

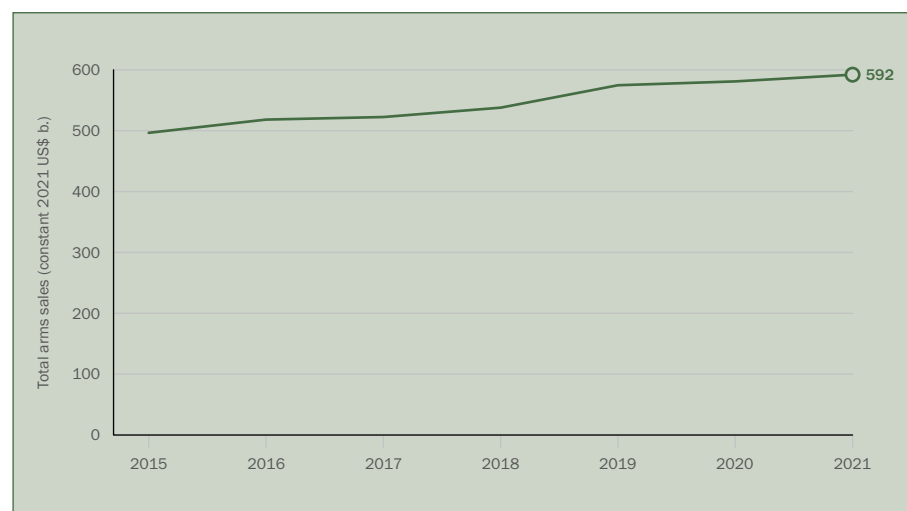
# THE SIPRI TOP 100 ARMS-PRODUCING AND MILITARY SERVICES COMPANIES, 2021

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The combined arms sales of the world’s largest arms-producing and military services companies (the SIPRI Top 100) were \$592 billion in 2021 (see annex 1).<sup>1</sup> This represents an increase of 1.9 per cent in their arms sales compared with 2020, when measured in constant 2021 United States dollars.<sup>2</sup> Arms sales by the Top 100 have been on an upward trajectory since at least 2015 (the first year for which SIPRI included Chinese firms in its ranking; see figure 1), and increased by 19 per cent in real terms between 2015 and 2021.

<sup>1</sup> ‘Arms sales’ are defined as sales of military goods and services to military customers domestically and abroad. For further detail see ‘About the SIPRI Arms Industry Database’ in this fact sheet.

<sup>2</sup> Arms sales (including 2020 figures) are reported in constant (2021) US dollars. Unless otherwise stated, changes are expressed in real terms.



**Figure 1.** Total arms sales of companies in the SIPRI Top 100, 2015–21

*Notes:* The data in this graph refers to the companies in the SIPRI Top 100 in the respective year (meaning that the data covers a different set of companies each year), except for 2020 and 2021, which refer to the set of companies listed in 2021. The series starts in 2015, the first year that SIPRI started to include Chinese companies.

*Source:* SIPRI Arms Industry Database, Dec. 2022.

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## KEY FACTS

- The arms sales of the SIPRI Top 100 arms-producing and military services companies totalled \$592 billion in 2021—an increase of 1.9 per cent in real terms compared with 2020.
- The effects of Covid-19 pandemic-related shutdowns and restrictions led to supply chain disruptions and shortages in components and labour, which impacted arms industry operations in 2021.
- The total arms sales of the 40 Top 100 companies head-quartered in the United States decreased by 0.9 per cent to \$299 billion in 2021.
- The combined arms sales of the eight Chinese companies listed in the Top 100 were \$109 billion—an increase of 6.3 per cent compared with 2020.
- The aggregated arms sales of the 21 companies in Asia and Oceania included in the ranking rose by 5.8 per cent to reach \$136 billion in 2021. This is significantly higher than the combined arms sales of the 27 companies in the Top 100 based in Europe, which totalled \$123 billion in 2021.
- Six Russian companies are included in the Top 100 for 2021, three fewer than were listed in the previous year, due to a lack of available data. The combined arms sales of these six companies grew by 0.4 per cent to reach \$17.8 billion in 2021.



The total figures for the Top 100 in 2021 mask significant regional disparities. Collectively, the arms sales of North American companies fell by 0.8 per cent (or \$2.3 billion), largely due to inflation and supply chain challenges related to the Covid-19 pandemic (see below). This decrease was offset by strong growth in other regions, particularly in Asia and Oceania, where Top 100 companies' arms sales rose by 5.8 per cent (or \$7.4 billion).

### SUPPLY CHAIN CHALLENGES LIMIT ARMS INDUSTRY GROWTH

The total arms sales of the world's 100 largest arms companies continued to grow in 2021, even though the arms industry as a whole faced supply chain problems throughout the year. In 2021 the consequences of public health measures implemented worldwide to curb the spread of Covid-19 continued to be felt across the global economy. The arms industry was not immune to these ripple effects, which included disruption to global shipping and a shortage of semiconductors—a key component of major weapon systems.

