Beauhurst

MD ONE

UK Defence Tech 2024

Advancing National Security through Innovation

Contents

Foreword

Will McManners
Founder and Managing Partner at MD One

In an era marked by escalating global tensions and material geopolitical uncertainty, the spotlight on defence technology has intensified. MD One Ventures is pleased to have once again partnered with Beauhurst to provide insights into this complex and evolving sector in the United Kingdom.

At MD One, our interpretation of early-stage defence technology is more encompassing than a straightforward 'defence' vertical sector. Whilst part of our interest remains on defence tech in the traditional 'aerospace and defence' sector, we have maintained from inception a core focus on 'dual-use' defence and national security technology. These companies' offerings can serve both civilian and military use cases in their relevant subsectors, and often will find opportunities to pivot and grow into adjacent markets as their products evolve. Investing in companies operating across adjacent markets, such as cybersecurity and cleantech, or in companies from a single sector who can sell to multiple markets, such as Defence, Agriculture and Real Estate, allows us to tap into the potential that these horizontal sectors offer to bring new and proven ideas to the National Security user, and bring a fresh market perspective to the Defence Tech founder.

Equity investment into the isolated cohort of pure 'defence technology' companies leaves much to be desired, with 2023 investment failing to live up to the extraordinary levels we witnessed in 2022. However, investment in the broader dual-use sectors has been more resilient, justifying our stance that dual-use sectors provide more promising opportunities for investors over straightforward defence tech. With investment levels broadly down across the technology sector in 2023, it is not surprising that some of these dual-use sectors have also seen falls in investment volumes. Crucially — some of these overlapping sectors have performed better than the overall investment landscape.

> **"Investment in the broader dual-use sectors has been more resilient, justifying our stance that dual-use sectors provide more promising opportunities for investors over straightforward defence tech.**

As we navigate these complex waters, this report aims to equip investors and stakeholders with a nuanced understanding of the defence tech sector's dynamics. The data speaks clearly: the future of defence investment lies not as an exquisite sector, but in integrated, multifaceted strategies that leverage the strengths of dual-use markets and expertise. This approach not only mitigates risk but also maximises the potential for innovation and return on investment in a world where technological adaptability is paramount.

Investing in defence tech

Between the fiscal years 2021/22 and 2022/23, defence spending in the UK increased by 15.0%. While defence spending has increased steadily since 2016/17, 2022/23 saw the largest increase in spending observed across the period.

As a member of the North Atlantic Treaty Organisation (NATO), the UK is committed to allocating at least 2.00% of its GDP on defence, so relative expenditure has remained consistent, sitting at 2.10% of GDP in 2022.[1] For the UK's defence tech sector, this commitment is positive, demonstrating the stability of the Government's planned spending, with other sectors not seeing such obligations. However, the political will surrounding defence does not directly translate into investment in early-stage businesses, a further complication in the industry.

With a general election likely later this year, potential political changes could influence the defence technology sector. Whilst this could create some uncertainty, it may be beneficial for defence tech companies. Election years often see increased government spending[2], and both major political parties — the Labour and Conservative — have pledged to raise the UK's defence expenditure to 2.50% of GDP. These commitments could impact private defence companies, as increased public sector funding and government contracts play a part in the success of these businesses.

[1] Kirk-Wade, Esme. 2023. "UK Defence Expenditure." Parliament.uk. April 20, 2023. https://researchbriefings.files.parliament.uk/documents/CBP-8175/CBP-8175.pdf.
[2] "How the World's Record Share of Elections Will Ripple through the Economy." n.d. Goldman Sachs. https://www.goldmansachs.com/intelligence/pages/how-the-worlds-record-share-of-elections-ripple.html.

UK defence spending (2013-2023)
Source: Ministry of Defence

UK Gross Domestic Product: Year on Year growth: CVM SA % (2012-2022)
Source: Office for National Statistics

Dual-use sectors and industries

Investment in the high-growth tech industry fell by 36.2% between 2022 and 2023. While investment in three of these dual-use sectors has seen downturns, it has been more resilient than the broader tech industry.

