SPENDING

THE FUTURE OF DEFENCE 2030: PROJECTIONS



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Geopolitical uncertainty and heightened global conflict have led to increased defence spending but also to the development of new and innovative technologies that can not only be used to defend a nation militarily but also protect it against novel threats such as cyber attacks.

Defence spending is on the rise, with growth in all regions of the world, and is set to continue to increase substantially over the next few years due to heightened political insecurity, complex socio-economic issues and regional tensions.

In the first of two special reports, we look at the future of defence spending, what's driving growth, and how technology is changing priorities.

You can download our other report, 'The Future of Defence 2030: AI and Technological Shifts' here [LINK].

We hope you find the information contained in this report useful to prepare for a new and innovative but challenging future for the defence industry, where technology is at the backbone of a global defence strategy.



GLOBAL DEFENCE SPENDING PROJECTIONS

OVERALL GLOBAL DEFENCE SPENDING TRENDS According to the Geneva Academy of International Humanitarian Law and Human Rights, there are more than 110 armed conflicts taking place in the world at the moment – some more high-profile than others. Some of them are recent developments, some of them go back over 50 years. They include over 45 in the Middle East and North Africa, over 35 in the rest of Africa, 21 in Asia, seven in Europe, and six in Latin America.

Article 51 of the Charter of the United Nations explicitly states that, "Nothing in the present Charter shall impair the inherent right of individual or collective self-defence if an armed attack occurs against a Member of the United Nations" reinforcing countries' right to self-defence in an increasingly-fractured and disparate world.

In response to global heightened conflict and geopolitical tensions many countries are increasing their spending on defence. Estimates vary, but Forbes calculates that defence expenditure increased by 18% during 2023 to \$2,012 billion, that's 2.4% of global GDP, While Research and Markets puts the figure at \$573.5 billion, having had a CAGR of 62% since 2018. The USA, China, Russia, India and Saudi Arabia are responsible for almost 63% of global military spending.

Looking ahead, the size of the global defence market looks set to reach \$3,686.9 billion by 2032, at a CAGR of 5% during this time.

GROWTH DRIVERS

Defence has changed thanks to the use of technology which has inspired equipment like military drones, advanced materials, automation and robotics, Intelligence, Surveillance, Cyber Security, Target Acquisition, and Reconnaissance (ISTAR) technologies, the use of AI, space-based defence activities and electric military vehicles, highlighting a significant transformation within the defence industry over recent years.

However, global tensions and increased conflict has seen a depletion of the stock of weapons, and with renewed demand, combined with an upsurge after the COVID-19 pandemic which disrupted investment, supply chains and production, defence spending is now on the increase again.



GROWTH IN KEY REGIONS

North America led spending in 2023 (the latest we have figures for) with a total spend of \$943 billion. The USA spent most, with expenditure of \$916 billion, amounting to over 40% of the total military spend in 2023.

Continuing tensions in East Asia put this region next in the league table, with China spending \$296 billion on defence – a 60% increase over ten years.

Central and Western Europe spent around \$407 billion on defence, due largely to the Russia-Ukraine war. Ukraine in particular spent 37% of its GDP on its military – the highest of any other country.

Countries in the Middle East are also spending more on defence, with Saudi Arabia leading the spend at \$75.81 billion, followed by Israel (\$27.5 billion), Qatar (\$11.27 billion), Kuwait (\$7.76 billion), Oman (\$5.85 billion), Jordan (\$2.45 billion), Bahrain (\$1.84 billion) and Iran (\$1.03 billion), reflecting the growing tensions and instability in the region.

Eastern Europe spent around \$181 billion on defence in 2023, followed by South Asia (\$98.2 billion).

South America spent \$50.7 billion, with South East Asia spending slightly less, at \$47.8 billion.

Oceania spent \$35.5 billion, North Africa \$28.5 billion, Sub-Saharan Africa \$23.1 billion, Central American and the Caribbean \$14.7 billion, and Central Asia \$1.8 billion.

