



The aerospace industry: statistics and policy

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Section Economic Policy and Statistics Section

The Government consider the aerospace industry a “phenomenal success story” and a sector that offers “tremendous opportunities for growth”. According to an industry survey the UK has a 17% global market share in aerospace industry revenues, making it the largest in Europe and second only to the US worldwide.

In 2013, the industry

- Had a turnover of £25 billion
- Employed 84,000 people
- Contributed £9.4 billion to the economy

In 2014, the UK exported aerospace goods worth £10.5 billion and imported aerospace goods worth roughly the same.

The Coalition Government has created the Aerospace Growth Partnership Group to support the industry, prioritised advanced manufacturing in its 2011 Growth Review, created the UK Aerospace Technology Institute in March 2013 and has supported exports through UK Export Finance.

This note analyses key statistics and presents details of how Government policy supports the industry.

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1 Industry Overview

1.1 Scope of the industry

In June 2014 the [ADS Group](#) (the trade body of the aerospace and defence industry in the UK) commissioned a report into the size, shape and future priorities of the UK's Aerospace, Defence, Security and Space sectors. The resulting [Aerospace Industry Outlook](#), included analysis undertaken by the Centre for Economics and Business Research and the results of survey of 900 ADS members responding to questions on employment, investment, exports and growth.¹ In 2013:

- The sector provides 109,000 direct jobs and supports 120,000 indirect jobs, as well as 3,300 apprentices or trainees. The average salary in the aerospace industry was £41,000.
- UK aerospace revenue was £27.8 billion, with 91% of final demand coming from exports, worth £24.7 billion.
- The value of aerospace exports grew by 12% compared to a year earlier.
- The UK aerospace sector grew by 9.4% in 2013 and on average by 7.1% each year since 2008.
- The aerospace sector has grown by 14% since 2011, which the report attributes partly to the delivery of the [Aerospace Growth Partnership](#), a collaboration between Government and industry.

In January 2014, ADS reported the following about the UK Industry for 2013 ²

- Annual commercial aircraft orders rose to a record 3,182, almost 50% of which are for new programmes;
- Aircraft order backlog increased by 17%
- Aircraft deliveries rose by 7% year on year, to £20bn
- A record 2,646 engines were delivered in 2013 and almost 5,000 engine orders placed.

The [UK Aerospace Survey](#) published in July 2012 showed that

- The split between defence and civil revenue was close to 50/50.
- Three quarters of revenue came from export sales. Civil exports grew 13.1% and defence exports grew 5.2%, with sales to the EU and US showing the strongest growth, 16.9% and 13.3% respectively.

¹ ADS, [Aerospace Industry Outlook](#) June 2014, pp 7,8

² ADS [New ADS data reveals 2013 a record year for commercial aerospace industry](#) 28 January 2014

1.2 Contribution to the economy: official statistics

The ONS [Annual Business Survey](#) provides figures for the number of businesses in the industry, total turnover and the contribution to the economy in terms of Gross Value Added (GVA). These figures are not directly comparable with the ADS figures presented above which use a broader definition of the industry and also take into account its indirect contribution to the economy.

Manufacture of air and spacecraft related machinery

	2008	2009	2010	2011	2012	2013
No of enterprises	379	440	489	495	562	634
Total turnover (£bn)	17.6	20.1	20.5	21.5	22.3	24.7
Economic contribution (£bn)	7.0	6.6	5.8	7.2	7.3	9.4

Source: ONS, Annual Business Survey - 2013 provisional results, November 2014

Notes: Current basic prices

Economic contribution is Gross Value Added

- There were 630 enterprises in this industry in 2013, 250 more than in 2008, and 70 more than in 2012.
- The total turnover of the industry in 2013 was £24.7 billion.
- The contribution of the industry to the UK economy fell between 2008 and 2010 by 17.1%, from £7.0 billion to £5.8 billion. Between 2010 and 2013, the industry's contribution to the UK economy grew by 62.1% to £9.4 billion or 34% above the 2008 level.
- The industry accounted for 0.9% of UK economic output in 2013.

1.3 Employment in aerospace: official statistics

The ONS's [Business Register and Employment Survey](#) provides figures for employment in the industry by region. Again, these are not comparable to the ADS figures presented above.

