community	Value of UK exports
Charity donations by SA members	Tax payments to HM Treasury
Direct investment in community projects	
Indirect Benefits	Indirect Contributions
Jobs indirectly created in the aviation industry supply chains	Contribution to UK GDP by the aviation sector's procurement from its UK supply chain
Charity donations by passengers	
Induced Benefits	Induced Contributions
Jobs supported through the spending of wages by aviation sector employees	Contribution to UK GDP by employee spending of the aviation Sector and its supply chain
Wider Catalytic (Spin Off) Benefits	Wider Catalytic (Spin Off) Contributions
Connecting families, facilitating holidays	The aviation sector's most far reaching economic contribution is via its contribution to other industries such as tourism, its facilitation of world trade and the connectivity it provides which improves productivity and investment
	The spin off contribution from the technology created by the £1.7 billion per annum R&D spend in UK aerospace manufacturing flowing out into other sectors and industries.

Wider Catalytic (Spin-Off) Contributions of Aviation

The wider spin-off benefits of the UK aviation sector highlighted above are particularly important.

Air Transport Action Group (ATAG) published *Benefits Beyond Borders* in 2012 which stated that *“air transport’s most far-reaching contribution is via its contribution to the performance of other industries and as a facilitator of their growth”*. It adds that air transport is *“indispensable for tourism”, “...facilitates world trade”* and *“increases a country’s connectivity which can help raise productivity, by encouraging investment and innovation...and allowing companies to attract high quality employees.”*

The Airports Commission report also stated that good aviation connectivity is vital for the UK economy.

Benefits of investment in Research & Development

Analysis by Fathom Consulting² shows that the wider spin-off benefits from the £1.7 billion per annum Research & Development (R&D) investment made in UK aerospace manufacturing is significant:

- *“the social returns to R&D are large, with a mean of around 70 per cent across the studies. That implies that spending £1 million on R&D this year would return £700,000 of extra GDP in every year thereafter. there are very few other uses of national resources that come close to delivering that kind of return. Beyond fixing the banks, there is little else that offers a potential solution in the same order of magnitude to the UK’s productivity problem.”*
- *“Undertaking R&D on a scale that matters in a macroeconomic sense implies creating a fertile environment for the cultivation of ideas across the board,...for R&D to be undertaken, industry must nurture close relationships with the science faculties in universities and other research centres, as well as in government. It must cultivate a highly skilled workforce, whose skills are readily transferable into other sectors. It must reward innovation throughout the process, from the publication of research papers, filing of patents, through proof of concept, de-risking, development and finally bringing to market. And it must cross-fertilise with innovation in other sectors.”*



Boosting UK Productivity

As part of its Long Term Economic Plan, the Government published its Productivity Plan in July 2015 looking at how the UK can close the productivity gap. Key to boosting productivity is a focus on skills and innovation. Aviation is an example of a highly productive sector, but to remain competitive and to continue to grow a pipeline of highly skilled employees is needed across a wide range of areas including engineering, manufacturing and services. In order to maintain its position, the sector invests significantly in apprenticeships, graduates, training and career development as explained in the report. The focus on Science, Technology, Engineering and Maths (STEM) skills is also key to the success of the sector and SA members work with schools, colleges, universities and local communities to promote the benefits and diversity of a career in STEM as outlined in the case studies.

