York Aviation

BRISTOL AIRPORT LIMITED

PART 1 (STRATEGIC) ECONOMIC IMPACT ASSESSMENT OF BRISTOL AIRPORT

FINAL REPORT

January 2017

York Aviation	**Originated by: Richard Kaberry** **Dated: 10 January 2016** **Reviewed by: James Brass** **Dated: 10 January 2016**

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Contents

GLOSSARY OF TERMS

Bristol City Region – the area covered by the Local Authorities for City of Bristol, North Somerset, South Gloucestershire and Bath and North East Somerset, which together comprise the West of England Strategic Planning sub-region.

CAA – Civil Aviation Authority

Catchment Area – the geographic area from which the Airport draws its passenger traffic

Economic Footprint – the economic impacts supported by the operation of the Airport and air services from it. These are divided in to direct, indirect and induced impacts

FDI – foreign direct investment

Gross Value Added (GVA) - is the measure of the value of goods and services produced in an area, industry or sector of an economy

Input Output Tables - the tables provide a complete picture of the flows of goods and services (products) in the economy for a given year. They detail the relationship between producers and consumers and the interdependencies of industries

Location Quotient - is a way of quantifying how concentrated a particular industry, cluster, occupation, or demographic group is in a region as compared to the nation. It can reveal what makes a particular region "unique" in comparison to the national average

Long Haul – air travel to destinations over four hours flying time

Low Cost / Low Fares Airlines - an airline that offers generally low fares in exchange for eliminating or providing as options many traditional passenger services. These airlines will generally focus on point to point services

Network Airline – airlines that offer services using primarily a hub and spoke network

OAG – Official Airline Guide

Regional Airport – an airport outside of the London system of airports

Short Haul – air travel to destinations within around four hours flying time

Workload Unit - is a combined measure of passengers and freight passing through an airport, where 100 kilos of freight is assumed to be equal to one passenger

EXECUTIVE SUMMARY

1. Bristol Airport is a key economic driver of the Bristol City Region and its passenger catchment extends to the wider South West Region of England and South Wales, with around 6.8 million passengers using the Airport in 2015. Whilst the majority of passengers are travelling for leisure, the Airport has built a strong base of business passengers, which now number more than a million per annum. This research is intended to provide an initial evidence base to support the case for growth beyond the Airport's existing planning cap over the next 20 years.

2. The Airport's economic footprint encompasses the direct, indirect and induced jobs and Gross Value Added (GVA) it supports within its areas of influence, and its wider impact is felt through the international connectivity it provides to the region's business community as well as its role in supporting the visitor economy:

   - Within North Somerset in 2015, we estimate that the Airport supports 1,900 FTEs and £355 million of GVA.
   - Within the Bristol City Region in 2015, we estimate that the Airport supports 5,850 FTEs and £675 million of GVA.
   - Within the South West Region and South Wales in 2015, we estimate that the Airport supports 15,000 FTEs and £1.3 billion of GVA.

3. The Airport is projected to grow to approximately 15 million passengers per annum (mppa) by 2035 and then on to between 18 mppa and 20 mppa by 2041. Enabling Bristol Airport to grow beyond 10 mppa is expected to have a significant economic impact across all three study areas.

4. At 15 mppa, which is expected to be reached in around 2035, the GVA impact in North Somerset is expected to be £225 million higher and it is expected to support an additional 450 jobs (300 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £500 million higher and it will support around 1,500 additional jobs (1,250 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £975 million higher and it will support around 4,150 additional jobs (3,400 FTEs).

5. At 18 mppa, which is expected to be reached in around 2041 under Scenario 1, the GVA impact in North Somerset is expected to be £380 million higher and it is expected to support an additional 650 jobs (500 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £750 million higher and it will support around 2,050 additional jobs (1,750 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £1,550 million higher and it will support around 5,800 additional jobs (4,750 FTEs).

6. At 20 mppa, which is expected to be reached in around 2041 under Scenario 2, the GVA impact in North Somerset is expected to be £480 million higher and it is expected to support an additional 850 jobs (600 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £975 million higher and it will support around 2,900 additional jobs (2,400 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £1,950 million higher and it will support around 8,450 additional jobs (6,950 FTEs).

1 INTRODUCTION AND BACKGROUND

1.1 In August 2016 Bristol Airport Limited commissioned York Aviation to undertake a high level economic impact study of Bristol Airport and its growth to 15 million passengers per annum (mppa) and onward to 18-20 mppa. The research is intended to provide an initial evidence base to support the case for growth over the next 20 years.

1.2 The local authorities of Bristol City Council, Bath & North East Somerset Council, North Somerset Council, and South Gloucestershire Council joined forces in 2015 to prepare a new Joint Spatial Plan (JSP) to tackle the challenge of developing and delivering new homes, jobs and infrastructure in the West of England, while protecting the environment and quality of life. The JSP is currently at consultation stage and no formal decisions have yet been taken, but ultimately the Plan will carry significant weight as a formal statutory Local Plan for the period 2016 to 2036.

1.3 Bristol Airport is identified in the Plan as a possible 'strategic employment location'. A strategic location represents an area which has the potential to deliver additional jobs over and above sites currently proposed in existing local plans or other documents.

1.4 In parallel with the JSP, the West of England's four local authorities have also launched a public consultation on the Joint Transport Study, which will inform high level strategy and the delivery of major transport schemes throughout the area until 2036.

1.5 This report and analysis will contribute to the evidence base required in progressing the Joint Spatial Plan.

1.6 The study sets out to assess the role that the Airport plays in supporting economic prosperity in its sphere of influence in the South West and South Wales, considering both the economic activity it generates through its operations and the role that it plays in supporting other sectors of the economy by enabling the movement of people. It also seeks to set the role of the Airport in context, examining the economic conditions and strategic direction of the area around it and considering how the Airport currently contributes as a strategic asset and how its activities will support future aspirations.

1.7 The analysis and findings set out in this report have drawn upon an approach that has examined quantitative and qualitative evidence. The study has involved:

- a detailed review of the Airport's market position and profile using data from sources such as the CAA Passenger Survey, CAA Statistics and OAG;
- an analysis of the economic and policy context in which the Airport is currently operating based on a document and published data review;

- consultations with a range of stakeholders to discuss the airports role in the economy and its future potential;

- the development of an economic model designed to articulate the impacts of the Airport now and in the future.

1.8 We have organised this report into the following sections:

- **Section 2** provides a profile of Bristol Airport;

- **Section 3** outlines the economic and policy context in which the Airport is operating;

- **Section 4** sets out the current economic impact of Bristol Airport;

- **Section 5** considers the future potential impact of growth at the Airport;

- **Section 6** sets out our conclusions.

2 PROFILE OF BRISTOL AIRPORT

2.1 Bristol Airport is the fifth largest regional airport in the UK. It provides a range of services, mainly domestic and short haul services, to passengers primarily from across the South West and South Wales.

2.2 This Section sets out a profile of the Airport and its passengers and provides the aviation market context for the economic impact assessment. Ultimately, the role the Airport plays in the economy is reflected in its demand profile. Broadly, an airport's economic impact is driven by:

- volume of demand – the role an airport plays as a direct provider of jobs and prosperity is, to a large extent, driven by its size in terms of passenger volumes;
- the nature of demand – the extent of business use is a key indicator as to the role that an airport plays in supporting business related benefits in the wider economy, such as gains from trade or increased inward investment; similarly, the level of inbound travel is a determinant of the ability of an airport to support tourism impacts.

2.3 In turn, the volume and nature of demand at an airport are a reflection of its catchment area, the services it offers, and the availability or otherwise of alternatives. Bristol Airport's position in relation to these key issues is set out below.

Location, Catchment and Competition

2.4 Bristol Airport is located on the A38, around 7 miles South West of Bristol city centre. The Airport is served by the Bristol Airport Flyer bus service run by FirstGroup, which links the Airport to Bristol Temple Meads Railway station and Bristol Bus Station, in the city centre. The service runs every eight minutes.

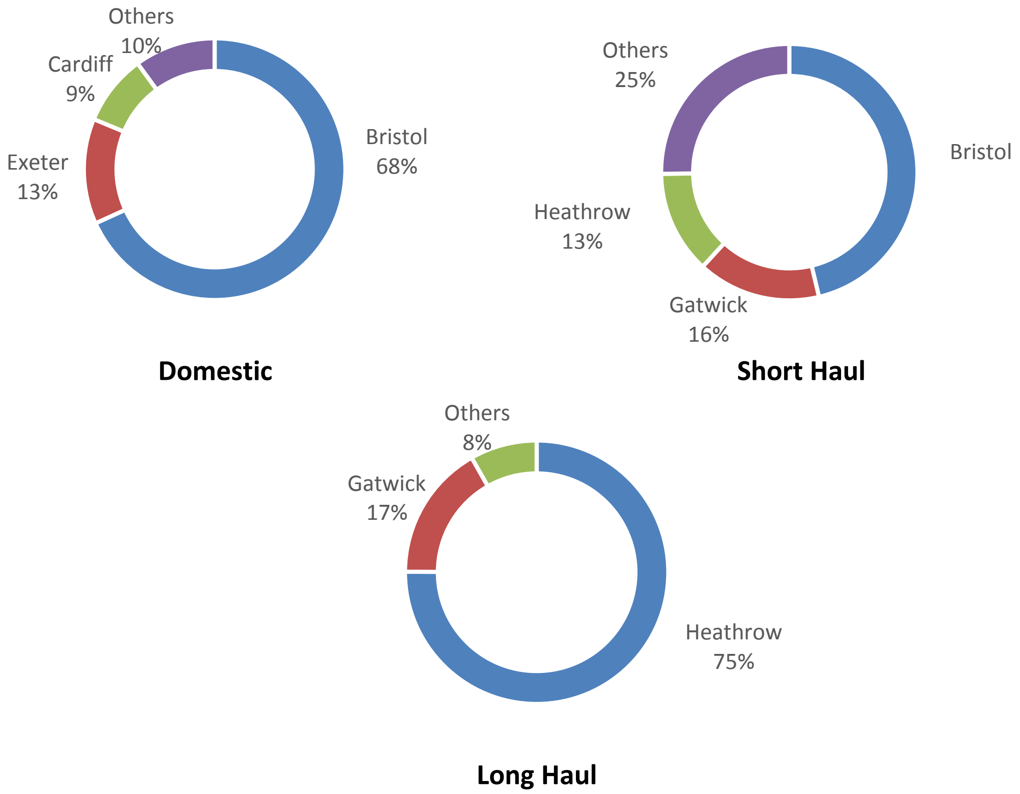
2.5 The Airport is located within the Green Belt in a fundamentally rural location. As a result, it is relatively remote from the major population centres in the surrounding area. For instance, the Airport is:

- 15 miles from Weston Super Mare to the West or around 30 minutes drive or over an hour by public transport;
- 19 miles from Bath to the East or around 40 minutes drive or an hour and quarter by public transport;
- 20 miles from Shepton Mallet to the South or again around 40 minutes drive or over two hours by public transport.

2.6 The Airport's main catchment area is North Somerset, the Bristol City Region (which includes North Somerset, City of Bristol, Bath & North East Somerset, and South Gloucestershire), as well as the wider South West and South Wales.

2.7 Bristol Airport operates in a competitive market, with a number of other airports drawing passengers from its catchment area, including nearby Cardiff Airport, but also Heathrow and Gatwick. The Airport's market penetration across the South West is relatively strong in domestic and short haul markets (68% and 46% respectively, see **Figure 2.2**). Currently, there are no scheduled long haul services at the Airport.

Figure 2.2: Market Penetration in the South West by Airport



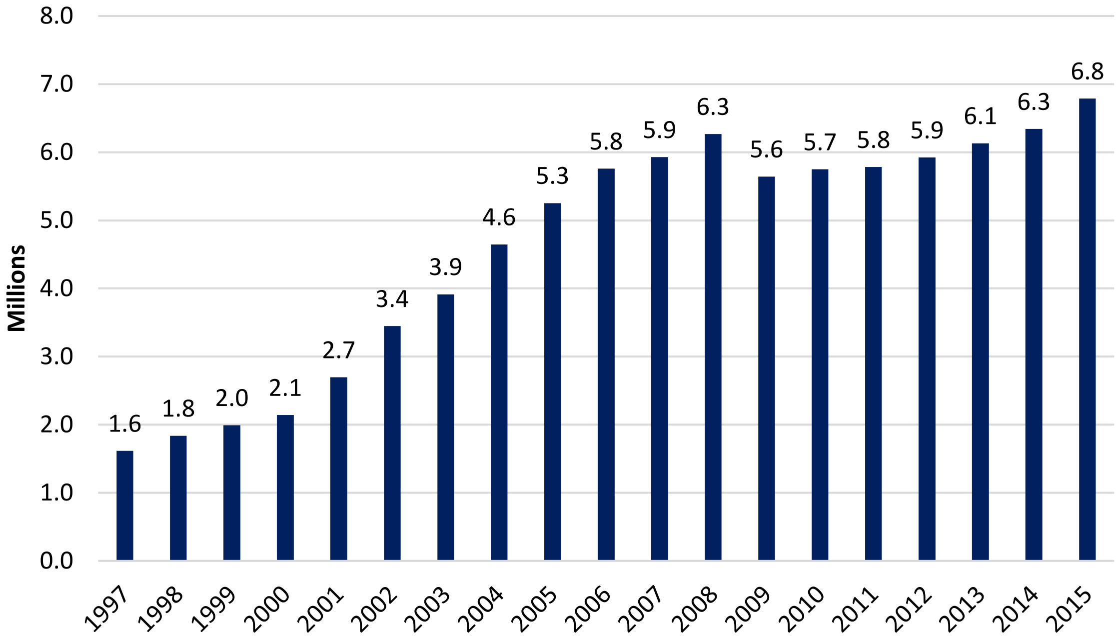
Source: CAA Passenger Survey

Passenger Demand and Growth

2.8 In 2015, Bristol Airport handled around 6.8 million passengers (see **Figure 2.3**), making it the ninth largest airport in the UK, and the fifth largest regional airport in the UK (**Figure 2.4**). The Airport has shown strong growth through 2016 and is expected to handle around 7.5 million passengers over the full year.

