35. United Kingdom

Institutional framework

The United Kingdom is the fourth-biggest contributor to the European Space Agency (ESA), after Germany, France and Italy. The country has a strong space-related scientific and industrial base, particularly in satellite manufacturing and downstream applications. The development of the space sector is today considered an important part of UK industrial policy, with the expressed objectives to reinforce private sector research, support foreign trade and strengthen national and international public space organisations. This could be accompanied by an increase in government allocations from 2014 onwards (UK Space Agency, 2014).

The UK Space Agency is an executive agency of the Department for Business, Innovation and Skills (BIS) and the main government body responsible for civil space policy in the United Kingdom. The Agency represents the United Kingdom at ESA and co-ordinates and funds national research projects. The 2013 budget (fiscal year 2013-14) of the UK Space Agency amounted to GBP 308 million (USD 481 million), with GBP 53 million (USD 83 million) devoted to national programmes, and GBP 251 million (USD 392 million) allocated to the European Space Agency. In addition, the United Kingdom allocated about GBP 30 million (USD 50 million) to the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT). ESA allocations constituted 81% of the total space-related budget in 2013. The national programmes focus on research and industry support to public and private institutions and companies. When adjusted for inflation, the UK space-related budget increased by 17% between 2007 and 2013, with the allocations to ESA and to national support programmes increasing by 16% and 13% respectively.

UK space industry

There were about 230 organisations active in the UK space sector in 2013, located mostly in the south-eastern part of the country and London. In addition, the European Centre for Space Applications and Telecommunications (ECSAT) is a newly established European Space Agency facility in Harwell, near Oxford, which is aiming to become an important hub for space activities and business. Aside from a strong scientific community involved for decades in many major international space science projects, the UK research institutions and companies have developed early expertise in satellite and instruments manufacturing (e.g. small satellites). This is still an important sector in the industry, although downstream services provide the bulk of commercial activities. Eurospace's annual business survey, limited in scope to industry space manufacturing activities, counted for instance some 3 612 employees in 2013, although this does not into account many other actors involved in UK space activities. Like for other countries, UK universities and research institutions provide key competencies. The 2011 business survey of the UK Space Agency uses a wider definition of the space economy (upstream and downstream activities) and found that 29 000 people were employed in space-related activities (UK Space Agency, 2012). In terms of turnover, the telecommunications sector dwarfs the other industry segments, with major UK operators providing mobile satellites services (e.g. Inmarsat) , and large media groups providing satellite television broadcasting services to customers (e.g. BskyB).

Notes

35.1 and 35.2: United Kingdom's fiscal year runs from 1 April to 31 March, and EUMETSAT estimate for 2013.

35.3: Several kinds of multi-annual adjustments and other mechanisms of the ESA financial system affect yearly comparisons. ESA budgets and national allocations to ESA will not necessarily add up.

Key facts for the United Kingdom

Space budget as a share of GDP (2013): 0.0146%.

Space budget per capita (2013): USD 5.3 (PPP).

Number of regional clusters including space industry: 1 (Harwell).

Share in scientific production in satellite technologies (2013): 7.22%.

Share of space-related patent applications filed under PCT (2009-11): 2.62%.

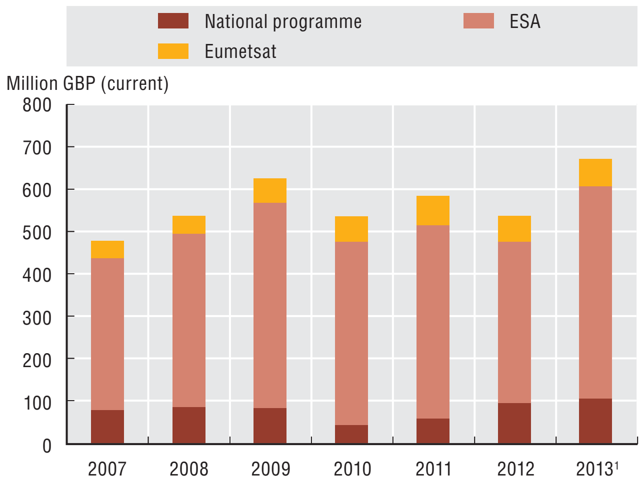
Subscribers of Direct-to-home (DTH) satellite services (2011): 11.2 million (42.64% of television households).

Number of operational satellites: 25.

Student performance in science (PISA 2012 mean score): 514 (above the OECD average).