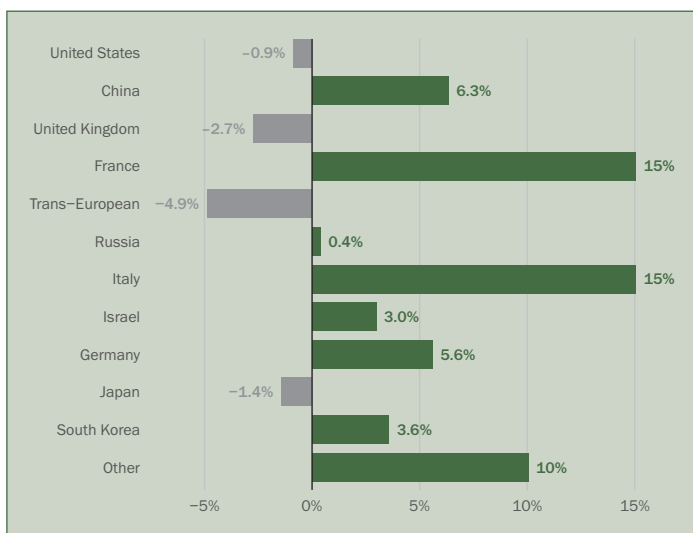
Supply chain issues such as these affected the arms sales of many companies in the Top 100, mainly because some expected sales that would have been registered in 2021 were either lost or postponed during the year. Raytheon Technologies (ranked 2nd), for example, stated in its annual report that the legacy challenges inherited from Covid-19 public health measures included delays in deliveries, as well as increases in costs of materials and components. In 2022 Raytheon Technologies also noted that it was experiencing delays in obtaining rocket motors for some of its military products. In its annual report, BAE Systems (ranked 6th) indicated that the pandemic had caused supply chain delays and disruption, limiting sales growth in

its electronic systems segment in 2021. Ultra Electronics Group (ranked 98th) reported that, due to supply chain disruption, some of the sales expected in 2021 did not take place until 2022. The company further highlighted 'chip shortages' as a problem.

All the arms companies in the Top 100 tend to have extensive and complex supply chains and therefore face a high risk of disruption. Leonardo (ranked 12th), for example, relies on a supply chain involving 11 000 companies globally, while Kongsberg (ranked 88th) has around 8500 suppliers.

Other pandemic-related effects were also evident in 2021. For instance, several of the world's largest arms companies, such as General Dynamics (ranked 5th) and Airbus (ranked 15th), reported labour shortages during 2021.

Russia's invasion of Ukraine on 24 February 2022 has added to supply chain challenges for arms producers, as Russia is an exporter of raw materials used in the manufacturing of military equipment, such as aluminium, copper, steel and titanium. With the implementation of sanctions, including the European Union's (EU) ban on imports of Russian steel products, and the broader severing of Western



**Figure 2.** Percentage change in arms sales of companies in the SIPRI Top 100, by country, 2020–21

*Notes:* The change refers to the companies in the Top 100 for 2021. Figures are based on arms sales in constant (2021) US dollars. The category 'Other' consists of countries whose companies' arms sales comprise less than 1.0% of the total: Australia, Canada, India, Norway, Poland, Singapore, Spain, Sweden, Taiwan, Türkiye and Ukraine.

*Source:* SIPRI Arms Industry Database, Dec. 2022.



countries' economic ties with Russia, arms companies have begun to reorganize their supply chains to procure raw materials from other producers.

## REGIONAL DEVELOPMENTS IN THE TOP 100

### North America

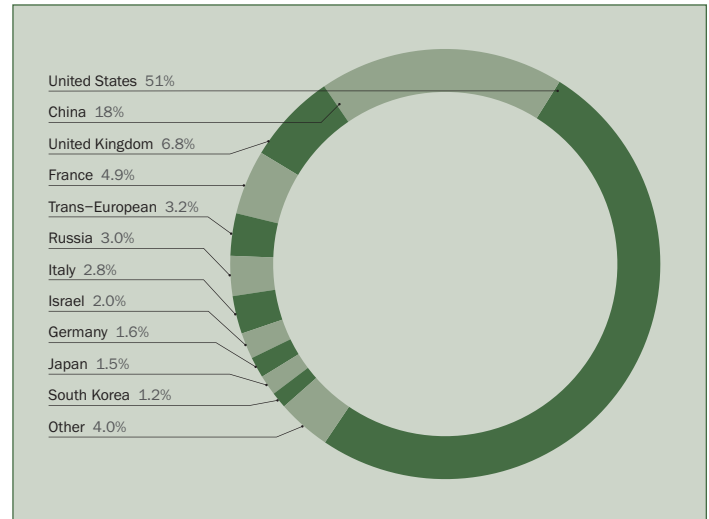
North America (i.e. Canada and the USA) is the region with the largest presence in the Top 100, accounting for \$300 billion in arms sales in 2021. Arms sales by US companies in the Top 100 decreased by 0.9 per cent in 2021 (see figure 2), but the **USA** continued to dominate the ranking (see figure 3) with 40 companies listed and total arms sales of \$299 billion.

The world's five largest arms companies in 2021 are all based in the USA. They have made up the top five in the ranking since 2018. Despite a decrease in its arms sales of 0.6 per cent in 2021, Lockheed Martin again topped the ranking with \$60.3 billion in arms sales. Raytheon Technologies (ranked 2nd) was the only company in the top five that recorded an increase in arms sales, of 9.1 per cent compared with 2020. The decreases in arms sales reported by Lockheed Martin, Boeing (ranked 3rd) and General Dynamics (ranked 5th) were mainly attributable to inflation, as their arms sales increased in nominal terms between 2020 and 2021. By contrast, the arms sales of Northrop Grumman (ranked 4th) decreased in both nominal and real terms in 2021. This was due to the sale of its information technology (IT) and mission support services business and disruption to its activities resulting from the ongoing impact of the Covid-19 pandemic.

A total of 25 US companies in the Top 100 recorded a year-on-year decline in arms sales in 2021. With one of the largest decreases among US companies (-15 per cent), Honeywell International (ranked 23rd) reported that its drop in arms sales was due to both lower demand and supply chain constraints.

