

Aerospace Sector Report

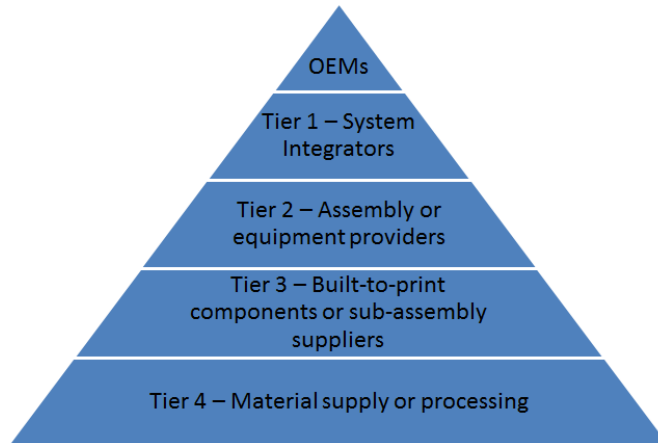
1. This is a report for the House of Commons Committee on Exiting the European Union following the motion passed at the Opposition Day debate on 1 November, which called on the Government to provide the Committee with impact assessments arising from the sectoral analysis it has conducted with regards to the list of 58 sectors referred to in the answer of 26 June 2017 to Question 239.
2. As the Government has already made clear, it is not the case that 58 sectoral impact assessments exist. The Government's sectoral analysis is a wide mix of qualitative and quantitative analysis contained in a range of documents developed at different times since the referendum. This report brings together information about the sector in a way that is accessible and informative. Some reports aggregate some sectors in order to either avoid repetition of information or because of the strong interlinkages between some of these sectors.
3. This report covers: a description of the sector, the current EU regulatory regime, existing frameworks for how trade is facilitated between countries in this sector, and sector views. It does not contain commercially-, market- or negotiation-sensitive information.

Description of sector

Aerospace: the design, manufacture and assembly of aircraft products

4. The aerospace sector includes the design, manufacture and in-service support (maintenance, repair, overhaul (MRO)) of civil aircraft – from original equipment manufacturers (OEMS or Primes) who design and assemble aircraft and key elements such as engines, to lower-tier component, sub-component and equipment suppliers.
5. The parts of an aircraft can be simplistically split into three areas:
 - structures which include the nose, fuselage, wings, engine nacelles (which encase the engines) and tail;
 - propulsion system which includes engines and propellers, or fan blades; and
 - systems which include the electronics used in the flight system, as well as areas such as landing-gear, lighting, actuation of control surfaces and landing-gear doors, heating, air conditioning, and so on.
6. These three areas merge to form the fourth area – whole aircraft – which includes whole aircraft modelling, integration, and safety and certification.

7. In the UK, there are approximately 2,500 aerospace companies¹, 2,300 of which have fewer than 10 employees.² The UK sector is extremely concentrated with large firms accounting for more than 90 per cent of employment and turnover.³ So, there is a small number of large companies and a long tail of small and medium-sized enterprises (SMEs) and micro entities. A proportion operates in other sectors, automotive in particular, to supply the sub-assemblies that Tier 1s integrate and specialised equipment and components that are used by OEMs and Tier 1s. The diagram below demonstrates the complex structure of UK aerospace.



8. Globally, two aerospace companies (Boeing and Airbus) have the capability to design and manufacture large, civil passenger aircraft for both the single-aisle and twin-aisle markets. These players currently account, with their supply chains, for the majority of the value of aircraft sold. Competition for a share of the large aircraft market is intensifying. There are a handful of other companies able to manufacture smaller regional aircraft. For instance, Bombardier (Canada), Embraer (Brazil), Comac (China), Sukhoi/Irkut (Russia) and Mitsubishi Heavy Industries (Japan). Some of these are now trying to break into the large aircraft market.
9. There are three companies globally with the capability to design and manufacture large, civil aerospace engines – Rolls-Royce (headquartered in the UK); and GE Aviation and Pratt and Whitney (both headquartered in the US, the latter now a subsidiary of UTC). Rolls-Royce currently focuses on competing with GE at the upper end of the market: wide-body aircraft with 250 seats or more.
10. Barriers to entry are high due to expense, big risks and the stringent technological standards needed to satisfy aviation safety and environmental regulations. These factors have shaped the market, hence the small number of OEMs. Aircraft programmes require high levels of investment in research and development (R&D) to produce cutting edge technology and timeframes are long.
11. The business jet market is more fragmented with more than half a dozen players in each domestic market, mostly in North America and Europe. Bombardier is a

¹ The aerospace sector includes SIC 30.1 Production and 33.16 Repair and Maintenance