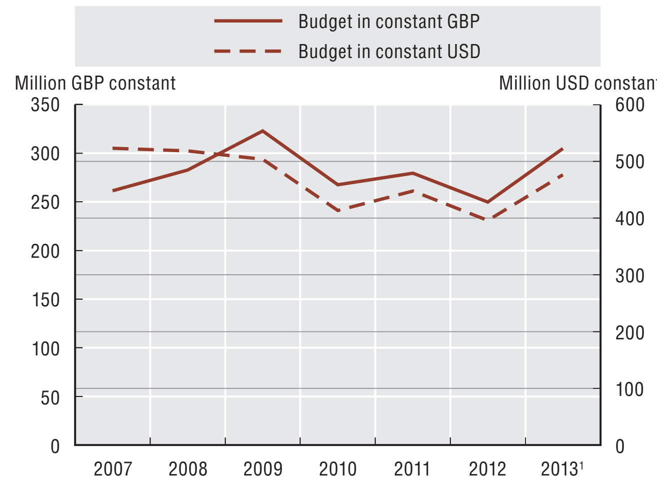
35.1. United Kingdom's space budget

In million GBP (current), 2007-13



35.2. United Kingdom's inflation-adjusted space budget

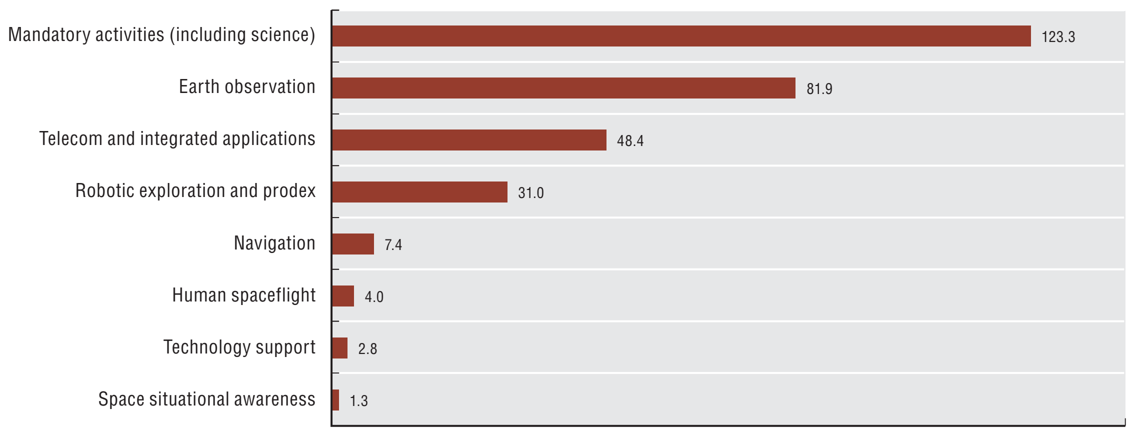
In constant GBP and USD million, 2007-13



Source: OECD calculations based on UK Space Agency, 2014 and previous years.

35.3. United Kingdom's ESA allocations by main programmes

In million EUR (current), 2013



Source: ESA, 2013.

UK aerospace industry

The UK aerospace sector may consist of more than 3 000 firms, according to the UK aerospace industry association with civil aerospace generating GBP 22.1 billion (USD 35 billion) in revenues in 2011, employing more than 100 000 people (ADS, 2012). Manufacturing sites are spread across the country, with companies located in the North-west, East Midlands, Wales, the Southwest and the South-east. Key competence areas of the UK aerospace industry include wing design and assembly, propulsion and avionics. In 2012, the UK exported aerospace goods for a total value of USD 34 billion, and imported goods for USD 26 billion. Main trading partners were the United States, Germany, France and Canada.

Sources

ADS (2012), UK Aerospace Survey 2012, London.

Eurospace, *www.eurospace.org*.

OECD *STAN Bilateral Trade Database by Industry and End-use (BTDIxE)*, data extracted April 2014, *www.oecd.org/sti/btd*.