2.9 Passenger numbers have grown by more than four fold over the last 20 years, with only a brief period of stagnation during the recession. The Airport reached its record traffic level in 2015.

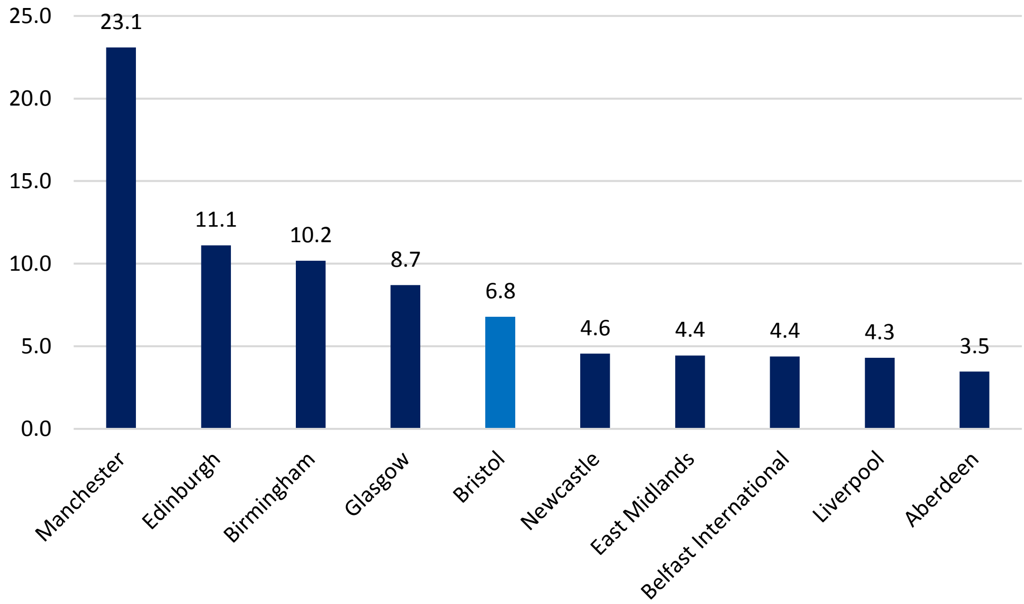
Figure 2.3: Annual Traffic at Bristol Airport



Source: CAA Statistics

2.10 The Airport does not handle freight, although it has handled small quantities in the past. Given its location, infrastructure and the nature of its main airline customers it is felt to be unlikely that any significant freight volumes will be handled in the future either.

Figure 2.4: Figure 2.4: Top 10 UK Regional Airports by Passengers in 2015 (millions)



Source: CAA Statistics

Nature of Demand

2.11 In common with all UK airports, Bristol Airport serves UK originating and overseas originating passengers and those travelling for both business and leisure, all of whom contribute to the economic impact of the Airport. However, business passengers and foreign passengers are particularly important in driving wider economic benefits.

2.12 As can be seen from **Table 2.1**, around 17% of passengers were travelling on business in 2015, with the largest numbers travelling to international short haul destinations. Around 16% of passengers passing through the Airport were foreign residents visiting the UK.

2.13 Leisure passengers make up the great majority of travellers at the Airport (84%), with UK passengers the greater part of this (71% of total passengers). Whilst these passengers do not generate significant wider economic impact (and are in fact sometimes viewed as a negative in terms of economic impact), they do support jobs and economic activity at the Airport and, crucially, also support the viability of services that are used by business travellers and those visiting the UK.

Table 2.1: Types of Passengers at Bristol Airport in 2015

		Scheduled Domestic	*Scheduled International*	*Scheduled Total*	*Charter International*	*Total*
UK	Business	7.4%	5.5%	12.9%	0.0%	12.9%
	Leisure	11.2%	48.7%	60.0%	10.8%	70.8%
	Sub-Total	*18.6%*	*54.2%*	*72.8%*	*10.8%*	*83.7%*
Foreign	Business	0.1%	3.5%	3.6%	0.0%	3.6%
	Leisure	0.4%	12.1%	12.5%	0.3%	12.7%
	Sub-Total	*0.5%*	*15.5%*	*16.1%*	*0.3%*	*16.3%*
Total		*19.2%*	*69.7%*	*88.9%*	*11.1%*	*100%*

Source: CAA Passenger Survey.

2.14 **Table 2.2** shows the composition of business passengers at Bristol Airport in 2015. A significant proportion (around 45%) were UK based business passengers travelling to domestic destinations. Some 571,000 business passengers were travelling on international flights, of which 221,000 were foreign resident. This demonstrates how Bristol Airport's international connectivity is serving the business community within the Airport's sphere of influence and facilitating inward travel from abroad.

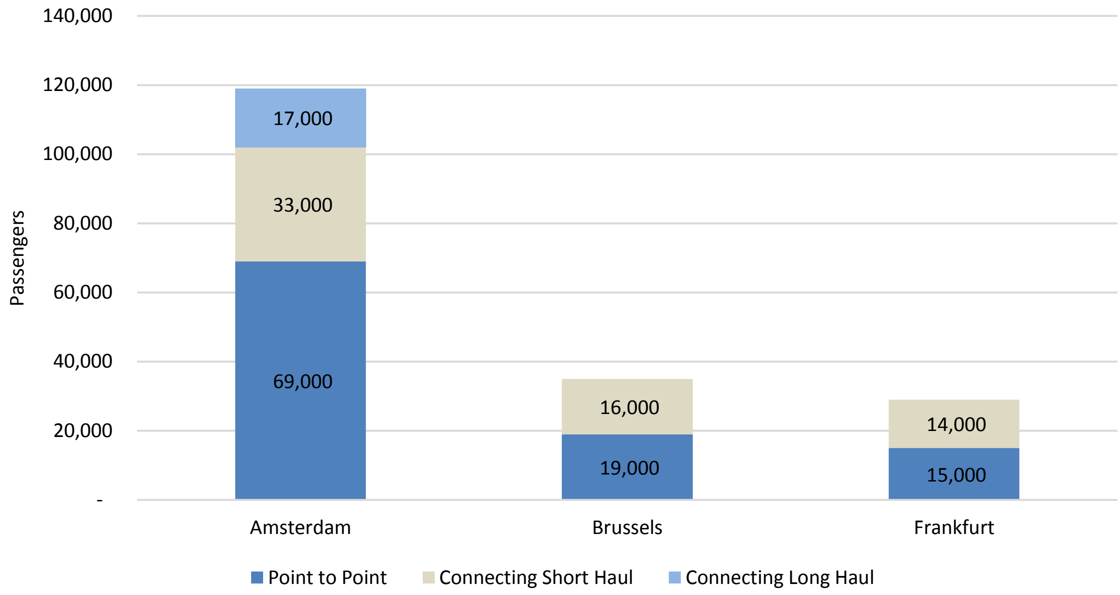
Table 2.2: Bristol Airport Business Passengers Profile 2015

	Domestic	*International*	*Total Business Passengers*
UK Business	474,000	350,000	823,000
Foreign Business	8,000	221,000	229,000
Total	482,000	571,000	1,052,000

Source: CAA Survey Data

2.15 Bristol Airport also offers connections to European hubs such as Amsterdam, Brussels and Frankfurt, which provide business passengers with onward connections to a wide range of global destinations, further improving the ease of doing business overseas. **Figure 2.5** shows the proportion of business passengers from Bristol Airport using European hubs for onward flight connections. Across the three hub airports shown, around 40% of business passengers make an onward connection to their final destination, the majority of which are short haul connections. Amsterdam is used predominantly for onward long haul connections, with very few travelling onwards long haul from Brussels or Frankfurt.

Figure 2.5: Use of European Hub Airports by Business Passengers from Bristol Airport in 2015



Source: CAA Passenger Survey Data

2.16 Around half the business passengers using Bristol Airport begin their journey from the Bristol City Region, of which the majority come from the City of Bristol. The Near South West (which includes Wiltshire, parts of Somerset, Dorset, and Devon) accounts for around a third of business passengers using the Airport (See **Table 2.3**). Cornwall & South Wales account for almost 20%, despite the existence of Exeter and Cardiff Airports, which underlines the greater frequency and breadth of connectivity Bristol Airport provides.

Table 2.3: Business Passengers at Bristol Airport by Surface Origin (2015)

Regions	*Passengers ('000s)*	*%*
Bristol City Region	478	45%
Near South West	304	29%
Cornwall	37	4%
South Wales	163	15%
Other	73	7%
Total	*1,054*	*100%*

CAA Passenger Survey.

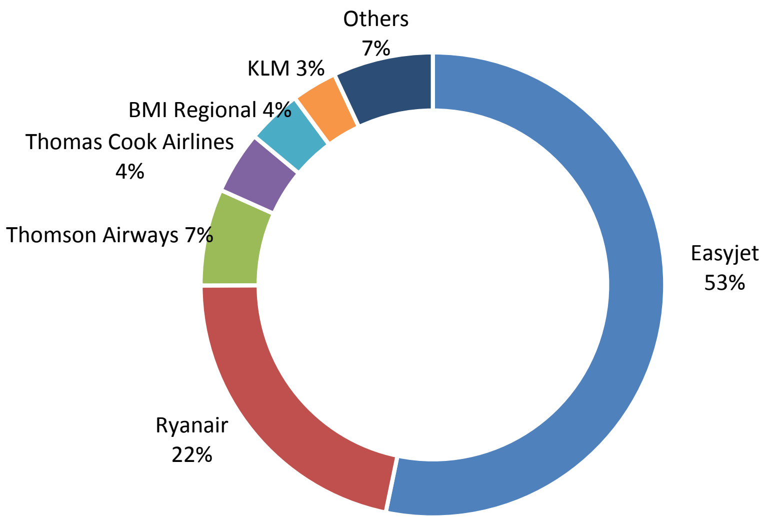
Seat Capacity and Route Network

2.17 The connectivity that Bristol Airport offers is ultimately central to its economic impact. The range of destinations it serves and the levels of frequency it offers are key competitive factors, which ultimately drive its ability to provide jobs at the Airport and support other sectors of the economy in accessing international markets.

2.18 The composition of seat capacity at Bristol has changed over the past 10 years, with strong growth coming from low cost carriers and charter airlines. Ryanair has more than tripled its seat capacity during the period and the two main charter airlines (Thomas Cook and Thomson) have doubled their seat capacity, albeit from a relatively low base. EasyJet and Ryanair now account for 75% of total seat capacity (see **Figure 2.6**), with Thomas Cook and Thomson Airways accounting for a further 11%. The remaining seat capacity is provided by network airlines such as KLM, Brussels Airlines and Aer Lingus, regional airlines, such as BMI Regional, and a few other low cost carriers.

2.19 Prior to the recession, the Airport had attracted a New York (Newark) service operated by Continental Airlines, which suggests that as the market continues to strengthen and economic growth revives, there may be potential for a similar service in the future, which would provide access to a key long haul business centre and a strong hub airport for North America.

Figure 2.6: Seat Capacity Share by Airline



Source: OAG

2.20 In Table 2.4 we set out the top 10 destinations served from Bristol in 2015. Amsterdam is clearly a key route, with KLM and easyJet carrying more passengers to this destination and with greater frequency than any other route from Bristol.

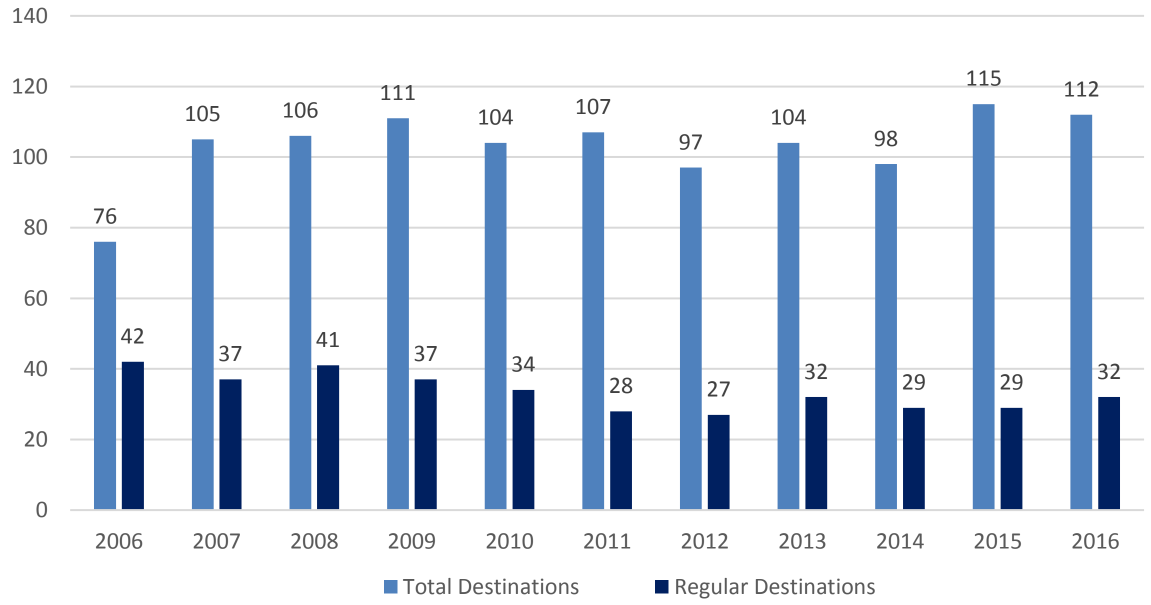
Table 2.4: Top 10 Destinations by Passengers in 2015

Destinations	*Passengers*	*Average Weekly Flights*	*Airlines*
Amsterdam	384,000	36	KLM & easyJet
Dublin	375,000	35	Ryanair & Aer Lingus
Edinburgh	352,000	23	easyJet
Malaga	300,000	18	easyJet, Ryanair & Thomson Airways
Palma	289,000	16	easyJet, Ryanair, Thomson Airways & Thomas Cook
Alicante	272,000	16	easyJet, Ryanair, Thomson Airways
Faro	269,000	16	easyJet & Ryanair
Glasgow	267,000	18	easyJet
Belfast Int.	246,000	17	easyJet
Geneva	206,000	13	easyJet

Source: CAA Passenger Survey 2015 & OAG.