### *Mergers and acquisitions in North America*

Continuing the trend of consolidation in the US arms industry, there were some large-scale acquisitions in 2021. This led to the emergence of new companies in the Top 100. For example, Peraton (ranked 21st) acquired Northrop Grumman's IT and mission support services business in February 2021 and then bought Perspecta, another military-related IT services company, in May 2021, placing Peraton in the Top 100 (see box 1). In early 2020 Amentum (ranked 25th) was launched from AECOM's management services business, which provided a wide array of services such as consulting, logistics, IT and training. Amentum then bought DynCorp International—an aerospace company—in November 2020, and Amentum's arms sales reached \$5.0 billion in 2021.



**Figure 3.** Share of total arms sales of companies in the SIPRI Top 100 for 2021, by country

*Notes:* The Top 100 classifies companies according to the country in which they are headquartered. This means that sales by an overseas subsidiary are counted towards the total for the parent company's country. The Top 100 does not encompass the entire arms industry in each country covered, only the largest companies. The category 'Other' consists of countries whose companies' arms sales comprise less than 1.0% of the total: Australia, Canada, India, Norway, Poland, Singapore, Spain, Sweden, Taiwan, Türkiye and Ukraine. Percentage shares may not add up to a total of 100% due to rounding.

*Source:* SIPRI Arms Industry Database, Dec. 2022.

**Box 1. Private equity firms: A decline in transparency in the arms industry**

Private equity firms have been active in the military sector since at least the early 2000s.<sup>a</sup> While private equity acquisitions in the arms industry are not a new phenomenon, the trend has started to become visible among larger arms companies based in the United States only in the past three or four years. For example, the private equity firms Lindsay Goldberg and American Securities acquired Amentum in early 2020. Other notable private equity acquisitions include Advent International's purchase of the British companies Cobham and Ultra Electronics in January 2020 and July 2022, respectively; Peraton's acquisition of Perspecta in May 2021 (Peraton has been owned by the private equity firm Veritas Capital since July 2017); and Veritas Capital and Evergreen Coast Capital's purchase of Cubic in May 2021.

The acquisition of arms companies by private equity firms raises a number of concerns. Key among them is the decreasing level of transparency in financial reporting. For example, private equity firms are not required by the US Securities and Exchange Commission to report financial results for individual portfolio members, which, in turn, means that these companies do not have to release such figures to the public. The absence of this information makes it increasingly difficult to establish an accurate picture of the size of the arms industry. The growing trend in private equity acquisitions is likely to continue due to the military sector's historically strong financial performance and the expected higher demand for arms in the context of heightening geopolitical tensions.

<sup>a</sup> Private equity firms have acquired over 500 US arms companies since the early 2000s. Mahoney, C. W., Tkach, B. K. and Rethmeyer, C. J., 'Defense contractors, private equity firms, and US national security', *Journal of Global Security Studies*, vol. 7, no. 4 (2022).

Other noteworthy deals included the May 2021 acquisition of FLIR by Teledyne Technologies (ranked 67th) and the August 2021 purchase of Alion Science and Technology by Huntington Ingalls Industries (ranked 17th and renamed HII since March 2022). Alion's core businesses include sensors, artificial intelligence, and systems for cyber and electronic warfare. HII started out as a shipbuilder and its evolution over the years reflects a wider movement by the traditional arms industry into emerging military technology sectors.

Mergers among the USA's largest firms will probably reduce in number in the coming years because the administration of US President Joe Biden has indicated that it views 'excessive consolidation' of the arms industry as a threat to US national security. A key concern is that this trend in consolidation, if left unchecked, could eventually lead to the USA becoming overly reliant on a small group of suppliers, which could also have knock-on effects on procurement costs and product innovation. The US Federal Trade Commission's decision to block Lockheed Martin's acquisition of Aerojet Rocketdyne in early 2022 exemplifies this new policy stance.

Elsewhere in North America, the only **Canadian** firm in the Top 100, CAE (ranked 80th with \$1.3 billion in arms sales) bought L3 Harris Technologies' military training business in 2021. This was the largest acquisition in the firm's history.

**Asia and Oceania**

The combined arms sales of the 21 companies in Asia and Oceania included in the Top 100 amounted to \$136 billion in 2021—an increase of 5.8 per cent compared with 2020.

Eight **Chinese** arms companies were included in the Top 100 in 2021. Their aggregated arms sales reached \$109 billion, which was 6.3 per cent more than in 2020. The growth in arms sales reflects the scale of China's military equipment modernization and its objective to become self-reliant in the production of all categories of major arms. Four Chinese companies ranked in the top 10.



Seven of the eight Chinese companies increased their arms sales in 2021. NORINCO (ranked 7th), a land systems specialist, is the largest Chinese arms company in the Top 100. Its arms sales rose by 11 per cent to \$21.6 billion in 2021. AVIC (ranked 8th), CASC (ranked 9th) and CASIC (ranked 11th) are the three main Chinese arms companies that operate in the military aerospace sector. Of these three, CASIC's arms sales grew the most, going up by 13 per cent to \$14.5 billion in 2021. CETC (ranked 10th), which is an electronics and IT company, saw its arms sales fall by 5.6 per cent to \$15.0 billion.

Signs of consolidation have been observed in China's arms industry since the mid 2010s, which marked a reversal of previous structural reforms aimed at improving productivity and competitiveness by breaking up sector monopolies. In 2021 the two largest shipbuilders in China, CSIC and CSSC, finalized a merger to form a new entity operating under the name CSSC (ranked 14th). With arms sales of \$11.1 billion, CSSC was the largest military shipbuilder in the world in 2021.

