

UK Defence & Security Export Statistics for 2017

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SUMMARY

This statistical release comprises UK defence and security export performance data and analysis. The release principally focuses on 2017 data, but includes historic data for context and trend analysis purposes.

UK defence export information is based upon data provided by several hundred UK companies via DIT DSO's voluntary survey of defence export contracts. Rest of the World data is derived from open source reporting of other countries' defence export contracts.

Security sector data is compiled by Frost & Sullivan and counts sales of security equipment and services.

This is the fifth year that the Department for International Trade Defence and Security Organisation (DIT DSO) has published defence and security export figures as "Official Statistics". This release has been compiled in conjunction with the DIT Statistics team, whose technical advice and support is acknowledged here.

Our defence statistics relate to sales to overseas Ministries of Defence and associated Armed Services.

Our security figures relate to sales. Security data is provided by a contractor called Frost & Sullivan (F&S), under a multi-year contract to DIT DSO. Data is aligned with HMG's seven Security Export Strategy capability areas: Critical National Infrastructure (CNI) Protection; Cyber Security; Policing and Counter-Terrorism (CT); Major Event Security; Border Security; Offender Management, and Services (including Consultancy, Training, Guarding and Risk Analysis).

Separate methodology papers for the defence and security statistics accompany this release on the gov.uk website.

All the information collected on the defence and security markets is vital to our understanding of the shape of the market and trends. It helps DIT DSO target support to the defence and security industry.

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Summary

- On a rolling ten year basis, the UK remains the second largest global defence exporter.
- In 2017, the UK won defence orders worth £9Bn, up on the previous year's (£5.9Bn) and further illustrative of the "volatile" nature of the global export market.
- The UK share of the global defence export market was estimated at 12% in 2017. The UK's largest defence export markets were the Middle East, North America and Europe.
- In 2017, the value of UK Security export sales was £4.8Bn, an increase from 2016 (£4.3Bn) moving the UK upwards from 5th to 4th largest exporter.
- The UK's largest Security export markets were Europe, Asia-Pacific and the Middle East.

The global defence export market in 2017 is estimated to be valued at close to \$98Bn, the biggest it has been in the past decade. It is a significant total given the impact of global economic uncertainties post-2014 that included volatility in the oil price and currency devaluations. The increased global defence export market total reflects on-going strategic threats/uncertainties and rising prices. Despite fiscal constraints, defence expenditure has been heavily augmented by off budget funding but some projects have been delayed.

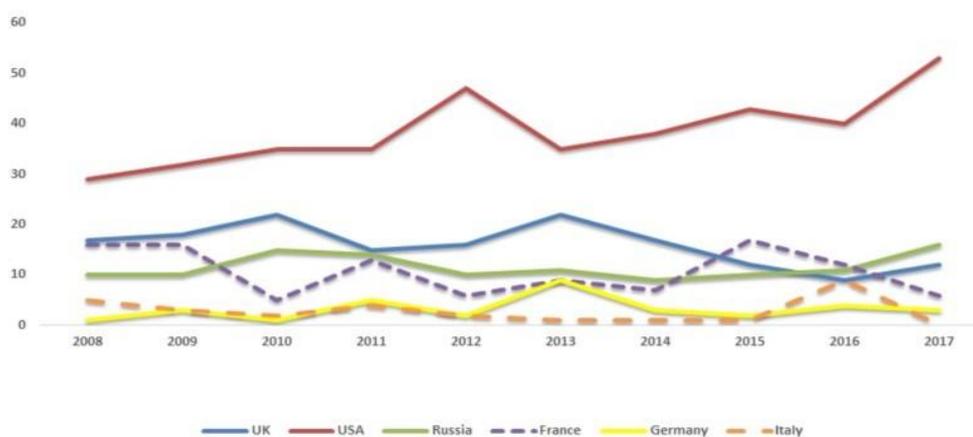
UK defence exports in 2017 were worth £9Bn (\$11.5Bn), up 53% on the 2016 total. UK market-share is estimated at 12%. The UK's strong performance equates to a 3rd-placed ranking globally, up from fourth in 2016, and is a considerable achievement. This reinforces comments we made previously regarding inconsistent levels of defence export business and that a multi-year rolling measure of performance (for example, ten years) is a more reliable metric for evaluating performance than single year figures. On a rolling ten year measure the UK stands in second place.

In the global security export market, the UK achieved export sales of £4.8Bn in 2017 (compared with £4.3Bn in 2016), a global ranking of fourth, the highest it has been and continuing the upward trend. UK security exports continue to experience strong growth (up 12% in 2017) in a highly competitive global market and lower barriers to entry in some sub-sectors of security. In overall terms, there is less fluctuation in security export business values, which are not as exposed to the extreme swings in business as defence, and where there is a smoother trend-line. Although behind the USA (the market leader) and China and Japan, the UK is significantly the highest placed European exporter ahead of France, Germany and Italy. The UK brand

remains very strong around the world and there are plenty of opportunities to pursue in this growing market, particularly the continued exploitation of UK industry expertise in Cyber, Border Security and CNI.

Chart 1: Line chart highlights UK and Competitor estimated defence export market-shares for the past decade, providing a good barometer of the competitiveness of the leading exporters in the global market.

Chart 1: Defence Exports: Estimated UK & Competitor Percentage Market Shares (2008 to 2017)



Source: DIT DSO

This chart highlights UK and Competitor estimated defence export market-shares for the past decade, providing a good barometer of the competitiveness of the leading exporters in the global market.

The most obvious point to note is that the USA (top solid red line) has annually achieved the highest estimated percentage of the global defence export market between 2008 and 2017. As background, in 2007 the UK displaced the USA as the number one exporter, achieving a market-share estimated at 33%, whilst the USA had an estimated 27%.

The UK (solid blue line) and France (broken purple line), with their similar sized industries and equipment portfolios for export, have historically vied with Russia (solid green line) for 2nd or 3rd place, trying to close the gap with the USA.