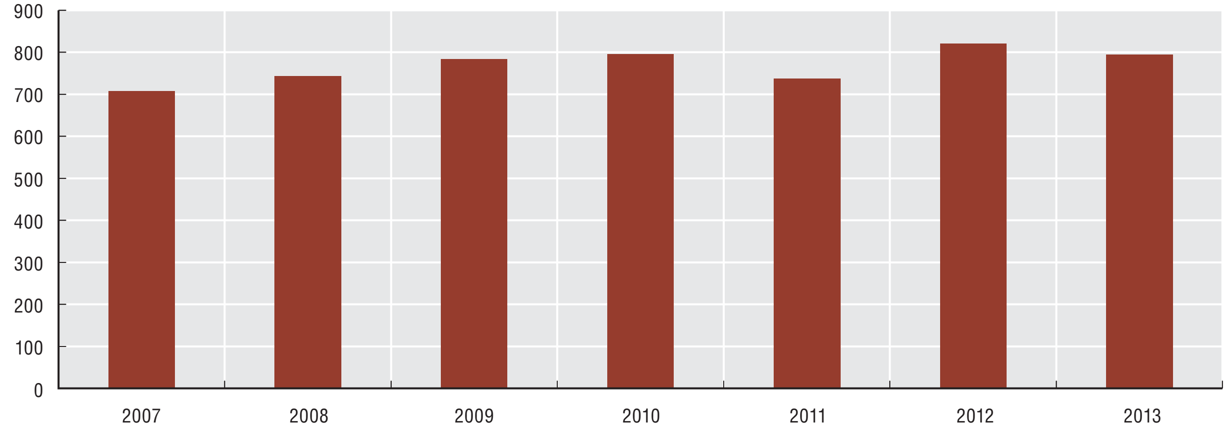
OECD, *Main Science and Technology Indicators database*, *www.oecd.org/sti/msti*.

UK Space Agency (2012), The Size and Health of the UK Space Industry, October.

UK Space Agency (2014), Government Response to the UK Space Innovation and Growth Strategy 2014-2030: Space Growth Action Plan, April, Swindon.

35.4. Space manufacturing industry employment in the United Kingdom

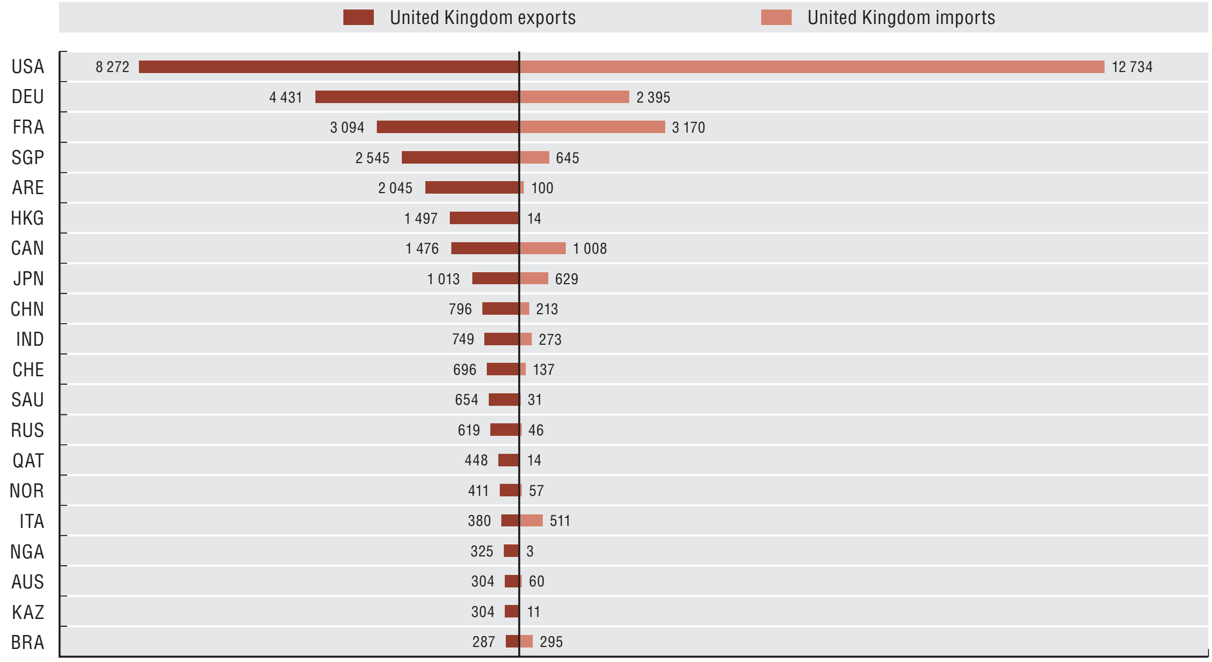
Number of full time equivalents, 2007-13



Source: Eurospace, 2014.

35.5. United Kingdom's main aerospace trade partners

In million USD (current), 2012



Source: *OECD STAN Database*, 2014, *www.oecd.org/sti/btd*.

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