

LICHFIELDS

The Economic Impact of Farnborough Airport

Rushmoor Borough Council

2022



Contents

1.0	Executive Summary	1
2.0	Introduction	3
	Structure of the Report	3
3.0	Overview of Farnborough Airport	4
	Location	4
	Operations	4
	Tenants	5
4.0	The Business Aviation Sector	7
	Characteristics of Business Aviation	7
	National Context	8
	Trends in Business Aviation	8
5.0	Policy and Socio-Economic Context	10
	Policy Context	10
	Socio-Economic Context	16
	Conclusions	23
6.0	Economic Impact of Farnborough Airport	24
	Tenant Survey	24
	Direct Employment	25
	Wider Employment	27
	Total Airport-Related Employment	30
	Contribution to the Economy	31
	Fiscal Contribution	32
	Capital Investment	32
	Longitudinal Impact of Airport Activities	32
	Impact of Covid-19 Pandemic	34
7.0	Potential Future Employment	36
	Future Direct Airport Employment	36

	Direct Employment	38
	Wider Employment	40
	Total Airport Employment	41
	Supporting the Net Zero Agenda	42
8.0	Catalytic and Wider Economic Effects	44
	Benefits of Business Aviation	45
	Visitor Impacts	46
	Local Employment Opportunities	46
	Supporting Skills Development	46
9.0	Conclusions	48
	Economic Impact of Farnborough Airport	48
	Longitudinal Impact of Farnborough Airport	49
	Impact of the Covid-19 Pandemic	49
	Future Employment Growth	50
	Catalytic and Wider Economic Effects	50
	Synthesis	51

1.0 **Executive Summary**

- 1.1 Farnborough Airport is located in the Borough of Rushmoor and within the County of Hampshire. The Airport provides airfield infrastructure and ground handling services to a range of customers who predominantly operate small-to-medium sized aircraft, as defined, and restricted by the Airport's prevailing planning conditions. The Airport is licensed by the Civil Aviation Authority ('CAA') as a civil aerodrome and operates as an integral part of the UK's overall airports' system. Today, the Airport is the largest business aviation airport in the UK.
- 1.2 Over the years there has been significant investment in the Airport's infrastructure and facilities. The existence and continued growth of the Airport has resulted in economic benefits at a local, regional, and national level. This report evaluates the economic impact of Farnborough Airport, and updates the work previously commissioned by Rushmoor Borough Council in 2009.
- 1.3 As with the 2009 Study, the focus of this report is the economic impact of Farnborough Airport itself. As such, the report does not aim to quantify the economic benefit of the actual flights which use Farnborough Airport, e.g. in terms of productivity advantages and/or value-added to the UK economy as a whole.
- 1.4 The table overleaf summarises the economic impact of Farnborough Airport back in 2009 compared with the latest assessment of the Airport's actual economic impact in 2019. The 2022 Study has taken 2019 as its base year for its analysis as this represents a 'normalised' pre-pandemic year. In 2019 Farnborough Airport handled around 31,561 Air Traffic Movements ('ATMs').
- 1.5 The 2009 and 2019 figures have been compared with the forecast economic impact of the Airport once it reaches 50,000 ATMs per annum, its current planning cap. The economic impact of the 50,000 ATMs scenario was assessed as part of the 2009 Study and has now been updated in the 2022 Study based upon the revised economic data.
- 1.6 The 2022 Study shows that the economic impact of Farnborough Airport, both in terms of employment (measured in full-time equivalent 'FTE' jobs) and economic output (measured in terms of Gross Value Added, 'GVA'), is materially higher than that which was forecast back in 2009.
- 1.7 Between 2009 and 2019 the ATMs at Farnborough Airport have grown by 23.8%, from 25,500 to 31,561 ATMs per annum, however over the same period, actual employment has increased by 56.6% from 2,120 to 3,320 FTE jobs, with direct GVA increasing by 63.2% from £93.0 million to £151.8 million.
- 1.8 The 2022 Study sets out updated projections for FTE jobs and direct GVA based upon the Airport reaching 50,000 ATMs. These are now estimated to range between 4,125 and 4,260 FTE jobs and £187.3 million and £193.7 million direct GVA, respectively. This represents an increase of 24.3% to 28.4% more (FTE) jobs and 23.3% to 27.6% more GVA compared with 2019. Furthermore, this represents an increase of 37.4% to 43.2% more FTE jobs and 53.2% to 57.5% more GVA when compared to the previous forecasts from the 2009 Study.

1.9 Based on current data it is estimated that for every 1,000 ATMs, the Airport supports 105.1 FTEs and generates £4.8 million of direct GVA.

Table 1.1 Supply chain expenditure (£ million)

		Actual 2009	Actual 2019	Forecast	
				2009 Study	2022 Study
ATMs		25,500	31,561	50,000	
Direct jobs (FTEs)	On-Airport jobs	-	1,558	-	1,900-1,970
	Off-Airport jobs	-	152	-	225
	Total	1,180	1,710	1,350-1,550	2,125-2,195
Wider employment		940	1,610	1,530-1,550	2,000-2,065
Total employment		2,120	3,320	2,800-3,100	4,125-4,260
Direct GVA (£ million)		£93.0	£151.8	£118.9-£126.4	£187.3-£193.6
Indirect GVA (£ million)		-	£135.9	-	£167.7-£173.3
Total GVA (£ million)		-	£287.7	-	£355.0- £366.9
Airport-related jobs per 1,000 ATMs		83.1	105.1	57.6-62.0	82.5-85.2
(Direct) GVA per 1,000 ATMs (£ million)		£3.647	£4.810	£2.378-£2.528	£3.746-£3.872

Source: Lichfields analysis

1.10 Several factors are contributing to the results of the 2022 Study, including the ongoing investment in the Airport’s facilities and infrastructure, as well as the increasing number of high value and high productivity businesses being attracted to the region due to the presence of the Airport, either directly or indirectly.

1.11 The correlation of employment and GVA supported by aviation activity at Farnborough Airport can also be observed in local and regional statistics. The Airport comprises 7% of the total land mass of Rushmoor Borough and is one of the largest employment centres in the region. Consequently, the Airport has a significant impact on the overall economic performance of the Borough.

1.12 In the period between 2009 and 2019, Rushmoor Borough has experienced exceptionally strong GDP performance across all economic metrics (i.e., in terms of GDP growth, GVA per job and GVA per hour worked), not least achieving 6.0% annual GDP growth over the decade compared with the UK benchmark average of 1.8% per annum.

2.0 Introduction

2.1 This report has been prepared by Lichfields on behalf of Rushmoor Borough Council ('RBC').

2.2 The aim of this report is to update the work previously commissioned by RBC in 2009 (hereafter referred to as the '2009 Study').

2.3 The purpose of this latest study ('the 2022 Study'), is to calculate Farnborough Airport's actual economic impact as observed in 2019 (taken as the base year representing pre-Covid pandemic activity levels) and where necessary revise how the economic impact of the Airport might change as it increases its ATMs over the coming years and reaches its current 50,000 ATMs per annum planning limit.

Structure of the Report

2.4 The rest of this report is structured as follows:

- **Section 3.0** provides an overview of Farnborough Airport, its facilities and operations, and other economic activities based there which are considered in the economic assessment presented in this report;
- **Section 4.0** defines business aviation, and presents an overview of the role Farnborough Airport plays within this sector;
- **Section 5.0** presents an overview of the policy context and socio-economic conditions at the local level;
- **Section 6.0** assesses the economic impact of Farnborough Airport and considers how this has changed in the ten years to 2019. This section also considers the impact of the Covid-19 pandemic on Airport activity;
- **Section 7.0** identifies the economic impact associated growth in ATMs (up to 50,000 movements per annum), and how the transition to net zero may impact this;
- **Section 8.0** considers the Airport's catalytic and wider community and economic effects; and
- **Section 9.0** presents the overall conclusions for the study.

3.0 **Overview of Farnborough Airport**

- 3.1 This section describes the location and operation of Farnborough Airport, its key activities, infrastructure and other main economic activities based on-site and/or immediately adjoining it. This includes activities (such as the Farnborough International Airshow, and the Aviator hotel) which whilst not directly (or solely) related to the activity of Farnborough Airport, would not exist without the presence of Farnborough Airport.

Location

- 3.2 Farnborough Airport is the epicentre of an aerospace and technology ecosystem which has a significant economic impact on the local region. The Airport lies in the Borough of Rushmoor, close to the Surrey/Hampshire boundary and is located some 55 km Southwest of central London. The Airport occupies 256 acres and is approximately 7% of the land mass of Rushmoor Borough. Approximately 80% of Farnborough Airport Limited's ('FAL') staff live within a 10-mile radius.
- 3.3 Located on the edge of Farnborough, the Airport has good accessibility by road, lying close to Junctions 4 and 4a of the M3 motorway to the north, and the A31 to the south. In addition, Farnborough Station has frequent rail services to London Waterloo, with the drive to the Airport taking around ten minutes.

Operations

- 3.4 Flying activity at Farnborough Airport is restricted by a number of planning conditions which not only impose constraints on its operating hours and the type and weight of aircraft, but also prohibits certain types of activity, including:
- Scheduled passenger services
 - 'Inclusive Tour' charter services
 - Bulk freight services
 - Flight training
 - Recreational flying
- 3.5 The current Farnborough Airport site was the first operational airfield in the UK in the early 1900s. It was occupied by the Ministry of Defence ('MoD') as an airfield and centre for aviation research until the early 1990s. Government recognition (in the late 1980s) that lack of business aviation capacity in the Southeast region could have adverse effects on both regional and national economies, led to the site being earmarked as suitable for a business aviation airport. After the airfield site was declared surplus to Government requirements, planning permission was granted in 2000 for business aviation use on the operational area of the airfield, initially with an annual limit of 28,000 aircraft movement. Following a subsequent 2009 planning application, the number of aircraft movements was increased to a maximum of 50,000 per annum.

- 3.6 The Airport's key infrastructure includes:
- A long runway (comprising of 1,800 metres landing distance) with an Instrument Landing System ('ILS') capable of servicing all business aviation aircraft;
 - A large, high-quality, and modern terminal building;
 - An extensive area of aircraft parking and taxiing aprons;
 - Several large hangars, used for either aircraft storage and/or aircraft maintenance. A new, £55 million state-of-the-art hangar (comprising of 175,000 sq.ft.) and associated works is currently under construction;
 - A state-of-the-art Air Traffic Control Tower, fire station, fuel depot and extensive car parking;
 - A 169-bedroom hotel owned and operated by the Airport, the Aviator Hampshire, with leisure and conference facilities immediately adjoining the Airport Site.
- 3.7 In 2018, Farnborough Airport became the first airport of its kind to become certified as carbon neutral by [Airport Carbon Accreditation](#), and since 2021 has offered Sustainable Aviation Fuel ('SAF') to its customers. In addition, the Airport has recently invested in electrical ground power units and has upgraded its vehicle fleet to electric, further demonstrating its commitment to the environment. Building on this, in June 2022 Farnborough Airport launched its *Roadmap to Net Zero by 2030*¹ which sets out how the Airport will support the UK Government's ambition to achieve net zero by 2050. In particular, this includes a commitment that by 2030 (or sooner), the Airport will achieve net zero for all emissions within its direct as well as indirect control, setting some of the most ambitious standards for environmental performance within the UK airports sector.
- 3.8 In 2020, Farnborough Airport remained fully operational throughout the whole Covid-19 pandemic and was designated as a red-list entry point alongside larger airports such as Heathrow, Gatwick, Birmingham, and London City. Throughout the second lockdown (i.e., in November 2020) where essential international air travel was permitted, Farnborough Airport played an important role in supporting UK essential connectivity. Notwithstanding the fact that other commercial passenger airports and airlines were severely impacted, the business nature of much of Farnborough Airport's flights characterises the essential characteristics of its role within the wider UK airports' system.

Tenants

- 3.9 Within the Airport site, premises are let to over 70 tenant companies. These include aircraft operators, and firms that manage, maintain, and refurbish business aviation aircraft. In addition, the Airport also accommodates a small number of businesses for whom aviation is not the primary (i.e., operational) sector, but which may provide services to the industry. Customs and immigration facilities are based at Farnborough Airport, and there is the On Air Café for use by passengers at the Airport which opened in 2021.
- 3.10 Some of the largest tenants include Gulfstream (see case study box), Flight Safety International, TAG Maintenance Services and Farnborough International.

¹ Farnborough Airport (June 2022), *Roadmap to Net Zero by 2030*. [Available at: <https://netzero.farnboroughairport.com/>].

Gulfstream – New European MRO

Since the 2009 Study, Gulfstream has invested significantly in a new European Maintenance, Repair and Overhaul ('MRO') facility at Farnborough Airport, which includes its new European Customer Service Centre.

The Gulfstream investment was actively supported by RBC in conjunction with Farnborough Airport, in the process creating hundreds of new jobs, and supporting additional employment more widely.

The newly built 20,903 sq.m facility can accommodate as many as 13 large-cabin aircraft, offering a significant increase in capability compared to its previous facility at Luton Airport.

Farnborough Airport was well placed to meet the specific requirements of Gulfstream and its customers, as the gateway to London and dedicated to premium air travel connectivity.

The Airport's 2009 planning application resulted in permission to grow to 50,000 ATMs per annum. Without the Airport's ability to grow and accommodate Gulfstream's own operational activity, it would not have chosen to invest in Farnborough Airport and the region more widely.

Gulfstream's move to Farnborough Airport shows how overseas investors see the economic strengths of the area. This inward investment from a world-class company specialising in advanced aerospace technologies is an example of the positive incremental economic benefit which Farnborough Airport brings excellent news for to the area and the UK. The investment benefits the regional economy, underpinning the Airport's role in supporting jobs and economic development.

4.0 **The Business Aviation Sector**

4.1 This section reviews the business aviation sector in the UK, its economic importance and representation nationally, and considers the role of Farnborough Airport.

Characteristics of Business Aviation

4.2 The International Business Aviation Council (‘IBAC’) defines business aviation as the “*sector of aviation which concerns the operation or use of aircraft by companies for the carriage of passengers or goods as an aid to the conduct of their business, flown for purposes generally considered not for public hire*”. This definition excludes the use of aircraft for other general aviation purposes such as training, recreation, commercial freight, scheduled passenger services and/or other public uses (e.g., police work).

4.3 To refine its definition², IBAC has established the following four sub-divisions of business aviation:

- **Commercial** – this includes “the commercial operation or use of aircraft by companies for the carriage of passenger or goods as an aid to the conduct of their business, and the availability of the aircraft for whole aircraft charter”.
- **Corporate** – which comprises of “the non-commercial operation or use of aircraft by a company for the carriage of passengers of goods as an aid to the conduct of company business”.
- **Owner operated aircraft** – which covers “the non-commercial operation or use of aircraft by an individual for the carriage of passengers or goods as an aid to the conduct of [their] business”.
- **Fractional ownership** – which includes “the operation or use of aircraft operated by an entity for a group of owners who jointly hold minimum shares [...]. Fractional ownership operations are normally non-commercial; [although] the operation of the aircraft may be undertaken as a commercial operation”.