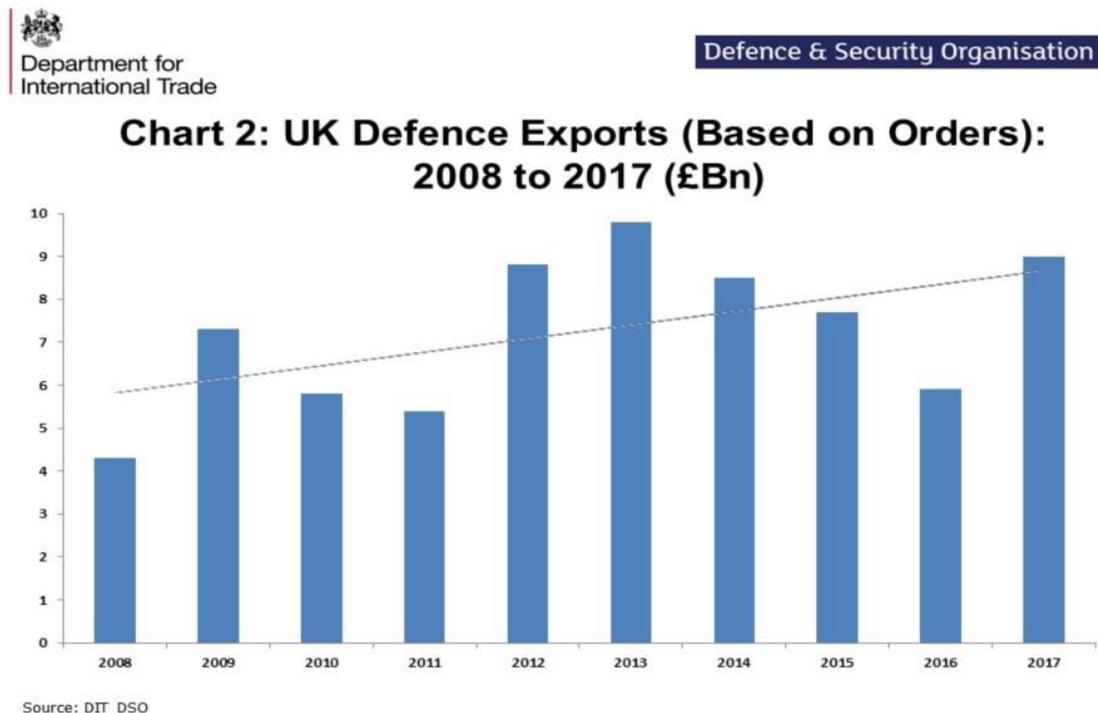
In 2017, the USA achieved its highest market-share ever, estimated at 53%, reflecting consistent sales across all sectors. Russia defence exports equated to an estimated market-share of 16%. We estimate the UK market share at 12%, double that of France (6%).

Italy (broken orange line) has traditionally enjoyed a relatively steady level of defence exports, a flat trend line, but in 2016 it won a large naval contract that was of sufficient

value to propel it into 6th place for the ten-year period. However, its performance in 2017 was weaker in comparison, and its market-share restored to its usual lower level.

Germany (solid yellow line) saw its estimated market-share peak at 9% in 2013 but since then exports (and consequently market-share) have fallen.

Chart 2: Bar chart showing the annual value of UK defence exports 2008 to 2017



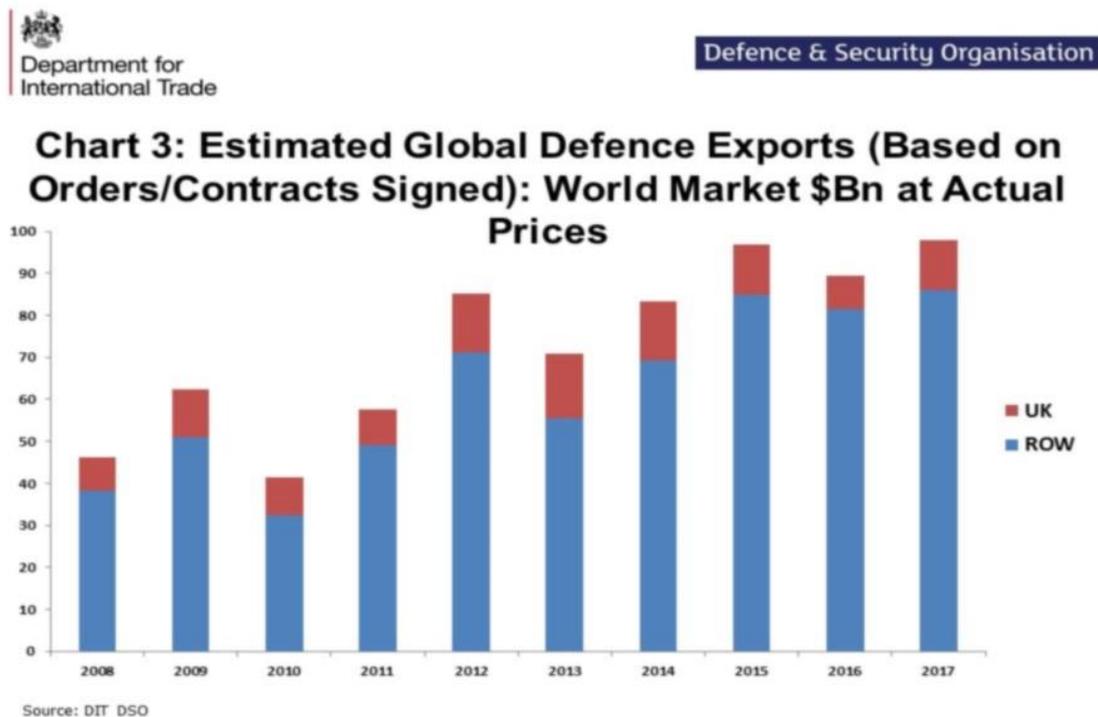
This bar chart shows annual totals for UK defence exports during the past decade, with peaks and troughs clearly visible; a trend-line has been added.

The UK is one of the world's most successful defence exporters, averaging second place in the global rankings on a rolling ten-year basis, making it Europe's leading defence exporter in the period.

The UK won a number of air contracts in 2017, including numerous F-35 sales throughout 2017 to the USA, Rolls Royce engines for Multi Role Tanker Transport (MRTT) aircraft to Germany and future capability components to Turkey.

As we reported previously, the UK has won significant defence orders during the past decade, including Typhoon aircraft to Kuwait, Hawk aircraft to Oman, Typhoon aircraft to Saudi Arabia, Hawk aircraft to India, Helicopters to Norway and South Korea, Trent 700 engines to France, Offshore Patrol Vessels (OPVs) to Brazil, F-35 work and bridging (USA), and Minehunters to Estonia.

