NWRDSC
North West Regional Defence & Security Cluster

perspective economics

Mapping the North West's Defence and Security Ecosystem

A Baseline Study of the Region's Defence, Security, Aerospace and Dual-Use Ecosystem

OCTOBER 2026

About This Report

Acknowledgements

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Disclaimer

This study presents an independent analysis of the defence and security ecosystem, as defined within this report. The analysis and findings are those of the authors and do not necessarily reflect the views of partner organisations or interviewees. This represents a mapping of a wide ecosystem drawing on a research-based definition, and a range of underlying data sources and analysis techniques.

This represents Perspective Economics' best estimate of businesses active in the North West of England with alignment to defence and security; however, figures may be subject to interpretation. All interpretation and analysis is subject to the limitations of available data. Perspective Economics does not accept any liability for any errors, omissions, or decisions made based on this report.

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Executive Summary

In March 2026, the North West Regional Defence and Security Cluster (NWRDSC) engaged with Perspective Economics to map the North West's defence, security and aerospace ecosystem, including dual-use capability.[1] This builds upon the previously published North West Cyber Corridor Ecosystem research and seeks to identify the wide array of firms working to advance national defence and security, directly and through aligned supply chains.

This report presents the first firm-level assessment of that ecosystem. The research team has identified 1,826 firms actively trading in the North West, including 282 'dedicated' defence and security businesses and 1,544 diversified firms embedded in defence and security supply chains. Collectively, we estimate these firms employ c. 83,600 defence, security and aerospace related employees in the region, generating c. £20.5bn of revenue and c. £9.3bn of Gross Value Added in the most recent year.

The purpose of this research is to showcase the industrial capability, and the strengths aligned to the Strategic Defence Review and the Defence Investment Plan contained within the North West. We argue that for the United Kingdom to advance its defence capabilities, increase investment and realise a defence dividend for regional prosperity, the North West is one of the best placed regions in the UK to deliver and scale that ambition.

THE NORTH WEST DEFENCE AND SECURITY ECOSYSTEM IN NUMBERS

1,826 **Firms identified**	**282** **Dedicated defence and security firms**	**c. 83,600** **Defence related employment (jobs)**
£20.5bn **Estimated revenue**	**£9.3bn** **Estimated GVA**	**c. 1,140** **Intra-regional supplier links**
£19.3bn **Defence contract awards, 2025 (group level)**	**655** **Dual-use firms (36%)**	**c. 15,900** **Annual qualifiers, defence subjects**
7,030 **Engineering apprenticeship starts, 2024/25**	**£298bn** **Defence Investment Plan (over 4 years)**	**c. 100,000** **Jobs by 2030, high-end aspiration (c. £11bn GVA)**

[1] Throughout this report, 'defence and security' is used as the short form for the defence, national security and aerospace ecosystem mapped in this study, including firms whose dual-use products and services serve both defence and civil markets. The scope and definitions are set out in Sections 1.3 and 3.2.

Key Findings

A defence and security base of national significance:
The mapping identifies 1,826 firms across the North West, of which 282 are dedicated defence and security businesses. Collectively, we estimate these firms employ c. 83,600 defence, security and aerospace related employees, generating c. £20.5bn of revenue and c. £9.3bn of Gross Value Added in the region in the most recent year. We find employment is well spread across towns, cities and sub-regions, with employment across Cumbria (32%), Lancashire (26%), Greater Manchester (21%), Cheshire (16%) and the Liverpool City Region (6%). The base is nationally significant: in 2024/25 the MOD spent c. £4.8bn with industry in the North West, approximately 15% of its UK-wide spend with industry and the third-largest amount received by any region or nation (Section 2.2).

The Defence Investment Plan maps onto regional capability:
The Defence Investment Plan (June 2026) commits funding across nuclear, combat air, complex weapons, munitions, autonomy, cyber and space. We find the North West holds industrial capability across most of these areas, e.g. submarines at Barrow, combat air at Warton and Samlesbury, complex weapons at Bolton, nuclear fuels and materials at Springfields, Capenhurst and Sellafield, the National Cyber Force at Samlesbury (alongside GCHQ's Manchester presence and the planned Manchester Digital Campus in the city), maritime capability in the Liverpool City Region, and national laboratory science at Daresbury. Space is an emerging area, with 17 firms identifying space as their primary domain and over 100 referencing space technologies (Sections 2.2, 4.3 and 5.4).

Demand already exists in the region, but has room to grow:
Defence-relevant contract awards to firms operating in the region roughly quadrupled between 2020 and 2025, from c. £4.9bn to c. £19.3bn (at group level). MOD expenditure with industry in the region has also risen, and the Defence Investment Plan commits a further £6bn between 2025/26 and 2029/30 to expand and transform submarine manufacturing, centred on Barrow.[2] However, we find that most firms' participation in public defence contracts is indirect (i.e. through supply chains rather than direct awards), and supporting the resilience of these supply chains, and the spend that flows through them, is therefore critical for the region (Sections 2.2 and 6.5).

An international ecosystem, exporting and attracting investment:
The region's defence and security base is internationally significant. We find 909 firms (c. half of the study population) cite at least one international customer, including c. 700 UK-headquartered firms (45%), rising to 54% of UK-headquartered dedicated firms. Leading markets include the United States, France, Germany and the Netherlands, alongside Australia and Japan, aligning with the UK's key defence partnerships: AUKUS with the United States and Australia, the Global Combat Air Programme with Japan and Italy, and NATO allies across Europe. The region also attracts significant inward investment, with 284 firms (16%) internationally owned (e.g. MBDA, Safran, Leonardo). New export programmes, such as Norway's c. £10bn Type 26 frigate order (reported to support 47 North West supply chain firms), highlight the region's ability to capture growing international collaborative demand (Section 6.3).

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[2] Ministry of Defence (2026) The Defence Investment Plan: Equipping our forces, defending our future, 30 June 2026, https://www.gov.uk/government/publications/the-defence-investment-plan (£15bn for the nuclear warhead programme announced in the SDR; £6bn to expand and transform submarine manufacturing, 2025/26 to 2029/30).

Growing skills to meet demand:
Demand for defence labour is growing strongly in the region. Review of job postings suggests demand among primes has risen sharply in recent years, with particular demand for security-cleared roles. The North West produces c. 15,900 graduates each year in defence-relevant subjects (see Chapter 7 for definitions) (an increase of c. 26% since 2020/21) and retains almost two-thirds of its graduates, acting as key labour for major employers in the region. It is also one of the highest areas for engineering apprenticeship starts in the UK (c. 7,030 in 2024/25), with particular concentration in Cumbria and Lancashire. As growth continues to ramp up in areas such as Barrow, Warton, Samlesbury, and Manchester driven by private and public investments, it is crucial the region has access to a sufficient pool of new talent to meet this demand (Chapter 7).

The opportunity is to scale an established industrial base, supported by sustainable future demand:
Overall, we find this is a mature ecosystem built on longstanding industrial foundations the UK needs for growth, such as advanced manufacturing, fabrication, construction and materials. Firms are typically well established with a higher median age than wider technology clusters, alongside established revenue generation (Sections 4.4 and 5.2). The strategic opportunity is to strengthen and support these firms to scale further and export, and to adopt and roll out new technologies and innovation. This opportunity depends on increased certainty of future demand, to enable firms to be able to commit capacity, technology and investment in capital and skills, upon which the region's long-term growth potential depends (Section 10).

Growth to c. 100,000 jobs and c. £11bn of GVA by 2030 is a potential target for the region:
Section 9 explores the growth potential for the region's defence and security ecosystem. Growth is expected more widely, through the national spending trajectory (2.5% of GDP by 2027, 2.7% by the end of the decade under the Defence Investment Plan, and a NATO commitment of 3.5% by 2035) and the North West's rising share of MOD expenditure with UK industry (£4.8bn in 2024/25, c. 15% of the UK total). Applying these scenarios to this study's baseline ratios suggests the region could target up to 100,000 jobs and c. £11bn of GVA by 2030 (Section 9.2), driven particularly by ongoing intensive investment in areas such as Barrow, Warton/Samlesbury, Bolton and Sellafield. These are scenarios rather than forecasts, and delivery depends on the workforce pipeline as well as the relationship between capital and labour (e.g. increased automation).

SECTION 01

1. Introduction & Background

1.1 Introduction

In March 2026, the North West Regional Defence and Security Cluster (NWRDSC) engaged with Perspective Economics to undertake research to identify, measure, and assess the scale of the North West's defence and security ecosystem, and consider wider alignment and deployment of dual-use technologies. This aims to build upon previous research exploring the size, scale, and potential of the North West's Cyber Corridor.

The research provides an assessment of the number and type of businesses commercially engaged with aerospace, defence, and security applications across the North West of England. It also provides a baseline regarding the ecosystem's current economic contribution (with respect to revenue, GVA, and employment), the geographic distribution and concentration of activity, the technologies, capabilities, products and services supplied by the ecosystem, and considers the role of supply chains, investment and procurement, technological readiness and adoption, and wider potential for growth.

The authors recognise that defence and security is a contested domain with regard to definition and scope. As set out within the Industrial Strategy sector definitions, the SIC classification is inadequate and too restrictive to meaningfully define the defence sector, as activity takes place across several SIC codes in manufacturing, construction, digital and services. Defence and security also include significant overlaps with areas such as cyber security, advanced connectivity, AI, robotics, semiconductors, nuclear, advanced manufacturing, and materials. Further, several firms engaged with defence and security may have specialist applications critical to defence but may not directly state involvement in defence and security e.g. firms supplying defence primes in areas such as sensors or steel fabrication.

In addition, mapping where companies offer solutions in defence related product and service categories may reflect an improved approach but can lead to omissions (where relevant firms support the defence ecosystem but use alternative language or positioning) or false positives (where firms offer relevant products or technologies but are not actively working or selling in defence applications).

This study uses a multi-staged approach to identify relevant firms engaged in the North West's defence and security ecosystem. It considers definitional factors aligned to web and official trading data (as set out in Section 3.2) but also considers secondary signals that provide additional insight into whether a firm is engaged with key national defence firms or buyers, such as firms involved in defence procurement, participation in publicly funded research projects, and labour market signals such as workforce profiles and job vacancy analysis. In addition, the research has benefited from direct engagement with partners in the North West Regional Defence and Security Cluster to inform the study. For this research, the team has considered all firms with an active trading presence in the North West, to develop a long-list, undertake enrichment and refinement, and develop a shortlist underpinning the final dataset of defence and security firms active in the North West.

This study should be considered a 'supply-side' estimate of the Defence and Security ecosystem in the North West, identifying strengths and opportunities for defence activity, aligned supply chains, and where growth opportunities may exist. This research involves extensive mapping, enrichment, classification and analysis to identify relevant businesses and organisations actively engaging with defence and security activity in their operating models. It further considers the economic, technical, and policy implications of supporting and growing the defence and security ecosystem for the North West economy and wider UK.

Overall, this study analyses a final shortlist of 1,826 firms actively engaged in the North West's defence and security ecosystem (as of April 2026). It considers defence-related employment, revenue and Gross Value Added across the region, in addition to geographic strengths, key domains and applications, products and services developed by firms, and explores wider supply chains, partnerships, and potential for the region.

The study has been informed by a series of research principles, including:

- **An established evidence base:** The research team has previously authored several regional and national analyses spanning areas such as cyber security, AI, semiconductors, and advanced materials. This includes the recent North West Cyber Corridor mapping research (2025). This provides existing evidence regarding key suppliers and firms in the region.
- **Reviewing all active firms across the North West region: T**he research team has reviewed all registered and trading firms across the North West using Companies House and web data. This includes primary registered locations and secondary trading locations e.g. firms registered in London with a physical office in Barrow will be captured by the analysis. The research team has considered description, trading, revenue and employment data (in addition to other markers) for all firms across the North West and applied relevant scoping to develop a final shortlist for analysis purposes.
- **Identify and verify:** The research team has identified thousands of firms, through review of company descriptions, products and services, and partnerships and engagements with defence and security related organisations. Several firms may also discuss defence applications or mention how they work with primes in day-to-day operations, or where they have attended or partnered with others in the ecosystem. Further, some firms may not mention defence through web data but may appear to be actively recruiting or employing relevant professionals; whilst other firms may state they provide relevant products or solutions online, but there may be very limited evidence of material activity through accounts or wider presence. As such, the research team has sought to identify as much relevant content as possible but enrich and verify across signals to decide as to whether the firm can be considered actively part of the North West defence ecosystem. We set out the functional scope for inclusion or exclusion in Section 3.2.
- **Market-led definition:** For this study, the research team undertook an iterative approach to improve the identification and selection of relevant firms. This included:

    - **Initial Definition, Key Terms and Review:** The research team developed an initial definition for defence and security, aligned to over one thousand key words and terms. This was used to develop an initial longlist of firms.

- **Sample Review:** The research team reviewed a sample of several hundred known defence firms, reviewing company web data to further enhance the terminology, language, and products and services mentioned by suppliers. This helped to ensure that comparable firms could be identified in waves of review, based on language used by industry.
- **Semantic Similarity:** The research team undertook similarity analysis between firms across the North West, to help identify and weight firms of potential relevance, and highlight areas of potential false positives (e.g. event security firms).
- **Identification of additional descriptive data:** The research team enriched and utilised a range of additional secondary sources (set out in the methodology) to identify firms securing investment or public contracts in defence and security, or where firms engaged with defence and security related clusters or projects. An initial 'Defence Score' based on strength of description and sourcing data was developed to help test inclusion of firms in the dataset.
- **Taxonomy Development:** The research team reviewed company description and trading data to subsequently develop a taxonomy (and subcategories) for use within this study. This builds the taxonomy bottom-up, from the language firms use to describe their own activity.

- **Developing a firm-level data-driven baseline:** All research is underpinned by firm-level evidenced activity. Each of the 1,826 firms is analysed with regard to accounts and web presence and matched to a range of open and proprietary datasets (as set out in Section 1.3). Each firm is considered at a North West level, and the final statistics are an aggregation of the available firm-level data. This enables disaggregation and analysis across a range of variables such as extent of provision or engagement, geography, and size. All data cleaning, matching, and enrichment has been undertaken by the Perspective Economics research team as of June 2026. This relies upon enrichment, classification, and segmentation techniques undertaken by the research team, using the best available public and accounts-based data.

The following subsections set out the agreed research objectives, methodology, and study definitions and scope used for the research. Annex A also sets out these subsections in full.

1.2 Research Objectives

This research aims to develop a first baseline overview of the North West's defence and security ecosystem, with respect to key assets, businesses, and develop an economic baseline to track growth and potential. The research also seeks to understand wider research considerations such as:

- What are the region's distinctive defence and dual-use capabilities, and where is the region particularly strong, and where do opportunities exist for growth?
- How deep are regional supply chains? How do firms across the North West and beyond interact with the region's defence and security ecosystem? Are there potential opportunities or strategic dependencies that may require support to grow? (e.g. considering cyber resilience in supply chains, or exposure to macroeconomic shocks)
- What is the research intensity of the regional ecosystem, and how does performance compare to other UK clusters?

- What is the trajectory of defence related investment, and how well is the region positioned to support national security and defence? How does the region perform with regard to innovation grants, investment and procurement?
- What are the key challenges and opportunities at the intersection of all domain areas, and how are regional firms responding? (e.g. investments in sovereign AI and defence)
- What does the skills and talent pipeline look like, and what does this mean for inward investment and long-term sustainability of the region's potential?

The study draws on ten key chapters to provide a baseline and inform many of these research considerations. This report cannot address all of these questions in full, but it provides an informed baseline regarding who operates in the North West, what this means for the region and sub-regions, and where opportunities for growth may be evidenced.

Table 1.1. Report Structure

Chapter	Coverage
1. Introduction and Background	Setting out the scope of the research
2. Strategic Context	The strategies and initiatives underpinning the defence and security ecosystem nationally and regionally
3. Mapping the Defence and Security Ecosystem	Defining and identifying relevant organisations
4. Baselining the Ecosystem	Developing an economic baseline for the region
5. Mapping Domains and Capabilities	Understanding what firms do in the region
6. Demand, Supply Chains and Procurement	Identifying demand, and applications for defence and security and dual-use, and the role of procurement
7. Workforce and Skills	Understanding workforce demand and skills supply in the region
8. Assessing the Ecosystem	Understanding the benefits and risks to the ecosystem
9. Growth Potential	Identifying growth potential and scale
10. Strategic Implications	Considering next steps for growth

1.3 Methodology

The research team has utilised a multi-stage methodology to identify, enrich, and measure the scale of the defence and security ecosystem. The full methodology is set out in the Annex.

- **Stage 1. Desk Review and Stakeholder Consultations:** The research team undertook extensive desk review of hundreds of web sources related to the North West defence and security ecosystem. An automated tracker to identify new content and announcements was developed internally to capture any announcements from relevant organisations in the region. In addition, approximately ten one-to-one consultations were undertaken with regional stakeholders from the five sub-regions, and regional clusters, suppliers, and university partners.

- **Stage 2. Initial Mapping and Longlisting of Sources:** The research team reviewed all firms with an active presence in the North West of England, using accounts and web data. This captures both registered firms in the region, and firms registered elsewhere with a trading presence in the region. All firms were enriched with descriptive data and matched with respect to a defence relevance score based on sources identified and relevance to the study. Clear false positives were removed from the analysis, with over 15,000 firms considered in additional detail within the long-listing.

- **Stage 3. Definitional Considerations:** As set out in Section 3.2, firms were reviewed to identify key defence and security related strengths in the region, and to support with the definitional scope, capturing both defence and security applications, as well as regional strengths in dual-use applications.

- **Stage 4. Firm Level Review:** All firms were reviewed with respect to the extent to which the research team could evidence the relevance to the study. For example, hundreds of firms might be involved in steel fabrication, but the study only brings forward those firms that clearly appear engaged in the supply chain for defence and security applications (e.g. named working with a defence prime in their website etc). Further, firms were also reviewed with regard to whether they appeared 'dedicated' defence, security or related areas (i.e. the firm focuses solely on these applications) or 'diversified' e.g. where a large consultancy or construction firm also works significantly in defence applications in the region.

- **Stage 5. Final List and Analysis:** Following verification and validation checks, the research team brought forward 1,826 firms for shortlisting and analysis. All firms were enriched with accounts and web data, in addition to investment raised, regional employment estimates, research and innovation activity, partnerships, and procurement data (set out in Section 4).

This is an experimental research area and relies upon an extensive range of data sources and analysis. The results reflect a best estimate of activity as scoped by the research team; definitions and modelling approaches may vary across studies, particularly as defence and security's boundaries expand as new technologies are developed and deployed for national security and dual-use.

Firm Level Scope:

Firms identified within this study must also align to the following criteria:

- Have a clear presence within the UK market, through a UK registered business that reports to Companies House on an annual basis
- Have a clear presence in the North West region (i.e. Greater Manchester, Lancashire, Cumbria, Cheshire or Liverpool City Region) as marked through a registered office, or any physical office location or office announcement in the region
- Demonstrate an active provision of commercial activity related to defence, security, aerospace, nuclear or aligned dual-use applications (e.g. through the presence of a website / social media) beyond basic adoption
- Provide related products or services to the market (i.e. sell or enable the selling of defence and security related products or solutions to other customers)
- Have identifiable revenue or employment within the UK, measurable through accounts or web presence
- Appear to be active at the time of writing (i.e. have not dissolved and are not in the process of dissolution)
- Are not charities, universities, networks, or individual contractors (non-registered), all excluded for analysis purposes

Annex A sets out the methodology, definitions, and research scope in full.

SECTION 02

2. Strategic Context

2.1 Introduction

The United Kingdom's policy approach to defence and national security has received significant attention over the past three years, driven by a deteriorating global threat environment, the war in Ukraine, and renewed focus on defence and security readiness. At the time of writing, there have been several announcements and updated strategies, including the Strategic Defence Review (2025), the Defence Industrial Strategy (2025), and most recently the Defence Investment Plan (June 2026), which sets out the funded programme of investment giving effect to these strategies over the next four years.

This section provides an overview of the key policies and strategies shaping the current policy context and their implications for the UK's defence ecosystem, and for the North West.

2.2 Strategic Context: UK Level

The Integrated Review Refresh (HM Government, 2023)[3] updated the UK's overarching national security strategy in direct response to Russia's invasion of Ukraine, committing an additional £5 billion in defence funding and elevating the assessed threat from both Russia and China. The Refresh reinforced the UK's commitment to NATO, signalled an increased appetite for high-intensity conflict preparedness, and a greater commitment to areas of UK differentiation such as science and technology. This is vital framing for the more comprehensive Strategic Defence Review (SDR) that followed.

The Strategic Defence Review 2025 (SDR) (HM Government, 2025)[4], published in June 2025, builds on the IR Refresh and introduces a new warfighting concept centred on 'NATO first' priorities. It significantly expands investment as an engine for growth in key areas including submarines, combat air, and cyber capabilities, and puts an emphasis on science and innovation. Structurally, the SDR introduces major reforms to procurement and capability development, including segmented acquisition pathways and the creation of UK Defence Innovation (UKDI), intended to accelerate delivery and reduce systemic inefficiency.

The SDR sets out increased investment targets for the defence industry, with a strong emphasis on defence spending as a driver of wider economic prosperity and productivity, reflected in the Government's framing of defence as "an engine for growth". The SDR commits the UK to spending 2.5% of GDP on defence by 2027 (2.6% including intelligence spending), with an ambition of 3% in the next Parliament. The Defence Investment Plan (June 2026), discussed below, gives these commitments financial effect, taking spending to 2.7% of GDP by the end of the decade against a NATO commitment of 3.5% by 2035.[5]

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[3] HM Government (2023) Integrated Review Refresh 2023: Responding to a more contested and volatile world, March 2023, https://www.gov.uk/government/publications/integrated-review-refresh-2023-responding-to-a-more-contested-and-volatile-world.
[4] Ministry of Defence (2025) The Strategic Defence Review 2025 – Making Britain Safer: secure at home, strong abroad, 2 June 2025, https://www.gov.uk/government/publications/the-strategic-defence-review-2025-making-britain-safer-secure-at-home-strong-abroad.
[5] Ministry of Defence (2026) The Defence Investment Plan: defence spending of 2.7% of GDP by the end of the decade and 3.5% by 2035, with an ambition of 3% in the next Parliament.