Companies in the cleantech sector have bucked wider industry trends by receiving higher amounts of investment in 2023 than in the previous two years. Through 513 deals, high-growth cleantech companies raised £2.59b in funding in 2023 alone. This robust investor confidence, especially against a backdrop of broader market downturns, underscores the unique appeal of dual-use technologies. The increase in cleantech investment is partly explained by the emergence of new funds with a focus on cleantech. These funds are typically younger and therefore in a different stage of the cycle so are facing few liquidity issues at the moment. They are also accessing a different pool of LPs to traditional software VCs and therefore can access a different pool of liquid capital.

Investment into companies in the cybersecurity, data provision and AI, and advanced manufacturing sectors declined in 2022 compared to 2023. However, funding in 2023 exceeded 2020 levels. Investment surged in 2021 due to COVID-19 economic stimulus measures, driving capital into riskier assets such as private equity. These years are outliers, making recent declines more explainable. Investment remains higher than pre-pandemic levels.

Equity investment by amount into high-growth dual-use sectors (percentage change in 2023 compared to 2022)

-36.2%
all tech

+34.2% cleantech	**-6.56%** cybersecurity
-29.8% data provision and AI	**-14.4%** advanced manufacturing

Private investment

Investment has fallen in defence tech, and at a faster rate than the wider investment landscape. As a standalone category investor appetite for the sector hasn't matched the hype.

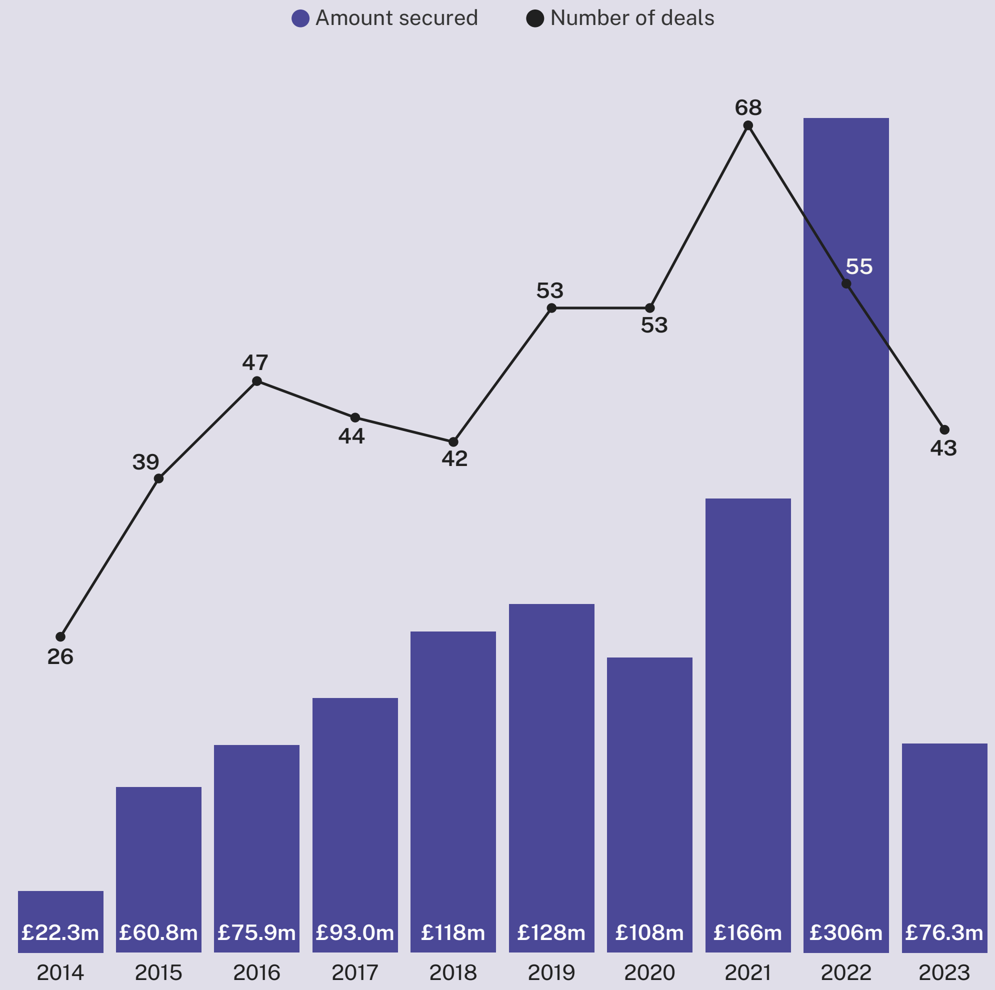
470
total number of UK equity deals (2014-2023)