Chart 3: Bar chart showing the annual value of global defence exports 2008 to 2017, including split between UK and rest of the world exports



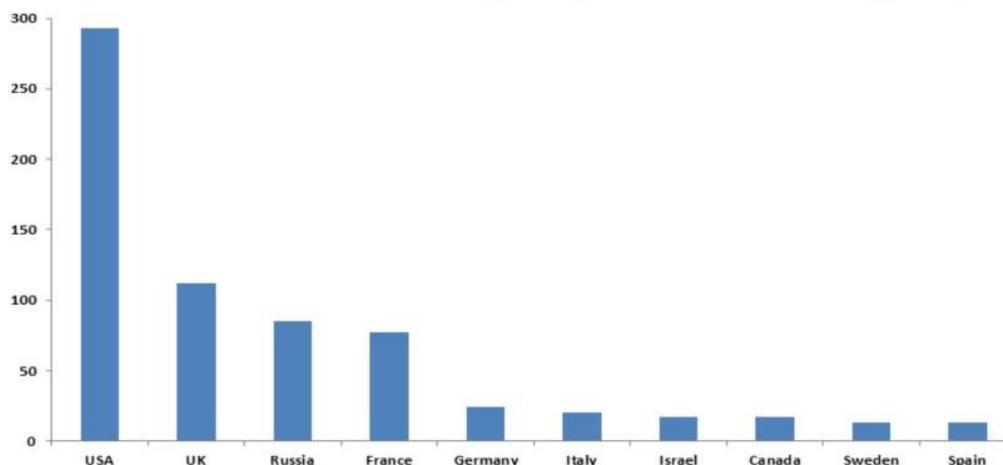
As we reported previously, year-on-year, the global defence export market experiences peaks and troughs in response to fluctuations in defence spending levels, threat perception and national requirements.

The global defence export market in 2017 is estimated to be worth around \$98Bn, the biggest during the past decade.

Selected major global defence export deals in 2017 included: the USA's sale of 36 F-15QA aircraft to Qatar (\$6Bn) and F-35 aircraft to Australia (more than \$7.7Bn); Russia's sale of the S-400 Missile Defence System to NATO-member Turkey (\$2.5Bn); Germany's sale of two Type 218SG submarines to Singapore (\$1.8Bn), and France's sale of 12 Rafale fighter jets to Qatar (\$1.3Bn).

Chart 4: Bar chart showing the estimated value of the top ten defence exporters 2008 to 2017

Chart 4: Estimated Top Ten Defence Exporters (Based on Orders/Contracts Signed): 2008 to 2017 (\$Bn)



Source: DIT DSO

This chart shows that for the most recent ten-year period (including 2017 performance), the UK retained its position as the second largest defence exporter globally.

The UK is also Europe's leading defence exporter ahead of Russia (3rd) and France (4th). French defence exports fell sharply in 2017 with only one Rafale deal, their export figures largely comprising helicopter and missile sales.

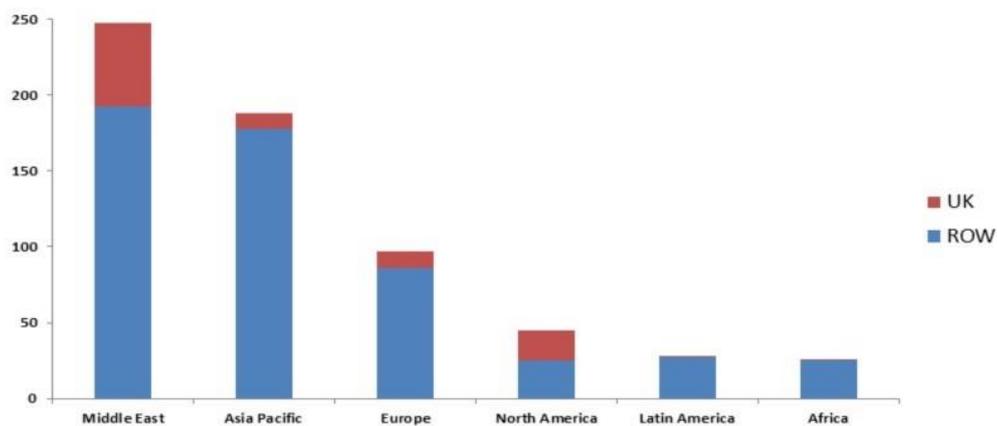
The USA remains the world's pre-eminent defence exporter, having secured more than double the exports (by value) of second-placed UK.

In last year's release, we commented that Italy had moved up from 8th to 5th place displacing Germany from its longstanding Top Five position, principally benefitting from strong Naval exports globally. During 2017, Italy dropped to 6th place and Germany improved its position coming in at number five, with exports including submarines to Singapore. Spain dropped in the rankings to 10th place with Sweden moving up to 9th.

There are no Latin American or African countries in the Top Ten global defence exporters list, and the Middle East is represented by just one nation, Israel, ranked 7th.

Chart 5: Bar Chart showing the estimated value of defence Import procurement by region 2008 to 2017, including the split between UK and rest of the world exports to each region

Chart 5: Estimated Defence Import Procurement By Region (Based on Orders/Contracts Signed): 2008 to 2017 (\$Bn)



Source: DIT DSO

As can be seen from this 2008 to 2017 regional importers chart, the Middle East is the largest regional importer of defence equipment & services, the same as reported last year.

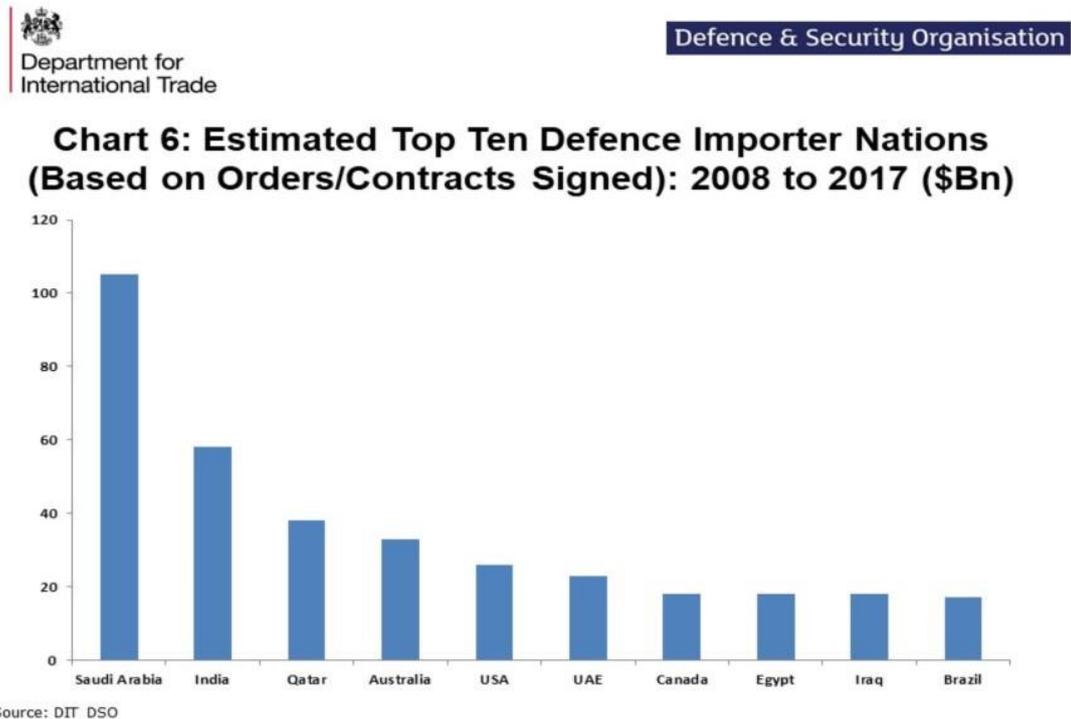
Saudi Arabia, Qatar and UAE are major national importers. The UK, USA and France are the major suppliers to the region.