4.4 Regardless of the differences between these (i.e., sub-division) definitions, business aviation is characterised by a strong emphasis on maintaining high levels of connectivity and convenience to its users, to which they ascribe economic value through the productivity benefits they experience, as well as heightened levels of security and assurance.

4.5 Notwithstanding the definition offered by IBAC, Farnborough Airport’s permitted flying activity remains that which is prescribed in its planning consent, where the Airport can facilitate all aviation activity except for those operations which are explicitly prohibited.

² However, please note that IBAC does not actively promote the sub-divisions of business aviation.

National Context

- 4.6 The UK's business aviation sector is the third-largest network in Europe, ranking behind Germany and France in terms of its share of Europe's active business aviation fleet (17.5%) and its share of aircraft movements (17.4%).³ Overall, it is estimated that the business aviation industry generates over €8.3 billion each year, representing just over 0.3% of the national economy in 2016. A study from 2016⁴ estimates that there are 41,100 jobs linked to business aviation, generating €4.1 billion in salaries each year.
- 4.7 Business aviation is a fundamental driver of international trade, where the connectivity that it provides is a key component to delivering national competitiveness and stimulating inward investment.

Covid-19 and the Role of Farnborough Airport

- 4.8 For the wider aviation sector, the Covid-19 pandemic posed an existential threat resulting in a significant and sharp decline in growth within the industry and a significant loss in employment.
- 4.9 In response, the UK Government published its [Flightpath to the Future Strategy](#) on the 26th May 2022 which set out a recovery plan aimed at rebuilding consumer confidence, building back sustainably from the pandemic, supporting jobs across the country and building a skilled and diverse workforce that's fit for the future.
- 4.10 Compared with commercial passenger airports, Farnborough Airport proved resilient not only throughout the pandemic, but also in the post-pandemic recovery period. The [Farnborough Airport Company Limited 2021 Annual Report](#) states that during the pandemic, Farnborough Airport actively recruited employees, and did not make any redundancies. In February 2021, the Airport was selected as one of five red list entry ports to the UK, highlighting the role it played in maintaining essential international connectivity.
- 4.11 As such, the economic impact of Farnborough Airport can be considered on a relative basis to be both resilient and enduring.

Trends in Business Aviation

- 4.12 Analysis by McKinsey⁵ indicates that overall, business aviation has been growing steadily until the start of 2020, when the Covid-19 pandemic hit all aviation-related services across the globe.
- 4.13 In 2020, industry revenues for all types of aviation around the globe totalled \$328 billion, amounting to just around 40% of the previous year's revenues. In nominal terms, this is equivalent to the industry's revenue as seen more than two decades ago in the year 2000. Accordingly, the aviation sector is expected to be smaller for some years to come, with total traffic not anticipated to return to pre-pandemic levels until 2024.

³ European Business Aviation Association (2022), *Business Aviation Traffic Tracker*.

⁴ Sustainable Aviation (2016), *UK Aviation Industry Socio-Economic Report*

⁵ McKinsey & Company (March 2022), *Taking stock of the pandemic's impact on global aviation*.

- 4.14 The Covid-19 pandemic accelerated several trends that were already in motion, such as greater use of virtual meetings, and increased preference for home/hybrid working. This, in addition with travel restrictions and strict quarantine requirements has led to a decline in business tourism globally. However, whilst the demand for business tourism remains constrained, the lack of supply from commercial airlines is likely to push business travellers, especially those accustomed to traveling business class (i.e., for the comfort and ease of working) to alternative travel modes, including private and business aviation.
- 4.15 Furthermore, the additional assurance provided by business aviation has meant that at a time of heightened health and wellbeing awareness, business aviation provided peace of mind as travellers avoided environments that are most conducive to the virus's transmission, whilst also relying on high levels of cleanliness of aircraft interiors and facilities.
- 4.16 Finally, the increased use of digital technology, the potential for fewer connecting flights, and the ability to use sustainable aviation fuels ('SAF') have seen demand for business aviation flourish, despite the overall suppressed supply. The latter is likely to become more significant as people's priorities continue to shift towards greater social responsibility across all aspects of their lives.

5.0 **Policy and Socio-Economic Context**

5.1 This section summarises the policy and socio-economic context influencing current operations, and potential future growth (albeit within the consented limits) at Farnborough Airport.

Policy Context

- 5.2 Whilst 2022 was marked by a number of changes in the UK government, overall policy remained focussed on growing the economy following the Covid-19 pandemic, whilst also minimising the consequences of the conflict in Ukraine. The Growth Plan 2022⁶, published in September states growth as the government's central economic mission, setting a target of reaching a 2.5% trend rate. The government is committed to accelerating the delivery of priority major infrastructure projects as means of driving growth and delivering Net Zero.
- 5.3 In October 2022, the Intellectual Property Office (i.e., on behalf of the government) published its Innovation and Growth Report⁷, which reinforces many of the messages set out in the Build Back Better⁸ policy paper. It highlights how innovation should be at the forefront of any strong economy and remains at the heart of the government's plans for growth, from achieving net zero to building Global Britain.
- 5.4 The Build Back Better policy paper, published in 2021, set out the government's roadmap to kickstart economic recovery, whilst also supporting employment (through the Plan for Jobs), and enabling the transition to a net zero economy by 2050, whilst at the same time promoting a Global Britain.
- 5.5 The policy paper set out several pillars of growth which include building on infrastructure, skills, and innovation. High quality infrastructure is a pillar of growth because it is a crucial component for economic growth, boosting productivity and competitiveness. Infrastructure is at the centre of communities and helps connect people to each other, to businesses and to markets, forming a foundation for economic activity. One of the objectives for infrastructure is to deliver green infrastructure in line with net zero emissions targets.
- 5.6 Building on skills is the second pillar which focuses on delivering high quality education and skills training across the country boosting skills in places which most need it. The plan's objective is to provide adults with opportunities to upskill and reskill throughout their lifetime in a way that meets their needs, this includes improving apprenticeship systems and rolling out employer-led skills 'bootcamps'.
- 5.7 Finally, innovation is the last pillar of growth and is key driver of economic growth and improvements to living standards, through the development of new ideas, products and processes and their adoption and diffusions across the economy.

⁶ HM Treasury (September 2022), *The Growth Plan 2022*. [Available at: <https://www.gov.uk/government/publications/the-growth-plan-2022-documents/the-growth-plan-2022-htm#:~:text=The%20Growth%20Plan%202022%20makes,a%20period%20of%20high%20inflation>].

⁷ Intellectual Property Office (October 2022), *Innovation and Growth Report 2021-22*. [Available at: <https://www.gov.uk/government/publications/promoting-innovation-and-growth-the-ipo-at-work-2021-22/innovation-and-growth-report-2021-22>].

⁸ HM Treasury (March 2021), *Build Back Better: our plan for growth*. [Available at: <https://www.gov.uk/government/publications/build-back-better-our-plan-for-growth>].

The Ten Point Plan for a Green Industrial Revolution

- 5.8 The Ten Point Plan for a Green Industrial Revolution⁹ sets out the approach the government will take to build back better, support green jobs, and accelerate our path to net zero. The ambition is to create hundreds of thousands of new jobs by investing in pioneering industries while simultaneously protecting future generations from climate change. To support this, the government has announced a support package worth over £5 billion. This Plan mobilises £12 billion – and potentially more than three times as much from the private sector – to place green jobs at the heart of the country’s economic revival.
- 5.9 The Plan focuses on increasing ambition in the following areas:
1. Advancing offshore wind;
 2. Driving the growth of low carbon hydrogen;
 3. Delivering new and advanced nuclear power;
 4. Accelerating the shift to zero emission vehicles;
 5. Green public transport, cycling and walking;
 6. ‘Jet zero’ and green ships;
 7. Greener buildings;
 8. Investing in carbon capture, usage, and storage;
 9. Protecting our natural environment; and
 10. Green finance and innovation.
- 5.10 Point 6, which focuses on Jet Zero looks to position the UK at the forefront of aviation technology to push forward low carbon travel and build on its early strengths. The Government has established a Jet Zero Council, as a sector-wide partnership to accelerate the development and adoption of new technologies whilst also helping to develop the strategy to reach net zero aviation. The government is investing £15 million into FlyZero – a 12-month study, delivered through the Aerospace Technology Institute (‘ATI’), into the strategic, technical, and commercial issues in designing and developing zero-emission aircraft that could enter service in 2030.
- 5.11 Moving to sustainable fuels is one of the key steps to success. To encourage this, the Government is running a £15 million competition to support the production of SAFs in the UK, building on the success of the Future, Fuels for Freight and Flight Competition. Alongside this, the government intends to consult on a SAF mandate to blend greener fuels into kerosene, which will create a market-led demand for these alternative fuels. To support the emergence of a market in zero emission aircraft there will be more investment in research and development (‘R&D’) into the infrastructure upgrades required at UK airports to move to battery and hydrogen aircrafts.

⁹ Department for Business, Energy & Industrial Strategy (November 2020), *The Ten Point Plan for a Green Industrial Revolution*. [Available at: <https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution>].

- 5.12 Overall, taking action on net zero aviation (or Jet Zero), and green ships could secure the formation of up to 5,200 jobs supported by a domestic SAF industry and saving of up to 15 Metric tons of carbon dioxide equivalent ('MtCO_{2e}') by 2050.

UK Aviation Strategy

- 5.13 In May 2022, the Flightpath to the Future Strategy¹⁰ was published by the Department for Transport ('DfT') to set out a framework for aviation over the next ten years. The key objective of the strategy is to promote the recovery of the aviation industry as well as modernise, innovate, and decarbonise the industry moving forward.
- 5.14 The strategy sets out a ten-point plan for the future of UK aviation setting out the key themes of the strategy. These include the following:
- ***Enhancing global impacts for a sustainable recovery***
 1. *Recover, learn lessons from the pandemic and sustainably growth the sector*
 2. *Enhance the UK's global aviation impact and leadership*
 3. *Support growth in airport capacity where it is justified, ensuring that capacity is used in a way that delivers for the UK*
 - ***Embracing innovation for a sustainable future***
 4. *Put the sector on course to achieve Jet Zero by 2050- this will include delivering on aspiration for zero emission flights across the UK this decade.*
 5. *Capture the potential of new technology and it uses*
 - ***Realising benefits for the UK***
 6. *Unlock local benefits and level up- recognising how extensive airport, airfield, and aviation infrastructure network acts as catalyst for national and local benefits.*
 7. *Unleash the potential of the next generation of aviation professionals- enhance skills and diversity across the entirety of the sector*
 8. *Make the UK the best place in the world for General Aviation- recognise the important role General Aviation plays in providing domestic and international connectivity for a range of areas*
 - ***Delivering for users***
 9. *Improve the consumer experience- build consumer confidence, make aviation accessible and inclusive for all, and facilitate a smooth border experience*
 10. *Retain our world-leading record on security and safety with a world-leading regulator*

¹⁰ Department for Transport (May 2022), *Flightpath to the Future*. [Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1079042/flightpath-to-the-future.pdf].

Flightpath to the Future

- 5.15 As detailed in the Department for Transport’s (‘DfT’) Flightpath to the Future¹¹ report, business aviation has a vital role to play in supporting economic recovery in the UK, whilst also ensuring ongoing global connectivity. It further demonstrated its value during the Covid-19 pandemic, when business aviation transported vital medical supplies and services, allowing emergency services to continue to operate.

Jet Zero Strategy

- 5.16 Building on the aspirations set out within the UK Aviation Strategy, the Jet Zero Strategy¹² sets out the government’s vision for decarbonising aviation with the sector focussing on the rapid development of technologies in a way that maintains the benefits of air travel, whilst also maximising the opportunities decarbonisation offers to the whole UK. The Strategy commits the aviation sector to achieve Jet Zero by 2050, whilst also setting a target for all domestic flights to reach net zero by 2040.
- 5.17 Whilst acknowledging that the process to decarbonise aviation will be challenging, the Strategy argues that it is vital for the sector to take steps now to reduce its emissions. The Strategy sets out the government’s delivery plan over the coming five years, built on the three principles of intellectual leadership, delivered in partnership and maximising opportunities.
- 5.18 This includes measures focussed on achieving system efficiencies, increased availability (and therefore use) of SAF, zero emission flights (‘ZEF’), markets and removals, influencing consumers and addressing non-CO₂ emissions. On SAF, the Jet Zero Strategy sets out the Government’s ambition for five UK plants to be under construction by 2025, whilst also issuing a mandate to target at least 10% SAF by 2030.

Levelling Up Strategy

- 5.19 The Levelling Up White Paper¹³ published in February 2022 sets out the Government’s plans to address and narrow economic and social disparities across the UK. Levelling up is defined as “giving everyone the opportunity to flourish. It means people everywhere living longer and more fulfilling lives and benefitting from sustained rises in living standards and well-being”. The aim is to tackle geographical inequality within the UK by funding various social and economic programmes to boost economic growth, encourage innovation, create good jobs, enhance education attainment, and renovate the social and cultural fabric of those parts of the UK that have stalled.

¹¹ Department for Transport (2022), *Flightpath to the Future*. [Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1079042/flightpath-to-the-future.pdf].

¹² Department for Transport (July 2022), *Jet Zero Strategy, Delivering net zero aviation by 2050*. [Available at: <https://www.gov.uk/government/publications/jet-zero-strategy-delivering-net-zero-aviation-by-2050>].

¹³ Department for Levelling Up, Housing and Communities (February 2022), *Levelling Up the United Kingdom*. [Available at: <https://www.gov.uk/government/publications/levelling-up-the-united-kingdom>].

5.20 The White Paper sets out the government's ambitions and medium-term missions to provide consistency and clarity over levelling up policy objectives. These will serve as an anchor for policy across government, as well as catalysing innovation and action by the private and civil society sectors. These missions are ambitions that the UK Government has for all parts of the UK. These medium-term missions include but not are limited to the following:

Boost productivity, pay, jobs and living standards by growing the private sector, especially in those places where they are lagging

- *By 2030, pay, employment and productivity will have risen in every area of the UK, with each containing a globally competitive city, and the gap between the top performing and other areas closing.*
- *By 2030, the UK will have nationwide gigabit-capable broadband and 4G coverage, with 5G coverage for the majority of the population.*

Spread opportunities and improve public services, especially in those places where they are weakest

- *By 2030, the number of primary school children achieving the expected standard in reading, writing and maths will have significantly increased.*
- *By 2030, the number of people successfully completing high-quality skills training will have significantly increased in every area of the UK.*

Restore a sense of community, local pride and belonging, especially in those places where they have been lost

- *By 2030, renters will have a secure path to ownership with the number of first-time buyers increasing in all areas.*

Empower local leaders and communities, especially in those places lacking local agency

- *By 2030, every part of England that wants one will have a devolution deal with powers at or approaching the highest level of devolution.*

5.21 The White Paper also highlights for the success of this new policy regime, central government decision-making will fundamentally reoriented to align policies with the levelling up agenda and hardwire spatial considerations across Whitehall. This will require greater transparency around the geographic allocation of funding and simplification of local growth funding. It will mean running levelling up through central government decision-making as a golden thread for which departments are held accountable. It will also mean extra resources being deployed to local areas, including moving 22,000 civil servants out of London by 2030.