£1.15b
total value of UK equity deals (2014-2023)

In 2023 the number of deals into defence tech companies fell by 22% compared to the year before, while the amount invested fell by 75%. It is worth noting that the investment figures for 2022 were bolstered by a large round of investment worth £114m (into Oxa).

Although both the drops in deals and amount are steep, for deal numbers, at least, the counts are only back at around pre-pandemic levels. Nonetheless to see the bright spots in the sector, one has to look to those deals taking place in dual-use sectors where there is a more traditional VC investor base to back those technologies.

Equity investment into defence technology companies (2014-2023)



Public grants

Grants are a key funding source for UK defence tech companies, underscoring the strong links between UK Government institutions and the sector.

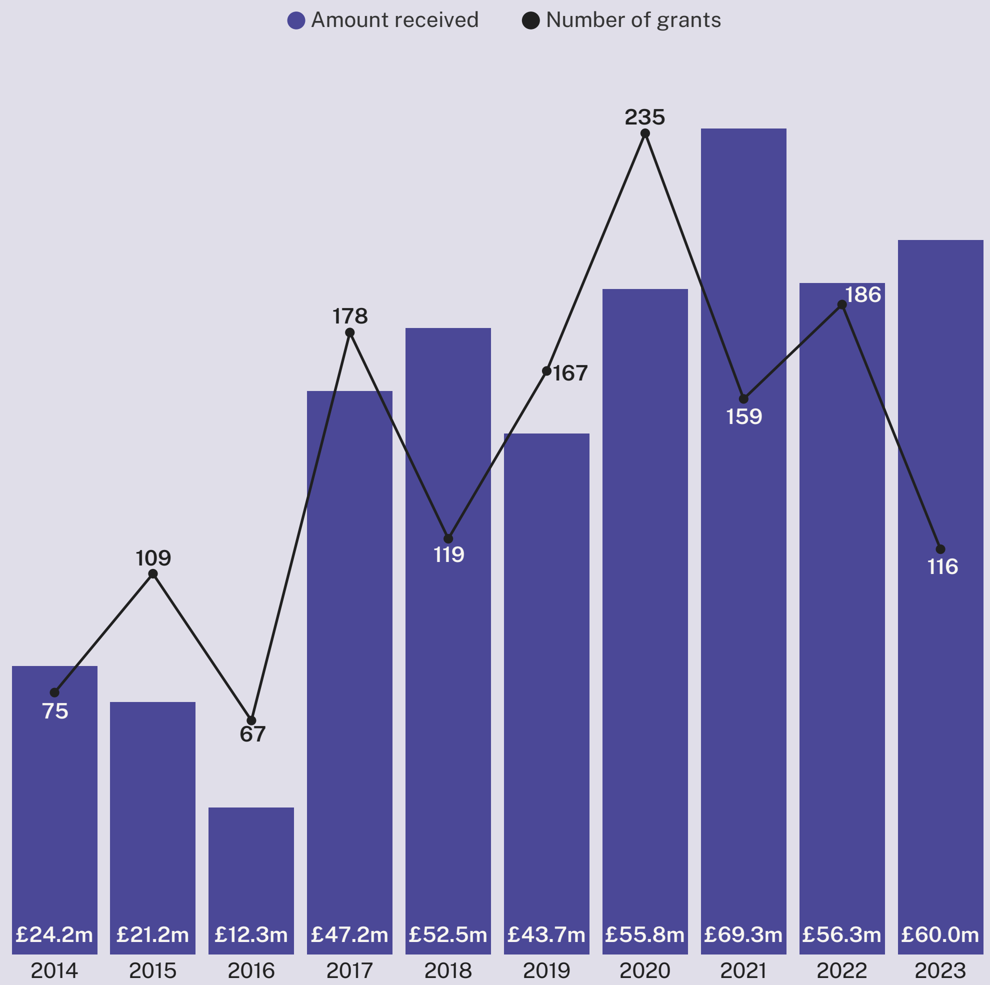
1,411
total number of grants (2014-2023)

