



HM Government

# Beyond the horizon

## The future of UK aviation

A call for evidence on a new strategy



July 2017





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## Foreword



Aviation matters. To a government which is committed to building a truly global Britain, it is more important than ever.

Britain is a great, global trading nation – home to one of the largest economies in the world with strong international trading links. At the heart of this lies an aviation sector which has led the way for generations. The UK was home to the first scheduled air services and is the birthplace of the jet engine. Today we have one of the largest aviation networks in the world and UK companies manufacture some of the most advanced aviation technology. This is an industry that contributes billions to our economy, supports thousands of jobs, strengthens the union and develops skills.

Now, as we leave the European Union, it is more important than ever that we build on this success to embrace the world and create an outward-looking Britain that has the confidence to own its place on the global stage. This is at the core of our Industrial Strategy, which is a plan for a nation that stands tall in the world and is set up to succeed in the long term.

Aviation will have a central role in delivering this, and the issues this document seeks to address should be seen in that context.

Already this government has been getting on with taking decisions which support aviation while addressing its environmental impacts.

One of my first acts as Transport Secretary was to approve the expansion of London City airport. This was followed by the negotiation of the first ever UN Security Council resolution on aviation security and working with the ICAO to secure an agreement across 190 countries to tackle aviation's CO<sub>2</sub> emissions.

Then last year we selected a new Northwest runway at Heathrow as our preferred scheme for delivering much-needed new runway capacity in the South East, and have been consulting on proposals to modernise the way we manage our airspace. This has all been done while listening closely to what people have said and we will continue to do so.

However, as the Airports Commission noted, we need to continue to grow our domestic and international connectivity. This document also sets out our belief that there is a need for all airports in the UK to make best use of their existing runways, while giving due consideration to environmental issues, such as noise and air quality. We welcome your views on this.

Now the time is right to set our sights beyond the horizon and develop a new Aviation Strategy – one which looks beyond a new runway at Heathrow and sets out a long-term vision for the sector to 2050 and beyond. A vision which puts the passenger at the heart of what we do.

I am also clear that any new strategy must address the impact of aviation on local communities and the environment. The steps we have taken so far to tackle international emissions or address noise around our airports are important, but any future growth of aviation must take such impacts into account.

A thriving aviation sector will be central to our future prosperity as we leave the European Union. A clear priority for me is to achieve the best possible deal for our access to European markets. This is a key part of the Government's Brexit negotiations and will be separate from the Aviation Strategy. The purpose of this exercise is to take a longer term view on how we can maintain and strengthen our links to our European partners and the rest of the world; setting our sights on a future where the UK continues to lead the way.

This is not a process the government can – nor should – undertake on its own. We need to listen to what the sector, industry and communities have to say to get this right. This document seeks views on our proposed approach capturing everyone's views, and whether we have identified the right issues to address. It marks the start of a conversation which will culminate in a new strategy.

This is your opportunity to shape the future of aviation, and we look forward to working with you.



**Rt Hon Chris Grayling MP**  
Secretary of State for Transport

## Executive summary

Aviation has a key role to play in helping to build a global Britain that is outward-looking and embraces the world, with a strong economy that supports a fairer society and benefits the whole of a united nation.

The UK's aviation sector is a global success story. It creates jobs, encourages economic growth and connects us with the world. We have an aviation history to be proud of. From the first scheduled daily international commercial air service, to the invention of the jet engine, and the development of Heathrow as a leading aviation hub, the UK has been at the forefront of aviation growth, innovation and engineering achievement. However, in recent years these achievements have often been overlooked as discussions have focused on airport capacity, especially in the South East. The government now needs to look at important strategic questions about our aviation sector, including how it can help it to meet the challenges and opportunities of a changing world and promote sustainable growth.

It is the right time to create a new Aviation Strategy. This will set out the long-term direction for aviation policy making for 2050 and beyond. In doing so it will build on our aviation success story in pursuit of the following aim:

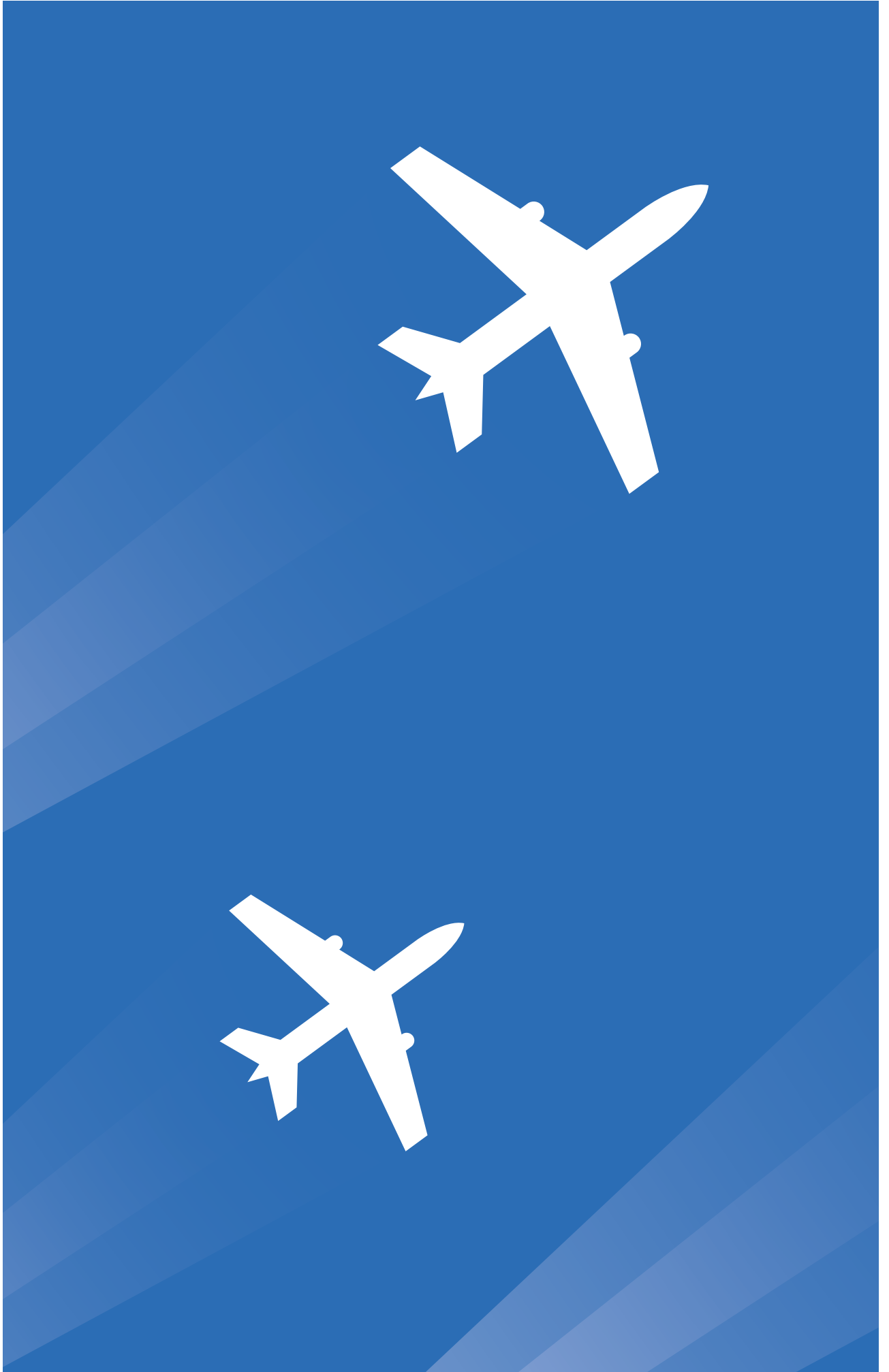
**To achieve a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward-looking Britain**

The strategy will have six objectives. These are to:

- help the aviation industry work for its customers
- ensure a safe and secure way to travel
- build a global and connected Britain
- encourage competitive markets
- support growth while tackling environmental impacts
- develop innovation, technology and skills

The strategy will have a particular focus on consumers and cover the whole country. It will look at where government could, and should, make a difference. The government has identified a range of issues to be looked at in a series of themed consultation papers. These consultations will take place during 2017 and 2018. A final Aviation Strategy will then be published by the end of 2018.

This call for evidence document is asking for your views on the approach the government is proposing to take and the issues that it has identified. The government wants to hear from the widest possible range of people and organisations. This includes the consumers of aviation services (from passengers to businesses), airports and airlines, industry organisations, private fliers, environmental groups and communities. The feedback it receives will help the government to decide on the direction and final content of the Aviation Strategy.



# 1. Our aviation story – past, present and future

1.1 Aviation is a UK success story. We have the biggest aviation network in Europe and the third largest in the world, while London has the busiest airport system of any city in the world. We fly directly to over 370 destinations in more than 100 countries worldwide. We also have the second largest aerospace sector in the world. Aviation creates jobs in the UK, encourages our economy to grow and connects us with the rest of the world as a dynamic trading nation. This chapter tells the story of how we have got to where we are today, how aviation continues to be important to the UK, and what we need to do to maintain our position as a global leader.

## The past – a history of success

1.2 The UK has a proud aviation history. We led the expansion of international air services from the 1920s and took a lead role in the development of the civil aviation framework after the Second World War. Since then we have helped to open up the aviation market all over the world and have led the way with innovative technologies and new types of business models, from the first commercial jets to low cost travel.

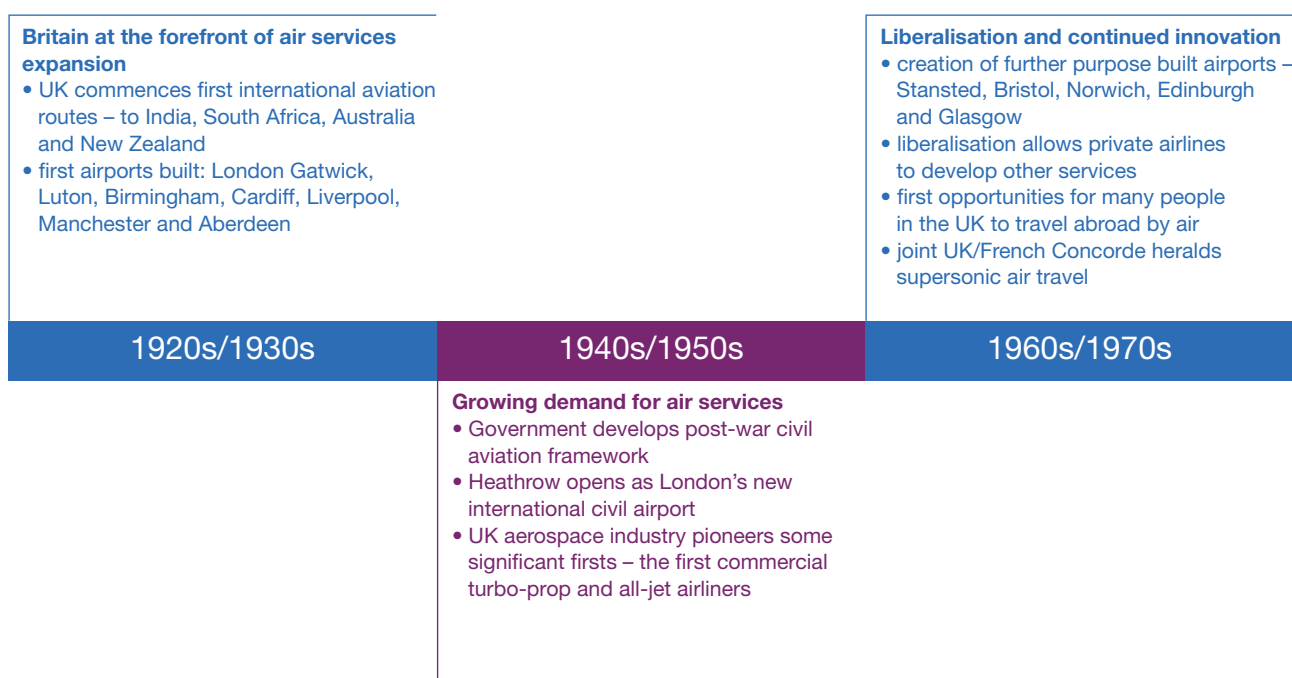


Figure 1 The history of UK aviation

- 1.3 The UK's aviation safety and security standards are respected all over the world. This, together with the fact that the UK is the most liberalised aviation sector, has given us a competitive advantage and helped our continued success. Greater levels of private ownership and a focus on competition has benefited consumers, giving them more choice and lower prices, while also helping industry and the wider economy.



## The present – the importance of aviation to Britain

- 1.4 This is an important time for UK aviation. We are already one of the best connected countries in the world. Demand for flights continues to grow. In 2016 British airports added new routes to Chile, Costa Rica, Iceland, Iran, Peru, Sri Lanka and the United States. The UK also agreed a deal with China and India to allow many more flights between our countries.
- 1.5 Aviation is an important part of the government's [Plan for Britain](#) – which aims to build a confident Britain that embraces the world.<sup>1</sup> The aerospace industry is also an example of the approach set out in the government's consultation on [Building our Industrial Strategy](#) to support emerging sectors and innovative businesses.<sup>2</sup>

### New challenges and opportunities

- heightened focus on aviation security post 9/11
- UK at forefront of global efforts to tackle environmental impacts
- new aviation technologies come onto the scene

### 1980s/1990s

#### A changing airline industry

- privatisations and further liberalisation encourages further growth
- low cost carriers emerge, driving down prices for passengers and providing greater choice

### 2000s/2010s

1 UK Government: Plan for Britain

2 UK Government (2017): Building our Industrial Strategy

## A global Britain

1.6 Aviation is vital to how the UK presents itself to the rest of the world. More of us now fly than ever before, with the number of passengers rising by almost 7% in 2016. As we move around the world to study, work and for leisure, aviation allows us safe, easy and affordable access. Figure 2 shows the size of the aviation sector, both in terms of the movement of people and of goods.<sup>3</sup>

1.7 Leisure travel is a very important part of the aviation market, with a steady number of people wanting to travel for pleasure. In 2015, most of the passengers (around 80%) who were flying to or from UK airports were leisure passengers. Tourism contributes an estimated £59 billion to the UK economy.<sup>4</sup> Inbound tourism by air made up 80% of foreign holiday spending in 2016.<sup>5</sup> Air travel also helps to keep important cultural and family links, as many flights are taken to visit friends and family abroad. This is vital for multinational businesses employing staff from all over the world, as the ability for employees to return home to visit friends and relatives is important.

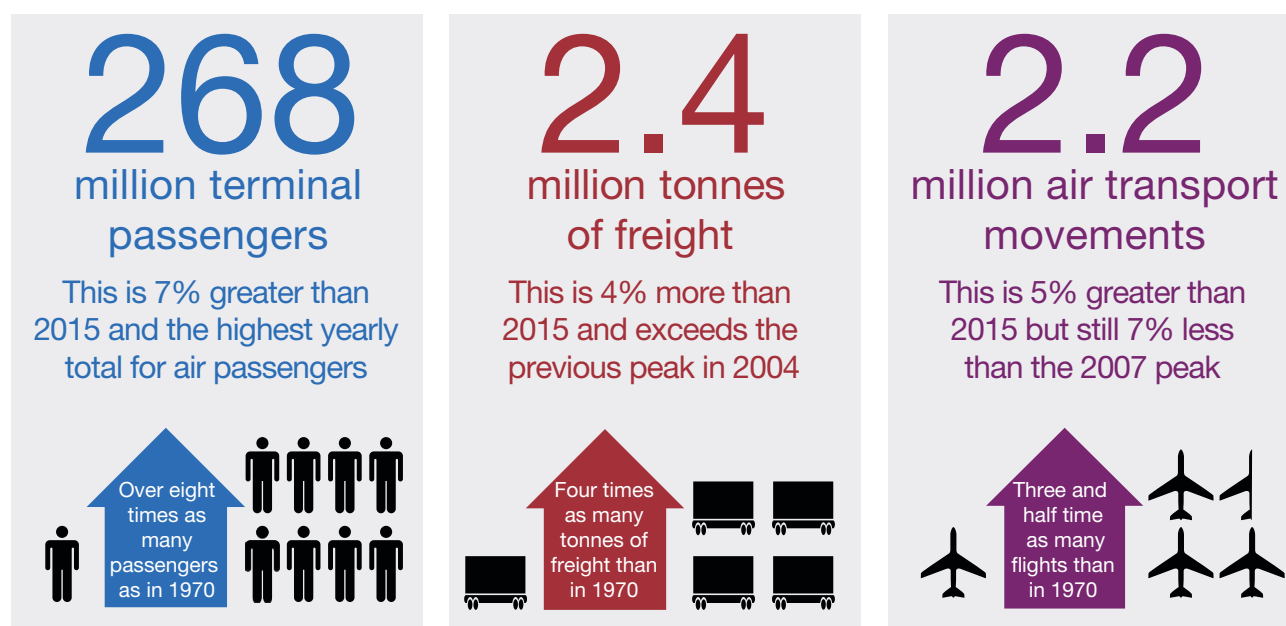


Figure 2 UK passengers, freight and air transport movements (2016)

<sup>3</sup> Civil Aviation Authority (2016): Airport Data

<sup>4</sup> Office of National Statistics (2016): The UK Tourism Satellite Account – 2013

<sup>5</sup> Office of National Statistics (2017): Overseas Residents Visits to the UK

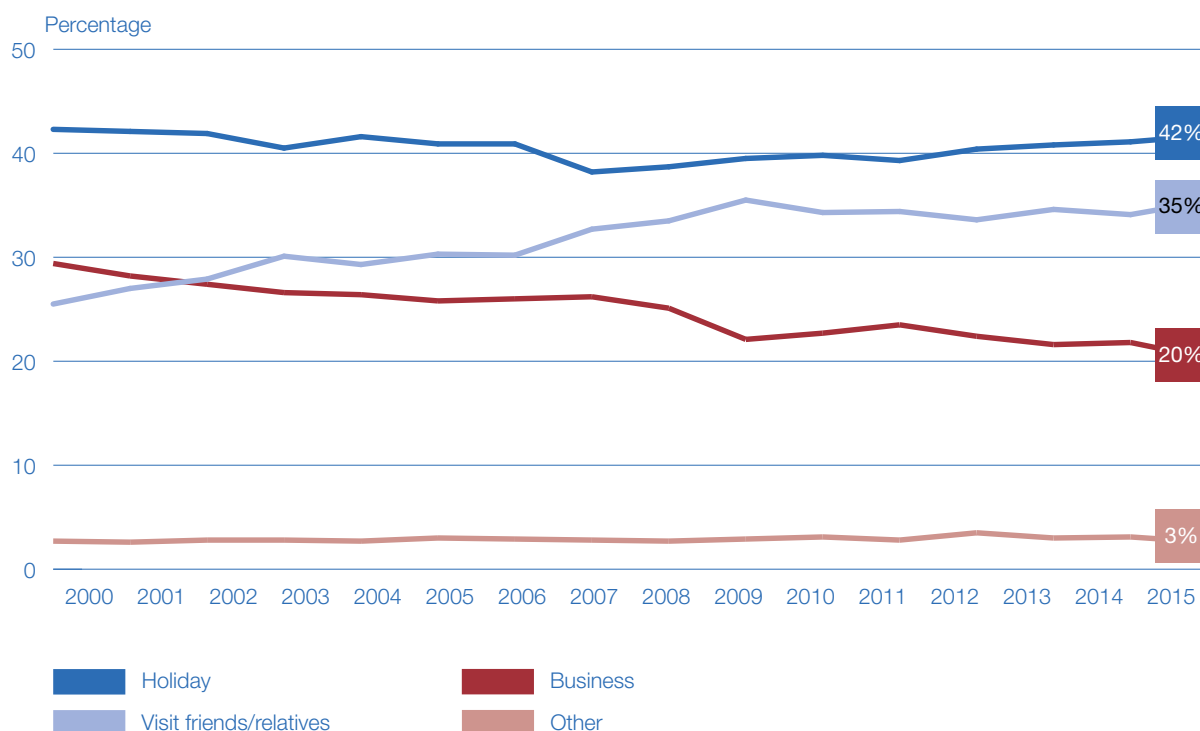


Figure 3 Passenger reasons for travel (2000 to 2015)<sup>6</sup>

1.8 The UK has led the development of the modern worldwide aviation system, including the regulation and liberalisation of international air travel. The UK is a key member of the International Civil Aviation Organisation (ICAO), the United Nations agency responsible for coordinating and regulating international air travel. The UK is a permanent representative on ICAO's Council. We continue to lead worldwide agreements, including helping to pass a recent UN Security Council vote on aviation security, and playing a vital role in the 2016 worldwide agreement to tackle aircraft carbon emissions.