Industry-level data from ADS Group (Defence Sector UK Outlook 2025) further contextualises the opportunity, with their estimates based on ONS data suggesting that the UK defence sector directly contributes £15 billion in Gross Value Added (GVA) annually and supports 181,500 jobs. ADS has separately reported that the UK is the world's second-largest defence exporter (Defence Outlook 2023)[6]. Critically for regional analysis, 71% of defence sector employment sits outside London and the South East.

Defence spending and innovation: the economic case

Economists typically distinguish between two effects of defence spending. The first is the immediate demand effect, i.e. the GDP multiplier from spending on equipment, infrastructure and personnel, which conventional macroeconomic models capture reasonably well. The second is longer term and harder to measure: the productivity, skills and industrial capability effects generated by security requirements, defence R&D and sophisticated procurement. For example, jet engines, radar, satellite positioning and the internet were each accelerated by defence demand before reaching civilian markets, and dual-use research has supported developments in fields ranging from display technology to medical imaging.

Recent evidence supports the second effect. Moretti, Steinwender and Van Reenen (2025) find that government-funded defence R&D typically stimulates rather than displaces private R&D, raising productivity in the industries that receive it, with spillovers across borders.[7] In effect, defence can act as a lead customer, able to fund innovative projects over long time horizons, and with access to highly skilled engineers. Where public R&D, procurement, domestic industrial capability, universities and entrepreneurial firms are connected, defence investment can therefore support national security, preserve strategic industrial capability, and develop technologies and skills that increase the productive capacity of the wider economy.

The Defence Industrial Strategy (DIS) (2025)[8] also builds on the SDR and sets out the next evolution of industrial policy for the defence sector. It is designed to ensure that increased defence spending delivers not only military capability but also economic growth, innovation, industrial resilience, and jobs across the UK. The core objective of this strategy is to "ensure we have an industry capable of successfully implementing the SDR".

The DIS establishes a direct relationship between government and industry and explicitly prioritises domestic industrial capacity as a strategic asset rather than a cost base. It also commits to at least 10% of the equipment budget being spent on novel technologies and commits to raise MOD spending with SMEs, directly and through the supply chain, to £7.5 billion a year by 2028, an increase of £2.5 billion on 2023/24.[9] A central pillar of the new architecture is the network of Regional Defence and Security Clusters,

[6] ADS Group (2025) Defence Sector UK Outlook 2025 (GVA and employment, 2024 basis), https://www.adsgroup.org.uk/facts-figures/adsdefenceoutlook2025/. Exporter ranking: ADS Group (2023) Defence Outlook 2023 (three-year average of £7.4bn of exports), https://www.adsgroup.org.uk/facts-figures/ads-defence-outlook-2023/. The UK Government's UK Defence Export Statistics 2024 report £13.2bn of export orders but no global ranking.
[7] Moretti, E., Steinwender, C. and Van Reenen, J. (2025) 'The intellectual spoils of war? Defense R&D, productivity, and international spillovers', The Review of Economics and Statistics, 107(1), pp. 14–27.
[8] Ministry of Defence (2025) Defence Industrial Strategy 2025: Making Defence an Engine for Growth, 8 September 2025, https://www.gov.uk/government/publications/defence-industrial-strategy-2025-making-defence-an-engine-for-growth.
[9] Ibid.; Ministry of Defence (2026) SME Action Plan, July 2026.

which provide a formal mechanism for connecting national procurement priorities with local industrial capability.

The DIS designates certain capabilities where domestic production is treated as non-negotiable (the 'National Security Industrial Priorities'). These are areas where the UK Government has determined that domestic production capacity must be retained regardless of cost, because the risk of dependency on foreign suppliers is unacceptable. The DIS also designates subsectors that have been identified as having high economic growth potential, including military-specific areas and more general sectors (the 'frontier industries'). These are industries that represent areas of opportunity where investment can capture global market share and deliver returns.

National Security Industrial Priorities	Frontier Industries
Nuclear deterrence capabilities	Combat Air
Nuclear submarines	Complex weapons
Ground combat systems	Directed energy weapons
Cryptography	Next generation land and maritime capabilities
Combat air	Quantum technologies
Shipbuilding	Drones and autonomous systems
Complex weapons	Space
Munitions	Artificial Intelligence
	Cyber
	Engineering Biology
	Advanced Connectivity Technologies
	Semiconductors

The DIS also sets out supply chain priorities which sit between these two groups as critical inputs, including foundation industries, steel, energy and materials, batteries, semiconductors and rare-earth elements.

The Defence Investment Plan (DIP), published in June 2026[10], converts these strategic commitments into a funded programme covering c. £298 billion of planned investment over the next four years, including an additional £15 billion within the 2026 announcement. The DIP is intended to provide industry with longer-term demand visibility. Many of its headline allocations map directly onto the North West's industrial base, including:

[10] Ministry of Defence (2026) The Defence Investment Plan: Funding explainer, GOV.UK, 30 June 2026, https://www.gov.uk/government/publications/the-defence-investment-plan/the-defence-investment-plan-funding-explainer (£298bn over four years, including an additional £15bn between 2026-27 and 2029-30).

- £63.6 billion for the Defence Nuclear Enterprise over 2026/27 to 2029/30, more than £20 billion above the previous four years[11] (funding new deterrent submarines, warheads, a nuclear fuels programme, and upgrades across the defence nuclear estate, of direct relevance to Barrow-in-Furness, Sellafield, Springfields and Capenhurst);
- £8.6 billion for the Global Combat Air Programme, with a further £300m for Collaborative Combat Aircraft[12];
- £11 billion for munitions and weapons stockpiles[13];
- over £5 billion for autonomous systems[14]; and
- £3.2 billion for space and £2.5 billion for cyber and the electromagnetic domain[15].

Alongside the Defence Industrial Strategy, the Government has announced five £50m Defence Growth Deals (£250m in total) for Plymouth, South Yorkshire, Wales, Scotland and Northern Ireland[16]: place-based packages intended to translate defence investment into local jobs and innovation. At the time of writing, no Defence Growth Deal has been announced for the North West. However, this report suggests a more fundamental point, in that, with regard to delivering the Defence Investment Plan at pace, the North West is one of the best placed regions in the UK to advance it, holding relevant industrial capability, workforce and programme infrastructure across several of the DIP's funded areas.

The pattern of MOD expenditure with industry already points in this direction. In 2024/25, the MOD spent £4.78bn with industry in the North West, c. 15% of its £31.9bn UK-wide spend with industry and the third-highest amount received by any UK region or nation, behind only the South East and South West. The North West's position is also strengthening, with MOD expenditure per head rising to £620 per person in 2024/25, the joint-largest increase of any region alongside London. Further, 92% of the region's total is spent on equipment, the highest proportion in the UK, reflecting the concentration of manufacturing and programme delivery at Barrow, Warton and Samlesbury and across the nuclear enterprise. On this trajectory, the North West appears on track to become one of the MOD's leading regional destinations for spending with industry as the Defence Investment Plan is delivered (MOD Regional Expenditure with Industry, 2024/25)[17].

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[11] Ministry of Defence (2026) The Defence Investment Plan: Equipping our forces, defending our future, 30 June 2026, Table 2 (Defence Nuclear Enterprise £63.6bn, 2026/27 to 2029/30); Ministry of Defence (2026) '£15 billion new funding boost to transform Armed Forces and keep the UK safe', GOV.UK, 30 June 2026, https://www.gov.uk/government/news/15-billion-new-funding-boost-to-transform-armed-forces-and-keep-the-uk-safe ('£20 billion more will be invested into the Defence Nuclear Enterprise, compared to the previous four years').

[12] MOD (2026) DIP Funding explainer (£8.6bn for GCAP; £300m for Collaborative Combat Aircraft); Ministry of Defence (2026) 'Over £4 billion invested in next-generation fighter jet with new international contract', GOV.UK, 3 July 2026, https://www.gov.uk/government/news/over-4-billion-invested-in-next-generation-fighter-jet-with-new-international-contract.

[13] MOD (2026) DIP Funding explainer (£11bn for munitions and weapons, including at least six new energetics factories).

[14] MOD (2026) DIP Funding explainer (£5bn for drones and autonomous systems); Ministry of Defence (2026) 'UK drone transformation to strengthen Armed Forces backed by more than £5 billion', GOV.UK, 29 June 2026, https://www.gov.uk/government/news/uk-drone-transformation-to-strengthen-armed-forces-backed-by-more-than-5-billion.

[15] MOD (2026) DIP Funding explainer (£3.2bn for space). The £2.5bn for the Defence Cyber and Electromagnetic Force is from the Defence Investment Plan, as summarised in House of Commons Library (2026) Defence Investment Plan: key decisions, CBP-10935, https://commonslibrary.parliament.uk/research-briefings/cbp-10935/.

[16] Ministry of Defence (2025) 'New Defence Growth Deals created to boost local economies under major sector plan', GOV.UK, 7 September 2025, https://www.gov.uk/government/news/new-defence-growth-deals-created-to-boost-local-economies-under-major-sector-plan; Northern Ireland deal, 22 April 2026, https://www.gov.uk/government/news/northern-ireland-start-up-boost-with-new-50-million-defence-growth-deal.

[17] Ministry of Defence (2025) MOD regional expenditure statistics with industry: 2024/25, official statistics, GOV.UK, 11 September 2025 (updated 10 June 2026), https://www.gov.uk/government/statistics/mod-regional-expenditure-statistics-with-industry-202425.

2.3 Strategic Context: North West

At the regional level, a growing body of strategic documents reflects a recognition that the North West's defence and cyber capabilities require dedicated policy and investment. Since early 2026, these frameworks have started to translate into delivery across all five sub-regions.

The Lancashire Growth Plan 2025–2035 (Lancashire Combined County Authority, 2025)[18] sets out defence, aerospace, and cyber as priority sectors for the county, connecting the arrival of the National Cyber Force at Samlesbury with wider ambitions for innovation-led economic growth across the sub-region. This is now being delivered. For example, the NCF's first trainee programme was due to start at Samlesbury in January 2026, the £13.2m Samlesbury Innovation Hub has secured planning approval, with a design team appointed in February 2026, and the Ministry of Defence's Digital and Cyber Bursary programme has expanded from 100 to 500 students in Lancashire, with the latest cohort of 285 enrolled across ten colleges.[19]

Policy has also begun to respond directly to the strategic significance of the NCF. The Central Lancashire Local Plan 2023–2041: National Cyber Force HQ Topic Paper (Preston, South Ribble, and Chorley Councils, 2025)[20] shows local planning responding directly to a national defence investment decision. It sets out how the Local Plan has considered the NCF's arrival, confirms the Samlesbury Enterprise Zone as a regionally significant site for employment, and places Samlesbury at the heart of the developing North West Cyber Corridor.

In Cumbria, Barrow reflects a clear place-based response to national defence investment. Team Barrow, a partnership of central government, Westmorland and Furness Council and BAE Systems, has been established to deliver the Plan for Barrow, and oversee a c. £200m Barrow Transformation Fund[21]. The House of Commons Defence Committee's April 2026 AUKUS report[22] has however suggested that the £200m may 'not be enough' to deliver the changes required, with the Barrow Delivery Board's chair estimating the total investment requirement at c. £1bn, underlining both the scale of national investment in the North West and the associated challenges in delivery.

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[18] Lancashire Combined County Authority (2025) The Lancashire Growth Plan 2025–2035, sector priority 1: UK security (defence, aerospace and cyber), https://lancashire-cca.gov.uk/lancashire-growth-plan/lancashire-growth-plan-html/sector-priority-1.

[19] Blog Preston (2025) 'National Cyber Force trainee jobs at Samlesbury as Lancashire County Council approve new 'innovation hub'', January 2025, https://www.blogpreston.co.uk/2025/01/national-cyber-force-trainee-jobs-at-samlesbury-as-lancashire-county-council-approve-new-innovation-hub/ (training to begin in January 2026); Lancashire County Council (2026) 'Design team appointed for £13.2m Samlesbury Innovation Hub as Lancashire moves project into delivery', 11 February 2026, https://news.lancashire.gov.uk/news/design-team-appointed-for-gbp-13-2m-samlesbury-innovation-hub-as-lancashire-moves-project-into-delivery; Lancashire Business View (2026) 'Planning approval for £13.2m Innovation Hub', 22 July 2026, https://www.lancashirebusinessview.co.uk/latest-news-and-features/planning-approval-for-132m-innovation-hub; 'Major expansion of Digital & Cyber Bursary scheme in Lancashire to strengthen UK's 'Cyber Corridor'', GOV.UK, 22 October 2025, https://www.gov.uk/government/news/major-expansion-of-digital-cyber-bursary-scheme-in-lancashire-to-strengthen-uks-cyber-corridor; Ministry of Defence (2026) '500 students now learning latest digital and cyber defence skills through MOD scheme in Lancashire', GOV.UK, 21 January 2026, https://www.gov.uk/government/news/500-students-now-learning-latest-digital-and-cyber-defence-skills-through-mod-scheme-in-lancashire.

[20] Central Lancashire Authorities (Preston City Council, South Ribble Borough Council and Chorley Council) (2025) Central Lancashire Local Plan 2023–2041: National Cyber Force HQ Topic Paper, October 2025, https://centrallocalplan.lancashire.gov.uk/media/2396/m801a-central-lancashire-authorities.pdf.

[21] Westmorland and Furness Council (2024) 'Barrow Delivery Board meets for first time following confirmation of £200 million transformation fund', https://www.westmorlandandfurness.gov.uk/news/2024/barrow-delivery-board-meets-first-time-following-confirmation-ps200-million-transformation-fund; Team Barrow (2024) The Plan for Barrow.

[22] House of Commons Defence Committee (2026) AUKUS, Eighth Report of Session 2024–26, HC 841, 28 April 2026, para. 87, https://publications.parliament.uk/pa/cm5901/cmselect/cmdfence/841/report.html.

The Greater Manchester Cyber Strategy 2023–2028 (GMCA, 2023)[23] sets out a five-year programme to grow the city-region's cyber ecosystem through partnerships between government, industry, and academia, explicitly aligning with the National Cyber Strategy and positioning Greater Manchester as a strategic partner in the UK's national security mission. Its five pillars include accessible routes into cyber and greater diversity in the sector. Separately, the North West Cyber Corridor Innovation Impact Study estimates c. 12,000 cyber security FTEs in the region, with an ambition to grow to c. 30,000 FTEs by 2035.[24] The North West attracted the largest share of external investment into UK cyber security firms in 2024 (c. 49%, or £102m across six deals, led by PortSwigger's c. £88m raise).[25] Greater Manchester is also home to GCHQ's Manchester base and will host the Manchester Digital Campus, confirmed in March 2026, which will bring together c. 8,800 civil service posts from multiple departments with a focus on digital work at a site in Ancoats.[26] Greater Manchester's defence footprint is also broader than cyber. For example, KNDS UK's Heaton Chapel site in Stockport was confirmed in May 2026 as the UK manufacturing base for the Boxer drive modules underpinning the British Army's £1bn RCH 155 mobile artillery programme, and MBDA announced a £200m investment in May 2025 to more than double its Bolton footprint by 2028, creating 700 jobs.[27]

Cheshire and the Liverpool City Region are seeing the same pattern of national investment decisions landing in sub-regional assets. In March 2026, the Chancellor announced £51m for a National Cryogenic Facility at STFC's Daresbury Laboratory, delivering an approximately sixfold increase in cryogenic capacity for sectors such as quantum, healthcare and fusion and reinforcing the campus's growing security-relevant R&D base.[28] At Capenhurst, Urenco's North West plant will supply over a third of the uranium content under the UK's June 2026 £210m export finance package for Ukraine's nuclear fuel supply[29], while on Merseyside Balaena's c. £150m acquisition of APCL Group, owner of the Cammell Laird yard at Birkenhead, signalled renewed investment interest in the region's naval engineering base.[30]

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[23] Greater Manchester Combined Authority (2023) Greater Manchester Cyber Strategy 2023–2028, August 2023, https://greatermanchester-ca.gov.uk/media/8972/greater-manchester-cyber-strategy-2023-28.pdf.

[24] Lancaster University, The North West Cyber Corridor Innovation Impact Study, https://www.lancaster.ac.uk/cyber-security-education/media/publications/cyber-corridor-impact-study/ (c. 12,000 FTEs working in cyber security in the North West; ambition of c. 30,000 FTEs by 2035).

[25] Department for Science, Innovation and Technology (2025) UK Cyber Security Sectoral Analysis 2025: in 2024 the North West accounted for the highest share of external investment in UK cyber security firms (49%, six deals worth £102m).

[26] Government Property Agency (2026) 'Manchester Digital Campus confirmed', GOV.UK, 19 March 2026 (outline business case approved; c. 8,800 people from multiple government departments).

[27] KNDS UK: Ministry of Defence (2026) 'Next generation remote controlled artillery systems to transform British Army', GOV.UK, 13 May 2026, https://www.gov.uk/government/news/next-generation-remote-controlled-artillery-systems-to-transform-british-army. MBDA: Department for Business and Trade and UK Export Finance (2025) 'Multi-million defence investment creates 700 jobs days after UK-EU security pact', GOV.UK, 22 May 2025, https://www.gov.uk/government/news/multi-million-defence-investment-creates-700-jobs-days-after-uk-eu-security-pact.

[28] HM Government (2026) 'Chancellor backs the North's industrial strengths with new investments', GOV.UK, 18 March 2026, https://www.gov.uk/government/news/chancellor-backs-the-norths-industrial-strengths-with-new-investments; AIRTO (2026) 'National Cryogenic Facility receives £51.2 million from UKRI', 26 March 2026, https://www.airto.co.uk/2026/03/national-cryogenic-facility-receives-51-2-million-from-ukri/ (approximately six-fold increase in cryo-capacity); STFC ASTeC (2026) '£51 million funding announced for ASTeC-led National Cryogenic Facility', 25 March 2026, https://www.astec.stfc.ac.uk/news/51-million-funding-announced-for-astec-led-national-cryogenic-facilitywest-a-global-quantum-hub/.

[29] UK Export Finance (2026) 'UK powers up Ukraine with £210 million nuclear fuel deal and boosts British jobs', GOV.UK, 16 June 2026, https://www.gov.uk/government/news/uk-powers-up-ukraine-with-210-million-nuclear-fuel-deal-and-boosts-british-jobs (over a third of the uranium content from Urenco's North West plant).

[30] Maritime Executive (2026) 'Storied UK Shipbuilder Cammell Laird Sold in Consolidation of Sector', 10 June 2026, https://maritime-executive.com/article/storied-uk-shipbuilder-cammell-laird-sold-in-consolidation-of-sector (price of approximately £150 million, as reported by the Financial Times); UK Defence Journal (2026) 'Balaena buys Cammell Laird owner in UK shipyard shake-up', 12 June 2026, https://ukdefencejournal.org.uk/balaena-buys-cammell-laird-owner-in-uk-shipyard-shake-up/.

Regional collaboration is also critical to supporting these policies. The North West Regional Defence and Security Cluster launched in October 2024[31] and now counts over 200 of the firms mapped in this study among its members across the five North West sub-regions. In April 2026, Blackpool and The Fylde College, working in collaboration with Furness College (Barrow), was named one of five Defence Technical Excellence Colleges in England under the Government's £175m Technical Excellence Colleges programme, through a bid supported by the Cluster, Lancaster University, the University of Lancashire, the Lancashire Skills Hub and Team Barrow.[32] The University of Cumbria secured c. £4m in June 2026 to create 277 additional places in engineering, robotics and computer science with partners including BAE Systems and the Defence Nuclear Enterprise[33], and five universities in the North West were named founding members of the Defence Universities Alliance in July 2026, the largest number of any UK region.[34] These developments (considered further in Section 7.3) suggest the region is developing the skills and infrastructure needed to respond to the demand set out in the Defence Investment Plan.

Table 2.1. Aerospace, Defence and Security Related Strategies in the North West

Strategy	Detail
Greater Manchester Cyber Strategy 2023–2028 (GMCA, 2023)	Five-year programme to grow the city-region's cyber ecosystem through partnerships between government, industry and academia; positions Greater Manchester as a strategic partner in the UK's national security mission, alongside the North West Cyber Corridor ambition to grow the region's cyber workforce from c. 12,000 to c. 30,000 FTEs by 2035.
Lancashire Growth Plan 2025–2035 (Lancashire Combined County Authority, 2025)	Anchors defence, aerospace and cyber as county priority sectors, connecting the National Cyber Force's arrival at Samlesbury with innovation-led growth ambitions; now supported by the £13.2m Samlesbury Innovation Hub.
Central Lancashire Local Plan 2023–2041: National Cyber Force HQ Topic Paper (Preston, South Ribble and Chorley Councils, 2025)	Sets out how the Local Plan has considered the NCF's arrival and confirms the Samlesbury Enterprise Zone as a regionally significant site for employment; an example of local spatial planning responding to national defence investment.
Plan for Barrow / Team Barrow (HM Government, Westmorland and Furness Council and BAE Systems, 2024)	Public-private partnership aligning town regeneration with the Dreadnought and SSN-AUKUS submarine build; c. £200m Barrow Transformation Fund, plus a £20m Pride in Place programme and targeted workforce-inclusion funds, with major town-centre delivery under way from 2026.

[31] North West Regional Defence and Security Cluster, https://www.northwestrdsc.co.uk/ (launched at Sci-Tech Daresbury in October 2024; one of the first five Regional Defence and Security Clusters backed by the Ministry of Defence).
[32] Ministry of Defence and Department for Education (2026) 'Next generation empowered through Technical Excellence Colleges', GOV.UK, 14 April 2026, https://www.gov.uk/government/news/next-generation-empowered-through-technical-excellence-colleges; Blackpool and The Fylde College (2026) 'Blackpool and The Fylde College selected as Defence Technical Excellence College for the North West', 14 April 2026, https://www.blackpool.ac.uk/news/blackpool-and-fylde-college-selected-defence-technical-excellence-college-north-west; Furness College (2026) 'Furness College Celebrates National Recognition in Defence Technical Excellence Partnership', 22 April 2026, https://www.furness.ac.uk/furness-college-celebrates-national-recognition-in-defence-technical-excellence-partnership/.
[33] University of Cumbria (2026) 'University of Cumbria secures £4m to boost UK defence skills pipeline', 11 June 2026, https://news.cumbria.ac.uk/news/university-of-cumbria-secures-gbp-4m-to-boost-uk-defence-skills-pipeline.
[34] Ministry of Defence (2026) 'Boost for skills and research as 35 universities across the UK partner in new defence alliance', GOV.UK, 13 July 2026. North West founding members: Lancaster University, the University of Cumbria, the University of Lancashire, the University of Liverpool and the University of Manchester.