EM3 Local Enterprise Strategy

- 5.22 The draft Local Industrial Strategy¹⁴ ('LIS') sets out Enterprise M3 Local Enterprise Partnership's ('LEP') strategic priorities which reflect the priority areas of business for the LEP (which include digital, exports, places, innovation, enterprise, clean growth, and skills) but with a sharp focus on enhancing productivity.
- 5.23 The priorities most relevant to Farnborough Airport include:
- Science, Innovation and Enterprise: stimulating more innovation and greater commercialisation of knowledge in leading sectors to increase output from the most productive businesses.
 - People and Skills: transforming the workforce to respond to new business models, particularly increased digitisation and enhancing participation and inclusive growth through a better skilled, support and healthier workforce.
 - Towns: supporting the productive capacity of the networks of relatively small but successful places which make up the EM3 are and generate much of its economic growth.
 - A Gateway Region: growing our region through maximised access to global markets through our port and airports and the potential of the sub-regional economics associated with those gateways.
 - Clean Growth: articulating the full potential for the EM3 area to make better use of energy to improve productivity and the role of the natural capital in shaping future economic growth.
 - Smart Mobility: better and more efficient connections between businesses and their staff, supply chains and markets to enhance productivity and new approaches to mobility that suit the needs of residents and the nature of our area.
 - Exporting: increasing the number of companies and the volumes of goods and services being exported to increase demand and stimulate investment.
- 5.24 The draft LIS identifies Farnborough Airport as part of the gateway region to global markets with extraordinary international and national connectivity. Farnborough is also home to an aerospace cluster within the EM3 LEP which is highlighted as a growing sector and asset to the LEP.

Rushmoor Borough Council's Local Plan

- 5.25 The Rushmoor Local Plan¹⁵ was adopted by the Borough Council in in February 2019 and seeks to improve the quality of people's lives within the Borough by sustaining a thriving economy and boosting local business.
- 5.26 The 2032 vision for the Borough state the following "*The role of the Borough at the heart of the Blackwater Valley remains strong, and the Borough is recognised as a centre of excellence for knowledge-based industries, reflecting the role of Farnborough as a 'Growth Town' as part of the Enterprise M3 LEP Sci:Tech Corridor. Farnborough*

¹⁴ Enterprise M3 LEP (2020), *Local Industrial Strategy*. [Available at: <https://enterprisem3.org.uk/local-industrial-strategy>].

¹⁵ Rushmoor Borough Council (February 2019), *Rushmoor Local Plan, 2014-2032*. [Available at: <https://www.rushmoor.gov.uk/rushmoorlocalplan>].

Business Park, Cody Technology Park and Farnborough Aerospace Centre provide business accommodation in a first-class environment to continue to build on Farnborough's reputation for high-tech research and development”.

- 5.27 The vision also highlights Farnborough Airport stating that by 2032 the Airport will be known as a business aviation facility of the highest quality and through working with partnerships has secured the safe operations of the Airport and minimised environmental impacts including noise.
- 5.28 Policy SP4 sets out the maximum annual Air Traffic Movements within Farnborough Airport as 50,000 flights as part of the planning permission of 2011. The proposal states that any change to the pattern, nature and number of business aviation movements will only be permitted provided that a set of criteria are met including evidence to demonstrate the need for a change in business aviation movement at the airport, ensuring aircraft noise impact is less than the agreed baseline noise level, and the economic benefits to the local and wider economy can be demonstrated.

Socio-Economic Context

Areas of Impact

- 5.29 This study examines the economic impact of Farnborough Airport at the local, sub-regional and national levels. The local impact area (‘LIA’) is typically defined as the area in which the Airport’s economic impacts are most strongly felt. In terms of the Airport’s labour market catchment, this is focused on the local authority areas of Rushmoor, Hart, and Surrey Heath which together are also referred to as the Airport’s functional economic area (‘FEA’). This is in line with the 2009 Study, in order to allow direct comparisons between the two studies, in addition to a longitudinal assessment of the Airport’s activities between 2009 and 2019.
- 5.30 Spending by the Airport’s operator appears to be spread over a much wider area, with £5.9 million (or the equivalent of 29.7%) of all supplier spending arising within the LIA, and £7.6 million (or the equivalent of 37.8%) within the EM3 LEP area. It has not been possible to obtain detailed information on supply chain spending by all Airport-based firms, however based on a tenants’ survey it is assumed that around £38.9 million (or the equivalent of 12.2%) of their supply chain expenditure occurs within the EM3 LEP area.

Table 5.1 Supply chain expenditure (£ million)

	LIA*		EM3 LEP**		UK		Total
	£	%	£	%	£	%	£
Airport Operator	£5.9	29.7%	£7.6	37.8%	£19.5	97.4%	£20.0
Airport tenants	-	-	£38.9	12.2%	£133.6	41.9%	£319.0
Total	-	-	£46.5	13.7%	£153.1	45.2%	£339.0

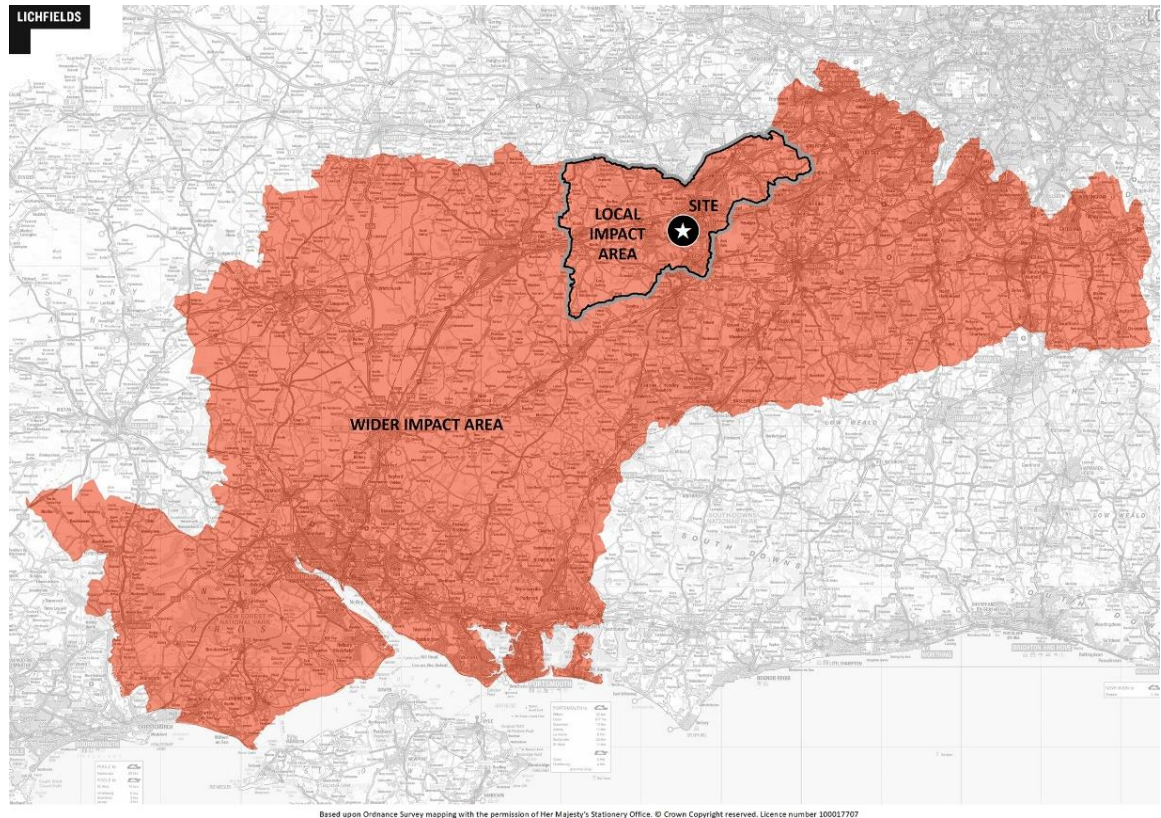
Source: Based on information provided by Farnborough Airport and tenants' survey (2022)

*including LIA comprising of Rushmoor Borough, Surrey Heath Borough and Hart District)

**for the purposes of this study, the tenants’ survey asked tenants to provide a breakdown of their supply chain expenditure at the Surrey and Hampshire (i.e., counties) level.

5-31 Figure 5.1 below provides an overview of the geographies against which the impact of Farnborough Airport considered in this study is contextualised. In line with the 2009 Study, the 2022 Study considers a wider impact area comprising of the EM3 LEP area – or where this is considered to be too specific (especially due to a mismatch between statistical and administrative boundaries) an aggregation of Surrey and Hampshire.

Figure 5.1 Local impact area



Source: Lichfields analysis

The Local Economy

5-32 The LIA (consisting of Surrey Heath, Hart and Rushmoor) comprises a largely rural area, with its main towns being Farnborough (population 65,000) and Aldershot (population 37,000) in Rushmoor Borough, in addition to Camberley (population 38,000 in Surrey Heath Borough and Fleet (population 43,000) in Hart District.

5-33 The LIA sits astride the M3 motorway linking it to London and the M25. The towns of Farnborough, Fleet and Aldershot all have frequent (direct) train connections to London Waterloo, with a journey time ranging between 35 and 55 minutes. The nearest airport with scheduled flights is London Heathrow (some 25 km to the Northeast of Farnborough via the M3 and M25 motorways).

Economic Activity

- 5.34 The LIA has a relatively buoyant local economy, and forms part of the Blackwater Valley area (to the west of London), which the EM3 LEP's Strategic Economic Plan¹⁶ ('SEP') defines as part of a competitive, and highly performing area characterised by good connectivity, highly skilled residents, and high economic growth. The Blackwater Valley area has a high concentration of knowledge-based firms, in addition to a strong business base comprising of large multinationals, as well as high value added small and medium-sized enterprises ('SME').
- 5.35 The SEP also describes the Airport's wider catchment as one "*where a strong relationship with a World city sits alongside centres of economic vitality as strong as any in Europe, delivering much of the South East's 'world class' performance*". The area is classed as one of Europe's fastest growing business locations where the emphasis should be on productivity-led growth, building on its best knowledge sector businesses and research centres, with the following identified as being the main centres of employment and economic activity:
- A cluster of aerospace and defence firms located around Farnborough Airport, including the Farnborough Aerospace Park, and Cody Technology Park;
 - Office-based activities within Camberley, Farnborough, and Fleet town centres;
 - A range of business parks and industrial in and around key towns (such as the Farnborough Business Park, Frimley Business Park, Waterfront Business Park, Ancells Farm and Blackbushe); and
 - Various industrial estates within the LIA's key towns (including Yorktown, St George's Admiralty Way, and Murrells Green).
- 5.36 The economy of Rushmoor Borough is dominated by larger private sector employers which include a number of high-tech, telecommunications and defence-related firms (such as QinetiQ, BAE Systems, BWM, Sodexo Defence Services, Primus International, HMG Aerospace Limited, as well as Airbus Defence and Space). Elsewhere within the LIA are located a number of larger, knowledge-based firms (such as Eli Lilly Pharmaceuticals, Siemens, Toshiba, Merrill Lynch, engineering firm Fluor and manufacturer SC Johnson).

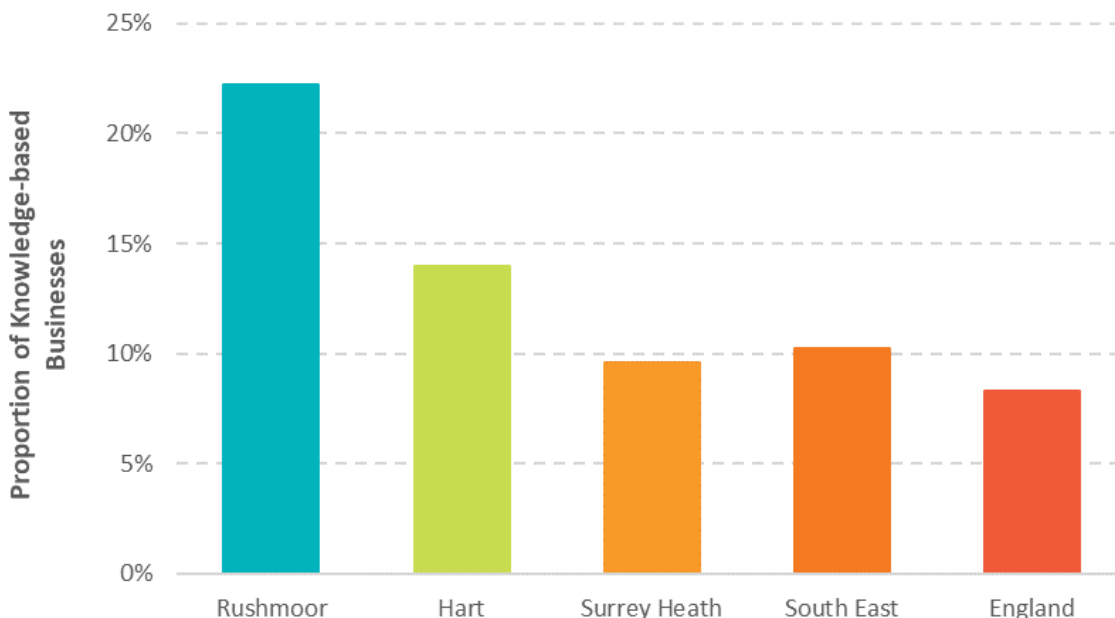
Knowledge-Based Industries

- 5.37 Knowledge-based industries are those sectors of the economy where value-added is derived from the intensity and accumulation of knowledge, often fostered through innovation and increasing use of technology. Firms within this sector tend to grow faster and have greater future potential than firms in other sectors, and so are considered an important indicator of an economy's competitiveness and future growth prospects.

¹⁶ Enterprise M3 LEP, *EM3 Strategic Economic Plan*. [Available at: <https://enterprisem3.org.uk/em3-strategic-economic-plan>].

5.38 A review of sectors¹⁷ in which businesses located within the LIA operate in, suggests that Rushmoor Borough has a higher proportion (of 22.2%) of knowledge-based businesses compared with Hart (14.0%) and Surrey Heath (9.6%), and is also higher than the equivalent average in the Southeast region (10.2%) and nationally (8.3%).

Figure 5.2 Proportion of knowledge-based businesses (2020)



Source: Office for National Statistics (2021), Business Register and Employment Survey, 2020.

Economic Trends

5.39 Data from the ONS indicates that in 2020, the LIA had around 132,000 employee jobs, which represents a decline of around 10,000 jobs (or 7%) since 2015. This was somewhat uncharacteristic when compared with the wider economy, with employment in the EM3 LEP area falling slightly (by 1%), whilst employment across the Southeast region and nationally increasing slightly (by 1% across both comparators).