² ONS Business Activity, Size and Location

³ BEIS Business Population Estimates

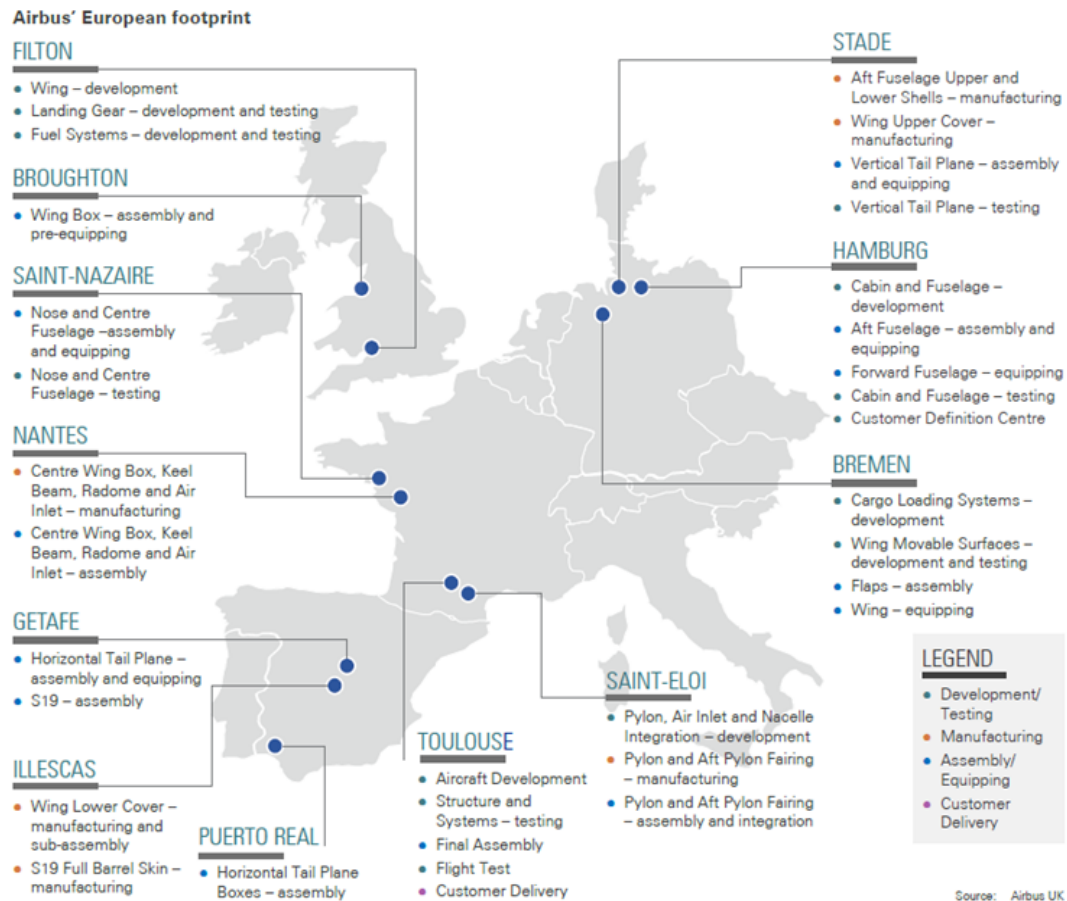
significant player in this segment and its Belfast operation plays a major role, providing composite aerostructures for some of its newest and largest business jets.

12. For helicopters, Leonardo Helicopters (formerly Finmeccanica and parent of AugustaWestland) and Airbus Helicopters (formerly Eurocopter) have UK operations with some civil content. Leonardo has the capability at Yeovil to design, develop, build and maintain whole helicopters, and is currently manufacturing advanced components for military and civil helicopters. Airbus has an MRO facility in Scotland that services the oil and gas sector, and an integration facility for systems in Oxford.
13. Advanced systems companies make up a further fragmented group of companies with a strong North American and European ownership structure.
14. Given the small number of aircraft manufacturers, the great majority of the sector in the UK feeds into Airbus, Boeing, Bombardier and GKN for aircraft programmes, and Rolls-Royce for engines.
15. Airbus and Bombardier manufacture wings in Bristol/North Wales and Northern Ireland respectively. Rolls-Royce designs, manufactures and integrates aero-engines in Derby and has a host of other UK sites.
16. Design and manufacturing are becoming increasingly integrated, with emphasis placed on R&D and technological capability. Aerospace is one of the most R&D intensive sectors in the UK, accounting for 8.1 per cent of total business R&D (£1.7 billion in 2015).⁴ As such, aerospace has the potential to be an important source of knowledge and innovation spillover (for example, composites technology was developed in the UK in the 1970s). There is spillover between the civil and defence aerospace sectors, and to other sectors such as automotive.
17. Timeframes for development are long due to the complexity and safety requirements of modern commercial aircraft. Aircraft programmes are launched infrequently and run for decades. Winning a contract on a forthcoming aircraft programme is therefore very important to OEMs and the entire supply chain.
18. To develop technology and high value manufacturing capability in engines, wings, aerostructures and advanced systems will be important to the success of future aerospace programmes in the UK. In part, this is spurred by competitive dynamics, cost demands of airlines and the need to reduce the environmental impacts of aircraft.
19. Due to supply chains being integrated across the EU, it is routine for components and materials to cross borders on multiple occasions. The civil aerospace sector benefits from the ability to transport goods quickly and efficiently within the EU. This is the case for development and manufacturing processes as well as maintenance