Employment in Manufacture of air and spacecraft and related machinery 2013

	Employment	% of aerospace employment	% of total employment in the region
East	7,000	8%	0.3%
East Midlands	16,000	19%	0.8%
London	1,000	1%	0.0%
North East	2,000	2%	0.2%
North West	14,000	17%	0.5%
Scotland	2,000	2%	0.1%
South East	9,000	11%	0.2%
South West	17,000	20%	0.7%
Wales	9,000	11%	0.8%
West Midlands	6,000	7%	0.3%
Yorkshire and The Humber	1,000	1%	0.0%
Great Britain	83,000		0.3%

Source: ONS Annual Business Register and Employment Survey 2014

The table above shows total employment in the industry by region, the percentage of all aerospace employment in each region and the percentage of total employment accounted for by the aerospace industry in each region. In 2013:

- 83,000 were employed in the industry in Great Britain, 0.3% of all employment.
- 20% of aerospace employment was in the South West (17,000 people).
- 19% of aerospace employment was in the East Midlands (16,000 people).

2 Industry outlook

According to the Government the UK industry has “strong foundations” to grow. By 2032 it is estimated that worldwide more than 29,000 new large civil airliners, 24,000 business jets, 5,800 regional aircraft and 40,000 helicopters will be required. The UK specialises in the development and manufacture of some of the most complicated and high tech parts of modern aircraft, so this requirement means a potential market share of around \$600bn for the UK.³

The UK aerospace industry is expected to grow at a rate of 6.8% over the next few years. This is driven by a global growth in air traffic, which is expected to be at a rate of 4.7% per annum between now and 2030, meaning a doubling in air traffic in the next 15 years. CBI analysis indicates that just by maintaining our current market share, air traffic growth in Asia alone has the potential to contribute an extra £4.7 billion in UK exports annually in the next ten years, adding 20,000 high-value jobs.⁴

The ADS’ [Aerospace Industry Outlook](#), published in June 2014 reported that 68% of aerospace firms surveyed anticipated growth of greater than 10% over the next year, with many firms attributing this optimism to new export opportunities, particularly to the Middle-East, China and Latin America.⁵ Access to finance and a skilled workforce were identified by survey respondents as the two factors likely to inhibit future growth.

3 Government Policy

3.1 Overall Industrial strategy

In September 2012, the Business Secretary, announcing the Government’s new industrial strategy, identified the aerospace industry as a model example of a sector that had benefited from government assistance and collaboration.⁶

Broadly, the Coalition Government’s intervention in each industrial sector involves a high-level forum that brings together industry leaders and relevant senior Government figures to discuss barriers to growth and other issues specific to the sector; a commitment to the development of specific training institutions or initiatives within the sector and some match-funded financial commitments to certain aspects of the sectors. Further information on industrial strategy can be found in the Library note, [Industrial policy since 2010](#).

³ ADS, [New ADS data reveals 2013 a record year for commercial aerospace industry](#), 28 January 2014

⁴ BIS and ADS, [Lifting Off – Implementing the Strategic Vision for UK Aerospace](#) March 2013, p 15

⁵ ADS, [Aerospace Industry Outlook](#) June 2014, pp 7,8.

⁶ BIS press release, [Cable outlines vision for future of British industry](#), 11 Sep 2012

The aerospace sector employs high technology techniques is 'research intensive' and attracts a highly qualified workforce. The rest of the economy benefits from technology spin-offs from the aerospace sector, including radar, composite materials and jet engines.⁷

Successive governments have intervened in the aerospace sector partly because of the strategic importance of this sector but also due to the fact that government are a major buyer of defence related aerospace products and have therefore felt the need to ensure the success of the sector. Aerospace technologies are also expensive and require long term investment which is sometimes only available from government.

3.2 Aerospace Growth Partnership Group

In line with its general policy model, the high level forum for the industry is the [Aerospace Growth Partnership Group](#) (AGP). Formed in March 2011 and chaired by the Minister for Business and Enterprise, the role of the AGP is "to tackle issues affecting the competitiveness of the civil sector, to address barriers to growth, boost exports and grow the number of highly skilled jobs available in the UK".⁸

In July 2012, the Aerospace Growth Partnership outlined its strategy for the UK's aerospace industry; [Reach for the Skies](#), which assessed the future potential of the industry and outlined how the Government is going to work with industry to achieve this, looking at what technologies, skills, manufacturing and supply chain changes needed to be made.

3.3 UK Aerospace Technology Institute

As part of implementing *Reach for the Skies*, the Government announced on 18 March 2013 plans for a new UK Aerospace Technology Institute (ATI). The Government pledged funds of £1 billion over 7 years with matching funds from the industry.⁹

At the same time the Government and the Aerospace Growth Partnership Group published [Lifting Off – Implementing the Strategic Vision for UK Aerospace](#) setting out how they intended to implement the areas where the industry can build on its strengths to maintain the UK's position as the second largest aerospace manufacturer in the world.