1.9 Aviation also plays an important role in the export of UK services. Much of the service sector operating out of the UK is made up of highly globalised firms that work with clients throughout the world. This includes those in financial services, insurance and the creative industries. Improvements in worldwide aviation connections have helped develop internationally important areas of economic activity in the UK, including financial services in London, Leeds and Edinburgh, and information technology in the Thames Valley.

## A stronger economy

1.10 Air transport and aerospace add at least £22 billion to the UK economy each year. Figure 4 shows how this has increased since 2000.<sup>7</sup> We are a world leader in civil aerospace – number one in Europe and second in the world after the US, with an approximate 12% of the global market share.<sup>8</sup> The UK maintains this position because of its strength in producing the most technologically sophisticated parts of aircraft, including wings, engines and advanced systems.

Over 2,000 aerospace companies are working in the UK – ensuring that innovation, investment in research and development, and a skilled workforce, are maintained. Our aerospace industry is heavily focused on exports, with around 80% of our aerospace production exported.<sup>9</sup> Companies operating in advanced manufacturing also depend upon air transport to provide fast access to overseas markets.

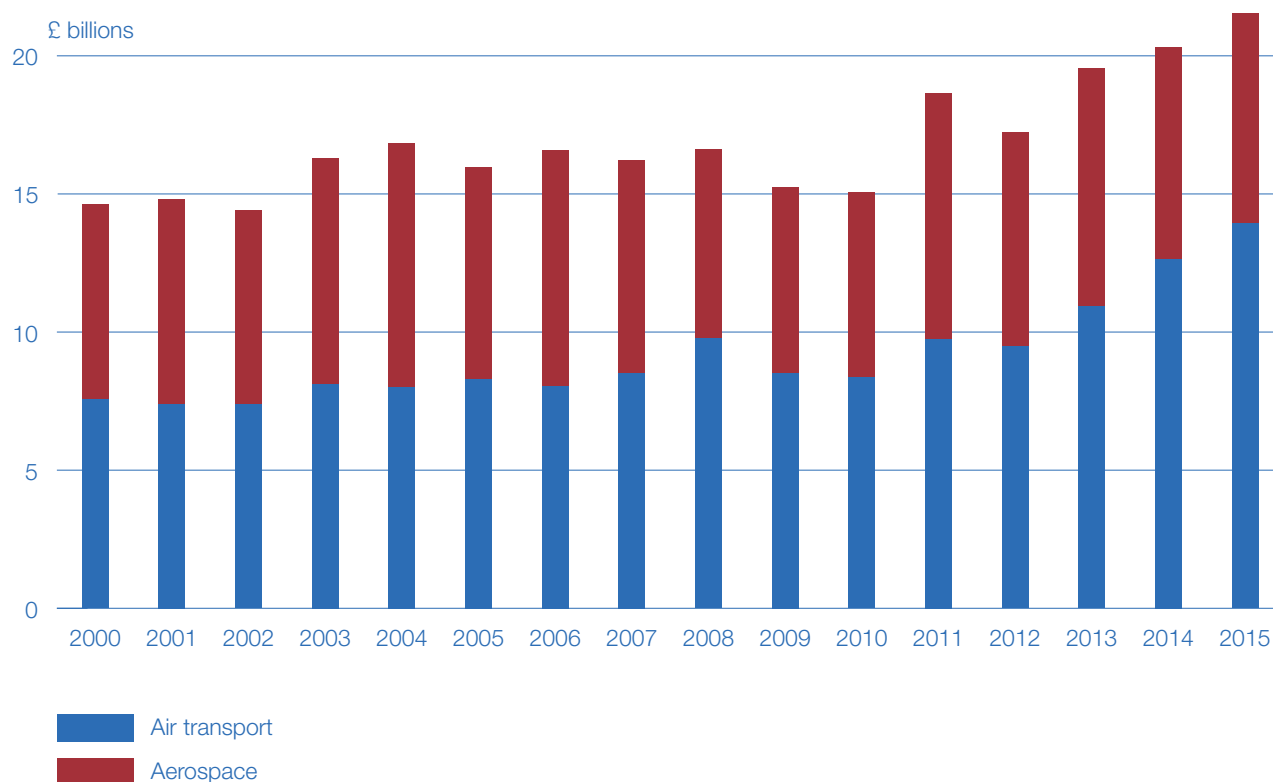


Figure 4 Air transport and aerospace contribution to the UK economy

<sup>7</sup> Based on DfT analysis of ONS GDP low level aggregates

<sup>8</sup> BEIS analysis, 2014

<sup>9</sup> Office of National Statistics (2013): Analytical Input-Output tables



- 1.11 The aerospace sector encourages highly skilled and well paid employment. It directly creates almost 110,000 jobs and 4,100 apprentices, and further supports an estimated 110,000 jobs across the wider economy.<sup>10</sup> Employment is spread across the country, aiding regional and local growth. There are major manufacturing centres in the Midlands, South West and North West. The government's consultation on Building our Industrial Strategy repeated the long-term commitment to work with the aerospace sector, supporting investment in new facilities, technology and skills.
- 1.12 The UK's physical location and large aviation network also make it a very good place for international businesses to base themselves. The headquarters of major global international companies are often sited near aviation centres. This concentration of economic activity has a positive effect on other businesses. There are many examples of businesses being based close to airports, including the 'Airport City' development close to Manchester Airport, and the 'Aerohub' enterprise zone established at Newquay Airport.
- 1.13 Aviation means that we are now used to receiving goods quickly from across the world, as well as being able to sell our products more easily overseas. Trade is an important aspect of aviation. Most UK imports (by weight) are transported by ship, but with the growth in air travel, increasing numbers of goods are being transported by air. In 2015 goods worth around £160 billion were shipped between the UK and non-EU countries by air. This is more than 40% of the UK's (extra-EU) trade by value.<sup>11</sup>
- Fairer society**
- 1.14 The UK's liberalised approach has driven down prices and facilitated greater choice for consumers. This has made air travel accessible to more people. Half of the UK's population takes at least one international flight each year and almost a third of leisure passengers are from non-professional backgrounds.<sup>12</sup> This has made overseas holidays affordable for more people and opened up new opportunities for travel.
- 1.15 The government has taken a lead role in ensuring that the market operates in a fair way and that consumers are protected when things go wrong. The Civil Aviation Authority (CAA) is responsible for operating the Air Travel Organiser's Licence (ATOL) scheme. This ensures that holidaymakers are protected if a licensed travel company (such as an airline or package holiday company) goes out of business. The CAA also ensures that airlines maintain the highest level of standards for safety and security, that markets are competitive and that customers have rights of redress when things go wrong.

10 DfT analysis of ONS (2016): Business Register and Employment Survey (BRES) and ADS (2016) – Aerospace Outlook 2016

11 HMRC Trade Statistics

12 Department for Transport analysis of CAA Passenger Survey and DfT statistics

1.16 The UK has also taken a lead role internationally in helping the aviation sector deal with some of the unwanted impacts which aviation may have, both on people living near to airports and on society more generally. It has helped to secure tougher noise standards for new aircraft, and agreement on international measures to tackle carbon emissions.

### A united nation

1.17 As well as international travel, domestic air connections are essential for creating a closer, more united country. Local airports are key areas for economic activity, connecting families and businesses across the UK. Figure 5 shows the six UK airports currently providing the most domestic links. Thriving, local airports make regions significantly more competitive, both nationally, and internationally. Domestic air links between regional airports and our major international airports, such as London Heathrow, also provide better access for international visitors and businesses, allowing them to explore everything that all parts of the UK have to offer.



Figure 5 Top six UK airports by number of domestic destinations<sup>13</sup>

13 Civil Aviation Authority (2015): Airport data

## The future – challenges and opportunities

- 1.18 It is important to build on the success of the UK's aviation sector, so that it is equipped to meet future challenges and opportunities. The government has identified a number of issues – which may require asking some difficult questions about the kind of aviation sector we want in the future. These issues provide the context to the aim and objectives of the future Aviation Strategy that are set out in the next chapter.

### Keeping pace with consumer expectations

- 1.19 Consumer choice factors are varied, complex and can change over time. It is important for policy makers to understand how consumers make informed decisions about how they fly, the information they need and the protection they require when things go wrong. Any well-functioning market relies heavily on consumers being able to make informed choices. These may be related to pricing, quality of service, or other issues that are important to them. Where there is no information to help consumers to make better choices, there may be a role for government to encourage information to be provided. This should help the market to operate more effectively.



- 1.20 Consumers also have changing expectations about what they want from aviation. These may cover the services available at airports, through connections and border waiting times. The aviation sector has a commercial incentive to ensure they meet the needs of the consumer. However, there are occasions when commercial incentives are not properly aligned, which can be to the detriment of consumers. In the past government has intervened with consumer rights legislation and other reforms such as the establishment of the ATOL protection scheme. The government needs to work with the aviation industry, to ensure that consumers are the focus of the sector and that their expectations continue to be met.

### Maintaining high levels of safety and security

- 1.21 The first duty of any government is to protect its citizens. The government therefore has a key role to play in ensuring that our aviation sector is both safe and secure. This is more important than ever with a constantly changing terrorist threat. The UK is an international leader in aviation safety and security, and has exported its expertise around the world. Worldwide aviation safety standards are set by ICAO and, within Europe, by the European Commission.

### Expanding our access to markets and trade

1.22 It is in the interests of everyone who lives in or travels between the UK and Europe to seek liberal arrangements for aviation when the UK leaves the European Union. This will ensure that the sector continues to offer passengers a wide choice of destinations, frequent flights and competitive prices. Just as Britain's economic importance to Europe and the rest of the world will remain, so too will the importance of the UK's aviation sector. This is why we must strengthen our position as a global player, with the connections and gateways to forge new links with growing economies.

### Encouraging competitiveness

1.23 By encouraging effective competition we can ensure that consumers get the best deals and a quality service. Ensuring the UK's aviation sector is a competitive marketplace will help this. Successive governments have endeavoured to open up the aviation sector. New entrants to aviation have helped to increase innovation, reduce costs, increase choice and improve service. However, there are still certain areas where more could be done to encourage effective competition, to make sure that consumers are getting the best deal and a good quality service. These issues must be considered if UK aviation is to maintain its competitive advantage.



1.24 Government makes decisions that can affect the aviation market. These may concern issues such as transport investment, airport expansion or the level of taxation. The government is keen to ensure that such decisions do not affect the market, perhaps by unintentionally making certain aspects more or less competitive than others. It is also important to ensure that such decisions are in keeping with the government's strategic plans.

### Meeting increasing demand through sustainable growth

1.25 Demand for air services continues to grow. Over recent decades passenger demand for air services has tended to rise in line with, and sometimes slightly faster than, overall economic growth. As a result of the global economic downturn there was a fall in aviation demand between 2007 and 2009, but in recent years strong growth has returned. The government expects this trend to continue, and expects that demand is likely to increase significantly between now and 2050 as shown in Figure 6.

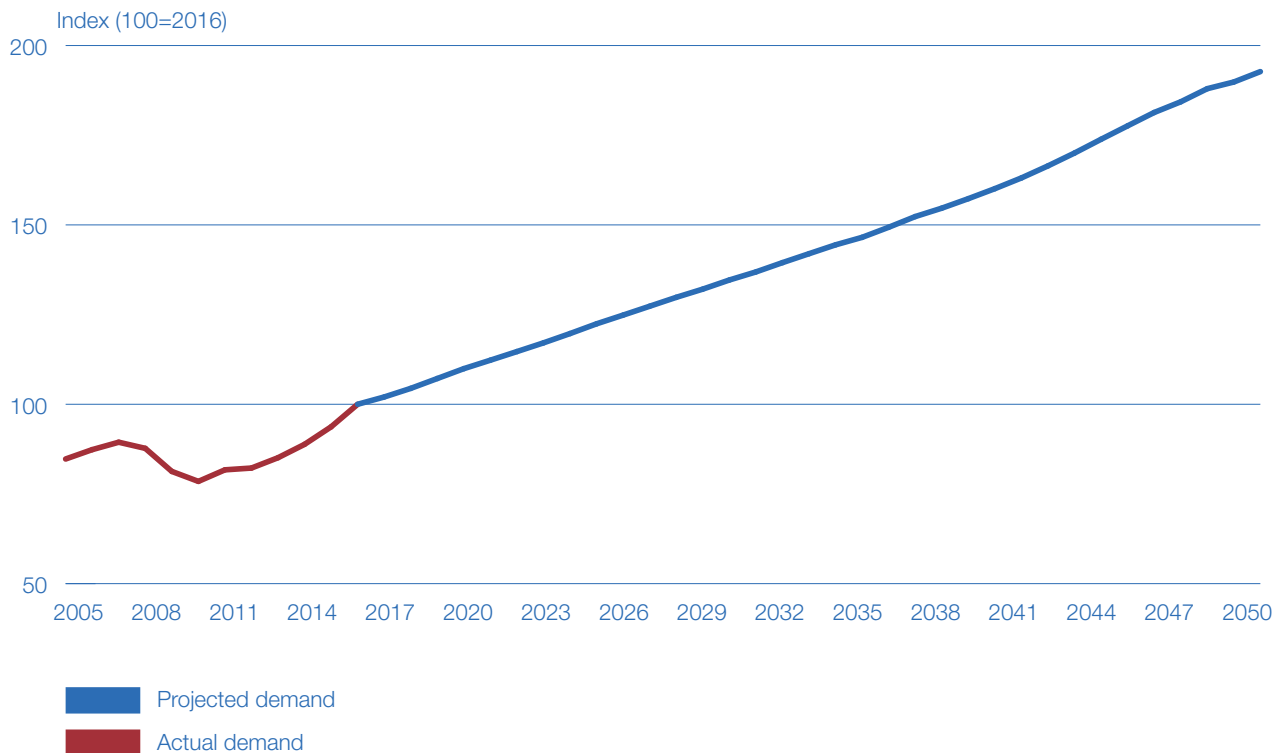
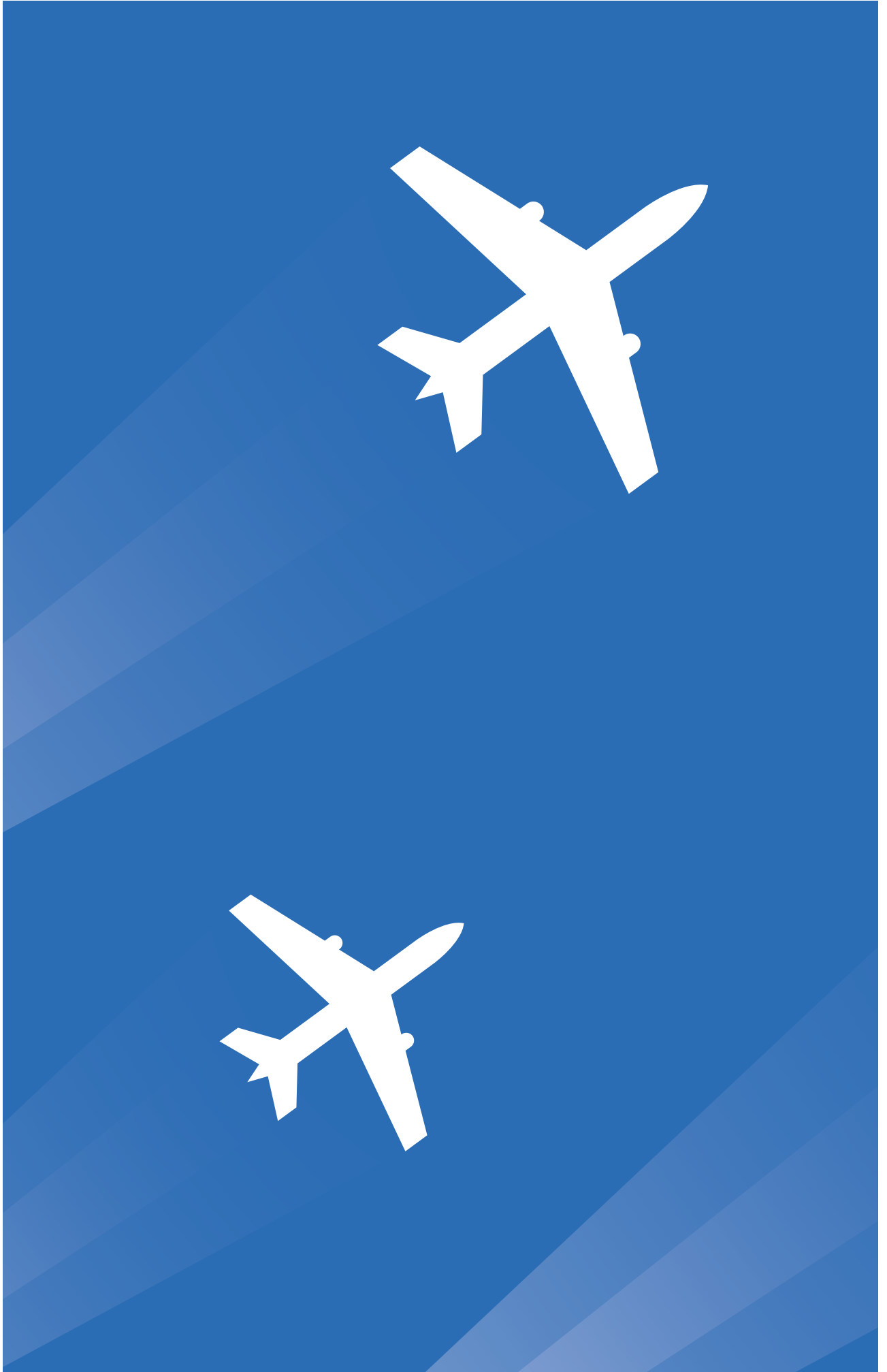


Figure 6 Demand for aviation in the UK (2005-2050)<sup>14</sup>

14 DfT analysis (2017)

- 1.26 The government's preference for a new runway at Heathrow should address an identified need for additional capacity by 2030 and relieve pressure in the South East airport network. Restrictions on aviation growth include limited airport and airspace capacity, and the availability of transport links to airports. Where there is restricted aviation capacity, the government is keen to see how competing demands might be balanced, and how the benefits of aviation can be ensured across the UK.
- 1.27 Balancing aviation growth with negative environmental impacts is one of the greatest challenges facing the aviation sector. These impacts mainly concern noise and air quality issues experienced by local communities, as well as the global effect of carbon emissions. The government wants to make sure that growth in the aviation sector does not result in unwelcome environmental impacts. Our general aviation sector also has its own particular issues that the government is keen to address.
- Keeping pace with technology and developing skills for the future**
- 1.28 New and emerging technology has the potential to transform the aviation sector. It will bring great benefits for consumers and industry. A combination of environmental regulations and airlines demanding ever more fuel efficient aircraft are the main drivers behind the development of new aircraft technology. The UK is a global leader in innovation and the development of aviation technology, a facet of its significant aerospace manufacturing base and research and technology strengths.
- 1.29 However, with new manufacturing markets opening up in Asia and elsewhere, the UK needs to maintain its strong position. The UK's manufacturing base and jobs need to be safeguarded and new technologies encouraged. These technological developments could shape the future of aviation and benefit the UK as a whole. As well as changes to existing aircraft design and emerging propulsion systems, new technologies (such as drones and personal 'flying taxis') need to be encouraged to ensure maximum UK benefit while maintaining our world-leading safety and regulatory regime. It is also important that the aviation sector takes full advantage of other emerging technology beyond the world of aviation.
- 1.30 Highly specialised skills are often required in the air transport and aerospace sectors. In addition to pilot and air traffic controller roles, career opportunities also exist in engineering, security, ground handling and customer service. Pilot training is very costly and can require significant initial investment, which may put off individuals from poorer backgrounds. There are also concerns regarding possible skills shortages across the sector. The government wants to explore how the aviation industry will maintain a highly skilled and diverse workforce, and ensure that local communities throughout the country enjoy the associated economic benefits.