5.40 Within the LIA, the largest employment sector is health services (with 16,500 jobs / 12.5%), followed by employment in the professional, scientific, and technical services (with 15,500 jobs / 11.7%), business administration and support services (13,000 jobs / 9.8%) and information and communication. In contrast, employment in manufacturing (with 8,000 jobs / 6.1%) is below the averages for the Southeast region (6.3%) but in line with EM3 (6.0%). In general, the LIA's economy has a strong emphasis on service sectors, and much less on industrial activities.

5.41 Table 5.2 overleaf provides an overview of employment sectors within the LIA and other comparator areas.

¹⁷ Knowledge based sectors have been classified in line with ONS 'Knowledge Economy' Sectors which include Pharma/Biotechnology, IT Services, Communications, Aerospace & Technology, Computing and advanced electronics and High-tech financial services.

Table 5.2 Total employee jobs (2020)

	LIA		EM3 LEP		SE
	No	%	No	%	%
Agriculture, forestry & fishing	245	0.2%	6,000	0.8%	0.9%
Mining, quarrying & utilities	925	0.7%	6,000	0.8%	1.2%
Manufacturing	8,000	6.1%	44,000	6.0%	6.3%
Construction	7,250	5.5%	42,000	5.7%	5.8%
Motor trades	3,100	2.3%	14,000	1.9%	1.9%
Wholesale	6,500	4.9%	35,000	4.8%	4.2%
Retail	10,500	8.0%	66,000	9.0%	9.2%
Transport & storage (including postal)	3,050	2.3%	25,000	3.4%	4.6%
Accommodation & food services	11,000	8.3%	53,000	7.2%	7.2%
Information & communication	11,250	8.5%	58,000	7.9%	6.1%
Financial and insurance	4,600	3.5%	24,000	3.3%	3.0%
Property	2,100	1.6%	13,000	1.8%	1.8%
Professional, scientific & technical	15,500	11.7%	78,000	10.6%	8.8%
Business administration & support services	13,000	9.8%	53,000	7.2%	8.0%
Public administration and defence	2,600	2.0%	20,000	2.7%	3.3%
Education	9,500	7.2%	67,000	9.1%	10.2%
Health	16,500	12.5%	89,000	12.1%	12.8%
Arts, entertainment, recreation and other	5,250	4.0%	42,000	5.7%	4.8%
Total	132,000	100%	733,000	100%	100%

Source: Office for National Statistics (2020), *Business Register and Employment Survey, 2020*.

5.42

Between 2015 and 2020, the LIA's fastest growing sectors were construction (+32%) and finance (16%), both of which grew at a faster rate than both the regional and national averages (of +30% and +9% respectively for construction and +3% and +2% respectively for finance). Whilst significant, growth in health care (of +6%) within the LIA was in line with the growth seen nationally (of +6%). In contrast, employment in information and communication services fell sharply (by -27%), even when compared with the overall decline across the Southeast region (of -2.3%). Employment in business administration and support services also fell (by -26%), despite the modest growth (of +1%) seen nationally.

- 5-43 Between 2017 and 2021, the number of businesses within the LIA declined by around 1.1%, compared with a decline of 4.1% across the Southeast region. In 2021, the LIA had 12,865 active businesses of which the majority 99% are considered private sector businesses, this is equivalent to 16% of total active business within the EM3 LEP area.
- 5-44 Unemployment data shows that the LIA had an average unemployment rate of 2.8% in the 12-months to June 2022, which was in line with the equivalent average for the EM3 LEP area (of 3.0%) and lower than the equivalent average for both regional (3.3%) and national (of 3.9%) comparators. Claimant data for September 2022 shows that around 3,800 residents of core working age (i.e., people aged 16-64) within the LIA claim benefits, representing an overall claimant rate of 2.2%. Similar to the unemployment rate, the claimant rate for the LIA was in line with the average across the EM3 LEP area (of 2.2%), and lower than the equivalent averages seen across the Southeast region (2.9%) and nationally (3.8%).
- 5-45 Within the LIA, the number of claimants increased by 87% between January 2020 and September 2022, having averaged around 7,000 claimants between July 2020 and April 2021. This was primarily a result of the Covid-19 pandemic and its effect on the labour market, with significant increases seen elsewhere across the EM3 LEP area, the Southeast region and nationally.
- 5-46 Long-term claimant data up to the start of the Covid-19 pandemic suggests that the overall number of working age residents claiming benefits within the LIA has declined by around 1.7%, compared with a smaller level of decline (of 0.4%) across the EM3 LEP area.
- 5-47 A review of local residents' qualification levels within the LIA suggests that the local labour market is characterised by residents with degree-level (or higher) qualifications. Overall, around 45% of working age residents in the LIA hold degree-level qualifications, which is in line with the regional and national averages (of 43% and 45% respectively). However, a review of qualification levels within the LIA indicates that there is some variation across the three constituent local authority areas, with Rushmoor having a below average share of residents with higher-level qualifications (of 38.4%, compared with 45% across the LIA), but a higher proportion of residents with no qualification (of 5%, compared with 4% across the LIA).
- 5-48 However, despite these challenges research¹⁸ undertaken on behalf of Basingstoke and Dean, Hart and Rushmoor Borough Councils identifies Rushmoor Borough as one of the most resilient local authorities, both across North Hampshire as well as nationally. The study finds that between 2009 and 2019, growth in GDP for Rushmoor Borough (at +80%) significantly outpaced growth at both regional (+24%) and national (+20%) levels. Furthermore,
- 5-49 This builds on strong productivity levels within Rushmoor Borough, where both GDP per head, as well as GVA per worker and hour worked are considerably higher than the equivalent figures for Basingstoke and Dean, Hart, and the national averages.

¹⁸ Basingstoke and Dean Borough Council, Hart District Council and Rushmoor Borough Council (August 2022), *North Hampshire Economic Assessment*.

Table 5.3 Comparison of productivity indicators

	Rushmoor Borough	Basingstoke and Deane	Hart	UK
GDP growth 2009-19	+80%	+7%	+18%	+20%
Annual GDP growth 2009-19	+6.0%	+0.7%	+1.7%	+1.8%
GVA per hour worked, 2020	£74	£51	£52	£38
GVA per job filled, 2002	£108,917	£76,144	73,906	£58,054

Source: Basingstoke and Dean Borough Council, Hart District Council and Rushmoor Borough Council (August 2022), *North Hampshire Economic Assessment*.

Figure 5.3 Qualification levels



Source: Office for National Statistics (2021) *Annual Population Survey, 2021*.

5.50 Whilst there are no universities within the LIA, there are several further education colleges within or close by, including Collingwood College in Camberley and the Farnborough College of Technology, which via its University Centre, offers degree courses, with degrees being awarded by University of Surrey, and the Aerospace Research & Innovation Centre (ARIC), a dedicated aerospace education training and innovation facility. These provide a range of vocational courses, as well as applied science, technology and engineering courses and degrees.

5.51 Income levels are generally high, which reflects the relatively highly skilled local workforce. Typical salaries for full-time workers are between 14% to 21% above the national average, and 10% to 12% higher than the regional average. Average salaries for residents of the LIA are generally higher than salaries for employees whose jobs are located within the LIA. This suggests that residents are likely to commute to outside the LIA for work.

5-52 Overall, the LIA has a small self-containment rate of 22% of which 23,848 residents live and work within the LIA according to 2011 Census data (the latest available at the time of drafting). The remaining 79% of employed residents (91,000) travel outside of the LIA area to work, mainly to nearby districts of Guildford, Bracknell Forest, and Basingstoke & Deane. At the same time, approximately 81,300 residents of other districts commuted into jobs in the LIA, predominantly from Guildford, Bracknell Forest and Waverley, equivalent to 77% of all the area’s workplace jobs.

5-53 Data from the ONS’s Annual Survey of Hours and Earnings (‘ASHE’) shows that in general, resident-based earnings are higher (albeit marginally for Rushmoor Borough) when compared with workplace-based earnings. This suggests that many of the area’s residents (especially residents across the EM3 LEP area) tend to travel to outside the area for better-paid employment.

Table 5.4 Comparison of resident and workplace-based earnings

	Resident-based	Workplace-based
Rushmoor	£679.40	£678.70
Hart	£769.80	£744.40
Surrey Heath	£780.7	£689.90
EM3 LEP area	£712.00	£663.10
England	£613.30	£613.30

Source: Office for National Statistics (2021), *Annual Survey of Hours and Earnings, 2021*.

Conclusions

5-54 Taken as a whole, the analysis presented in this section indicates that the LIA has a strong and resilient local economy which typically outperforms regional and national averages. This includes strong and stable employment, above average skills, low unemployment, and relatively higher wages. The local economy is dominated by the service sector and knowledge-based economy, in addition to a modest manufacturing base.

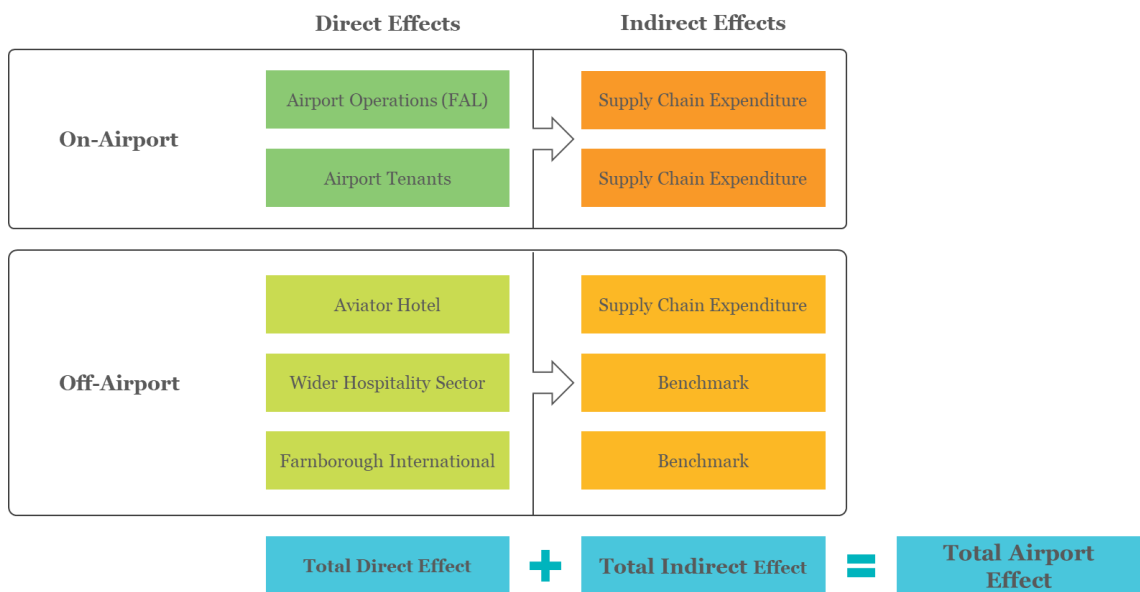
5-55 However, some parts of the LIA perform better than others, in terms of the level of qualifications and unemployment, with Rushmoor Borough performing comparatively worse than Hart and Surrey Heath.

6.0 Economic Impact of Farnborough Airport

6.1 This section examines the current economic impact associated with the operation of Farnborough Airport, and considers the direct, supply chain (i.e., indirect) and wider (i.e., induced) effects supported on-site and more widely. This section concludes by benchmarking the latest economic impact assessment with the estimates generated in 2009, to explore how the relationship between air movements and economic benefits has evolved.

6.2 Figure 6.1 below provides an overview of the approach and the various strands of impact considered in the assessment of Farnborough Airport.

Figure 6.1 Framework for assessing the economic impact of Farnborough Airport



Source: Lichfields analysis

Tenant Survey

6.3 The following analysis, in particular the assessment of the direct and indirect on-airport effects generated by the Airport’s tenants draws on a survey of tenants conducted between April and June 2022. A survey asked tenants to identify and quantify a series of direct and indirect effects their activities generate at the various geographies considered. The survey results were then analysed and extrapolated (based on tenants’ median responses) to generate estimates to the direct and indirect effects associated with the Airport’s tenants.

6.4 It is noted that whilst considerable effort was made to survey each and every tenant, the online survey was completed by 21 of the Airport’s tenants, representing an overall response rate of around 40%.

6.5 A copy of the survey form issued to tenants is included at Appendix 1.

Direct Employment

- 6.6 Direct employment relates to jobs in activities which are directly linked to Airport operations and/or are located within the LIA as a direct consequence of the Airport’s presence. For the purposes of this assessment, these activities are split as direct on-Airport and direct off-Airport.
- 6.7 The direct on-Airport activity typically includes airport operations (including management and operation of the airport) as well as tenants’ activity. In contrast, direct off-Airport jobs relate to activities in hotel accommodation and Farnborough International (which organises the Farnborough International Airshow), which are linked to Farnborough Airport, but not directly controlled by it, often located outside its perimeter.

On-Airport Jobs

- 6.8 Direct on-Airport employment levels have been estimated based on information provided by the Airport’s operator, and the Airport’s tenants (i.e., through a tenants’ survey). For comparative purposes, the evidence presented in this section also shows direct on-Airport employment levels from 2005 onwards.
- 6.9 Table 6.1 below shows that in 2009 total direct on-Airport employment amounted to 1,104 jobs. In 2019, total employment stood at 1,654 jobs (or the equivalent of 1,558 FTE¹⁹ jobs), representing an increase of 49.8% since 2009. This comprises of around 260 jobs (197 FTE jobs) supporting the Airport’s operations (e.g., management, cleaning, security, Home Office, and air traffic control), in addition to around 1,394 jobs (1,361 FTE jobs) supported by the Airport’s tenants.

Table 6.1 Farnborough Airport direct jobs and movements, 2005 to 2019

	2005	2008	2009	2019	Change 2009-19
ATMs	18,800	26,000	25,500	31,561	+23.8%
Direct employment	520	1,148	1,104	1,654	+49.8%
FTE jobs	-	-	-	1,558	-

Source: Farnborough Airport / Lichfields analysis

- 6.10 The direct on-Airport employment supported by tenants is based on responses provided by the survey of Airport tenants, which had an overall response rate of 40%. Based on this, it is estimated that just over half (i.e., 56.4%) of all jobs are in air transport activity, whilst a further 26.2% are in the repair and installation of aircraft. It should be noted that the analysis presented in Table 6.2 below refers to the survey responses provided.

¹⁹ Full-time equivalent (FTE) is a unit that indicates the workload of an employed person. An FTE of 1.0 is equivalent to one full-time employee, whilst a part-time employee working half the hours is recorded as 0.5 FTE

Table 6.2 Direct on-airport employment by tenants' activity, 2019

	Jobs	FTEs	%
Air transport activity	468	456	56.4%
Repair and installation of aircraft	217	212	26.2%
Services to buildings (incl. contract cleaning)	65	45	5.6%
Head office activities*	45	45	5.6%
Public sector and defence	21	21	2.5%
Other activities	30	30	3.7%
Total	846	808	100%

Source: Lichfields analysis based on survey of 21 Farnborough Airport tenants

*Please note: This figure excludes the employment supported directly through the management of Farnborough Airport.