The main elements are

Technology:

- Deliver the ATI
- Strengthen the links between industry and academia
- Maximise opportunities for UK industry to gain access to European programmes

Skills and Engagement:

- Build on the progress already made between industry, Government, Semta (the Sector Skills Council for Science, Engineering and Manufacturing Technologies) and UK Commission for Employment and Skills (UKCES) to help secure the next generation of talent for aerospace

⁷ BIS, [Learning from some of Britain's successful sectors: an historic analysis of the role of government](#), March 2010, pp 164

⁸ BIS, [Aerospace growth agenda](#)

⁹ HC Deb 18 March 2013 c cc31-2WS

Manufacturing:

- Embed world-class manufacturing processes and systems throughout the supply chain
- Develop the aerospace Manufacturing Accelerator Programme (MAP)

Supply Chain Competitiveness:

- Develop a more strategic approach with UKTI to identifying and pursuing opportunities in overseas target markets and enable more strategic targeting of inward investment opportunities
- Tackle access to finance issues through the newly created Aerospace Finance Forum

The ATI is led by independent chair Stephen Henwood and is headquartered at the Cranfield Technology Park.¹⁰

3.4 Repayable Launch Investment

As part of the strategy for improving access to finance, the Government continue to provide investment to support the development and design of UK civil aerospace projects through [Repayable Launch Investment](#). The policy allows the Government to invest in civil aerospace projects that are unable to access finance through traditional means. The scheme is entirely discretionary and there is no set budget. Current commitments total £535 million as of 2012. Repayable launch assistance is subject to EU State Aid Rules.¹¹

3.5 Supporting aerospace exports

The Government supports aerospace exports mainly through the UK Trade and Investment Defence and Security Organisation (DSO) and UK Export Finance.

The UK Trade and Investment Defence and Security Organisation (DSO) aims to help UK companies export by building relationships with overseas customers, providing “the essential government to government interaction”, and working closely with UK industry and Government departments to promote the UK’s security industry brand. The DSO operates three regional directorates.¹²

[UK Export Finance \(UKEF\)](#) is the “UK’s export credit agency”. The body provides insurance to exporters and guarantees to banks in order to share the risk of financing UK exporters. The body also provides loans to foreign companies seeking to buy goods and services from UK companies.

As an important exporting industry, aerospace has benefited from support from UKEF. In 2013/14, UKEF issued guarantees for the aerospace industry of £961 million. This helped to support the delivery of 95 aircraft to 22 companies. UKEF provided support for 15% of all aircraft delivered by Airbus.¹³

¹⁰ ADS, [First Chair appointed for £2 billion Aerospace Technology Institute](#), 19 February 2014

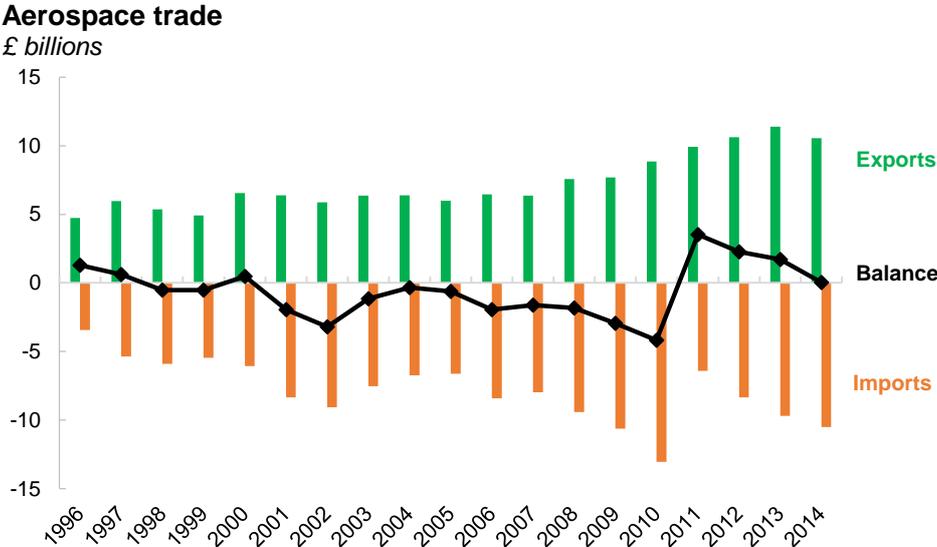
¹¹ [HC Deb 16 April 2012 c269W](#)

¹² UKTI, [About UKTI DSO](#)

¹³ UKEF, [Annual report and accounts 2013/14](#), p 14

4 Aerospace trade

The following chart illustrates UK trade in aerospace (defined in this instance as the trade in aircraft & associated equipment; spacecraft (including satellites) & spacecraft launch vehicles; parts thereof).¹⁴



In 2014, UK aerospace exports were worth £10.5 billion and imports were worth roughly the same. There was a small trade surplus.

Between 2011 and 2014 there has been a small surplus in aerospace trade (meaning the value of exports exceeded the value of imports). This is in contrast to the period 2001 to 2010 when there was a small trade deficit.