## 2. Towards a new Aviation Strategy

### The need for a strategy

2.1 The previous chapter outlined the challenges and opportunities faced by our aviation sector which mean that a new long-term strategic approach is needed. It is more than four years since the publication of the Aviation Policy Framework.<sup>15</sup> Since then there have been significant changes in the sector. Aviation is a rapidly evolving industry, with technological innovation, a changing global political landscape and a need to tackle environmental impacts. The government has also recently announced its preference for a new Northwest Runway at Heathrow. These developments mean it is now the right time to develop a new Aviation Strategy.

#### Recent policy developments

- 2013 – Aviation Policy Framework separated the issue of South East airport capacity from the rest of aviation policy and set the context for the subsequent Airports Commission.
- 2015 – Airports Commission set out a case for one net new runway in the South East by 2030 and unanimously recommended the Heathrow Northwest Runway scheme to meet this need.<sup>16</sup>

- 2016 – Heathrow Northwest Runway Scheme announced as the government's preferred scheme for delivering South East airport capacity.
- 2017 – the government published the draft Airports National Policy Statement (NPS) for consultation, the first step in the planning process and also consulted on how to modernise our airspace and address noise impacts<sup>17, 18</sup>

### Proposed aim and objectives

2.2 The new Aviation Strategy will take a fresh look at the aviation sector and its challenges and opportunities, as well as the role of government. For the first time it will put consumers at the centre of policy making. It will cover the whole country, focusing only on where government could and should make a difference. It will set out the long-term direction for aviation policy making to 2050 and beyond and will build on our aviation success story in pursuit of the following aim:

**To achieve a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward-looking Britain**

<sup>15</sup> UK Government (2013): Aviation Policy Framework

<sup>16</sup> Airport Commission (2015): Final Report

<sup>17</sup> UK Government (2017): Consultation on Draft Airports National Policy Statement

<sup>18</sup> UK Government (2017): Airspace Policy Consultation

2.3 The strategy will have the following six objectives:

- help the aviation industry work for its customers
- ensure a safe and secure way to travel
- build a global and connected Britain
- encourage competitive markets
- support growth while tackling environmental impacts
- develop innovation, technology and skills

## Scope and policy approach

### Scope

2.4 The Aviation Strategy will be broad in its scope. It will seek to address all of the key issues that are relevant to the consumers of aviation services and to meeting the six objectives set out above. Developing such a broad strategy will not be a quick process, and the government makes no apologies for taking the time to get it right. The end result will be a new policy framework for the sector which will provide clarity on the future of aviation policy across the whole of the UK and focus the aviation sector on the needs of consumers.

### Policy approach

2.5 The strategy will be guided by three overarching principles:

- **consumer focused** – it will put passengers and businesses at the centre of everything we do
- **market driven** – it will emphasise the role of government as an enabler, helping to make the market work effectively

- **evidence led** – it will target intervention on specific problems which government can address, avoiding activity that does not respond to a clear problem

2.6 These principles will be applied to a set of simple policy tests, to be used to guide the government's approach to developing the strategy:

- **what is the rationale for action?** This will remain focused on what the government is trying to achieve, not just in terms of outputs (such as the publication of a new strategy), but the final outcome for the sector and society
- **what is government's role?** This will address the case for government action to fix an identified problem, or whether activity is better carried out by others
- **what does the evidence say?** This is a test of whether the government is using the best available evidence and whether there is anything that could be done to improve the information and data available to decision makers
- **have all of the options been considered?** This will ask whether there are other approaches that may not have previously been considered
- **what is the effectiveness of any proposed action?** This will ask whether government has considered the practicalities of policy decisions and if these have been properly discussed with those affected or who have an interest

## Relationship to other processes

- 2.7 The strategy will not pause important processes. The government will act if decisions or actions need to be taken on a particular issue. All of these decisions will be taken alongside, and fed into, the development of the final Aviation Strategy.
- 2.8 The aviation sector is international by nature and our regulatory framework has in many areas developed through our membership of the European Union. This includes some of our Air Services Agreements and our safety and security regulations. Until exit negotiations are concluded, the UK remains a full member of the European Union and all the rights and obligations of EU membership remain in force. The government has already been engaging with industry on the impact of Brexit and will continue to do so. The planned consultations on the Aviation Strategy will look more broadly and over a longer timeframe at the UK's aviation agreements and policies.
- 2.9 Another ongoing process relates to airport capacity in the South East. The government has announced that a new Northwest Runway at Heathrow is its preferred option and has consulted on a draft Airports NPS. Although the Aviation Strategy will be informed by the government's preference on additional capacity, it will also examine aviation's effect on all of the UK's nations and regions. This is in addition to the expected benefits that Heathrow expansion could bring. The government will continue to take forward its consideration of a Heathrow Northwest Runway through the Airports NPS process.
- 2.10 The Aviation Strategy will consider how the need for further growth should be treated beyond the additional runway that is required by 2030. It will also consider the framework for future sustainable growth and making best use of existing capacity. This call for evidence will also be used to consider the Airports Commission's recommendation that if the UK is to continue to grow its domestic and international connectivity before a new runway is built there is a need for existing runways throughout the UK to be more intensively utilised, provided environmental issues are fully addressed. More on this is included in Chapter 7.
- 2.11 Another area of ongoing consultation is looking into the way in which airspace is designed and managed across the whole of the UK. The government's airspace consultation sought views on updating policy to meet the needs of passengers, communities, the aviation sector and the wider economy. This work on airspace reform will also be taken into account in the final Aviation Strategy.



## Process and timings

2.12 This call for evidence document marks the start of an ambitious work programme, which will include policy development and a series of consultations over the next 18 months. The programme will consist of the following phases.

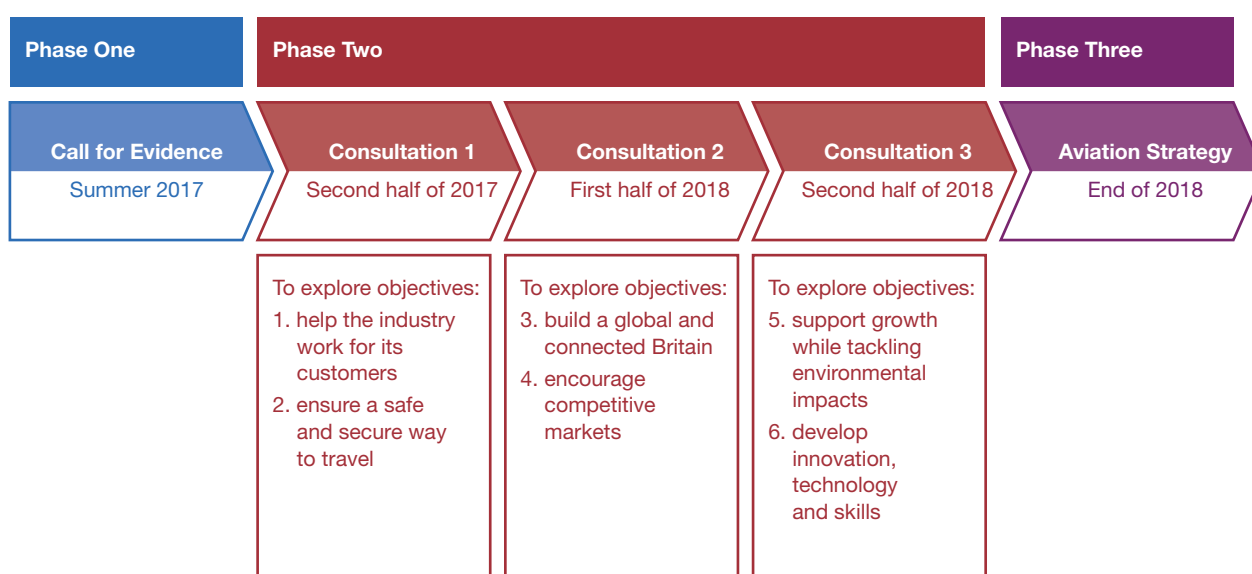


Figure 7 Aviation Strategy process

### Phase One (summer 2017) – call for evidence

2.13 This sets out the issues that the government wants to be discussed as part of the strategy process. It is intended that this document starts a national conversation on the issues raised. However, as an important first step, the government needs to know whether the suggested approach is correct. It needs to know whether it is looking at the right issues, if these are being addressed in a logical order, whether the proposed timetable is reasonable, and to get the views on how it can best involve people and organisations during the consultation process. A list of consultation questions on this process is included as an annex at the end of this document.

### Phase Two (2017 to 2018) – themed consultations

2.14 The call for evidence phase will be followed by a series of themed consultations. These consultations will be based around the objectives of the Aviation Strategy. The government will consult as many people as possible during this process. Although the individual consultation papers will suggest a structure for responses, interested parties should not feel restricted by this structure. The government recognises that there are many links and connections between different themes, and it is expected that discussions on every aspect of the review will take place right up to the publication of the final strategy.

### Phase Three (end of 2018) – launch of the Aviation Strategy

2.15 The process will end with the launch of the final Aviation Strategy. The published strategy will pull together the findings from the consultation papers and set the framework for aviation policy for the next 30 years (up to 2050) and beyond. As such it will reflect the opinions, research and evidence that have been gathered through each of the consultation exercises.

### How this document is structured

2.16 This call for evidence represents the start of Phase One. The remaining chapters of this document are structured around the six objectives of the strategy. They introduce the specific issues that the government is proposing to review as part of the planned consultation exercises in Phase Two:

- **Chapter 3: Help the aviation industry work for its customers** – how to improve the experience of passengers and business consumers, through improved access, better information and support when things go wrong
- **Chapter 4: Ensure a safe and secure way to travel** – how to maintain the UK's leading role on aviation safety and security and ensure that we are responding to varied and evolving threats
- **Chapter 5: Build a global and connected Britain** – the importance of aviation to building a global Britain that is outward looking and embraces the world, with a strong economy that benefits the whole of the UK
- **Chapter 6: Encourage competitive markets** – how to promote competition across the sector to maximise benefits for consumers
- **Chapter 7: Support growth while tackling environmental impacts** – how to build capacity and promote growth and connectivity, while balancing this with the need to minimise impacts and respect environmental limits
- **Chapter 8: Develop innovation, technology and skills** – how to build on the aviation sector's track record of success in innovation and make the most of the opportunities presented by new and emerging technology, and to build skills and capability across our world leading air transport and aerospace industries



Help the aviation industry  
work for its customers

### 3. Help the aviation industry work for its customers

#### Context

3.1 One of the key principles of the Aviation Strategy is that the consumer should be at the heart of the aviation sector. Customer satisfaction is vital to the success of any sector. We also need to ensure that passengers are treated fairly and are protected when things don't go according to plan. Aviation markets should change and adapt according to decisions made by consumers.

3.2 The government wants to explore how consumers make decisions and whether they have enough information to make choices that are right for them. It will look at how industry and government can work together to improve the consumer experience. This will explore the whole experience of aviation consumers and will consider how both business and leisure travellers relate with the aviation sector, from ticket booking to arrival at their destination.

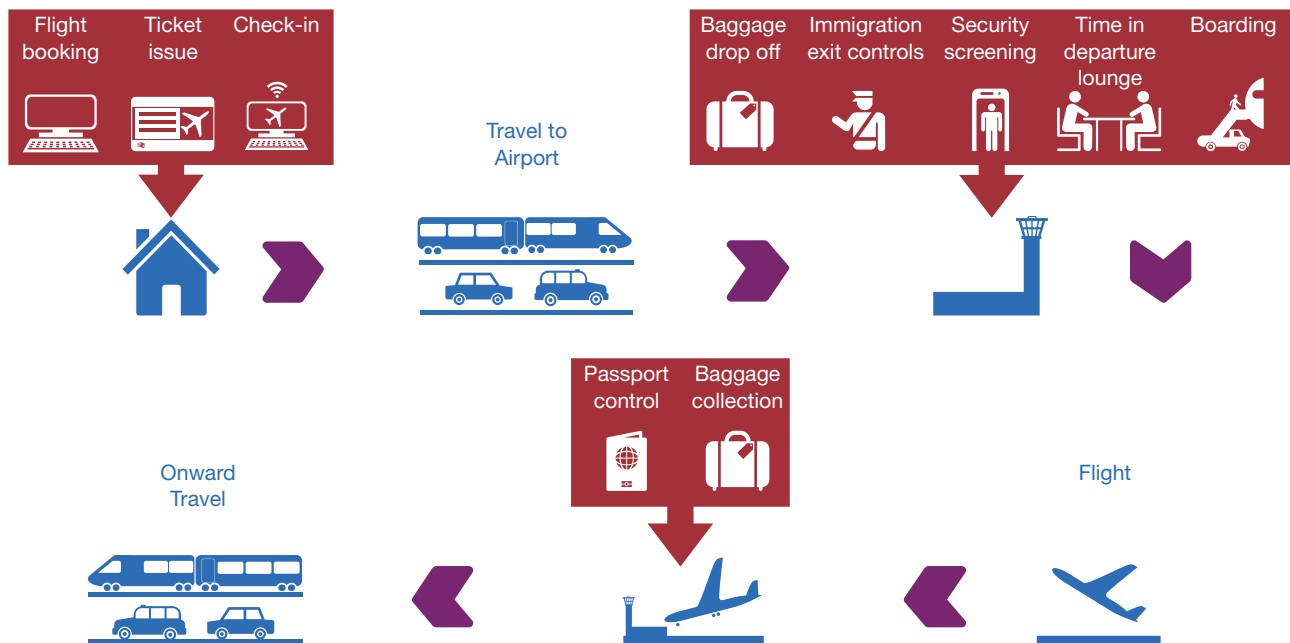


Figure 8 Passenger end-to-end journey



- 3.3 Passengers pass through a series of stages on their end-to-end journey, from exploring and initiating a booking to arriving at their destination. They will pass through several physical spaces and processes during that journey. Many of those processes are already smooth and efficient, and the extent to which they slow down the passenger's journey is small compared to the relative importance of ensuring that those processes are done properly (including security checks). The government is interested in whether there is more that both government and industry can do to manage some of the 'pinch-points' that still exist along this journey, and wants to look at some of the reasons that may discourage consumers from fully participating in the market.
- 3.4 Consumers must be happy that they are paying a fair price, that they will be provided with a service that is appropriate for that price, and that if things go wrong, their chosen providers will put things right, and, where appropriate, offer compensation. The strategy will explore whether there are any additional areas where the government could do more to help the market to improve the consumer experience, as well as where government intervention may no longer be necessary, or where a different way of approaching the issue could potentially give better outcomes.

## Approach to date

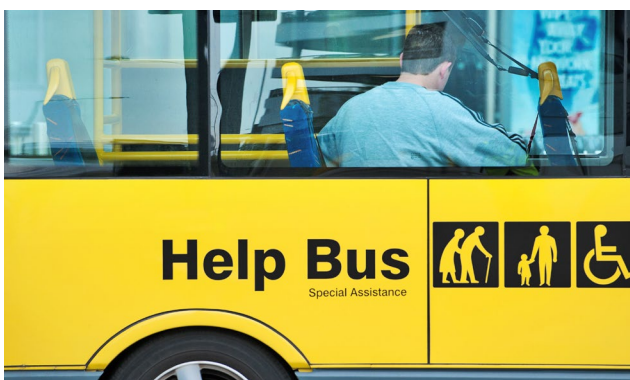
- 3.5 The aviation services available to consumers have improved dramatically over recent decades. Liberalisation of the market has created more competition, driving down prices and making air travel accessible to more people, more of the time. It has helped leisure travellers go further and travel more often, and has allowed business travellers to reach new markets and access new suppliers across the world. It has also allowed the development of new business models, such as the rise of low cost carriers, and increased choice.

## Information

- 3.6 The growth of the internet and mobile technologies have already revolutionised the way in which people book travel and holidays. Previously consumers may have had to visit a travel agent to book air travel. Now they also have the option of creating their own bespoke package holidays or making flight-only bookings on their smartphone. This has improved the opportunities and flexibility for consumers. However, it also provides new challenges for the industry, ensuring that consumer protections keep up with the new business models.
- 3.7 The availability of digital services has clear links with the focus of this strategy on improving the consumer experience. Price comparison sites, print-at-home and straight-to-phone ticketing, and websites and apps providing in-depth and real-time flight information, have either reduced costs for consumers or enabled them to make more informed decisions. These developments have been market led, with minimal government intervention, and the government wants to ensure that innovation in digital services continues to grow.

## Accessibility

- 3.8 One group of travellers who may experience issues that prevent them from being able to fly are disabled people and Passengers with Reduced Mobility (PRM). The UK has strong consumer protection in place to encourage people with either visible or hidden disabilities, and those with reduced mobility, to enjoy the benefits that aviation brings. Airlines and airports are required to provide assistance that is appropriate to each individual's needs to enable them to take a flight. In recent years, the industry's efforts have focused on also making aviation accessible for people with hidden disabilities such as dementia, autism or loss of sight or hearing, as well as age-related conditions. This work has mostly been driven by the CAA's proactive approach and engagement with the industry.
- 3.9 The government's draft Accessibility Action Plan (AAP) consultation will set out the government's proposals for accessible travel and will be published by autumn 2017. The section of the AAP that deals with aviation will seek views on how to improve the awareness of accessible air travel among disabled passengers and those with reduced mobility. Responses to the consultation on the AAP will be considered together as part of the Aviation Strategy.



## Protection

- 3.10 Consumers need to know that they have a good level of protection if things go wrong. The rights and protections that aviation passengers enjoy come from a number of sources: at the global level, through the Carriage by Air Conventions; at the European level, through a number of EU regulations (principally Regulation 261/2004) and at the national level, through the Consumer Rights Act 2015 and other general consumer legislation. The government's position is that passengers should have a robust level of protection and that their rights should be communicated to them in a timely and clear way. It also wants to make sure that passenger protections are designed in a way that does not unreasonably impact on competitiveness or connectivity.
- 3.11 If the passenger believes their rights have been breached they have the opportunity to claim compensation from the airline. One of the drivers of consumer confidence is the knowledge that if communication with an airline reaches a deadlock, the passenger can take the case to a professional and impartial adjudicator to reach a judgement or settlement.
- 3.12 The government, together with the CAA, introduced Alternative Dispute Resolution (ADR) providers to the sector in summer 2016. Almost 80% of passengers in the UK are now covered by ADR, with 33 airlines that operate in the UK now part of a scheme. Before the introduction of ADR, the CAA was the only body to which consumers could complain about an alleged breach of their rights. Although the CAA has a strong record of success in resolving cases on behalf of consumers, they do not have the power to make

binding decisions. ADR providers have this power, and the government believes that these powers will enhance the offering to the consumer. The government strongly encourages all airlines to subscribe to a scheme.