The aggregated arms sales of the four companies in the Top 100 based in **Japan** fell by 1.4 per cent in 2021 to \$9.0 billion. Fujitsu (ranked 77th) recorded strong growth, with an increase in arms sales of 10 per cent in 2021, and the arms sales of Kawasaki Heavy Industries (ranked 54th) also rose, by 1.4 per cent. These increases were offset by a decrease in the arms sales of Mitsubishi Heavy Industries (ranked 35th), Japan's biggest arms producer, which dropped by 5.3 per cent. Arms sales by IHI Corporation (ranked 89th) also fell in 2021, by 5.1 per cent to \$1.2 billion.

Standing at \$7.2 billion, the total arms sales of the four **South Korean** firms in the Top 100 was 3.6 per cent higher in 2021 than in 2020. The growth was largely driven by Hanwha Aerospace (ranked 50th), which saw its arms sales rise by 7.6 per cent to \$2.6 billion, and by LIG Nex1 (ranked 71st), which recorded an increase of 11 per cent to reach \$1.6 billion. Both companies increased their foreign sales in 2021 and experienced uninterrupted growth during the pandemic. Hanwha's arms sales are expected to rise significantly in the coming years, after it signed a major arms deal with Poland in 2022, following the Russian invasion of Ukraine.

The total arms sales of the two **Indian** companies in the Top 100 were \$5.1 billion in 2021. The arms sales of Hindustan Aeronautics (ranked 42nd) and Bharat Electronics (ranked 63rd) increased by 6.7 per cent and 20 per cent, respectively. Both companies have benefited from major orders placed by the Indian armed forces in recent years. Indian Ordnance Factories, which appeared in the 2020 edition of the Top 100, was restructured into seven smaller companies in October 2021 and thus dropped out of the ranking.

This is the first year in which a **Taiwanese** firm has been included in the Top 100. NCSIST (ranked 60th), which specializes in missiles and military electronics, recorded arms sales of \$2.0 billion in 2021.

## Europe

In 2021 Europe accounted for 27 of the Top 100 arms companies. Their combined arms sales reached \$123 billion and were up by 4.2 per cent compared with 2020. Sales will probably continue to rise in 2022 as the demand for arms grows in Europe due to Russia's invasion of Ukraine (see box 2).



**Box 2. The war in Ukraine and the surge in demand for arms**

Russia's invasion of Ukraine in February 2022 has prompted a surge in the demand for arms in Europe and the United States. Since the start of the war, Western countries have supplied Ukraine with military equipment and financial aid. However, as the war goes on, stockpiles are growing smaller.

The Ukraine Defense Contact Group—a USA-led group of more than 50 countries and organizations that have pledged to assist Ukraine—has been coordinating efforts to boost arms production and replenish stockpiles. For example, as of the end of October 2022, the US government had awarded several contracts to arms companies to replenish the USA's stockpiles. These included a \$624 million order with Raytheon Technologies for Stinger missiles; a \$663 million order with a joint venture partnership between Lockheed Martin and Raytheon Technologies for Javelin anti-tank missiles; and a \$95 million order with Lockheed Martin for HIMARS light multiple rocket launchers.

However, increasing arms-production output takes time and it could be several years before arms companies are able to adjust to the new demand created by the war in Ukraine, as exemplified by the USA's order for Javelin anti-tank missiles. By the end of October 2022, the USA had supplied 8500 Javelin missiles to Ukraine, which is equivalent to four years of production. The Javelin Joint Venture partnership between Lockheed Martin and Raytheon Technologies plans to increase its current output of 2100 missiles per year to nearly 4000 per year, but doubling the pace of production could take two years to implement. Artillery rounds for 155-millimetre howitzers are also among Ukraine's key requirements. As of the end of October 2022, the USA had supplied over 900 000 standard and 4000 precision-guided 155-mm artillery rounds to Ukraine. At the current pace of production (14 400 rounds per month), it would take five to six years to replenish US stocks to previous levels. Therefore, the USA has plans in place with manufacturers to increase the pace of production to 36 000 rounds per month, which will be implemented over the next three years.

Arms producers in Europe are also anticipating a substantial increase in demand for military equipment because of the war. Rheinmetall, for example, expects the order intake for its defence division to jump by 100–150 per cent between 2021 and 2022, and by another 30–40 per cent in 2023. This projection is based on the need to replenish stockpiles of armoured vehicles sent to Ukraine and on Germany's plans to increase military expenditure. Similarly, the Swedish arms producer Saab foresees an increased order intake on the back of a projected rise in global military spending.

With eight firms included in the 2021 ranking, the **United Kingdom** remains the country hosting the highest number of Top 100 companies in Europe. Taken together, their arms sales amounted to \$40.4 billion in 2021—a fall of 2.7 per cent compared with 2020. Six of the eight British firms recorded decreases in their arms sales in 2021. The arms sales of BAE Systems (ranked 6th), the biggest British arms company, fell by 1.0 per cent to \$26.0 billion in 2021. The two largest percentage decreases in arms sales among UK-based companies were recorded by Melrose Industries (ranked 87th) and Meggit (ranked 100th), both of which are providers of aerospace components. Supply chain disruptions were among the reasons cited by the companies for the drop in arms sales.