IF WE EXAMINE INDIVIDUAL COUNTRIES, THE SPEND LOOKS LIKE THIS:



CHINA \$296 BILLION

\$916 BILLION

RUSSIA \$109 BILLION

USA



INDIA \$83.6 BILLION



SAUDI ARABIA \$75.8 BILLION



UK \$74.9 BILLION



GERMANY \$66.8 BILLION



FRANCE \$61.3 BILLION UKRAINE \$64.8 BILLION JAPAN

\$50.2 BILLION

SOUTH KOREA \$47.9 BILLION

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ITALY \$35.5 BILLION

AUSTRALIA \$32.3 BILLION

POLAND \$31.6 BILLION

ISRAEL \$27.5 BILLION



GEOGRAPHICAL FACTS



Not surprisingly, Ukraine has had the highest percentage growth in military expenditure over the last ten years, with an increase of 1,272%.



Germany was next with a 9% increase (\$66.8 billion), and the UK was next with a 7.9% increase (\$74.9 billion).



Of the countries with the highest military expenditure, Poland saw the largest increase in percentage of change in defence spending over 2022-23 with a rise of 75% (\$31.6 billion).



France led China with 6.5% and 6% respectively (\$61.3 billion and £296 billion), and Saudi Arabia was slightly ahead of India with a 4.3% and 4.2% increase respectively (\$75.8 billion and \$83.6 billion each).



Ukraine saw the next highest percentage of change at 51% which amounts to \$64.8 billion. Russia (\$109 billion) and Israel (\$27.5 billion) were equal at a 24% increase, followed by Japan (\$50.2 billion), up 11%.



LOOKING AHEAD

Defence spending is set to rise substantially over the next few years. The International Centre for Defence and Security has noted that among NATO members alone Poland is already spending 50% of its defence budget on equipment such as ICBS integrated air and missile defence command systems, long range missiles, helicopters and short-range, man-portable air defence systems, a figure which is set to increase by 3% from 2025-27.

A more detailed examination of projected increases in defence budgets throws some light on how countries are preparing to defend themselves.

The area with the highest CAGR (Compound Annual Growth Rate) in defence is the Middle East, which Mordor Intelligence predicts will have a CAGR rise of 11.04% from \$29.73 billion in 2024 to \$50.19 billion in 2029.



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THE COMPANY ALSO PREDICTS THE FOLLOWING RISES:

GEOGRAPHICAL LOCATION	CAGR RISE	2024 SPEND	2029 SPEND
Southeast Asia	6.74%	£14.09b	\$19.27b
India	5.79%	\$17.40b	\$23.05b
Latin America	5.30%	\$1.38b	\$1.78b
North America and Europe	4.5%	\$35.48b	\$44.32b
USA	3.58%	\$309.77b	\$376.30b
Japan	3.4%	\$48.10b	\$56.85b
Saudi Arabia	3.35%	\$16.75b	\$20.64b
UK	3.12%	£64.55b	£475.27b
Europe	0.04%	\$10.45	\$12.80b



WHAT FACTORS **ARE INFLUENCING THIS RISE?**

The United Nations attributes the increase in defence spending to increased and heightened tensions around the world. In particular it cites the following reasons:

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UNRESOLVED REGIONAL TENSIONS, A BREAKDOWN IN THE RULE OF LAW, **ABSENT OR CO-OPTED STATE INSTITUTIONS, ILLICIT ECONOMIC GAIN, AND THE SCARCITY OF RESOURCES EXACERBATED BY CLIMATE** CHANGE, HAVE BECOME DOMINANT DRIVERS OF CONFLICT.



Increased political insecurity, complex socio-economic issues and regional tensions have resulted in conflicts in many areas around the globe including Ukraine, Asia, the Middle East, Central America and the Caribbean, and Africa.

The nature of conflict has also changed, and now includes violent extremism and the use of new technologies such as drones and cyber threats, but the threat of nuclear war still remains.



INDUSTRY IMPLICATIONS

Advances in technology and its applications within the defence sector have led to a paradigm shift in the way that nations defend themselves but also present exciting opportunities for defence contractors and suppliers. New markets are emerging and investment in research and development has increased enormously over recent years.

In the UK, for example, £6.6 billion has been earmarked for research and development into technological research for a Science and Technology portfolio to ensure the UK remains at the forefront of innovation as well as maintaining our armed forces' operational advantage and creating prosperity for the country.

The issue has become so important in the UK that a government group, Defence Science and Technology (DST), was founded in 2021 to work with the Chief Scientific Advisor for the Ministry of Defence to increase the impact of science

and technology on behalf of the defence and security of the UK. It establishes the overall science and technology objectives for the country, creates policy to maximise its impact, and sets its priorities for engagement with other nations, within government and with academia. One of its most important roles is to commission research on behalf of the Ministry of Defence via the DST Laboratory, in collaboration with both industry and academia.