The Asia-Pacific region has seen increased defence import activity in recent years, particularly in the aerospace and naval sectors. The UK has won major defence business in the region, including in 2013 when AgustaWestland (now Leonardo Helicopters) won an AW159 helicopter contract with South Korea.

Europe is the third biggest regional importer, with American and European companies winning business.

The UK is Europe's most successful exporter to the USA.

Chart 6: Bar chart showing estimated value of the top ten defence importers 2008 to 2017



This chart shows the estimated Top Ten defence importers globally for 2008 to 2017.

The leading three global importers (Saudi Arabia, India and Qatar) are the same as for the period 2007 to 2016.

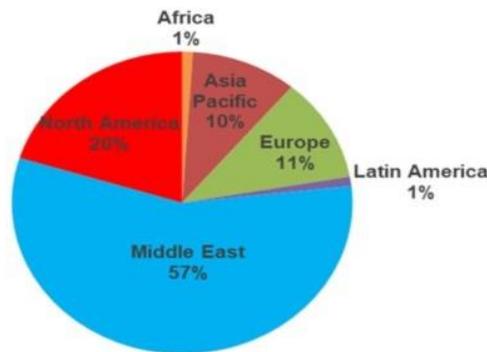
Australia and the USA have swapped places. The UK is not shown on the chart, as it was the 11th biggest defence importer in the period.

The Middle East dominated global defence imports in the 2008 to 2017 period, with Saudi Arabia the world's biggest defence importer, the same position it held in the 2007 to 2016 period.

Brazil, in tenth place, is Latin America's biggest regional importer, despite having a strong indigenous defence industry.

Chart 7: Estimated Total UK Defence Exports (Based on Orders/Contract Signed) by Region (2008 to 2017)

Chart 7: Estimated Total UK Defence Exports (Based on Orders/Contracts Signed) by Region (2008 to 2017)



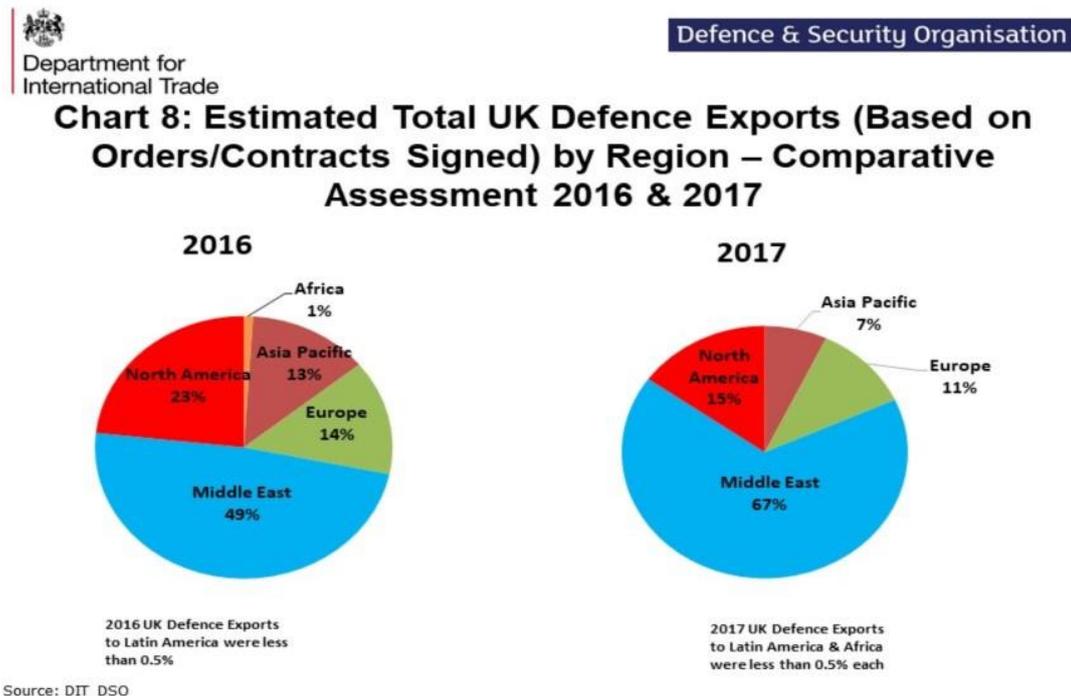
Source: DIT DSO

This pie chart shows UK defence exports by region between 2008 to 2017.

The Middle East is the dominant UK defence export destination (close to 60%). This reflects the continued importance of the market to the UK and confirms the high levels of defence expenditure made by this region. Despite oil price volatility, most countries in the region were able to sustain defence expenditure levels. However, a few competitor nations experienced a dip in sales in 2017, owing to some procurements being deferred.

North America accounted for almost one fifth of total UK defence exports by customer region, making it the second largest region for UK defence exporters globally. Europe and the Asia-Pacific were the next biggest regions for the UK.

Chart 8: 2 x pie charts comparing the estimated percentage share of UK defence exports by region for the periods 2016 & 2017



These pie-charts depict the regional breakdown of UK defence exports in 2017 with 2016 provided for comparative purposes.

As can clearly be seen, UK defence exports were greatest by value in the Middle East region for both years.