The five companies in the Top 100 based in **France** saw their total arms sales increase by 15 per cent year-on-year to reach \$28.8 billion in 2021. All five recorded growth in their arms sales between 2020 and 2021. The largest French company, Thales (ranked 16th), reported a 2.1 per cent increase in arms sales, which totalled \$9.8 billion in 2021. Arms sales by Dassault Aviation Group (ranked 19th) rose sharply in 2021—by 59 per cent—and reached \$6.3 billion, driven by deliveries of a total of 25 Rafale combat aircraft. These deliveries also benefited Safran (ranked 24th), which produces M88 engines and components for the aircraft. Its arms sales increased by 5.9 per cent to \$5.1 billion. For Naval Group (ranked 29th), 2021 marked the cancellation of its contract with Australia for 12 diesel-electric submarines. Nonetheless, Naval Group's arms sales reached \$4.7 billion, which was a 20 per cent increase on 2020.

With arms sales of \$4.5 billion, Rheinmetall (ranked 31st) remained the largest arms company in **Germany**. However, its arms sales fell by 1.7 per cent



in 2021, which it attributed to the pandemic and subsequent supply chain disruption. The delivery of a frigate to the German navy and four corvettes to the Israeli navy largely accounted for the 11 per cent increase, reaching \$2.4 billion, in the arms sales of ThyssenKrupp (ranked 55th). Hensoldt (ranked 69th) reported \$1.6 billion in arms sales—a 19 per cent increase that is mainly attributable to its sensors segment, notably the PEGASUS and the Eurofighter Common Radar systems. Following an 8.7 per cent increase in arms sales, driven by demand for its military equipment from EU and North Atlantic Treaty Organization (NATO) countries as well as Australia, Japan, New Zealand and Switzerland, Diehl entered the Top 100, ranking 99th.

Standing at \$10.9 billion, Airbus (ranked 15th) recorded the highest arms sales among the three **trans-European** companies in the Top 100. Its arms sales fell by 15 per cent in 2021, which the firm attributed to lower sales in its military aircraft segment. Arms deliveries by MBDA (ranked 27th) increased significantly in 2021, as it began the process of catching up on deliveries that had been delayed by the effects of the pandemic. As a result, its arms sales grew by 15 per cent to \$5.0 billion. KNDS (ranked 44th), the result of an association between Nexter and Krauss-Maffei Wegmann (KMW), entered the Top 100 in 2021, categorized by SIPRI as a trans-European company. The categorization is based on company management restructuring in 2021, which included the appointment of KMW's chief executive officer to the same role at KNDS. KNDS's arms sales were \$3.0 billion in 2021, which was 9.7 per cent more than the combined arms sales of KMW and Nexter in 2020.

The creation of KNDS is an example of arms industry consolidation in the European context. Notably, KMW also acquired a stake in Milrem Robotics in 2021. Following the same trend, **Italy's** Leonardo (ranked 12th) completed the purchase of a 25 per cent stake in Hensoldt in January 2022, strengthening what Leonardo terms its 'defence electronics and security segment'. In 2021 Leonardo increased its arms sales by 18 per cent to reach \$13.9 billion. With arms sales of \$3.0 billion, the other Italian company in the Top 100, Fincantieri (ranked 46th), reported a 5.9 per cent year-on-year increase.

## Russia

Six Russian companies feature in SIPRI's Top 100 in 2021. This is three fewer than in the 2020 edition of the ranking because no data was available for Almaz-Antey, KRET and Russian Electronics. The combined arms sales of the six companies that are included reached \$17.8 billion in 2021, which was 0.4 per cent higher than in 2020.

Three Russian companies (United Aircraft Corporation, United Engine Corporation and Russian Helicopters) recorded a decrease in their arms sales, while the other three (United Shipbuilding Corporation, Tactical Missiles Corporation and UralVagonZavod) recorded an increase. The 18 per cent increase registered by Tactical Missiles Corporation (ranked 37th) can be partly attributed to growth in its foreign sales, most likely to India. The arms sales of United Aircraft Corporation (UAC; ranked 30th) as a proportion of its total sales decreased from 82 per cent in 2020 to 70 per cent in 2021. Its estimated arms sales fell to \$4.5 billion in 2021, down from \$5.1 billion in 2020. The change most likely stems from the Russian government's



2016 instruction to the military–industrial complex to increase civilian production.

Russia's invasion of Ukraine in 2022 will probably reverse the trend of increased civilian production among companies in the military–industrial complex because of the need to support the war effort. However, the sanctions imposed on Russia will also have an impact on its arms companies. Almaz-Antey, for example, stated in March 2022 that it could not receive payments for some of its arms export deliveries. Russian companies are also facing reduced access to semiconductors.

All the Russian companies in the Top 100 for 2021, except for Tactical Missiles Corporation and United Shipbuilding Corporation, belong to the Rostec holding group, which owns numerous Russian arms companies. SIPRI's ranking excludes holding entities with no direct operational activities and therefore does not include Rostec; however, it is worth noting that Rostec's arms sales decreased by 13 per cent between 2020 and 2021 to \$15.5 billion.

### **Middle East**

Taken together, the five companies in the Top 100 based in the Middle East generated \$15.0 billion in arms sales in 2021. This was a 6.5 per cent increase compared with 2020 and the highest rate of growth of all regions represented in the Top 100. Most of the five Middle Eastern firms display a relatively high level of specialization in military products. On average, 91 per cent of their sales came from the military sector in 2021. All five saw a rise in arms sales in 2021. Turkish Aerospace (ranked 84th) recorded the largest increase, at 62 per cent, and Israel Aerospace Industries (ranked 38th) the lowest, at 1.9 per cent. EDGE, a conglomerate based in the United Arab Emirates (UAE) that was among the top 25 arms companies in 2020, has not disclosed any arms sales figures for 2021 and therefore could not be included in the 2021 ranking.