The MOD invests 1.2% of its £54.2 billion budget on its Core Research Programme which is designed to develop and maintain innovation for the armed forces. Its focus is to address the country's defence priorities, keep the UK at the cutting edge of defence technology, and utilise research to inform future needs. The work is supported by collaboration with international allies, decision-makers within the armed forces, and Defence Equipment and Support which delivers equipment and support services to the armed forces.

OPPORTUNITIES AND CHALLENGES FOR NEW ENTRANTS **AND STARTUPS** IN THE DEFENCE TECHNOLOGY SECTOR

Forbes notes that 'increasing investment in AI starters by defence players enabled the market to reach \$9.23 billion in 2023'. Due to both historic and recent conflicts, defence stock prices have risen by 48%, and assets invested in the sector now amount to over \$11 billion.

It's no surprise, then, that startups that focus on innovative defence technology are increasing in number and frequency, and are achieving high valuations based on their potential.

Some UK-based startups include:

- Smallspark Space Systems which is based in Cardiff, UK, and specialises in the space and defence sector
- **SmartIR** which was founded in 2020 in Manchester, UK, and uses innovative technology to control infrared thermal radiation and make things 'invisible'
- Evolve Dynamics, operating in Guildford, UK, which specialises in UAV and **RPAS** aircraft systems and software
- Mindgard Ltd, based in Lancaster, UK, which specialises in cyber security for AI
- **Grayscale AI**, from London, UK, which develops optimisation-driven AI, designed to mimic a human being's neural network

Outside of the UK, the American defence unicorn Anduril, a defence products company, is projected to make \$1 billion in revenue by 2026, and in Europe NATO's Innovation Fund is a \$1 billion plus venture capital fund, backed by 24 NATO allies, which is designed to help 'deep tech founders address challenges in defence, security and resilience'.

All of these companies and ventures highlight the growing importance of defence technology and recognise the potential that startups have to contribute towards healthy and prosperous defence innovation.

THE FUTURE OF DEFENCE 2030: **SPENDING PROJECTIONS** RECOMMENDATIONS FOR STAKEHOLDERS **TO CAPITALISE ON UPCOMING TRENDS** Current and upcoming trends in the defence industry include: • The development of AI in innovative maintenance and repair of aircraft to enhance longevity and cost-effectiveness, including predictive maintenance and resource allocation • The further development of unmanned air defence systems (drones) which have applications in conflict and reconnaissance areas • Quantum computing will gain popularity in attempting to further encrypt sensitive information, building on its use in navigation and intelligence gathering. Stakeholders wishing to capitalise on upcoming trends should concentrate on maximising their investment into defence technologies such as those we've mentioned previously, as well as looking ahead to the part that AI will play in the future.

OUTLOOK ON THE FUTURE INTERSECTIONS OF POLICY, INVESTMENT AND TECHNOLOGY IN DEFENCE

With defence priorities changing, technology and the military are now seeking innovative ways in which to collaborate in order to maintain a strategic advantage over new and sophisticated forms of threats.

Nations are now investing in Science and Technology to deal with current and future adversaries and integrating emerging technologies into next-generation capabilities to meet the challenges presented by technological developments.

Technology is becoming more politicised and developments within the cyber world, for example, mean that nations are moving towards more regulatory approaches to national security and defence.

New partnerships between defence sectors and civilian startups are becoming more common, and it's these collaborations that are providing national security needs and filling a gap that traditionally can't be filled by the defence sector alone.

Of course, this all relies on investment, whether that's from national budgets or from venture capital, and in the future, more collaboration and cooperation between nation states to share the results of innovative research and development may be required.



THE FUTURE OF DEFENCE 2030: **SPENDING PROJECTIONS** CONCLUSION **AND FORECAST** In summary, the defence sector is going through a period of unprecedented technological innovation at a time of major international upheaval and tension. This has led to an increase in defence budgets and expenditure around the globe with five nations being responsible for over two-thirds of global military spending. Growth is focused on technology such as drones, automation, cyber-security and AI, highlighting the transformation of defence over recent years. Future predictions, given the current state of the world, are that defence spending will rise substantially over the next few years as countries prepare to defend themselves against increasingly-sophisticated threats. You can learn about how AI is impacting the defence sector in the second of our two special reports. Download The Future of Defence 2030: AI and Technological Shifts here [LINK].