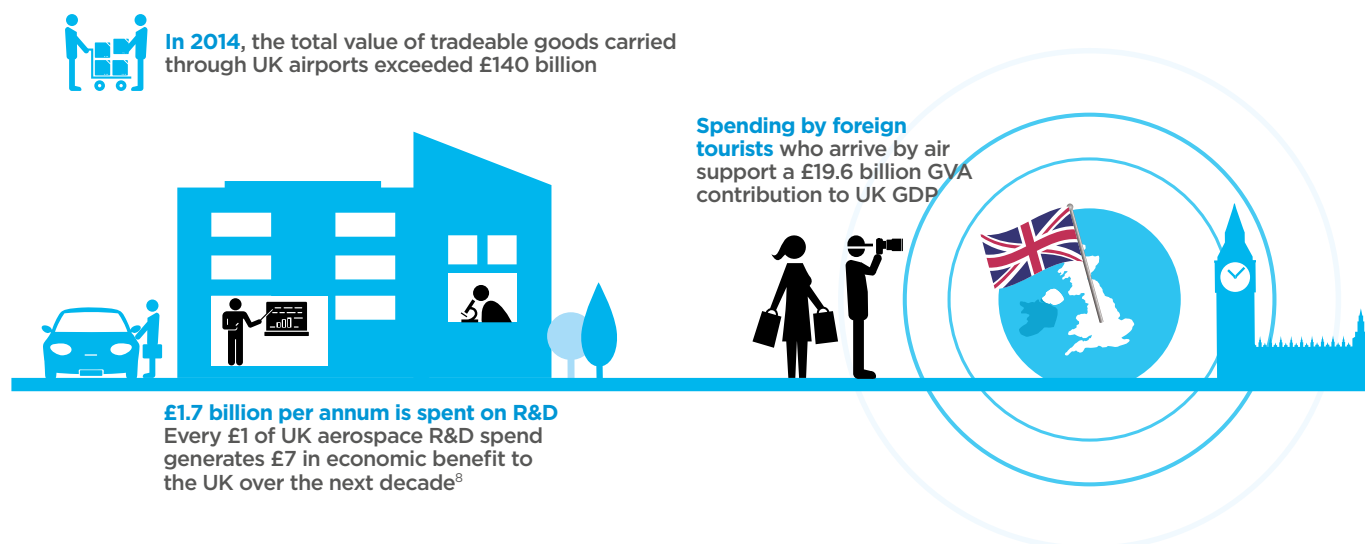
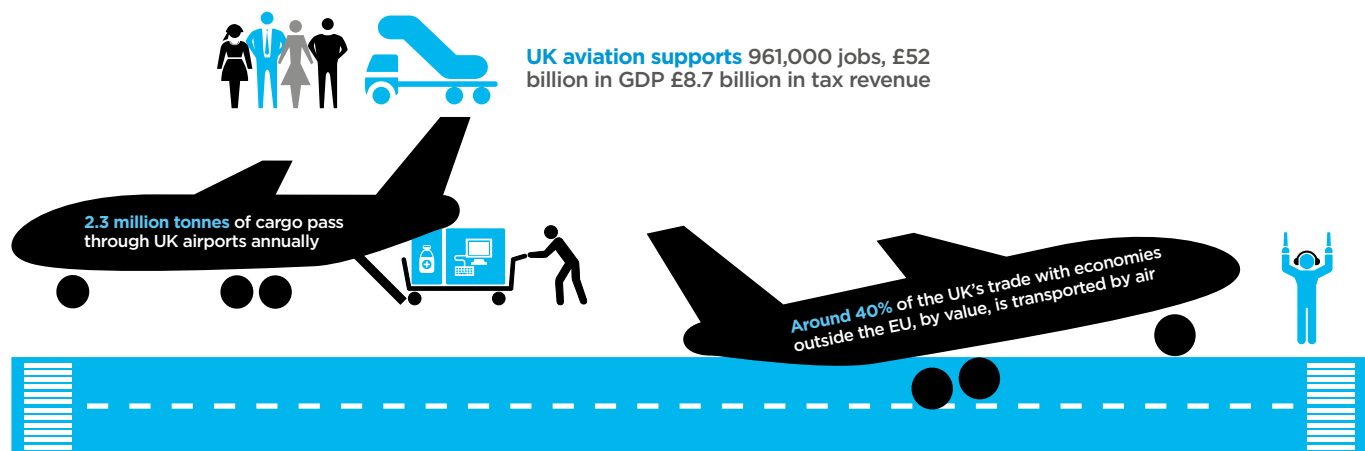
Innovation and investment in R&D is vital to keeping UK aviation, and aerospace manufacturing in particular, at the cutting edge of technology and maintain its position as the largest aerospace industry in Europe and second in the world. The investment industry makes alongside Government through initiatives such as the ATI means that the UK can truly be a world leader in advanced engineering and high value manufacturing. The airlines that renew their fleets to fly the latest generation of cleaner, quieter aircraft and the airports and air traffic service providers that implement best in class operational procedures mean that UK aviation remains competitive.