The aggregated arms sales of the three **Israeli** companies in the Top 100 was \$11.6 billion in 2021, which was 3.0 per cent higher than in 2020. Elbit Systems (ranked 28th) increased its arms sales by 3.6 per cent to \$4.8 billion in 2021. The company established a subsidiary in the UAE in 2021. The creation of Elbit Systems Emirates is a landmark in the normalization of diplomatic relations between Israel and the UAE within the framework of the 2020 Abraham Accords. Other examples of the rapprochement between Israel and the UAE are the agreements, announced in 2021, between Israel Aerospace Industries and EDGE to design uncrewed weapon systems.

The two **Turkish** companies in the Top 100 in 2021—ASELSAN and Turkish Aerospace—had combined arms sales of \$3.4 billion. ASELSAN (ranked 56th) recorded a 6.0 per cent increase in its arms sales to reach \$2.2 billion. Turkish Aerospace, which was outside the Top 100 in 2020, re-entered the ranking in 2021 based on a 62 per cent increase in its arms sales. This substantial year-on-year growth was partly due to the delivery of several Anka-S uncrewed aerial vehicles to the Turkish armed forces.





### Annex 1. The SIPRI Top 100 arms-producing and military services companies in the world, 2021

All sales figures are in millions of constant (2021) US dollars. Arms sales figures for 2021 are rounded to the nearest \$10 million.

Rank <sup>a</sup>		Company <sup>b</sup>	Country <sup>c</sup>	Arms sales, 2021	Arms sales, 2020 <sup>d</sup>	Change in arms sales, 2020–21 (%)	Total sales, 2021	Arms sales as a % of total sales, 2021
2021	2020							
1	1	Lockheed Martin Corp.	United States	60 340	60 704	-0.6	67 044	90
2	2	Raytheon Technologies	United States	41 850	38 356	9.1	64 388	65
3	3	Boeing	United States	33 420	34 143	-2.1	62 286	54
4	4	Northrop Grumman Corp.	United States	29 880	31 723	-5.8	35 667	84
5	5	General Dynamics Corp.	United States	26 390	26 947	-2.1	38 469	69
6	6	BAE Systems	United Kingdom	26 020	26 279	-1.0	26 851	97
7	7	NORINCO	China	21 570	19 480	11	81 607	26
8	8	AVIC	China	20 110	18 447	9.0	80 446	25
9	9	CASC <sup>e</sup>	China	19 100	18 339	4.2	43 408	44
10	10	CETC <sup>e</sup>	China	14 990	15 873	-5.6	55 443	27
11	13	CASIC <sup>e</sup>	China	14 520	12 896	13	46 093	31
12	14	Leonardo	Italy	13 870	11 802	18	16 716	83
13	11	L3Harris Technologies	United States	13 360	14 798	-9.7	17 814	75
14	15	CSSC <sup>ef</sup>	China	11 130	10 180	9.3	53 208	21
15	12	Airbus	Trans-European <sup>g</sup>	10 850	12 739	-15	61 671	18
16	16	Thales	France	9 770	9 572	2.1	19 149	51
17	17	Huntington Ingalls Industries <sup>h</sup>	United States	8 570	8 593	-0.3	9 524	90
18	18	Leidos	United States	8 030	7 654	4.9	13 737	58
19	34	Dassault Aviation Group	France	6 250	3 934	59	8 554	73
20	22	CSGC	China	5 910	5 823	1.5	44 363	13
21	-	Peraton <sup>ei</sup>	United States	5 810	5 809	0.0	7 000	83
22	21	Booz Allen Hamilton	United States	5 600	5 736	-2.4	8 364	67
23	20	Honeywell International	United States	5 150	6 038	-15	34 392	15
24	27	Safran	France	5 050	4 770	5.9	18 043	28
25	-	Amentum <sup>ej</sup>	United States	5 020	4 860	3.3	6 400	78
26	24	Rolls-Royce	United Kingdom	4 970	5 328	-6.7	15 058	33
27	32	MBDA	Trans-European <sup>g</sup>	4 960	4 303	15	5 007	99
28	30	Elbit Systems	Israel	4 750	4 587	3.6	5 279	90
29	33	Naval Group	France	4 740	3 966	20	4 793	99
30	23	United Aircraft Corp. <sup>e</sup>	Russia	4 450	5 066	-12	6 353	70
31	29	Rheinmetall	Germany	4 450	4 525	-1.7	6 691	66
32	31	CACI International	United States	4 330	4 370	-0.9	6 203	70
33	26	General Electric	United States	4 140	4 766	-13	74 196	6.0
34	38	Saab	Sweden	4 090	3 726	9.8	4 566	90
35	28	Mitsubishi Heavy Industries	Japan	4 060	4 289	-5.3	35 163	12
36	35	United Shipbuilding Corp.	Russia	4 020	3 841	4.7	5 091	79
37	40	Tactical Missiles Corp.	Russia	3 990	3 374	18	4 072	98
38	37	Israel Aerospace Industries	Israel	3 870	3 797	1.9	4 477	86
39	39	Science Applications International Corp.	United States	3 550	3 462	2.5	7 394	48
40	42	KBR	United States	3 530	3 222	9.5	7 339	48
41	36	Textron	United States	3 350	3 681	-9.0	12 382	27
42	43	Hindustan Aeronautics	India	3 300	3 092	6.7	3 468	95