- 3.13 The CAA also runs the Air Travel Organiser's Licence (ATOL) holiday financial protection scheme. This provides insolvency protection to over 20 million passengers each year. The ATOL scheme has adapted over the years, to reflect changes to the ways in which people book and take holidays. A reform programme commenced in 2012 to modernise ATOL in line with developments in the marketplace and ensure that consumers, rather than taxpayers, pay the costs of adequate protection. The changes which have been introduced have extended consumer protection and helped to make the system fairer for businesses. The capitalisation of the ATOL fund has also improved since 2012, and steps have been taken to ensure that the market takes a greater share of the risks.

- 3.14 It is important that the government builds on these steps, to ensure that ATOL continues to respond to changes in the travel market, and improvements to UK and European travel regulations. The government announced that it will update ATOL to ensure it is in line with a new EU Package Travel Directive (2015), when it is brought into force in July 2018.<sup>19</sup> These changes will extend ATOL protection to a broader range of holidays and make it easier for UK businesses to trade across international borders. This will largely keep the existing structure of ATOL, which will

help consumers, businesses and the CAA to move over to the new Package Travel Directive in 2018. The Air Travel Organisers' Licensing Bill, which aims to modernise the ATOL scheme, was announced in the recent Queen's Speech. The government also wants to ensure that if the market responds to passenger needs in this area, such as by developing a suitable insurance market, it is able to step back from this regulatory approach as appropriate.

## Challenges for the future

- 3.15 In the past 20 years passengers have benefited from increased destination choices and lower airfares. However, there is much more that can be done to improve our understanding of what is most important to consumers and to ensure that the aviation sector is responding to consumer needs.

### Making aviation accessible for all

- 3.16 Population statistics indicate that there is likely to be an increasing demand for accessible travel. We have an ageing population many of whom are used to flying regularly. The CAA has found that the demand for assistance services is already growing faster than general passenger growth in the UK. In 2015, 40% more travellers used assistance services than in 2010, although the total passenger numbers increased only by 20% during the same period.<sup>20</sup> Industry and service providers need to plan for this increasing demand, and ensure that all passengers are aware of the assistance services that are available.

19 UK Government (2017): ATOL reform consultation – government response

20 Civil Aviation Authority (2015): Consumer research for the UK aviation sector

### Providing consumers with the information that they need

- 3.17 Many passengers do not have access to the accurate information they need, such as the best way of getting to and from airports or the typical length of delays. As a result, passengers may not be able to make fully informed choices and switch suppliers, thereby rewarding better performers and incentivising improvements in service quality. Providing better information allows passengers to make more informed choices, providing the market with the incentive to improve the passenger experience and the efficiency with which it operates.
- 3.18 Well-functioning markets are heavily reliant on consumers being able to make informed choices, whether this is on pricing, quality of service, or other issues that are important to them. Where such information is not available in an easily accessible format, there is a role for government to encourage availability of that information. Where consumers do not have the necessary expertise to make informed choices on particular issues, such as security, there is also role for government to impose the minimum standards that consumers would expect.



### Providing protection for when things go wrong

- 3.19 The government is interested in what more can be done to improve long-term consumer protection. It is important that the UK continues to have a fair and effective financial protection scheme for consumers and business, which also minimises the risk for government and the taxpayer. There could be considerable benefits in moving ATOL further towards a more market or risk-based approach to protection. There are several ways in which this could be achieved, which would need careful consideration. It could involve transitioning away from ATOL over time to a market based approach, for example, where protection is provided through bonding, insurance or trust accounts. Or it could involve smaller steps, where the current ATOL architecture is retained, but with a greater focus on risk based pricing and increased market involvement. Further reform to ATOL in the longer term, including how the scheme might interact with insolvency protection outside the aviation sector, or with overlaps in protection provided under Section 75 of the Consumer Credit Act (1974), will be explored as the strategy develops.
- 3.20 There is also the ongoing challenge of making sure that the regulation of passenger rights in the event of cancellation and delays is appropriate. We particularly need to find ways to make consumers more aware of their rights when things go wrong, and we also need to develop the right framework for when the UK has left the EU.

## Managing disruptive passengers

3.21 Disruptive passengers can affect the safety and comfort of both consumers and airline staff. Problems are often caused by passengers drinking too much alcohol. The Air Navigation Order makes it an offence to board an aircraft when drunk, or to be drunk on an aircraft. In autumn 2016 a voluntary code of practice on disruptive passengers, setting out procedures to tackle the issue, was launched by industry trade bodies, and supported by airlines and airports.<sup>21</sup> The government strongly supports the industry in finding ways in which to manage the problem, including through this code. Government will continue to work with industry to consider other possible solutions.

## Better ways of working

3.22 Improved ways of working can make consumer journeys easier, more efficient, and more economically beneficial. There are opportunities for organisations, such as airlines and airports, to improve the ways in which they work, both together and with their customers, to develop new business models. ‘Luggage portering’ is an example of a new system which is already widely used in Japan. This is a new method of handling baggage, whereby bags are collected from passengers before they reach the airport, making consumer travel to and through the airport simpler. It has come about through firms thinking about the rules differently and challenging the existing way in which things have been done. As new business models develop and change the ways in which

the market operates, government and the aviation sector need to ensure that these new methods work fairly and safely, and to the benefit of consumers.



The Hong Kong Airport Express ‘in town check-in’ is a great example of how the consumer journey can be streamlined.

Travellers can check-in luggage up to a whole day before their flight at one of the two ‘in town check-in’ facilities at Hong Kong or Kowloon stations.

They are issued with a boarding pass and can then either travel bag free straight to the airport or spend an unencumbered day in the city.

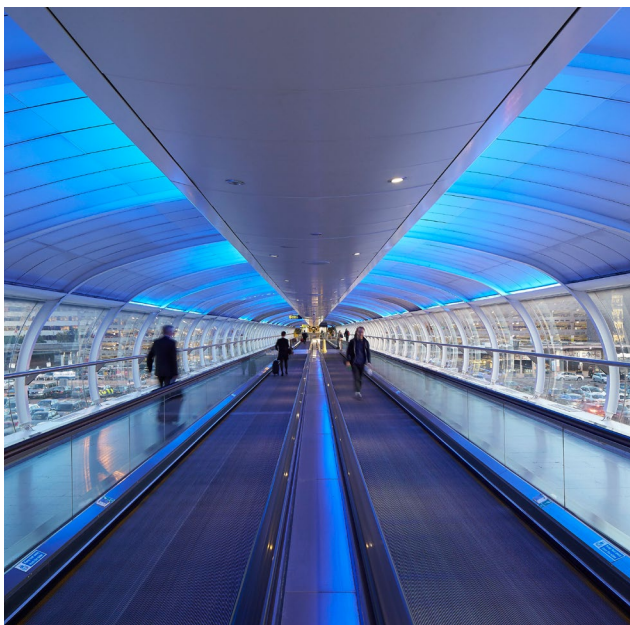
On arrival at the airport, travellers proceed straight through to security and are reunited with their bags when they reach their destination.



<sup>21</sup> The UK Aviation Industry Code of Practice on Disruptive Passengers (2016)

### Alleviating 'pinch points'

- 3.23 Travel to and from airports can be difficult for some passengers. Many passengers use commuter trains to the airport, which are difficult to negotiate with suitcases. Passengers with disabilities can also find that surface access discourages them from travelling by air. The provision of transport access will be explored further in the consultation on supporting growth, but the government will also use the consumer consultation to explore how consumers could be better informed about their options.
- 3.24 People can experience queuing and inconvenience at security and border control points. Developments in security technology could improve the consumer experience and ensure that high standards of security are maintained, while minimising inconvenience to customers. As airport passport control is most people's first experience of the UK, the government wants to consider how it can work with industry to make the arrivals process as smooth as possible.



### Questions for the strategy

- 3.25 The government is interested in exploring the following issues as part of the planned consultation on this objective:
- how to ensure that aviation is accessible to all and meets the needs of passengers with disabilities and restricted mobility
  - the type of information that consumers need in making informed decisions about flights, holidays and other aviation services
  - the opportunities for business, consumers and government to make more innovative use of data, and how this could be used to improve consumer experiences
  - the arrangements that should be in place when things go wrong, such as the protection of consumers from travel agent, tour operator and airline failure
  - how to manage problems caused by disruptive passengers
  - how we can encourage the sector to think about new ways of working that are designed to improve the consumer experience
  - how we can identify and alleviate pinch points in the consumer experience



Ensure a safe and secure  
way to travel

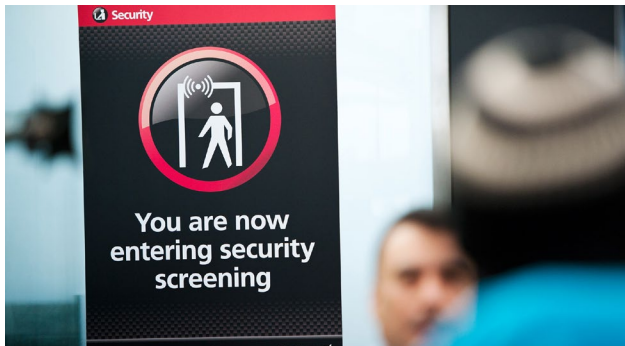
## 4. Ensure a safe and secure way to travel

### Context

- 4.1 Protecting the travelling public and ensuring that aviation passengers are able to travel safely and securely will always be the government's highest priority. This is more important than ever now, when certain terrorist groups are determined to try to harm members of the public. Aviation has been the subject of a number of attacks and plots by terrorist groups in recent years. The terrorist threat continues to develop and is likely to remain at a high level for the foreseeable future – this is particularly true for inbound aviation.
- 4.2 Aviation remains a very safe form of transport, and the UK has an excellent safety record. The fatal accident rate for EU and UK commercial airlines is very low. There have been only two major losses by a European airline in the last 10 years: Air France in 2009 and Germanwings in 2015. It is important that the UK maintains and tries to improve our high standards of air safety, both in terms of protecting human life, and underpinning our economic success.

- 4.3 Under international conventions, aviation security is the responsibility of the host state. This means that the first level of responsibility for inbound flight security into the UK is with the country that the aircraft left last. We need to balance necessary aviation security measures against their impact on the travelling public, freight and industry. The UK has some of the toughest aviation security requirements in the world, though passenger satisfaction is good and queues are generally short. However, as with safety, we cannot be complacent and the aim is to maintain an aviation security regime which is flexible, proportionate and mitigates the security risk to an acceptable level. This includes understanding and mitigating potential new threats, such as cyber vulnerabilities, as well as more traditional threats.





## Approach to date

- 4.4 The Secretary of State for Transport is responsible for aviation safety and security in the UK. This includes overall strategy and policy. The CAA, as the independent safety and security regulator, oversees and regulates many aspects of the aviation industry, including safety and security.

### Safety

- 4.5 The UK's risk-based approach to aviation safety gives priority to the management of the highest aviation risks to passengers and the general public and focusses resources on the most important areas.<sup>22</sup> The CAA is responsible for the delivery of effective and proportionate safety regulation in the UK, but also works closely with partners in other countries to improve safety standards worldwide. The military, crown dependencies and overseas territories have their own aviation safety regimes.
- 4.6 The UK's proportionate approach to aviation safety regulation requires continuous vigilance and the regular review of new and emerging risks, especially when risks are evolving quickly. While the sector strives to pre-empt and manage safety risks, it is important that when something does

go wrong, we can all learn the lessons and respond appropriately. For this reason the government supported the development of a working culture where personnel at all levels are encouraged to report safety occurrences and to help others in the industry to learn from these events. The safety reporting culture is vulnerable to perceptions that there could be any detriment associated with reporting or that no action will be taken, so the government will work closely with the industry to encourage open reporting.

### Domestic security

- 4.7 A risk-based approach has been followed to protect UK aviation interests at home. Security measures and interventions are adjusted depending on the assessed level of threat, vulnerability and possible impact.
- 4.8 For many years the government has taken a user-pays approach to domestic aviation security. This means that industry is responsible for delivering and funding the security measures set by the Department for Transport (DfT) and the CAA as regulator. The government supports industry in promoting and using Security Management Systems (SeMS). These systems strengthen internal quality assurance programmes and ensure high levels of compliance with security requirements. Government is working intensively with industry and security equipment manufacturers to get the most out of technological advances, so that we have the best possible detection capability for potential threats and an improved passenger experience. This has included increased deployment of security (body) scanners at airports in order to improve detection of threats carried by individuals.

<sup>22</sup> Civil Aviation Authority (2014): UK State Safety Programme

4.9 Recent data from passenger surveys at the largest UK airports, as shown in Figure 9, tends to show improved levels of passenger satisfaction with the security processes. As the UK's aviation security regime develops one of the key aims will be to deliver further improvements to the passenger experience.

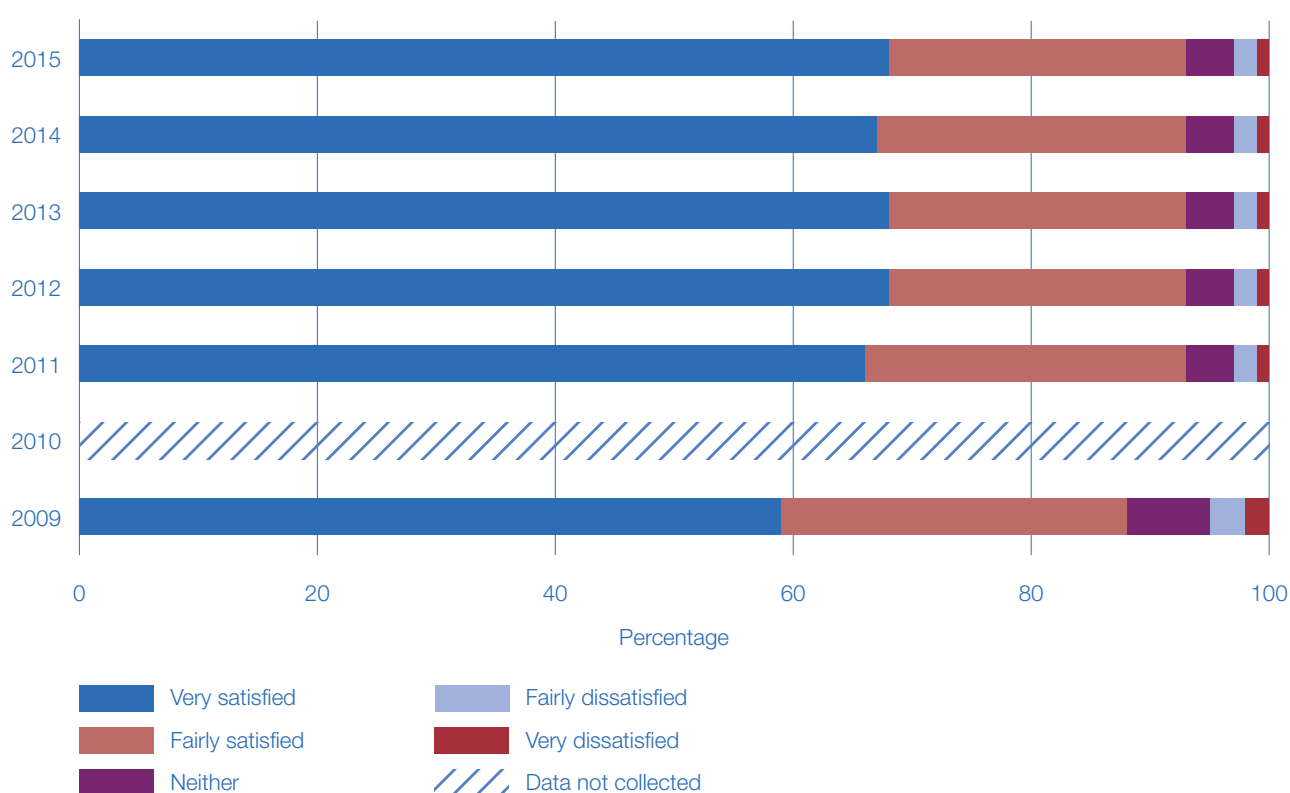


Figure 9 Passenger satisfaction with security processes airports<sup>23</sup>



<sup>23</sup> Department for Transport (2016): Air passenger experience of security screening at selected UK airports, 2009-2015

### International security

4.10 The biggest risks to UK airlines and passengers come from overseas. Reducing this vulnerability has received growing attention and investment in recent years. There is a great variation in the ability of overseas states to ensure the appropriate standards of aviation security. The UK government has significantly increased its network of aviation security experts, who are sent to conduct assessments at higher

risk overseas airports. They also work with local aviation security authorities to correct weaknesses and increase capability. Where the necessary improvements are not being made or where an unacceptable level of risk continues, the government has taken appropriate action including requiring additional security measures and stopping or restricting flights.

- 4.11 The government is working at regional and global levels, through the EU, UN and ICAO, to enhance aviation security standards, increase commitment and improve implementation, capability and training. It is also working closely with partner states and the aviation industry to deliver improvements in the highest priority locations. In September 2016 the UN Security Council passed unanimously a UK-drafted Resolution calling on all Member States to implement and sustain high levels of implementation of aviation security.<sup>24</sup> This is the first time the Security Council has ever dedicated a Resolution to this subject and is a significant milestone in our efforts to raise aviation security standards around the world. The Resolution also supports efforts by ICAO as a UN specialised agency to focus its member states on priority areas for achieving progress in strengthening implementation, leading to ICAO agreeing in short order a new Global Aviation Security Plan.
- 4.12 The UK has also been in the forefront of pressing for and assisting the EU to adopt its own strategy for dealing with the inbound risk, by agreeing a risk assessment methodology among the 28 member states that will allow the EU to identify high-priority locations

where it can both lobby for change and support such change through technical assistance.

## Challenges for the future

### Changing nature of terrorist threat

- 4.13 The intensification and evolution of the terrorist threat, and the likelihood this will persist, is a continuing concern. The government must work to maintain high levels of public confidence that UK air travel is secure. If terrorist events continue to occur at an increased pace and tempo, and across a widening range of locations, this will understandably increase the level of apprehension amongst the travelling public. The work the government is doing to make it more difficult to attack UK bound flights from higher risk locations and to enhance global aviation security standards is essential in mitigating risk to an acceptable level and reassuring the travelling public.



<sup>24</sup> United Nations Security Council Resolution 2309/16

### **Making use of technology**

- 4.14 Aviation security equipment manufacturers and the aviation industry continue to work hard to develop new technological solutions that will detect current threats more effectively and in the least intrusive and most efficient way possible. The government is supporting this work in a range of practical ways, including through targeted financial support of research and trials. It is also consulting the sector about ways of supporting them in bringing new products to market quickly including expediting the testing and evaluation process.

### **Maintaining a collaborative approach with industry**

- 4.15 The government must continue to work collaboratively with industry. It will do this through an established network of security committees and working groups to ensure that security requirements are relevant, proportionate and managed and delivered in the most cost effective way possible. This includes devising security policies that are as future-proofed as possible so that industry investment in new security technologies can be made confidently in the knowledge that requirements will not suddenly change and require further investment in new kit. The government will continue to be as transparent as possible with industry about the underlying threat position, subject to any necessary constraints about the protection of classified information.

### **Adjusting our regulatory framework**

- 4.16 Approximately 80% of UK aviation security requirements are derived from directly applicable EU regulations. However, many of those regulations were modelled on established UK

measures introduced after the Lockerbie bombing in 1988. So the UK has extensive experience of developing and operating a sophisticated domestic aviation security regime, both within and outside an EU framework, and we will ensure that UK security measures continue to be amongst the strongest in the world.