⁴ ONS Business Enterprise Research and Development bulletin, 2015

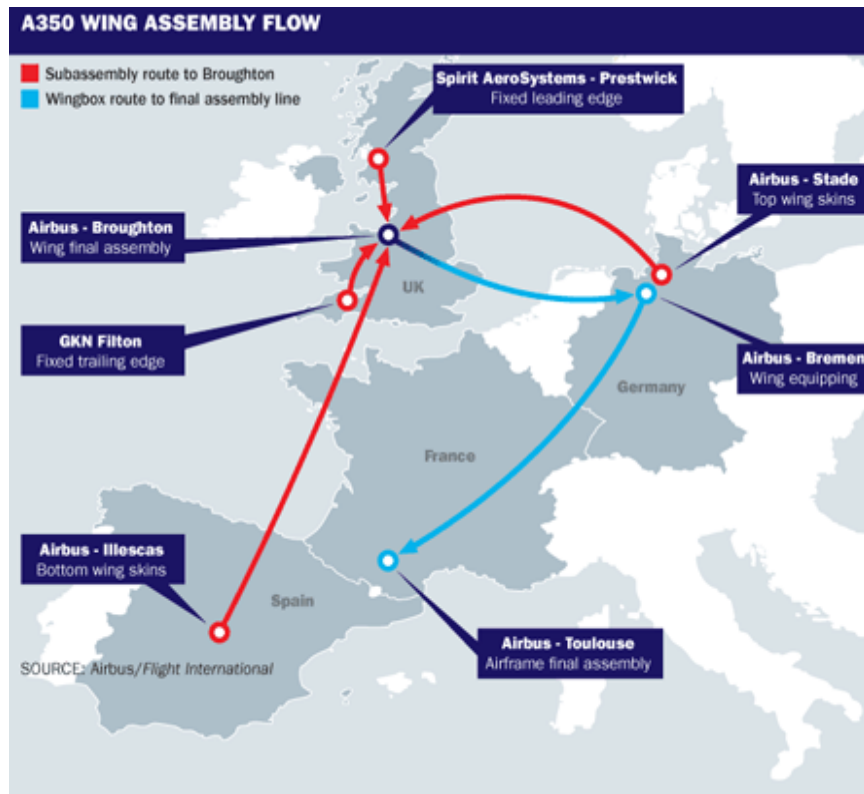
and repair, where aircraft components are disassembled and shipped to multiple EU countries for servicing, and then returned to the aircraft for reassembly.

20. The European aerospace sector is particularly well integrated owing to Airbus. The following two graphics illustrate the number and breadth of locations that contribute to the manufacture of an Airbus A350 and, specifically, how the wing travels across borders to be manufactured.⁵



21. The following graphic illustrates the assembly process of the wings for the Airbus A350 XWB. They are assembled in Broughton, North Wales, designed in cooperation with specialist teams in Germany, Spain, France and Filton (Bristol). Each of the components of the wing relies on capability from across the EU, and the supply chain used to construct those components spans EU Member States including the UK. The final aircraft is assembled in Toulouse, with its UK-assembled wings exported there from Broughton via Bremen, in Germany, where they are equipped with flaps and other high-lift devices.

⁵ [Doing Business in the EU](#), ADS



Source: Airbus A350 wing-assembly process (FlightGlobal). The Airbus A350 information above was placed in the public domain by Government in *HM Treasury analysis: the long-term economic impact of EU membership and alternatives*, April 2016.⁶

Maintenance, repair and overhaul (MRO)

22. MRO services in civil aerospace are a key growth area and a core feature of many aerospace businesses.⁷ This now includes product health monitoring and prognostics, as well as the more traditional repair, overhaul and upgrade activities. It is estimated that there are over 1,300 companies involved in the MRO and logistics sector in the UK with a combined turnover of around £15 billion, employing over 57,000 people.⁸

What is the sector's contribution to gross value added (GVA)?

23. UK aerospace is a high-growth, high-value sector driven by innovation, and it is strategically important to secure the UK's position as a world leader in a growing global market. Its key strengths are in the most complex parts of aircraft – wings, engines and advanced systems. The UK is one of the few nations with capabilities to design and build advanced helicopters.