SECTION 03

3. Mapping the Defence and Security Ecosystem

3.1 Introduction

This section sets out the definitions, approach, and identification of relevant firms and supporting public assets across the North West. This explores the count, location, and incidence of defence and security related assets in the region. We set out how these have been classified, with subsequent chapters exploring the implications for related employment, productivity, activity, and growth potential.

The identification of assets and firms was undertaken in April 2026. This reflects a best ground-up estimate of relevant organisations in line with the study parameters and has been subject to automated and manual quality assurance checks. However, this is a fast-moving area, and whilst an extensive range of data sources has been used to help identify and classify firms, there may be further firms working in the ecosystem that may not have been identified due to the enrichment and classification processes undertaken, or due to data availability or coverage.

3.2 Definitional Scope and Considerations

There is no single statutory or nationally agreed definition of the 'defence and security ecosystem'. Government, industry and analysts can each draw the boundary differently, and all acknowledge the difficulty. The 2025 Defence Industrial Strategy reframes defence as one of eight growth sectors within the Modern Industrial Strategy and defines it through 'frontier industries' and priority subsectors, with areas such as quantum, autonomy, space, artificial intelligence and cyber among them, while recognising that most of these domains cannot be represented through Standard Industrial Classification (SIC) codes.

As such, there is no SIC code, or combination of codes, that reliably identifies defence firms. For example, only two codes are dedicated to defence (weapons and ammunition manufacture) whilst prime contractors span wider codes and activities including both civil and military work. Further, the supply chain is largely invisible in official statistics, and much of the relevant technology is dual-use. Several research and data firms may also have their own lists or classification codes for defence and security, but these can be top-down, classification-driven approaches that may miss or omit key components of the ecosystem or capture false positives when driven by limited descriptive data.

Rather than impose a definitional boundary, the research team develops a functional definition based upon a matter of degree (driven by a defence relevance score) rather than a binary judgement. This is informed by five stages:

1. **Whole economy approach:** We began with every company actively trading in the North West, with known defence and security firms identified as a sample. The team removed the majority of clearly non-defence related firms (e.g. food and drink, retailers), and subsequently reviewed over 30,000 active firms with potential relevance in domains including defence, manufacturing, holding companies, IT and digital etc.

2. **Keyword and language classification:** A library of thousands of defence and security related keywords was developed and applied to company product and trading descriptions, alongside a large language model (LLM) classifier, to initially assess each company's relevance to defence and security.
3. **Enrichment and defence scoring:** The research team enriched all shortlisted firms with additional data including web data (to determine if the firm had an active web presence, and mentions security or defence applications), procurement data (if the firm is a known supplier to a key defence buyer in the UK), investment data (if the firm has secured external investment), and labour market data (if the firm appears to be recruiting for security related roles). Potential companies were assigned a defence relevance score reflecting the intensity of their defence and security activity across these variables, with firms such as BAE Systems scoring 'High', and firms in areas such as steel fabrication scoring high if they mentioned supplying into defence firms, but lower or out of scope if not directly mentioned. This also helped to distinguish dedicated defence businesses from those with partial, indirect or dual-use exposure, and avoids the false precision of a hard in or out decision. Additional checks were undertaken based on best candidates to further identify other firms cited, undertake similarity checks, and conduct additional checks.
4. **Capability classification:** Each company was classified against a range of taxonomy areas including best-fit and multiple-fit tags across a range of primary and secondary sectors (capturing cross-domain activity) and a range of capability tags with regard to products, services, and technologies developed.
5. **Final verification:** All firms were subject to final checks, including verification of relevant trading activity, active status, and demonstrable revenue or employment in the North West.

The defence and security ecosystem comprises the organisations, together with the supply chains, skills, research and infrastructure that sustain them, whose products and services contribute to national defence and security. It spans the defence industrial base (aerospace, maritime, land systems, weapons and munitions, and increasingly AI, autonomy, space, cyber and software), the wider security sector (cyber security, critical national infrastructure protection, policing and counter-terrorism, border security and resilience). It contains deep and dual-use technology alongside often hidden supply chains, which is why it must be mapped from the ground up. In effect, the definition is operational: a company is in scope where the evidence of its activity shows it is relevant to defence and security, whatever sector it is classified in.

The study refers to 'dedicated' and 'diversified' defence and security companies. At the highest level, the taxonomy segments the businesses according to whether they are a dedicated defence company, or whether defence activity makes up a smaller proportion of a much broader commercial business offering (aligned to dual use). Dedicated companies are businesses that provide a service, product, platform, or hardware which is defence related (or the main focus as part of the supply chain) as their primary revenue source. Diversified companies provide defence products or services as part of a broader business offer (e.g. large construction firms delivering projects for the MOD). For dedicated companies, all activity is typically assumed to be defence related. For diversified companies, a proportion is applied based upon the estimated number of employees involved in defence related activity. For large multinational or UK wide firms, the research team also estimates North West activity specifically.

The research team has reviewed thousands of products and services mentioned by providers, which underpin a taxonomy approach (set out in Section 5 in further detail). The taxonomy organises companies across 19 sectors (plus an 'Other' category) and over a hundred distinct capability-level subsectors across these areas. These typically span three key layers, such as:

- **Platform and domain** e.g. Aerospace Manufacturing; Maritime & Submarine; Land Systems & Vehicles; Space & Satellite Systems; Weapons & Munitions; Nuclear Defence & Decommissioning.
- **Cross-cutting technology** e.g. Defence Electronics & Systems; Cyber Security & Information Assurance; IT & Digital Services; Advanced Manufacturing & Materials; Engineering Services.
- **Enabling services** e.g. MRO & Support Services; Logistics & Supply Chain; Training & Simulation; Professional Services & Consultancy; Construction & Infrastructure.

Firms can often provide one or many of these areas; however, the summary table below sets out the typical range of capabilities in scope of this study. Multiple tagging is needed, as a single or best-fit tag may understate how interconnected the regional supply chain actually is. For example, a firm developing sensors may supply both aerospace and defence primes, and a machining business may serve aerospace, maritime and nuclear customers. A full definition and taxonomy are set out in the Annex.

Sector	Definition
Advanced Manufacturing & Materials	Precision-engineered components, structures and specialist materials underpinning defence platforms, from machining, composites and specialist alloys to electronics fabrication and surface treatments. These are typically considered dual-use, serving civil aerospace, automotive and energy markets alongside defence.
Aerospace Manufacturing	Design, manufacture, assembly and integration of military and civilian aircraft and their subsystems, spanning aerostructures, propulsion, avionics, flight controls and uncrewed air systems.
Construction & Infrastructure	Construction, maintenance and management of the defence estate and physical infrastructure, including MOD facilities, accredited secure sites, airfields and marine infrastructure. These are set apart from general construction by security clearance, accreditation and resilience requirements.
Cyber Security & Information Assurance	Protection and assurance of defence and security information, networks and systems, covering penetration testing, security operations, incident response, cryptography, threat intelligence and compliance.
Defence Electronics & Systems	Specialist electronic hardware and integrated systems delivering military sensing, communication, command and effect, including C4ISR, radar, sensors and optronics, electronic warfare, secure communications and system integration. These are typically purpose-built for defence applications rather than civil products.
Engineering Services	Technical engineering supplied as a service to defence programmes rather than as a product, spanning design and analysis, systems engineering, modelling and simulation, testing, calibration and quality assurance.
IT & Digital Services	Software, data and digital infrastructure services for defence and security outcomes, including software development, cloud, data analytics and AI, and geospatial services.

Sector	Definition
Land Systems & Vehicles	Design, manufacture, integration and protection of military land platforms and subsystems, including armoured and logistics vehicles, vehicle integration and electronics, survivability and military bridging.
Logistics & Supply Chain	Movement, storage and sustainment of defence covering logistics, supply chain management, freight, fleet management, and packaging and preservation.
Maritime & Submarine	Design, construction, integration, repair and support of naval surface and sub-surface platforms and systems, spanning marine and submarine engineering, naval architecture, combat systems, sonar, propulsion and ship repair.
MRO & Support Services	Maintenance, repair and overhaul (MRO) of defence equipment and the services that keep it operationally available, including aircraft, vehicle and marine MRO, equipment overhaul, spares and obsolescence management, calibration and through-life support.
Nuclear Defence & Decommissioning	Nuclear capability across defence, from reactor and fuel engineering to the safe operation, regulation and decommissioning of nuclear sites, including submarine propulsion and radiation protection.
Personal Protective Equipment	Design and manufacture of protective clothing and equipment for military and security personnel, including body armour and ballistic protection, helmets, protective textiles, respiratory and CBRN protection, and survival equipment.
Physical & Electronic Security	Protection of people, sites and assets through physical and electronic means, including perimeter and access control, video surveillance and intrusion detection, screening and detection equipment, and secure facilities and guarding services for critical and defence infrastructure.
Professional Services & Consultancy	Advisory, programme and corporate services for defence organisations and their suppliers, spanning management consulting, programme and project management, strategy and policy, legal and financial advisory, and recruitment. This provides the expertise and capacity to plan, govern and deliver defence programmes.
Robotics & Autonomous Systems	Design, manufacture and integration of uncrewed and autonomous platforms and robotic systems for defence, security and hazardous environments, including uncrewed air, ground, surface and underwater systems, autonomy software, and robotic inspection and maintenance.
Space & Satellite Systems	Design, manufacture and operation of satellites, launch and ground systems for defence and security missions, covering satellite manufacturing and communications, space electronics, launch, ground systems and earth observation.
Training & Simulation	Training capability and synthetic environments that prepare personnel and rehearse operations, including live, land and synthetic training systems, simulators and e-learning.
Weapons & Munitions	Design and manufacture of weapons, munitions and related effects, with the means of countering and disposing of them, including missiles and complex weapons, small arms and ammunition, countermeasures, survivability, and ordnance and explosive ordnance disposal.
Other	A category for companies with defence and security relevance that do not map to a named sector, or with a lower count of firms, e.g. textiles and clothing, and energy and power generation.

3.3 Identifying Businesses

In line with this definition and scope, the research team reviewed a wide range of data sources, in addition to ongoing enrichment with internal Perspective Economics datasets for all UK companies built using Companies House, web and open data. The initial premise for this study was a recognition that:

> Any business in any sector with a physical or trading presence in the North West region is considered for inclusion within this study, where they appear to contribute to the defence and security ecosystem.

With respect to methodology, this meant that the research team considered:

- A full review of all registered and trading businesses in the North West, including review of company web data (where available), and where firms matched signals for relevancy to a defence and security ecosystem study (e.g. external investment, product or services, participation in research projects etc). A range of techniques including keyword matching, semantic matching, similarity scoring, and LLM reviews were undertaken to explore and test potential relevancy to this study;
- A review of labour force profiles and job vacancy demand using the Lightcast platform to identify key defence-related employers active in the North West;
- A review of external investment and growth data related to defence and security using Beauhurst;
- A review of UKRI Gateway to Research project participations relating to defence and security by businesses and universities in the North West;
- Identification of defence and security related public contracts and spend data by public buyers in the North West, and the role of suppliers in the North West;
- A desk review of clusters, trade bodies, accelerators and growth initiatives, accreditations, and case studies to identify wider engagement in the regional ecosystem.

Firm level identification combined a range of data sources, and deduplication and verification were undertaken by the Perspective Economics team. Further manual checks were undertaken on all shortlisted firms, with anomalies removed e.g. firms registered in serviced offices without a clear physical presence in the North West, or firms with inactive websites or had since dissolved or closed. Additional verification was also undertaken to confirm North West level postcodes for any firm trading in the region but registered elsewhere (for example, ensuring that a firm registered in London but with a substantial presence in Lancashire etc was captured by the study and could be mapped and weighted accordingly).

In total, the research team identified 1,826 companies in scope. This includes:

- 282 'dedicated' firms involved in aerospace, defence and security, typically including large defence primes such as BAE Systems, Leonardo, MBDA, Thales etc, and a range of specialist firms focused on defence applications such as Hyde Group, Oxley Group, and Teleplan Forsberg.
- 1,544 'diversified' and 'supply-chain' firms that also are embedded within defence and security in the region, through provision of engineering, advisory, and digital capabilities etc e.g. Bodycote, Luxfer, Victrex etc.

Further, for transparency, this includes 1,319 firms registered in the North West (i.e. registered office in the North West with Companies House) and 507 firms registered elsewhere in the United Kingdom but with an active office or trading presence in the North West (e.g. BAE Systems is registered in London but has multiple sites in the North West). Section 4 sets out the key baseline statistics for the defence and security ecosystem in the North West.

SECTION 04

4. Baselining the Ecosystem

4.1 Introduction

This section develops an initial baseline to help quantify the size and scale of the ecosystem. For the 1,826 firms identified in this study, the research team has developed an underlying bespoke firm-level dataset covering a wide range of metrics and variables, including:

Table 4.1. Data Sources used to inform baseline development

Data Coverage	Example Variables	Data Sources / Coverage
Registered Company Data:	Registered Name, Location, Date of Incorporation, Accounts (Revenue, Employment, GVA where derived/provided), Founders and Directors etc.	Companies House
Web Data:	Website, Company Description (in own words), Key Products and Services, Customers and Partnerships, Blogs, Standards and Accreditations, Company Locations (global and UK) etc.	Company Websites[35] and Web Search
Profiles and Recruitment Data:	Estimated number of individuals in companies by geography by relevant skill sets applied to workforce profiles. Identification of firms engaged in defence related recruitment activity	Lightcast
Investment Data:	Number of firms raising external investment (VC/equity), value and volume of fundraisings or grants.	Beauhurst
Research and Innovation Data:	Number of firms engaged in aerospace, defence and security related publicly funded research projects, patent data, partnerships and case studies for innovation	UKRI Gateway to Research, Web Data
Public Procurement Data:	Number of firms awarded defence related public contracts (value and volume)	Tussell

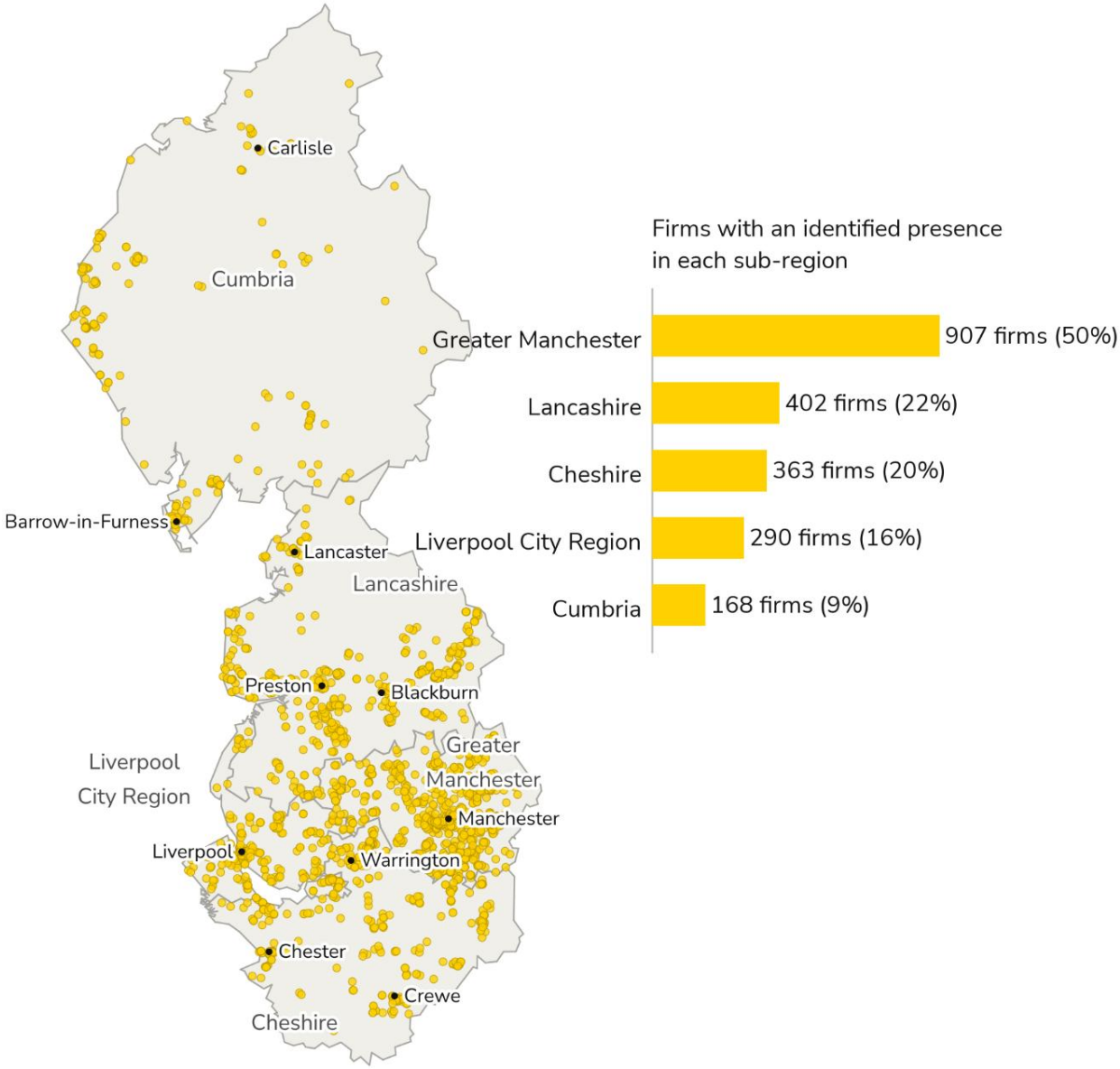
All data is aggregated, cleaned, matched, enriched and analysed by the Perspective Economics research team as of June 2026. This enables delineation and tagging of firms across categories for ease of analysis. Automated tools and large language models have been used to assist with enrichment and tagging, with human review applied to confirm classifications.

[35] Web data is collected and reviewed where available in public domain, and respects crawl preferences and rate-limiting. URLs and site structures are reviewed for study relevance to minimise excessive review and maximise focus.

4.2 Geographic Mapping

This study seeks to identify defence and security related businesses active and operating across the North West. This includes businesses registered or trading in any of the five sub-regions (spanning 35 local authority districts), based on review of Companies House and web data.

Figure 4.1. Firms with an identified presence in each sub-region, North West of England (counts and share of the 1,826 firms in scope)



Source: Perspective Economics. Firms are counted in each sub-region where they have an identified registered or trading presence. Multi-site firms appear in more than one sub-region, so the sub-regional counts sum to more than the 1,826 distinct firms in scope and the percentages sum to more than 100%. Where a company has more than one office in a sub-region, it is counted once (distinct count). Each dot on the map is a live registered or trading postcode of a firm in scope (2,544 sites).

4.3 Economic Estimates

This section explores the economic contribution of the defence and security ecosystem in the North West, as measured by direct estimates for employment, revenue and Gross Value Added (GVA) in the region.

There is no formal classification for the defence sector or related employment, and as such, this reflects Perspective Economics' best estimate using available accounts and profiles data for firms identified in the region. The methodology used is set out in full in Annex A.

The purpose of this research paper is to explore **the scope and direct contribution of the wider defence, security, aerospace and supply chains within the North West at a granular level**. As such, the estimates below are indicative of this set of firms, and due to the broadened definition (covering specialisms such as nuclear decommissioning), these estimates are higher than wider estimates within other research such as the ADS Defence Outlook (2025) (which estimates 26,500 FTEs in the North West, 15% of the UK total) and MOD Supported Employment Estimates (2024) (which estimates MOD expenditure directly supports 23,200 jobs in the North West).

However, each research approach considers different populations with regard to employment, and this report also builds upon a direct supply-side estimate to explore capacity and capability in the North West. Our estimates explore the supply side directly only; considering wider public, military and indirect employment, the economic contribution of aerospace, defence and security in the region could be even higher.

4.3.1 Estimated Employment

The research team has reviewed accounts data and web profiles (using Lightcast data) to estimate employment within the 1,826 firms in this study scope. Collectively, the firms identified within this dataset employ over 1.6 million individuals in the UK based upon company accounts; however, the overwhelming majority of this UK-wide employment is unrelated to defence and security activity (e.g. reflecting large, diversified firms with a defence presence). Employment estimates in this section therefore reflect headcount (rather than full-time equivalents), and the research applies an employment tiering approach, which:

- Estimates the extent to which a firm's employment is driven by defence and security related activity, by applying dedicated (all) or diversified (high, medium and low) tags to companies to avoid false positives or attribution; and
- Analysis of profile data to consider the proportion of a firm's activity that appears concentrated in the North West of England.

For all 1,826 firms identified, using this approach, we estimate that c. 50,400 people are employed in 282 'dedicated' defence and security firms in the North West, with a further c. 102,000 people employed in the North West in wider 'diversified' firms. In total, the firms identified employ over 152,000 people in the region. **However, by excluding diversified firms with 'low' matches (e.g. large consultancies or telecommunications firms that work with defence partners but have a more limited**

defence related employment footprint), we estimate c. 83,600 people[36] **may be employed in defence-related and defence-adjacent roles in the region. This figure is used as the best-estimate for defence and security related employment in the region.** This figure has been estimated using a review of:

- Reported employment for 'dedicated' firms within company accounts (where firms are primarily or solely based in the North West);
- Estimated regional number of profiles (via Lightcast) for firms in i) UK ii) North West iii) defence related roles.
- Where values are uncertain or not available, the research team has applied conservative estimation or null values to avoid overestimation.

These estimates are anchored by disclosed figures for the region's largest employers. For example, BAE Systems publicly reports an estimated 22,400 direct employees across its Samlesbury, Warton and Barrow-in-Furness sites, and Sellafield reports c. 11,000 direct employees. These figures may vary on an ongoing basis, but collectively, these two employers account for approximately two-fifths of the c. 83,600 estimate, demonstrating the significance of these two employers in the region.