### **Making best use of data**

- 4.17 The UK has historically focused its security on screening of passengers rather than checking the traveller's identity or using other information about them or their journey. Some other states take a different approach. The government plans to explore whether the use of data can help to provide an additional level of aviation security for flights to and from the UK, as well as using resources more effectively and to focus enhanced security measures where the risk may be higher. The challenge is to do this in a proportionate and cost-effective way without creating additional vulnerabilities and within accepted norms around the use of passenger data. New technologies, as well as better data availability may help identify workable solutions. For example, biometric systems which use an electronic device or computer software to assess a person's unique physical and other traits can be utilised to confirm identity and provide surveillance more reliably than existing controls which rely on document or similar checks by a human being. There are a range of such technologies including voice, face, fingerprint or iris recognition as well as sensors.



### Driving forward global engagement

4.18 The UK is acting bilaterally to mitigate aviation risks in those priority locations where vulnerability and risk are assessed to be highest, and targeted UK assistance and advice are making a positive practical difference in many cases. The government also recognises that states need to accept responsibility for delivering effective security in their own airports. It will continue to work through international organisations, including the UN and ICAO, and with like-minded partners, to raise the bar on international aviation security standards, and on building local capabilities and a more effective security culture.

### Questions for the strategy

4.19 The government is interested in exploring the following issues as part of the planned consultation on this objective:

- innovations that should be introduced at UK airports over the next 5-10 years in order to enhance security and improve the passenger experience
- whether more could be done to raise standards of security at overseas airports, and if so, the mechanisms that should be used to achieve this
- whether any UK funding should be provided to assist overseas states to develop their aviation safety capacity where it interacts with the UK safety system or directly affects the UK public
- how safety regulations can enable and support new technological solutions and new business models while retaining adequate protections



Build a global and  
connected Britain

## 5. Build a global and connected Britain

### Context

5.1 The aviation sector is central to building a truly global and connected Britain. The aviation industry already provides direct flights to over 370 destinations in over 100 countries (as shown in Figure 10). It is this infrastructure network that enables the UK's trade around the world, boosts productivity, and facilitates important leisure and tourist travel. Air transport is also a thriving sector of the economy in its own right, contributing around £14 billion to the UK's GDP.<sup>25</sup> The government has set out its preferred option for additional capacity in the South East and this will help to provide more of the international connectivity that the country needs.

5.2 This chapter outlines how the government will support the aviation sector to fulfil its potential by opening and influencing markets around the world and helping UK industry and consumers take advantage of international opportunities.

### Approach to date

#### Air Service Agreements

5.3 The UK's Air Services Agreements (ASAs) open up aviation markets around the world to the benefit of the consumer. ASAs cover traffic rights for passenger and cargo airlines. ASAs also detail the permitted ownership structures of airlines and establish which airports airlines can fly to.



Figure 10 Direct destinations served by at least one UK flight a week<sup>26</sup>

<sup>25</sup> DfT analysis of ONS GDP low level aggregates (2015)

<sup>26</sup> Civil Aviation Authority (2015): Airport data

5.4 The UK has sought to liberalise and deregulate international air service arrangements. The aim has been to, on a reciprocal basis, allow carriers to operate fairly and within an appropriate regulatory framework. As a result of this approach, the number of destinations served daily from UK airports has gone from 121 in 1990 to 198 in 2015.<sup>27</sup> There has also been a long-term decline in air fares of around 60% between 1991 and 2011.<sup>28</sup> Improved connectivity to and from the UK facilitates inward investment and growth by increasing competition and bringing new ideas and ways of doing things to the UK.



Figure 11 International destinations served by UK airports, 1990-2015

27 DfT Analysis of Civil Aviation Authority (2015): Airport Data

28 UK Government (2011): Reform of Air Passenger Duty – A consultation

## International standards

5.5 Aviation standards are aligned across the world to ensure consistency in important areas such as safety, security and the environment. Worldwide standards are set by ICAO. Given the global nature of aviation, differing rules and regulations between national and regional jurisdictions can create problems. There are costs resulting from aviation businesses having to set up large regulatory compliance teams to ensure they are complying with a variety of standards and rules. The UK has significant influence in many of the international and regional bodies who are involved in setting global standards. The UK has led and co-ordinated these bodies to reduce problems and help ensure that UK passengers benefit from common baseline standards of safety and security wherever they travel.

## Air freight

5.6 The UK has a successful air freight sector, which we rely upon to support our industries to move goods around the world and import them into the UK. As shown in Figure 12, in 2015 goods worth around £160 billion were shipped by air between the UK and non-EU countries. Air was the only mode used where exports were greater than imports. This represented over 40% of the UK's extra-EU trade by value and shows the importance of aviation to our global trade.<sup>29</sup> Goods shipped by air freight tend to be of a high value, such as pharmaceuticals, bespoke or high quality manufactured goods and fresh food. Heathrow handles 65% of our air freight, with East Midlands Airport and Stansted being the next largest airports for freight transport. The importance of Heathrow to the air freight market, and its potential for growth, was an important argument for supporting the proposed expansion there.

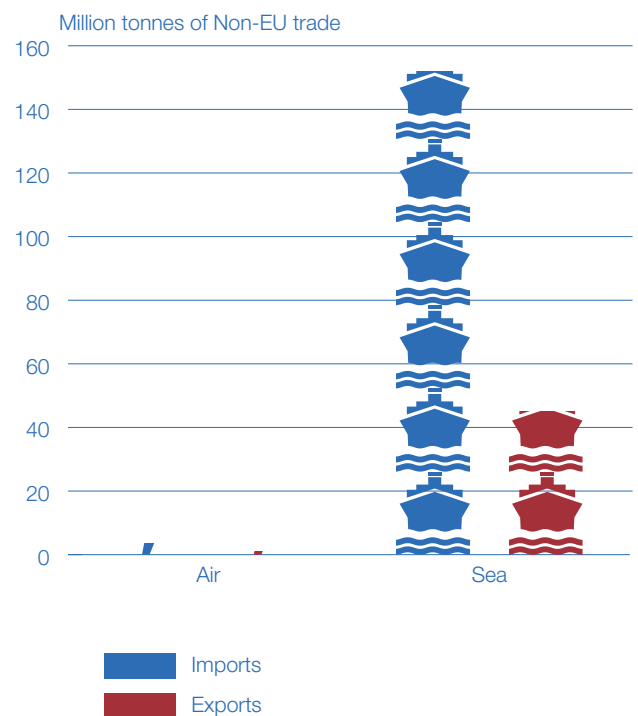
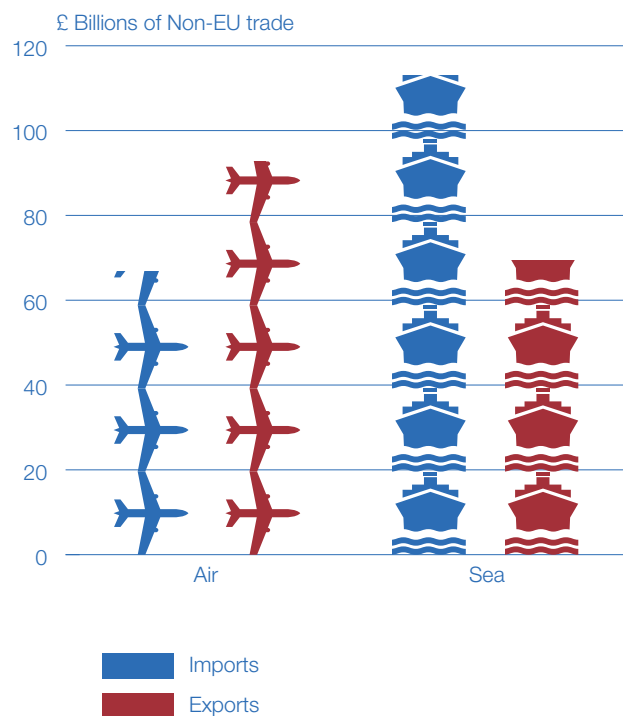


Figure 12 UK non-EU trade by air and sea (2015)

29 HMRC trade statistics, 2015

- 5.7 The UK has well developed air freight connections which, when combined with good quality customs services and smart borders, ensures countries are better integrated. The UK is currently only 13th on the Air Trade Facilitation Index (ATFI) and 22nd on the eFreight Friendliness Index (EFFI), both of which are measurements compiled by the International Air Transport Association (IATA) to measure the ease and efficiency of air freight processes across the world.

## Trade

- 5.8 Companies that export goods and services contribute 60% of the UK's productivity growth.<sup>30</sup> Aviation supports our manufacturing and service sectors by moving people travelling on business and high value and time critical goods across the world. Aviation has a key role to play in achieving the government's ambitions to increase productivity and grow the economy. As part of its objective to support sustainable economic growth, the government will look at how best to encourage regional connectivity to ensure these opportunities are open to the whole of the UK.

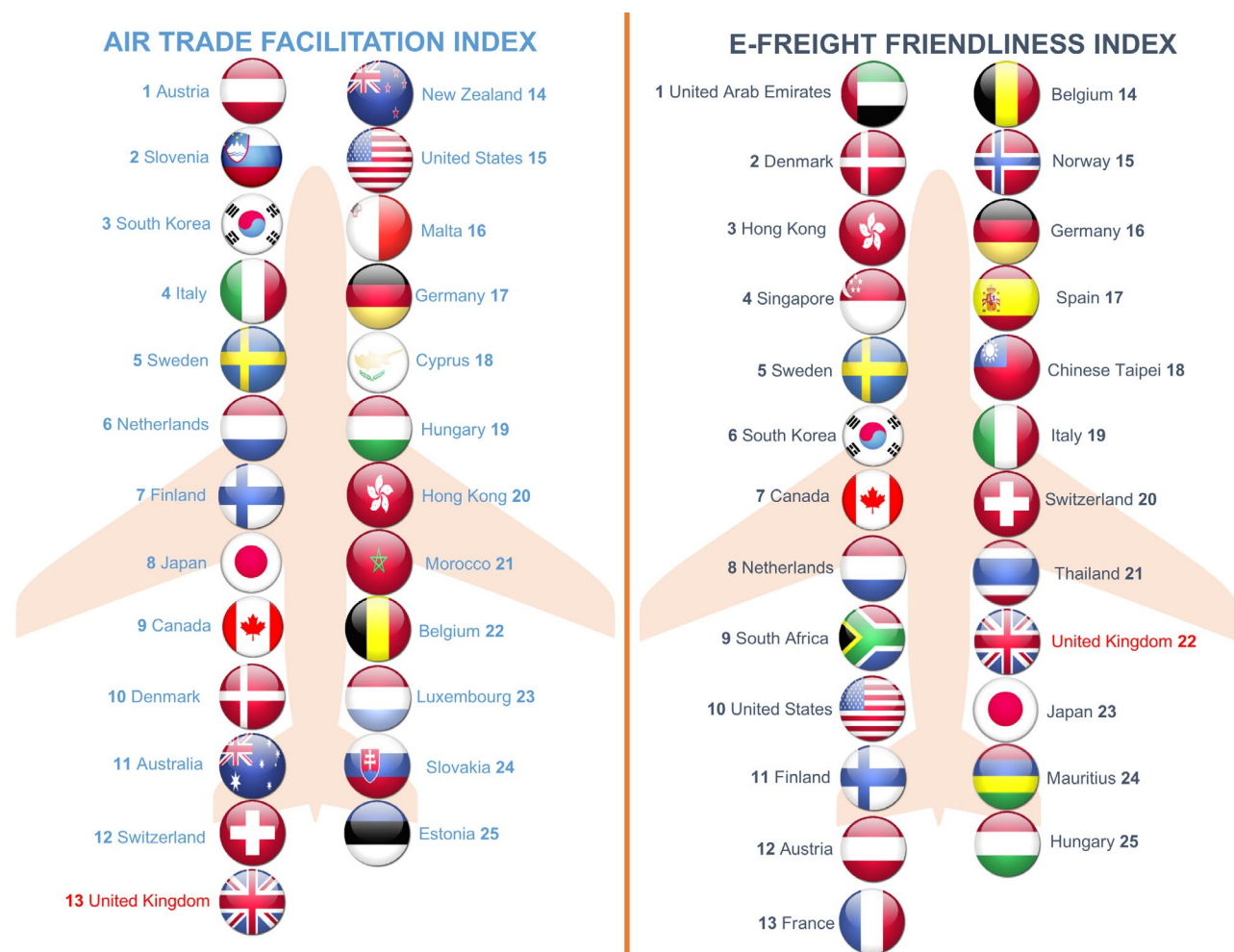


Figure 13 Current UK position on ATFI and EFFI

30 BIS (2011): International Trade and Investment – the Economic Rationale for Government Support

## Expertise

5.9 The UK has world-leading aviation expertise, from our regulatory model and expertise at the CAA, to our Air Traffic Management (ATM) providers and airport operators. The UK also has a great deal of expertise in the aerospace sector, and this is discussed in Chapter 8. The government supports the sector through consistently scanning the globe for trade opportunities, liaising with foreign governments and facilitating relationships. Government continues to promote our world-leading aviation industry and help businesses to bid for important contracts overseas. This is part of the government's plan to develop an industrial strategy which works for the aviation sector.

## Challenges for the future

### Improving our global connectivity

5.10 The government is committed to building a truly global Britain, being a firm advocate of free trade and supporting exports and inward investment. This includes keeping close ties to our European neighbours, and reaching beyond the borders of Europe to grow our connections across the world. This is especially relevant to the aviation sector, where the government wants to continue to encourage the widest access possible to aviation markets for consumers and businesses.

5.11 In the short term, post-referendum, the government is focused on the 44 countries including EU member states, the US and Canada, where our market access is via EU-negotiated agreements. Alternative arrangements will be required for air services to or from these countries when the UK leaves the EU. New arrangements are a top priority for the government.

5.12 The government has been engaging closely with industry on the impact of leaving the EU and will continue to do so. It is committed to working with the sector to get the best possible deal for UK aviation, including for the EU-negotiated agreements. The planned consultations on the Aviation Strategy will look more broadly and over a longer timeframe at the UK's aviation agreements. The government will consider whether there is more it could do to further liberalise market access arrangements for the UK to deliver greater connectivity and choice. It is interested in exploring whether current priorities in ASAs are well matched to where the greatest gains lie for businesses and consumers. As passenger numbers grow it will be important to ensure the UK has enough airport and airspace capacity to manage this in a sustainable way, and this is explored in more detail in Chapter 7.



## Strengthening our leadership on the global stage

5.13 As a global leader in aviation the UK has considerable international influence. It is important that we continue to lead the creation of effective, streamlined standards in the interests of UK industry and consumers. The government wants to fully examine our role in supporting agreed standards in order to identify where there may be opportunities to reduce imbalances in this global market. The government will also consider the most effective way to achieve its aims, whether this is by staying involved in the development of all standards or by focusing resources on standards that are particularly important to the UK.

## Facilitating and supporting trade

5.14 To deliver on the promise of a global Britain, the UK must take positive steps to reduce barriers to trade. The UK's position on the ATFI and EFFI shows that there is progress to be made in reducing barriers to trade. The government will investigate what these issues might be for companies who are part of the aviation sector and their customers, and how they might be reduced. DfT will work with the Department for International Trade (DIT) and the Department for Business, Energy and Industrial Strategy (BEIS) to see what more can be done to support this sector around the country, including looking at how aviation is linked up with other modes of transport. The government also wants to explore what more can be done to leverage UK skills and experience overseas, the benefits that further international collaboration could bring and what more the government could do to promote the air transport and aerospace sector to encourage the right connections and attract inward investment.

## Questions for the strategy

- 5.15 The government is interested in exploring the following issues as part of the planned consultation on this objective:
- identifying priorities for future Air Service Agreements and how government can support the connectivity needed by UK businesses
  - how the UK can further harmonise standards at the international level to enhance connectivity and trade, and reduce the costs of cross-border movement. For example, by looking at whether there are areas where current standards are limiting growth and imposing unnecessary burdens on businesses
  - identifying the specific obstacles that may be faced by the air freight industry and how the government can help it to grow
  - exploring what more the government could be doing to promote the exports of our aviation and aerospace sectors overseas and attract inward investment





## Encourage competitive markets

## 6. Encourage competitive markets

### Context

6.1 The UK has built an impressive reputation for air transport and aerospace. By supporting the growth of these sectors our overall aviation sector has become one of the most competitive in the world. The government wants to continue this success and is aiming to ensure our markets work effectively and our industries are competitive. This chapter addresses the need to encourage competitive markets that work for consumers.

### Approach to date

6.2 More than in any other country, UK aviation operates in the private sector and in a competitive environment. Airlines choose where to base aircraft, where to fly, what fares to charge, what in-flight service levels to provide and which aeroplanes to use. Airports choose what investments to make and what airport charges to impose. The rest of the sector operates in a similar way, with firms competing with each other to attract customers. The more competition there is, the more effort businesses have to put in to attract users. This brings benefits for consumers.

6.3 Competition is vital for making sure that markets work well for consumers. It encourages innovation, drives businesses to improve the quality of goods and services they offer, leads to more choice for consumers and maintains a pressure on firms to keep their prices low. It also makes UK industry competitive globally. The benefits of competition in the aviation sector are clear. As the sector has become more competitive, the real cost of air travel and air freight has reduced, with passengers having a greater choice of destinations and airlines, and freight owners being served in a number of different ways.

### Airports

6.4 The UK is served by over 50 airports offering commercial flights, with many more airfields offering cargo and non-scheduled aviation facilities. The CAA has a duty to promote competition across the airport sector, with powers that are held jointly with the Competition and Markets Authority (CMA). There are also a number of airport specific regulations to ensure that airport charges are clear, fair and objectively set, and to ensure that airports do not unfairly restrict third party access to ground handling services.

- 6.5 Despite this, there are certain airports that have substantial market power and are not exposed to sufficient levels of competition. Under a framework established in 2012, the CAA licences and regulates these airports to make sure that they act in the interests of their users.<sup>31</sup> The CAA can impose conditions in relation to issues such as prices and service quality. The CAA currently regulates two airports under this framework – Heathrow and Gatwick.

### Slots

- 6.6 The purpose of the existing slot allocation system is to make efficient use of airport capacity and reduce potential for airport congestion which could lead to delays for airlines and passengers. This process is co-ordinated by Airport Coordination Limited (ACL) and is entirely independent of the government, the CAA and other interested parties. It is based on EU regulations which determine how slots are allocated to airlines.<sup>32</sup>

### State aid

- 6.7 In a private, competitive market, firms should be able to operate without government support. Airports should cover their operating costs and fund the infrastructure they need, and airlines should determine the routes they operate. There are limited circumstances where public support may be appropriate. Currently rules determining these circumstances are set out in EU guidelines on state aid for airports and airlines.



### Air navigation services

- 6.8 Air traffic control between airports is currently provided by a single supplier, NATS. NATS is regulated and licensed by the CAA, who impose conditions in relation to price, service quality and operational resilience under a similar framework to that used for airports that have substantial market power.
- 6.9 Air traffic control services at airports operate in a competitive market. Airports either tender the service to a third party provider, or choose to self-supply the service. While the market has previously been dominated by NSL (a subsidiary of NATS), other suppliers are coming into the market. The government will look at how further competition can be encouraged.

## Challenges for the future

### Maintaining a competitive airports market

- 6.10 The government wants to consider its overall approach to ensuring a competitive airport sector with appropriate economic regulation. It would like to explore the interactions between airports, customers, and other service providers at airports, and consider whether current competition rules and the enforcement of them are working for the consumer.