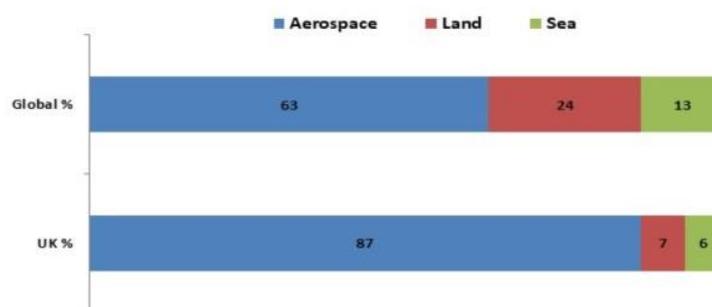
The value of exports to most regions in 2017 remained at similar levels to 2016 but the shares have been squeezed by the high value of exports to the Middle East last year.

In 2017, North America represented 15% of total UK defence exports, down from 23% in 2016 but values were comparable.

UK defence exports to Europe in 2016 accounted for 14% of total defence exports (up from 8% in 2015) and amounted to 11% in 2017. The Asia-Pacific region, previously 13% in 2016, dropped to 7% in 2017. UK defence exports to Africa and Latin America were less than 0.5% each in 2017.

Chart 9: 2 x bar charts showing the percentage share of UK and global defence exports by sector for 2008 to 2017

Chart 9: UK and Global Defence Export Market (Based on Orders/Contracts Signed) by Sector 2008 to 2017



Source: DIT DSO

This chart depicts Global and UK defence export performance by sector across the 2008 to 2017 period based on orders/contracts signed.

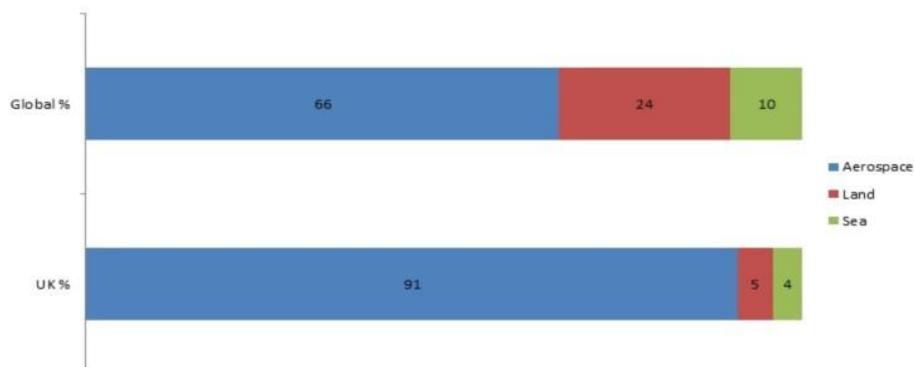
As is evident from the top bar (the Global % position), the Aerospace sector by value accounted for almost two thirds of all defence exports. This is unsurprising given the fact that high value combat aircraft, transport aircraft, trainer aircraft and attack and transport helicopters reside in this domain. The Land sector accounted for almost a quarter of all defence exports globally and has been on the rise. The Sea sector is the lowest sector globally by value.

The lower bar on the chart provides specific detail on the UK. The UK is dependent on its aerospace sector, including platforms, equipment and support. The UK is renowned globally as a leader in air sector technology and exploiting that capability. This strength is vital to securing the high value export opportunities in growth markets where securing air superiority is, and is likely to remain, a key priority for many nations. UK Land exports overtook Sea exports in the period. There is headroom in these sectors that UK companies could potentially exploit, particularly given the innovative and technological solutions developed by UK industry, and market opportunities already pursued by competitors.

It is worth noting that the competitor portfolios of major competitors to the UK, such as the USA and France, appear slightly less unbalanced than the UK's, and therefore these supplier nations are less exposed to sector fluctuation.

Chart 10: 2 x bar charts showing the percentage share of UK and global defence exports by sector in 2017

Chart 10: UK and Global Defence Export Market (Based on Orders/Contracts Signed) by Sector 2017



Source: DIT DSO

This chart depicts Global and UK defence export performance by sector in 2017.

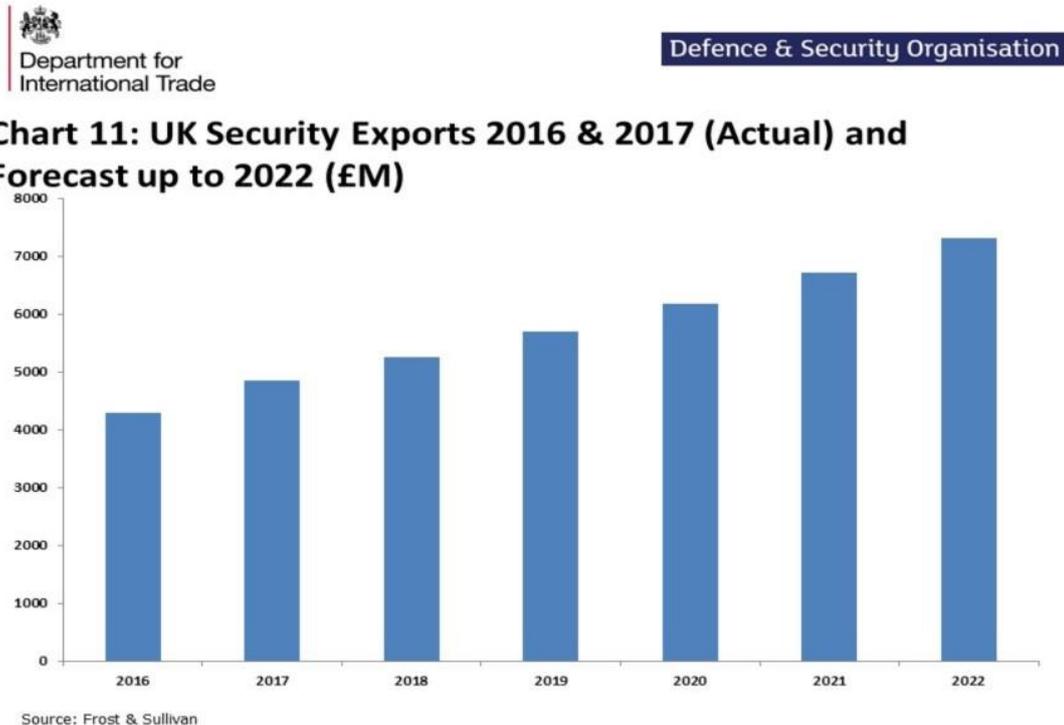
As is evident from the top bar, the Aerospace sector by value in 2017 accounted for two thirds of all defence exports globally; it was 60% in 2016.