2.21 Over the past decade, Bristol Airport has grown to serve 115 routes in 2015 (see **Figure 2.7**). However, the number of destinations served with more than 5 flights per week has dropped by 10 to 32. This perhaps reflects the tendency of low fares airlines to serve more markets at lower frequencies and also their focus to some degree on leisure destinations as a core to their networks.

Figure 2.7: Bristol Airport destinations served



Source: OAG.

Conclusion

2.22 Bristol Airport is an important regional airport, primarily serving the South West and South Wales, and handling around 6.8 million passengers in 2015, its highest level of throughput to date. Whilst the majority of passengers are travelling for leisure, the Airport has built a strong base of business passengers, which now number over a million per annum. It is also a gateway for a significant number of overseas visitors to come to the region.

2.23 The Airport has grown steadily since the recession, with demand primarily being served by low cost carriers. However, the Airport also provides frequent connectivity to key European destinations and to hub airports that offer onward connections to global destinations.

3 ECONOMIC & POLICY CONTEXT

Introduction

3.1 In this section, we consider the existing economic and policy context in which Bristol Airport operates. We have structured this section as follows:

- Government aviation policy;
- regional economic and policy objectives;
- the local economic context;
- planning context.

Government Aviation Policy

The Aviation Policy Framework

3.2 In March 2013, the then Coalition Government published its Aviation Policy Framework, which replaced the 2003 Air Transport White Paper as Government policy on aviation and sets out the Government's overall objectives for aviation and the policies needed to achieve them. The Aviation Policy Framework puts economic growth and the environment at the heart of the Government's vision for aviation and this is made clear in the Secretary of State's Foreword:

"The Government believes that aviation needs to grow, delivering the benefits essential to our economic wellbeing, whilst respecting the environment and protecting quality of life."[1]

3.3 Chapter 1 of the Framework concerns the support for growth and the benefits of aviation. The introductory paragraphs reaffirm the importance of aviation to economic growth:

"We believe that aviation infrastructure plays an important role in contributing to economic growth through the connectivity it helps deliver. For example, it provides better access to markets, enhances communications and business interactions, facilitates trade and investment and improves business efficiency through time savings, reduced costs and improved reliability for business travellers and air freight operations."[2]

3.4 The Framework goes on to note the specific benefits the industry brings through its contribution to Gross Domestic Product (GDP) and jobs, imports and exports, manufacturing and technology, greater productivity and growth, tourism, and wider societal benefits.

[1] Aviation Policy Framework, March 2013, Foreword.
[2] Ibid, paragraph 1.2.

The Airports Commission

3.5 In September 2012, the Secretary of State for Transport announced that the Government had asked Sir Howard Davies to chair an Independent Commission tasked with examining the scale and timing of any requirement for additional capacity to maintain the UK's global hub status, and identifying and evaluating how any need for additional capacity should be met in the short, medium, and long term. The Aviation Policy Framework set out the parameters within which the Airports Commission was to work. The Commission presented its Final Report in July 2015, which recommended that a third runway be constructed at Heathrow. The Government has accepted the Commission's identification of the need for additional runway capacity in the South East, but a response to the Commission's recommendations regarding Heathrow is still awaited.

3.6 In addressing potential economic benefit, the Commission's Final Report notes that:

"As well as providing direct benefits for passengers, expansion in airport capacity provides better access to foreign markets, facilitates gains from trade and encourages greater exchange of knowledge and technology. Greater competition from other countries can drive increased investment and efficiency, better use of resources and enhanced choice for consumers, thus improving the overall level of productivity and innovation in trade-related sectors of the economy."[3]

3.7 The Commission's Final Report also notes, in relation to other airports in the UK:

"The capacity constraints at Heathrow and Gatwick present an opportunity for other UK airports in the coming decade. This is particularly true for the largest airports, which benefit already from high passenger numbers and large route networks, as well as the airports whose passenger catchments overlap most fully with those of Heathrow and Gatwick. There are encouraging signs that this opportunity is being seized, with a number of the UK's largest airports either maintaining or growing their passenger numbers and route networks during the challenging conditions following the financial crisis."[4]

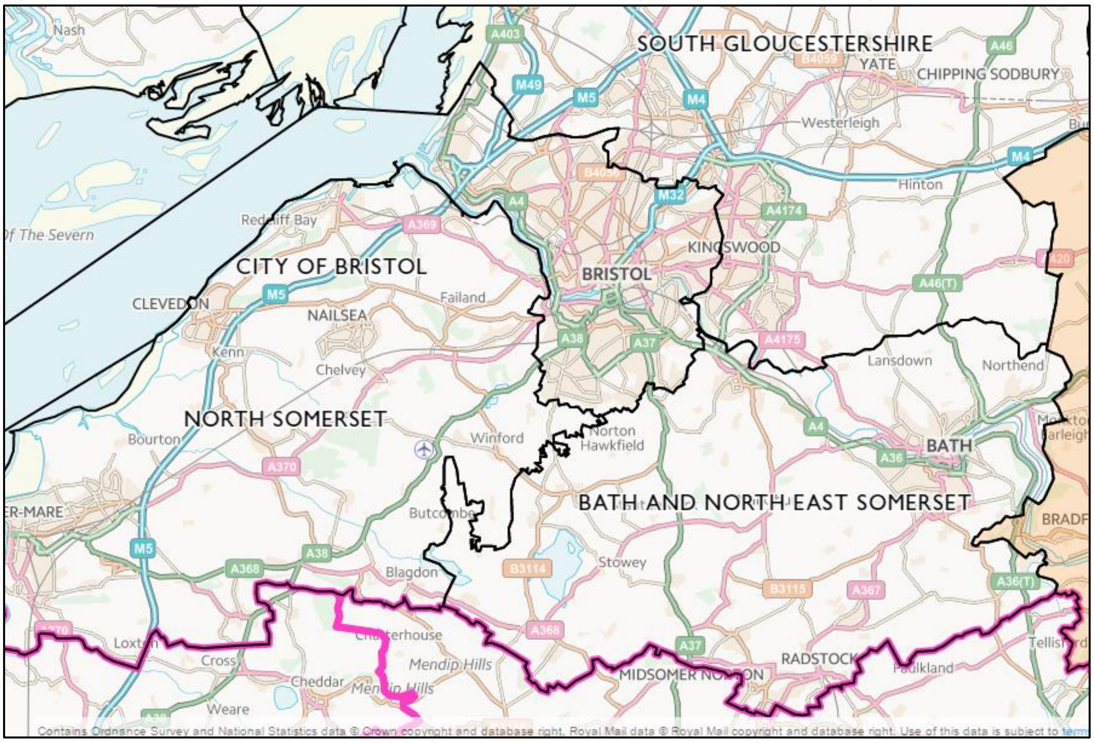
3.8 There is, therefore, clear support from the Government, reinforced by the work of the Airports Commission, for further growth of the aviation industry and, subject to environmental considerations, the infrastructure required to support it, as well as a clear recognition of the significant economic benefits that such growth can bring.

[3] Airports Commission, Final Report, July 2015, paragraph 7.28.
[4] Ibid: paragraphs 16.41 and 16.42.

Regional Economic Policy & Objectives

3.9 Bristol Airport is located within the unitary authority of North Somerset, close to the border with Bath & North East Somerset (**Figure 3.1**). The Airport serves the wider Bristol City Region[5], which comprises the two local authorities already mentioned, as well as the City of Bristol and South Gloucestershire. However, Bristol Airport's catchment extends beyond the City Region and into the wider South West Region as well as South Wales, with a population of around 7.5 million people living within a two-hour drive time of the Airport.

Figure 3.1: Bristol Airport's location within the West of England (Bristol City Region)



3.10 In considering the economic context for the Airport, we focus principally on the joint economic policy of the four local authorities of the West of England (Bristol City Council, Bath & North East Somerset Council, North Somerset Council, and South Gloucestershire Council), as reflected by the West of England Local Enterprise Partnership.

[5] The Bristol City Region is also referred to as the 'West of England' area.

West of England Economic Needs Assessment (2015)

3.11 Atkins was commissioned in 2015 by the four Unitary Authorities in the City Region (Bristol City Council, South Gloucestershire, North Somerset and Bath and North East Somerset) to undertake an Economic Development Needs Assessment. This study set out to provide a robust assessment of and evidence base for the future economic development needs across the West of England area.

3.12 The study notes that the West of England is a relatively vibrant economic area, with good potential for future economic growth. However, it also notes that there are some spatial and socio-economic issues that that should be addressed if this potential is to be fully realised. One of the issues identified relates to the relatively deprived area to the south of Bristol City Centre and close to Bristol Airport and the study notes that in addressing this issue:

"…there is potential to stimulate demand through investment in key infrastructure and planning policy support for additional employment land provision."[6]

3.13 The growth and further development of Bristol Airport and its further contribution to economic growth and employment would be consistent with this assessment.

The West of England Local Enterprise Partnership Strategy

3.14 The LEP Strategy sets out a Vision for the West of England in 2030, which includes:

"easier local, national and international travel, thanks to transport solutions that link communities to employment opportunities and local services, control and reduce congestion and improve strategic connections by road, rail and through Bristol Airport and Bristol Port."[7]

3.15 Access to global mass markets by means of the region's good connectivity and the contribution made to this by the Airport is seen as a key strength, and successfully capturing the impact that major developments at the Airport and port can have at meeting the investment and jobs targets, is seen as an opportunity.

3.16 The Airport is identified as a 'lever of growth' and the Strategy notes that Infrastructure development is ongoing to increase capacity. However, the Strategy also notes that there are funding challenges in relation to the region's visitor and place marketing and that there is a danger that the inbound tourism potential of the Airport could remain unrealised due to lack of resource.[8]

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[6] West of England Economic Needs Assessment 2015, Executive Summary, paragraph 4.3.
[7] The West of England Strategic Economic Plan 2015-2030, paragraph 1.3.
[8] Ibid, paragraph 5.3.2.

3.17 Bristol City Council is currently preparing an 'International Strategy' which will make attracting international investment a key targeted outcome and the Airport's role in facilitating international connectivity will support this.

Economic Context

3.18 The West of England LEP produced an Economic Assessment in August 2015 which contains some key data to which we refer below. Where possible, we have updated some of the key metrics to the most recently available data. References to the 'West of England' in the following paragraphs refer to the LEP area and although we recognise that Bristol Airport's passenger catchment extends wider than this, the economic status of the West of England is perhaps most representative of the economic context of the Airport's immediate locality.

3.19 The Economic Assessment opens with a SWOT Analysis and we highlight some of the key points from this in the Table below.

Table 3.1: West of England Economic Assessment SWOT Analysis Key Points

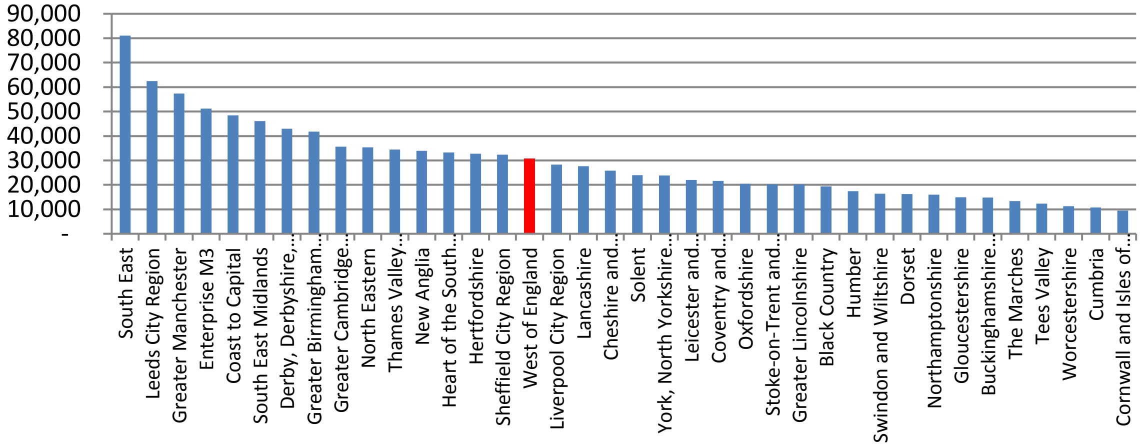
Strengths	Weaknesses
• Higher rates of entrepreneurship, skills and qualifications than average • Economic participation rates of workforce • Strong base of company HQs • FDI track record is good	• Lower rates of economic growth since 2010 • Jobs growth not reflected in GVA growth
Opportunities	**Threats**
• Growth opportunities in manufacturing and technology • Compelling offer and prospects for further FDI	• Productivity growth rates may continue to fall • Possible shortages of skills and qualifications • Housing costs and traffic congestion
Source: West of England Economic Assessment 2015	

3.20 The West of England had a population of 1.1 million in 2015, with 77.1% in employment, compared with 73.7% in Great Britain as a whole, and 4% unemployed, compared with 5.1% in Great Britain as a whole. The area supported 646,000 jobs in 2014 with a job density of 0.91, compared with 0.82 for Great Britain as a whole. In 2015, 43.6% of the working age population had qualifications at NVQ4 level or above, compared with 37.1% for Great Britain[9]. This suggests that the Airport is operating in a strong and relatively prosperous local economy.