31 Civil Aviation Act 2012

32 Regulation EEC 93/95, as amended by EC 793/2004, on the common rules for the allocation of slots at Community airports.

## Maximising competition amongst airlines

- 6.11 The government wants to test the widely-held assumption that the airline market is fairly competitive. It would like to use the consultation on this objective to consider views on how effectively competition law is enforced within the airline market, whether more could be done to encourage competition, and whether there are any further steps to liberalisation the government should be considering.
- 6.12 The government understands that there are concerns from industry and others about the impact that Air Passenger Duty (APD) has on the competitiveness of UK aviation. It also recognises that APD is the only tax paid by the airline sector. This is an area of policy led by HM Treasury and the government is keen to explore the impact of APD on competitiveness and how aviation taxation policy could support the objectives of the strategy.

## Boosting regional connectivity

- 6.13 The government recognises that airports across the UK make a vital contribution to the health of the whole country. Airports outside the South East do not always have the connections with global markets of some of their competitors. Consequently, these areas can miss out on trade-related economic activity and tourism. The Airports Commission's final report recommended that government consider using public service obligations (PSOs) to support a widespread network of domestic routes at Heathrow. The government will consider the level of connectivity our nations and regions require to support economic growth, whether the market is able to provide this, and what the role is for government support.



## Reviewing slots regulations

- 6.14 Existing slot regulations are based on the assumption that as airports become congested, they invest in additional capacity. It assumes that slots should be allocated in a non-discriminatory way, with some priority for new entrants. A number of airports within the UK have limited or no spare capacity at certain times in the day, and airports such as Heathrow and Gatwick have little or no spare capacity at any time. This has led to airlines finding it increasingly difficult to acquire slots at some airports. While there is a secondary trading market for slots, the price tags can often be restrictively high. Combined with the non-market mechanism for slot allocation and rules around 'grandfather rights', it has been argued that the allocation process can limit competition, to the detriment of passengers.

## Achieving the right balance on state aid

- 6.15 The government would like to explore whether current state aid rules are correctly balanced in the aviation sector. It wants to ensure that state funding does not distort competition and the effective functioning of markets. It also wants to support projects with wider economic or social benefits which might otherwise be under-resourced.

### Maintaining and encouraging competition in air navigation services

6.16 The government will consider whether more could be done to encourage new air navigation service suppliers to enter the market and compete with existing suppliers. The strategy will consider how new technologies might open up the market and help to increase competition, and whether there is a role for government in promoting this.

### Making the most of our general aviation network

6.17 General aviation (GA) covers a wide range of activities, from business jets and air taxis through to hobbyists flying aircraft they have built themselves. The GA sector plays an important role in the overall aviation world, delivering economic benefits but also encouraging many people to become involved in aviation. The most recent General Aviation Strategy<sup>33</sup> set out the government's vision for the GA sector and made a number of commitments for reform. There are specific issues that the government is keen to better understand. These include: the decline in the numbers of leisure pilots and aircraft; the tensions between the needs of scheduled and non-scheduled aviation regarding access to airspace and airport infrastructure; and the closure of some smaller airports, airfields and airstrips. The government is interested in gaining a better understanding of the benefits and requirements of the sector, and whether it is possible to identify a strategic network or level of infrastructure to enable the sector to continue its valuable role.

### Questions for the strategy

- 6.18 The government is interested in exploring the following issues as part of the planned consultation on this objective:
- whether the existing slot regulation produces the best outcome for the consumer in terms of competition, routes and prices
  - where significant additional slot capacity is being brought forward, whether the existing slot regulations produce the best outcomes for the consumer in terms of competition, routes and prices
  - the potential impact of Air Passenger Duty on competitiveness and the ability of airlines to start new routes
  - whether state aid rules ensure fair and open competition
  - what more could be done to encourage competition in the Air Navigation Services market and what impact new technologies could have on this
  - what the strategic needs of the UK's general aviation network are, and how to meet these while balancing this with other market based factors



33 UK Government (2015): General Aviation Strategy



Support growth while tackling  
environmental impacts

## 7. Support growth while tackling environmental impacts

### Context

- 7.1 Aviation is an important vehicle for growth and crucial to building a strong economy. The sector creates jobs and supports growth right across the UK. The aviation industry has recovered strongly since the global recession at the end of the last decade, with UK passenger numbers now at a record high.
- 7.2 Aviation brings huge benefits to the economy and society, but this growth comes at an environmental cost, both at the local and global level. Government and industry have a vital role in ensuring that the aviation sector grows in a sustainable way. The strategy will explore how government can work with the aviation, aerospace, and air traffic management sectors to build on the progress already made, and ensure that the UK leads the way in exploiting all opportunities to reduce its environmental impacts. Government's role in managing environmental impacts includes setting a policy framework which encourages industry to address these issues, funding cutting-edge research and development, shaping global agreements, and developing appropriate regulation where it is needed.

### Approach to date

#### Investment and capacity

- 7.3 The government believes that aviation infrastructure plays an important role in contributing to economic growth with the connectivity it provides. A number of airports across the UK have invested heavily over the past few years in their infrastructure. Bristol Airport recently completed a £150 million investment project. This will allow them to accommodate 10 million passengers each year. Manchester Airport has started work on their £100 million terminal transformation project. Beyond airports, many others in the aviation sector have been investing in infrastructure to support growth, including DHL who have invested £90 million in facilities at East Midlands Airport to ensure the UK's export market continues to grow. Government investment in transport schemes also continues to improve access to our airports.



- 7.4 To ensure that the UK can maintain its long-term connectivity, the government set out its preference for additional capacity in the South East to be provided through the Northwest Runway at Heathrow. It has recently consulted on the draft NPS, which set out the requirements the applicant would need to meet in order to secure development consent for the preferred scheme.
- 7.5 A new runway at Heathrow will drive economic growth throughout the whole of the UK, but airports beyond the South East also play a vital role in providing direct domestic and international connectivity. They also act as a focal point for business development and employment across all regions. Therefore government's approach to expansion at these airports has been to support growth where environmental impacts can be managed.

### Airspace

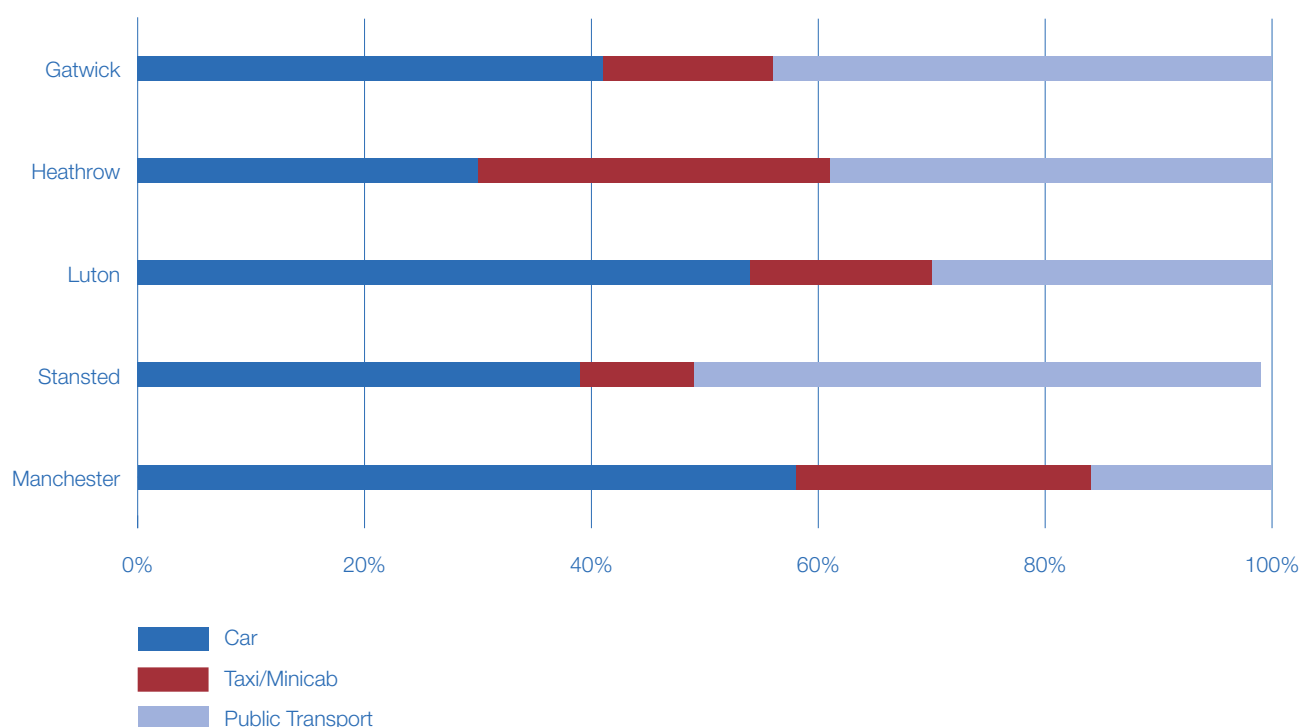
- 7.6 The government is committed to modernising UK airspace. This will make best use of advanced technologies and air traffic control techniques to reduce environmental impacts on communities and delays for airlines and their passengers, for example through the reduction of stacking and the ability of getting aircraft higher quicker.

- 7.7 In its recent airspace consultation the government has focused on providing high level direction and support for modernisation, as well as taking a bottom up approach to facilitating individual airspace changes by ensuring that the relevant policies and procedures are fit for purpose. Current government policy leaves industry to propose their own modernisation schemes and progress airspace changes, which are independently assessed by the CAA.

### Surface access

- 7.8 Although the government does not invest in airport infrastructure, it does have a significant role to play in providing transport access – ensuring that airports are connected to the existing national road and rail networks and that those networks have sufficient capacity to handle the traffic moving through those gateways. As Figure 14 shows, people use a variety of means to get to and from airports.





**Figure 14 Mode of travel to and from the UK's biggest airports<sup>34</sup>**

7.9 The government's existing road and rail investment strategies explicitly consider the links to airports, and contain a number of investment projects to provide better access. These include the £15 billion investment in Crossrail, which will connect to Heathrow; the £6 billion Thameslink programme, providing benefits to Gatwick; and other commitments such as HS2, which will improve access to both Birmingham and Manchester airports.

7.10 The government's current policy on the provision of new or upgraded transport access is for airport operators to pay for upgrading or enhancing road, rail or other transport networks or services, where there is a need to cope with additional passengers travelling to and from airports. To support this process airports should set out their proposals in an airport master plan and in a

corresponding airport surface access strategy, which should be prepared in consultation with relevant interested parties. Where the scheme has a wider range of beneficiaries, the government will consider the need for additional public funding on an individual basis.

### Noise

7.11 The government has typically favoured local solutions when dealing with aviation-related noise. The recent airspace consultation contained proposals for local authorities to ensure that correct processes are followed when implementing noise-related operating restrictions on airports, and for airports themselves to set other noise controls. It also included the proposal to establish a new independent body to provide advice on best practice in noise management.

7.12 All aircraft noise management should be guided by the internationally agreed

<sup>34</sup> Civil Aviation Authority (2015): Passenger Survey Report

ICAO ‘balanced approach’. There are four main elements to this approach:

- reduction of noise through technological improvements to aircraft
- land use planning, charging and compensation
- noise reduction through better operational practices
- operating restrictions on aircraft, including phasing out the noisiest aircraft, night time restrictions and noise quotas

### Air quality

7.13 The government’s current policy on aviation-related air quality is to seek improved international standards to reduce emissions from aircraft and to encourage the aviation industry to introduce measures to reduce those emissions for which it is responsible. The £1.95 billion that the government has committed for civil aerospace research and development (R&D) will also contribute towards the development of the next generation of commercial aircraft, with the aim of reduced emissions and noise. The government will shortly publish a final national air quality plan including further measures to improve air quality.

### Carbon emissions

7.14 On climate change, which is a global rather than a local environmental issue, the government’s position is that action to address these emissions is best taken at the international level. Global action allows for progress in reducing aviation’s climate change impacts whilst minimising the risks of competitive disadvantage to the UK aviation industry. This position is shared internationally. Emissions from

international aviation are tackled at the sectoral level through ICAO, which has been working for a number of years on measures to achieve its goal of carbon-neutral growth for the sector from 2020.

7.15 Measures include technological improvements, operational measures, sustainable alternative fuels and market-based measures. The government agrees that a combination of measures and approaches are needed to tackle this issue. The government is also looking to make progress at a domestic level, including by encouraging the production and use of new aviation fuels in the UK. It has consulted on a proposal to extend the Renewable Transport Fuels Obligation<sup>35</sup> eligibility to aviation fuels, and has announced capital support for UK-based sustainable aviation fuel plants.



<sup>35</sup> Requirement on transport fuel suppliers to ensure that certain amounts of the fuel they supply is from sustainable renewable sources.

7.16 Emissions from international aviation (along with international shipping emissions) are currently excluded from the legally-binding 2050 target which was set by the Climate Change Act 2008 and from the five carbon budgets which have been set to date (covering the period up to 2032). However, the UK's carbon budgets have been set at a level that accounts for international aviation and shipping emissions, so that the UK is on a trajectory that could be consistent with a 2050 target that includes these emissions.

## Challenges for the future

- 7.17 The government has already taken significant steps to meet the challenges of a growing sector. It has:
- consulted on a draft NPS for its preferred option of a third runway at Heathrow
  - consulted on UK airspace policy in order to deliver the necessary framework and direction to unlock the benefits of modernised airspace, while addressing the local impacts of aviation noise
  - shaped the agreement of a global scheme to control the carbon emissions from international aviation



7.18 However there is still further work required if we are to reap the benefits that aviation can deliver for this country and ensure its environmental impacts are addressed.

## Making best use of existing capacity

- 7.19 The government has set out its preferred option for one new runway in the South East by 2030 and in the Aviation Policy Framework expressed its support for the growth of airports in Northern Ireland, Scotland, Wales and airports outside the South East of England. The Airports Commission noted in its final report that a new runway will not open for at least 10 years and it is vital that the UK continues to grow its domestic and international connectivity in this period, which will require the more intensive use of existing airport capacity.
- 7.20 Strong growth in passengers over the past five years, including in the South East of England is putting significant pressure on existing infrastructure, despite significant financial investments by airports over the past decade. We are aware that a number of airports have plans to invest further, allowing them to accommodate passenger growth over the next decade using their existing runways, which may need to be accompanied by applications to increase existing caps. The government agrees with the Airports Commission's recommendation that there is a requirement for more intensive use of existing airport capacity and is minded to be supportive of all airports who wish to make best use of their existing runways including those in the South East. The exception to this is Heathrow, whose proposed expansion is proceeding through the draft Airports NPS process.



7.21 Airports with planning restrictions that wish to take forward plans to develop their airport and increase the utilisation of existing runways beyond those restrictions will still need to submit a planning application to the relevant authority, which we consider should be judged on the application's individual merits. As part of the consideration of any planning application environmental issues, such as noise and air quality, and other issues that supported the existing planning restrictions will be taken into account. Due to the recent rise in growth, the government believes that this issue cannot wait until the publication of a new Aviation Strategy. Therefore, as part of the call for evidence, it would welcome views with regards to this proposed policy.

### Future growth beyond 2030

7.22 Since 2010, the number of passengers flying from and to UK airports has increased by 27% with almost 270 million passengers now passing through UK airports. Most airports in the UK are now flying more passengers than ever before, with airports such as Gatwick, Manchester, Luton, Edinburgh, Birmingham, Glasgow and London City all experiencing growth in excess of 35% since 2010. The government plans to publish revised aviation forecasts which will make use of DfT's updated aviation model. These forecasts will take account of new economic and environment data, while rebasing the model to take account of recent growth.

7.23 The government has set out its preferred option for an additional runway in the South East, which will be required by 2030. Beyond this there will be a need for the government to consider whether there is a need for a new framework to be developed to allow airports to grow sustainably and if so what that framework should look like.

### Modernising our airspace

7.24 As demand for air travel has grown, so too have the demands placed on our airspace. If we are to foster growth and investment in the sector, we need to make efficient use of airspace. This includes using modern technology to its fullest effect. We also need to make sure that communities affected by current and new flightpaths are fully engaged. For example, they should be involved in the decisions on where aircraft are allowed to fly, and the times when they can do so.

7.25 Airspace modernisation is required right across the UK and we need to consider how it can be best delivered. The government, CAA, NATS, airports and air navigation service providers will all have roles to play in the success of the programme.

7.26 In the recent airspace consultation the government focused on providing high level direction and making sure the policies for individual airspace changes are fit for purpose. This approach left the proposal and pursuit of airspace changes to the regulator and the market. As part of the Aviation Strategy the government will consider the roles, structures and powers that currently exist and what, if any, new ones will be necessary to bring about the network wide, co-ordinated and complex changes needed for airspace modernisation.

## Ensuring a resilient aviation market

7.27 As the busiest airports operate their infrastructure close to capacity limits they often see a reduced ability to recover from disruption caused by, for example adverse weather. Significant impacts from such disruptions have been seen in recent years at Heathrow, and increasingly also at Gatwick as it has seen its spare capacity used up. Other airports across the country have also had to deal with similar disruption to their operations. Airports should therefore take into consideration how future investment, including in infrastructure, could be used to support greater resilience. In addition, complex IT systems and aviation's reliance on many different secondary providers to support their operations creates additional resilience risks. The government therefore believes that airports and airlines should continue to have well-developed resilience plans in place, which should be shared with relevant stakeholders.



## Improving surface access

- 7.28 The government wants to ensure that its policy and guidance on transport access to airports continues to be effective and can provide both the clarity sought by airport operators but also an effective framework through which they can pursue their surface access plans.
- 7.29 The government will review the effectiveness of its policy and guidance, and consider how co-ordination between government processes for transport access improvements and airport plans may be improved. It would also like to examine: how well current transport links meet airport users' needs and understand what future infrastructure or service upgrades may be needed to address future airport growth. It will also consider the circumstances in which it is appropriate for government to provide funding for transport access to airports.

## Reducing noise

- 7.30 While there are benefits to living near airports, through employment and convenient access to an international gateway, aviation noise can have negative impacts on the quality of life of those living near airports and under flightpaths in terms of annoyance, sleep disturbance and health issues. It is recognised that opposition to airport expansion and airspace changes is driven primarily by local concerns about noise and that continuing growth in air traffic will make this more challenging. Industry has made substantial progress in reducing noise through better technology. New generation aircraft such as the Airbus A350 and Boeing 737-MAX have a noise footprint that is typically 50% smaller on departure and 30% on arrival than the aircraft they are replacing.

- 7.31 There has also been progress in developing quieter operating procedures, such as steeper angles of climb and descent. The government will continue to seek further progress from industry and will explore in the Strategy whether the right incentives are in place to reduce noise. This includes looking at how to manage trade-offs between optimising new aircraft design for noise or carbon, the use of noise charges at airports and mechanisms which ensure aircraft are flown in compliance with procedures to manage noise.
- 7.32 Even as aircraft are getting quieter, recent evidence suggests people are becoming more sensitive to noise at lower levels and that the number of flights overhead can be a more significant factor than the average noise level, though annoyance is very subjective.<sup>36</sup> The government's recent consultation on airspace policy proposed changes in how noise should be assessed in the airspace change process, to take account of this evidence. However, there remains a challenge when technological improvements in noise reduction do not appear to be sufficient to deal with the negative impacts on some communities' quality of life.