Key facts and figures

Scope and Size of UK aviation, including SA members

Topic	Data	Source of data
Terminal passengers handled at UK airports ³	247 million	Annual CAA statistics to July 2015
Flights handled in UK airspace	2.22 million	NATS 2014/15 Annual Report
Value of UK aerospace manufacturing exports	£26 billion	ADS 2015 industry facts and figures
Cargo passing through UK airports	2.3 million tonnes	2014 annual CAA statistics





Turnover of UK aviation

The UK aviation sector generates £60.6 billion turnover⁴

Major employer

The aviation sector supports 961,000 jobs in the UK⁵. This total comprises:

- ✈ 341,000 jobs within the aviation sector itself;
- ✈ 350,000 jobs indirectly supported through the aviation sector's purchase of inputs from UK suppliers; and
- ✈ 269,000 jobs supported through its payment of wages which stimulates consumer spending.

Contribution to UK GDP

The aviation sector contributes £52 billion (3.4%) to UK GDP⁵. This total comprises:

- ✈ £22.3 billion contributed directly through the aviation sector (airlines, airports and ground services, aerospace) itself;
- ✈ £16.7 billion indirectly contributed through the aviation sector's procurement from its domestic supply chain; and
- ✈ £12.9 billion contributed through the wage-financed spending by the employees of the aviation sector and its direct supply chain.

Apprenticeships

Around 3,500 apprenticeships supported by UK aviation

R&D Investment

- ✈ **£1.7 billion per annum invested in R&D⁶** which has spin off benefits in terms of skills development and technology flow out to other sectors and industries, further benefiting the UK economy.

Charity and community investment

- ✈ Over £15 million per annum is invested by UK aviation in charity, community and good causes in the UK and overseas. SA members support a wide number of charities through donations, staff volunteer schemes and in other ways.

Wider catalytic (spin-off) contributions

- Spending by foreign tourists who arrived by air supported a £19.6 billion gross value added (GVA) contribution to UK GDP, including a £7.2 billion direct contribution. Their expenditure also supported 477,000 people in employment in the tourism industries, their supply chains and through wage consumption impacts⁵.
- Around 40 per cent of the UK's trade with economies outside the EU by value is transported by air and in 2014 alone; the total value of tradable goods carried through UK airports exceeded £140 billion⁷.
- Every £1 of UK aerospace R&D spend generates £7 in economic benefit to the UK over the next decade⁸.

High productivity jobs

The average air transport services employee generates £84,000 in GVA annually, which is over 60 per cent higher than the whole economy average in the UK⁵.

Contribution to public finances

The aviation sector pays nearly £8.7 billion in UK tax⁵. Taxes paid by aviation firms and employees contributes around £5.9 billion, and Air Passenger Duty (APD), a specific departure tax paid by passengers raises a further £3.2 billion⁹. It is estimated⁵ that an additional £6.3 billion of government revenue is raised in the UK aviation sector's supply chain and £4.9 billion through taxation of the activities supported by the spending of employees of both the aviation sector and its supply chain.



Aviation Sector Specific Data

UK Aerospace Manufacturing^{6 10}

- ✈ £29 billion turnover
- ✈ £26 billion exports
- ✈ Second biggest aerospace manufacturing industry in the world with 17 per cent of global market share
- ✈ \$5 trillion (circa £3.5 trillion) market opportunity over the next 20 years
- ✈ £1.7 billion per annum invested in R&D
- ✈ 27 per cent growth since 2010
- ✈ 111,000 direct employees
- ✈ 3,300 apprentices

UK Airlines^{11 12}

- ✈ £22.7 billion turnover
- ✈ 1.1 million tonnes of cargo uplifted
- ✈ 141 million passengers carried by UK airlines
- ✈ Over 76,000 employees
- ✈ UK airline fleet is around 930 aircraft
- ✈ UK airlines link all nations and regions of the British Isles, operating from around 40 airports

Air Navigation Service Providers (NATS)

- ✈ NATS manage 11 per cent of Europe's airspace but 25 per cent of its air traffic
- ✈ £922.4 million turnover in 2014/15
- ✈ 2.22 million flights handled through UK airspace in 2014/15, handling on average 7,000 flights a day
- ✈ 99.8 per cent punctuality rate in 2014/15

UK Airports^{5 13}

- ✈ 247 million passengers handled by UK airports in the 12 months to July 2015
- ✈ £8 billion turnover in 2013
- ✈ 2.3 million tonnes of freight and mail carried to and from UK airports in 2014, an increase of 1.5 per cent on 2013
- ✈ 157,000 people directly employed by airports and ground services.
- ✈ £8.1 billion of direct contribution to UK GDP. Including indirect and induced contributions this rises to £21.3 billion

2. Employment and skills

The aviation sector directly employs 341,000 people, the bulk of whom are in high skill, high productivity jobs. This number is expected to increase significantly over the coming decades. The following case studies provide tangible examples of the types of employment and the skills development provided to individuals at all stages of their careers.