The lower bar highlights the continuing significance of Aerospace to the UK, still the biggest sector by value, equating to 91% of total UK defence exports.

Major exports in the Sea Sector for the UK defence industry in 2017 included the Rolls Royce order for MT30 marine gas turbines to power the next three ships in the Republic of Korea Navy's Daegu-class frigate programme.

In the Land Sector, the Asia Pacific Region was the UK's biggest market with over £200M of orders.

Chart 11: Bar chart showing the annual value of UK security exports for 2016 & 2017 (actual figures) through to 2022 based on a forecast



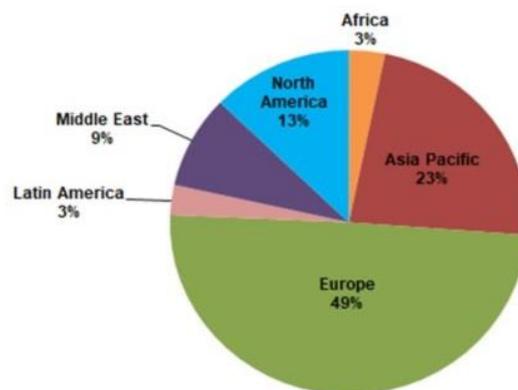
Information on UK security exports is provided by Frost & Sullivan (F&S) under a two-year contract to supply DSO with 2016 and 2017 calendar year data. The company's methodology is provided in a separate document published on the gov.uk website with this release.

According to F&S, UK security companies reported another strong set of export results. The 2017 total for UK security exports was £4.85Bn, compared with £4.3Bn in 2016, a 12% increase. The forecast for security industry exports is strong year-on-year out to 2022.

The UK Security industry continues to develop its export capabilities, producing best in class solutions that are highly regarded globally. The security market is fragmented with a variety of companies across the technology segments with large defence and security players and adjacent industries such as Information and Communications Technology (ICT) actively engaged. A large part of the market is made up of SMEs providing products and services across the technology segments and creating a big proportion of the revenue.

Chart 12: Pie chart showing the value of UK security export destinations by region in 2017

**Chart 12: UK Security Export Destinations By Region
(Based on Sales) for 2017**



Source: Frost & Sullivan

This pie chart illustrates UK security export customer destinations by region in 2017.

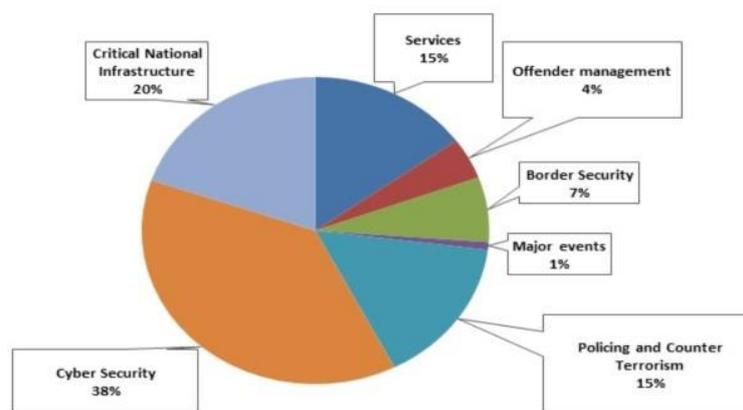
In contrast to Defence where the Middle East is the biggest regional destination for the UK, in Security it is the fourth biggest (9%).

The largest security destination for UK equipment and services is Europe, accounting for nearly half (49%).

The Asia-Pacific region was the second biggest destination for UK security equipment, accounting for almost one quarter of total UK security exports during 2017, nearly twice as large as that of UK security sales to North America.

Chart 13: Pie chart showing the value of UK security exports by product capability area in 2017

**Chart 13: UK Security Exports by Capability Area
(Based on Sales) for 2017**



Source: Frost & Sullivan

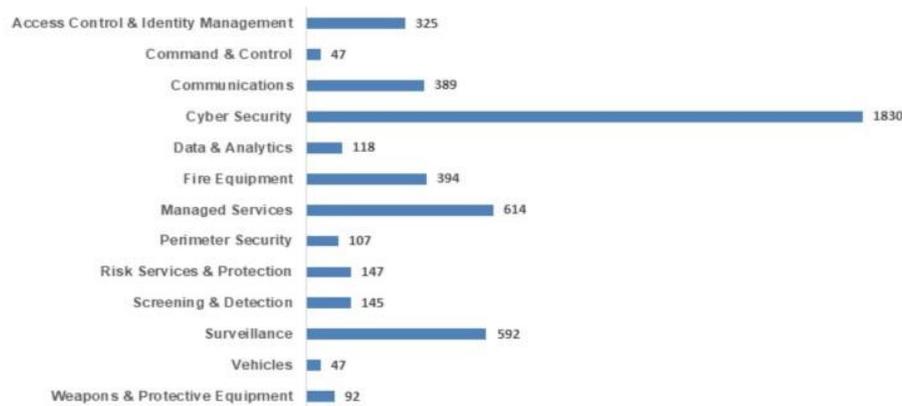
This chart shows UK security exports for 2017 (based on sales) segmented by HMG Security Export Growth Strategy capability area.

The Frost & Sullivan data shows Cyber Security to be the largest single security export category in 2017, just like it was in 2016; it is up from 34% to 38%. The UK cyber security exports figure for 2017 stands at £1.8Bn continuing year on year growth. Cyber growth reflects the rise in cyber threats and expansion in digital transformation across the global security network. According to F&S, the majority of cyber export revenue from the UK is attributable to the larger market players, who probably seek to consolidate the cyber security market.

The Managed Services sector was the next biggest by value in 2017 at more than £614M. Major successes for the UK in Offender Management include SERCO signing a contract for the New Grafton Correctional Centre in Australia. Surveillance (Camera's, Video Management Systems, Storage, Analytics, Networks, Sensors and Radars) was the third biggest technology segment in 2017 at more than £592M, a figure including the UK's Digital Barriers winning business in the USA.