⁶ 'HM Treasury analysis: the long-term economic impact of EU membership and alternatives', HM Treasury, April 2016

⁷ 'BIS Research Paper Number 275: UK Aerospace Maintenance, Repair, Overhaul & Logistics Industry Analysis', Department for Business Innovation and Skills, February 2016

⁸ 'BIS Research Paper Number 275: UK Aerospace Maintenance, Repair, Overhaul & Logistics Industry Analysis', Department for Business Innovation and Skills, February 2016

24. Gross value added (GVA) for aerospace has grown 30% since 2010, compared to 4% for manufacturing as a whole. Today, it generates £8bn GVA, equating to 4.7% of UK manufacturing GVA.⁹

25. UK aerospace has seen high levels of foreign direct investment.

Investment in R&D and innovation

26. Airlines and passengers increasingly demand more cost-effective journeys that are quieter and more environmentally friendly. To achieve this, aircraft need to incorporate innovative products, materials or new advanced manufacturing capabilities. The UK's future competitive success will depend on the ability of industry to maintain an edge in key areas such as engines, wings and advanced systems. However, the UK is not alone in having capability in these areas. In addition to traditional aerospace nations, newer markets have emerged. Brazil, China, India and Turkey, for instance, compete alongside the UK, US, Germany, France and Spain. With the promise of long-term manufacturing, anchored by initial R&D investment, the UK is competing to secure, exploit and grow its existing aerospace research and development capability.

27. International collaboration is important to share risk and costs. Demonstrating the performance of new technology or components, especially how they can be integrated into a whole new aircraft, is a particular challenge.

28. The UK Government aims to provide stable, long-term R&D support. Generic barriers to R&D investment hamper collaboration between government, industry and the wider science and research base.

29. Given many of the SMEs in the UK are multinational companies/foreign owned (typically French, German and North American), investment decisions are typically made in headquarters abroad.

30. A July 2016 supply chain study, commissioned by the then Department for Business, Innovation and Skills (BIS), highlighted key research areas that may drive future growth.¹⁰ Larger companies also need UK suppliers to invest sufficiently in new technologies, manufacturing processes and skills. Future challenges are being addressed through the Aerospace Growth Partnership (AGP), the sector council.

Skills

31. Civil aerospace is global and highly skilled. The sector has historical institutional expertise, and an advanced science and research base has helped to underpin the UK's strong position in many current aircraft programmes.

32. Substantially more of the roles in aerospace require some form of post-compulsory education compared to the economy as a whole. Skills levels are reflected through

⁹ ONS National Accounts (low-level GDPO data)

¹⁰ [BIS Research Paper No 294. 'UK Aerospace Supply Chain Study'](#), Department for Business Innovation and Skills' July 2016

salary information. Aerospace earnings in 2016 were 34 per cent higher than the average UK manufacturing salary, and 37 per cent higher than the average overall UK salary. In the last 7 years, since the 2008/09 recession, aerospace salaries have grown at a faster rate than those across UK manufacturing and the economy as a whole.¹¹

33. The sector is highly integrated globally and across Europe with different nations working together to design and manufacture complex parts of aircraft. The sector relies on the ability to move highly skilled staff across its locations. For example, Airbus has sites in France, Germany, Spain and the UK. Rolls-Royce has a large presence in the UK, Germany, the US and Singapore.
34. The supply chain study commissioned by BIS identified risks to global competitiveness arising from lack of advanced manufacturing and lean supply chain management.¹² Continuous improvements in quality and productivity are needed to compete with low-cost emerging markets and highly productive advanced economies.

Pattern of trade

35. The sector is export orientated. This is reflected in the UK's international customer base. In 2016, exports accounted for 10 per cent (£29.6 billion) of the UK's total goods exports (nearly 90 per cent of aerospace turnover), of which 30 per cent (£9 billion) was destined for the EU.¹³
36. Imports to the UK accounted for 5 per cent (£26.2 billion) of total worldwide aerospace imports, with approximately 21 per cent (£5.4 billion) imported from the EU. The top three destinations the UK exports to, and imports from, for aerospace are the US, France and Germany.¹⁴
37. The UK also contributes to EU exports of final aircraft to non-EU countries, since a significant proportion of the total UK exports are of aircraft parts (wings, engines and landing gears) for inclusion in aircraft whose final destinations are to non-EU countries, such as China and the Middle East.
38. The global market for aircraft, spacecraft and parts imports, excluding the UK, was worth around £142 billion in 2016. Countries besides the 27 other EU Member States accounted for £92 billion, or 65 per cent, of this global market.¹⁵

¹¹ ONS Annual Survey of Hours and Earnings

¹² 'BIS Research Paper No 294: UK Aerospace Supply Chain Study', Department of Business, Innovation and Skills, July 2016

¹³ ONS UK Trade in Goods (CPA)

¹⁴ ONS UK Trade in Goods (CPA)

¹⁵ Data obtained from ITC, which is based on UN COMTRADE statistics. The value of the global market is defined as the sum of every country's imports for whom data was available, minus the value of the UK imports. Aircraft, spacecraft, and parts comprise HS chapters 88

National and regional footprint of the sector

39. In England, aerospace manufacturing is focused in the Midlands, South West and North West, with a number of supply chain companies in these regions supporting the OEMs and Tier 1s.
40. Clusters also exist in Wales (particularly Cardiff and Broughton), Northern Ireland (main cluster in Belfast) and Scotland (main cluster around Glasgow).¹⁶
41. Research institutions, including catapults and universities, are also important employers due to the research intensive nature of the sector.