6.11 Analysis based on information provided by the Airport's operator, as well as information gathered through the tenants' survey indicates that a high proportion of jobs based within Farnborough Airport are filled by residents of the local area. Based on available data, it is estimated that just under a fifth (or the equivalent of 17.6%) of all direct on-Airport employees live within Rushmoor Borough, with the total residing within Hampshire and Surrey (i.e., a proxy for the Enterprise M3 LEP area) adding up to 62.8%. Of these, the majority are based in Hampshire, and within relatively close proximity of Farnborough Airport.

Table 6.3 Analysis of employees' locality of residence, 2019

	FAL (FTEs)	Airport Tenants (FTEs)	Total	
			FTEs	%
Rushmoor	36	93	129	17.6%
Hampshire	100	235	335	45.8%
Surrey	38	86	124	17.0%
Hampshire + Surrey	138	321	459	62.8%
Enterprise M3 LEP area ⁺	128	-	-	-
Rest of the UK	11	252	263	36.0%
Total	149*	573	731	100%

Source: Lichfields analysis based on survey of 21 Farnborough Airport tenants and information provided by Farnborough Airport.

*Please note: This excludes some direct employees of Farnborough Airport which for accounting purposes are considered as supply chain/indirect jobs.

**Please note: Note all tenants have answered this question

+Due to the bespoke nature of the Enterprise M3 LEP area, Airport tenants were not asked to quantify the number of employees living within this geography. Instead, an aggregate of Hampshire and Surrey has been used as a proxy.

Direct Off-Airport Jobs

6.12 In addition to the direct (i.e., on-Airport) employment supported, the Airport also supports additional employment off-site (hereafter referred to as 'off-Airport') through related activities (i.e., primarily within the Aviator Hotel and at Farnborough International). For the purposes of this assessment (and in-line with the approach adopted in the 2009 Study), it is assumed that none of the direct off-Airport jobs reported here would exist were it not for the presence of the Airport in Farnborough.

- 6.13 As per the 2009 Study, the main source of off-Airport jobs is the Aviator Hotel. The hotel is owned by the Airport's operator, and largely caters for air crew flying to/from Farnborough Airport. On this basis, all the jobs supported are counted as direct off-Airport jobs. Data provided by the Airport's operator indicates that in 2019, the Aviator supported 133 jobs, or the equivalent of 103 FTE jobs.
- 6.14 A small proportion of jobs across the wider hospitality sector in Farnborough and the surrounding area is likely to also be directly supported by the Airport's activities. However, the number of additional jobs is likely to be minimal, ranging to between 2-3% of the employment in the accommodation sector. Data from the ONS²⁰ indicates that in 2019 there were around 425 FTE jobs in the accommodation sector in Rushmoor. Based on the above, it is estimated that a further 10 FTE jobs in accommodation are likely to be supported more widely across the borough. In reality, the quantum of wider (i.e., off-airport) employment supported within the accommodation sector is likely to be higher, however it has not been possible to quantify this without consulting a representative sample of all hotels in Rushmoor. For the purposes of this study, the same assumption used in the 2009 Study (of 2-3% of total employment locally) was applied to current employment estimates.
- 6.15 Furthermore, it is estimated that the presence of Farnborough Airport in Rushmoor supports a further 39 FTE jobs at Farnborough International, which organises the Farnborough International Airshow every couple of years. Whilst these jobs are not directly related to the Airport's activity (i.e., of business aviation), their presence in Rushmoor can be attributed to the Airport as without it, these jobs would not exist and/or would be located elsewhere.
- 6.16 Taken together, these various sources are estimated to directly sustain around 152 FTE jobs off-Airport, which is the equivalent to about 9.7% of the direct on-Airport jobs supported. Overall, it is estimated that the number of direct off-Airport jobs has remained stable since 2009.

Wider Employment

- 6.17 In addition to the direct (i.e., on-Airport and off-Airport) employment support, activity at Farnborough Airport also supports wider employment through supply chain (i.e., indirect) and wider (i.e., induced) effects, as follows:
- Supply chain (i.e., indirect) jobs are supported by the spending of Farnborough Airport and companies based within it on goods, supplies and services with firms in the surrounding area; and
 - Wider (i.e., induced) employment, which comprises of jobs supported in local shops, services, and other firms by the spending of wages by the Airport's employees and/or employees in its supply chain.
- 6.18 This study draws on detailed supply chain expenditure information for Farnborough Airport and the Aviator Hotel, in addition to information supplied by the Airport's tenants (i.e., from the tenants' survey) to identify the Airport's wider impacts. This approach varies slightly from that adopted in the 2009 Study but is considered to provide a more robust

²⁰ Office for National Statistics (2020), *Business Register and Employment Survey, 2020*.

analysis of the Airport's indirect activity, as it draws on sector-specific multipliers²¹ published by the ONS and uses suppliers' location²² to quantify local impacts.

Wider Employment by Direct On-Airport

- 6.19 Data provided by Farnborough Airport suggests that in 2019, the Airport spent around £20.0 million with its suppliers globally, of which around £19.5 million (or 97.4%) was with suppliers based in the UK.
- 6.20 Evidence gathered through the tenant survey indicates that together, all tenants generate in the region of £319.0 million in supply chain expenditure, of which around £133.6 million (or 41.9%) is with businesses located in the UK.
- 6.21 Table 6.4 provides an overview of supply chain expenditure by direct on-Airport activity, which is estimated to generate around £153.1 million of total supply chain expenditure across the UK. Of this, £45.5 million (or the equivalent of 13.4%) is estimated to be retained within the wider (i.e., Hampshire and Surrey) study area.

Table 6.4 Supply chain expenditure

	FAL £ million	Airport Tenants £ million	Total	
			£ million	% of total
Rushmoor	£4.6	-	-	-
Hampshire (incl. Rushmoor)	£6.7	£35.5	£42.2	12.4%
Surrey	£0.9	£2.4	£3.3	1.0%
Hampshire + Surrey	£7.6	£37.9	£45.5	13.4%
Rest of the UK	£11.9	£95.7	£107.6	31.7%
Total UK	£19.5	£133.6	£153.1	45.2%

Source: Lichfields analysis

- 6.22 Using labour coefficients²³ (i.e., employment supported per £1 million supply chain expenditure) and input-output multipliers²⁴ from the ONS, it is estimated that the supply chain expenditure generated by the direct, on-Airport activity supports around 1,545 FTE jobs nationally, of which around 200 FTE jobs (12.8%) are based within the wider impact area comprising of Hampshire and Surrey.
- 6.23 Whilst supply chain data at the Rushmoor Borough level is incomplete, adopting the approach outlined above for the supply chain expenditure by Farnborough Airport (i.e., excluding tenants' supply chain expenditure), it is estimated that the £4.6 million spent with local businesses supports in the region of around 20 FTE jobs. In reality, the number of jobs supported locally is likely to be higher, as the analysis presented here does not capture tenants' expenditure.

²¹ Office for National Statistics (2022), *UK input-output analytical tables*. [Available at: <https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/ukinputoutputanalyticaltables-detailed>].

²² Based on postcode analysis.

²³ Derived by dividing total turnover by average annual employment for each sector listed within the ONS' Annual Business Survey [Available at: <https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/annualbusinesssurvey>].

²⁴ Office for National Statistics (2022), *UK input-output analytical tables*. [Available at: <https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/ukinputoutputanalyticaltables-detailed>].

Wider Employment by Direct Off-Airport

- 6.24 Evidence provided by the Airport's operator indicates that the Aviator Hotel generates an annual supply chain expenditure in the region of £3.7 million each year, of which £3.5 million (or 94.5%) is estimated to be with businesses based in the UK. At the local level, around £300,000 was with businesses based in Rushmoor Borough, whilst a total of around £800,000 was with businesses based within the wider study area (i.e., Hampshire and Surrey).
- 6.25 Using a similar approach to that outlined above, it is therefore estimated that the supply chain expenditure by the Aviator Hotel supports in the region of 40 FTE jobs nationally, of which around 5 FTE jobs are located in Rushmoor, and 10 FTE jobs within the wider study area.
- 6.26 The approach to assessing the wider employment related to Farnborough International differs slightly from that outlined above and draws on high-level multipliers from the ONS²⁵. On this basis, it is therefore estimated the direct employment supported by Farnborough International, supports around 20 FTE jobs indirectly nationally, of which around one FTE jobs is located within the wider (i.e., Hampshire and Surrey) area.
- 6.27 The indirect employment associated with off-Airport employment across the wider hospitality sector is anticipated to be in the region of around five jobs nationally, a very small proportion of which (less than one FTE) is likely to be within the wider area. For the purposes of this assessment, it is assumed this equates to no indirect employment locally.

Comparison with Multipliers Used Elsewhere

- 6.28 Taken together, the various sources of wider employment are estimated to support around 1,610 FTE jobs. This means that based on the analysis presented above, it is estimated that at the national level, Farnborough Airport has an overall multiplier of 1.94. This means that every direct (i.e., on/off-Airport) FTE job, supports a further 0.94 FTE jobs more widely²⁶ across the national economy. This figure goes down to 0.12 FTE jobs at the wider (i.e., Hampshire and Surrey) level, and 0.01 FTE jobs at the Rushmoor Borough level.

Table 6.5 Total indirect employment supported (FTE), 2019

		Rushmoor	Hampshire + Surrey	UK
On-Airport	Total	20	200	1,545
Off-Airport	Aviator hotel	5	10	40
	Wider hospitality sector	0	0	5
	Farnborough International	0	1	20
	Total	5	11	65
Total (i.e., on/off-Airport)		25	211	1,610
Composite multiplier		1.01	1.12	1.94

Source: Lichfields analysis

²⁵ Office for National Statistics (2022), *UK input-output analytical tables*. [Available at: <https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/ukinputoutputanalyticaltables-detailed>].

²⁶ This is based on the total number of wider jobs supported (i.e. 1,610 FTE jobs) divided by the number of direct jobs (i.e. on-Airport and off-Airport, of 1,710 FTE jobs) as presented in Table 5.7 overleaf.

- 6.29 Economic multipliers are affected by the nature of development/asset being considered, and the types of spending and wage levels associated with it, the scale of the area over which impacts are considered, economic conditions in that area, and the extent of spending leakage outside of this area. As outlined above (see Table 6.5) different multiplier values will apply at local, regional, and national levels.
- 6.30 Table 6.6 provides an overview of multipliers used in other similar studies considering the economic impact of different airports across Europe. Given that studies consider different geographies (in some instances locations outside the UK), the table below only includes multipliers for the relevant national spatial level. The table shows that where single airports are considered (e.g., Minneapolis, Denver, and Leeds Bradford), multipliers used range from 1.76 to 2.62, which is in line with the analysis of Farnborough Airport presented above (with a composite multiplier of 1.94).

Table 6.6 Comparison of multipliers used elsewhere

Airport	Multiplier	Source
Minneapolis, Minnesota (USA)	1.81	Review of Economic Impact Assessment – For Bristol Airport Expansion Project ²⁷
Denver, Colorado (USA)	1.76	
Paris – Orly & Charles de Gaul (France)	2.30	
Europe-wide airports	2.62	Economic Impact of European Airports ²⁸
Aviation industry (UK-wide)	2.37	The Economic Contribution of the Aviation Industry in the UK ²⁹
Leeds Bradford Airport	1.76	Leeds Bradford Economic Impact Assessment ³⁰

Total Airport-Related Employment

- 6.31 Drawing the analysis together, it is estimated that in total, all direct (i.e., on/off-Airport) and indirect (i.e., on/off-Airport) employment associated with Farnborough Airport adds up to around 3,320 FTE jobs nationally.
- 6.32 At the wider (i.e., Hampshire and Surrey) level, total employment supported by direct and indirect activity (i.e., on/off-Airport) at Farnborough Airport is estimated to be in the region of 1,921 FTE jobs, representing around 0.2% of the area’s total employment.
- 6.33 At the Rushmoor Borough level, total employment supported directly and indirectly (i.e., on/off-Airport) at Farnborough Airport is estimated to be in the region of 1,735 FTE jobs, representing the equivalent of 3.5% of the Borough’s total employment.

²⁷ JACOBS (February 2019), *Review of Economic Impact Assessment – For Bristol Airport Expansion Project*. [Available at: https://gat04-live-1517c8a4486c41609369c68f30c8-aa81074.divio-media.org/filer_public/41/80/4180aece-041b-467b-a27b-d47d9858e2fe/cd1117 - review of economic impact assessment v10 003.pdf].

²⁸ InterVISTAS (January 2015), *Economic Impact of European Airports, A Critical Catalyst to Economic Growth*.

²⁹ Oxford Economic Forecasting (October 2006), *The Economic Contribution of the Aviation Industry in the UK*.

³⁰ Genecon (2020), *Leeds Bradford Economic Impact Assessment*.

Table 6.7 Total airport-related employment (FTE), 2019

		Rushmoor	Hampshire + Surrey	UK
Direct on-Airport	Airport management	197		
	Airport tenants	1,361		
Direct off-Airport	Aviator hotel	103		
	Wider hospitality sector	10		
	Farnborough International	39		
Total direct (i.e., with on/off-Airport)		1,710		
Total indirect (i.e., with on/off-Airport)		25	211	1,610
Total		1,735	1,921	3,320

Source: Lichfields analysis

- 6.34 With over 1,700 jobs based on the Airport and off-Airport, Farnborough Airport is one of the largest employment centres within the Borough.

Contribution to the Economy

- 6.35 Drawing on the analysis presented in the previous section, and coefficients for GVA per FTE job from the ONS³¹, it is estimated that the activity supported by Farnborough Airport generates an annual economic contribution in the region of £287.7 million nationally. Table 6.8 indicates that £151.8 million is generated directly (i.e., through on/off-Airport activity), with a further £135.9 million generated more widely (i.e., through indirect/supply chain and wider induced effects).

Table 6.8 Economic contribution of Farnborough Airport, 2019

		GVA (£ million)
Direct on-Airport	FAL	£10.5
	Airport tenants	£133.2
Direct off-Airport	Aviator hotel	£4.6
	Wider hospitality sector	£0.3
	Farnborough International	£3.2
Total direct (i.e., on/off-Airport)		£151.8
Total indirect		£135.9
Total		£287.7

Source: Lichfields analysis

- 6.36 Of the Airport's total contribution, around £157.1 million (or 54.6%) is estimated to be generated locally within the Airport's wider catchment of Hampshire and Surrey. At the Rushmoor level, the Airport's total contribution is estimated to be in the region of £151.8 million, or the equivalent 52.8% of its total contribution nationally.

³¹ Office for National Statistics, *Annual Business Survey*. [Available at: <https://www.ons.gov.uk/surveys/informationforbusinesses/businesssurveys/annualbusinesssurvey>].

Fiscal Contribution

- 6.37 Data provided by FAL indicates that for the current (i.e., 2022/23) financial year, the rates payable by Farnborough Airport amounted to just a little over £2.04 million. This represents an increase of £1.09 million, or the equivalent of around +115% over the rates payable identified in the 2009 Study.

Capital Investment

- 6.38 In addition to supporting direct and indirect employment both on-Airport and off-Airport, Farnborough Airport also generates economic benefit through investment in local infrastructure (i.e., often referred to as capital expenditure). Data provided by FAL indicates that in the ten years to 2021, Farnborough Airport has invested over £51.5 million to upgrade and expand its facilities.