Employment within the ecosystem is also highly concentrated. For example, the ten largest employers account for c. 59% of the defence related employment estimate. This reflects an ecosystem with major primes, in which a small number of major industrial employers are supported by a considerable group of medium and small specialist SMEs within their supply chains (as explored in Section 6).

We emphasise that these estimates should be treated as point-in-time estimates and should be tracked over time with further growth anticipated. For example, BAE Systems' Barrow-in-Furness workforce has grown from just under 11,000 in 2023 to c. 13,500, with Defence Nuclear Enterprise jobs in the region expected to reach c. 16,500 by 2027 and the shipyard workforce planned to rise towards c. 17,000 to deliver the Dreadnought and SSN-AUKUS programmes[37], alongside continued recruitment across its Lancashire sites and the wider supply chain.[38]

4.3.2 Employment by Sub-Region

The research team has also apportioned the c. 83,600 employment estimate across the North West's five sub-regional geographies. To do so, employment within firms with a single site in the region is assigned to their observed trading location, and firms with multiple sites in the North West are apportioned across the

[36] This consists of 282 dedicated defence and security firms employing 50,438 people in the North West (based on accounts and web data), and a further 211 diversified firms with a 'high' marker for defence-related employment intensity (e.g. aerospace and specialist manufacturers whose North West workforce is substantially engaged in defence, aerospace or security related work) employing 17,652 people in the region, and a further 435 firms with a 'medium' tag (with demonstrable evidence of defence supply activity, albeit as a minority of a diversified business) with 15,539 people in the region. A further 898 firms are tagged as relevant but 'low' with respect to employment activity in relation to defence (e.g. where we cannot isolate defence related employment but recognise relevant contracts and activity). These 898 firms account for a further c. 68,800 employees in the North West, which are excluded from the headline estimate. For example, a large consultancy firm with 2,000 employees in the region, where a much smaller sub-team works with the MOD as an assured partner, is tagged 'low' and excluded from the headline estimate.
[37] Calibre Defence (2026) 'Twelve boats, no bill: Defence Investment Plan recommits to SSN-AUKUS with steel-cutting just a year away', 8 July 2026, https://www.calibredefence.co.uk/ssn-aukus-submarines-defence-investment-plan/.
[38] Ministry of Defence (2026) A National Endeavour: Nuclear as part of the Defence engine for growth, GOV.UK, https://www.gov.uk/government/publications/the-uks-nuclear-deterrent-a-national-endeavour/a-national-endeavour-nuclear-as-part-of-the-defence-engine-for-growth (BAE Systems employment at the Barrow shipyard rose from just under 11,000 in 2023 to 13,500; Defence Nuclear Enterprise jobs in the region expected to reach around 16,500 by 2027).

sites identified within web and profiles data. For the larger employers, these are individually weighted using Lightcast profile locations and site-level evidence (e.g. known site footprints for BAE Systems, Sellafield, and the National Nuclear Laboratory). This is set out below in Table 4.2.

Table 4.2. Estimated defence and security ecosystem employment by sub-region

Sub-region	Estimated employment	Share	Illustrative anchor employers
Cumbria	c. 26,500	32%	BAE Systems, Sellafield, National Nuclear Laboratory, Cavendish Nuclear
Lancashire	c. 21,400	26%	BAE Systems, Springfields Fuels, Rolls-Royce (Barnoldswick), Victrex
Greater Manchester	c. 17,500	21%	MBDA (Bolton), Luxfer MEL Technologies, Morson Group, NCC Group
Cheshire and Warrington	c. 13,600	16%	Senior Aerospace, Urenco / Enrichment Technology (Capenhurst), Bodycote, Birchwood Park nuclear cluster (incl. Amentum, National Nuclear Laboratory HQ)
Liverpool City Region	c. 4,700	6%	G4S, APPH / Héroux-Devtek, Goodrich Actuation Systems, Teledyne, Sigmatex, RFD Beaufort
North West	**c. 83,600**	**100%**	–

Source: Perspective Economics analysis of accounts, web and Lightcast profile data; headcount basis. Sub-regional apportionment as described above.

At a sub-regional level, this data highlights:

- **Cumbria** accounts for the largest share of estimated employment (c. 26,500, 32%), despite hosting the fewest firms with an identified presence of any sub-region. This reflects the substantive scale of two nationally significant employers: BAE Systems' submarine shipyard at Barrow-in-Furness and the Sellafield nuclear site, which together account for over four-fifths of the sub-region's estimated employment. Barrow is widely recognised as one of the most defence-dependent local economies in the UK, and with the Dreadnought and SSN-AUKUS build programmes driving recruitment at the shipyard towards c. 17,000, Cumbria's share is likely to grow further, with at least one in every ten jobs in the region backed by defence activity. Other key employers include Morgan Sindall, Cavendish Nuclear (subsidiary of Babcock), James Cropper, James Walker Group, and Oxley Group.

- **Lancashire** (c. 21,400, 26%) hosts the region's combat air cluster, anchored by BAE Systems' Warton and Samlesbury sites (spanning Typhoon production and support, F-35 manufacture, and the future Global Combat Air Programme). In July 2026 BAE Systems unveiled Brontanax, the UK's first collaborative combat aircraft, designed and built at Warton with more than 75 UK suppliers,

for a sovereign programme to which the Defence Investment Plan commits £300m.[39] Beyond the primes, Lancashire holds the broadest defence manufacturing supply chain of any sub-region, with hundreds of firms including Rolls-Royce at Barnoldswick, nuclear fuel manufacture at Springfields (near Preston), advanced polymers (Victrex), a deep base of fabrication and precision engineering SMEs, and defence facilities support at establishments such as Weeton and Fulwood Barracks.

- **Greater Manchester** (c. 17,500, 21%) presents a different profile: it hosts the largest number of firms with an identified presence (with over 900 firms), with a lower direct defence manufacturing intensity and a greater focus on digital. Its footprint combines complex weapons manufacture (MBDA at Bolton), advanced materials (Luxfer MEL Technologies), technical recruitment and engineering services (Morson Group), cyber security (NCC Group), and a substantial base of professional, digital and support services firms that work with national security and defence clients. Greater Manchester's role within the ecosystem is therefore one of workforce scale, diversity and digital capability: it hosts the largest number of precision engineering and component suppliers by count, but its manufacturing employment intensity is lower than that of Lancashire or Cumbria. It also offers emerging strengths in areas such as AI, drones and robotics, and applying digital approaches to established manufacturing techniques.

- **Cheshire and Warrington** (c. 13,600, 16%) is distinguished by its civil and defence capabilities, including uranium enrichment at Capenhurst (Urenco and Enrichment Technology Company), and the concentration of nuclear engineering, decommissioning and consultancy capability at Birchwood Park, Warrington (including Amentum, the National Nuclear Laboratory's headquarters, and Rolls-Royce's civil nuclear business). This sits alongside substantial aerospace manufacturing capability, including Senior Aerospace and thermal processing at Bodycote.

- **The Liverpool City Region** (c. 4,700, 6%) has the smallest estimated employment footprint but a distinct specialism. This includes a maritime base spanning shipbuilding and repair at Cammell Laird (Birkenhead), naval workboats and high-speed craft (Marine Specialised Technology, Bromborough), marine survival and evacuation systems (Survitec, Birkenhead) and marine assurance (DP & Marine Assurance), alongside strengths in aircraft landing gear and actuation (APPH / Héroux-Devtek, Goodrich Actuation Systems), defence electronics (Teledyne), carbon fibre textiles (Sigmatex), survival and safety equipment (RFD Beaufort), and security services (G4S, including guarding of critical and nuclear infrastructure). The sub-region's scale, set against the depth of its specialisms, suggests headroom for growth as aerospace and defence supply chains expand.

The sub-regional distribution shows the following features of the North West ecosystem:

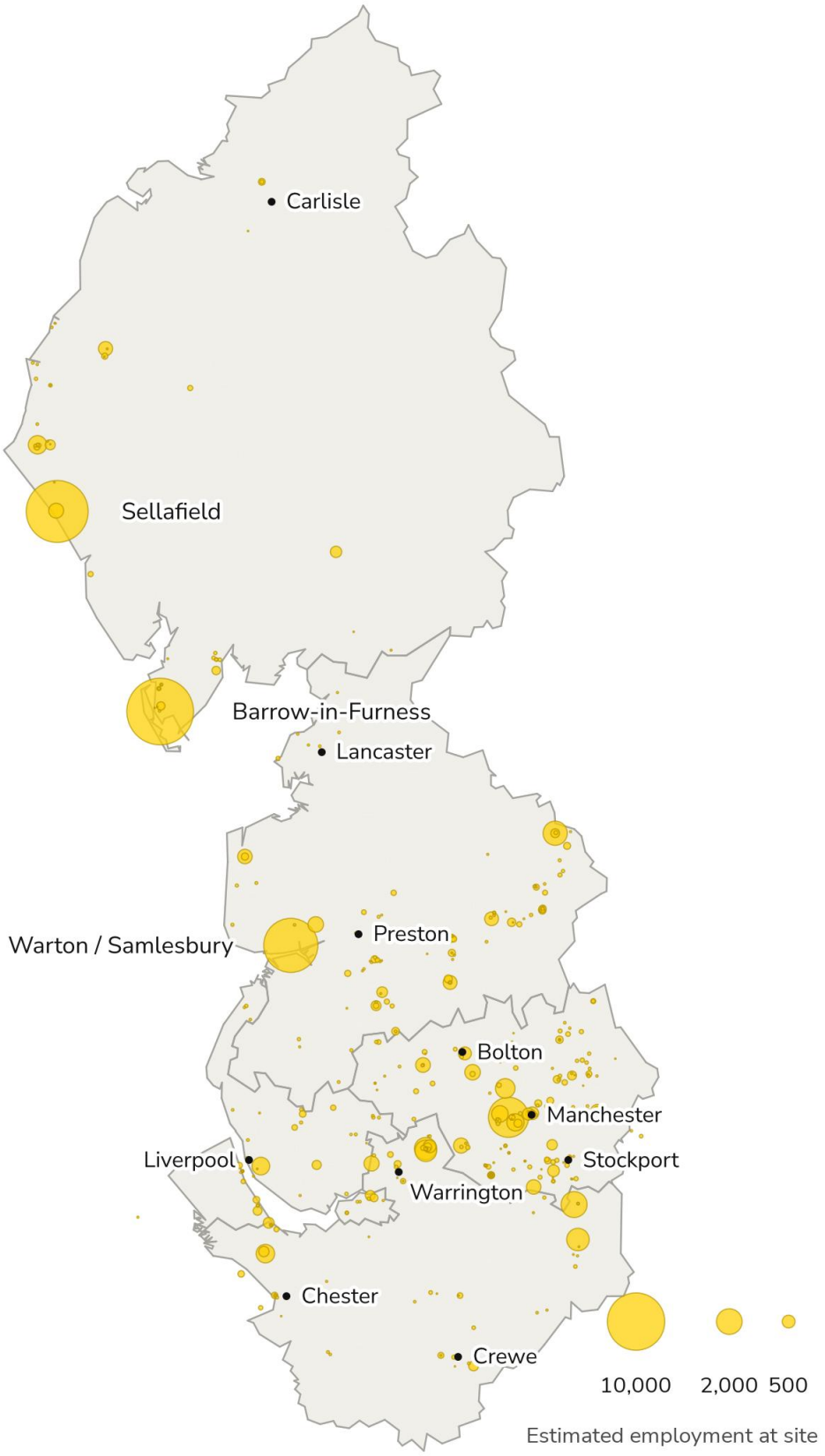
- **Breadth across the Defence Investment Plan's funded lines:** the region combines combat air (Lancashire), submarines and maritime (Cumbria) and a nuclear enterprise spanning Sellafield, Capenhurst, Springfields and Barrow, supported by digital, cyber and emerging AI and deep-tech

[39] BAE Systems (2026) 'First British designed Collaborative Combat Aircraft unveiled', press release, 22 July 2026 (designed and built at Warton, involving more than 500 employees and over 75 UK-based suppliers); Ministry of Defence (2026) The Defence Investment Plan (development of Collaborative Combat Aircraft 'backed by £300m of investment').

capability in Greater Manchester and specialist components and equipment in the Liverpool City Region. This range of programmes, in such close proximity, is arguably unique among UK regions.

- **Concentrated employment with a substantial mid-sized tier:** four of the five sub-regions have at least one anchor employer with more than 1,000 estimated employees in the region, and the two largest sub-regions are primarily shaped by a small number of single sites (as shown in Figure 4.2). Alongside the anchors, we find over 430 employers in the North West employ 20 or more people regionally. This mid-sized tier is an important strength in terms of delivery capacity, providing depth beyond the primes and micro-firms. However, resilience matters most at this tier, as a supply chain disruption, cyber-attack or macroeconomic shock affecting firms of this size could have a larger economic effect than one affecting a micro-firm, and supporting mid-sized firms is therefore central to protecting programme delivery.
- **Opportunities for direct growth and activity:** announced growth at Barrow, the Global Combat Air Programme and the new collaborative combat aircraft programme at Warton and Samlesbury and continued decommissioning demand at Sellafield indicate planned growth at the region's anchors. This growth creates opportunities across the supply chain, for both direct defence and dual-use applications.

Figure 4.2. Estimated defence and security employment by principal site, North West of England



Source: Perspective Economics analysis of accounts, web and Lightcast profile data (headcount basis). Firms are shown at their principal North West site; the largest employers are weighted using site-level evidence.

4.3.3 Estimated Revenue and GVA

We estimate that dedicated and 'high' relevance diversified defence and security related firms in scope generated approximately **£20.5 billion** in related revenue in the North West. This includes an estimated £18.9bn among 282 dedicated firms, driven by the regional presence of firms such as BAE Systems, and a further £1.6bn among 211 'high' intensity diversified firms. **We do not estimate North West defence related revenue for 'low' or 'medium' intensity diversified firms due to insufficient data.** As with employment, revenue is heavily concentrated, with the ten largest firms accounting for c. 82% of this estimate. This has also been estimated using a combination of:

- Reported turnover for 'dedicated' firms within company accounts (where firms are primarily or solely based in the North West);
- Apportioned turnover for firms with operations beyond the North West, scaled by regional employment share;
- Where values are uncertain or not available, the research team has also applied conservative estimation or null values to avoid overestimation.
- We do not estimate defence related revenue or GVA for firms with a diversified but 'medium' or 'low' defence coverage (e.g. large consultancies with a defence advisory team) given limited quality data. For reference, 'medium' tagged firms report a further c. £2.4bn of apportioned North West revenue, which is not attributed to the sector. Employment for these firms is included in the wider ecosystem estimate because headcount in the region can be observed; revenue cannot be attributed to defence with the same confidence, since doing so would assign defence-related revenue to firms that are not defence businesses but employ staff who work on defence, which applies particularly in areas such as telecommunications and software.

We further estimate, based upon accounts and web data, that combined defence and security related Gross Value Added (GVA) in the region is **approximately £9.3bn in the most recent financial year**. This comprises c. £8.8bn among dedicated firms and c. £0.6bn among 'high' intensity diversified firms. GVA is only estimated directly where firms report sufficient accounts data; however, the firms with reported GVA account for c. 81% of estimated employment and c. 97% of estimated revenue in scope, meaning coverage is sufficient to include in this analysis. GVA for the remaining (small and micro) firms is treated conservatively (i.e. null where unreported), **suggesting the £9.3bn estimate is itself likely to be conservative**.

Table 4.3 sets out the distribution of firms, employment and revenue by size band for the 493 'dedicated' and 'high diversified' defence firms based on their estimated employment and revenue in the North West. As noted, large firms account for c. 93% of estimated regional revenue. However, the data also highlights over 400 SMEs in the region collectively generating over £1.4bn in defence and security related revenue in the region, demonstrating the importance of regional supply chains.

Table 4.3. Estimated firms, employment and revenue by size band (dedicated and 'high' intensity diversified firms)

Size	Firms	Estimated NW defence and security related employment	Estimated NW related revenue (£m)	Revenue Share
Large	74	60,715	£19,101m	93%
Medium	99	5,114	£869m	4%
Small	115	1,906	£463m	2%
Micro	205	355	£87m	<1%
Total	**493**	**68,090**	**£20.5bn**	**100%**

Source: Perspective Economics analysis.

For reference, we have also apportioned these regional totals across the five sub-regional geographies, on the same basis as the employment estimates in Table 4.2. Firms with known or estimated values retain them. Dedicated and 'high' intensity firms without sufficient data are imputed using median revenue and GVA per employee (with outliers removed), and the combined results are scaled to the regional totals. Table 4.4 sets out the estimated results.

Table 4.4. Indicative estimated revenue and GVA by sub-region (dedicated and 'high' intensity diversified firms)

Sub-region	Est. revenue	Share	Est. GVA	Share
Cumbria	c. £9.4bn	46%	c. £4.3bn	46%
Lancashire	c. £5.6bn	27%	c. £2.7bn	29%
Greater Manchester	c. £2.4bn	12%	c. £0.9bn	10%
Cheshire and Warrington	c. £2.4bn	12%	c. £1.2bn	12%
Liverpool City Region	c. £0.6bn	3%	c. £0.2bn	2%
North West (total)	**c. £20.5bn**	**100%**	**c. £9.3bn**	**100%**

Source: Perspective Economics analysis. Note: indicative apportionment on the employment basis set out in Table 4.2. This may not sum to totals due to rounding.

We emphasise that these are indicative estimates only. Revenue and GVA are observed (or estimated) at firm rather than site level. Sub-regional attribution therefore reflects the concentration described above (the ten largest firms account for c. 82% of estimated revenue, and Cumbria's share reflects the scale of Barrow and Sellafield) and the challenges in regional apportionment.

4.4 External Investment

This section examines external investment activity across the defence and security ecosystem in the North West between 2020 and mid-2026. It draws on equity investment data from the Beauhurst platform, which tracks announced and unannounced fundraisings into UK high-growth companies.

The analysis focuses primarily on dedicated and 'high' intensity firms within the study scope, as this provides the most direct indicator of external capital flowing into defence and security related activity, and minimises the risk of attributing investment raised for other purposes (e.g. by large, diversified firms) to the sector. We also consider investment raised by the wider 'medium' and 'low' intensity population, to provide context as to how capital is flowing into adjacent and dual-use technologies in the region.

4.4.1 External Investment into Defence and Security Firms

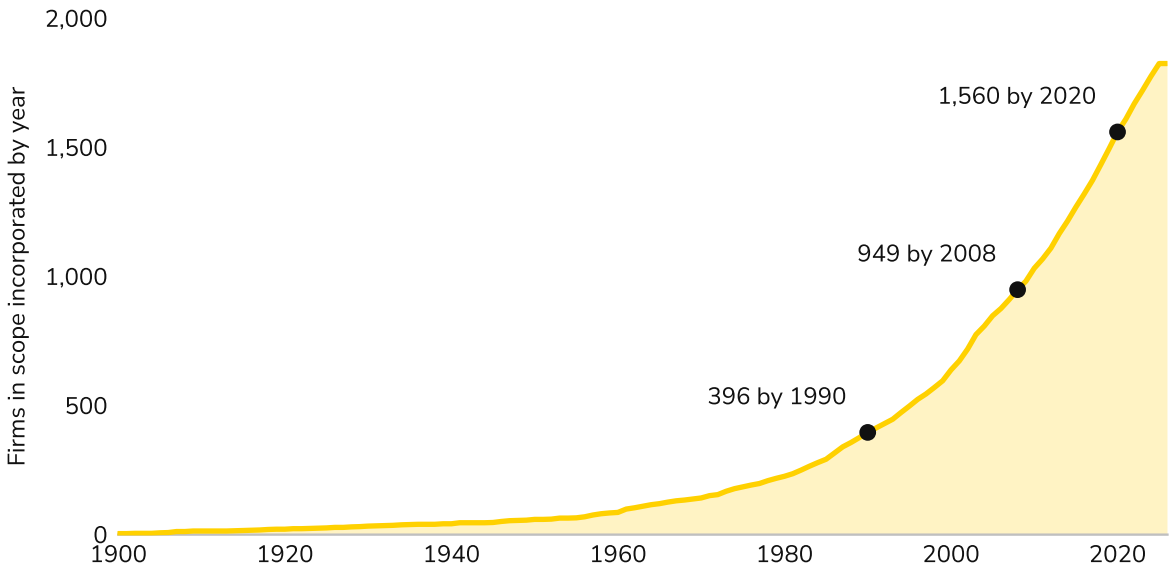
Across the c. 490 dedicated and 'high' intensity firms in scope, we identify 17 firms (c. 3%) that have raised external investment since 2020, collectively raising c. £152m across 24 deals. This is a lower rate of external fundraising than typically observed in technology sectors; however, this reflects that VC investment is often not the core mechanism for raising funding for these firms given the embeddedness of existing firms. In reviewing this data, we can identify three distinct profiles across the ecosystem for considering finance and investment:

- **Established firms, where contracts and supply chains matter most:** The majority of firms in scope are long-standing businesses. **For example, the median firm age in the dataset is c. 18 years, while the median dedicated or 'high' intensity firm was incorporated over 20 years ago, and c. half of 'high' intensity manufacturers more than 30 years ago (Figure 4.3).** These firms typically finance growth through contract revenue, retained earnings, and use of debt or asset finance (e.g. MST Group in Liverpool, which recently secured c. £6m in bank-backed growth[40] funding to expand its naval workboat production), rather than external equity. For this group, order books, supply chain positioning and prime relationships matter more than access to venture capital, reflecting financial self-sufficiency and patient capital. However, these firms often need backing to scale.
- **Mid-scale firms with the potential to scale:** A smaller group of established, product-led firms has attracted significant growth capital. This is most notable with respect to PortSwigger, which secured c. £88m in 2024 (the largest deal in scope) evidencing appetite for regional cyber security capability, alongside ASG Group (£31m, 2020) and Assembly Contracts (c. £4.5m via Foresight's regional fund, 2024).
- **An emerging cohort of new firms in AI, cyber security, autonomy and robotics, where venture capital is beginning to flow:** Approximately one third of dedicated firms are less than ten years old, and deal activity within this cohort has grown moderately since 2023 (from one deal in 2022 to four to six per year subsequently). This includes firms such as ESProfiler (c. £3.4m, backed by Nauta Capital), Astron Systems (Macclesfield, space systems, two rounds since 2024) and Valantus. However, deal sizes are at an early stage (median c. £1m), suggesting that investment readiness, access to follow-on capital, and accelerated routes to procurement are likely to be among significant constraints faced by early stage firms.