¹⁶ BEIS analysis of ONS Business Register and Employment survey (BRES)

42. The distribution of employees (excluding self-employment) across the UK in 2014 is as follows:

	% of Total Aerospace jobs	Detail
South West	19%	Airbus, GKN, Rolls-Royce (Bristol)
East Midlands	16%	Rolls-Royce (Derby) & supply chain
North West	14%	Safran (Burnley) and Rolls-Royce
South East	11%	
East	8%	
North East	1%	Rolls-Royce
West Midlands	6%	
Yorkshire and The Humber	2%	
London	1%	
By Country		
England	78%	
Wales	13%	Airbus (Broughton, North Wales)
Northern Ireland	6%	Bombardier (Belfast)
Scotland	4%	Spirit and Rolls-Royce
UK	100%	

Source: ONS Business Register and Employment survey

Historic trends and future prospects

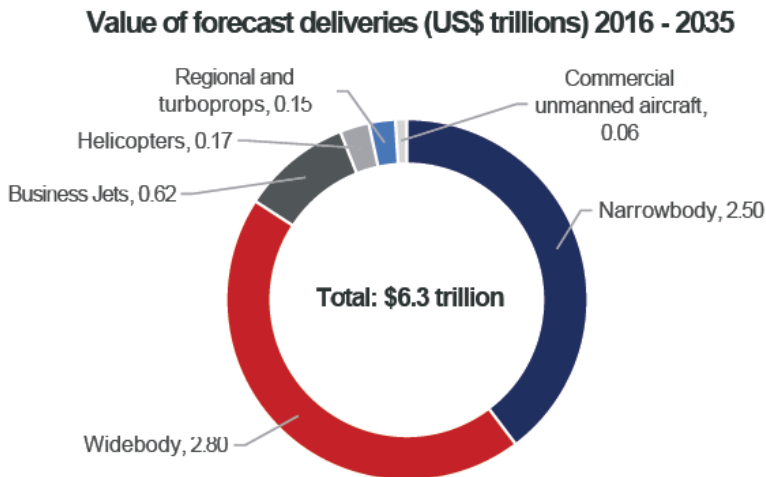
43. The civil aerospace sector arose out of industry re-structuring after World War II when the industrial focus on military aircraft manufacturing had led to the significant growth of the UK aerospace sector. The UK was not alone in this as the USA and European nations also emerged from the war with a significant aerospace industrial base. The surplus of ex-military transport aircraft and pilots after the war also led to the rapid development of commercial airlines in the USA and Europe – giving the local manufacturers an advantage in terms of customer proximity.

44. After a period of several decades of industrial rationalisation in North America and Europe, the European sector began to form through joint ventures into the entity which became Airbus Group today – with French, German, UK and Spanish sites.
45. Today the upper end of the aerospace market (very large aircraft) is dominated by products from Airbus (Europe) and Boeing (USA). The regional jet market is centred on Embraer (Brazil) and Bombardier (Canada).
46. Aerospace productivity has improved since the early 2000s. Between 2009 and 2016, productivity grew by an average of four per cent per annum compared with only one per cent for the whole economy.
47. The UK aerospace sector draws heavily on a highly-skilled workforce, including high-value engineering jobs to the UK. Despite the trends to increase automation of the manufacturing processes and relocate production jobs to emerging economies, aerospace companies benefit from keeping their manufacturing sites located close to where they do R&D, helping to anchor production in the UK in the near future.
48. The demand for air travel drives the demand for aircraft. In 2008, there was less of an impact from the financial crisis, possibly due to a combination of government support (export financing guarantees) and historically large order books from the larger manufacturers.
49. The sector is US dollar denominated, with the bulk of commercial aircraft sales in dollars. Therefore, the UK sector is exposed to some exchange rate risk.
50. There has been a long process of consolidation in the sector, which has become increasingly concentrated among a small number of Primes and Tier 1 companies. Airbus and Boeing are producing a record number of aircraft each year due to high and sustained demand for new and fuel efficient aircraft (slowing slightly as the market is sold out in the near term).
51. Emerging aerospace nations who are to launch aerospace programmes in the near future include: Russia; China (ambitions range from regional jets to large commercial airliners to compete directly with Airbus and Boeing); and Japan (MHI has launched a regional jet with a Japanese-made engine).
52. Globally, technology insertion rather than new programmes (re-engineing) has gained prominence. The high cost of new aircraft programmes, coupled with the high financial impact of delays experienced in recent years, has led to a more cautious approach from manufacturers who offer existing designs with new technologies inserted as an alternative to all-new programmes.
53. In terms of the wider global market for large commercial aircraft the near-term backlogs are solid, with the large tail of future delivery positions giving them both the opportunity to switch customers to earlier slots in the event of any drop in demand. As an example, such activity occurred extensively during the 2008-09 financial crisis,

where customers with less need or financial pressure were able to defer deliveries and those with growth ambitions and opportunities (many of which were in Asia) were able to take earlier delivery positions.