DOMUS III

In 2022, construction work began of Farnborough Airport's new £55 million hangar – DOMUS III. This investment represents a vote of confidence in the local economy, with the hangar responding to growing demand for space to park aircraft.

DOMUS III comprises of 175,000 sq.ft. of state-of-the-art hangar space and will increase hangar space at Farnborough Airport by 70%. This facility will complement Farnborough Airport's existing award-winning facilities, enabling it to further deliver vital connectivity, enhancing trade and investment, as well as supporting the UK's global influence and competitiveness.

Construction on DOMUS III commenced in August 2022, with completion scheduled for Q1 2024. Overall, it is estimated that construction activity on DOMUS III will support an average of 450 (direct) FTE jobs in construction and generate £40.2 million in economic output each year. A proportion of the jobs supported are likely to be within the Borough of Rushmoor and the EM3 LEP Area.

Longitudinal Impact of Airport Activities

- 6.39 Airport monitoring data indicates that throughout 2019, Farnborough Airport saw 31,561 ATMs, up from around 25,500 movements in 2009. Overall, this represents over 6,000 additional ATMs per annum, or an increase of 23.8% over 2009 figures. This figure is below the Airport's maximum allowed cap of up to 50,000 aircraft movements per annum.

Table 6.9 Comparison of economic impact of Farnborough Airport, 2009 and 2019

		2009	2019	Change (%)
ATMs		25,500	31,561	+23.8%
Direct jobs (headcount)	On-Airport jobs	1,104	1,654	+49.8%
	Off-Airport jobs	155	184	+18.7%
	Total	1,260	1,838	+45.8%
Direct jobs (FTEs)	On-Airport jobs	-	1,558	-
	Off-Airport jobs	-	152	-
	Total	1,180	1,710	+44.9%
Wider employment (indirect/supply)		940	1,610	+71.3%
Total employment		2,120	3,320	+56.6%
Direct GVA (£ million)		£93.0	£151.8	+63.2%
Indirect GVA (£ million)		-	£135.9	-
Total GVA (£ million)		-	£287.7	-
Airport-related jobs per 1,000 ATMs		83.1	105.1	+26.5%
(Direct) GVA per 1,000 ATMs		£3.647	£4.810	+31.9%

Source: Lichfields analysis

*Please note that figures may not add up due to rounding.

- 6.40 In comparison, growth in the number of both direct (i.e., on/off-Airport) and wider employment supported between 2009 and 2019 was considerably higher at +44.9% and +71.3% respectively. Overall, it is estimated that the increase in total employment (i.e., both direct and wider employment) between 2009 and 2019 was 1,200 FTE jobs, or the equivalent of +56.6%.
- 6.41 Whilst some of the increase in wider employment is likely to reflect the changing approach to the assessment, the majority of increase between 2009 and 2019 is likely to also reflect investment by the Airport since 2009, and the increased role of Farnborough Airport, and development of a cluster focussed on aerospace and space across the wider sub-region (i.e., roughly aligning with the Enterprise M3 LEP area).
- 6.42 A comparison of economic output (i.e., GVA) generated by the Airport's activities between the 2009 Study and 2022 Study respectively, indicates that the level of direct output increased from £93.0 million in 2009 to £151.8 million in 2019. This represents an increase of +63.2%. Whilst the 2009 Study did not estimate the wider (i.e., indirect/supply chain) effects on GVA, the 2022 Study estimates that in addition to the (£151.8 million of) direct GVA, activity related to Farnborough Airport generates a further £135.9 million more widely (i.e., totalling £287.7 million GVA per annum for 2019). As shown in Table 5.9 above the number of Airport-related jobs (i.e., either direct on/off-Airport, as well as wider employment) per 1,000 ATMs at Farnborough Airport increased from 83.1 (FTE) jobs in 2009 to 105.1 (FTE) jobs ten years later.
- 6.43 Whilst it is not possible to compare total GVA across the 2009 and 2022 studies, a comparison of direct GVA output per 1,000 ATMs suggests an overall increase in productivity from £3.6 million GVA per 1,000 ATMs in 2009, to £4.8 million GVA per 1,000 ATMs in 2019. Furthermore, this is greatly influenced by the increased economic

activity experienced within Farnborough Airport (especially drawing high productivity sectors) over the previous decade.

- 6.44 A 2017 study³² which looks at the aerospace and defence sector along the southern area of England (covering of Kent, East and West Sussex, Surrey, Hampshire, Berkshire, and Dorset) finds that whilst the Farnborough area³³ is not known for building aircraft, it has considerable strength in the aerospace and defence sector, and accounts for about 28% of all businesses across the study. This is twice as many businesses as the next largest area considered (i.e., the Solent with 14% of all businesses in aerospace and defence). Overall, the study finds that the Farnborough cluster is home to some 5,100 businesses operating within the wider definition of the aerospace and defence sector.

Impact of Covid-19 Pandemic

- 6.45 The Covid-19 pandemic was challenging for many reasons however it was catastrophic for the aviation industry. Research by McKinsey³⁴ concluded that “*The pandemic wreaked financial devastation across the aviation value chain, most notably for airlines. All subsectors reported massive losses in 2020, except for freight forwarders and cargo airlines*”.
- 6.46 As an immediate reaction to the first lockdown which was aimed at containing the spread of the Covid-19 virus, the number of daily aircraft departures from Farnborough Airport fell from an average of 32.8 per day in February 2020, to just 8.7 daily departures in May 2020. Overall, the number of monthly ATM fell to around 300 movements in April 2020, representing the lowest-ever quantum of monthly movements.
- 6.47 Whilst the analysis presented above is based on 2019 (i.e., to represent the latest full calendar year before the pandemic), it is possible that the number of jobs supported either directly (i.e., on/off-Airport) or more widely by the Airport’s activities and/or its tenants may have been impacted throughout 2020 as measures were introduced to control the pandemic, despite the Airport remaining open throughout. That being said, it should be noted that FAL did not make any redundancies throughout the Covid-19 pandemic. As an employment centre, this suggests that the Airport has significant resilience to external shock events which is a positive characteristic from an economic impact perspective.
- 6.48 As such, it is not possible to quantify any potential loss of employment (i.e., either permanent or temporary) as a result of the pandemic, should there have been any. This is especially challenging as whilst the need for certain roles may have declined in line with the fall in ATM (such as the need for ground handlers, although no redundancies were made), demand for other roles, including new ones (such as increased demand for cleaning staff, as well as testing facilities) increased dramatically.

³² Hampshire County Council (2017), *The Farnborough & the Southern Aerospace & Defence Cluster Study*.

³³ Broadly defined as Rushmoor, Basingstoke and Deane, Hart, Surrey Heath, Elmbridge, Woking, Waverley, Guildford, Runnymede, Spelthorne, Windsor and Maidenhead, Slough. Wokingham and Bracknell Forest)

³⁴ McKinsey (March 2022), *Taking stock of the pandemic’s impact on global aviation*.

- 6.49 However, based on the sharp recovery in monthly ATMs throughout 2021, in line with the wider economy, the total employment associated with Farnborough Airport is now likely to be back in line with (or possibly higher) than the figures identified above. As outlined previously, this could reflect the benefits associated with business aviation (e.g., increased level of cleanliness, increased privacy, and fewer risks associated with large concentrations of passengers), as well as the suppressed capacity within the commercial airline industry which is not expected to see a full recovery to pre-pandemic levels until at least 2024.

7.0 **Potential Future Employment**

- 7.1 This section considers how potential levels of employment associated with the Airport's operations are likely to change in the future as ATMs at Farnborough Airport reach the maximum cap of 50,000 movements per annum.
- 7.2 Whilst seeking to refresh the analysis presented in the 2009 Study (i.e., drawing on the latest-available evidence), this section also considers how employment related to Farnborough Airport (i.e., direct on/off-Airport employment, as well as wider employment) is likely to evolve over time.
- 7.3 The assessment of potential future employment once annual ATMs to Farnborough Airport reach 50,000 is based on the same approach used in the previous section and set out in Figure 6.1 above.

Future Direct Airport Employment

- 7.4 When assessing the economic impact of the Airport increasing its activity to 50,000 ATMs, it has been assumed that the Airport is able to satisfy ATM growth in accordance with market demand and when it eventuates, consistent with the previous methodology and historical trends.
- 7.5 Unlike larger commercial passenger or freight airports, there is no widely recognised quantitative relationship between employment at business aviation hubs, and the levels of activity they facilitate. To estimate future employment levels associated with increased air movements, two alternative methods have been tested.

Productivity Factors

- 7.6 As a first step, past trends on employment levels at the Airport relative to aircraft movements were examined. As noted in the previous section, jobs based at Farnborough Airport (i.e., both on-Airport and off-Airport) have grown at a faster rate than the number of ATMs over the same period.
- 7.7 This trend goes against typical growth patterns seen at larger commercial airports, where the direct employment increases in line with passenger numbers and/or freight tonnage, whilst productivity gains average around 2-3% per annum. However, this rate of productivity growth would not necessarily apply to a business aviation hub like Farnborough Airport, which has relatively low levels of passenger flow and/or freight throughput, and where growth is more dependent on the level of activity and potential investment(s) facilitated.
- 7.8 A comparison of forecast and real employment change between 2005 and 2009 referenced in the 2009 Study found that job growth in the early stages of a new facility can outstrip demand in order to reach minimum operating thresholds, with higher productivity gains being more likely at a later stage, as increases in Airport activity (in this case ATMs) taking up any spare capacity within the minimum staffing levels. On this basis, the 2009 Study assumed that future employment growth at the Airport would be less than double even if movements doubled. Building on this assumption the 2009 Study applied a productivity-based factor of 0.45% for each 1% increase in air movements.

7.9 Adopting this approach to the 2019 figures, it is therefore estimated that whilst growth in ATMs (i.e., up to 50,000 per annum) would represent an overall increase of 58.4%, employment growth would be lower at 26.4% over the same period. On this basis, it is therefore estimated that the number of direct on-Airport jobs supported by Farnborough Airport could increase to around 1,970 FTE jobs³⁵ when ATMs reach 50,000 per annum.

Activity-based Estimates

7.10 An alternative approach is to consider the relationship between increases in ATMs, and jobs for the different activities supported at Farnborough Airport. It is likely that some Airport-based activities will need many more employees to handle more aircraft movements, while others such as airport management may be much less affected, and others able to handle growth within current staffing levels. A number of activity-based estimates are considered below:

- **Flying activities** – past research suggests a broad link between jobs and the number of air movements, albeit with a wide range of 21-73 movements per employee. Discussions undertaken as part of the 2009 Study suggest that a doubling in air movements would not result in a similar increase in jobs.
- **Aircraft maintenance** – overall, it is assumed that there will be a link between job numbers and the number of aircraft based at and/or using Farnborough Airport. This is based on an air safety requirement for a number of person-hours of maintenance per aircraft each year. The demand for aircraft cleaning could be expected to increase in line with aircraft movements, although in light of the recent pandemic the demand for aircraft cleaning is likely to be at an elevated level. In line with the 2009 Study, it is assumed that an increase in the order of 25% would be expected for a doubling in aircraft movements.
- **Airport management and related functions** – discussions with the Airport's operator confirm that the Airport will need a minimum threshold of employees to operate, which may not necessarily increase in line with aircraft movements. Drawing on discussions with FAL, it is estimated that the doubling of ATMs would require an increase of around 20% employment in airport management activities.
- **Air traffic control, fire, security, immigration** – as outlined above, these services are essential to the Airport's safe operation, generating minimum staffing numbers which are capable of handling more movements than current levels. Drawing on discussions with FAL, it is estimated that the doubling of ATMs would require an equivalent increase of 50% to current operational staffing levels
- **Other activities** – in general, it is anticipated that employment levels across other activities (e.g., services to buildings, head office activities and/or defence R&D) would be minimal, and not grow significantly in line with aircraft movements. Employment in these activities is primarily related to floorspace availability rather than the number of aircraft movements. In line with the 2009 Study, it is assumed that employment growth will be in the order of 10% for a doubling in aircraft movements.

³⁵ Number rounded to the nearest multiple of 5.

7.11 Taking these factors together, the total future (i.e., direct on-Airport) employment at Farnborough Airport is estimated to be in the region of 1,900 FTE jobs³⁶ when ATMs reach 50,000 per annum (as shown in Table 7.1).

Table 7.1 Farnborough Airport activity-based growth

		31,600 ATM (FTEs)	Assumption used*	50,000 ATM (FTEs**)
Airport management	Air traffic control, immigration, security, etc..	164	+50%	210
	Airport management	34	+20%	40
Airport tenants	Air transport activity	767	+50%	990
	Repair and installation of aircraft	357	+25%	410
	Services to buildings (incl. contract cleaning)	76	+10%	80
	Head office activities*	76	+10%	80
	Public sector and defence	35	+10%	35
	Other activities	50	+10%	55
Total Employment		1,558	-	1,900

Source: Lichfields analysis

*Based on doubling of aircraft movements, rebased to +58.4% increase (i.e., from 31,561 to 50,000 movements per annum).

**Rounded to nearest multiple of 5.

Direct Employment

On-Airport Jobs

7.12 Drawing together the above analysis it is evident that the different approaches to estimating future employment levels produce significantly different results. There is clearly uncertainty about future growth levels at a time of economic recession and uncertainty within the financial markets, and the extent to which changes in aircraft movements will attract further activity to Farnborough Airport.

7.13 It therefore appears appropriate to estimate future employment levels at Farnborough Airport as a range, with the productivity gains and activity-based approaches forming the higher and lower ends respectively. Therefore, this approach assumes that the higher end estimate would make greater allowance for the Airport to attract operators and other tenant firms from elsewhere, whilst the lower end reflects a more organic growth by current tenants.

7.14 As shown in Table 7.2, it is therefore estimated that direct on-Airport employment at Farnborough Airport could increase to between 1,900 and 1,970 FTE jobs (or between 21.9%-26.4%) as the number of ATMs increases to 50,000 per annum.

³⁶ Number rounded to the nearest multiple of 5.

Table 7.2 Estimated range of direct on-Airport employment at 50,000 aircraft movements per annum

	31,561 ATM (FTEs)	50,000 ATM (FTEs)
Activity-based growth	1,558	1,900 (+21.9%)
Productivity-based growth		1,970 (+26.4%)

Source: Lichfields analysis

Direct Off-Airport Jobs

- 7.15 Any scope for growth in direct off-Airport employment as a result of increased movements has been considered in line with the activity-based approach outlined above.
- 7.16 In general, it is assumed that an increase in aircraft movements will lead to a similar increase in demand for hospitality services. On this basis, it is assumed that employment growth at the Aviator Hotel and the wider hospitality sector in Rushmoor Borough will be in line with the increase in aircraft movements (i.e., +58.4%).
- 7.17 In contrast, the relationship between activities undertaken by Farnborough International and ATMs is limited. On this basis, it is assumed that employment growth at Farnborough International will be in the order of 10% for a doubling in ATMs.
- 7.18 Based on the above, it is estimated that total (direct) off-Airport activity associated with Farnborough Airport has potential to support in the region of 225 FTE jobs³⁷, once ATMs reach 50,000 per annum.