- 7.33 Given that conventional ways of mitigating noise have arguably failed to reduce public annoyance, particularly where there has been a noticeable increase in the number of flights, the government will explore whether a new approach to reducing noise annoyance is needed. This could include better information and engagement or creating a greater sense of 'fairness' and sharing of the benefits of aviation growth, including new forms of compensation and community investment. The strategy will also explore how sustainable growth should be defined in terms of noise. For example, whether it is possible to design targets for noise reduction and how best to monitor and report aviation noise at a national level.

### Improving air quality

- 7.34 The aviation industry, including in partnership through Sustainable Aviation, is working to reduce airport-related emissions through a range of measures. These include the more efficient operation of aircraft, introducing efficient new technology, using landing charges to incentivise cleaner aircraft, reducing vehicle emissions within the airport boundary and sustainable surface access. Through the development of an Aviation Strategy, the government would like to explore whether it should be taking a more proactive role in tackling air pollution from aviation. In doing so it will seek to better understand the impact of emissions on air quality and invites views on what more can be done to support airports in mitigating the impact on the health of communities.

36 CAA (2017): Survey of Noise Attitudes 2014: Aircraft

## Reducing carbon emissions

- 7.35 Taking action to address carbon emissions from aviation is vital if we are to meet the international goal, set out in the UN climate change agreement in December 2015, to keep the global temperature rise this century to well below 2 degrees Celsius on pre-industrial levels, and to pursue efforts towards 1.5 degrees Celsius.
- 7.36 In the UK, CO<sub>2</sub> emissions from aviation use made up 8% of total UK emissions in 2015. However, as shown in Figure 15, international and domestic aviation represented 22% of the UK's total transport emissions.<sup>37</sup> Aviation's share in total UK emissions has been steadily increasing as emissions from other sectors have fallen, but significant progress has been made over recent years in tackling the sector's climate change impacts.

- 7.37 Although it is challenging to decarbonise the aviation sector, there are ongoing efforts by industry, ICAO and government to reduce the sector's emissions. There are strong market pressures for industry to act in this regard – fuel is a substantial part of an airline's costs and saving fuel lowers costs as well as carbon emissions.

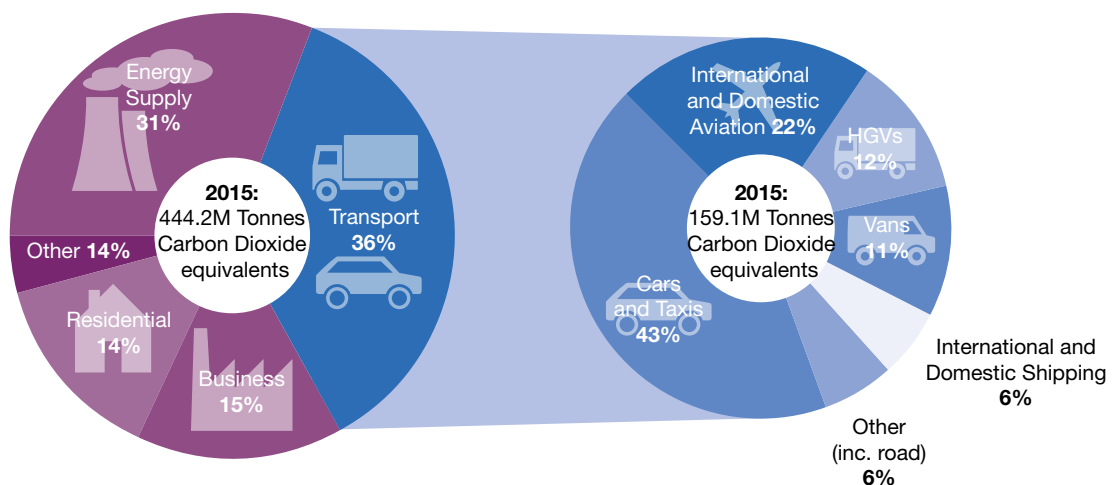


Figure 15 UK CO<sub>2</sub> emissions by mode of transport (2015)<sup>38</sup>

37 Office for National Statistics (2015): Environmental Accounts UK Government – BEIS (2015): Final UK greenhouse gas emissions national statistics 1990-2015

38 UK Government (2015): Final UK greenhouse gas emissions 1990-2015

7.38 ICAO, government and industry have together sought to identify the most effective routes to reduce the carbon being produced by aircraft. Some of the measures the government is currently taking to support the industry's efforts are:

- accelerating the introduction of new technologies
- supporting the uptake of sustainable alternative fuels
- committing to airspace modernisation both at the UK and international level
- shaping international market-based measures

7.39 In parallel to this call for evidence, the government is undertaking analysis to update the UK's Marginal Abatement Cost Curve (MACC). This shows the relative cost effectiveness of various possible measures to tackle emissions. The results of this work, together with our updated demand forecasts, will give a clearer picture of the scale of the challenge and the consultation paper on this objective will set out more detail on the potential options to meet it. This could, potentially, address some of the policy trade-offs between optimising new aircraft design for carbon or noise reduction.



## Questions for the strategy

7.40 The government is interested in exploring the following issues as part of the planned consultation on this objective:

- whether there should be a new framework to allow airports to grow sustainably, and if so what that framework should be
- whether the government has the right structures in place to support airspace modernisation
- how government and industry should address resilience issues both at specific airports and within the wider airport system
- what the government could do to help co-ordinate the planning and delivery of improved surface access to meet the needs of consumers
- how to encourage and improve connectivity across the regions and nations of the UK in a way that benefits the country as a whole
- how to ensure all regions of the UK have suitable connectivity to major airports
- how to achieve the right balance between growing the sector, and ensuring effective action is taken to tackle carbon emissions, reduce noise and improve air quality
- whether the right incentives and regulations are in place to ensure industry continues to reduce noise, including the feasibility of noise targets
- what the best approach and combination of policy measures are to ensure we effectively address carbon emissions from aviation



Develop innovation,  
technology and skills

## 8. Develop innovation, technology and skills

### Context

8.1 The UK has a world-leading aerospace sector. The government is determined that the UK continues to be one of the best places in the world for science and innovation. This will build on a well-established partnership with the aerospace industry that has created one of the best environments for advanced and innovative aerospace engineering, design and manufacture. Government support and investment in research and development provides confidence to industry and encourages the aviation industry to invest in development and to secure thousands of jobs and skills across the UK. Examples of this include Rolls Royce's investment of £75 million in a new facility in Solihull to design and develop engine control systems and their recent announcement of a £150 million aero-engine test bed facility in Derby.



8.2 The aviation industry requires skills for a wide range of careers, from cabin crew to air traffic controllers. 2018 is also the 'Year of the Engineer' and the air transport and aerospace sectors are some of the best examples of British engineering. The government wants to explore how it can work with the industry to ensure people have the skills they need to work in these sectors, both now and in the future. This chapter looks at the approach to date in supporting innovation and the development of emerging technologies which have the potential to change the way we travel or have a major impact on consumers. It also examines the challenge of ensuring that the UK continues to be at the forefront of developments in the sector and to develop the skills base that the UK needs to succeed.

### Approach to date

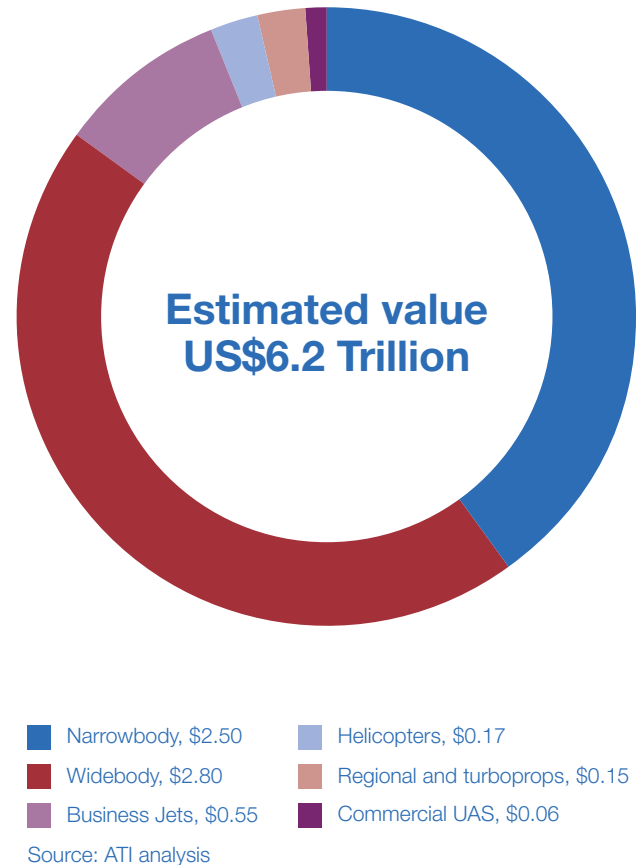
#### UK aerospace sector

8.3 The UK's civil aerospace sector is second only in size to the United States, with strengths in making some of the most technologically advanced parts of aircraft including wings, engines and advanced systems such as landing gear. The UK aerospace industry has an annual turnover of almost £32 billion and an export market worth almost £30 billion.<sup>39</sup> It directly supports 110,000 jobs, as well as indirectly supporting

<sup>39</sup> ONS (2016): Turnover in UK Production and Great Britain Service Industries (TOPSI) and Trade in Goods

110,000 other jobs in the wider supply chain.<sup>40</sup>

- 8.4 The global aerospace sector has been growing at a rate of around 5% a year, and production levels have continued to increase to meet the demand for new and more fuel efficient aircraft. Airbus and Boeing now have order backlogs of around eight years' work. Over 34,000 new large passenger aircraft and freighters are needed by 2036. The demand for new aircraft is forecast to be worth around \$6.2 trillion. This represents a significant opportunity for the UK to maintain and increase its global market share.
- 8.5 With such global demand, emerging aerospace markets, such as Brazil, China and India, are seeking to develop their sectors to compete with more established aerospace economies such as our own.
- 8.6 One way in which the UK Government works with the aerospace sector is through the Aerospace Growth Partnership (AGP). The AGP published a refreshed industrial strategy for UK aerospace, called 'Means of Ascent', in July 2015. This set out work under way in areas such as technology, supply chain competitiveness, manufacturing capability and skills.



**Figure 16 Value of forecast deliveries (2016-2035)<sup>41</sup>**

- 8.7 Other key initiatives supported by the AGP include: Sharing in Growth (SiG), a £250 million intensive performance improvement programme backed with £80m public funding; and the National Aerospace Technology Exploitation Programme (NATEP), a £40 million programme, backed with £23 million public funding, which helps small and medium sized aerospace companies develop technology and get it to market quickly. The AGP has also created 500 additional masters level postgraduate places for aerospace, and launched an Aerospace Industrial Cadets Programme – for employers to run accredited work-placements for young people to develop appropriate skills, with a nationally recognised award at the end.

40 DfT analysis of ONS (2016): Business Register and Employment Survey (BRES)

41 ATI (2016): Technology Strategy and Portfolio Update 2016

- 8.8 The government helps to coordinate international export and investment promotion campaigns. These target foreign direct investment activity to strategically enhance the UK supply chain, including in areas like aircraft interiors. On the export side, UK Export Finance plays a key role in assisting aerospace exporters, supporting over £4.2 billion of exports over the past five years.

### Research and development

- 8.9 The UK design, digital and manufacturing sectors are pushing technological boundaries to increase productivity and reduce costs across aerospace and beyond. This ranges from lowering fuel use and reducing carbon emissions through new engines, fuels and aircraft, to strengthening and streamlining our security screening at airports to improve the movement of both passengers and freight. Government has traditionally taken a technology neutral approach, providing policy support for research and development, encouraging the aviation industry to build its own roadmap for future technologies and amending regulations to allow technologies to be used correctly.
- 8.10 The UK's share of the industry is supported by a strong Research and Technology (R&T) framework of government financial support, world-class academic and research organisations, and a workforce that is highly skilled. In a growing global market it is important that the UK can capture the benefits of new aircraft demand, new technologies and supply chain export potential. This is one of the key drivers for the UK's strong innovative approach to aviation technology and R&T. Government and industry, through

the actions of organisations such as the AGP, the Aerospace Technology Institute (ATI) and Innovate UK, are working to promote the competitiveness of UK companies, while increasing productivity and reducing aviation's environmental footprint.

- 8.11 The government is supporting investment in this area. It has committed, through BEIS, £1.95 billion for aerospace research and development from 2013 to 2026. This is matched by industry to give a joint fund of just under £4 billion. ATI published an updated national technology strategy for UK aerospace in 2016 called 'Raising Ambition' and provides strategic advice to support investment decisions. Some 180 projects, worth £1.5 billion, are currently underway. They involve over 200 organisations, including SMEs, universities and research organisations. The majority of the projects that are supported are to help develop more environmentally-friendly aircraft (that are lighter, quieter, more fuel efficient and with lower emissions) and new manufacturing processes to increase competitiveness and productivity. These include pioneering research on smart, connected and electric aircraft projects, as well as the design of aircraft, wings and engines of the future.

### Regulatory framework

- 8.12 It is not just funding that is required to realise the benefits of new and emerging technologies or innovation. The policy and regulatory framework is usually designed for the current state of the world, and may sometimes act as a barrier to the development or uptake of new technologies or innovative business models. This can sometimes stifle competition, innovation and the emergence of

smaller challenger businesses or SMEs, all of which could bring cost reductions and business developments that would benefit consumers and freight. The government is keen to explore how its approach to regulation can be sufficiently agile to accommodate and encourage innovation, rather than acting as a barrier, while at the same time maintaining one of the safest and most open regulatory frameworks in the world. New technologies may require new approaches. Two examples of where the government already has programmes in place to support emerging markets in new forms of transport are drones and commercial spaceflight.

### New frontiers – drones and space

- 8.13 Nearly 3,000 commercial drone operator licenses have already been issued by the CAA, with uses ranging from search and rescue to inspecting infrastructure. PWC estimate that drones could carry out work currently valued at over £100 billion. There is an opportunity for this technology to improve safety, efficiency and effectiveness across the economy, as well as improving the consumer experience of aviation. The government's consultation on drones presented a range of approaches to ensure that the risks of widespread drone use are balanced against the huge potential benefits.<sup>42</sup>



- 8.14 Drones are closely associated with innovation in digital technology, both as users and creators of information. The NATS Drone Assist app provides drone users with data they need to operate safely, with over 10,000 users in the first 10 weeks of operation. The need for this data will increase as drones become a more significant proportion of airspace users and begin to operate autonomously. The ability to provide high resolution mapping data and real time imagery brings great possibilities, and opens up new market opportunities, but it also raises potential questions about privacy and data protection. Drones are an example of where a new technology is having an effect on the market and where government needs to react to make sure that the policy and regulatory framework supports the realisation of the potential benefits.

- 8.15 At the other end of the spectrum is government's role in enabling space launch from the UK for the first time. Although the UK has been licensing satellite operations and overseas launch for many years, there is currently no regulatory framework to allow spaceflight operations from the UK and therefore no market for operators or spaceports. This presents an opportunity to create a flexible framework which can adjust and react easily to an emerging industry, where types of technology and methods of operation are still to be proven. The CAA will build a close partnership with the UK Space Agency to regulate these new activities. With this regulatory environment in place, the flow of technology developments between aviation and space sectors is likely to bring more benefits. These could include space tourism or new forms of aerospace technology.

42 UK Government (2016): Benefits of drones to the UK economy – consultation



Figure 17 New spaceports will allow for space launch operations from the UK, delivering small satellites to space and sub-orbital flights for experiments

8.16 Data from satellites is an increasingly important tool for a wide range of economic sectors, ranging from sports broadcasting to earth observation. This new regulation will help UK manufacturers and users of satellites to remain competitive in the emerging new space sector, as they create benefits for consumers. In addition to satellite launch, the opportunities for research in low or micro-gravity conditions from sub-orbital launch (altitudes far above commercial aircraft airspace) will aid our universities and research centres in carrying out experiments. It will even have applications in the drone sector, to aid in tracking and managing drones in civilian air space.

## Jobs and training

8.17 Taken together, the air transport and aerospace sectors combined provide the UK with over half a million jobs, either directly or indirectly, and often in high value roles.<sup>43</sup> Employment in the overall aviation sector is spread right across all regions of the UK, as shown by Figure 18.

8.18 The sector requires a broad range of skills in a variety of roles including air navigation, piloting, cabin crew, construction, maintenance, operations and air traffic services. Much of this specialised training is provided by the industry and benefits local communities and regions throughout the UK. As well as providing training in the more obvious roles such as ground handling, airports also train staff to perform security and rescue services such as firefighting.

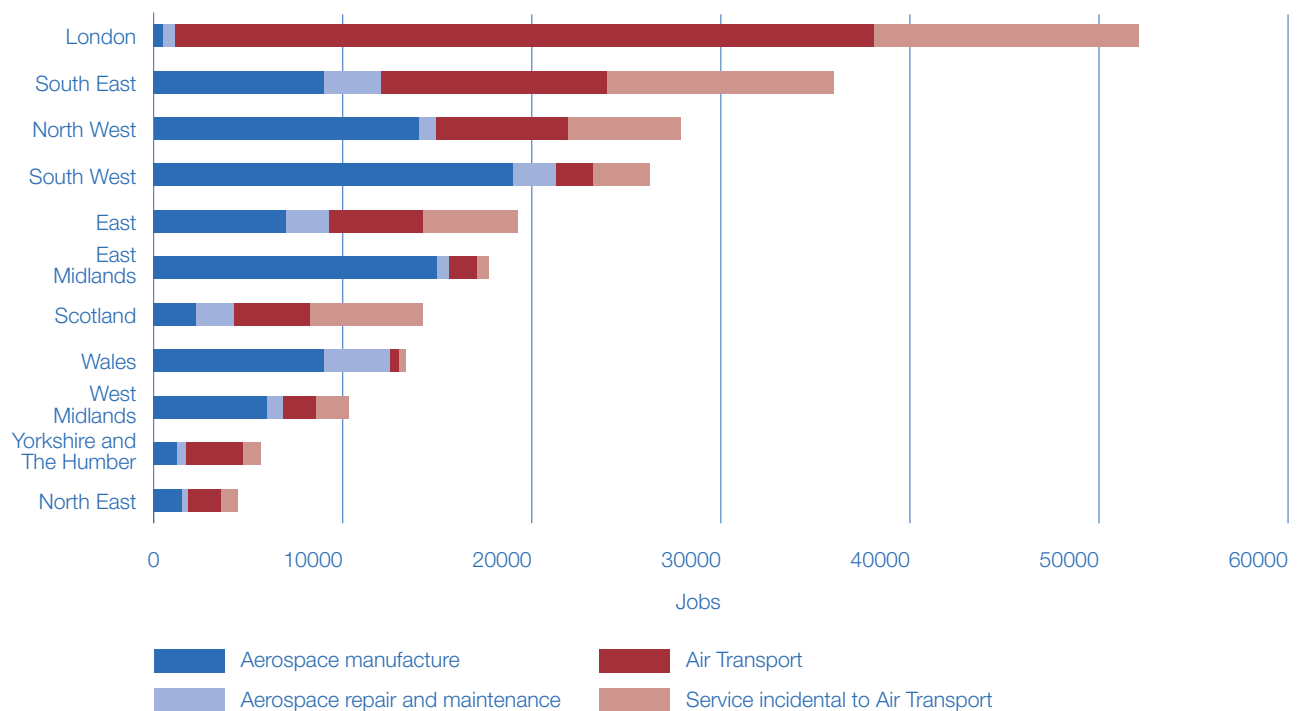


Figure 18 Direct aviation employment by region (2015)<sup>44</sup>

43 DfT analysis of Office of National Statistics (2016): Business Register and Employment Survey (BRES)

44 Direct employment only (excludes Northern Ireland)

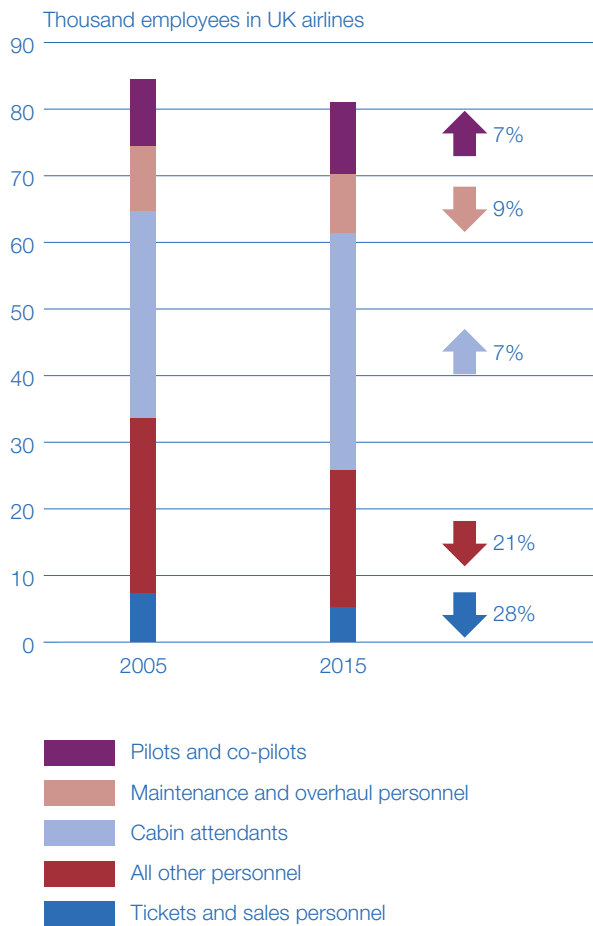


Figure 19 UK airlines employment structure<sup>45</sup>

8.19 Training can also be a significant commercial activity in its own right. Pilot training schools, for example, attract significant international income. The UK is regarded as providing high quality pilot training and is able to attract candidates from all over the world. The UK has also, along with other European countries such as France and Germany, been a leading force in developing high safety standards. This is expertise that has been successfully exported.