The **Aerospace Growth Partnership (AGP)** is a collaboration between Government and industry working together to secure the future of UK aerospace, providing a shared vision and plan for the UK Aerospace industry for the next 15 years and beyond. The AGP umbrella includes the Aerospace Technology Institute which is investing £3.9 billion in aerospace technology in the UK between 2013 and 2026, jointly funded by Government and industry.

Over 50 companies across the sector, together with the Regional Aerospace Alliances, are engaged in **AGP** skills activities to develop a pipeline of diverse, skilled and qualified individuals to support the demands of the industry. With an eye to the future, there have been a number of successes with initiatives to develop talented young individuals looking for a career in aerospace. These range from the awarding of over 500 bursaries for Masters-level degrees in aerospace engineering, to the delivery of apprenticeships, work experience and traineeships across the sector. Up-skilling the sectors current workforce has been addressed through the design of specialist courses in areas identified as key capabilities to UK aerospace.



Airbus in the UK works with the Engineering Development Trust and is a supporter of Industrial Cadets. Inspired by His Royal Highness The Prince of Wales, Industrial Cadets is designed to introduce young people into the workplace, develop personal skills and raise careers awareness. In 2015 more than 160 girls graduated as Industrial Cadets through the Airbus Environment Project.





Providing sustainable employment opportunities in some of the Midlands' most deprived communities is one of the most positive contributions **Birmingham Airport** can make.

The Solihull Pact, established in partnership with DWP, Solihull College and SMBC, engages with all employers at the Airport to capture their current and future vacancies and to targets local job-seekers ensure they know about what job opportunities are available. The team then supports unemployed people in obtaining appropriate skills for the jobs on offer, guiding them throughout the recruitment process and into employment.

Since June 2014, the partnership has supported more than 400 people into jobs at the Airport.



BOMBARDIER the evolution of mobility

Bombardier is a strong supporter of STEM in education, and its award-winning educational programme, 'The Flight Experience', is directly linked to the Northern Ireland Curriculum.

Other educational initiatives supported by Bombardier include the development of a tailored WISE (Women Into Science, Engineering and Construction) programme, which offers female pupils an insight to the aerospace sector, and engineering skills training for long-term unemployed people.

Bombardier's apprenticeship programme has been running for more than 50 years, and the company's strong engineering links with local universities helps provide its intake of high-calibre graduates.





In 2015 **British Airways** recruited 175 apprentices and 50 graduates to its programmes across the airline. Since 2010, more than 600 students have begun apprenticeships with the airline, with many graduating to permanent roles. The airline also runs its own cadet training scheme called the British Airways Future Pilot programme. Open to anyone from 18 to 55, with no previous flying experience, in 2015 it sought to recruit and train up to 100 new potential pilots.



In 2015, **easyJet** opened its new £2.7 million training facility 'The easyJet Gatwick Academy' and announced that it will recruit 1,140 crew. The facility comprises classrooms, a cabin simulator, an evacuation slide and a fire training rig.

easyJet has also established a new initiative to increase recruitment of female pilots. It aims to double the proportion of new entrants who are female over two years. This is the first phase of a long term strategy to increase the proportion of female pilots at the airline.



Flybe opened its Training Academy in 2010. The state of the art building includes a simulator hall for pilot training, cabin crew training facilities, an engineering apprentice workshop, and classrooms

Flybe's jointly run Engineering Diploma programme with Exeter College has gone from strength to strength. At the beginning of September 2014, it had 112 students enrolled on the programme – five of which are female. The third and fourth year of the programme is delivered through a Foundation Degree validated through Kingston University.





Heathrow

Making every journey better

In 2014 the **Heathrow Academy** celebrated ten years of providing unemployed local residents with the training and support to secure employment in the retail, construction and aviation & logistics sectors. Operating at a rate of 78 per cent of people into jobs, compared to the national rate of 14 per cent, the Academy has put 3446 candidates through training and 2323 people into work over a ten year period.



Manchester Airports Group (M.A.G) has developed employment and skills academies at its three largest airports – Manchester, London Stansted and East Midlands. The academies aim to break down the barriers to local people gaining employment at M.A.G airports and offer structure short term training, which can lead to nationally recognised qualifications.