[9] Source: NOMIS.

3.21 The West of England's economic output in 2014 in terms of Gross Value Added (GVA) was £30.8 billion in 2014 (see **Figure 3.2** below) , slightly higher than the £29.1 billion average for all LEP areas (excluding London, which is significantly higher than all others). Some care does, however, need to taken in the interpretation of this data given the different sizes of LEP areas. However, the West of England's growth in GVA of 12.6% (nominal) over the last 5 years has been slightly lower than the 13.6% average of all LEPs.

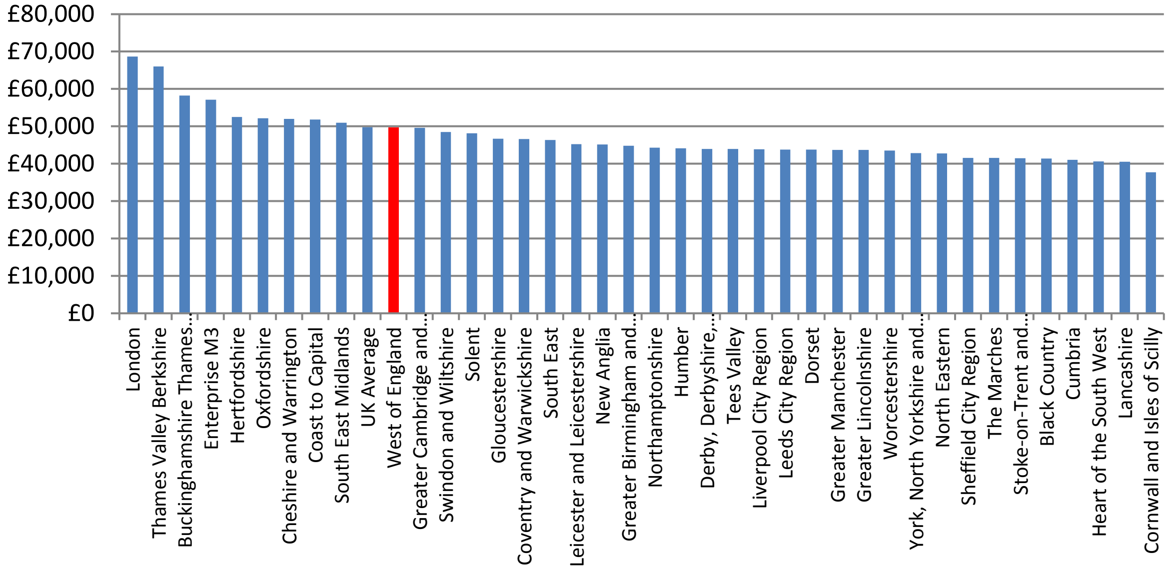
Figure 3.2: GVA by UK LEP Region in 2014 (£million, excluding London)



Source: ONS.

3.22 In terms of productivity, GVA per filled job in the West of England in 2014 was £49,721, which is approximately equivalent to the UK average (including London) of £49,815, but higher than a majority of other LEPs. Over the last 10 years GVA per filled job in the West of England has grown by 28.1%, slightly higher than the UK average of 27.5%. However, over the last 5 years of available data (i.e. 2010 to 2014) GVA per filled job grew by 2.2%, which is less than the UK average of 2.5%. This could indicate that productivity growth is stalling.

Figure 3.2: GVA per filled job by UK LEP Region in 2014 (£million, excluding London)



Source: ONS.

3.23 **Table 3.2** sets out the results from the Index of Multiple Deprivation (IMD) for the Local Authorities in the Bristol City Region. The IMD is produced the Department for Local Government and Communities. It examines an area's performance in relation to 37 different indicators of deprivation in a single combined measure. It should be noted that it is a relative measure comparing the most deprived to the least deprived areas in England. The IMD is calculated at LEP, Local Authority and Lower Super Output Area (LSOA), which is a small statistic, equivalent to a few postcodes in most places.

Table 3.2: Index of Multiple Deprivation in the Bristol City Region

Area	*Index (High = Deprived)*	*Rank (Low = Deprived)*	*Proportion of LSOAs in most deprived 10% nationally*
Bath and North East Somerset	9734.43	268	1%
Bristol, City of	19759.77	77	16%
North Somerset	11851.37	224	7%
South Gloucestershire	9504.79	274	0%
England Highest	26,366.82	326	49%
England Lowest	2,975.66	1	0%

Source: Department for Local Government & Communities.

3.24 The IMD suggests that in the main the Local Authorities in the Bristol City Region are relatively affluent, particularly Bath and North East Somerset and South Gloucestershire. However, there are areas within Bristol particularly that do suffer from high levels of deprivation and this is reflected in the area's index and rank. The IMD also identifies that around 16% of the LSOAs in Bristol are amongst the most deprived 10% nationally. North Somerset, where the Airport is located, is again relatively affluent but has pockets of deprivation, with around 7% of its LSOAs in the 10% of most deprived nationally.

3.25 In terms of inbound tourism, there were over 36 million international visitors to the South West Region in 2015[10], up 5% on 2014. The total expenditure associated with these visitors is estimated at almost £22 billion and the average spend per visit was £608. CAA Survey data suggests that around 1 million foreign resident passengers used Bristol Airport (arriving and departing) in 2015.

3.26 In consultation with stakeholders, we noted that the visitor economy is considered to be relatively healthy at present and the fall in the value of sterling post the EU Referendum has made international visits more attractive, at least in the short term. Key markets are Europe (Germany in particular) and the US.

Planning Context

3.27 Below, we consider briefly the key existing planning documents that influence Bristol Airport currently. It should be recognised that the West of England Joint Spatial Plan will ultimately supersede this guidance and will shape the Local Plans that come forward in the four Local Authorities.

North Somerset Core Strategy (April 2012)

3.28 The North Somerset Core Strategy, adopted in April 2012, is the main planning document guiding development choices and decisions in North Somerset. It sets out the broad long-term vision, objectives and strategic planning policies for North Somerset up to 2026.

3.29 One of the Core Strategy's Priority Objectives refers to employment growth and recognises the need to:

"Support and promote major employers in North Somerset, such as Bristol Airport and Royal Portbury Dock, to ensure continued employment security and economic prosperity."[11]

3.30 Policy CS23 refers specifically to Bristol Airport:

[10] Source: Visit Britain - data for the West of England alone is not available .

[11] North Somerset Council Core Strategy, April 2012, page 20.

"Proposals for the development of Bristol Airport will be required to demonstrate the satisfactory resolution of environmental issues, including the impact of growth on surrounding communities and surface access infrastructure."[12]

3.31 The Core Strategy also states that the Council:

"…will liaise with the Airport, to ensure that the timing of a future development plan document is co-ordinated with additions to the evidence base arising from review of the Airport Master Plan."[13]

3.32 The review of the Airport's Master Plan is now underway and this report will form part of the evidence base referred to by the Council in its Core Strategy.

3.33 The Core Strategy recognises that Bristol Airport is a strategic development constrained by Green Belt and the long-term development and future success could be severely restricted by national and local Green Belt policy. Policy CS6 of the Core Strategy does not rule out consideration of changes to the Green Belt at Bristol Airport but states that:

"Further amendments to the Green Belt at Bristol Airport will only be considered once long-term development needs have been identified and exceptional circumstances demonstrated."[14]

3.34 The extent of the Green Belt is currently being reviewed as part of the emerging West of England Joint Spatial Plan (see above). This will, in turn, inform the forthcoming North Somerset Local Plan 2018-2036.

North Somerset Local Economy Plan (2013)

3.35 The North Somerset Local Economy Plan notes that despite the recession and the pressure on local funding, North Somerset still has a strong competitive edge in terms of its location, quality of life, business base and skills, and communication/connectivity. The Plan notes Bristol Airport's role in the latter, its strong growth in recent years, and it future development plans and contribution to local employment.

3.36 One of the Plan's key ambitions is to *"deliver employment led regeneration through commercial employment opportunities…at sites across North Somerset"*[15]. A key development is the Junction 21 Enterprise Area (J21EA), which is targeted to deliver 9,000 jobs and 6,000 new homes with high-skilled manufacturing, food innovation and financial and professional services activities being key growth sectors. Bristol Airport is around 12 miles from this development.

[12] Ibid: page 95.
[13] Ibid: page 95.
[14] Ibid: page 43.
[15] North Somerset Local Economy Plan 2013, Key Ambition 1.

Conclusion

3.37 The economic benefits that flow from aviation are widely recognised as making a significant contribution to the national, regional and local economy. Although the West of England is a relatively strong performer in economic terms overall, the Airport's ability to support further jobs growth, as well as greater business productivity and inbound tourism, will make an important contribution to the region's continuing economic growth.

4 CURRENT ECONOMIC IMPACT

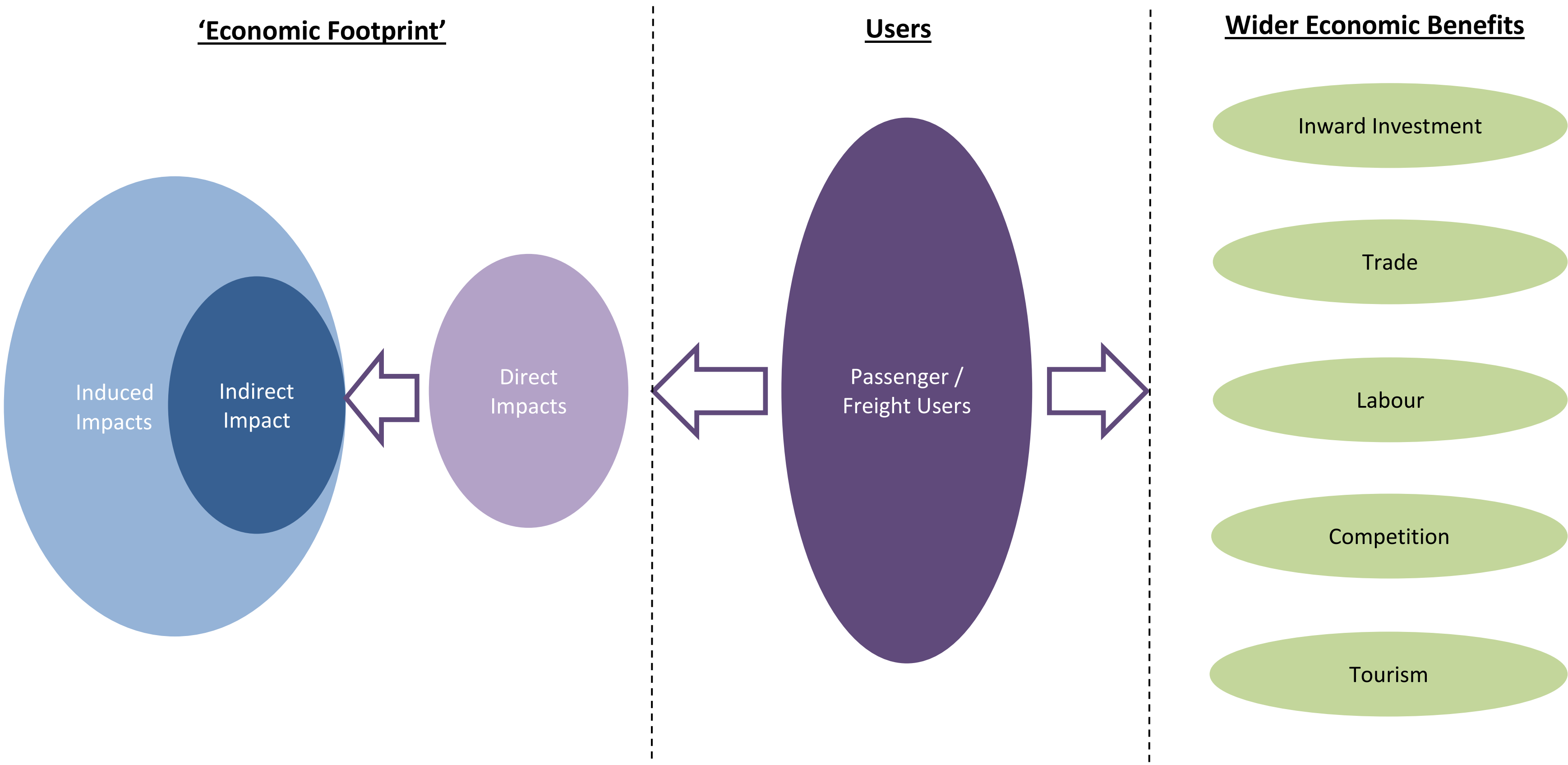
Assessing Economic Impact

4.1 The economic impact of Bristol Airport has been analysed using a commonly used and widely accepted economic impact framework. This approach breaks down the way that the Airport interacts with the economy into a series of effects. A range of economic impact techniques are then used to provide a quantitative assessment of the GVA and employment supported through each effect. This quantitative assessment has been supplemented by qualitative analysis around the wider impacts of the Airport, particularly in areas where the Airport's influence is likely to be less direct.