Chart 14: Bar chart showing the value of UK security exports by product technology segments in 2017

Chart 14: UK Security Exports by Technology Segments 2017 (£M)



Source: Frost & Sullivan

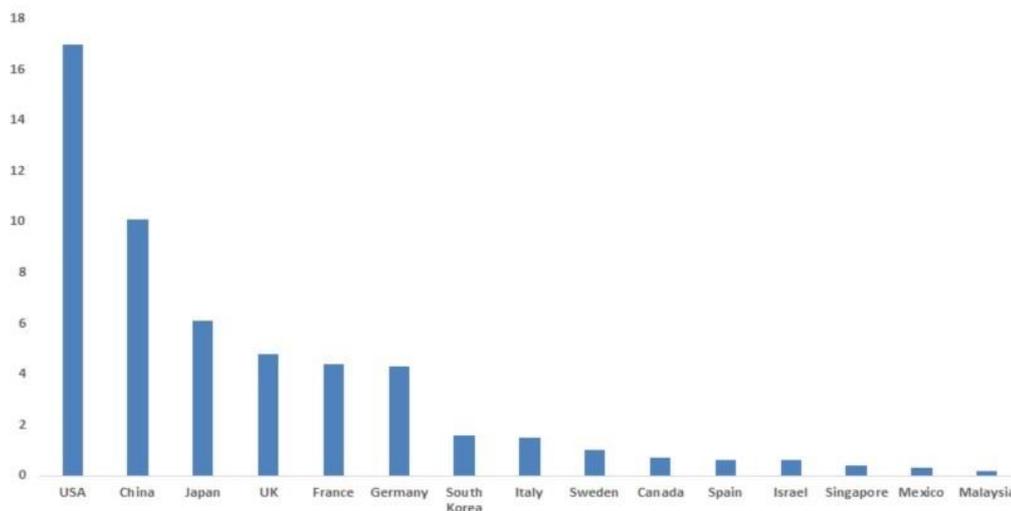
This chart shows the value of UK security exports in 2017 by F&S Technology Segments, aligned with the Security industry.

The UK Cyber Security segment is the largest technology area and, as highlighted earlier, worth £1.8Bn. Cyber Security is considerably larger than the next two highest ranked technology sectors by value, Managed Services and Surveillance. Cyber Security is forecast to grow at around 12% annually, remaining on an upward trajectory to 2022.

The value of Fire Equipment exports (nearly £394M) highlights another growth sector within the UK Security industry. In 2017, life safety specialist Kentec Electronics won contracts in Serbia (fire safety system to protect archives) and Malaysia (fire control panel for off-shore boat).

Chart 15: Bar chart showing the top global security exporting countries by value in 2017

Chart 15 - Global Security Exports by Country 2017 (£M)



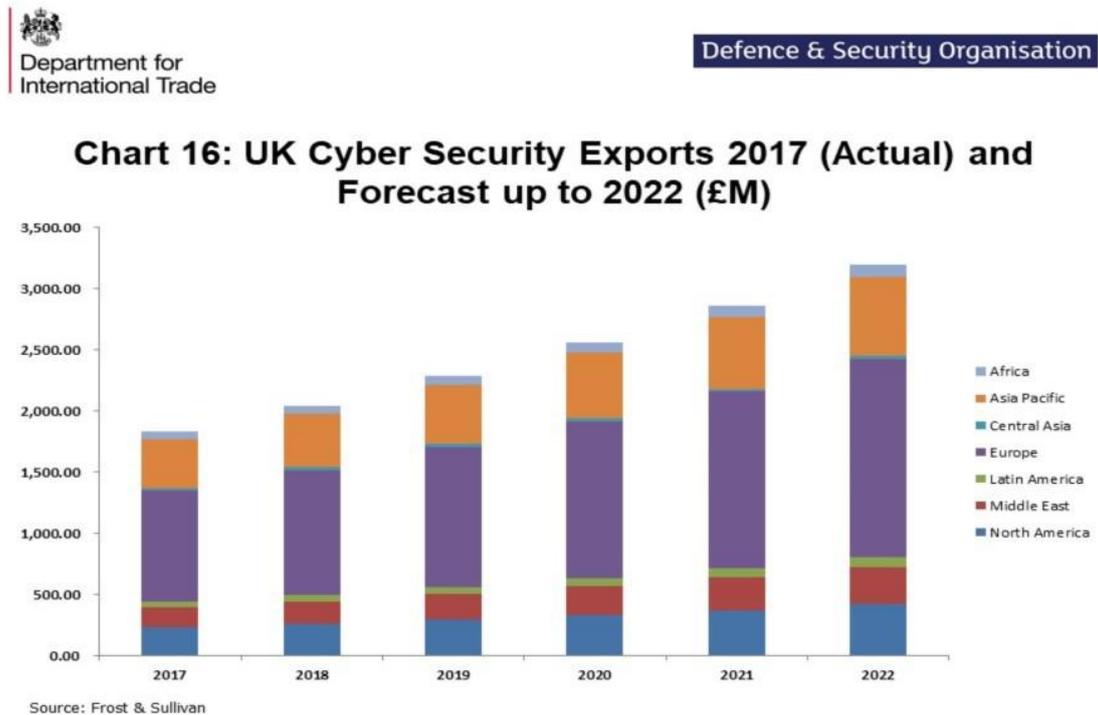
Source: Frost & Sullivan

Frost & Sullivan completed an assessment of the global security export market by country in 2017.

The total exports of goods and services was considered. An assessment of the industrial base for each of the technology segments by country was then compared to the UK. This gave a relative score of % of security exports of total exports. This was applied to the total exports to give a security export value. This has then been verified against the largest companies from each of the countries.

As can be seen from the chart, the UK is ranked fourth in 2017, the highest placed European nation, ahead of France, Germany and Italy, who all have strong industries. The USA is the world's biggest security exporter, just as it is in defence. China and Japan are the next two biggest security exporters, with the UK placed between Japan and France. Asia-Pacific countries feature heavily in the Top 15 global security exporters, with South Korea, Singapore and Malaysia, China and Japan in the listing.

Chart 16: Bar chart showing the annual value of UK cyber security exports for 2017 (actual figure) through to 2022 based on a forecast



This regional destination chart shows UK 2017 cyber security export data alongside the Frost & Sullivan forecast to 2022.