Rank <sup>a</sup>		Company <sup>b</sup>	Country <sup>c</sup>	Arms sales, 2021	Arms sales, 2020 <sup>d</sup>	Change in arms sales, 2020–21 (%)	Total sales, 2021	Arms sales as a % of total sales, 2021
2021	2020							
43	45	Babcock International Group	United Kingdom	3 100	3 118	-0.6	5 642	55
44	-	KNDS <sup>k</sup>	Trans-European <sup>g</sup>	3 030	2 762	9.7	3 193	95
45	47	Rafael	Israel	3 010	2 910	3.4	3 075	98
46	48	Fincantieri	Italy	2 980	2 813	5.9	8 173	36
47	49	CEA <sup>l</sup>	France	2 940	2 665	10	6 565	45
48	44	United Engine Corp. <sup>e</sup>	Russia	2 910	3 011	-3.3	4 222	69
49	46	General Atomics <sup>e</sup>	United States	2 810	2 878	-2.4	..	..
50	52	Hanwha Aerospace	South Korea	2 550	2 370	7.6	5 608	46
51	51	Oshkosh Corp.	United States	2 530	2 357	7.3	7 737	33
52	55	Bechtel Corp. <sup>e</sup>	United States	2 470	2 263	9.1	17 500	14
53	54	TransDigm Group	United States	2 400	2 284	5.1	4 798	50
54	50	Kawasaki Heavy Industries	Japan	2 400	2 368	1.4	13 671	18
55	56	ThyssenKrupp	Germany	2 390	2 145	11	40 226	6.0
56	53	ASELSAN	Türkiye	2 160	2 038	6.0	2 278	95
57	60	ST Engineering	Singapore	2 160	1 966	9.8	5 728	38
58	58	ManTech International Corp.	United States	2 080	2 023	2.8	2 554	81
59	57	Jacobs Engineering Group	United States	2 040	2 075	-1.7	14 093	14
60	64	NCSIST	Taiwan	1 970	1 811	8.8	2 056	96
61	62	Serco Group	United Kingdom	1 870	1 893	-1.2	6 414	29
62	59	Sierra Nevada Corp. <sup>e</sup>	United States	1 860	2 002	-7.1	2 106	88
63	69	Bharat Electronics	India	1 830	1 520	20	2 038	90
64	68	CNNC	China	1 810	1 597	13	38 251	5.0
65	61	Korea Aerospace Industries	South Korea	1 800	1 896	-5.1	2 228	81
66	65	BWX Technologies	United States	1 650	1 742	-5.3	2 124	78
67	-	Teledyne Technologies <sup>m</sup>	United States	1 640	1 734	-5.4	4 614	36
68	-	Vectrus <sup>n</sup>	United States	1 630	1 658	-1.7	1 784	91
69	79	Hensoldt	Germany	1 610	1 355	19	1 743	92
70	-	Eaton <sup>o</sup>	United States	1 600	1 345	19	19 628	8.0
71	74	LIG Nex1	South Korea	1 590	1 433	11	1 593	100
72	82	QinetiQ	United Kingdom	1 510	1 357	11	1 816	83
73	76	Aerojet Rocketdyne	United States	1 470	1 387	6.0	2 188	67
74	63	Fluor Corp. <sup>e</sup>	United States	1 430	1 773	-19	12 435	12
75	72	Parsons Corp.	United States	1 430	1 439	-0.6	3 661	39
76	73	PGZ	Poland	1 430	1 445	-1.0	1 584	90
77	77	Fujitsu <sup>e</sup>	Japan	1 410	1 281	10	32 672	4.0
78	80	Curtiss-Wright Corp.	United States	1 380	1 314	5.0	2 506	55
79	78	UkrOboronProm	Ukraine	1 330	1 447	-8.1	1 396	95
80	99	CAE	Canada	1 280	1 003	28	2 688	48
81	84	Moog	United States	1 250	1 251	-0.1	2 852	44
82	86	Hanwha Corp.	South Korea	1 240	1 233	0.6	3 441	36
83	87	UralVagonZavod	Russia	1 200	1 152	4.1	2 451	49
84	107	Turkish Aerospace <sup>e</sup>	Türkiye	1 200	741	62	1 396	86
85	83	Russian Helicopters	Russia	1 200	1 256	-4.5	2 066	58
86	91	Amphenol Corp.	United States	1 200	1 074	12	10 876	11
87	67	Melrose Industries	United Kingdom	1 190	1 608	-26	10 311	12



Rank <sup>a</sup>		Company <sup>b</sup>	Country <sup>c</sup>	Arms sales, 2021	Arms sales, 2020 <sup>d</sup>	Change in arms sales, 2020–21 (%)	Total sales, 2021	Arms sales as a % of total sales, 2021
2021	2020							
88	101	Kongsberg Gruppen	Norway	1 170	1 013	15	3 194	37
89	81	IHI Corp.	Japan	1 160	1 223	-5.1	10 684	11
90	89	Ball Corp. <sup>e</sup>	United States	1 090	1 126	-3.2	13 811	8.0
91	102	Navantia	Spain	1 080	924	17	1 544	70
92	94	The Aerospace Corp. <sup>e</sup>	United States	1 030	1 043	-1.2	1 160	89
93	88	Pacific Architects and Engineers	United States	980	1 137	-14	2 914	34
94	96	ViaSat	United States	980	1 001	-2.1	2 787	35
95	100	Mercury Systems	United States	960	949	1.2	988	97
96	93	Howmet Aerospace	United States	950	1 064	-11	4 972	19
97	97	Austal	Australia	940	1 029	-8.6	1 074	87
98	105	Ultra Electronics Group	United Kingdom	920	908	1.3	1 170	79
99	109	Diehl	Germany	870	800	8.7	3 745	23
100	95	Meggitt	United Kingdom	850	1 072	-21	2 048	42

.. = data not available; – = not ranked in 2020; Corp. = corporation.

Notes: Percentage shares and changes calculated using the data in this table may not precisely correspond to those stated due to rounding.