4.2 **Figure 4.1** sets out the economic impact framework used and explains the relationship between the different elements. The different effects can be defined as follows:

- 'Economic Footprint' effects reflect the role the Airport plays in supporting GVA and employment purely through its operation as an economic activity. There are three sub-effects within this classification:
  - Direct – employment and GVA supported by activities wholly or largely related to the operation of the Airport or air services (passenger or cargo) and located at the Airport or in the immediate vicinity. Essentially, this is the airport related economic activity that occurs at the site. It includes companies such as the airport company itself, airlines, handling agents, aircraft maintenance and engineering, terminal retailing and cleaning or car hire firms;
  - Indirect – employment and GVA supported in the supply chain to the direct activities. The companies that generate the direct impacts need to buy goods and services from others to produce their output, who in turn have their own supply chains. These purchases in turn support jobs and GVA in a wide range of sectors, such as utilities and energy, advertising, manufacturing, professional services or construction;
  - Induced – employment and GVA supported in the economy by the expenditure of wages and salaries earned in relation to the direct and indirect activities. People working in the companies in the direct and indirect effects spend money in their local economies. This expenditure injection also supports GVA and jobs. The sectors involved could be almost anything. Some obvious examples would be general retailing, food and beverages, leisure activities, utilities, banking and finance costs and insurance;
- Wider, or catalytic impacts reflect the benefits that accrue to the region around the Airport through the provision of connectivity to businesses and to inbound travellers:

Figure 4.1: Economic Impact Framework and Relationships



- Business Productivity – employment and GVA supported by the role that the Airport plays in enabling business travel and the movement of air freight, which in turn supports increased trade, increased inward investment, greater competition and better access to supply chains and knowledge sources. This is ultimately reflected in higher productivity in the surrounding economy. The sectors involved in these impacts are hard to identify but effects would tend to be concentrated in sectors with a strong international focus, either in terms of trade or investment. Some intelligence can be gained from examining CAA Passenger Survey data on business passengers and we consider this information in relation to Bristol Airport further below;

- Tourism – employment and GVA supported by the Airport's role in helping to bring new and additional visitors to the region. Expenditure by these visitors boosts economic activity and supports jobs and prosperity. The initial injection is in to the sectors that make up the tourism industry, notably hospitality and catering, leisure activities and transport. However, indirect and induced effects stemming from this injection will spread the impact across the economy.

4.3 The methodologies used to estimate the Airport's economic footprint are well established and accepted. The quantification of the wider impacts of airports remains challenging and methodologies are less well defined. Some caution does therefore need to be applied in considering these results. However, we do believe that these estimates are reasonable and ultimately they do articulate the substantial and important role played by the Airport in the wider economy.

Bristol Airport's Current Economic Footprint

4.4 Airports are the geographic centres for the air transport industry. They are where the service is ultimately delivered to its end users, passengers or freight customers. However, airports are now about much more than simply loading passengers or freight on to an aeroplane. They are centres for the delivery of a wide range of ancillary goods and services that either directly support the delivery of air services or facilitate the broader demand for goods and services from passengers passing through the airport. As such, they are often major centres for employment and economic activity within the regions they serve and are diverse economies in their own right, offering employment opportunities in a wide range of sectors and at different skill levels.

4.5 This concentration at and immediately around an airport is known as its direct economic impact. However, an airport's economic footprint does not stop there. Organisations at airports have supply chains that enable them to provide the goods and services that they offer. Purchases in this supply chain within the region around airports support further employment and prosperity (indirect effects). Expenditure of the wages and salaries earned by those employed by the direct and indirect impacts injects further consumer expenditure in to the economy, which in turn supports more economic activity and jobs in the region (induced effects). These effects are sometimes referred to as multiplier effects.

4.6 In terms of the geographical area of economic impact under consideration, we have considered the following 'study areas':

- ✈ North Somerset;
- ✈ the Bristol City Region (or 'the West of England') which is composed of North Somerset, Bristol City, Bath & North East Somerset, and South Gloucestershire; and
- ✈ the wider South West Region and South Wales.

4.7 The number of direct on site employees at Bristol Airport in 2015 has been taken from an Employee Survey undertaken by the Airport during that year. It identified that around 3,400 people work on-site at the Airport. The distribution of employees has been taken from the Bristol Airport Workplace Travel Plan 2016. The corresponding GVA impacts have been calculated using published information from on-site companies reports and accounts, factored to reflect presence at Bristol Airport where necessary.

4.8 The indirect and induced impacts of the Airport have been calculated a series of so-called multipliers. These multipliers are developed using a range of economic data on the nature of spending in supply chains and by consumers in the economy and the extent to which this expenditure is captured within the geographic area that is being considered. Developing multipliers is a complex exercise and a range of approaches can be used. In this case we have used a technique based on using the UK input-output tables. Input Output tables track spending relationships within the national economy and are based on extensive survey work undertaken by the Office for National Statistics. These Tables provide information on the indirect and induced multipliers at a UK level.

4.9 However, to be used at more local levels adjustments need to be made to the coefficients within them to reflect the different sectoral make up of local and regional economies and the fact that such smaller economies are more reliant on other areas (within the UK or internationally) to provide the goods and services that they require. We have used a well-recognised and tested approach developed by A.T. Flegg of the University of the West of England and most recently set out in "*Estimating regional input coefficients and multipliers: The use of the FLQ is not a gamble*" (2013). This approach uses specialised location quotients, which assess the level of relative concentration of an economic sector, to adjust the matrix of coefficients in the UK Input Output tables to reflect the different economic structure at a sub-regional level and the greater need for external trading relationships within areas at a sub-national level and in smaller economies.

4.10 **Table 4.1** sets out our estimates of the direct, indirect and induced impacts of the Airport in 2015 in the three Study Areas.

Table 4.1: The 'Economic Footprint' of Bristol Airport in 2015

	North Somerset			Bristol City Region			South West & South Wales		
	GVA (m)	Jobs	FTEs	GVA (m)	Jobs	FTEs	GVA (m)	Jobs	FTEs
Direct	£225	1,300	1,100	£275	2,750	2,300	£300	3,350	2,800
Indirect & Induced	£50	750	600	£100	1,700	1,400	£225	4,700	3,900
Total	**£275**	**2,050**	**1,700**	**£375**	**4,450**	**3,700**	**£525**	**8,050**	**6,700**

Source: York Aviation.

4.11 **Table 4.2** sets out the structure of onsite employment at Bristol Airport in 2015. This structure is fairly typical of that at most UK airports. The 'other' category includes ATC staff, ground transport operators, maintenance companies, and flying schools.

Table 4.2: The Structure of onsite employment at Bristol Airport in 2015

Employment Category	Percentage of Total Onsite FTEs
Airport Operator	9%
Airline	34%
Concessionaires	12%
Contractors	15%
Control Agencies	4%
Handling Agents	12%
Other	14%
Total	**100%**

Source: Bristol Airport and York Aviation Analysis.

4.12 Whilst no specific analysis is available of occupational grouping by skill level, experience from similar airports suggests that the majority of direct jobs are likely to require either basic skills or supervisory skills at the equivalent of NVQ Levels 1 & 2, along with a range of managerial jobs at a higher level.

4.13 The distribution of economic direct economic effects is influenced by the pattern of residence of employees at the Airport site. The Bristol Airport Workplace Travel Plan provides an insight in to this distribution and the distribution of on-site employment based on this data is set out in **Table 4.3**.

Table 4.3: Distribution of On-site Employees

Area	Jobs
Bath and North East Somerset	340
Bristol	750
of which South Bristol	370
Dorset	30
Gloucestershire	30
North Somerset	1,320
of which Weston-super-Mare	440
Somerset	370
South Gloucestershire	340
South Wales	140
Swindon	30
Warwickshire	30
Wiltshire	30

Source: York Aviation.

4.14 The direct employment impacts of Bristol Airport are spread across the South West and South Wales. There are particular concentrations in North Somerset and Bristol, with Weston Super Mare and South Bristol featuring particularly.

Wider Impacts

Productivity

4.15 The role that the Airport plays in supporting and facilitating prosperity in other sectors is at the very centre of its economic importance in a prosperous, developed country such as the UK. Stakeholders emphasised the role that it plays in supporting the international economy.

4.16 The connectivity airports such as Bristol provide enables the flow of trade, investment, people and knowledge that are central to globally successful regions:

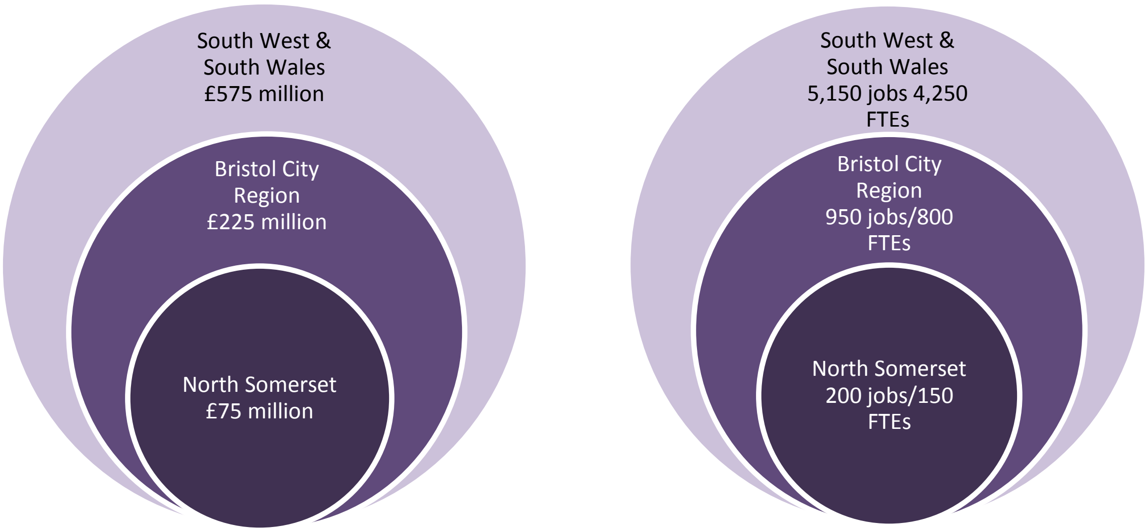
- companies based in a region are able to easily access international markets, either to seek out new business opportunities or to build on and solidify existing relationships;

- it enables companies to seek out better or cheaper inputs to their supply chains;
- air services enable inward investors to effectively manage their activities within the region, thereby making new investments or expansion more attractive. Conversely, it also enables global businesses based in the region to manage their overseas interests, promoting efficiency and profitability;
- by being better connected, the businesses in the region are exposed to greater competition, to new ideas and a greater knowledge base, which drives productivity;
- in a labour market which is increasingly global, connectivity is an increasingly important quality of life factor. Air services enable individuals to visit friends and relatives overseas easily and make the region a more attractive place to live and work.

4.17 Bristol Airport is widely recognised by local stakeholders as an important driver of growth and a key regional asset. The City Region is already home to a number of large companies with international reach, including high-tech companies such as Oracle and Hewlett Packard, and aerospace companies such as Airbus, Rolls Royce, and GKN. The recent Government approval for the Hinkley Point nuclear power station in Somerset is also widely seen as a critical component of future regional economic growth.

4.18 **Figure 4.2** shows the GVA and employment impact on the three study areas in 2015 from productivity benefits associated with passenger business travel. These impacts have been calculated using a statistical relationship originally developed by Oxford Economics as part of research undertaken for Transport for London around the Airports Commission process. This relationship relates the level of business air travel and air freight from an area to total factor productivity in the economy. A 10% increase in combined business air travel and air freight would result in a 0.5% increase in productivity in the economy. York Aviation has developed a model of passenger behaviour that uses generalised cost modelling to estimate the level of business travel from each of the study areas that is solely reliant on Bristol Airport. This provides the basis for inputting in to the Oxford Economics relationship to estimate the impact on productivity in the economy relating to business travel.

Figure 4.2: Productivity Effects from Bristol Airport's Passenger Business Travel on GVA and Employment



Source: York Aviation.

4.19 In relation to estimating the impact on employment from business travel the nature of the effect is difficult to be certain about. Business travel productivity effects are primarily an influence on the level of GVA within a study area. They reflect the fact that business can operate more effectively from within Bristol's catchment area with the Airport in place. Equally, increased inward investment and trade and greater prosperity is ultimately likely to drive some increase in employment within a study area over the longer term. We have therefore assumed that the observed increase in GVA stemming from increased business travel is a mixture of direct, indirect and induced impacts and that the impacts in the supply chain and from expenditure of wages and salaries does result in new job creation.

4.20 We have also considered the sectors in the economy that are likely to be the main beneficiaries of the connectivity offered by Bristol Airport. In **Table 4.4** we have set out an analysis of business users of Bristol Airport based on the CAA Passenger Survey. This provides an indication of the types of sectors that are likely to benefit from the productivity boost provided by the Airport's connectivity.

Table 4.4: % of Business Passengers at Bristol Airport by Broad Sector

Sector	*Percent*
Advanced Manufacturing	12%
Business & Professional Services	12%
Public Services	10%
Energy & Utilities	7%
Leisure Services	7%
Other Manufacturing	7%
IT & Communications	6%
Transport Services	6%
Education	6%
Other	5%
Retail Sales	5%
Construction	4%
Life Sciences	4%
Wholesale Sales	3%
R&D	3%
Personal Services	2%
Creative Industries	2%
Agriculture	1%

Source: York Aviation analysis of CAA Passenger Survey.

4.21 Business use of air services at Bristol Airport is spread across a wide range of sectors. However, there is a notable concentration in advanced manufacturing, business and professional services and public services. This reflects some of the core strengths of the South West and South Wales region and particularly the international elements of the economy. It demonstrates how the Airport is supporting key sectors of the economy and sectors that offer high added value.

Inbound Tourism

4.22 Stakeholders from regional tourism organisations generally feel that the visitor economy in the City Region is currently relatively healthy, aided by sterling being weak at the moment, which has led to an influx of foreign visitors. The Airport plays an important role in this by providing easy access to overseas markets.