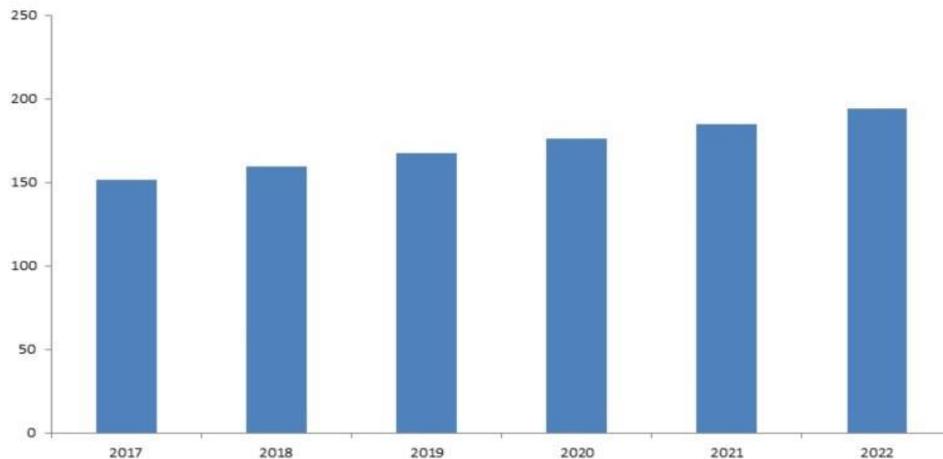
As can be seen, the Cyber Security sector is expected to experience rapid growth.

Europe and the Asia-Pacific regions are likely to remain the largest importers of cyber security solutions from the UK. China and India both invest heavily in security technology across cities and Critical National Infrastructure (CNI), so are likely to present opportunities for suppliers, including from the UK.

Whilst UK brands are strong in the USA, these are usually US registered companies with operations in country and so do not count as export sales.

Chart 17: Bar chart showing annual global security expenditure for 2017 (actual figure) through to 2022 based on a forecast

Chart 17: Global Security Expenditure 2017 to 2022 (£Bn)

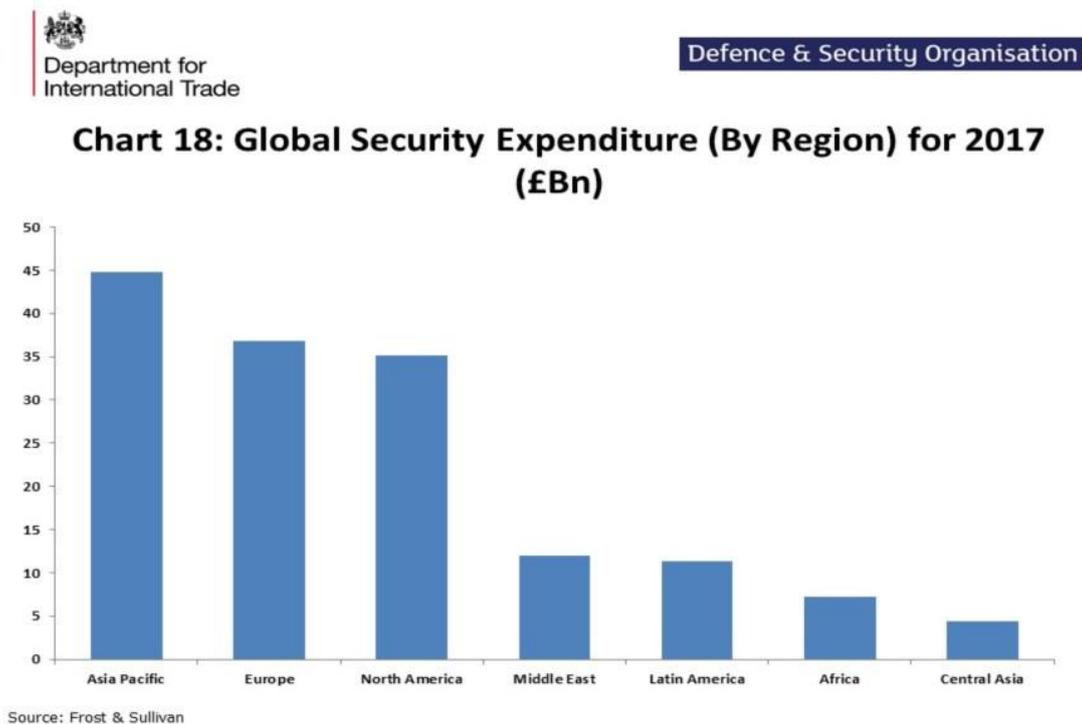


Source: Frost & Sullivan

According to Frost & Sullivan, the global security market is forecast to continue to grow at just over 5% annually. Cyber Security will grow quicker (12%) than the rest of the security market. The global Cyber Security market can be segmented by various industry verticals, out of which the adoption of security solutions is expected to be the highest in aerospace and defence, as the critical data and applications used are vulnerable to advanced Cyber threats. Emergency services investment will perform well due to upgrade cycles and new technology. CNI will be driven by new installations and upgrades, whilst lower growth in offender management is forecast.

Global security expenditure is forecast using Frost & Sullivan methodologies across a range of security segments. Each of these are tailored to consider the end user organisations and capture the specific market dynamics. The global forecast includes CNI, Border Security, Major Events, Policing & Counter Terrorism, Cyber Security and Offender Management. It does not include Services revenue.

Chart 18: Bar chart showing global security expenditure by region in 2017



This chart, based on Frost & Sullivan data, depicts global security expenditure by region in 2017. It is evident the Asia-Pacific region is the largest, with the key drivers in the region being China and India, who invest heavily in security technology across cities and CNI.

Europe is ahead of North America as the second largest region by expenditure, with increasing interest in and commitment to technological (digital transformation) solutions. The United States remains a large security market with large investment plans over the next three years, including border security and First Net (First Responder Network Authority).

Middle East expenditure remains high considering the size of region based on the continued threats and instability the area faces; Border Security will continue to experience increased investment.

NB. Frost & Sullivan security market size is forecast through a bottom up approach for each country which total up into an overall regional market size. This includes 192 countries across 7 regions.



Notes

This DSO statistical release contains UK defence and security export performance data and analysis. UK defence figures are derived from a survey of UK defence companies to capture new orders data. Rest of the World figures are derived from open source reporting and capture competitor contracts signed. Security export data is based on sales. It is not advisable to combine the defence and security export figures as they are recorded via a different methodology and report on a different metric (orders/contracts vs sales).

Where '\$' values are expressed for Rest of the World activity or Global totals, these are presented in U.S. dollars for consistency. Figures quoted are actual prices, not adjusted for inflation.

All figures are subject to revisions due to definitional and methodological changes that will be notified to users via the gov.uk website.

Regular users of our data will be aware that kMatrix provided security export data to DSO under a multi-year contract that expired 2015. Frost & Sullivan was awarded a two-year contract to supply security export data to DSO covering the 2016 and 2017 calendar years.