### Skills development

8.20 In an industry that relies on a highly skilled workforce, developing skilled individuals is critical, especially during periods of growth which could lead to a

future shortage of skilled professionals, such as designers and pilots. A career as a pilot is still seen to be well rewarded but the costs (approximately £100,000 per pilot) and length of training (on average two years) may deter potential recruits and result in a lack of diversity. The financial barriers do not fully explain the low numbers of female pilots, which are on average just 5%<sup>46</sup>, so the government would welcome views on this. Industry groups are aware that the lack of diversity reduces the talent pool that they can draw from, and there is some good practise among airlines to try to improve diversity among pilots. One recent positive development was the launch of easyJet's initiative to increase the recruitment of female pilots.



8.21 The government's Transport Infrastructure Skills Strategy set out an ambition for 20% of new entrants to engineering and technical apprenticeships in the transport sector to be women by 2020.<sup>47</sup> One of the commitments of this strategy was to establish a Transport Skills Apprenticeship Taskforce, which has recently broadened its scope to now include aviation.

<sup>45</sup> Civil Aviation Authority (2015): Airline data

<sup>46</sup> Civil Aviation Authority (2015): Flight crew licensing statistics

<sup>47</sup> UK Government (2016) Transport Infrastructure Skills Strategy

8.22 The aviation industry supports thousands of highly skilled and high value technical and engineering jobs. However some stakeholders have expressed concerns about shortages of science, technology, engineering and maths – the ‘STEM’ skills. This is a concern for the space and aerospace sectors, in which the need for very highly skilled, technically capable graduates and workers is critical in the maintaining and expansion of our domestic space sector. The government’s consultation on Building our Industrial Strategy<sup>48</sup> detailed a plan to create a new system of high quality technical education that will meet employer’s demands for more STEM graduates. The development of apprenticeships is another way in which the shortfall in STEM skills can be improved upon. The apprenticeship levy came into force in April 2017 and has provided the impetus for groups such as the Aviation Industry Skills Board (AISB) to work in partnership to develop apprenticeship standards.



8.23 Airports play an important role in local communities by delivering training, skills and jobs. For example, the industry has some good practice in terms of working with local colleges to provide engineering training programmes. One example is Flybe’s partnership with Exeter University to provide a four year

programme for aircraft engineers. The airline focuses on installing a workplace culture to give recruits a seamless transition into work. Graduates have a very high success rate of finding employment, either with Flybe itself, or with other airlines. Another pathway for skills development has been general aviation, which has historically been a driver of British achievement and has the potential to do so again.

## Challenges for the future

8.24 The UK is a global leader in innovation and aviation technology. This is a product of its significant aerospace manufacturing base and research strengths. However, with new manufacturing markets opening up in Asia and elsewhere, we need to maintain the UK’s strong position, safeguarding the manufacturing base and jobs while encouraging new technologies that could influence the future of aviation and benefit the UK as a whole. As well as changes to existing aircraft design and emerging propulsion systems, this includes embracing new technologies such as drones and personal air transport vehicles to realise maximum benefits while maintaining our world-leading safe regulatory regime.



48 UK Government (2017): Building our Industrial Strategy

## Harnessing the potential of new technologies

- 8.25 It is not just drones and spaceflight technologies that could affect the UK and global aviation markets. Several organisations are looking at new technologies such as personal air mobility vehicles or electric regional aircraft (carrying up to 100 passengers). There are technical challenges to overcome, as well as a host of other issues brought about by the blurring of lines between traditional transport modes and integrating such new technologies with existing physical, digital and regulatory infrastructure.
- 8.26 These challenges can also offer many opportunities, such as benefits that could be realised through connectivity with other digital and data services as part of smart and connected cities. The government wants to explore whether it is appropriate to engage more proactively in specific technologies. These technologies might otherwise represent lost opportunities if developed and implemented elsewhere, but which ultimately may not find a place in society. It wants to explore the role of horizon scanning and building and influencing technology planning, while also learning from previous experiences where government did not react quickly or in the right way to support technology and innovation in the UK.
- 8.27 The government is also conscious that around 80% of what is developed and manufactured by the UK's aerospace sector is exported. It is therefore keen to see how it can exploit better horizon scanning and planning, and support technologies which may not currently have a place in the UK, but which offer significant export potential. It also wants to look at how

it should meet the data and security challenges of new technologies, how government and industry should work to support the public acceptance of these technologies, and the role of government in identifying and delivering supportive infrastructure (such as traffic management systems).

## Meeting the environmental challenge

- 8.28 There are many drivers in the development of aircraft technology, not least environmental regulations and targets (such as carbon, particulates and noise), operating costs and maintaining a competitive position in a growing sector. These can drive innovation in enabling sustainable growth. However, these requirements can often conflict, requiring trade-offs in development. This is something which government needs be aware of when setting such targets and regulations.

## Making the most of data and digital

- 8.29 The government wants to encourage innovative uses for existing data, while making best use of new data as it becomes available. The provision of the UK's ASAs in digital form is one such example. By making this information more accessible, we can reduce the burdens on operators and potentially give them the ability to provide consumers with a greater choice of routes. There is an interesting symmetry between the use of data in the development of technology, and new technology being developed which provides for the collection and use of more and better data. This includes the use of drones and satellites in collecting surveying and mapping data, providing digital services such as mobile and internet coverage, and the provision of better in-flight communications.

### Taking a design-led approach

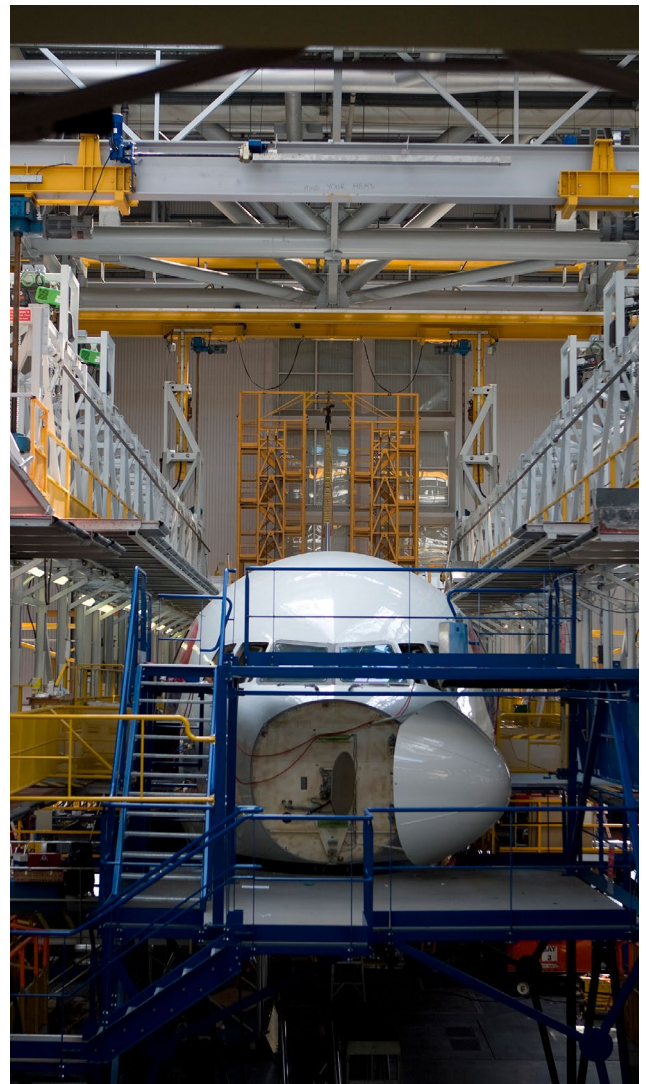
8.30 Taking a more strategic approach to design could be particularly important in driving innovation and growth in the aerospace sector. The Leading Business by Design project highlighted some ways in which the aerospace sector could benefit from the better use of design.<sup>49</sup> The government is interested in how all businesses across the supply chain can benefit from taking a design-led approach and whether this is an area that ought to be explored as part of the Aviation Strategy.

### Government's role as an enabler

8.31 Some innovations require significant research and development spending, with long and very uncertain pay-offs. Without government support, such innovation may never come to fruition. The government wants to consider how it can support innovation without distorting the market, and whether it is targeting support for SMEs to encourage new market entrants and enable innovation. The government has already formed a strategic partnership with industry through the AGP, which has stimulated closer working together amongst UK aerospace companies to address the challenges faced by the sector.

8.32 There is also the question of how large a role government should play in supporting research and development. Typically, government supports research at early levels, but requires the market to carry the cost as technologies get closer to market, as the risks are paid off by the profits that firms can make. For some technologies there is a risk that although there are great social

benefits, the private profits to be made are not great enough, or are dispersed to make development viable. There is also a challenge for investors and developers of new technologies, who have upfront development costs but may not realise the benefits in the short term. There may be a role for government in setting the conditions of government support for new market entrants and co-ordinating potential investors and beneficiaries. Without picking winners, there is also potential for ensuring that the technologies identified which seem most likely to come to market are supported through the government's regulatory approach.



49 Design Council (2015): Leading Business by Design – Aerospace sector

### Developing the skills to succeed

8.33 The government will explore the issues which prevent a more diverse mix of people from taking up careers as pilots and engineers and will consider whether skills shortages are likely in the near future. It wants to encourage the industry to plan for the longer term and invest in future skills requirements. DfT, in partnership with likeminded countries, is looking to develop and enhance an aviation security professional qualification for aviation security personnel in the UK and overseas in the coming years. The government will also consider what can be done to ensure that UK skills in aviation and aerospace are being properly promoted, especially in areas where the UK is a world leader (such as safety, security, air traffic management and pilot training).

and maintaining a competitive advantage) for the government to consider in the longer-term view to 2050

- how government and industry could work to identify which emerging technologies are likely to have a significant impact in the market
- what the roles of government and industry are in addressing the public perception and behavioural changes required for these technologies to be successful and accepted
- whether there are skills shortages and what the barriers to diversity are in the aviation sector
- what skills the sector requires to maintain its competitiveness in the future and what the role for government is in developing them

### Questions for the strategy

8.34 The government is interested in exploring the following issues as part of the planned consultation on this objective:

- how the government could encourage the more rapid development and deployment of new technology in aviation, and its role in encouraging innovation
- whether government can do more in encouraging the use of data in supporting innovation
- how regulatory frameworks should reflect the rapid pace of development in technology and bring benefits to passengers and the industry, while maintaining a stable and certain legal framework
- whether there are other significant drivers of innovation (beside environmental constraints



## Glossary

AAIB	Air Accident Investigation Branch	ECAC	European Civil Aviation Conference
ACL	Airport Coordination Limited	EFFI	eFreight Friendliness Index
ADR	Alternative Dispute Resolution	EU	European Union
AGP	Aerospace Growth Partnership	FAA-AST	Federal Aviation Administration
AISB	Aviation Industry Skills Board	FOIA	Freedom of Information Act 2000
ANSP	Airports and Air Navigation Service Provider	GA	General Aviation
APD	Air Passenger Duty	GBASF	General and Business Aviation Strategic Forum
ASA	Air Services Agreement	GDP	Gross Domestic Product
ATFI	Air Trade Facilitation Index	GMBM	Global Market-Based Measure
ATI	Aerospace Technology Institute	HGV	Heavy Goods Vehicle
ATM	Air Traffic Management	IATA	International Air Transport Association
ATOL	Air Transport Operators Licence	ICAO	International Civil Aviation Organisation
BEIS	Department for Business, Energy and Industrial Strategy	ICCAN	Independent Commission on Civil Aviation Noise
BOAC	British Overseas Airways Corporation	MACC	Marginal Abatement Cost Curve
BSAA	British South American Airways Corporation	MAG	Manchester Airport Group
CAA	Civil Aviation Authority	MEA	Manchester Enterprise Academy
CMA	Competition and Markets Authority	NATEP	National Aerospace Technology Exploitation Programme
CORSIA	Carbon Offsetting and Reduction Scheme for International Aviation	NGO	Non-Government Organisation
DfT	Department for Transport	NOx	Nitrogen Oxides
DIT	Department for International Trade	NPS	National Policy Statement
DPA	Data Protection Act	NSL	NSL (National Sealants & Lubricants) Aerospace
EASA	European Aviation Safety Agency		

NVQ	National Vocational Qualification
PRM	Passengers with Reduced Mobility
PSO	Public Service Obligation
R&D	Research & Development
R&T	Research & Technology
SEMS	Security Management Systems
SES	Single European Sky
SME	Small and Medium-sized Enterprise
STEM	Science, Technology, Engineering and Maths
TRL	Technology Readiness Level

# Annex A: Questions on the call for evidence

## Questions about you

- 1 What is your name and email address?
- 2 What is the nature of your interest and involvement in the aviation sector?
- 3 Are you responding on behalf of an organisation or as an individual?

## Questions on the Aviation Strategy's aim and objectives

- 4 In what order of importance should the policy challenges listed below be tackled?  
Please tell us why you have suggested this order of importance.

### Policy challenges

- keeping pace with consumer expectations
- maintaining high levels of safety and security
- expanding our access to markets and trade
- encouraging competitiveness
- meeting increasing demand through sustainable growth
- keeping pace with technology and developing skills for the future

- 5 The strategy's aim and objectives are:

### Aim and objectives

**Aim: To achieve a safe, secure and sustainable aviation sector that meets the needs of consumers and of a global, outward facing Britain**

The strategy will have the following six objectives:

- help the aviation industry work for its customers
- ensure a safe and secure way to travel
- build a global and connected Britain
- encourage competitive markets
- support growth while tackling environmental impacts
- develop innovation, technology and skills

**What are your views on the proposed aim and objectives?**

## Questions on the policy making process

6 The strategy's policy principles are:

### Strategy principles

- consumer focused – it will put passengers and businesses at the centre of everything we do
- market driven – it will emphasise the role of government as an enabler, helping to make the market work effectively
- evidence led – it will target intervention on specific problems which government can address, avoiding activity that does not respond to a clear problem

### What are your views on the proposed principles?

7 The policy tests for the development of the strategy are:

### Policy tests

- What is the rationale for action?  
This will remain focused on what the government is trying to achieve, not just in terms of outputs (such as the publication of an Aviation Strategy), but the final outcome for the sector and society.
- What is government's role?  
This will look at the need for government action to fix an identified problem, or whether activity is better carried out by others.
- What does the evidence say?  
This is a test of whether the government is using the best available evidence and whether there is anything that could be done to improve the information and data available to decision makers.
- Have all of the options been considered?  
This will ask whether there are other approaches that may not have previously been considered.
- What is the effectiveness of any proposed action?  
This will ask whether government has considered the practicalities of policy decisions and if these have been properly discussed with those affected or who have an interest.

### What are your views on the proposed policy tests?

### Specific question on utilising existing runways

- 8 What are your views on the government's proposal to support airports throughout the UK making the best use of their existing runways, subject to environmental issues being addressed?

### Questions on the consultation process

- 9 This document sets out the questions that the government would like to explore in developing the Aviation Strategy, within each of the six objectives that have been identified. These can be found at the end of chapters 3-8.
- Are there any other specific questions on the six objectives that you think should be included in the planned consultations?
- 10 Are there any other sources of information or evidence that the government should bear in mind when developing the strategy?
- 11 If yes, please give us some details of the sources of information or evidence.
- 12 Does the proposed timetable (set out in chapter 2), provide enough time to examine the issues in sufficient depth?
- 13 If no, please provide feedback on the timescale here.
- 14 What action could the government take in order to ensure that the maximum number of people, communities and organisations are engaged in the process and are able to have their views heard?
- 15 Would your organisation be willing to take part or help organise events to help the development of the strategy?
- 16 Are there any issues which we have not covered in this document which you think should be included in the consultation process?
- If yes, please describe what you think these issues are.

### Other comments

- 17 Do you have any other comments on the issues raised by this call for evidence? If so, you can either give these in your response to this consultation, or in the themed consultations which we have planned for each of the objectives.

## Annex B: How to respond

### Consultation period

The consultation period on this call for evidence began on 21 July 2017 and will run until 13 October 2017. Please ensure that your response reaches us before the closing date. If you would like further copies of this consultation document, it can be found at <https://www.gov.uk/dft#consultations> or you can contact [aviationstrategy@dft.gsi.gov.uk](mailto:aviationstrategy@dft.gsi.gov.uk) or telephone 0300 330 3000 if you need alternative formats (Braille, audio CD, etc).

Please use the online form at <https://aviationstrategy.campaign.gov.uk> to respond to this consultation. Alternatively, consultation responses can be emailed directly to: [aviationstrategy@dft.gsi.gov.uk](mailto:aviationstrategy@dft.gsi.gov.uk)

If responding by post please send to:

Aviation Strategy  
Department for Transport  
33 Horseferry Road  
London  
SW1P 4DR

When responding, please state whether you are responding as an individual or representing the views of an organisation. If responding on behalf of a larger organisation, please make it clear who the organisation represents and, where applicable, how the views of members were assembled.

### Consultation principles

The consultation is being conducted in line with the government's key consultation principles which are listed below. Further information is available at <https://www.gov.uk/government/publications/consultation-principles-guidance>

If you have any comments about the consultation process please contact:

Consultation Co-ordinator  
Department for Transport  
Zone 1/29 Great Minster House  
London  
SW1P 4DR

Email [consultation@dft.gsi.gov.uk](mailto:consultation@dft.gsi.gov.uk)

## Freedom of Information

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the Freedom of Information Act 2000 (FOIA) or the Environmental Information Regulations 2004.

If you want information that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.

In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information, we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

The Department will process your personal data in accordance with the Data Protection Act (DPA) and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

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