[40] The Naval Architect (2025) 'Bank funding "milestone" for MST Group', Royal Institution of Naval Architects, 9 May 2025, https://www.rina.org.uk/Bank-funding-milestone-for-MST-Group.html.

This segmentation matters for policy and ecosystem development, as the established core requires demand visibility and clear contracting; the mid-scale tier requires scale-up capital and contract and supply chain opportunities; and the emerging cohort requires early-stage risk capital and routes to supply innovation into existing firms. Each tier therefore needs a different form of intervention. Further, as shown in Figure 4.3, the North West defence and security ecosystem is shaped by all three tiers of firms, with extensive experience and capability among established firms, alongside the need to encourage and support new start-ups in partnership with industry and regional universities.

Figure 4.3. Running count of firms in scope, by year of incorporation of the current company registration, -2026



Source: Perspective Economics analysis of Companies House incorporation dates. Please note incorporation of the current legal entity may post-date a business's original founding (e.g. on re-registration or restructuring); the distribution is therefore conservative on age.

4.4.2 Grants and Accelerators

Alongside equity investment, grant funding plays a key role in supporting innovation across the ecosystem. Across the dedicated and 'high' intensity firms in scope, **we identify 50 firms (c. 10%) active in the region (registered and trading) that have received public grant funding since 2020, collectively securing c. £125m across 179 awards.**

In the majority of grant awards (85 of the 144 where the role is recorded), firms in scope participated as consortium partners rather than lead applicants, highlighting the role of collaborative defence and aerospace R&D programmes in the region.

The headline total is heavily influenced by a small number of large capacity and infrastructure awards (e.g. Chemring, which was awarded c. £57m in 2024 under the European Commission's Act in Support of Ammunition Production (ASAP) programme; Nuclear Transport Solutions (headquartered in Warrington), which received £10.5m from the Department for Energy Security and Net Zero to develop transport infrastructure for High-Assay Low-Enriched Uranium (HALEU)).

Some awards are recorded at a corporate group level and may support activity beyond the North West; as such, these values should be treated as indicative of the funding secured by firms operating in the region, rather than funding deployed exclusively within it.

However, excluding these two larger awards, firms in scope have secured c. £48m in innovation grant funding since 2020, predominantly through Innovate UK (130 of the 179 awards), typically in awards of between £100k and £2m. This also includes participation in major collaborative aerospace R&D programmes, such as GE Aerospace's AMBER hybrid-electric propulsion demonstrator, Goodrich Actuation Systems' advanced wing development (DAWS 2), TT Electronics' aerospace power conversion programme (FABB-HVDC), and several collaborative awards to Thales UK spanning digital twins, connected factories and space applications.

We also find the Defence and Security Accelerator (DASA) has made 19 awards (c. £3.8m) to seven firms in scope in the region, including SmartIR and Createc, while firms have also secured support through the National Space Innovation Programme and the ESA Business Incubation Centre.

This also highlights that early grant funding can act as an important first source of funding or validation for new defence and security firms (often ahead of, or alongside, early equity investment). A range of sub-regional and university-led innovation funds and programmes also operate across the region. In Lancashire, the NW CyberCom commercialisation initiative and the Cyber Focus programme (described below) are a distinctive part of the county's offer to defence and security firms.

Cyber Focus: place-based innovation funding for the North West cyber ecosystem

Cyber Focus is a c. £5m EPSRC-funded Place Based Impact Acceleration Account led by Lancaster University with six partner universities across the region: the University of Lancashire, the University of Cumbria, the University of Liverpool, the University of Salford, Manchester Metropolitan University and the University of Manchester. It funds collaborative projects between universities and firms through open calls, with around 100 projects planned, alongside impact catalysts that identify regional challenges and skills and public engagement activity, and 18 civic, government and industrial partners contributing match funding. Alongside NW CyberCom, this provides firms in the North West Cyber Corridor with a route into applied research and early validation, ahead of (or alongside) grant and equity funding.[41]

The research team also considered the extent to which grant funding 'crowds in' subsequent private investment. Within this ecosystem, the evidence is limited, as we find only three dedicated or 'high' intensity firms have both received grant funding and raised external equity. However, the data does suggest a pattern of repeat engagement, whereby the majority (32 of the 50) of grant-funded firms in scope have secured multiple grant awards or secured public contracts, emphasising that grant funding primarily acts as a recurring applied R&D and capability-building channel that supports the ecosystem's capacity to innovate and secure contracts. This suggests that growth may be supported by direct funding for applied projects, alongside procurement and supply chains, but also that follow-on equity investment will be needed if grant-funded firms are to scale and sustain themselves.

[41] Lancaster University (2026) Cyber Focus, lancaster.ac.uk/cybersecurity/cyber-focus; EPSRC Place Based Impact Acceleration Account.

SECTION 05

5. Mapping Domains and Capabilities

5.1 Introduction

This section explores what firms across the ecosystem actually provide, reviewing the domains, products, services and capabilities offered, and drawing on a structured review of firm-level web and profile data. The research team has reviewed company text data through web and accounts review.

As set out in the methodology, the research team initially undertakes a full review of what firms provide to consider whether and how these are relevant to defence and security. Subsequently, areas of notable activity (where multiple firms cite provision) are used to inform a taxonomy approach, with key domains and subsectors. Each firm offering is classified against a **defence and security taxonomy** developed for this study, at two levels: a 'best fit' classification (assigning each firm to the single domain that best describes its core offer), and a 'multi-fit' classification (capturing every domain and subcategory in which a firm has an identifiable offer). **In total, over 45,100 unique products and services have been identified and classified across 1,822 firms with sufficient web data to inform an assessment of regional strengths and capabilities. Given the span of activity, we find that most firms offer products, services and capabilities across several domains (the median firm offers over 20 cited products and services, typically spanning several domains).** Throughout this section, figures reflect counts of firms rather than employment or revenue, and each table is labelled accordingly.

We note that:

- The research deliberately seeks to capture the breadth of products, services, technologies and capabilities within the region. Several of the taxonomy areas are either purely defence, security or aerospace related, with other areas more aligned to dual-use capabilities (e.g. the supplier may work with defence and civil clients);
- The research aims to capture the breadth of supporting services that enable key defence organisations in the region (e.g. firms delivering major construction projects for the MOD are scoped in);
- This is not considered an exhaustive list of what the defence and security ecosystem 'is' or 'is not', but rather reflects some of the key solution areas cited by providers in the region considered in scope to understand capability.
- These products and services have been classified by the research team using LLMs and manual feedback; many areas of the taxonomy may naturally overlap.

Figure 5.1 sets out a range of taxonomy areas, domains and subsectors mentioned by providers in our review. The leading areas have been grouped and tagged, ensuring that the research team can track capability across all providers.

Figure 5.1. Defence and security taxonomy: domains and subsectors

Advanced Manufacturing & Materials

Additive Manufacturing / 3D Printing
Aerospace Fasteners & Components
Castings & Forgings
Composites & Aerostructural Materials
Composites Manufacturing
PCB & Electronics Manufacturing
Power Electronics
Precision Machining
R&D Services
Rubber & Polymer Products
Sheet Metal & Fabrication
Specialist Metals & Alloys
Surface Treatment & Coatings
Tooling & Fixtures
Welding & Joining

Aerospace Manufacturing

Aerospace Fasteners & Components
Aerostructures
Aircraft Assembly & Integration
Aircraft Interiors
Avionics
Composites & Aerostructural Materials
Flight Controls & Actuation
Landing Gear
Multi-domain Prime
Precision Machining
Propulsion & Engines
Tooling & Fixtures
UAVs & Drones

Construction & Infrastructure

MOD Estates & Facilities
Marine Infrastructure
Runway & Airfield Construction
Secure Facilities

Cyber Security & Information Assurance

C4ISR
Cryptography & Encryption
E-Learning & Courseware
Electronic Warfare
Consultancy
GRC & Compliance
Identity & Access Management
Incident Response
Penetration Testing
SIEM & SOC Services
Secure Cloud & Infrastructure
Secure Communications
Threat Intelligence

Defence Electronics & Systems

C4ISR
Communications & Datalinks
Displays & HMI
Electronic Warfare
Multi-domain Prime
Navigation & GPS
PCB & Electronics Manufacturing
Power Electronics
Radar Systems
Sensors & Optronics
Signal Processing
System Integration

Engineering Services

Aerospace Fasteners & Components
Calibration Services
Design & Analysis
Environmental Testing
Marine Engineering
Modelling & Simulation
NDT & Inspection
Nuclear Site Operations
Precision Machining
Quality Assurance & Inspection
R&D Services
Sheet Metal & Fabrication
Ship Repair & Refit
Structural Engineering
Surface Treatment & Coatings
System Integration
Systems Engineering
Testing & Certification
Tooling & Fixtures
UAVs & Drones
Welding & Joining

IT & Digital Services

C4ISR
Cloud & Hosting
Command & Control Software
Data Analytics & AI
Defence Software Development
Digital Transformation
ERP & Business Systems
GRC & Compliance
Geospatial & Mapping
Identity & Access Management
Penetration Testing
SIEM & SOC Services
Secure Cloud & Infrastructure
Secure Communications

Land Systems & Vehicles

Armoured Vehicles
Military Bridging
Military Trucks & Logistics Vehicles
Survivability & Protection
Vehicle Electronics & Systems
Vehicle Integration

Logistics & Supply Chain

Defence Logistics
Fleet Management
Freight & Transport
Military Trucks & Logistics Vehicles
Packaging & Preservation
Supply Chain Management

MRO & Support Services

Aircraft MRO
Calibration Services
Equipment Overhaul
Marine Engineering
Obsolescence Management
Ship Repair & Refit
Spares Management
Through-Life Support & ILS
Vehicle MRO

Maritime & Submarine

Marine Engineering
Naval Architecture
Naval Combat Systems
Propulsion (Marine)
Ship Repair & Refit
Sonar & Underwater Acoustics
Submarine Systems
Underwater Systems & ROVs

Nuclear Defence & Decommissioning

Decommissioning
Nuclear Fuels
Nuclear Safety & Regulation
Nuclear Site Operations
Radiation Protection
Reactor Engineering
Submarine Propulsion

Personal Protective Equipment

Personal Protective Equipment

Physical & Electronic Security

Access Control & Identity
Counter-UAS & Counter-Threat
Perimeter & Intruder Detection
Screening & Detection Equipment
Security Monitoring & Guarding
Video Surveillance & CCTV

Professional Services & Consultancy

Design & Analysis
Financial Advisory
GRC & Compliance
Health & Safety Consulting
Legal Services
Management Consulting
Programme & Project Management
Quality Assurance & Inspection
R&D Services
Recruitment & Staffing
Strategy & Policy
Systems Engineering

Robotics & Autonomous Systems

Inspection & Maintenance Robotics

Space & Satellite Systems

Earth Observation
Ground Systems
Launch Systems
Satellite Communications
Satellite Manufacturing
Space Electronics

Training & Simulation

E-Learning & Courseware
Flight Simulators
Land Training Systems
Live Training Systems
Synthetic Training Environments

Weapons & Munitions

Countermeasures & Decoys
Missiles & Complex Weapons
Ordnance Disposal & EOD
Small Arms & Ammunition
Survivability & Protection

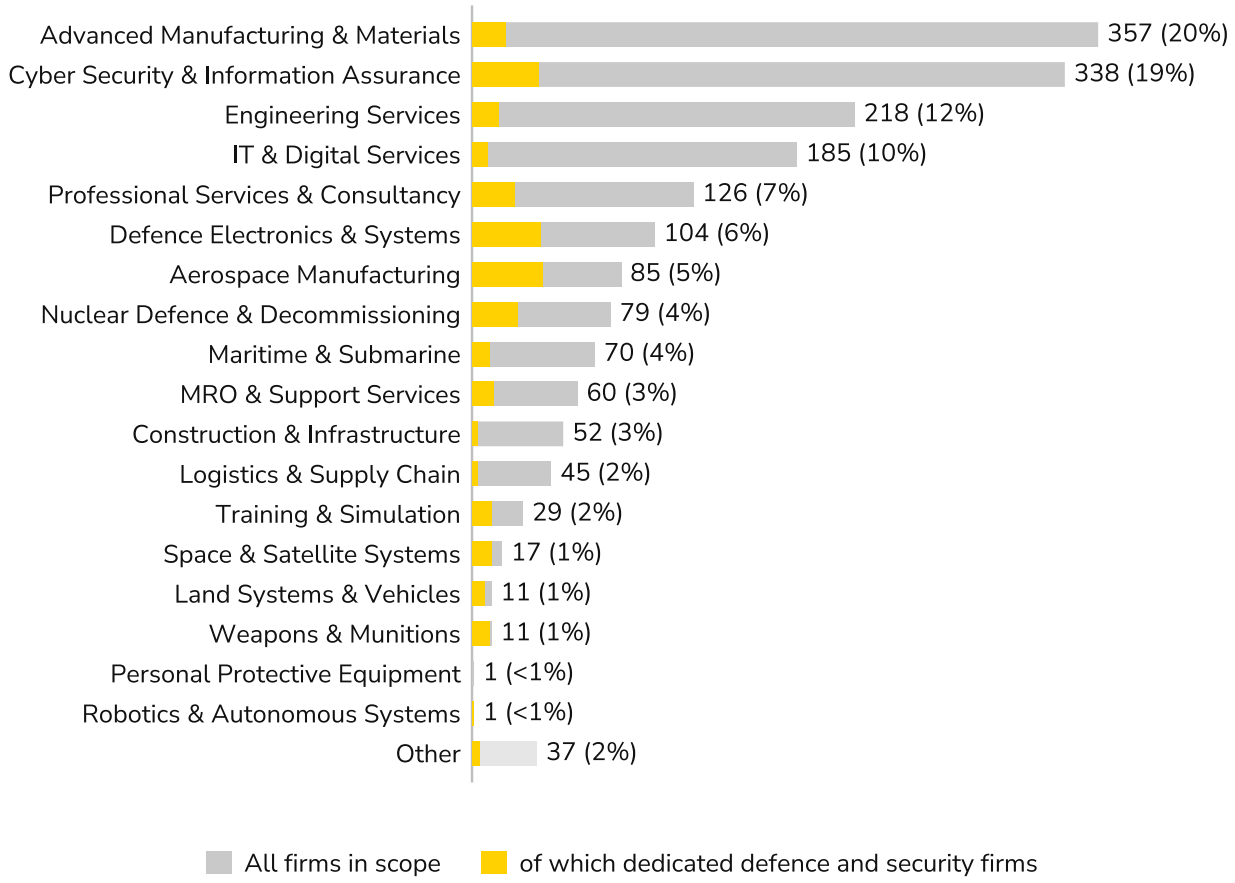
Source: Perspective Economics classification of web and profile data. The 19 domains are those of the taxonomy in Section 3.2 (Other excluded). Each domain lists the subsectors applied to the firms for which it is the best-fit domain; Physical & Electronic Security is never a best-fit domain, so its list shows the product and service groups classified under it.

5.2 Taxonomy Overview

For the businesses in scope, the research team has classified these into a 'best fit' and 'multiple fit' basis. This is classified based upon the review of business descriptions and product and service tags, to help classify and understand areas of relative strength. On a best fit basis, we find the ecosystem is driven particularly by firms active in Advanced Manufacturing & Materials (357 firms, 20%), Cyber Security (338 firms, 19%), Engineering Services (218, 12%) and IT & Digital Services (185, 10%), as set out in Figure 5.2.

Further, among the 282 dedicated firms, the leading primary domains include Aerospace Manufacturing (40), Defence Electronics & Systems (39), Cyber Security (38) and Nuclear Defence & Decommissioning (26). The wider ecosystem is therefore anchored in manufacturing, engineering and digital services capability, within which sits a dedicated core of firms concentrated in aerospace, electronics, cyber and nuclear.

Figure 5.2. Firms by primary domain (best fit classification)

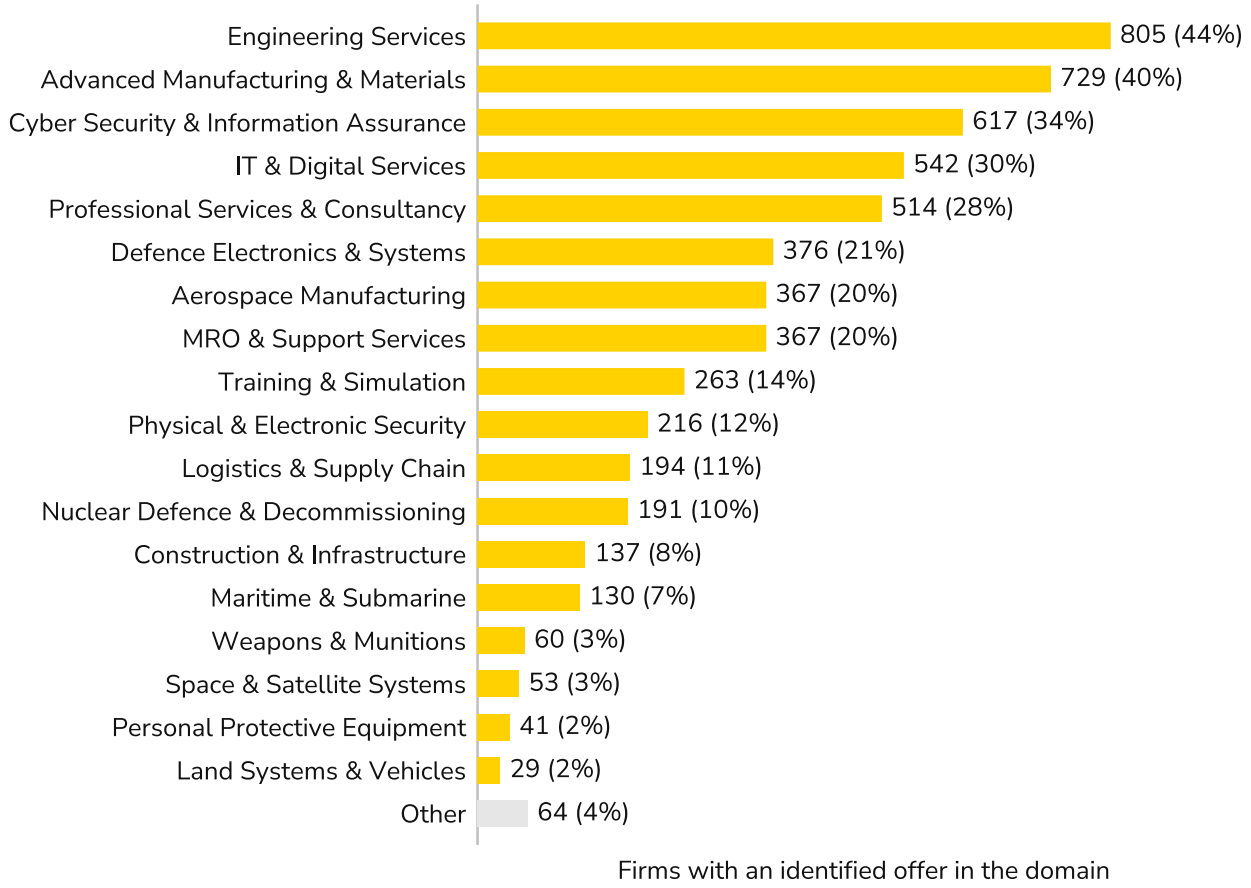


Source: Perspective Economics classification of firm web and profile data. Each firm is assigned to the single domain that best describes its core offer; percentages are shares of the 1,826 firms in scope; the yellow segment shows the 282 dedicated defence and security firms. Physical & Electronic Security does not appear because no firm has it as a best-fit domain; 216 firms hold an offer in it (Figure 5.3).

The multiple fit view (Figure 5.3) also demonstrates the breadth of provision across the ecosystem. This tags the count of any firm mentioning a product or service aligned to each taxonomy area. We find that up to 44% of firms have an identifiable product or service offering in Engineering, 40% in Advanced Manufacturing & Materials, and 34% in cyber security. This reflects a supply base that can (and does) serve

defence, aerospace, security and adjacent markets, aligned highly to dual-use definitions within the Industrial Strategy.

Figure 5.3. Firms with an identified offer by domain (multi-fit classification; firms may hold offers in multiple domains)



Source: Perspective Economics classification of firm web and profile data (multi-fit). Firms are counted in every domain where they hold an identifiable offer; percentages are shares of the 1,826 firms in scope and sum to more than 100%. Robotics & Autonomous Systems is recorded only as a best-fit domain (one firm) and has no multi-fit tag.

The multiple fit view also highlights how interconnected these domains are at firm level. On average, firms in scope hold an identifiable offer across three domains. 792 firms (43%) offer products or services in three or more areas, and 252 (14%) offer products or services in five or more, reflecting the need to take a broad view when considering the ecosystem's capabilities. The most significant overlaps include firms connecting industrial and digital capability. For example, 407 firms appear to offer products or services aligned to both advanced manufacturing and engineering services, and 133 firms hold both a manufacturing and a digital product or service offering (as explored in Section 5.4 with respect to how manufacturing firms are adopting new technologies). The dual-use opportunity explored later in this chapter is therefore already present within individual businesses that combine physical and digital capability and can be advanced further through partnerships and investment.