For further detail on methodology see ‘About the SIPRI Arms Industry Database’ in this fact sheet.

<sup>a</sup> Companies are ranked according to the value of their arms sales at the end of what SIPRI considers to be their financial year. Rankings for 2020 are based on updated figures for arms sales in the latest version of the SIPRI Arms Industry Database (Dec. 2022). They may differ from those published in any earlier SIPRI publication owing to continual revision of data, most often because of changes reported by the company itself and sometimes because of improved estimations.

<sup>b</sup> Holding and investment companies with no direct operational activities are not treated as arms companies, and arms companies owned by them are listed and ranked as if they were parent companies. Company names and structures are listed as they were at the end of their financial year. Major revisions are explained in these notes.

<sup>c</sup> Country refers to the country in which the ownership and control structures of the company are located, i.e. the location of a company’s headquarters.

<sup>d</sup> To allow easier comparison between years, all sales figures—including for arms sales in 2020—are given in constant (2021) US dollars.

<sup>e</sup> The arms sales figure for this company is an estimate with a high degree of uncertainty.

<sup>f</sup> The figures for CSSC are based on new information and differ from those published in the earlier SIPRI publication ‘Arms-production Capabilities in the Indo-Pacific Region: Measuring Self-reliance’.

<sup>g</sup> Trans-European refers to companies whose ownership and control structures are located in more than one European country.

<sup>h</sup> Huntington Ingalls Industries was renamed HII in 2022.

<sup>i</sup> Peraton acquired Perspecta and Northrop Grumman’s integrated mission support and IT solutions business in 2021. Its arms sales figure for 2020 is pro forma, i.e. it is the combined 2020 arms sales of Peraton, Perspecta and Northrop Grumman’s integrated mission support and IT solutions business.

<sup>j</sup> Amentum is a spin-off of AECOM’s Management Services segment. It bought DynCorp International in November 2020. Amentum’s arms sales figure for 2020 is pro forma, i.e. it is the combined 2020 arms sales of AECOM and DynCorp International.

<sup>k</sup> KNDS is an association between Nexter and Krauss Maffei Wegmann. It is included in the ranking following a company management restructuring in 2021. Its arms sales figure for 2020 is pro forma, i.e. it is the combined 2020 arms sales of Nexter and Krauss Maffei Wegmann.

<sup>l</sup> CEA (Commissariat à l’énergie atomique et aux énergies alternatives) is the French Alternative Energies and Atomic Energy Commission, a public entity receiving its sales income from the French state budget. Its activities are comparable to the United Kingdom’s Atomic Weapons Establishment, for which data was not available at the time of publication.

<sup>m</sup> Teledyne Technologies acquired FLIR Systems in 2021. Its arms sales figure for 2020 is pro forma, i.e. it is the combined 2020 arms sales of Teledyne Technologies and FLIR Systems.

<sup>n</sup> Vectrus acquired Zenetex and HHB Systems in 2021. Its arms sales figure for 2020 is pro forma, i.e. it is the combined 2020 arms sales of Vectrus, Zenetex and HHB Systems.

<sup>o</sup> Eaton acquired Cobham Mission Systems in 2021. Its arms sales figure for 2020 is pro forma, i.e. it is the combined 2020 arms sales of Eaton and Cobham Mission Systems.

Source: SIPRI Arms Industry Database, Dec. 2022.

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## About the SIPRI Arms Industry Database

This fact sheet is based on data from the SIPRI Arms Industry Database, which presents a more detailed data set for the years 2002–21 and is available on the SIPRI website. The database includes public and private companies but excludes manufacturing or maintenance units of the armed services. The SIPRI Top 100 listing includes the 100 companies with the largest arms sales during the year covered and for which SIPRI can access sufficient data. Only companies with operational activities in the field of arms and military services are included, not holding or investment companies. Military research and development divisions at academic institutions are also excluded. Eight Chinese companies are included in the database from 2015 onwards. Other Chinese companies may have arms sales high enough to rank among the Top 100, but there is insufficient data to include them in the ranking. The data for all years is revised annually based on new information. Therefore, data in this fact sheet replaces all relevant data for all years in previous SIPRI publications. Unless otherwise specified, all sales figures are expressed in constant (2021) United States dollars and all changes are expressed in real terms. Comparisons between 2020 and 2021 are based on the list of companies ranked in 2021 (i.e. the annual comparison is between the same set of companies). Longer-term comparisons are based on the sets of companies listed in the respective year (i.e. the comparison is between a different set of companies).

### Definitions

Sales of arms and military services (or ‘arms sales’ for short) are defined as sales of military goods and services to military customers domestically and abroad. Military goods and services are defined as goods and services that are designed specifically for military purposes and include relevant technologies. Military goods are military-specific equipment and do not include general-purpose goods, such as fuel, office equipment and uniforms. Military services include technical services, such as information technology; maintenance, repair and operational support; services related to the operation of the armed forces, such as intelligence, training and logistics management; and armed security in conflict zones. They do not include the peacetime provision of purely civilian services, such as healthcare, catering and transportation, but supply services to operationally deployed forces are included. The SIPRI definition of ‘arms sales’ serves as a guideline as there is no generally agreed standard definition. In some cases, the data on arms sales represents what a company considers to be the ‘defence’ share of its total sales. In other cases, SIPRI uses the figure for the total sales of a ‘defence’ division, which may include some unspecified civilian sales. When such data is not reported by a company, arms sales are estimated by SIPRI based on, for example, contract awards and general information on a company’s arms-production and military services programmes.

‘Country’ refers to the country in which the ownership and control structures of the company are located (i.e. the location of a company’s headquarters).

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