In 2014/15 the M.A.G academies trained 509 people and placed 651 people into jobs. The Academies are a key part of the airports' development plans with a target to train at least 5,000 unemployed people by 2020, supporting at least 50 per cent of them into airport jobs.





NATS launched its first ever engineering apprenticeship scheme in 2015. The three and a half year programme will see young engineers getting to grips with the technology that underpins some of the world's busiest and most complex airspace, all while working towards real qualifications and earning a salary.

By the end of the programme, successful apprentices will be fully qualified air traffic engineers and will be guaranteed a job within the NATS engineering team.



Rolls-Royce®

Rolls-Royce's Apprenticeship Academy in Derby trains apprentices for Rolls-Royce, the supply chain and for manufacturing companies in the East Midlands.

Rolls-Royce has recruited approximately 250 apprentices in 2015; at any one time it has approximately 1000 apprentices on programmes around the world. Over half of its apprentices will go on to achieve a first degree level qualification in the first ten years of their careers. Approximately 20 per cent of the current Rolls-Royce senior managers in the UK started their careers as Rolls-Royce apprentices.

During 2015 it recruited 230 Graduates and 270 Interns globally.





In 2014, **Virgin Atlantic** launched a new annual programme specifically designed to create the next generation of pilots. The Future Flyers Programme is a unique opportunity for people from diverse backgrounds to become a long-haul pilot on some of the most technologically advanced aircraft. Virgin created a structured pilot training programme that leads towards the Civil Aviation Authority's latest Multi Pilot Licence and a position as a First Officer on the Airbus A330-300. The programme includes pre-flight training, full motion flight deck simulation at CTC Aviation's crew training centre, as well as flight training in Phoenix, Arizona.

Over past 30 years, more than 4,000 apprentices have been trained by Airbus in UK, with the last five years, seeing more than 500 being recruited. 70 per cent of senior managers with Airbus started out as apprentices.



Thomson Airways (TUI Group) partners with the Skills Funding Agency and City & Guilds to deliver vocational training through its in-house accredited programmes department. Thomson Airways delivers over 400 qualifications every year including apprenticeships, NVQs and Institute of Leadership & Management Certificate and Diploma programmes.



3. Charity and community engagement

The aviation industry is involved in a range of activities with its local communities and charities; whether enabling local people to secure skills, training and jobs, helping and supporting local charities, or responding to natural disasters across the world. SA members have a record to be proud of.

SA members make significant contributions to charity through a variety of channels.



ADS has an active community volunteering programme. A number of projects have been supported including decorating, cleaning and building at various care centres for children and adults with learning disabilities.



Airbus in the UK, Airbus' last employee chosen charity, the Alzheimer's Society, received £260,000 raised by employees throughout 2013 and 2014, with a further £160,000 raised for other very worthy local charities. Airbus employees are already on target to raise even more funds for their current employee chosen charity, Hospice UK. Hospice UK was selected by employees to be Airbus in the UK's national charity partner following an employee vote. The partnership aims to raise funds to support Hospice UK and seven local hospices in Bristol, the North West and Cheshire.



In 2014, the **Airport Operators Association** – the trade association representing airports across the UK – compiled a report entitled ‘Airports in the community – the story of how UK airports help their local communities’. The report illustrates how airports are not only key players in regional economic development, but they are much more than that, enabling local people to secure skills, training and jobs, help local charities, and inspire local school children. They help people to find employment and start their own businesses, and award local community funds and grants to small community-led organisations, including local health charities.



As part of its corporate citizenship programme, **Boeing UK** proudly supports education and community projects such as the Schools Build-a-Plane Challenge and Falcon initiative in partnership with The Royal Aeronautical Society (RAeS), xl clubs and Get Started with Product Design with The Prince’s Trust, flying scholarships in collaboration with The Air League and Aerobility, Partners in Flight with the American Air Museum at IWM Duxford, and environment restoration programmes with The Earth Restoration Service. Each year Boeing’s employees volunteer at schools across the UK and contribute to global activities such as Earth Day and Boeing’s Global Month of Service.



The Airport Environmental Improvement fund, set up to benefit the community around **Bristol Airport**, has donated over £258,000 to 66 local projects since it was established in 2012.