Table 7.3 Estimated growth in direct off-Airport employment (FTEs)

	31,561 ATM (FTEs)	Assumption used	50,000 ATM (FTEs ^{**})
Aviator hotel	103	+58.4%	165
Wider hospitality sector	10	+58.4%	15
Farnborough International	39	+10.0%*	45
Total off-Airport employment	152	-	225

Source: Lichfields analysis

*Based on doubling of aircraft movements, rebased to +58.4% increase (i.e., from 31,561 to 50,000 movements per annum).

**Rounded to nearest multiple of 5.

Total Direct Employment

- 7.19 Drawing together the analysis presented in the previous section, it is therefore estimated that total direct (i.e., on/off-Airport) employment supported by Farnborough Airport could range from 2,125 to 2,195 (FTE) jobs as ATMs reach 50,000 per annum. This represents an increase of between 24.3% and 28.4% over 2019 estimates.

³⁷ Number rounded to the nearest multiple of 5.

Table 7.4 Total (i.e., on/off-Airport) employment supported by Farnborough Airport (FTEs)

	31,561 ATM (FTEs)	50,000 ATM (FTEs)
Direct on-Airport jobs	1,558	1,900 - 1,970 (+21.9% to +26.3%)
Direct off-Airport jobs	152	225 (+48.0%)
Total direct (on/off-Airport) jobs	1,710	2,125 - 2,195 (+24.3% to +28.4%)

Source: Lichfields analysis

Job Displacement

- 7.20 In studies of this nature, it is important to consider whether the increase in Airport-based employment will be additional to the area or the result of existing jobs being transferred to the Airport from other local and/or regionally-based firms or airports. This is known as job displacement.
- 7.21 As Farnborough Airport is one of the main business aviation airports nationally, and the only dedicated business aviation airport in the Southeast region, any such displacement appears unlikely to be significant. It is possible that growth of business aviation movements, and therefore the associated jobs, at Farnborough Airport could result in some reduction in jobs at other airports. However, given the renewed demand for business/private aviation necessitated by the Covid-19 pandemic, in addition to the slow recovery for the airline industry, job displacement is anticipated to be limited.
- 7.22 Deadweight effects, i.e., any job growth that would occur anyway at the Airport even with no increase in aircraft movements, were also considered. Again, this was not considered to be a significant factor for Farnborough Airport as increases in aviation activity appear to be the main factor driving growth.
- 7.23 On this basis, the estimated increases in employment numbers at Farnborough Airport is therefore all expected to be net additional within all impact areas considered.

Wider Employment

- 7.24 As with current employment supported by the Airport, any increase in ATMs and therefore direct Airport employment can be expected to increase wider employment across Rushmoor, the Enterprise M3 LEP area, and nationally.
- 7.25 Further indirect employment should be affected by increased spending linked to increases in aviation activity. This has been estimated using the same multiplier values used in the previous section. No reason was identified to use a different multiplier from that applied to existing jobs. Given the size of the Rushmoor economy, as well as current supply chain trends it is therefore reasonable to assume that the proportion of wider employment supported locally is likely to remain unchanged (albeit increasing in value).

- 7.26 Table 7.5 below shows the wider employment figures that are likely to be supported at each of the three impact areas considered, as a result of ATMs reaching 50,000 per annum. At the Rushmoor Borough level, benefits are likely to be limited, resulting in an additional 30 FTE jobs. In contrast, employment at the wider study area (i.e., Hampshire and Surrey) is estimated to range between 260 and 270 FTE jobs, whilst nationally wider employment is expected to range between 2,000 and 2,065 FTE jobs.

Table 7.5 Wider employment supported by direct (on/off-Airport) employment (FTEs)

	Rushmoor	Hampshire + Surrey	UK
Total direct (i.e., on/off-Airport) jobs	2,125 – 2,195		
Multipliers	1.01	1.12	1.94
Total indirect (i.e., on/off-Airport) jobs*	30	260-270	2,000-2,065
Total employment	2,115 – 2,225	2,385 – 2,465	4,125-4,260

Source: Lichfields analysis

*Rounded to nearest multiple of 5.

Total Airport Employment

- 7.27 Drawing the analysis together, Table 7.5 above shows that an increase in the number of annual ATM (i.e., up to 50,000 per annum) at Farnborough Airport has potential to support between 4,125-4,260 FTE jobs nationally. This represents an increase of between 805-940 FTE jobs over 2019 levels (i.e., as estimated in the 2022 Study).
- 7.28 At the wider (i.e., Hampshire and Surrey) level, total employment supported by direct and wider activity at Farnborough Airport is estimated to range between 2,385-2,465 FTE jobs, representing an increase of 464-544 FTE jobs over 2019 levels (i.e., as per the 2022 Study).
- 7.29 At the Rushmoor level, total employment supported directly and wider activity at Farnborough Airport is estimated to range between 2,115-2,225 FTE jobs, representing an increase of 420-490 FTE jobs over 2019 levels.

Comparison with 2009 Study

- 7.30 The total employment figures set out in Table 7.5 above compare positively with the equivalent figures in the 2009 Study. Overall, the 2009 Study estimated that at 50,000 ATMs per annum, total (i.e., direct and wider on/off-Airport) employment supported by Farnborough Airport could add up to between 2,880-3,100 FTE jobs nationally.
- 7.31 The 2009 Study was undertaken on a baseline of around 25,500 aircraft movements per annum, and considered three future growth scenarios, i.e., 35,000 movements per annum, 50,000 movements per annum, and 60,000 movements per annum. Furthermore, the 2009 Study quantified impacts at the LIA and South East spatial levels (compared with impacts at the Rushmoor Borough level, and the EM3 LEP area). These comparators are considered to be less relevant now, especially as the Southeast region encompasses a large geography that includes other airports that host business aviation activity. Instead, this study uses an aggregation of Surrey and Hampshire counties as a proxy for the Enterprise M3 LEP area, which is a more relevant functional and economic geography.

7.32 Table 7.6 below compares the economic impact at Farnborough Airport once ATMs reach 50,000 per annum as identified within the 2009 and 2022 Studies respectively. Whilst it is not possible to compare all metrics (such as wider employment and indirect GVA), the evidence suggests that the anticipated economic impact of Farnborough Airport once annual ATMs reach 50,000 has increased, with the overall quantum of employment supported per 1,000 ATMs increasing from 57.6-62.0 to 82.5-85.2.

Table 7.6 Comparison of economic impact at 50,000 ATMs at UK spatial level

		2009 Study	2022 Study	% change (+/-)
ATMs		50,000		-
Direct jobs (FTEs)	On-Airport jobs	-	1,900-1,970	-
	Off-Airport jobs	-	225	-
	Total	1,350-1,550	2,125-2,195	+41.6% to +57.4%
Wider employment (indirect/supply)		1,530-1,550	2,000-2,065	+30.7% to +33.2%
Total employment		2,880-3,100	4,125-4,260	+37.4% to +43.2%
Direct GVA (£ million)		£118.9-£126.4	£187.3-£193.6	+53.2% to +57.5%
Indirect GVA (£ million)		-	£167.7-£173.3	-
Total GVA (£ million)		-	£355.0-£366.9	-
Airport-related jobs per 1,000 ATMs		57.6-62.0	82.5-85.2	+37.4% to 43.2%
(Direct) GVA per 1,000 ATMs (£ million)		£2.378-£2.528	£3.746-£3.872	+53.2% to 57.5%

Source: Lichfields analysis

Supporting the Net Zero Agenda

7.33 The analysis presented above is based on a broad assumption that Farnborough Airport (as well as the wider Enterprise M3 LEP area) does not see any major investment related to the aviation sector's progression to net zero. The study, however, assumes that Farnborough Airport continues to play a leading role in seeking to manage the environmental impact of aviation, being the first business aviation airport in the world to become carbon neutral in 2018.

7.34 In June 2022, Farnborough Airport launched its *Roadmap to Net Zero by 2030*³⁸ which sets out how the Airport (and the aviation sector more widely) can support the UK government's ambition to achieve net zero by 2050. In particular, this includes a commitment that by 2030 (or sooner), the Airport will achieve net zero for all emissions within its direct as well as indirect control, setting the standards for environmental performance of the aviation sector globally.

³⁸ Farnborough Airport (June 2022), *Roadmap to Net Zero by 2030*. [Available at: <https://netzero.farnboroughairport.com/>].

- 7.35 At present, Farnborough Airport's total emissions per ATM are less than 13% of a typical regional airport. This is achieved through the use of SAFs, electrical ground power units, and an electric vehicle fleet. In addition, many of the operators servicing Farnborough Airport have similar commitments towards net zero (e.g., Vista Jet aiming to be carbon neutral by 2025, NetJets' Blue Skies carbon-offsetting programme, and Flexjet's target to offset 300% of all CO₂ emissions for all flights).
- 7.36 Going forward there will be additional employment opportunities as Farnborough Airport continues to play a leading role in driving the aerospace (and wider space) sector's drive towards net zero. This could include early adoption of electric vertical take-off and landing ('eVTOL') services to/from the Airport, as well as the deployment of fully electric and/or hydrogen-powered aircraft.
- 7.37 The Roadmap concludes by setting out the Airport's ambition to continue to be at the forefront of innovation and sustainability best practice. This includes playing a greater role in being a commercial catalyst for unlocking investment in high-volume SAF production and supply across the UK and supporting the shift to Jet Zero. Discussions with local stakeholders (including the Enterprise M3 LEP, as well as local businesses) echo this sentiment, and highlight the potential for (wider) synergies with other sectors across the economy (e.g., gaming and the space sector), in addition to further developing the sector's cluster within the LEP area.
- 7.38 Given the uncertainties (i.e., both in terms of the level of investment that could potentially be attracted, in addition to future technology supporting net zero) it is not possible to quantify the overall impact(s) in terms of employment numbers and/or economic contribution. However, it is assumed that unless the road to net zero sees a major inward investment which generates significant benefits locally (e.g., the construction of a SAF plant), future employment supported by Farnborough Airport (i.e., either directly and/or more widely) is likely to be in line with that identified above.

8.0 **Catalytic and Wider Economic Effects**

- 8.1 Catalytic effects relate to the wider role of airports in attracting investment and businesses to an area, where the latter have no direct economic linkages, but may utilise its services and/or gain some other competitive advantage from a location near the airport.
- 8.2 Typical economic impacts of an airport in this regard include:
- a Influencing locational decisions by inward investing and/or relocating companies from outside the area, particularly overseas based firms that need good air links with headquarters or bases in other countries;
 - b Helping retain established companies within the local area, particularly firms for which convenient access to air services is important (e.g., to enable quick travel to export markets and/or overseas suppliers);
 - c Influencing decisions by established firms on whether to expand operations in the local area, or at other sites;
 - d Supporting the competitiveness of the local economy by providing rapid and good quality air services for both passengers and freight;
 - e Facilitating export growth, or more competitive sourcing of components, by providing easy and quick links to key markets, customers, and suppliers, for either executives or goods;
 - f Helping put a local area on the international business map, and enhancing its image as a well-connected location; and
 - g In some cases, simply providing a prestigious, easily identifiable location which firms want to be located beside and/or associated with.
- 8.3 These kinds of effects are very difficult to quantify since investment decisions by businesses reflect a combination of different factors, among which proximity to airports can be important but usually not the most important.
- 8.4 To assess the extent of influence which an individual airport has in attracting businesses to the area around it, it is usually necessary to consult with businesses, particularly recent inward investors, which utilise the Airport for their business activities. However, in the case of Farnborough Airport, it has not been possible to do this. This reflects the nature of the Airport and its corporate users, which insist on privacy and confidentiality regarding their movements and activities. Loss of privacy and confidentiality could lead to companies moving their activity elsewhere, and as such the Airport was not able to provide details of its users.
- 8.5 In addition, discussions with FAL indicate that (based on past experience) operations at Farnborough Airport will require an annual capital investment in the region of £5 to £10 million. This has potential to generate wider benefits beyond the effects considered above (i.e., direct, indirect, and wider employment both on-Airport and off-Airport).

Benefits of Business Aviation

- 8.6 Business aviation is a significant contributor to the European economy, connecting distant and remote regions as well as driving investment across the European continent. In 2018, an industry wide report³⁹ estimated that around 375,000 jobs are directly or indirectly dependent on business aviation, representing a GVA of £32 billion.
- 8.7 The business aviation sector contributes directly to European employment, output, GVA and salaries. The industry consists of many small stakeholders, such as aircraft operators and maintenance firms, as well as larger stakeholders, such as aircraft manufacturers. The industry is very well represented at Farnborough Airport, with stakeholders (both big and small) being attracted by its unique offer. These include premium fleet operator Flexjet, which in 2022 set up its European Tactical Control Centre at the Airport, and Gulfstream, who in 2020 moved its Customer Support Service Centre to Farnborough.
- 8.8 To make up for the lack of Airport-specific insight, this report has undertaken a high-level review of published research based on experience at other airports, as well as general research about business aviation more widely. Where possible parallels with Farnborough Airport are drawn and potential implications considered.
- 8.9 Research⁴⁰ indicates that business travel, particularly direct flights, holds a higher success rate in securing business deals, promoting trade and encouraging foreign direct investment ('FDI'). Business aviation allows for easier face-to-face meetings and makes it easier for parties to overcome any barriers to trade and Foreign Direct Investment (FDI). This is especially the case as face-to-face meetings often enable a better understanding of local product market regulation and formal trade barriers, in addition to tariffs, quotas and local content requirements. Moreover, face-to-face meetings ensure that any cultural differences between business partners do not act as a barrier to trade and assist in building trust.
- 8.10 The [World Travel and Tourism Council](#) ('WTTC') finds that at 50% success rate sales conversion rates for in-person meetings are higher than non in-person meetings (with a success rate of just 31%). More broadly, the WTTC also finds that around 28% of existing business could be lost without face-to-face meetings.
- 8.11 Another benefit associated with business tourism is that whilst competition increases as a result of importing/exporting across national boundaries, business aviation often allows businesses to achieve greater economies of scale and help attract (and retain) high-quality employees.
- 8.12 More broadly, business aviation supports UK plc by facilitating and enabling international relations, resulting in not only an increase in FDI secured, but also helping to retain the UK's position as one of the top countries globally for FDI.

³⁹ European Business Aviation Association

⁴⁰ Frontier Economics (2017), *Competition and Choice 2017, A report prepared for Heathrow*.

Visitor Impacts

- 8.13 Whilst the Farnborough International Airshow ('the Airshow') is run on Airport property, it is not directly related to the Airport's core function of business aviation. However, without the Airport's presence in Rushmoor, the Airshow would not go ahead, and the associated benefits would not materialise locally. In particular, these benefits relate to increased expenditure with local businesses by both Farnborough International as well as the Airshow's visitors every couple of years.
- 8.14 Prior to 2022, the latest Airshow was held in 2018, as the 2020 Airshow was cancelled due to the Covid-19 pandemic. The Airshow typically attracts over 80,000 visitors, around half of whom are generally trade visitors. Data for the 2016 Airshow suggests that around \$124 billion of deals were agreed that year.
- 8.15 Of pertinence to this study is the fact that the Airshow has a huge impact on the local economy, with the 2018 Airshow estimated to have generated in the region of £36 million within a 25-mile radius of Farnborough⁴¹. This includes benefits generated as a result of supply chain contracts being awarded to local firms in the planning and development of the Airshow.