Market outlook

54. The market outlook for civil aerospace tends to focus on the large commercial aircraft market (viewed as aircraft with around 100 or more seats) as it is the largest segment.



Source: ATI Strategy Paper 2016 (page 12)

The current EU regulatory regime

55. The arrangements described in this section are examples of existing arrangements between countries. They should not be taken to represent the options being considered by the Government for the future economic relationship between the UK and the EU. The Government has been clear that it is seeking pragmatic and innovative solutions to issues related to the future deep and special partnership that we want with the European Union.
56. Much of the regulation in this sector is either set globally or via mutual recognition agreements – for example, between the European Aviation Safety Agency (EASA) and Federal Aviation Administration (FAA) for airworthiness regulations.

EU Customs Union and Single Market

57. Articles 28-37 of the Treaty on the Functioning of the European Union (TFEU) set out the Treaty provisions on the free movement of goods, including the establishment of the Customs Union. This has been achieved by establishing the Customs Union within the EU and by preventing Member States imposing customs duties or formalities on goods imported from other Member States. In addition, these rules

prevent Member States imposing restrictions on the quantity of imports and exports of a particular item (e.g. quotas or an import or export ban).

58. This legal framework also prevents non-tariff barriers that may restrict imports and exports in less direct ways, for example, by applying product standards and regulations that make it harder in practice for goods coming from one Member State to be sold within another. The exception is where those restrictions can be justified on certain grounds. The legal framework has been achieved by establishing a common set of product rules, underpinned in many cases by voluntary standards. For goods not covered by those rules and standards, the principle of mutual recognition has been developed (whereby once goods have been lawfully manufactured and marketed in one Member State, another Member State cannot then require it to comply with additional product rules). Finally, goods imported from other Member States must be treated in the same way as goods produced nationally.

R&D and innovation funding

59. The EU uses funding mechanisms called Framework Programmes to provide research grants in all sectors across Europe. The seventh Framework Programme (FP7) awarded almost €50 billion of R&D grants between 2007 and 2013. Horizon 2020 (FP8) is investing around €75 billion from 2014 to 2020.¹⁷
60. Funding for competitiveness and innovation makes up nearly 18 per cent of the UK's receipts from the EU. EU funding accounts for approximately 16 per cent of UK university research funding.¹⁸
61. For FP7 (2007-2013), the UK agreed the second highest level of FP7 funding across all member states (behind Germany), totalling around €7 billion. UK projects were more likely than average to be granted funding.
62. During the first three years of Horizon 2020, the UK agreed the second highest amount of EU funding (€3083 million). Germany agreed the highest (€3464 million) and France the third highest (€2097 million). The UK had the highest number of participants in projects backed by Horizon 2020 funding – 6,289, with a fifth serving as project coordinators.¹⁹
63. The aerospace sector is a significant recipient of EU R&D funding, principally through Horizon 2020's Smart, Green & Integrated Transport work programme (which has received approximately 8 per cent of the Horizon 2020 budget) and, within that, the Clean Sky 2 Joint Technology Initiative (JTI), a form of Public Private Partnership.

¹⁷ [‘Horizon 2020 budget and implementation guide: A guide to the structure of the programme’](#), (Table 1, p.4), European Parliament, November 2015

¹⁸ [‘EU Membership and UK Science’](#), House of Lords Science and Technology Select Committee: 2nd Report of Session 2015–16, April 2016

¹⁹ ‘Commission Staff Working Document, In-depth Interim Evaluation of Horizon 2020’, (page 64), European Commission, January 2016

64. The Clean Sky 2 budget is €4 billion. The EU contributes €1.8 billion and industrial partners contribute €2.2 billion. The Clean Sky initiative was conceived to build and run large-scale integrated technology demonstrators.²⁰ Typically, demonstrators run for 10+ years and are integral to the latter stages of R&D where commercial potential is tested. They are large, expensive and integrate products from different EU nations.
65. Developing new products and processes in collaborative research projects with European companies means that a common set of standards and processes are adopted and certified, providing competitive advantage.
66. The European Investment Bank (EIB) lends to the UK for investment in infrastructure and for support for R&D projects. For example, in 2015, EIB confirmed a £280 million long-term loan to Rolls-Royce to support the development of a higher thrust version of the Trent XWB aero-engine. This is one of the largest loans agreed between the EIB and a UK company.
67. The European Transonic Windtunnel (ETW) is an important asset for the UK. It is a world leading wind tunnel for testing aircraft at real flight conditions. The shareholder nations are Germany (where the site is located), UK and the Netherlands. ETW is not a part of the EU. Therefore, the UK can remain a partner following exit.