BRITISH AIRWAYS



British Airways'

Flying Start charity, in partnership with Comic Relief, raises money to help children in the UK and around the world. Since June 2010, the generosity of BA customers and staff has raised £12 million. The British Airways Carbon Fund also channels customer donations from flight bookings at ba.com to causes that invest in renewable energy and energy efficiency. So far the Carbon Fund has supported 14 renewable energy projects, exceeding £1 million in community benefits through projects such as solar panels, efficient lighting and installation of a biomass boiler for schools and community and leisure centres.



easyJet

easyJet's 'Change for Good' partnership with Unicef offers customers the opportunity to support some of the world's most vulnerable children by donating their spare change whilst on-board. Since the partnership was established in 2012 it has raised more than £6 million, primarily to support Unicef's work to eradicate polio.

YOUR LONDON AIRPORT *Gatwick*

Gatwick Airport staff are given two days per year to undertake voluntary work of their choice. The airport also sponsors a programme of local cultural events throughout the year, particularly in areas which could be impacted by flight noise or areas where staff live, and staff are encouraged and supported by the company to attend. This is part of a continuing effort to involve staff with issues most important to those living and working around the airport.



Heathrow Airport are proud to be a Pioneer Partner of Step Up To Serve, a charity founded by HRH Prince of Wales which encourages young people from all backgrounds to get involved in youth social action. Heathrow demonstrates the core principles of Step Up To Serve through offering Security Officers and Graduates aged 18-24 the opportunity of completing the Duke of Edinburgh Gold Award, working with the Scouts to help young people achieve their Aviation Skills Activity Badge and supporting projects through the Heathrow Community Fund.



Each of **M.A.G's** airports has partnerships with targeted local schools. At Manchester, the airport chairs the board of the Manchester Enterprise Academy, the local high school, helping to transform a previously failing school to achieve record results so that it is now one of the top 100 improved schools in England.

At East Midlands and London Stansted Airports, **M.A.G** operates on-site 'Aerozone' education centres providing educational modules that align closely with the National Curriculum and support the development of key STEM skills. M.A.G has a target of supporting the education of at least 50,000 young people by 2020.



Since 2011, working with its trade unions, NATS employees have raised £200,000 for Aerobility, the disabled flying charity, which was used to purchase a new aircraft. **NATS** has also launched a cycling proficiency sponsorship initiative to help children learn how to cycle safely, which was launched on national Cycle to Work Day in 2015. Schools situated in the local communities around NATS' air traffic control centres in Hampshire and Ayrshire are being encouraged to bid for the chance to receive funding to support cycle proficiency lessons at their school.

Inspirational in Science or Maths? **PROVE IT.**



Rolls-Royce®

Reach **6** MILLION
people
by 2020

Rolls-Royce has over 1,000 STEM Ambassadors worldwide inspiring young people to pursue STEM subjects and careers.

The **Rolls-Royce** Science Prize is aimed at encouraging inspirational teaching in STEM to fire the imagination of pupils. Since its launch in 2004 more than £1.1 million of prize money has been awarded to over 500 schools.

The Rolls-Royce/BLOODHOUND SSC STEM education programme is providing reach to half a million people using the design and development of the BLOODHOUND supersonic car that will attempt to break the 1,000 mph barrier and set a new world land speed record in 2016.



Over 700 **TUI** staff took part in the Travel Foundation's Big Holiday Beach Clean for 'Make Holidays Greener' month in July 2014 cleaning over 30 beaches and collecting 400 bags of rubbish (over 35,000 pieces).



In 2003 **Virgin Atlantic** launched its Change for Children appeal on-board, making them the first airline to collect foreign currency on flights. Since 2010, Virgin Atlantic is extremely proud to have Free The Children as a charity partner, donating over £4 million to UK and international projects, such as Free The Children's UK schools programme, aimed at children aged between 7 and 18.

Virgin Atlantic worked with Save the Children and UNICEF to deliver emergency aid to Manila in the wake of the Philippines' Haiyan typhoon, including the delivery of 38 tonnes of supplies.



4. Connecting the UK to the world



“Aviation connectivity contributes to the success of UK business in several different ways. It facilitates the movement of services and goods, workers and tourists, and drives business innovation and investment. In doing so, aviation generates employment and helps to improve the productivity of the wider UK economy.”

Airports Commission Final Report, July 2015

Aviation allows people the freedom and ability to travel for work, holidays, study or to see friends and relatives. As an island trading nation, the UK relies on air travel for its connections with most of the rest of the world, including the important emerging economies as well as China and the USA. The services sector is particularly dependent on air travel. Changes to the way we live and work mean an increase in the demand for travel and transport of goods and people.