Local Employment Opportunities

- 8.16 As noted earlier, Farnborough Airport provides a range of job opportunities (i.e., either directly through its management and operations, or within tenant firms) at different occupations and skill levels. For many of the firms based at the Airport, it is advantageous for staff to live locally.
- 8.17 For a significant number of Airport-based jobs (estimated to be over 1,000 FTEs / 82.6% of the direct on-Airport jobs) aerospace and engineering-related skills are relevant. This builds on workforce skills in aerospace that are already available within the local area. It can therefore be argued that the Airport's presence (and the anticipated employment growth as ATM build up to 50,000 per annum) will provide a wider range of jobs accessible to the local community than would otherwise be available in the area.

Supporting Skills Development

- 8.18 Related to the above, the presence of Farnborough Airport helps to shape and develop the local skills offer, supporting further investment in higher education facilities that benefit the wider community. In July 2022, the Aerospace Research and Innovation Centre ('ARIC'), based at the Farnborough College of Technology, was inaugurated during the Farnborough International Airshow. The ARIC was delivered in collaboration with the Enterprise M3 LEP and is a dedicated aerospace education training and innovation facility.

⁴¹ As per the Aerospace Sector Deal. [Available at: <https://www.gov.uk/government/publications/aerospace-sector-deal>].

- 8.19 The investment targets current and future aerospace engineers, and aims to support new companies as well as established business with their R&D and innovation. The research centre will also provide students with an opportunity to collaborate with local employers, resulting in greater prospects for experience as well as career progression. In addition, the ARIC will also help with research and knowledge transfer and provides an incubation space for start-up within the sector. The latter is aimed at creating greater commercial competency and business resilience, support job creation across the sector, encourage collaboration for greater innovation, whilst also allowing start-ups to gain access to specialist resources and technology.
- 8.20 More generally, discussions with local stakeholders and businesses indicate that the presence of Farnborough Airport adds to the excitement and interest in the sector, which lead to clustering effects and further benefits (especially employment growth and productivity gains).

9.0 Conclusions

Economic Impact of Farnborough Airport

- 9.1 The analysis presented in this report considers several sources of impact at Farnborough Airport, including on-Airport effects (comprising of airport management by FAL and effects related to the Airport's tenants) as well as off-Airport effects (comprising of employment at the Aviator Hotel, the wider hospitality sector and Farnborough International). In addition, the direct (i.e., both on-Airport and off-Airport employment) supports further employment more widely (i.e., through supply chain expenditure and induced effects).
- 9.2 Drawing on the analysis presented in this report, it is estimated that the direct on-Airport and off-Airport activities support in the region of 1,710 FTE jobs. Once the wider (i.e., indirect/supply chain and induced) effects are considered, total employment associated with Farnborough Airport is estimated to total 1,735 FTE jobs at the Rushmoor borough level, 1,921 FTE jobs at the Hampshire and Surrey level, and 3,320 FTE jobs nationally.

Table 9.1 Total airport-related employment (FTE), 2019

		Rushmoor	Hampshire + Surrey	UK
Direct on-Airport	Airport management	197		
	Airport tenants	1,361		
Direct off-Airport	Aviator hotel	103		
	Wider hospitality sector	10		
	Farnborough International	39		
Total direct (i.e., on/off-Airport)		1,710		
Total indirect (i.e., on/off-Airport)		25	211	1,610
Total		1,735	1,921	3,320

Source: Lichfield analysis

- 9.3 Drawing on the analysis of employment supported by Farnborough Airport, it is estimated that the Airport generates an annual economic contribution in the region of £287.7 million nationally. This includes £152.0 million generated at the Rushmoor Borough level, and £157.1 million at the Hampshire and Surrey levels.
- 9.4 In addition, Farnborough Airport represents one of the largest business rate payers at the Rushmoor Borough level, with an annual contribution estimated to be just over £2.04 million.
- 9.5 Furthermore, the Airport also generates economic benefit through capital investment in local infrastructure within the Airport's boundary. In the ten years to 2021, Farnborough Airport has invested a little over £51.5 million on upgrading and expanding its facilities. In 2022, construction work began on the Airport's new £55 million hangar – DOMUS III. This investment will increase hangar space at the Airport by 70% and represents a significant boost to local economic confidence.

Longitudinal Impact of Farnborough Airport

- 9.6 Airport monitoring data indicates that throughout 2019, the Airport saw 31,561 ATMs, up from around 25,500 ATMs in 2009. A comparison of the key quantifiable metrics (i.e., employment and GVA) between 2009 and 2019 indicates that whilst the number of ATMs increased by 23.8%, total employment (i.e., both direct and wider) supported by the Airport's activities increased by 56.6%, whilst the Airport's direct economic contribution increased by 63.2%.
- 9.7 Considered differently, the analysis presented in this report shows that the number of Airport-related jobs supported per 1,000 ATMs increased from 83.1 in 2009 to 105.1 in 2019, which is equivalent to an increase of 26.5%. Furthermore, the change in (direct) economic output (i.e., GVA) per 1,000 ATMs between 2009 and 2019 (i.e., from £3.6 million to £4.8 million) represents an increase of 31.9%.

Table 9.2 Comparison of economic impact of Farnborough Airport, 2009 and 2019

		2009	2019	Change (%)
ATMs		25,500	31,561	+23.8%
Direct jobs (headcount)	On-Airport jobs	1,104	1,654	+49.8%
	Off-Airport jobs	155	184	+18.7%
	Total	1,260	1,838	+45.8%
Direct jobs (FTEs)	On-Airport jobs	-	1,558	-
	Off-Airport jobs	-	152	-
	Total	1,180	1,710	+44.9%
Wider employment (indirect/supply)		940	1,610	+71.3%
Total employment		2,120	3,320	+56.6%
Direct GVA (£ million)		£93.0	£151.8	+63.2%
Indirect GVA (£ million)		-	£135.9	-
Total GVA (£ million)		-	£287.7	-
Airport-related jobs per 1,000 ATMs		83.1	105.1	+26.5%
(Direct) GVA per 1,000 ATMs (£ million)		£3.647	£4.810	+31.9%

Source: Lichfields analysis

Impact of the Covid-19 Pandemic

- 9.8 The Covid-19 pandemic was highly challenging for the aviation industry. Research suggests that the “*pandemic wreaked financial devastation across the aviation value chain, most notably for airlines*”, and that all subsectors reported massive losses in 2020 (except for freight forwarders and cargo airlines).
- 9.9 Whilst the pandemic had an immediate and noticeable effect on daily movements, and total ATMs during 2020 and 2021, it is noted that Farnborough Airport remained fully operational throughout the whole pandemic and was designated as a red-list entry point alongside larger airports across the Greater Southeast region. Throughout the second national lockdown (in November 2020) where essential international air travel was permitted, Farnborough Airport played an important role in supported UK essential connectivity.

- 9.10 Throughout the pandemic, FAL did not make any redundancies, and contrary to the general trend seen nationally, continued to recruit and increase its workforce.

Future Employment Growth

- 9.11 Drawing on the analysis of current employment, this report also considered how future employment at Farnborough Airport could change as annual ATMs increase to 50,000 movements, as per the Airport's current cap.
- 9.12 Overall, the analysis estimates that total direct (i.e., both on-Airport and off-Airport) supported by Farnborough Airport could increase to between 2,125 and 2,195 FTE jobs. Once multipliers (i.e., to account for the indirect/supply chain and wider induced effects of the direct employment) are included, it is estimated that total future employment supported by Farnborough Airport could range between 2,155 and 2,225 FTE jobs at the Rushmoor Borough level, between 2,385 and 2,465 FTE jobs at the Hampshire and Surrey level, and between 4,125 and 4,260 FTE jobs nationally.
- 9.13 This report also considered how future employment (i.e., at 50,000 annual ATMs) changed between the two studies, i.e., primarily as a result of the increase in employment between 2009 and 2019. Overall, the 2022 Study estimates total employment once annual ATMs reach 50,000 to be around 4,125 to 4,260 FTE jobs, compared with 2,880-3,100 FTE jobs for the 2009 Study. This represents an increase of between 1,160 to 1,245 FTE jobs, or the equivalent of +37.4% to +43.2%. Likewise, comparison of the direct economic contribution supported by the Airport's activities puts estimates in the 2022 Study of £187.3 to £193.6 million per annum, which is £67.2 to £68.4 million per annum higher than the 2009 Study, or the equivalent of +53.2% to +57.5%.

Catalytic and Wider Economic Effects

- 9.14 Catalytic effects related to the wider role the Airport plays in attracting investment and businesses to an area, where the latter have no direct economic linkages, but may utilise its services and/or gain some other competitive advantage from being located within close proximity of the Airport. This could include:
- a Influencing locational decisions by inward investing and/or relocating companies from outside the area, particularly overseas-based firms that need good air links with bases in other countries;
 - b Helping to retain established companies within the local area;
 - c Influencing decision by established firms on whether to expand operations;
 - d Supporting the competitiveness of the local economy by providing rapid and good quality air services;
 - e Facilitating export growth, or more competitive sourcing of components;
 - f Helping put a local area on the international business map, and enhancing its image as a well-connected location; and
 - g In some cases, simply providing a prestigious, easily identifiable location which firms want to be located beside and/or associated with.

- 9.15 In addition, the Farnborough International Airshow, which is run on the Airport's property generates considerable effects to the local economy. Prior to 2022, the latest Airshow was held in 2018, as the 2020 Airshow was cancelled due to the Covid-19 pandemic. The Airshow typically attracts over 80,000 visitors. Furthermore, the Airshow has a huge impact on the local economy, with the 2018 edition estimated to have generated in the region of £36 million for businesses within a 25-mile radius of Farnborough. This includes benefits generated as a result of supply chain contracts being awarded to local firms in the planning and development of the Airshow.
- 9.16 The Airport influence and presence within Rushmoor Borough provides residents with opportunities for employment in aviation, defence and related industries that would otherwise not be available locally. Furthermore, the presence of Farnborough Airport also helps to shape and develop the local skills offer, supporting further investment in higher education facilities that benefit the wider community. The recently opened Aerospace Research and Innovation Centre based at the Farnborough College of Technology targets current and future aerospace engineers and aims to support new companies as well as established businesses with their R&D and innovation.

Synthesis

- 9.17 Drawing on the above analyses, the key findings regarding Farnborough Airport and its role supporting current (2019 baseline) and future employment (i.e., at both 31,561 ATMs per annum, and up to 50,000 ATMs per annum) can be drawn:
- a Activity related to Farnborough Airport supports an estimated 1,710 FTE jobs directly, in addition to a further 25 FTE jobs more widely within Rushmoor Borough. This represents 3.7% of the Borough's total employment in 2019.
 - b The Airport's economic contribution adds up to £287.7 million per annum, of which £151.8 million (or the equivalent to 52.8%) supports the Rushmoor Borough economy.
 - c Growth in total employment and economic output between 2009 and 2019 (estimated to be +56.4% and +63.2% respectively) was faster than growth in the number of ATMs per annum). This means that the Airport not only supports more jobs, but also supports higher productivity levels.
 - d On the basis of the above, Farnborough Airport plays a key role in supporting the vitality and resilience of the Rushmoor Borough economy. This includes both the direct and wider (i.e., supply chain and induced) effects of the Airport's activities (i.e., both on-Airport and off-Airport), in addition to benefits associated with the clustering effect around aviation, defence and related industries across the sub-region.
 - e The increased productivity (i.e., estimated in terms of £4.8m GVA per 1,000 annual ATMs) contributes to the Borough's success when compared with the rest of North Hampshire in terms of growth in GDP (i.e., between 2009 and 2019), as well as GVA per job filled and GVA per hour worked.

- f The Airport's overall impact as annual ATMs increase to 50,000 is now anticipated to be higher than the impact estimated by the 2009 Study. Overall, total employment is estimated to be between 37.4% and 43.2% higher than identified in the 2009 Study. In addition, the Airport's economic output (i.e., direct GVA) is expected to be between 53.2% and 57.5% higher than identified in the 2009 Study.

Appendix 1 – Tenants’ Survey

- 1 Name of business

- 2 Can you please describe the nature of activities located on-site at Farnborough Airport?
 - Airport contractor / service provider
 - Aircraft maintenance
 - Security
 - Manufacturing
 - Catering
 - Other (please state)

- 3 What was your employee count (average) in 2019? Please include the number of full-time, part-time and casual employees.
 - Full-time employees
 - Part-time employees
 - Casual employees

- 3a If you started operations at Farnborough Airport after 2019, please state the number of full-time, part-time and casual employees at the time. Also, please list the year in which you started operations at Farnborough Airport:
 - Full-time employees
 - Part-time employees
 - Casual employees
 - Year operations at Farnborough Airport started

- 4 Please provide an estimate of the total wage bill of the workforce in 2019 (or the latest available if you started operations after 2019)

- 5 Please provide an estimate of the proportion of employees who live in:
 - Rushmoor (%)
 - Rest of Hampshire (%)
 - Surrey (%)
 - Rest of the Southeast/London (%)
 - Rest of the UK (%)

- 6 How have employment numbers changed in the 10 years prior to 2019? Please state the number of new jobs added on-site between 2009 and 2019. *(Please ignore question if you started operations on-site since 2019).*
- Full-time employees
 - Part-time employees
 - Casual employees
- 6a If you started operations at Farnborough Airport after 2009 (but before 2019), please list the number of full-time, part-time and casual employees at the time. Also, please list the year in which you started operations at Farnborough Airport:
- Full-time employees
 - Part-time employees
 - Casual employees
 - Year operations at Farnborough Airport started
- 7 Can you quantify the current level of supply chain expenditure with suppliers and/or businesses (both in the UK & internationally)?
- <£1 million
 - £1-£5 million
 - £5-£10 million
 - £10-£50 million
 - £50-£100 million
 - >£100 million
- 8 What proportion of this supply chain expenditure is with businesses in:
- Hampshire (%)
 - Surrey (%)
 - UK (total) (%)
 - Outside of the UK (%)
- 9 How has the Covid-19 pandemic impacted your operations at Farnborough Airport?
- Reduced turnover
 - Reduced on-site employment
 - Largely unaffected
 - Other, please explain

- 10 Going forward how will employment on-site change and by how much (%) if:
 - the status quo remains unchanged (i.e., movements remain stable, economic conditions slowly improve)
 - the number of business aviation movements increases to 50,000 per annum
 - there is additional investment (e.g., new floorspace, new key tenants, etc.) within the airport and/or immediate surroundings
 - as a result of the shift to increased sustainability (e.g., Sustainable Aviation Fuel)

- 11 Please include any additional comments you may have (up to 500 words)

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