5.3 Sub-Regional Strengths and Specialisms

The taxonomy approach also enables a sub-regional assessment of firm level capabilities. In the analysis below, firms are counted in each sub-region where they have an identified product or service offering (multiple fit), and specialisation reflects the share of a sub-region's firms offering a capability relative to the overall North West ecosystem data. We find:

- **Greater Manchester is the ecosystem's digital and cyber centre. We identify deep capabilities** in cyber security (e.g. with almost 250 firms offering governance, risk and compliance solutions, approximately 230 offering managed security and approximately 190 firms offering threat intelligence), alongside strengths in cloud and managed IT, software development, and identity and access management. Its provision is weighted towards services (c. 65% of the capabilities identified are service focused, against 63% across the ecosystem).
- **Lancashire** has the strongest advanced manufacturing presence by scale. We find that firms are over twice as likely as the regional average to offer composites and advanced structures, uncrewed air systems capability, and propulsion and engine components. The region is also strong in respect of tooling and casting, precision assembly, sheet metal fabrication, and calibration and metrology. The capability data highlights the strength of the combat air supply chain in the region, with a manufacturing and precision engineering base clustered around BAE Systems, Rolls-Royce and their suppliers, alongside nuclear fuel manufacture at Springfields and advanced polymers at Victrex (Section 4.3.2).
- **Cumbria** has a distinctive capability profile. We find its firms are five times more likely than the regional average to offer nuclear decommissioning, nuclear safety and licensing, and decontamination and radiological protection services (with over 40 firms in nuclear safety and licensing alone, including the National Nuclear Laboratory, Cavendish Nuclear and NSG Environmental). Cumbria also shows a strong specialisation in uncrewed maritime and ground systems, in addition to a robotics-for-hazardous-environments niche (e.g. Createc and JFD) that has grown directly out of nuclear and subsea demand and has clear defence applications.
- **Cheshire and Warrington also hosts substantial nuclear and services capability** (with 42 firms offering nuclear safety solutions, over twice the regional average, concentrated in Birchwood Park and Capenhurst). It also has notable strengths in screening and detection equipment, secure facilities and estates services, and software development. Cheshire's profile combines this nuclear activity with a substantial software and digital services base, representing a bridge between physical and digital capabilities across the North West.
- **Liverpool City Region has the most product-oriented and the most dual-use provision in the region (41% of its firms hold a dual-use offer, the highest share of any sub-region). It has a range of distinctive strengths in the data, including security equipment and sensors, screening and detection** (over twice the regional average), video surveillance, access control and perimeter detection, ballistic protection and armour (e.g. RFD Beaufort and Survitec in survival and protective equipment), and radar and RF systems (e.g. Terma, Teledyne and MPE). Combined with its maritime specialisation (Section 4.3.2), the Liverpool City Region offers a distinctive, equipment-led niche within the wider ecosystem.

Collectively, this data emphasises the complementarity observed throughout this study, including digital and cyber services (Greater Manchester), advanced manufacturing and combat air (Lancashire), the nuclear enterprise and hazardous environment robotics (Cumbria), nuclear services and software (Cheshire), and security equipment, sensors and maritime systems (Liverpool City Region). The dual-use activity across the region suggests that opportunities to align commercial capability with defence and security demand exist in every sub-region but take a different form in each.

We recognise this data is derived from firms that already exist. In consultation with regional stakeholders and wide data review, we recognise that rates of new firm formation and external investment remain comparatively low across much of the region (Section 4.4), an issue common to several of these sub-regional economies. As such, support for new defence and security start-ups, including spin-outs and firms founded by experienced leavers from the primes and national security and defence organisations, could help to broaden the base and increase technical adoption. Section 5.4 explores some of these 'next generation' start-ups emerging in the ecosystem. The following case studies illustrate these sub-regional strengths in practice:

NCC Group (Greater Manchester). Founded in Manchester in 1999, NCC Group is a global cyber security and software resilience business, employing c. 450 people in the city region and serving major corporates and governments worldwide across assurance, managed security and escrow services. It exemplifies Greater Manchester's position as the commercial cyber centre of the North West, and the depth of services provision, from penetration testing to managed detection and response, that has grown alongside the region's wider digital economy.

MBDA (Greater Manchester). MBDA, the European complex weapons group formed from the missile activities of Airbus, BAE Systems and Leonardo, operates a major manufacturing and assembly site at Lostock, Bolton, supporting c. 1,300 jobs, with a further 700 roles announced in 2025 as capacity expands.[42] The site plays a central role in UK complex weapons production, and its presence anchors a precision engineering supply chain across the North West.

Luxfer MEL Technologies (Greater Manchester). Luxfer MEL Technologies is recognised as a leader in magnesium alloys and zirconium chemicals, developed and manufactured in Greater Manchester as part of Luxfer Group. Its advanced lightweight alloys and speciality chemicals serve aerospace, defence and healthcare applications worldwide, with c. 1,200 people estimated in the region.

Rinicom (Lancashire). Lancaster-based Rinicom has developed secure wireless communications and AI-powered detection systems since 2002, serving defence, public safety, maritime and critical infrastructure customers, including secure datalinks, C2 platforms and counter-UAS detection. A repeat winner of UK defence and security innovation funding (nine awards identified in this study), Rinicom illustrates Lancashire's SME-led strengths in defence electronics and uncrewed systems, in proximity to both the combat air cluster and Lancaster University.

[42] Ministry of Defence (2025) 'UK jobs and air defences boost with purchase of new missile launchers', 22 August 2025 ('Defence already supports 1,300 jobs at the facility'; 'an expansion of 700 new jobs' announced earlier in 2025).

WEC Group (Lancashire). Founded in Darwen in 1979, WEC Group is one of the UK's largest engineering and fabrication businesses, operating 15 divisions across more than 760,000 sq. ft. of manufacturing floorspace, including dedicated aerospace and defence divisions, with c. 580 people estimated in scope in the region. WEC exemplifies the deep fabrication and precision engineering base that underpins Lancashire's defence manufacturing cluster.

Springfields Fuels (Lancashire). Springfields Fuels has manufactured nuclear fuel at Salwick, near Preston, since 1946, and operates today as part of Westinghouse, employing c. 730 people. As the UK's principal nuclear fuel manufacturing site, Springfields connects Lancashire directly into the civil and defence nuclear enterprise sitting alongside, and complementing, the county's combat air strengths.

Createc (Cumbria). Cockermouth-based Createc is a sensing, robotics and AI specialist whose capability was built on nuclear decommissioning challenges, deploying imaging systems and autonomous platforms in environments too hazardous for people, from Sellafield to Fukushima. Its technology has since crossed into defence and security applications, supported by repeated DASA and Innovate UK awards. Createc exemplifies Cumbria's distinctive 'hazardous environment' technology niche: capability developed for the nuclear enterprise, with clear dual-use potential.

Oxley Group (Cumbria). Ulverston-headquartered Oxley Group is a long-established provider of advanced electronics, including LED and night-vision lighting, EMI filters and optoelectronics to defence, aerospace and rail customers worldwide, with c. 220 people employed in Cumbria. Oxley demonstrates that the county's capability extends beyond the nuclear and maritime enterprise into specialist defence electronics manufacture, exported globally from the Furness peninsula.

James Fisher and Sons (Cumbria). Founded in Barrow-in-Furness in 1847, James Fisher and Sons plc is a global marine solutions group whose defence business spans submarine rescue, diving and hyperbaric systems, and specialist marine services. Its evolution from Victorian shipping line to listed marine technology group illustrates the maritime services depth that has grown alongside Barrow's shipbuilding enterprise and the export potential of capability developed for the region's home market.

Frazer-Nash Consultancy (Cheshire and Warrington). Frazer-Nash, a systems, engineering and technology consultancy, operates a large Warrington presence serving nuclear and defence clients across the North West. The firm holds one of the widest public sector portfolios in scope (c. 160 defence-relevant contract awards since 2020) and is among the most active participants in collaborative R&D (18 grant awards).

Urenco UK (Cheshire and Warrington). Urenco UK has operated uranium enrichment plants at Capenhurst since 1973, using gas centrifuge technology, with c. 330 people on site, alongside the Enrichment Technology Company, which designs and manufactures the centrifuges themselves. Capenhurst represents sovereign nuclear fuel cycle capability of national significance, and anchors Cheshire's position within the UK nuclear enterprise.

Senior Aerospace (Cheshire and Warrington). Senior plc operates several North West aerospace manufacturing businesses, including sites in Macclesfield and Congleton, designing and manufacturing high-technology components and systems, from airframe structures to fluid conveyance for aerospace and defence OEMs worldwide, with c. 2,000 people estimated across the region.

Marine Specialised Technology (Liverpool City Region). MST designs, builds and supports military RIBs, workboats and high-speed craft from its 35,000m² waterside shipyard at Bromborough on the Wirral, employing c. 130 people and supplying naval and professional operators worldwide. Backed by growth funding (Section 4.4), MST has scaled into naval vessel programmes highlighting the Liverpool City Region's product-led maritime and security equipment capability.

Survitec Group (Liverpool City Region). Survitec Group, headquartered in Birkenhead, is one of the world's largest manufacturers and suppliers of liferafts and marine evacuation systems, serving maritime, defence and aerospace markets globally. Together with RFD Beaufort, its former aerospace and defence survival equipment business, now standalone, it reflects a protective technology cluster on Merseyside with deep defence heritage and global reach.

Sigmatex (Liverpool City Region). Runcorn-based Sigmatex has pioneered the design, development and manufacture of carbon fibre textiles for the composites industry for over 30 years, including recycled carbon fibre grades, with c. 190 people employed in the region. Its technical fabrics feed aerospace and defence structures globally.

5.4 Use Cases and Technologies

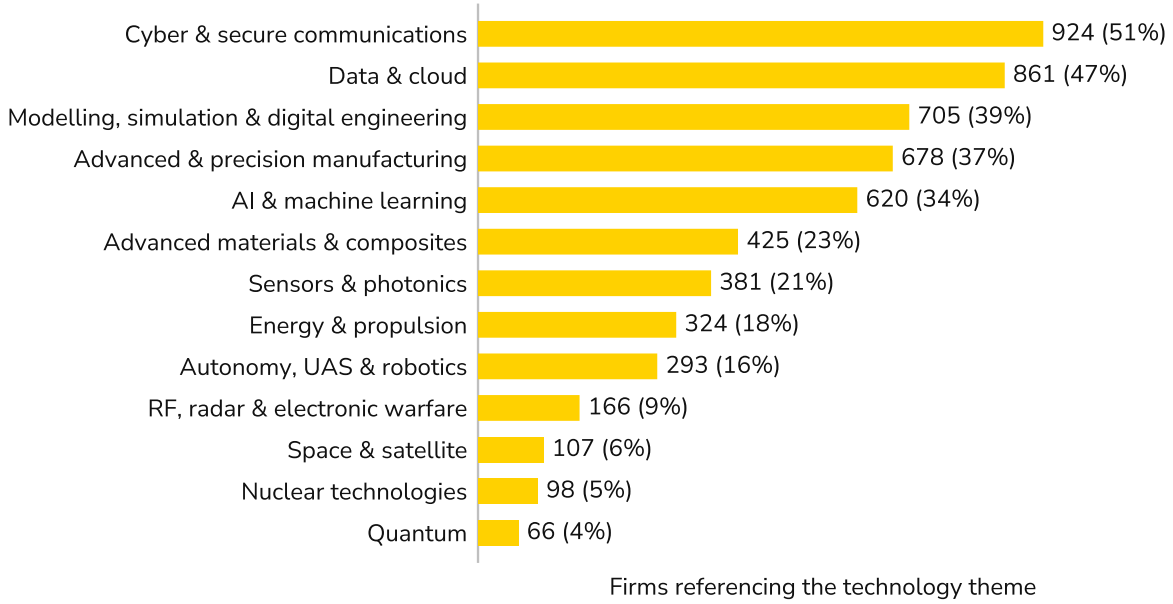
The research team has also reviewed products, services, and technologies mentioned by providers in the region. These apply to the firm level as a whole i.e. the capabilities may vary within the North West entity compared to the global or UK entity. However, this provides useful insight into firm level capabilities for those in the region, or capabilities that can be drawn upon in the region.

Across the c. 45,100 classified products, services and technologies cited, the data suggests that service provision (63%) slightly outweighs products (37%). This varies only modestly by sub-region: the product share ranges from c. 34% in Cheshire, Cumbria and Greater Manchester to c. 37% in Lancashire and the Liverpool City Region. Within the dedicated firms, we find that provision is concentrated in areas such as actuation, hydraulics and mechanical subsystems, structural parts and assemblies, avionics and aircraft systems, command, control and communications, and sensors and optronics.

However, the data also highlights innovative areas of provision emerging across the ecosystem, such as autonomous UAV reconnaissance and perimeter surveillance systems, sovereign large language model platforms designed for secure environments, and AI-enabled detection and secure communications for defence and critical infrastructure (Rinicom), and radiation-tolerant imaging and robotics developed for nuclear decommissioning and now applied in defence settings (Createc). Overall, capability developed for one market is often transferable to others.

To assess underlying technical capability, the research team extracted and classified almost 17,000 discrete technologies and over 26,000 technology terms referenced across firm web and profile data (covering 1,804 firms with coverage). These were subsequently grouped into 13 technology themes to understand areas of technology used or deployed by firms. This can include both provision and internal usage. Figure 5.4 sets out the number of firms referencing each theme. As with the taxonomy, these are counts of firms (multi-fit) and reflect claimed capability identified in public sources rather than assessed technical maturity; however, they provide insight into some of the key technologies in the region that can be built upon.

Figure 5.4. Firms referencing each technology theme (multi-fit)



Source: Perspective Economics classification of cited technologies and technology-related terms across firm web and profile data.

This data highlights:

- **Digital capability is clear within the defence and security ecosystem but has room for growth through sustained adoption**: We find one in three firms (620, 34%) reference AI and machine learning, and almost half reference data and cloud technologies (47%). Further, 39% reference modelling and simulation, underpinned by technologies such as 3D design and printing, digital twins, and simulation tests.
- **Dedicated and high-intensity firms are most concentrated in physical technologies:** they account for 62% of the firms referencing nuclear technologies, 53% of those referencing RF, radar and electronic warfare, 53% of those referencing space and 46% of those referencing autonomy and robotics, against 27% of all firms in scope.
- **The region has credible depth in the technology areas prioritised in the Defence Industrial Strategy and MOD science and technology priorities**: including autonomy and robotics (293 firms), sensors and photonics (381), RF, radar and electronic warfare (166), space (107), and an emerging quantum community (66 firms).

Alongside the sub-regional data in Section 5.3, this suggests the North West's technical base is well aligned with the direction of defence demand, including autonomy, sensing, advanced materials and manufacturing, and resilient communications. Much of this capability is held in firms that already serve adjacent civil customers, highlighting how dual-use activity can support defence growth.

Finally, exploring the technology theme data at a sub-regional level highlights how engagement with several general-purpose, growth-driving technologies is broadly consistent across all five sub-regions, but some sub-regions have particular specialisms or distinctive capabilities. Table 5.1 sets out the share of each sub-region's firms referencing each technology theme within their public profiles. We highlight the top sub-regions in bold for each theme.

Table 5.1. Share of each sub-region's firms referencing selected technology themes (multi-fit; share of firms with an identified presence in the sub-region)

Technology theme	GM	Lancashire	Cumbria	Cheshire	LCR
AI & machine learning	**44%**	23%	27%	**37%**	36%
Data & cloud	**55%**	39%	36%	**52%**	48%
Modelling, simulation & digital engineering	**42%**	40%	**42%**	40%	41%
Advanced manufacturing	35%	**43%**	**39%**	33%	38%
Autonomy & robotics	15%	17%	**26%**	18%	18%
Quantum & photonics	11%	11%	10%	11%	**14%**
Advanced materials	22%	**28%**	15%	18%	**28%**
Additive & 3D printing	7%	**10%**	7%	8%	7%

Source: Perspective Economics analysis of classified technologies and technology-related terms. Note: firms are counted in each sub-region where they have an identified presence.

This data highlights how:

- There is breadth in technology adoption across the North West ecosystem. For example, modelling and simulation capability is referenced by two in five firms in every sub-region, advanced manufacturing by a third or more everywhere, and additive manufacturing, and quantum and photonics, at broadly similar rates across all five sub-regions. Engagement with the technologies driving wider economic growth is therefore not confined to the city regions.

- There are some areas of sub-regional specialism. For example, AI and data and cloud engagement appears led by Greater Manchester, Cheshire and the Liverpool City Region, while autonomy and robotics peaks in Cumbria (26%).

- In practice, much of the region's dual-use activity runs through AI, advanced and additive manufacturing, design and simulation, and advanced materials. We classify 655 firms (36% of those in scope) as dual-use, meaning at least one of their classified products or services serves both defence and civil markets; the share ranges from 34% of firms in Greater Manchester and Cumbria to 41% in the Liverpool City Region. Innovation can be enhanced by demand for defence (e.g. from radiation-tolerant robotics to composite structures and secure AI) and technology deployed into civil markets. For policymakers, investment in the defence and security ecosystem therefore also supports the region's wider technology and productivity base, and vice versa.

The remainder of this section explores capability with regard to programmes served. Through analysis of firm web, profile and descriptive evidence, we find 99 firms that publicly evidence work on at least one major current programme. Typhoon and F-35 are the most visible, with 41 and 38 firms respectively, followed by the submarine programmes (Dreadnought, Astute and SSN-AUKUS, 30 firms), A400M (15), Hawk (8), GCAP (7, primes and Tier 1 partners only) and the Type 26 and Type 31 frigates (7). These counts reflect firms whose public evidence names the programme and understate actual participation.

The aerospace supply chains are the most visible. Greater Manchester records the largest number of firms citing Typhoon and F-35 work, reflecting the number of precision engineering and component suppliers in the city region that feed Lancashire's assembly lines, even though manufacturing employment is more intensive in Lancashire itself (Section 4.3.2).

For example, we find seven firms publicly evidencing work on the Type 26 and Type 31 programmes, yet the UK Government's announcement of the Norwegian Type 26 agreement cites 47 North West supply chain firms[43]. Public data may therefore underestimate the region's programme participation, as many of these supply chains are not fully disclosed or cited by suppliers, and they cross over with the domains where the Defence Investment Plan concentrates its funding.

Beyond formal research collaboration (as explored in Section 6.4), we find that 243 firms in scope (13%) cite at least one university as a customer or partner, including 77 firms citing a named North West university partnership, including the University of Manchester (31 firms), the University of Liverpool (15) and Lancaster University (12).

These universities are key to enabling new entrants commercialising the technologies set out in Figure 5.4, several of which have already found their first defence and security customers through the region's anchor institutions and innovation programmes. Key examples include:

- **ICE9 Robotics** (a University of Manchester robotics spin-out based at Birchwood, deploying mobile robotics for hazardous and defence environments, whose route into the supply chain came through Sellafield's Game Changers innovation programme);
- **SmartIR** (a University of Manchester spin-out developing infrared thermal control for space and defence applications, supported by the Defence and Security Accelerator);
- **Quantum Base** (headquartered at Lancaster University, developing quantum security and authentication technologies, which floated on AIM in April 2025, raising £4.8m at IPO as the first Lancaster University spin-out to list);
- **Astron Systems** (a Macclesfield-based aerospace start-up developing a fully reusable small-lift orbital launch vehicle);
- **ScrubMarine** (growing an engineering team in Whitehaven to develop autonomous underwater inspection and cleaning robotics, a new-generation extension of Cumbria's hazardous-environment niche); and
- **CGA Simulation** (a Liverpool games-development business applying synthetic environments to training and simulation, with the Defence Science and Technology Laboratory among its cited partners via DASA).

Alongside the base, these firms indicate that the region is already generating the autonomy, quantum, robotics and simulation capability that future programmes will draw on, with Sellafield and DASA prominent among their first customers and funders.

[43] Ministry of Defence (2025) 'Boost for UK growth and security as Norway selects UK warships in £10 billion partnership', GOV.UK, 31 August 2025, https://www.gov.uk/government/news/boost-for-uk-growth-and-security-as-norway-selects-uk-warships-in-10-billion-partnership.

SECTION 06

6. Demand, Supply Chains and Procurement

6.1 Introduction

This section explores demand for the ecosystem's products and services, through analysis of the customers and partners cited by firms in scope, international reach and inward investment, engagement with research and innovation funding, and public procurement (Section 6.5). Alongside the supply-side view of capability in Section 5, this provides an assessment of who the North West's defence and security firms actually serve and where the opportunities to deepen demand may lie.

The analysis draws on a structured review of firm web and profile data, in which each cited customer, partner and target market has been classified by sector and location, alongside UKRI Gateway to Research data. These figures reflect publicly evidenced relationships. In a sector where non-disclosure and security constraints are common, this will understate actual trading relationships; figures should therefore be read as indicative of scale rather than definitive. Throughout the analysis, the denominator reflects the count of firms citing a given customer or market, rather than the market value of those relationships.

6.2 Customers and Partnerships

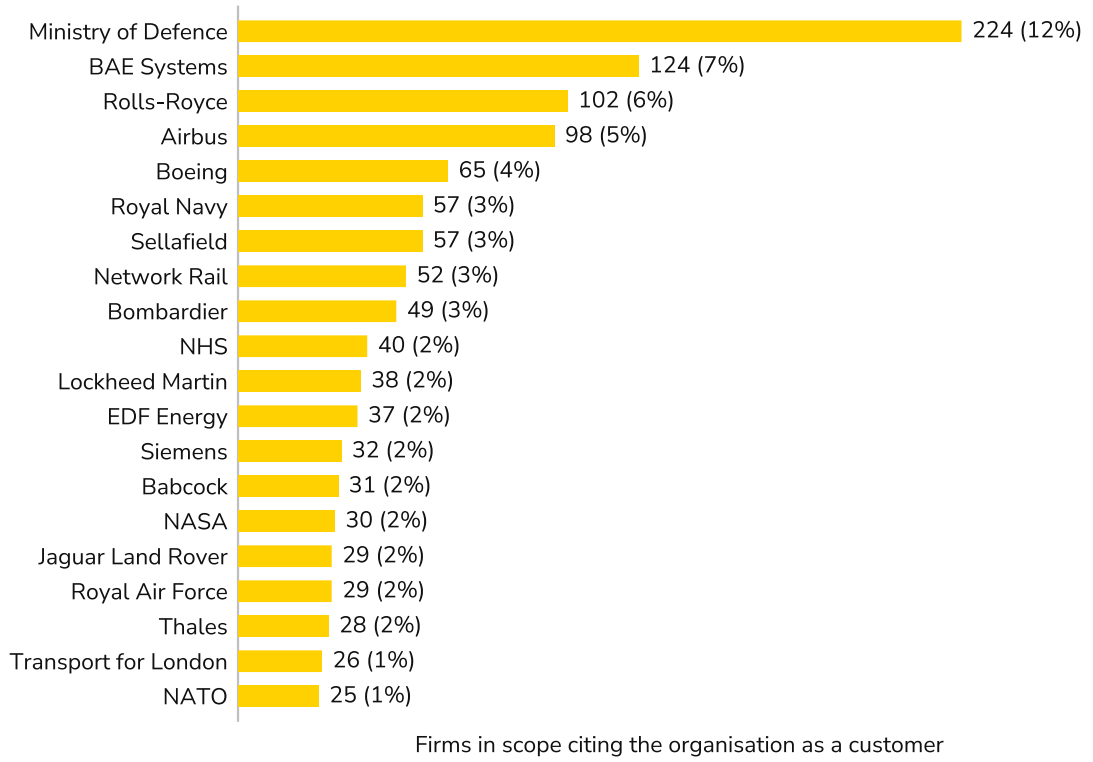
This section explores the demand by analysing who the ecosystem's firms serve (customers, primes and partners); how firms trade with one another within the region; and the extent to which the wider base is embedded in, or could support, domestic and global defence supply chains.