4.23 The US is seen as the biggest and most important market, with Europe (especially Germany and France) close behind. This is reflected in the statistics for 2015 visits to the South West by air from VisitBritain (see **Table 4.5**).

Table 4.5: Air Tourism Visits to the South West by Country

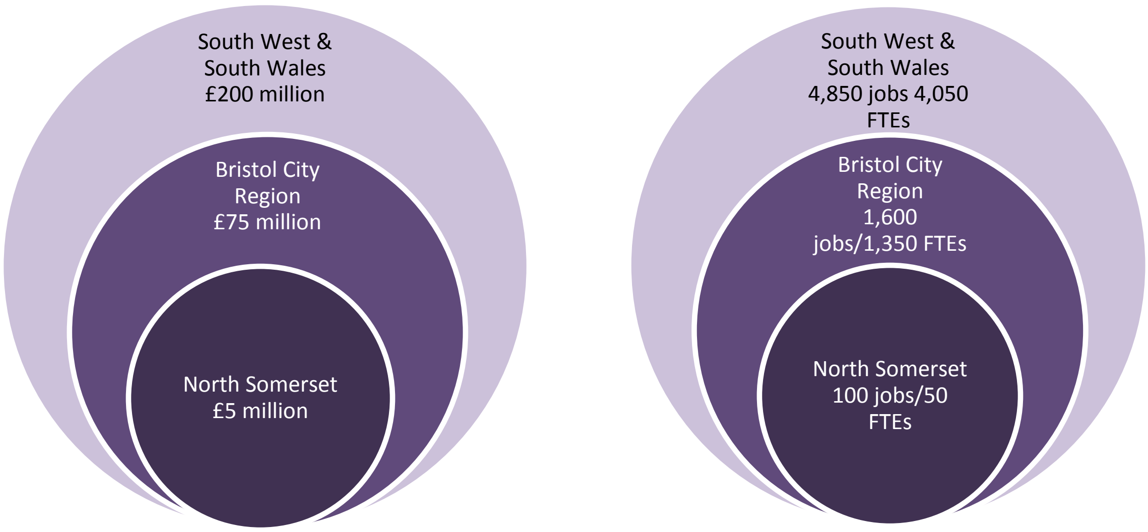
Country	*Visits (000s)*
USA	163
Germany	142
Spain	140
Irish Republic	115
Australia	109
Italy	92
France	90
Netherlands	62
Switzerland	61
Poland	57
Other	522
Total	1,552

Source: VisitBritain.

4.24 Bristol Airport plays a strong role in providing connections to a number these key markets, notably to Germany, Spain, the Irish Republic, Italy and France.

4.25 **Figure 4.3** shows the GVA and employment impact on the study areas stemming from inbound tourism. These estimates have been calculated by examining the number of visitors to the relevant study areas that fly in via Bristol Airport. This is then combined with data from VisitBritain on the average spend per trip to provide an estimate of the consumer expenditure injection in to the economy. This is then worked through to an impact on GVA and employment based on information within the Annual Business Survey and Business Register and Employment Survey from the Office for National Statistics and indirect and induced effect multipliers calculated in the same way as for the Airport's economic footprint.

Figure 4.3: Inbound Tourism Impacts on GVA and Employment



Source: York Aviation.

Total Impact

4.26 **Table 4.6** shows the total impact of Bristol Airport within the study areas in 2015.

4.27 Within North Somerset in 2015, we estimate that the Airport's economic footprint supported around 1,700 full time equivalent (FTE) jobs and around £275 million of GVA. When the additional wider impact from productivity and tourism is included, the overall impact rises to 1,900 FTEs and £355 million of GVA.

4.28 Within the Bristol City Region in 2015, we estimate that the Airport's economic footprint supported around 3,700 FTEs and around £375 million of GVA. When the additional wider impact from productivity and tourism is included, the overall impact rises to 5,850 FTEs and £675 million of GVA.

4.29 Within the South West Region and South Wales in 2015, we estimate that the Airport supported around 6,700 FTEs and around £525 million of GVA. When the additional wider impact from productivity and tourism is included, the overall impact rises to 15,000 FTEs and £1.3 billion of GVA.

Table 4.6: The Total Economic Impact of Bristol Airport in 2015

	North Somerset			Bristol City Region			South West & South Wales		
	GVA (m)	Jobs	FTEs	GVA (m)	Jobs	FTEs	GVA (m)	Jobs	FTEs
Economic Footprint									
Direct	£225	1,300	1,100	£275	2,750	2,300	£300	3,350	2,800
Indirect & Induced	£50	750	600	£100	1,700	1,400	£225	4,700	3,900
Sub Total	£275	2,050	1,700	£375	4,450	3,700	£525	8,050	6,700
Wider Benefits									
Productivity	£75	200	150	£225	950	800	£575	5,150	4,250
Tourism	£5	100	50	£75	1,600	1,350	£200	4,850	4,050
Sub Total	£80	300	200	£300	2,550	2,150	£775	10,000	8,300
Total	**£355**	**2,350**	**1,900**	**£675**	**7,000**	**5,850**	**£1,300**	**18,050**	**15,000**

Source: York Aviation.

5 FUTURE POTENTIAL IMPACT

Introduction

5.1 To the extent that Bristol Airport is able to grow in the future, it will support more economic activity, both through an expanding economic footprint and through its connectivity offer to passengers, which will translate into impacts in the wider economy.

5.2 In this Section, we provide estimates of the GVA and employment that could be supported by the Airport in the future, under two scenarios of forecast growth (see below). These economic impact projections are then used to consider the potential economic benefits of Bristol Airport expanding beyond its current planning cap of 10 million passengers per annum.

Key Assumptions

5.3 Our estimates of the future impact of the Airport are governed by a number of key assumptions, notably in relation to:

- future traffic growth at the Airport – ultimately the GVA supported by the Airport is a reflection of the economic activity generated, which is, in turn, reflected in the level of passenger traffic. Growth in demand indicators at the Airport will be reflected in growth in the Airport's impact on the economy;
- labour productivity – productivity gains on-site at the Airport will determine the extent to which future growth in the level of GVA supported translates through into new job opportunities. Similarly, growth in labour productivity in the wider economy will determine the extent to which increased GVA away from the Airport site will increase employment opportunities;
- the nature of passenger demand growth – the extent to which future traffic growth delivers more business travellers or more inbound travel will influence the extent to which the Airport delivers wider benefits in the future.

5.4 We consider our assumptions in relation to each area in more detail below.

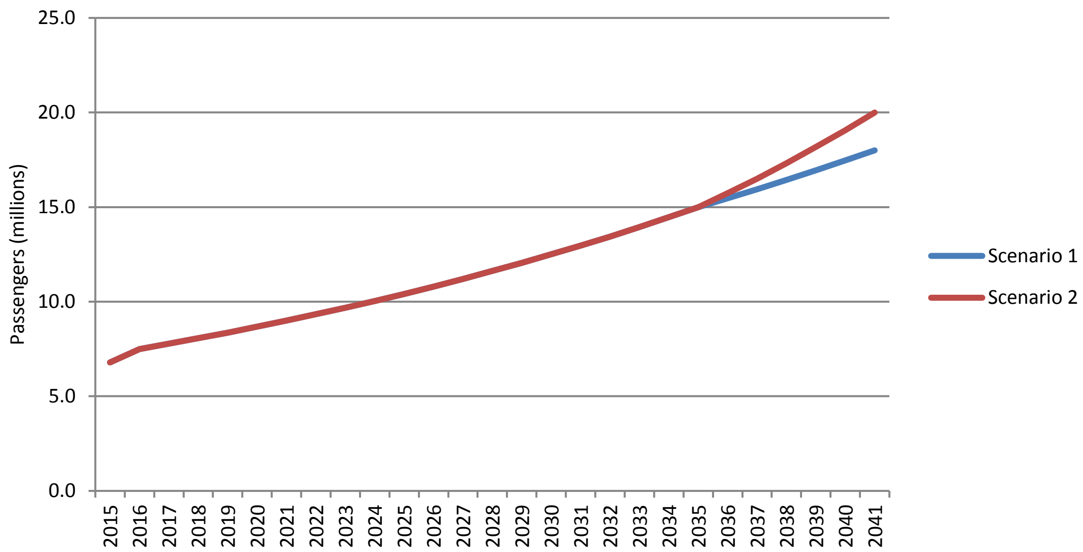
Traffic Forecast Scenarios

5.5 We have considered two scenarios of future traffic growth based on information received from the Airport based on current and anticipated demand trends. These scenarios both assume that the Airport is able to grow with demand, although we recognise that the Airport will require additional capacity in order to be able to accommodate this demand, that additional capacity will be subject to planning approvals and that there is a strong view that surface access improvements, particularly in relation to the A38 will be required:

- Scenario 1: 10 mppa by 2024, 15 mppa by 2035, and 18 mppa by 2041;
- Scenario 2: 10 mppa by 2024, 15 mppa by 2035, and 20 mppa by 2041.

5.6 The two scenarios of traffic growth are set out in **Figure 5.1** below.

Figure 5.1: Bristol Airport Passenger Traffic Forecast Scenarios



Source: Bristol Airport.

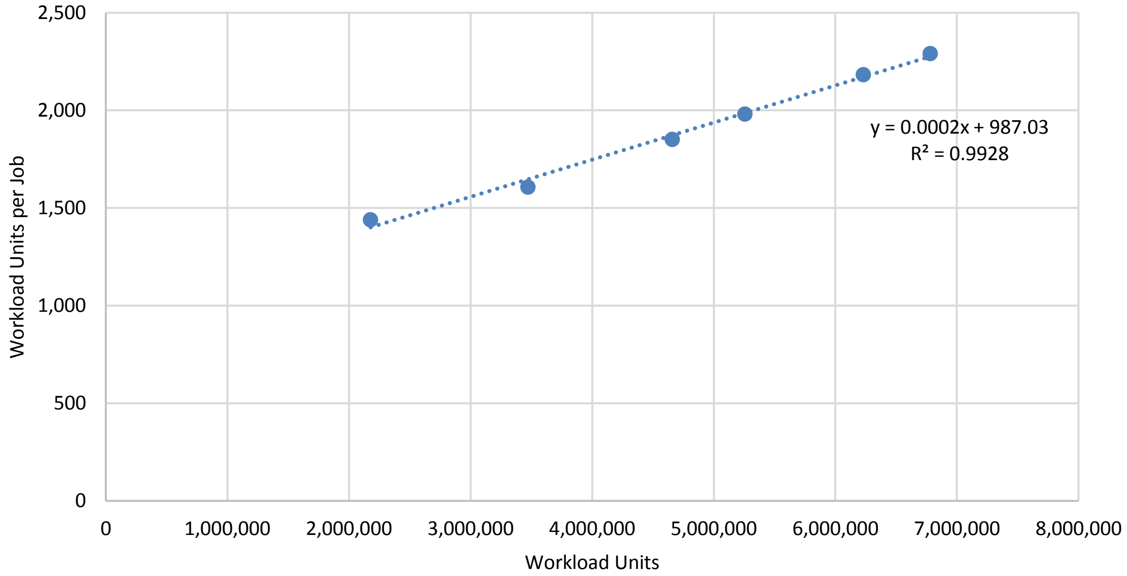
5.7 Currently, the traffic forecasts for the Airport moving forward do not provide detail on growth of individual passenger types, for instance business or leisure passengers, UK or foreign passengers. Consequently, we have assumed that traffic growth in the future maintains its current structure. This is potentially an area where further analysis will be required.

Productivity Growth

5.8 The extent to which traffic growth, and by extension GVA growth, delivers employment opportunities on-site at the Airport can be analysed using the results of previous employment surveys undertaken at the Airport. **Figure 5.2** shows the number of passengers delivered per on-site job compared with total passenger throughput over a 15 year period.

5.9 This analysis uses 'workload units' as a measure of traffic growth. A workload unit is a combined measure of passengers and freight passing through an airport, where 100 kilos of freight is assumed to be equal to one passenger. Bristol Airport has handled small amounts of freight in the past, so the workload unit is appropriate for analysing historical data, although no significant levels of freight are currently forecast to be handled in the future.

Figure 5.2: Workload Units per Job vs. Total Workload Units



Source: Bristol Airport and York Aviation Analysis.

5.10 This analysis suggests clearly that there is a strong link between passenger throughput and labour productivity on-site at the Airport. This has been used as a basis for estimating labour productivity moving forward.

Estimates of Future Economic Impact

5.11 **Figures 5.3 to 5.5** show the annual total GVA and employment impact of Bristol Airport through to 2041 for each of the study areas under Scenario 1.