Sector-specific rules governing the provision of this activity in the EU

68. The international framework of air transport has developed from the 1944 Chicago Convention. This established the International Civil Aviation Organisation (ICAO), a UN special agency that establishes international aviation guidelines and standards. ICAO contains 191 state members. The UK is a permanent representative on ICAO's Council (this membership is independent of the UK's EU membership). ICAO has no ability to set regulation or enforce its rules - compliance is voluntary and drawn from domestic or European legislation.
69. The Civil Aviation Authority (CAA) is the UK's independent aviation regulator. It levies a charge on UK registered aircraft to fund its regulation.
70. Safety (and some operational and environmental) regulation is set by the European Aviation Safety Agency (EASA). Regulation (EC) No 216/2008 sets down common safety rules and objectives for civil aviation in Europe. It also reconfirmed the establishment of EASA. EASA's remit covers safety in all aspects of the aviation system, including design, manufacturing, aircraft operations, personnel licensing, training organisations, maintenance, airports and air traffic management. Regulation (EC) No 300/2008 sets out common roles and basic standards on aviation security and procedures to monitor the implementation of the common rules and standards.

²⁰ ['Clean Sky 2 budget'](#), Clean Sky,, Oct 2016

71. EASA prepares draft rules for consideration and adoption by the European Commission and the National Aviation Authorities (NAAs, in the UK's case, the CAA) implement the adopted rules with monitoring from EASA.
72. EASA also has a number of executive functions, for example the initial airworthiness certification of new and modified products (e.g. specific models of aircraft and engines) and the certification of organisations based in third countries.
73. The system is underpinned by the set of common safety rules which are designed for uniform application across the EU. Those rules apply both to the air transport industry, individuals, organisations and products and to the NAAs themselves.
74. As a member of the EU, the UK is represented at the EASA Committee and has a seat on the EASA Management Board.

Main cross-sector rules, technical requirements and frameworks

75. The aerospace sector is highly integrated globally and aerospace Prime and Tier 1 companies have operations in a number of countries with aerospace capability. For example, Airbus has major sites in the UK, Germany, France and Spain. Rolls-Royce has major sites in the UK and Germany.

State aid

76. The state aid rules govern the way that member states can support economic activities. This is not limited to grants or subsidised loans and can include sale of land at undervalue or tax reductions. The main rules are set out in Articles 107 -109 of the Treaty along with various frameworks and guidelines. They lay down a fundamental prohibition on giving aid, with a series of exemptions for types of aid that can be judged compatible with the internal market. It is not the case that all aid is forbidden, as aid can be granted within bounds to enable the states to support activities that are not being delivered by the market.
77. Aid that is covered by a block exemption is "pre-approved" (although it requires a simple notification to the Commission, which can be ex-post). All aid must be notified to and approved by the Commission before it can be given as only the Commission can decide if aid is compatible.
78. Although the state aid rules are addressed to member states they also affect the aid beneficiaries. If aid is given which has not been duly notified and approved and which does not comply with the rules, the aid must be recovered from the beneficiary with interest.
79. The aerospace sector is R&D intensive. Due to the high cost of developing a new aircraft or engine, companies look to funding from the EU and for other public support. Therefore, the state aid rules are important for public support of R&D.

80. Much of the state aid that has been awarded to UK aerospace companies has been done within the General Block Exemption Regulation, but there are also a number of launch investment agreements with companies that had to be directly notified to the Commission as aid.

REACH chemicals legislation

81. Chemicals produced in or imported by the EU are subject to the EU REACH 1907/2006/EC (Registration, Evaluation, Authorisation of Chemicals) Regulation that primarily affects manufacturers and importers of chemicals and other substances covered by REACH with a focus on identifying risk and applying appropriate risk management measures. Further duties affect downstream sector users of chemicals. Companies exporting to the EU will still need to abide by REACH/CLP requirements.

Rules identified, which are devolved areas of responsibility or issues relating to Gibraltar, the Crown Dependencies or overseas territories

Cape Town Convention

82. The Protocol to the Convention on International Interests in Mobile Equipment and Matters Specific to Aircraft Equipment (Cape Town Convention) is an international treaty under the auspices of Unidroit which is of mixed competency.²¹ The EU and the UK have ratified the Treaty in the areas where they have competence.
83. The Convention aims to reduce the cost of raising finance to buy and lease commercial aircraft by providing aircraft financiers with greater confidence in the remedies available to them if an airline defaults on an agreement in any country which has ratified the Treaty. Debtors are in turn protected from unwarranted seizure of the assets by creditors, provided they have maintained their obligations under the relevant documents. The Treaty is not mandatory and the commercial parties can decide whether or not to make use of its provisions.
84. The EU ratification of the Treaty extends to Gibraltar but not the other Overseas Territories or the Crown Dependencies. The UK has extended the treaty to the Bailiwick of Guernsey and is in the process of extending the treaty to the Isle of Man.