Within the data, we find 1,115 firms (61% of the study population) cite at least one identifiable customer. The Ministry of Defence is the single most cited customer in the ecosystem, referenced by 224 firms. We find 263 firms (including 107 dedicated and 'high' intensity firms) cite a UK military and defence customer (including the MOD, Royal Navy, Army, Royal Air Force, or their agencies). Further, 1,054 firms (58%) directly cite or state working with defence or military markets.

Overall, the data in Figure 6.1 highlights how primes and large public buyers function as the ecosystem's principal demand. For example, BAE Systems is cited as a partner or customer by 124 firms, Rolls-Royce by 102, Airbus by 98, Boeing by 65, Lockheed Martin by 38, Babcock by 31 and Thales by 28, while Sellafield is cited by 57 firms, highlighting its role as a regional demand anchor.

Customer citations also highlight the dual-use demand for solutions in the supply base, with substantial civil crossover. For example, Network Rail (52 firms), Bombardier (49), the NHS (40), EDF Energy (37), NASA (30) and Jaguar Land Rover (29) all feature prominently. We also identify approximately 1,140 distinct supplier-customer relationships in which both parties are North West firms within the study population (c. 1,170 citations before de-duplication), as shown in Figure 6.2. This indicates considerable intra-regional supply chain activity. Figure 6.1 sets out the most cited customers across the ecosystem.

Figure 6.1. Most cited customers of firms in scope (counts of firms citing each organisation as a customer)



Source: Perspective Economics classification of cited customers within firm web and profile data (c. 12,600 customer citations across 1,115 firms). Counts are distinct firms in scope citing each organisation as a customer; percentages are shares of all 1,826 firms in scope. Citations reflect publicly evidenced relationships and will understate actual customer bases, particularly where firms do not disclose defence work.

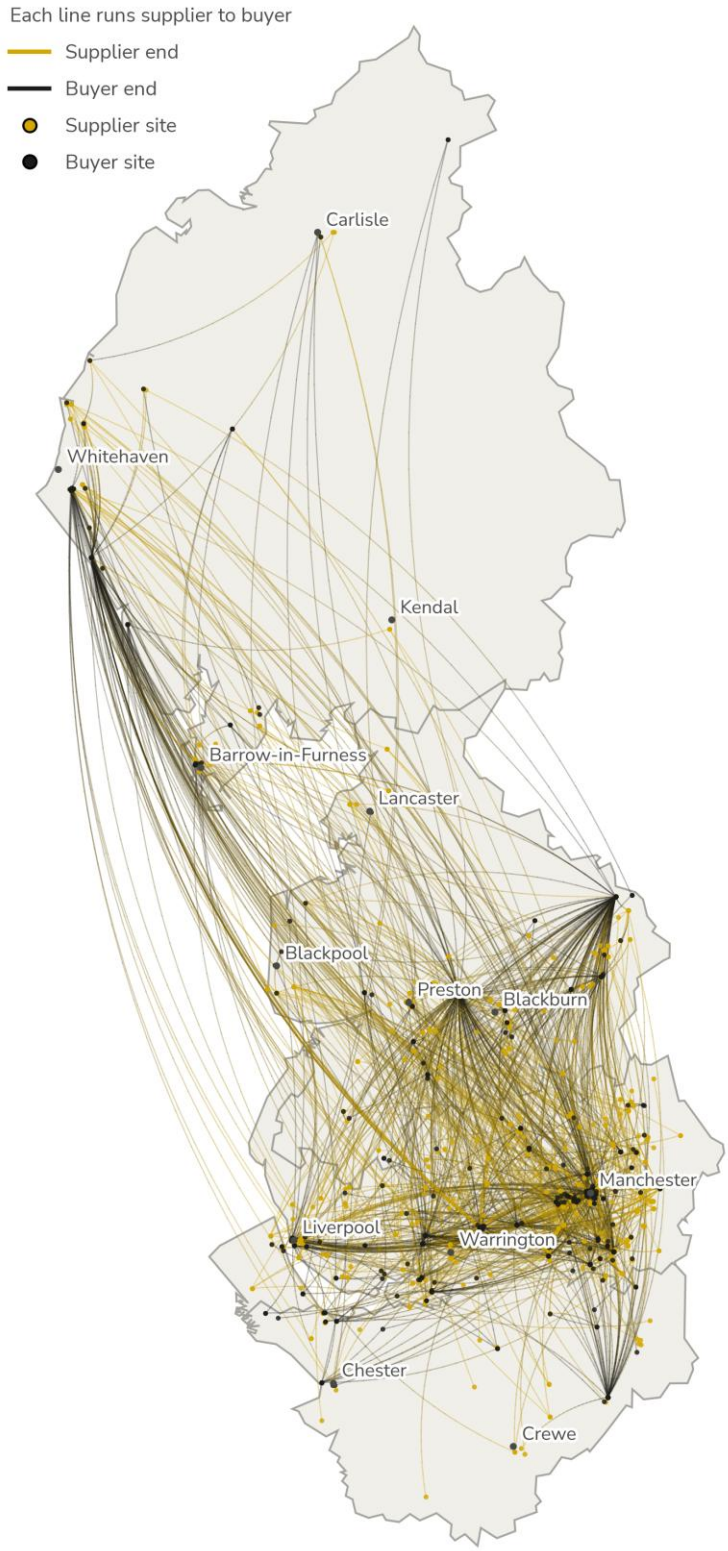
The research team also analysed cited partnerships. Partnership citations are dominated by technology ecosystems e.g. Microsoft (184 firms), Amazon Web Services (c. 100), Cisco (79), Fortinet (51) and NVIDIA (40) reflecting the scale of the region's cyber and digital services base, alongside procurement and cyber security accreditation infrastructure such as the Crown Commercial Service (43) and the IASME Consortium (45). These relationships also connect the five sub-regions. Classifying each firm by its principal North West location, we find that 63% of regional supplier-customer relationships connect firms whose principal locations sit in different sub-regions (Table 6.1). Greater Manchester acts as supplier in over half of all relationships, including c. 100 into each of Lancashire and Cumbria, much of this supplying the combat air, submarine and nuclear enterprises. Cumbria, by contrast, functions primarily as a demand destination with three times as many relationships flowing into the county's firms (reflecting the Barrow shipyard and the Sellafield site) as its firms supply.

Table 6.1. Intra-regional supplier-customer relationships, by principal sub-region of supplier and customer (counts of relationships)

Supplier \ Customer	GM	Lancashire	Cumbria	Cheshire	LCR
Greater Manchester	303	103	96	67	25
Lancashire	92	56	50	25	11
Cumbria	20	10	37	6	1
Cheshire and Warrington	74	28	24	16	4
Liverpool City Region	31	19	17	19	4

Source: Perspective Economics analysis of classified customer citations where both parties are firms in the study population (c. 1,140 distinct relationships). Principal location reflects each firm's largest estimated North West employment site. Relationships are publicly evidenced; counts should be read as indicative.

Figure 6.2. Intra-regional supply chain relationships between firms in scope (each line runs from supplier to buyer)

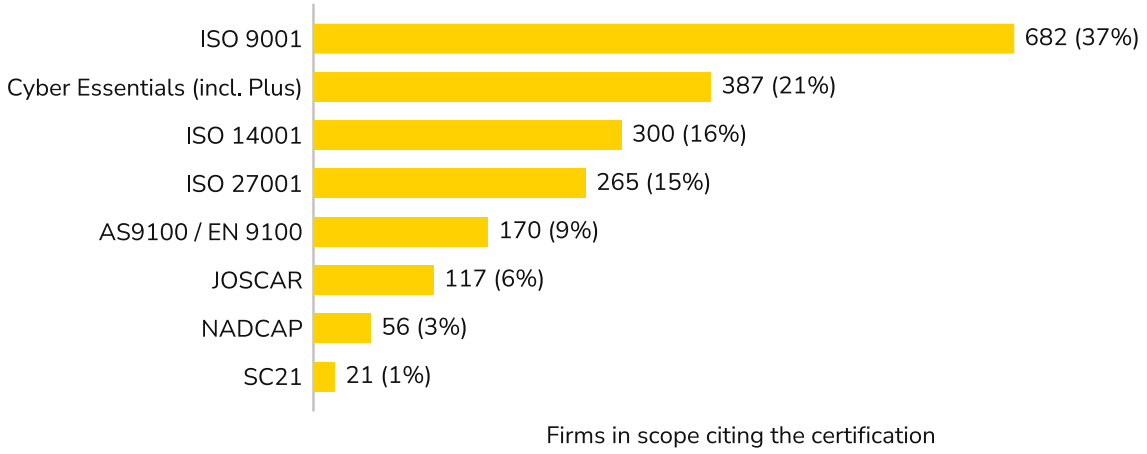


Source: Perspective Economics analysis of cited customer relationships in which both parties are firms in the study population. The map shows the supplier-buyer pairs (of c. 1,140) for which both firms have a live North West location; each firm is shown at its principal North West site, and lines run from the supplier (gold) to the buyer (ink). Table 6.1 counts the same relationships by principal sub-region; small differences in totals reflect firms without a mappable live location.

Certifications provide a further marker of supply chain activity and readiness to supply. Within the data, we find 682 firms cite ISO 9001, 265 cite ISO 27001, and 387 cite Cyber Essentials (223 at Plus level). Further, 170 firms cite AS9100 or EN 9100 (the aerospace quality standard), 117 are JOSCAR-registered (the defence industry's supplier accreditation), 56 cite Nadcap and 51 cite personnel security clearances, indicating several hundred firms holding accreditations that defence programmes commonly require, and a wider population for whom accreditation support could further help to widen supply chain access.

Figure 6.3 sets out the pattern. Quality management (ISO 9001, cited by 37% of firms in scope) and Cyber Essentials (21%) are the most widely held standards, followed by environmental and information security management (ISO 14001, 16%; ISO 27001, 15%). The defence and aerospace specific accreditations are held by a smaller group: AS9100 or EN 9100 by 9% of firms, JOSCAR by 6%, Nadcap by 3% and SC21 by 1%. General quality and cyber assurance is therefore widespread across the base, while formal supply chain accreditation for defence and aerospace work sits with a core of several hundred firms.

Figure 6.3. Firms citing key certifications (counts and share of all firms in scope)



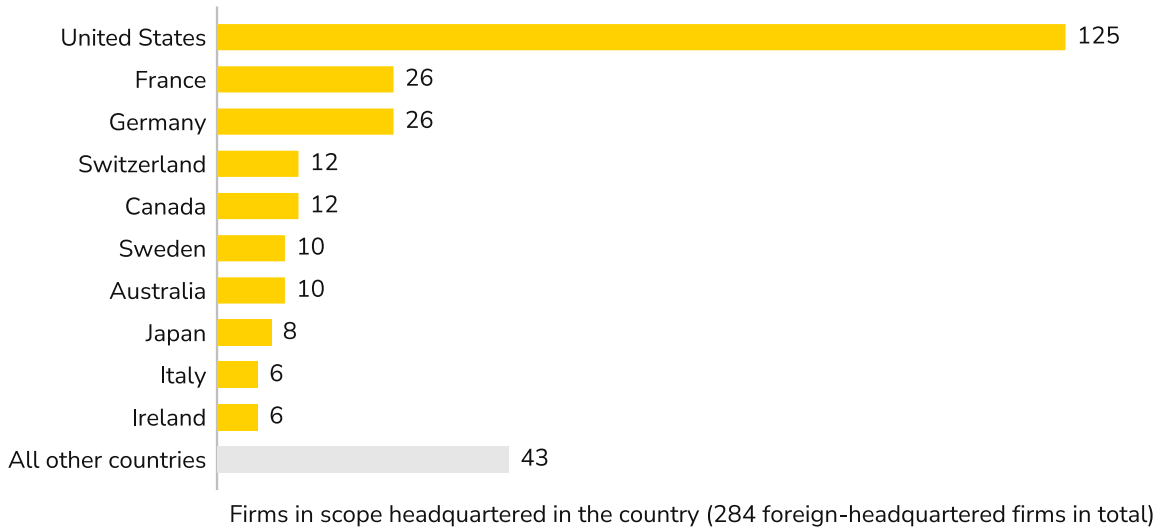
Source: Perspective Economics analysis of certification citations in firm web and profile data.

6.3 Exports and Inward Investment

The ecosystem is highly internationalised in the region. We find this works in both directions, with the North West attracting substantial inward investment from international firms seeking to expand in the UK, as well as several UK firms exporting into a wide range of overseas markets.

On the inward side, we find 284 firms (16%) are headquartered overseas, led by the United States (125 firms), France and Germany (26 each), and Switzerland and Canada (12 each) (Figure 6.4). These internationally owned operations include several of the region's largest employers and capability holders (e.g. MBDA, Safran, Leonardo, Teledyne, and Terma), reflecting sustained international confidence in North West capability and historic acquisitions of North West firms, and providing routes into global supply chains.

Figure 6.4. Firms in scope headquartered overseas, by country of headquarters



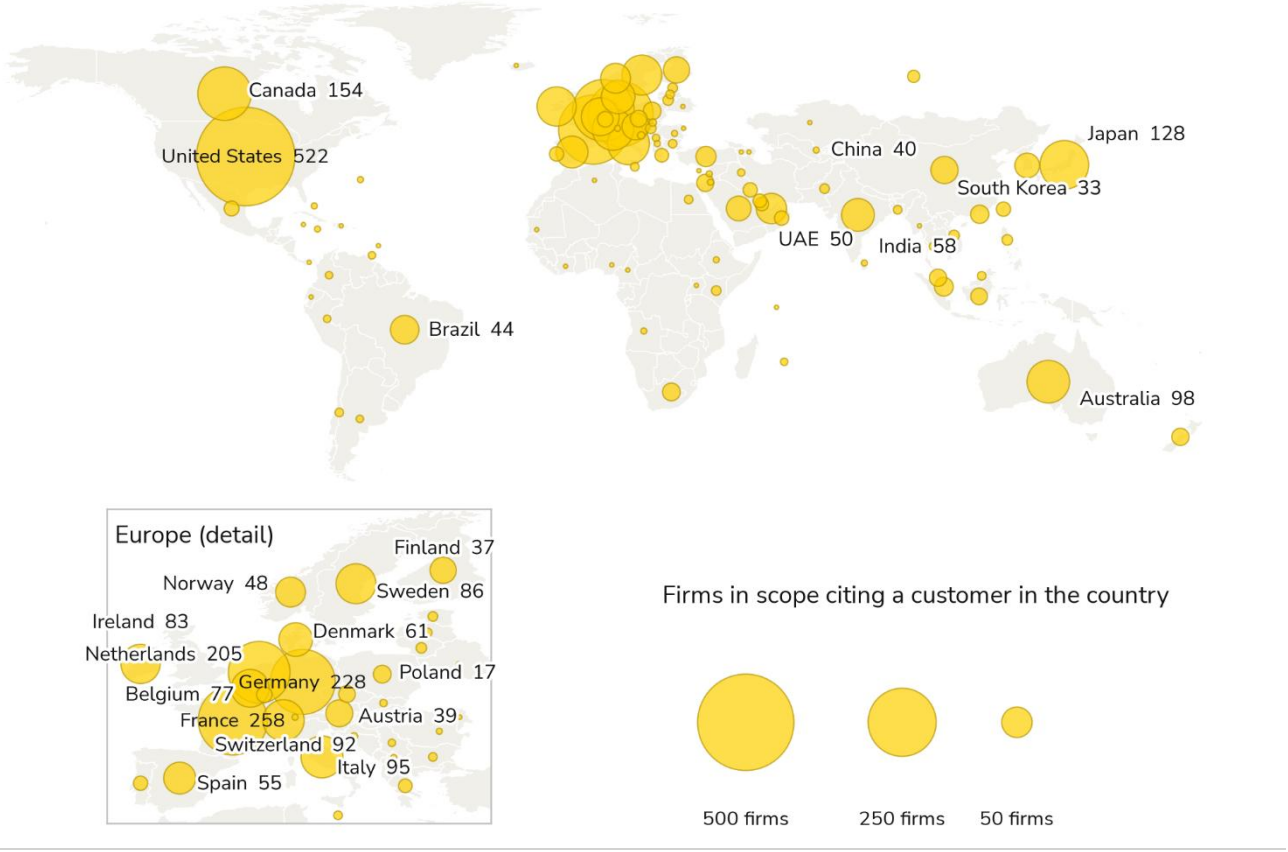
Source: Perspective Economics analysis of firm registry and web data. Headquarters reflects the country of the group headquarters as identified in firm data; UK-registered subsidiaries of international groups are recorded as United Kingdom, so counts should be read as minima.

On the demand side, we find 909 firms (half of all firms in scope, and 82% of those citing any customer) cite at least one international customer, across more than 100 countries (Figure 6.5).
This reach extends beyond the internationally owned cohort. We find approximately 700 UK-headquartered firms in scope (45%) citing at least one international customer, rising to 54% of UK-headquartered dedicated defence and security firms.

The leading customer geographies after the United Kingdom include the United States (c. 520 firms), France (c. 260), Germany (c. 230), the Netherlands (c. 210), Canada (c. 150) and Japan (c. 130), and relationships with international OEMs (Airbus, Boeing, Bombardier, Lockheed Martin, NASA) indicate that a substantial share of the ecosystem's output serves global aerospace, defence and security markets.

While export values cannot be reliably estimated from this data, the breadth of these relationships suggests an export-facing ecosystem.

Figure 6.5. International customer geographies cited by firms in scope



Source: Perspective Economics analysis of classified customer citations (c. 12,600 customer relationships across 1,115 firms). Counts are distinct firms in scope citing at least one customer headquartered in each country; the United Kingdom (948 firms) is excluded.

The United States is both the ecosystem's largest international market (c. 520 firms operating in the North West citing US customers) and among its largest inward investors (125 US-headquartered firms in scope operate in the region). Alongside Australia (98 firms citing Australian customers, and a further 10 Australian-headquartered firms in scope), this places a substantial share of the ecosystem within the AUKUS partnership, for which activity at Barrow drives much of this industrial relationship.

Further, 738 firms cite a customer in another NATO member state. This includes France (c. 260), Germany (c. 230) and the Netherlands (c. 210) as the largest European markets, and European demand may be set to grow as member states raise defence spending towards the alliance's commitments. The region's established position in these supply chains, often through European groups with North West operations such as MBDA, Thales, Leonardo and Safran, positions it strongly to capture this growth.

The Nordic countries are also a further area of strength, with 179 firms in the North West citing a customer in Norway, Sweden, Denmark or Finland, with relationships weighted towards maritime, subsea, energy and assurance activity. The deepening UK-Norway defence relationship makes this a clear near-term export opportunity and is examined in the case study below.

Further afield, Japan (c. 130 firms) is a GCAP partner nation, aligning with the combat air capability concentrated in Lancashire; the Gulf states account for 85 firms citing customers in the region (led by the United Arab Emirates, 50); and relationships in India (c. 60 firms), South Korea and Singapore evidence the ecosystem's reach into wider Indo-Pacific markets.

Norway: a strategic partner with an established North West supply base:
Norway has recently selected the UK's Type 26 anti-submarine frigate for its next-generation frigate programme. The c. £10bn agreement, the UK's largest warship export deal, is expected to sustain c. 4,000 UK supply chain jobs into the 2030s across 432 businesses, including 47 supply chain firms in the North West.

The agreement sits within a wider UK-Norway strategic defence partnership, with the two navies operating closely together in the North Atlantic and Norwegian defence spending rising under NATO commitments. The mapping shows this partnership builds on an established industrial base. We find 88 firms in scope already cite a Norwegian customer or partner (48 cite a Norwegian customer, the basis used in Figure 6.5), spanning over 100 Norwegian organisations, including assurance and classification (DNV accreditation cited by 22 firms), energy (Equinor) and defence and technology groups (Kongsberg, 5). Direct defence relationships include **BAE Systems** and **Northrop Grumman** (Norwegian Armed Forces), Cockermouth-based **Createc** (Norwegian Nuclear Decommissioning) and **Motorola Solutions** (Norway's Nødnett emergency services network).

Investment also flows both ways. Teleplan Forsberg, the Heysham-based positioning, navigation and timing specialist, is the UK arm of Norway's Teleplan Globe, and **DP & Marine Assurance** has a UK entity of its Norwegian parent group registered in Liverpool. With industrial cooperation embedded in the frigate programme, the region's maritime, subsea and nuclear capabilities are well placed to deepen this relationship over the DIP period.

6.4 Research and Innovation Activity

The North West's defence and security ecosystem's engagement with the research and innovation system provides a further demand-side signal. Between 2020 and 2025, we find 241 firms in scope (13%) participated in c. 1,490 UKRI-funded projects, with a combined project award value of c. £5.4bn. This reflects the total value of projects in which firms participated (often as members of larger consortia), rather than funding received by North West firms directly.

Participation is concentrated among larger and dedicated firms, with 69 dedicated and 'high' intensity firms participating in c. 330 defence-related projects, with Rolls-Royce, BAE Systems, QinetiQ, the National Nuclear Laboratory and Thales the most active, alongside the High Value Manufacturing Catapult's role as a national facility anchored in the region.