- Around half of people in the UK fly at least once a year¹⁴
- The number of passengers using UK airports has increased 17.6 million in 1964 to 247 million today¹⁵
- The UK has the third largest aviation network in the world, after the USA and China¹⁶
- In 2014, the total value of tradable goods carried through UK airports exceeded £140 billion⁷
- 2.3 million tonnes of cargo went through UK airports in 2014¹⁷



Tourism

Air travel allows people to take holidays, to visit new places and discover new cultures. Inbound and outbound tourism supports jobs both in the UK and overseas.



- The UK is the eighth largest international tourism destination ranked by visitor numbers and sixth by visitor expenditure¹⁸
- Nearly three quarters of overseas visitors to the UK in 2014 arrived by air and spent £18.42 billion – over 80 per cent of all spending by overseas visitors¹⁹
- In 2014, Spain continued to be the top destination for UK residents visiting abroad, accounting for 12.2 million visits, a 5.4 per cent increase from the previous year, and accounting for 20.4 per cent of the total number of visits abroad²⁰

Keeping in touch with friends and relatives

People have a natural desire to travel to visit their friends and family and to keep in touch with them. For a country like the UK, with an increasingly diverse population and historic links and bonds with countries in all parts of the world, the demand for air travel to visit friends and relatives is understandable.



- The 2011 Census also showed that the number of foreign-born residents in England and Wales has risen by nearly three million since 2001 to 7.5 million people. That means about one in eight – 13 per cent – of residents were born outside the UK
- Latest figures for year ending December 2014 show the number of UK residents who were born abroad was 8.3 million. This represents an increase of 3 million since 2004. A total of 5.3 million came from outside the EU and the remaining 3 million from within the EU²¹
- Between 4.5 million and 5.5 million Britons live abroad, with Australia, the USA, Canada, Spain, New Zealand and South Africa the top six locations²¹
- 22 per cent of the visits by overseas residents to London are made by people visiting friends and relatives²²



Students

The UK has a world renowned education system which attracts students from all over the world supported by good air links and connectivity to the UK.

- Over 430,000 international university students study here every year, from over 180 countries²³
- They are worth around £3 billion a year to the UK economy²⁴
- Chinese students are by far the largest group, with nearly 88,000 in 2013-14, but there are also significant numbers from India, Nigeria, Malaysia, the USA, Hong Kong, Saudi Arabia, Singapore, Pakistan and Canada as well as EU member states²⁵
- In addition, over 125,000 international students are estimated to attend independent schools, as well as further education institutions in the UK
- Each year, over 500,000 people of all ages come to the UK to improve their English and English language teaching generates around £2.5 billion in export earnings for the UK annually^{26 27}



5. Future opportunities

In 2013 the Department for Transport's central' forecast projected that UK aviation passenger numbers would grow by about 1.5 times by 2030 and 2.2 times by 2050 relative to 2011. This provides the platform for UK airlines, airports and air navigation service providers to increase its contribution to UK Plc both directly and indirectly.

UK aerospace manufacturing is forecast to see even greater growth in its markets as it sells its products into the global aviation market which is forecast to expand at a faster rate than UK aviation. In October 2014 the International Air Transport Association (IATA) released its first 20-year global passenger forecast, projecting that passenger numbers are expected to more than double by 2034, reaching 7.3 billion. That represents a 4.1 per cent average annual growth in demand for global air connectivity that will result in a \$5 trillion (circa £3.5 trillion) market for new aircraft over the next 20 years. The UK aerospace manufacturing industry is currently the second largest in the world and is well placed to take a large piece of this huge market, particularly as there is a 'high barrier' to entry for new players to enter this very high technology sector. These market fundamentals mean that UK aerospace manufacturing has a tremendous opportunity to

grow, further increasing its economic and social contribution to UK society.

Clearly this aviation sector growth and the associated social and economic benefits to UK society must be delivered in a manner that protects the environment. The Sustainable Aviation CO₂ and Noise Road-Maps for UK aviation show that this can be done without a substantial increase in absolute CO₂ emissions; and with net CO₂ emissions and noise output reducing.

Realising this opportunity for a considerable increase in the social and economic contributions of the aviation sector, whilst also managing environmental impacts, will not only require the continued commitment and focus of the aviation industry but also a policy environment that enables sustainable growth.