Existing frameworks for how trade is facilitated between countries in this sector

85. The arrangements described in this section are examples of existing arrangements between countries. They should not be taken to represent the options being considered by the Government for the future economic relationship between the UK and the EU. The Government has been clear that it is seeking pragmatic and

²¹ The International Institute for the Unification of Private Law (UNIDROIT), an independent intergovernmental Organisation focussing on modernising, harmonising and co-ordinating private and commercial law.

innovative solutions to issues related to the future deep and special partnership that we want with the EU.

86. Aerospace is a global, highly integrated and highly regulated industry. The industry is governed by detailed technical regulations required to satisfy aviation safety and environmental regulations. For example, EASA airworthiness certification is a prerequisite to market entry for civil aerospace goods and services, throughout the EU and much of the rest of the world.
87. Within the EU, the 'Basic Regulation' allows non-EU Member States to be full members of EASA including the Management Board, Committee and Technical Working Groups. Iceland, Liechtenstein, Norway and Switzerland are members and participate fully in EASA.
88. In addition, aerospace regulation is becoming increasingly harmonised at a global level. For example, the EU has concluded Bilateral Aviation Safety Agreements (BASAs) with the USA, Canada and Brazil. BASAs establish cooperation between the two contracting partners to achieve mutual recognition of airworthiness certificates.
89. The global approach is underpinned by the work of the ICAO, which agrees standards and recommended practices. Whilst these are not binding, they can be adopted as regulation at national or regional level. These global approaches support business in operating in a number of countries. The ICAO contains 191 state members and the UK is a permanent representative on its Council. The UK is a signatory to the ICAO in its own right, independent from its EU membership.
90. These same bilateral partners committed to moving towards closer regulatory collaboration by creating the Certification Management Team (CMT). The CMT oversees and manages the development and implementation of regulatory and policy solutions in order to support greater harmonisation. The CMT has developed initiatives and risk-based validation principles with the aim of enabling its signatories to accept partner certification activities with limited or no technical involvement.
91. Trade in aerospace goods can be facilitated through the use of international standards, such as those developed by the International Standards Organisation (ISO) and the International Electrotechnical Commission (IEC). These are voluntary agreements on best practice for a given process or product. These standards are voluntary, and the majority are developed purely for commercial purposes, such as to support the interoperability of supply chains.

Customs

92. There are many customs facilitation arrangements in international agreements. These include the EU's agreements with a number of third countries, such as Canada, Korea and Switzerland. These agreements differ in the depth and scope of customs facilitation offered. Examples of customs facilitations include: simplifying customs procedures, advance electronic submission and processing of information

before physical arrival of goods, and mutual recognition of inspections and documents certifying compliance with the other parties' rules.

Tariffs

93. In the absence of a preferential trade agreement, goods imported into the EU from non-EU countries must pay a tariff. Tariffs are custom duties levied on imported goods. Under the World Trade Organization (WTO) Most Favoured Nation (MFN) a country's tariff schedule must be consistent for all countries it trades with, except those where a preferential trade agreement exists.
94. Highly integrated, global supply chains are underpinned by the WTO Agreement on Trade in Civil Aircraft.²² This plurilateral (meaning that not all WTO members have signed up) entered into force on 1 January 1980. There are 32 signatories, of which the EU is one. The UK is party to the agreement in its own right, as are the other biggest aerospace trading nations, including: Canada, China, France, Germany, Spain, Sweden, and the US, but not Brazil.
95. The agreement eliminates tariffs and preferential rules of origin requirements on civil aerospace imports, provided that the goods meet the relevant WTO (non-preferential) rules of origin. Product coverage includes all civil aircraft; all civil aircraft engines and their parts and components; all other parts, components, and sub-assemblies of civil aircraft; and all ground flight simulators and their parts and components. The agreement does not cover certain part-finished and intermediary products, or raw materials and consumable goods.
96. Companies trading in goods that are not covered by the WTO Agreement on Trade in Civil Aircraft to the EU may make use of inward processing relief provisions, remaining goods do trigger tariffs and preferential rules of origin requirements. EU MFN tariff rates vary depending on the good.

Rules of Origin

97. The EU includes rules of origin in all of its FTAs, which are restrictions on the originating content of products that exporters must comply with to gain tariff preferences. These rules typically reflect both the supply chains of both the EU and its FTA partner. Many of the EU's rules of origin arrangements are based on the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin, which includes provisions that allow producers to treat content from some third countries as if it comes from their own country. Several arrangements aim to reduce the administrative requirements associated with origin certification, including the EU's Registered Exporter (REX) system, which lets businesses register for self-certification of origin using an online system, avoiding paper certificates.

²² ['Agreement on Trade in Civil Aircraft'](#), World Trade Organization,

Sector views

[This information was provided by the Government to the Committee, but the Committee has decided not to publish this section]

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Annex: Stakeholder Engagement on European Union Exit (EU Exit) in the Department for Business, Energy and Industrial Strategy

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