£442m
total value of grants (2014-2023)

In 2021, UK defence tech firms received a record £69.3m in grants, boosted by Solihull-based GKN Aerospace securing £28.0m via three grants. The value of grants awarded in 2023 was the second-highest across the period, with defence tech companies awarded £60.0m, a 6.57% increase from the previous year.

Between 2014 and 2023 defence technology companies were awarded 1,411 grants. Innovate UK awarded 902 (63.9%) grants in this period, followed by the Defence and Security Accelerator (managed by the Ministry of Defence) awarding 394 (27.9%). This underscores how vital UK Government agencies are in the defence tech sector, as the UK looks to harness private sector innovation for its national security initiatives.

Grant funding into defence technology companies (2014-2023)



Sector companies

The companies profiled in these pages are all part of MD One's investment portfolio. These innovative firms are at the forefront of dual-use defence tech, operating in one of the adjacent sectors of cybersecurity, cleantech, advanced manufacturing or data provision and AI.

materials nexus

Dual-use sector: Advanced manufacturing
Incorporation date: 02/12/2020
Headquarters: Cambridge

Materials Nexus is a materials technology company that uses AI-enabled software to speed up the discovery of novel materials. The Cambridge-based company's software reduces the need for physical tests to be carried out when discovering new materials. Its AI software searches the periodic table and models potential new materials. This reduces the need for trial and error and leads to accelerated discovery times. Through this, Materials Nexus aims to produce materials that are more accessible, less damaging, and higher performing, with a focus on accelerating the change to net-zero materials. Materials Nexus' contribution to future supply chain resilience is critical to national security.

Since 2020, Materials Nexus has received £2.34m via two equity funding rounds, which includes a £2.00m round involving MD One Ventures in July 2023. Materials Nexus says it has also secured around £800k in R&D grant funding from Innovate UK.

greenjets

Dual-use sector: Aerospace/cleantech
Incorporation date: 29/11/2022
Headquarters: Bedford

Based in Bedford, Greenjets is an aerospace company that designs airframes and manufactures electric propulsion technology. The company was founded by a team of experts from Blue Bear and Rolls Royce Electric, bringing a wealth of experience from the aerospace and automotive industries. Greenjets engine technology has increased aircraft safety and efficiency and its electric engines are easily adoptable for drones and commercial aircraft. The scalability of the technology has led to the development of a variety of engines, which are designed to propel hovercraft, airships and manned aircraft.

The company secured equity investment from MD One in 2023, as well as three Innovate UK grants over the same period, totalling £128k.

Sector companies

Labrys

Dual-use sector: Data provision and AI
Incorporation date: 08/07/2020
Headquarters: London

Labrys, a London-based startup founded in 2019 by two British military veterans, is revolutionising the coordination and management of globally distributed teams in military and humanitarian scenarios. The company's platform, AXIOM, integrates functionalities such as encrypted communications, task management, geo-location, and digital payments. After building this software, Labrys secured its first set of Ministry of Defence contract awards, fulfilling training and operational requirements as a software solutions provider.