The aerospace industry involves a considerable trade in parts, which are then assembled into other parts, which are in turn traded so that they can be assembled into larger parts and ultimately the whole aircraft. Value is added to the products traded at each stage of the production process.

5 Companies in the aerospace industry

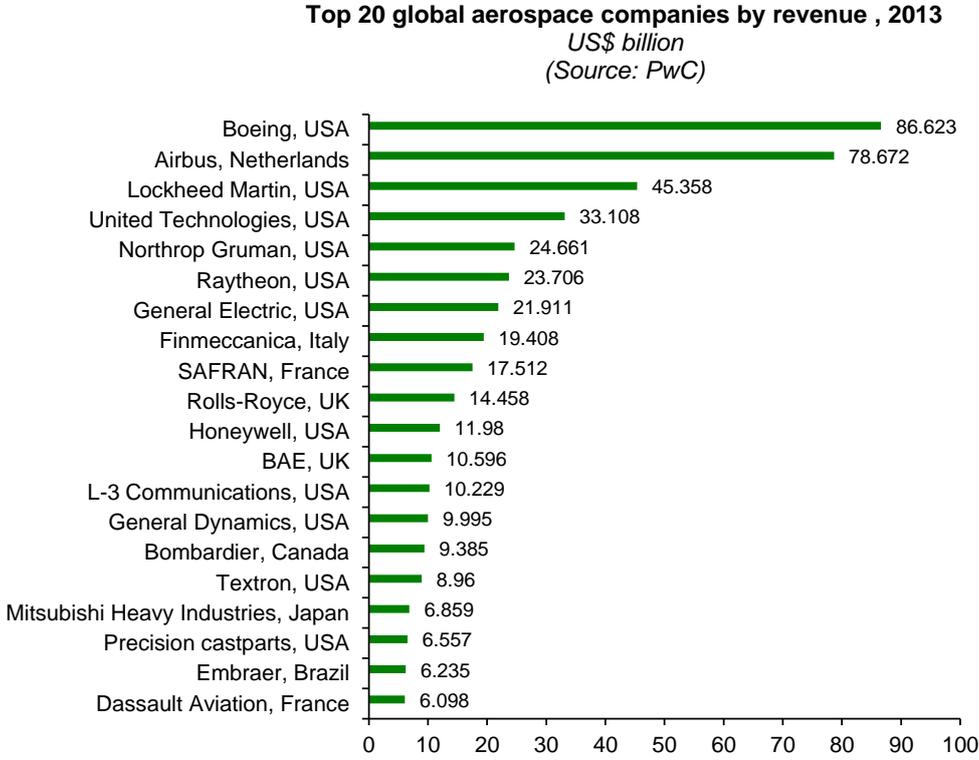
The aerospace industry is dominated by major companies in the USA and Europe. Boeing and Airbus are by far the largest companies with annual revenues in 2013 of \$86 billion and \$78 billion respectively.¹⁵ UK companies Rolls-Royce and BAE are 10th and 12th in the world in terms of total revenue.

In September 2012, it was [announced](#) that the two leading aerospace companies in Europe BAE and EADS were in discussions about a possible merger.

¹⁴ UK Trade Info
¹⁵ PwC [Top 100 aerospace companies 2014](#)

BAE is the second largest aerospace and defence manufacturer in the UK employing 34,800.¹⁶ EADS is the largest aerospace and defence manufacturer in Europe, the second largest in the world and employs 15,000 in the UK.¹⁷

However on 10 October 2012, BAE and EADS announced that they had decided to end their discussions over a possible merger. In a joint statement the companies said that “it has become clear that the interests of the parties' government stakeholders cannot be adequately reconciled with each other or with the objectives that BAE Systems and EADS established for the merger”.¹⁸



6 Further information

House of Commons Library, [Manufacturing: policy and statistics](#)

House of Commons Library, [Industrial Policy since 2010](#)

Parliamentary Office of Science and Technology note, [Advanced Manufacturing](#), September 2012

Department for Business, Innovation and Skills, [Industrial Strategy](#)

Aerospace Growth Partnership

- [Reach for the Skies: a Strategic Vision for UK Aerospace](#), July 2012

¹⁶ BAE, [Where we operate](#)

¹⁷ EADS, [EADS in the United Kingdom](#)

¹⁸ BAE press release, [BAE Systems and EADS end discussions regarding possible combination](#), 10 Oct 2012

- *Lifting Off – Implementing the Strategic Vision for UK Aerospace*, March 2013

ADS, *UK Aerospace Sector*

Deloitte *Global Aerospace and Defence Outlook*, 2014

UK Export Finance *Business Plan and Strategy 2014-17*