Figure 5.3: Future GVA & Employment Impact of Bristol Airport in North Somerset (Scenario 1)

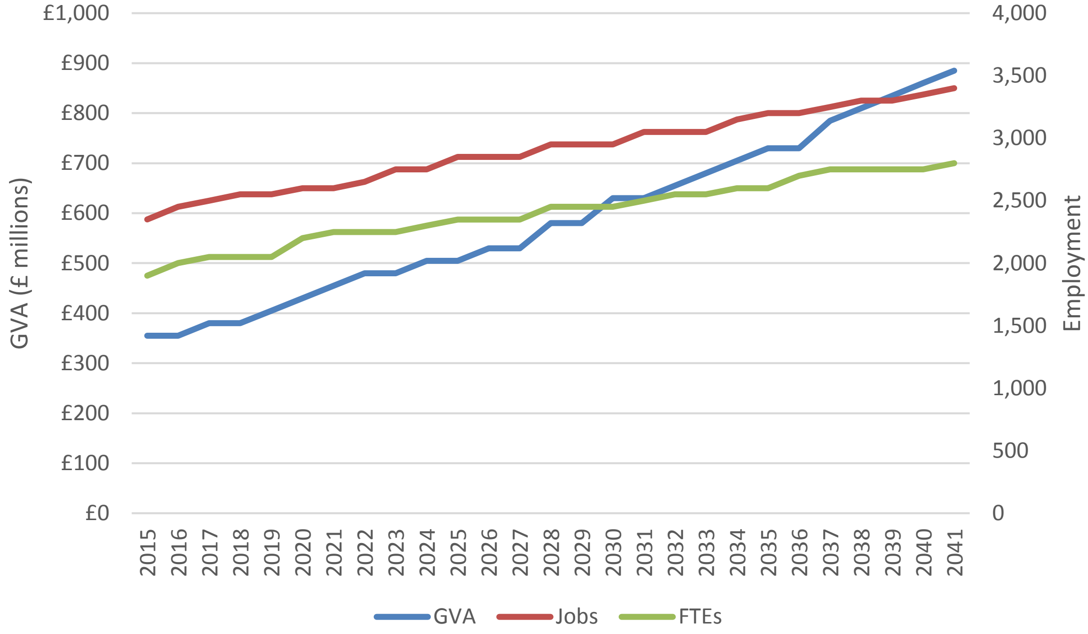


Figure 5.4: Future GVA & Employment Impact of Bristol Airport in the Bristol City Region (Scenario 1)

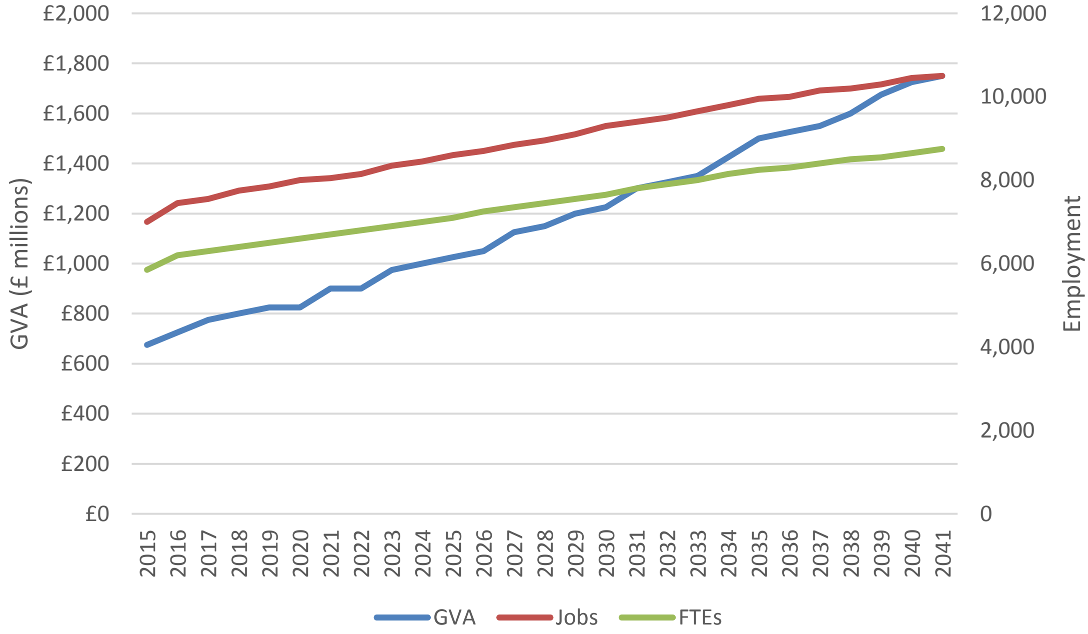
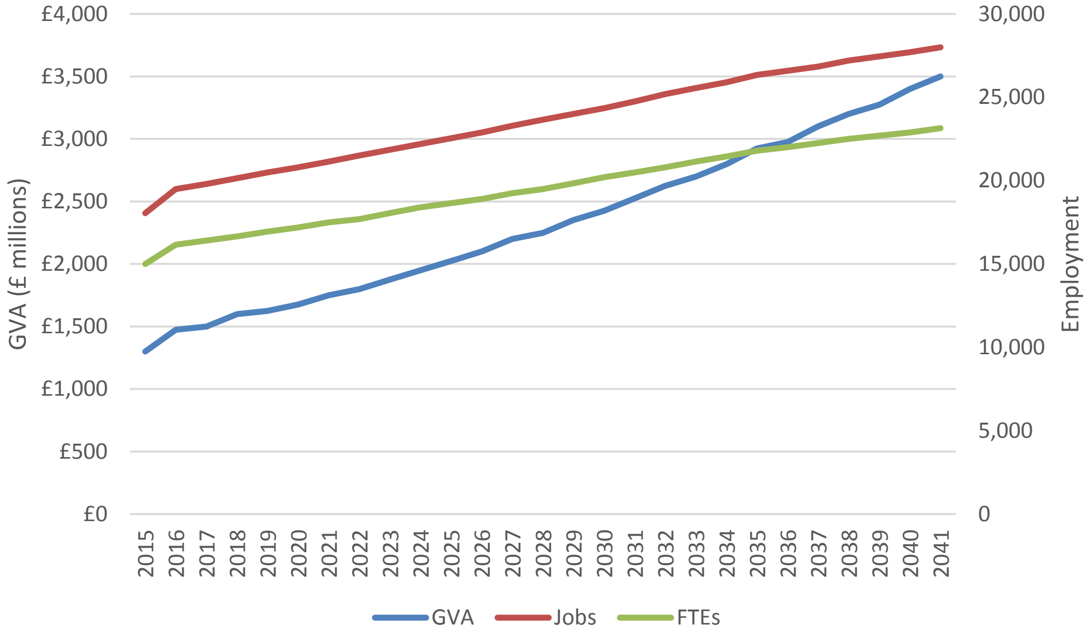


Figure 5.5: Future GVA & Employment Impact of Bristol Airport in the South West and South Wales (Scenario 1)



5.12 **Figures 5.6 to 5.8** show the annual total GVA and employment impact of Bristol Airport through to 2041 for each of the study areas under Scenario 2.

Figure 5.6: Future GVA & Employment Impact of Bristol Airport in North Somerset (Scenario 2)

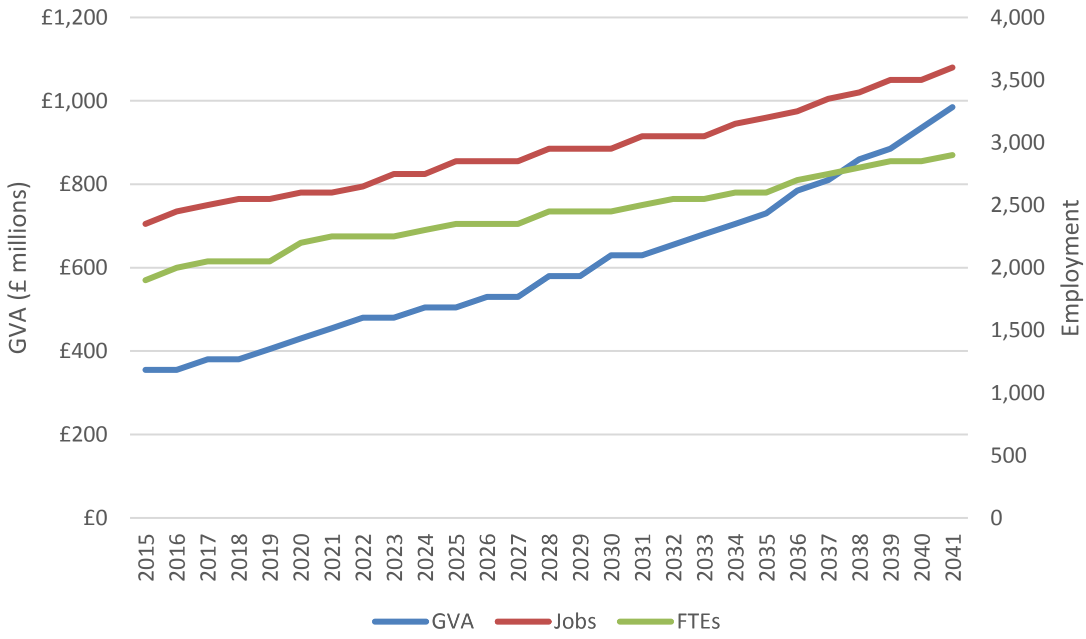


Figure 5.7: Future GVA & Employment Impact of Bristol Airport in the Bristol City Region (Scenario 2)

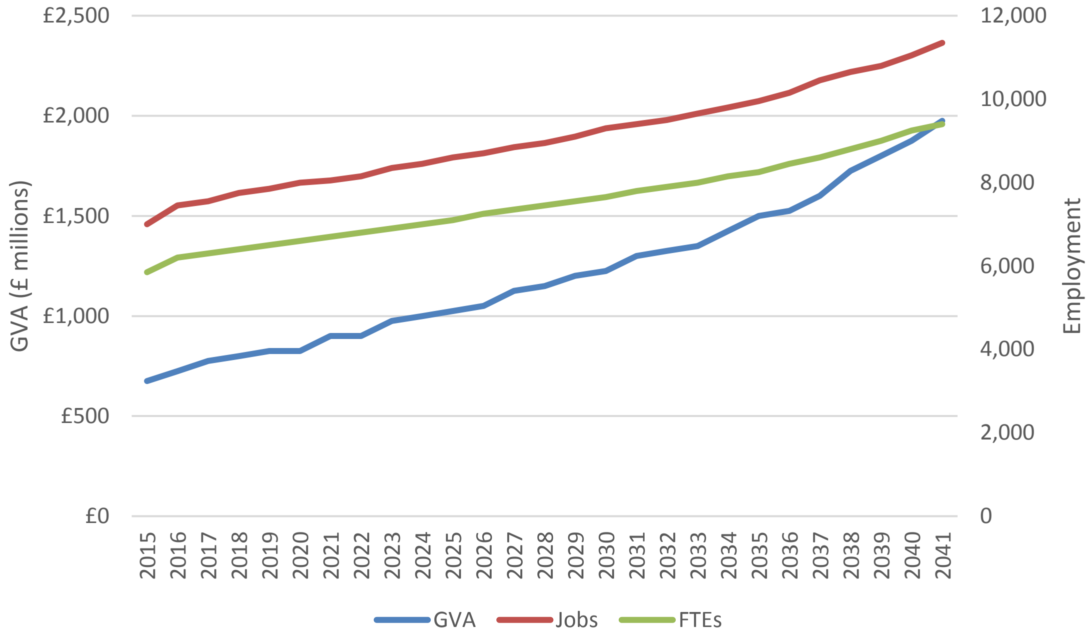
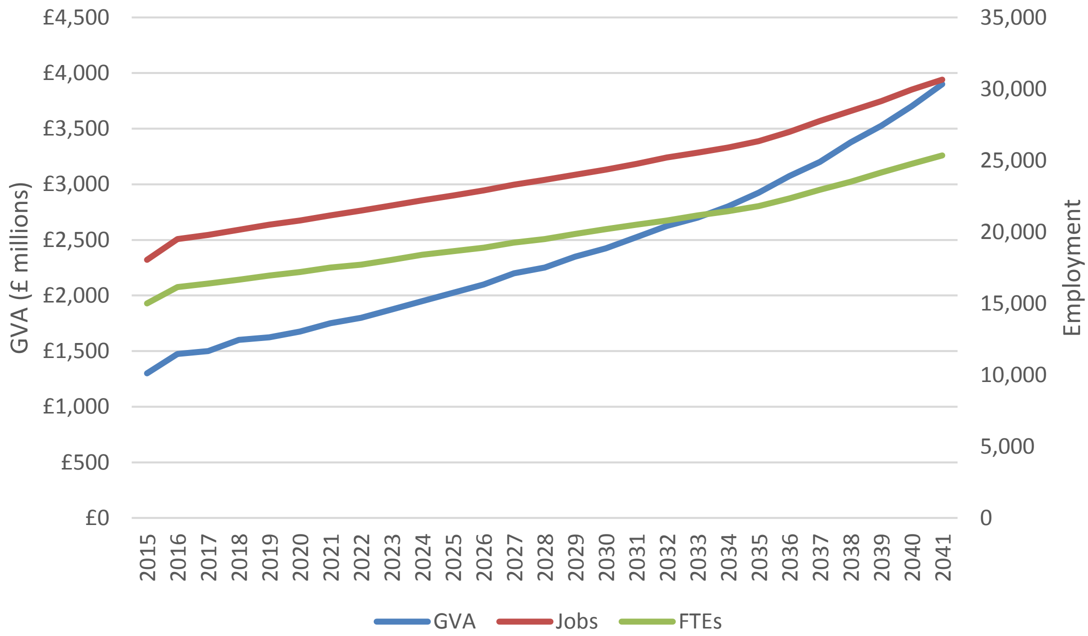


Figure 5.8: Future GVA & Employment Impact of Bristol Airport in the South West and South Wales (Scenario 2)



5.13 The breakdown of this impact in to the different economic impact channels for a number of representative years is shown in **Table 5.1** for Scenario 1 and in **Table 5.2** for Scenario 2.