The solutions Labrys offers cater to a broad client base, including governments, non-governmental organisations (NGOs), and multinational corporations, helping to address communication and coordination challenges effectively. Labrys has been present in Ukraine since 2022 and has established Technical Assistance projects in support of the main Ukrainian security and military agencies.

In December 2023, Labrys received £4.33m in equity funding, following MD One's first external investment in the company in March of that year. This was the largest seed round by a defence tech startup in UK history. Labrys is considering additional fundraising in 2024 to continue growing its engineering and commercials teams as well as expanding its operations in the US.

Lab 1

Dual-use sector: Cybersecurity
Incorporation date: 16/12/2019
Headquarters: London

Lab 1 operates an Exposed Data Intelligence (EDI) platform that collects and analyses data that has become exposed. Exposed data is sensitive information that has been revealed to an unauthorised party. Lab 1's platform combines AI and big data capabilities with dark, deep and clear web knowledge, to analyse the full corpus of exposed data. The platform then uses AI to generate prescriptive insights. By constantly monitoring exposed data, the Lab 1 platform provides intelligence, alerts and analysis, allowing Lab 1 customers to assess the materiality of their risks and to take preventative action. Lab 1's systematic approach to the detection of data exposure means the process is repeatable and can be automated across entire supply chains. This reduces response times and reduces human error, which all leads to a reduction in the impact of a data breach. Since incorporation in 2019, the London-based firm has raised £2.80m in equity fundraising over several rounds.

Defining defence technology

Defence technology is shorthand for technologies that underpin national security at the level of states, companies, and individuals.

Defence technologies stem from a range of industries, from the traditional robotics-based engineering used in security operations, to cybersecurity software for sensitive information. This report will focus on private technology companies whose products have defence applications, or have received funding from organisations focusing on the security sector. Within the UK, the Ministry of Defence (MOD) aims to support innovation within the defence sector through various entities, including the Defence Science and Technology Laboratory and the Defence and Security Accelerator, which aim to collaborate with academia and industry to deliver the latest innovations to benefit the country's security. As part of The Defence Innovation Initiative, the MOD has committed £800m from 2015 to 2025 to fund private sector companies developing technologies that are of strategic advantage.

The data in this report encompasses 384 UK-based defence technology companies, including both currently active, private companies and those that have previously been a part of this group but have since exited via an acquisition or IPO, or have ceased operations. As technological enhancements in areas such as quantum computing and artificial intelligence continue to advance society, they also introduce new threats to the global security landscape, requiring the development of new technologies to defend against such threats.

313

number of active, high-growth UK defence tech companies

56

total UK defence tech companies incorporated since 2019

About the contributors

Beauhurst

Contact

4th Floor, Brixton House
385 Coldharbour Lane
London
SW9 8GL

www.beauhurst.com
+44 (0)20 7062 0060
consultancy@beauhurst.com

Beauhurst is the ultimate source of UK private company data.

Through our data platform, we provide data on every UK private company — from investments and hiring status, to patents and trade data — identifying hidden growth, innovation, risk, and ESG signals across UK companies.

Our Research and Consultancy team can provide powerful insights, thought leadership, and data-led reports. Please get in touch if you would like to talk about a project.

MD ONE

Contact

Boston House
Fitzroy Square
London
W1T 6EY

www.md-one.com

MD One, Europe's first National Security VC firm, was founded in 2021. The team invests in National Security technology, and support teams who deliver a technical advantage to European national security.

The team combines comprehensive venture capital experience across multiple sub sectors, with deep operational expertise from Tier One special forces and the intelligence communities.

To learn more, visit md-one.com

Editor Henry Whorwood
Production Dan Robinson, Advone Katsande, Blanca Valencia, Bila Turay, Harry Walker, Justin Tsui
Design Freya Hyde, Evangeline Luckhurst