Commitment for SA

Our goal is a competitive aviation industry making a positive contribution to the UK economy and meeting the needs of society for air transport. SA will continue to work with Government to realise the future opportunities for the sustainable growth of UK aviation and to promote the wider benefits of the industry to the UK. SA will do this by:

- **Maintaining constructive relationships with its stakeholders**
- **Informing the debate around the key issues related to its goals**
- **Championing the work of its members**
- **Continuing to work in collaboration with Government to deliver on its aims as well as the goals of SA.**



Endnotes

- ¹ The major airports in this study are Birmingham, Gatwick, Heathrow, Luton, Manchester and Stansted
- ² <http://www.ati.org.uk/wp-content/uploads/sites/14/2015/06/Investing-in-UK-Aerospace-Technology.pdf>
- ³ Total UK airport figures including non SA members but excluding Channel Islands and Isle of Man
- ⁴ Sum of sector specific data
- ⁵ <http://www.aoa.org.uk/wp-content/uploads/2014/11/Economic-Benefits-from-Air-Transport-in-the-UK.pdf.pdf>
- ⁶ Gross spend including government contributions. Office for National Statistics data <http://www.ons.gov.uk/ons/rel/rdit1/bus-ent-res-and-dev/2013/stb-berd-2013.html>
- ⁷ Airports Commission Final Report: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/440316/airports-commission-final-report.pdf
- ⁸ Using the 70% factor from reference 2
- ⁹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/479749/52229_Blue_Book_PUI865_Web_Accessible.pdf
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/443232/50325_Summer_Budget_15_Web_Accessible.pdf
- ¹⁰ <https://www.adsgroup.org.uk/articles/47574>
- ¹¹ DfT GB Transport Stats 2014 - <https://www.gov.uk/government/statistical-data-sets/tsgb02>
- ¹² CAA 2014 Airline stats - http://www.caa.co.uk/docs/80/airline_data/2014Annual/Table_1_14_Airline_Personnel_Cost_UK_and_Overseas_2014.pdf
- ¹³ CAA 2015 Q2 airport stats
- ¹⁴ British Social Attitudes Survey 2014: Public Attitudes Towards Transport, DfT, December 2015, page 5: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/481877/british-social-attitudes-survey-2014.pdf
- ¹⁵ Transport Statistics Great Britain 2015, DfT, December 2015, Traffic at UK Airports, 1950 - 2014, page 52
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/490065/tsgb-2015-print-ready-version.pdf
- ¹⁶ Aviation Policy Framework, DfT, March 2013
- ¹⁷ CAA Annual Airport statistics
- ¹⁸ Tourism Highlights, 2015 Edition, UNWTO, June 2015, page 6
- ¹⁹ Travel Trends 2014, ONS, May 2015, Table 4.0, Visits & Spending in the UK
<http://www.ons.gov.uk/ons/rel/ott/travel-trends/2014/rpt-travel-trends--2014.html>
- ²⁰ Travel Trends 2014, ONS, May 2015
<http://www.ons.gov.uk/ons/rel/ott/travel-trends/2014/rpt-travel-trends--2014.html?format=print>
- ²⁰ Population by Country of Birth & Nationality Estimates 2015, Annual Population Survey, ONS, August 2015
<http://www.ons.gov.uk/ons/rel/migration1/population-by-country-of-birth-and-nationality/2014/rpt-population-of-the-uk.html>
- ²¹ Travel Trends 2014, ONS, May 2015, Table 4.3, Visits To & Spending in UK Regions
<http://www.ons.gov.uk/ons/rel/ott/travel-trends/2014/rpt-travel-trends--2014.html>
- ²³ International & EU Students, UCAS Website
<https://www.ucas.com/ucas/undergraduate/getting-started/international-and-eu-students>
- ²⁴ Estimating the value to the UK of education exports, BIS, June 2011, Executive Summary page 9
- ²⁵ First Statistical Release 2013-14, Higher Education Statistics Agency (HESA), January 2015, Tables 8 & 9
<https://www.hesa.ac.uk/free-statistics>
- ²⁶ International Student Statistics, UK Council for International Student Affairs website
<http://www.ukcisa.org.uk/Info-for-universities-colleges--schools/Policy-research--statistics/Research--statistics/International-student-statistics/#>
- ²⁷ Facts & Figures, English UK website
<http://www.englishuk.com/en/about-us/news-press/facts-figures>







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