Table 5.1: The Current and Future Economic Impact of Bristol Airport - Scenario 1 18 mppa

	North Somerset				Bristol City Region				South West & South Wales			
Year	2015	2024	2035	2041	2015	2024	2035	2041	2015	2024	2035	2041
Traffic (m)	7	10	15	18	7	10	15	18	7	10	15	18
GVA (£m)												
Economic Footprint												
Direct	£225	£325	£475	£575	£275	£425	£625	£750	£300	£450	£675	£825
Indirect & Induced	£50	£75	£100	£125	£100	£150	£225	£250	£225	£325	£500	£600
Sub Total	£275	£400	£575	£700	£375	£575	£850	£1,000	£525	£775	£1,175	£1,425
Wider Benefits												
Productivity	£75	£100	£150	£175	£225	£325	£500	£575	£575	£875	£1,300	£1,550
Tourism	£5	£5	£5	£10	£75	£100	£150	£175	£200	£300	£450	£525
Sub Total	£80	£105	£155	£185	£300	£425	£650	£750	£775	£1,175	£1,750	£2,075
Total	**£355**	**£505**	**£730**	**£885**	**£675**	**£1,000**	**£1,500**	**£1,750**	**£1,300**	**£1,950**	**£2,925**	**£3,500**
Jobs												
Economic Footprint												
Direct	1,300	1,500	1,700	1,800	2,750	3,200	3,600	3,750	3,350	3,900	4,400	4,600
Indirect & Induced	750	900	1,100	1,150	1,700	2,050	2,500	2,650	4,700	5,850	7,000	7,500
Sub Total	2,050	2,400	2,800	2,950	4,450	5,250	6,100	6,400	8,050	9,750	11,400	12,100
Wider Benefits												
Productivity	200	250	300	300	950	1,200	1,450	1,550	5,150	6,400	7,700	8,200
Tourism	100	100	100	150	1,600	2,000	2,400	2,550	4,850	6,050	7,250	7,700
Sub Total	300	350	400	450	2,550	3,200	3,850	4,100	10,000	12,450	14,950	15,900
Total	**2,350**	**2,750**	**3,200**	**3,400**	**7,000**	**8,450**	**9,950**	**10,500**	**18,050**	**22,200**	**26,350**	**28,000**
FTEs												
Economic Footprint												
Direct	1,100	1,250	1,450	1,500	2,300	2,650	3,000	3,150	2,800	3,250	3,650	3,800
Indirect & Induced	600	750	850	950	1,400	1,700	2,050	2,200	3,900	4,850	5,800	6,200
Sub Total	1,700	2,000	2,300	2,450	3,700	4,350	5,050	5,350	6,700	8,100	9,450	10,000
Wider Benefits												
Productivity	150	200	200	250	800	1,000	1,200	1,300	4,250	5,300	6,350	6,750
Tourism	50	100	100	100	1,350	1,650	2,000	2,100	4,050	5,000	6,000	6,400
Sub Total	200	300	300	350	2,150	2,650	3,200	3,400	8,300	10,300	12,350	13,150
Total	**1,900**	**2,300**	**2,600**	**2,800**	**5,850**	**7,000**	**8,250**	**8,750**	**15,000**	**18,400**	**21,800**	**23,150**

Source: York Aviation.

Table 5.2: The Current and Future Economic Impact of Bristol Airport - Scenario 2 20 mppa

	North Somerset				Bristol City Region				South West & South Wales			
Year	2015	2024	2035	2041	2015	2024	2035	2041	2015	2024	2035	2041
Traffic (m)	7	10	15	20	7	10	15	20	7	10	15	20
GVA (£m)												
Economic Footprint												
Direct	£225	£325	£475	£625	£275	£425	£625	£825	£300	£450	£675	£925
Indirect & Induced	£50	£75	£100	£150	£100	£150	£225	£300	£225	£325	£500	£650
Sub Total	£275	£400	£575	£775	£375	£575	£850	£1,125	£525	£775	£1,175	£1,575
Wider Benefits												
Productivity	£75	£100	£150	£200	£225	£325	£500	£650	£575	£875	£1,300	£1,725
Tourism	£5	£5	£5	£10	£75	£100	£150	£200	£200	£300	£450	£600
Sub Total	£80	£105	£155	£210	£300	£425	£650	£850	£775	£1,175	£1,750	£2,325
Total	**£355**	**£505**	**£730**	**£985**	**£675**	**£1,000**	**£1,500**	**£1,975**	**£1,300**	**£1,950**	**£2,925**	**£3,900**
Jobs												
Economic Footprint												
Direct	1,300	1,500	1,700	1,800	2,750	3,200	3,600	3,850	3,350	3,900	4,400	4,700
Indirect & Induced	750	900	1,100	1,300	1,700	2,050	2,500	2,950	4,700	5,850	7,000	8,300
Sub Total	2,050	2,400	2,800	3,100	4,450	5,250	6,100	6,800	8,050	9,750	11,400	13,000
Wider Benefits												
Productivity	200	250	300	350	950	1,200	1,450	1,700	5,150	6,400	7,700	9,100
Tourism	100	100	100	150	1,600	2,000	2,400	2,850	4,850	6,050	7,250	8,550
Sub Total	300	350	400	500	2,550	3,200	3,850	4,550	10,000	12,450	14,950	17,650
Total	**2,350**	**2,750**	**3,200**	**3,600**	**7,000**	**8,450**	**9,950**	**11,350**	**18,050**	**22,200**	**26,350**	**30,650**
FTEs												
Economic Footprint												
Direct	1,100	1,250	1,450	1,500	2,300	2,650	3,000	3,200	2,800	3,250	3,650	3,900
Indirect & Induced	600	750	850	1,050	1,400	1,700	2,050	2,450	3,900	4,850	5,800	6,850
Sub Total	1,700	2,000	2,300	2,550	3,700	4,350	5,050	5,650	6,700	8,100	9,450	10,750
Wider Benefits												
Productivity	150	200	200	250	800	1,000	1,200	1,400	4,250	5,300	6,350	7,500
Tourism	50	100	100	100	1,350	1,650	2,000	2,350	4,050	5,000	6,000	7,100
Sub Total	200	300	300	350	2,150	2,650	3,200	3,750	8,300	10,300	12,350	14,600
Total	**1,900**	**2,300**	**2,600**	**2,900**	**5,850**	**7,000**	**8,250**	**9,400**	**15,000**	**18,400**	**21,800**	**25,350**

Source: York Aviation.

Impact of Growth Beyond 10 Million Passengers per Annum

5.14 In **Table 5.3** we have examined specifically the economic impact of Bristol Airport's growth beyond its current planning cap of 10 million passengers per annum. This builds on the economic impact projections for the two traffic scenarios described above.

Table 5.3: The Economic Impact of Bristol Airport's Growth Beyond 10 mppa

		to 15 mppa	to 18 mppa	to 20 mppa
North Somerset	GVA (£m)	£225	£380	£480
	Jobs	450	650	850
	FTEs	300	500	600
Bristol City Region	GVA (£m)	£500	£750	£975
	Jobs	1,500	2,050	2,900
	FTEs	1,250	1,750	2,400
South West & South Wales	GVA (£m)	£975	£1,550	£1,950
	Jobs	4,150	5,800	8,450
	FTEs	3,400	4,750	6,950

Source: York Aviation.

5.16 Enabling Bristol Airport to grow beyond 10 mppa is expected to have a significant economic impact across all three study areas.

5.17 At 15 mppa, which is expected to be reached in around 2035, the GVA impact in North Somerset is expected to be £225 million higher and it is expected to support an additional 450 jobs (300 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £500 million higher and it will support around 1,500 additional jobs (1,250 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £975 million higher and it will support around 4,150 additional jobs (3,400 FTEs).

5.18 At 18 mppa, which is expected to be reached in around 2041 under Scenario 1, the GVA impact in North Somerset is expected to be £380 million higher and it is expected to support an additional 650 jobs (500 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £750 million higher and it will support around 2,050 additional jobs (1,750 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £1,550 million higher and it will support around 5,800 additional jobs (4,750 FTEs).

5.19 At 20 mppa, which is expected to be reached in around 2041 under Scenario 2, the GVA impact in North Somerset is expected to be £480 million higher and it is expected to support an additional 850 jobs (600 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £975 million higher and it will support around 2,900 additional jobs (2,400 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £1,950 million higher and it will support around 8,450 additional jobs (6,950 FTEs).

Strategic Added Value of Future Growth

5.20 Above, we have set out our estimates of the impact of Bristol Airport in the future in terms of jobs and GVA. However, while this analysis provides a quantitative assessment of its economic potential, it is also important to consider some of the potential broader effects of the Airport's growth.

5.21 The first point to make is around the quality and range of jobs that the Airport's growth might support. The Airport is already a significant employment centre, offering a wide range of different jobs with different skill levels and different working patterns. These opportunities will grow in the future and the Airport will offer a strong range of permanent jobs which will help to support regeneration efforts in some of the deprived areas around the Airport and also offer opportunities at the higher skilled end of the spectrum. The potential development of more Maintenance Repair and Overhaul activities at the Airport in particular would see growth in high quality engineering jobs that would add genuine value to the economy.

5.22 It is also worth considering the role that the Airport might play in acting as a growth pole for other unrelated sectors in the economy. While we have estimated above the effects of traffic growth at the Airport, this does not cover the potential strategic role that a growing employment site with attendant available employment land might have on unrelated activities. The development of the Airport could create local agglomeration effects and provide an even greater focus for surface transport development such that the area the Airport becomes a more attractive location for a wide range of economic sectors. This might include some economic activity that is captured in our assessment of wider impacts but equally it might include activity that has no connection to the Airport as a means of accessing air transport. The development of a high quality employment land offer would potentially therefore offer spin-off benefits over and above the impacts identified above.

6 CONCLUSIONS

6.1 Airports are an essential tool for modern, developed regions, facilitating the flow of trade, investment, knowledge and people. Bristol Airport is the primary airport playing this role in the South West and South Wales.

6.2 In 2015, the Airport handled a record 6.8 million passengers, of which over 1 million were estimated to be flying on business. It also brought over 500,000 overseas visitors to the UK. The Airport has shown strong growth through 2016 and is expected to handle around 7.5 million passengers over the full year.

6.3 The Airport is one of the largest regional airports in the UK and has experienced significant growth in the last 20 years, with passenger numbers increasing fourfold over the period. It offers flights to a wide range of domestic and international destinations, primarily through services offered by Europe's two largest low fares airlines, easyJet and Ryanair. However, it also offers a number of full service connections, including to the global hub airport at Amsterdam.

6.4 Its importance to the economy of the region is well recognised by stakeholders and is reflected in the core economic strategy and planning documents concerned with the areas around the Airport.

6.5 Currently, we estimate that:

- within North Somerset in 2015, we estimate that the Airport's economic footprint supported around 1,700 full time equivalent (FTE) jobs and around £275 million of GVA. When the additional wider impact from productivity and tourism is included, the overall impact rises to 1,900 FTEs and £355 million of GVA.

- within the Bristol City Region in 2015, we estimate that the Airport's economic footprint supported around 3,700 FTEs and around £375 million of GVA. When the additional wider impact from productivity and tourism is included, the overall impact rises to 5,850 FTEs and £675 million of GVA.

- within the South West Region and South Wales in 2015, we estimate that the Airport supported around 6,700 FTEs and around £525 million of GVA. When the additional wider impact from productivity and tourism is included, the overall impact rises to 15,000 FTEs and £1.3 billion of GVA.

6.6 Demand for air services from Bristol Airport is expected to grow significantly in the future. Passenger demand is forecast to reach 10 mppa by around 2024, 15 mppa by around 2035 and could reach between 18 mppa and 20 mppa by the early 2040s. There are barriers to this growth being achieved both in terms of the Airport's existing infrastructure and in terms of the transport networks around the Airport. However, if these levels of throughput could be achieved that the economic impact of the Airport could increase significantly.

6.7 We have considered two scenarios of growth to 2041. In Scenario 1 the Airport's passenger throughput grows to 18 mppa in 2041 and in Scenario 2 to 20 mppa in 2041.

6.8 In Scenario 1, at 2041, we estimate that the Airport's total economic impact in North Somerset would rise to around 2,800 FTEs and £885 million of GVA. In the Bristol City Region the total impact would be 8,750 FTEs and £1.8 billion of GVA, and in the South West and South Wales 23,150 FTEs and £3.5 billion of GVA.

6.9 In Scenario 2, at 2041, we estimate that the Airport's total economic impact in North Somerset would rise to around 2,900 FTEs and £985 million of GVA. In the Bristol City Region the total impact would be 9,400 FTEs and £2.0 billion of GVA, and in the South West and South Wales 25,350 FTEs and £3.9 billion of GVA.

6.10 This demonstrates that enabling Bristol Airport to grow beyond 10 mppa is expected to have a significant economic impact across all three study areas.

6.11 At 15 mppa, which is expected to be reached in around 2035, the GVA impact in North Somerset is expected to be £225 million higher and it is expected to support an additional 450 jobs (300 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £500 million higher and it will support around 1,500 additional jobs (1,250 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £975 million higher and it will support around 4,150 additional jobs (3,400 FTEs).

6.12 At 18 mppa, which is expected to be reached in around 2041 under Scenario 1, the GVA impact in North Somerset is expected to be £380 million higher and it is expected to support an additional 650 jobs (500 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £750 million higher and it will support around 2,050 additional jobs (1,750 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £1,550 million higher and it will support around 5,800 additional jobs (4,750 FTEs).

6.13 At 20 mppa, which is expected to be reached in around 2041 under Scenario 2, the GVA impact in North Somerset is expected to be £480 million higher and it is expected to support an additional 850 jobs (600 FTEs). In the Bristol City Region, the Airport's GVA impact is expected to be around £975 million higher and it will support around 2,900 additional jobs (2,400 FTEs). Across the South West & South Wales, the Airport's GVA impact is expected to be around £1,950 million higher and it will support around 8,450 additional jobs (6,950 FTEs).

APPENDIX A

LIST OF ORGANISATIONS CONSULTED

Bath & North East Somerset Council

Bath Tourism Plus/Visit Bath

Bristol City Council

Business West

Destination Bristol

Invest Bristol & Bath

North Somerset Council

South Gloucestershire Council