Participation has been steady year on year, with firms in scope participating in between 170 and 250 new UKRI projects in each year between 2020 and 2024; the median project runs for approximately three years. The ecosystem consequently holds a substantial live research and innovation base, with 341 defence, security and aerospace related projects involving 114 firms in scope remaining active beyond mid-2026, with a combined project value of c. £2.6bn, of which 162 projects (c. £1.8bn) run into 2028 or beyond. This suggests the North West is home to medium and long-term commitments to collaborative R&D. We find EPSRC and Innovate UK support accounts for the large majority of these projects, reflecting a mix of long-horizon research consortium activity and shorter-term collaborative development.

We also find strong partnership between the region's industrial base and its universities. For example, 87 participating firms (36%) had at least one North West research partner on a project, led by the University of Manchester (co-participating with 50 firms), the Henry Royce Institute (35), Lancaster University (26), the National Nuclear Laboratory (19), and the Universities of Salford (17) and Liverpool (15). Alongside the grant funding patterns in Section 4.4.2, this suggests a collaborative R&D channel between the ecosystem's larger firms and the region's universities.

The strength of the region's universities in defence-relevant research was recognised in July 2026, when five North West institutions (Lancaster University, the University of Cumbria, the University of Lancashire, the University of Liverpool and the University of Manchester) were named among the 35 founding members of the Defence Universities Alliance, the largest number of any UK region, under a £182m defence skills and research package announced in Manchester.[44]

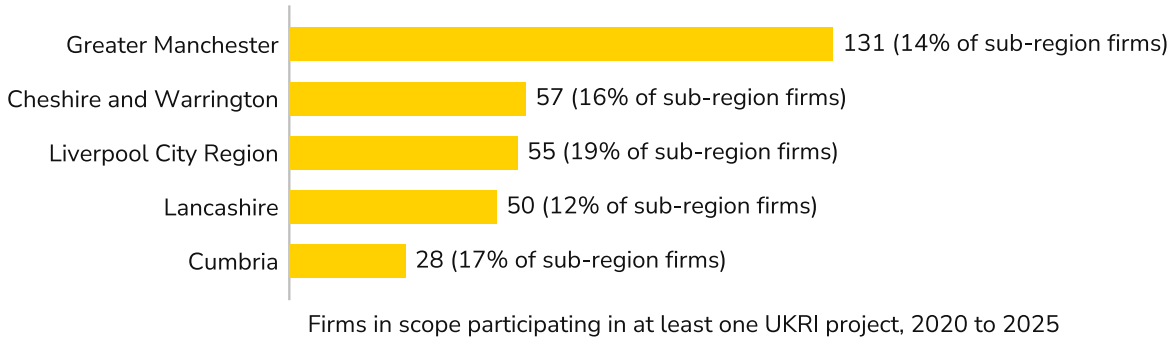
This activity also has a clear sub-regional pattern (Figure 6.6). Greater Manchester hosts the largest participating cohort (131 firms, 14% of the sub-region's firms in scope), reflecting the breadth of its industrial base and engagement with the University of Manchester and the Henry Royce Institute. We find industrial participation rates in collaborative research projects are highest, however, in the Liverpool City Region (19%), Cumbria (17%) and Cheshire and Warrington (16%), where engagement concentrates in a

[44] Ministry of Defence (2026) 'Boost for skills and research as 35 universities across the UK partner in new defence alliance'. Of the 35 founding members, the North East, Yorkshire and the Humber, the East Midlands, the West Midlands, the South East and Scotland each have three, London and the South West four, Wales two, and Northern Ireland and the East of England one each.

smaller number of research-intensive specialisms such as aerospace systems and maritime engineering in the Liverpool City Region, nuclear in Cumbria, and engineering consultancies of Cheshire and Warrington.

Lancashire's participation (50 firms, 12%) is anchored by the combat air cluster's collaborative programmes on high-integrity software and aircraft systems, and by Lancaster University's security and data science partnerships.

Figure 6.6. UKRI participation by sub-region: firms in scope participating in at least one project, 2020–2025



Source: Perspective Economics analysis of UKRI Gateway to Research participation data matched to firms in scope. Firms are counted in each sub-region where they have an identified presence, so sub-regional counts sum to more than the 241 participating firms. Percentages are shares of each sub-region's firms in scope. The analysis matches UKRI participations to the firms mapped in this study; a comparison of the North West's share of UKRI funding with other regions is outside the scope of this firm-level mapping and would be a useful further analysis.

Collaborative R&D in practice: UKRI-funded research connects firms and universities across all five sub-regions. For example:

- In Greater Manchester, data science firm Naimuri has worked with Lancaster University and the National Nuclear Laboratory on statistical anomaly detection and participates in Lancaster's STOR-i doctoral training partnership.
- QinetiQ, Intel, Microsoft, Leonardo and BAE Systems participate alongside the Universities of Manchester, Lancaster and Salford in the £12m CORNERSTONE Photonics Innovation Centre (2024–2029), developing open-access silicon photonics capability for sensing and secure communications.
- In Cumbria, Lancashire and Cheshire, the National Nuclear Laboratory's fusion programmes (c. £77m, to 2027) and the doctoral training partnerships in fusion power and nuclear energy futures engage Assystem, Frazer-Nash Consultancy and DBD alongside the Henry Royce Institute, with commitments running into the 2030s.
- In the Liverpool City Region, Cammell Laird recently completed an Innovate UK-backed green shore power project at its Birkenhead yard in 2025, evidence of innovation activity within the maritime industrial base directly.

6.5 Procurement and the Role of the Public Sector

Public procurement is critical to the health and growth of the defence and security ecosystem. As set out, for most firms in scope, government (and primes) are the core customer, and procurement therefore acts as the sector's key growth mechanism, alongside shaping innovation and new markets for firms.

This section explores public contracts awarded to firms in the study population, drawing on Tussell data matched to the 1,826 firms in scope, and covering defence-relevant awards[45] between 2020 and 2025. Contract awards are typically recorded at a corporate (UK group) level and often reflect multi-year programmes or framework ceilings. As such, the values below should be interpreted as evidence of the demand held by firms with a North West presence, rather than actualised revenue within the region. These relate to the 'firm-level' e.g. all contracts awarded to a firm with a presence in the North West, even if the firm has offices elsewhere in the UK.

Within the data, we identify 324 firms (c. 18% of the study population) with at least one defence-relevant public contract award since 2020. This includes 114 dedicated and 'high' intensity firms (c. 23% of the 493 dedicated and 'high' intensity firms), which collectively hold c. £32bn in award value across c. 2,240 contracts, and a further 210 'medium' and 'low' intensity firms, holding c. £39bn across c. 6,900 contracts. We find 66 dedicated and 'high' intensity firms (c. 13% of that group) contract directly with the Ministry of Defence and its agencies, emphasising that most of the ecosystem reaches defence demand indirectly, through primes and their supply chains (as noted in Section 6.2), rather than through direct government contracting.

Table 6.2. Defence-relevant contract awards 2020–2025, tiered by firm type and registration

Firm group	Firms with awards	Awards	Awarded value (2020–25)	Live value (beyond mid-2026)
All firms in scope (any North West presence; UK group level)	324	9,149	c. £71.2bn	c. £38.0bn
All North West-registered firms (any intensity)	144	1,572	c. £4.4bn	c. £1.7bn
Dedicated and 'high' intensity firms	114	2,240	c. £32.1bn	c. £17.4bn
Dedicated firms only	82	1,931	c. £27.9bn	c. £15.1bn
Dedicated firms registered in the North West	36	515	c. £0.8bn	c. £0.2bn

Source: Perspective Economics analysis of Tussell data. Tiers are nested from the widest to the strictest reading. Awards are recorded at UK group level throughout; "registered in the North West" reflects the firm's registered office, the closest available proxy for a locally headquartered business.

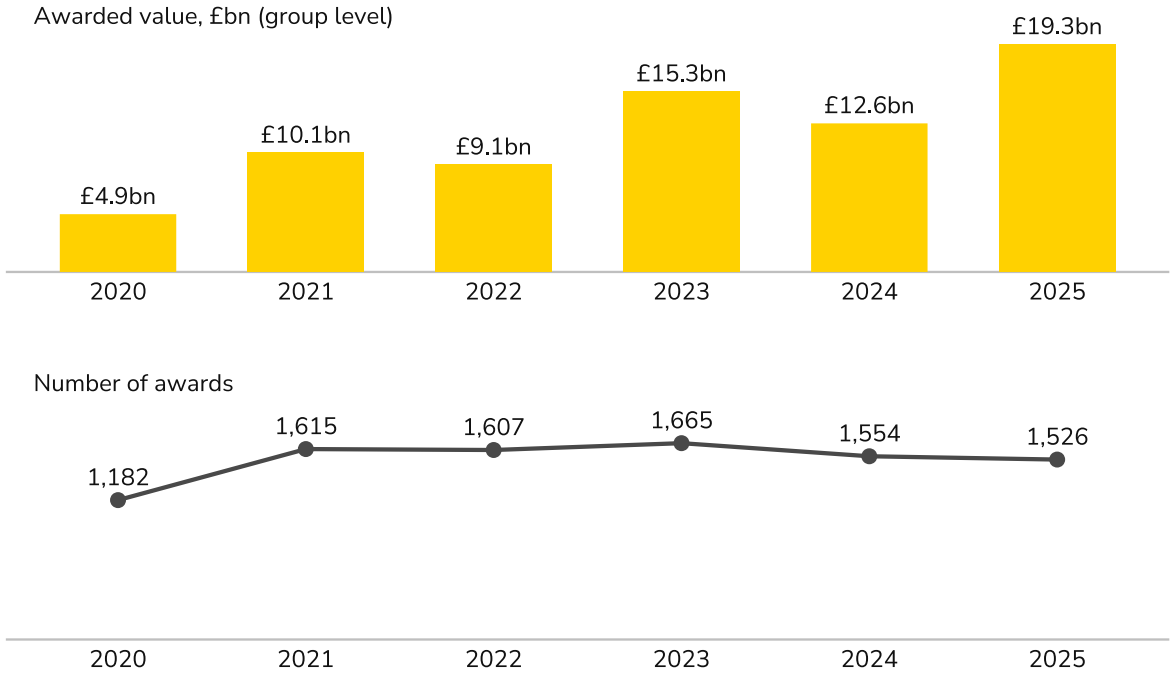
[45] The research team reviewed all contracts awarded to the 1,826 firms in scope and kept 'defence-related' contracts only (i.e. aligned to the taxonomy in this report, or supplying a defence-related buyer), to reduce the risk of false positives (e.g. telecommunications firms supplying non-defence customers).

At the widest, the c. £71bn of awards accrues to any firm in scope with a North West presence, at UK group level: much of this value is won by national and international groups (for example Serco, IBM and the major primes) whose delivery is largely outside the region. Narrowing to dedicated defence and security firms with a North West presence reduces the total to c. £28bn across 82 firms, and narrowing again to dedicated firms registered in the North West, the total falls to 515 awards worth c. £0.8bn across 36 firms, led by KNDS UK, RFD Beaufort and the National Nuclear Laboratory. The gap between these tiers is in itself a key finding, as **defence demand reaches the region overwhelmingly through nationally contracted groups and their supply chains, and the direct contract share won by locally registered defence firms is small**.

The position of the major primes within this tiering is important. For example, BAE Systems accounts for c. £11.4bn of the group-level total and is registered in London, but its c. 22,400 estimated North West employees across Barrow, Samlesbury and Warton represent the group's largest UK concentration, and the submarine and combat air programmes those awards fund are delivered at those sites. A substantial share of these group-level awards is delivered in the North West.

Direct awards are also heavily concentrated. We find the ten largest recipients account for c. 84% of award value among dedicated and 'high' intensity firms (led by major primes and support providers such as BAE Systems, Thales, QinetiQ and Babcock), and the MOD and its agencies account for c. 87% of this value. The median contract award is c. £240k, against a mean of c. £14m, reflecting a small number of very large programme and framework awards, alongside a long tail of smaller contracts. Encouragingly, direct contracting is not necessarily closed to smaller firms. For example, 36 of the 114 dedicated and 'high' intensity recipients identified are small or micro businesses. Further, over the period, the value of defence-relevant awards to North West firms has risen sharply (from c. £4.9bn in 2020 to c. £19.3bn in 2025), while contract volumes have remained broadly flat since 2021 (c. 1,500 to 1,700 per annum), consistent with a national trend towards larger and longer awards. Figure 6.7 sets out the year-by-year pattern; around two-thirds of awarded value sits in contracts running for more than one year and about half in contracts running for more than three years, so annual award values do not equate to in-year spend.

Figure 6.7. Defence-relevant contract awards to firms in scope: awarded value and number of awards by year, 2020–2025



Source: Tussell, defence-relevant contract awards to firms in scope, 2020–2025. Values are group-level award values; award year does not equal in-year spend. The chart covers defence-relevant awards to all firms in scope irrespective of intensity tier, including diversified suppliers (for example, IT and professional services firms) undertaking defence-relevant work; awards to dedicated and 'high' intensity firms account for c. £32.1bn of the c. £71.2bn total (Table 6.2).

The buyer base is broader than the MOD. We find 711 distinct public buyers awarding defence-relevant contracts to firms in scope over the period. The Home Office is the second-largest buyer (c. £6.9bn awarded, engaging 66 firms), followed by the Ministry of Justice (c. £2.8bn, 38 firms). The security side of the ecosystem is also clearly visible in procurement, with several dozen police forces and policing bodies (c. 1,430 awards worth c. £2.7bn, supplied by 99 firms in scope), NHS bodies (c. 410 awards) and fire and rescue services all contracting with mapped firms. Table 6.3 sets out the leading buyers.

Table 6.3. Leading public buyers of defence-relevant goods and services from firms in scope, 2020–2025

Buyer	Defence-relevant awards	Firms in scope engaged	Awarded value
Ministry of Defence (MOD)	2,092	177	c. £44.3bn
Home Office	460	66	c. £6.9bn
Ministry of Justice	176	38	c. £2.8bn
Department for Work and Pensions	64	19	c. £1.8bn
Sellafield Ltd	239	69	c. £1.7bn
Metropolitan Police	57	17	c. £1.6bn
HM Revenue & Customs	40	14	c. £0.9bn
Department of Health and Social Care	63	17	c. £0.7bn
Dstl (MOD agency)	96	34	c. £0.3bn
Nuclear Restoration Services (DESNZ)	235	54	c. £0.3bn

Source: Perspective Economics analysis of Tussell data. As set out above, awards are recorded at UK group level and often reflect multi-year programmes or framework ceilings; values indicate scale of engagement rather than in-region revenue. Values cover defence- and security-relevant awards only, but from all firms in scope irrespective of intensity tier: the presence of buyers such as the Ministry of Justice, DWP and HMRC reflects security-relevant services (for example custodial, security and resilience contracts), largely delivered by diversified suppliers rather than dedicated defence firms.

The region's own public bodies are also key for regional demand. We find 48 North West-based public buyers awarding c. 800 defence-relevant contracts (c. £2.2bn) to 126 firms in scope. This is led by the nuclear enterprise, through Sellafield (discussed below) and the Nuclear Decommissioning Authority, both headquartered in Cumbria, alongside the region's police forces (Cheshire Constabulary and Lancashire Constabulary each awarding over 100 defence-relevant contracts to mapped firms), fire and rescue authorities, and combined and local authorities. Procurement levers for the ecosystem are therefore not solely national, with a meaningful share of demand awarded within the region directly.

We also highlight the importance of demand anchoring within the region itself. Sellafield provides the clearest example. As a contracting authority, it has awarded an estimated 239 relevant contracts worth c. £1.7bn to 69 North West firms since 2020. This demand reaches well beyond dedicated defence and nuclear firms, flowing into the region's wider engineering, construction, and professional services base. Alongside the MOD's growing programme commitments at Barrow and across Lancashire, and the supply chains of the major primes, these anchor organisations create recurring demand into which North West firms of all sizes can sell. As such, deepening regional participation within these programmes i.e. supporting more North West firms to access direct and indirect opportunities represents a substantial and addressable growth opportunity for the ecosystem. This also emphasises the importance of cluster organisations such as the North West Regional Defence and Security Cluster in bringing firms together and sharing opportunities for collaboration and procurement participation.

The North West Regional Defence and Security Cluster: Launched in October 2024, the industry-led North West Regional Defence and Security Cluster (NWRDSC) has become the ecosystem's key convening body, spanning all five sub-regions and every operational domain.

We find over 200 of the firms mapped in this study (more than one in nine in the region) are members, and the cluster works with hundreds more members and partners across the UK.

The cluster plays a practical role as well as a representative one, connecting SMEs to primes and programme demand, supporting routes into defence contracts and supplier accreditation, convening local and national government alongside industry, and promoting the region's capability at national events.

The cluster is also a partner in the region's successful Defence Technical Excellence College bid, linking its industrial membership directly into the skills pipeline set out in Chapter 7. The cluster's early scale and presence in every sub-region are an important institutional asset, and a key route for newer firms to reach primes, programmes and government customers.

SECTION 07

7. Workforce and Skills

7.1 Introduction

The previous chapters mapped the North West's defence and security ecosystem in terms of firms, capabilities and demand. This chapter explores the role of people and talent. There is considerable workforce demand in the region. For example, BAE Systems is growing its Barrow workforce from c. 13,500 towards c. 17,000; the Global Combat Air Programme is ramping up at Warton and Samlesbury ahead of the demonstrator's planned first flight; the National Cyber Force is building towards full operation at Samlesbury; and MBDA is doubling missile production capacity at Bolton. Each of these draws on an increasing need for engineers, skilled trades and digital specialists. There is strong competition and complementarity across the workforce, and a need to grow talent supply and ensure opportunities for high-value roles in the region.

This chapter therefore examines the defence labour market from both the perspective of demand and supply. Section 7.2 assesses workforce demand, using indicative job advertisement (posting) data for the ecosystem's dedicated and high-intensity firms alongside exploring defence-related postings across the wider regional economy. Section 7.3 assesses skills supply, exploring the role of graduates from North West universities, apprenticeship pipelines, and other entry channels including service leavers.

We note that:

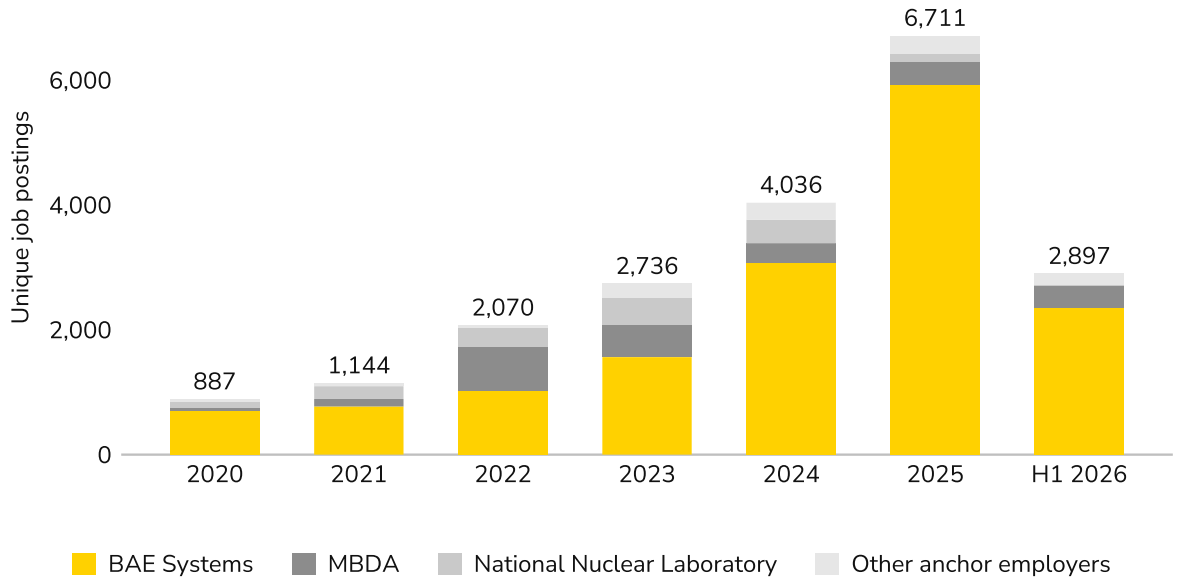
- Demand-side analysis draws on Lightcast job posting data (2020 to mid-2026). Job postings are an indicator of hiring activity but are not a direct measure of vacancies. For example, we can only count the number of job postings available in the public domain; this may omit where firms hire multiple individuals under the same posting, as well as omit where firms use job postings outside of public job posting sites. Duplicate and agency postings require de-duplication, and defence employers may effectively 'under-advertise', as security-cleared roles in particular are often filled through agencies, referral or internal transfer.

- Supply-side analysis draws on HESA qualifier and Graduate Outcomes data and on Department for Education apprenticeship statistics. Higher education subject codes do not directly map onto defence occupations i.e. there is no direct HESA or SOC code for a range of defence professions. As such, the analysis explores key pathways rather than exact estimates.

7.2 Workforce Demand

This section examines job postings by a sample of dedicated and high defence and security intensity firms identified in Chapter 4, restricted to North West locations and reported on the same sub-regional geography as Section 4.3.2. This approach captures the hiring activity of a sample of organisations whose staff are most directly engaged in defence and security work. Please note this data relies upon Lightcast identification of unique job postings; it may omit postings if the firm has changed job posting coverage etc.

Figure 7.1. Unique job postings by the anchor defence employers in the North West, 2020 to H1 2026



Source: Perspective Economics analysis of Lightcast job posting data (unique postings, North West locations, January 2020 to June 2026). Other anchor employers are Westinghouse, Sellafield, Rolls-Royce and Urenco.

Figure 7.1 shows the rising demand for security and defence in the region, with 2025 being the highest year for posting demand (c. 6,700 unique postings, led by BAE Systems, whose North West posting volumes rose to c. 5,900 in 2025). MBDA (c. 2,400 postings over the period), the National Nuclear Laboratory (c. 1,500), Westinghouse (c. 440), Sellafield (c. 270), Rolls-Royce (c. 200) and Urenco (c. 200) account for the remainder. Posting counts understate hiring where employers recruit through their own portals, agencies or referrals; Sellafield's c. 270 postings against a workforce of c. 11,000 is a case in point. The c. 2,900 postings recorded in the first half of 2026 indicate continued strong demand. We expect this demand to continue, e.g. BAE Systems' early-careers intake at Barrow is expected to exceed 700 in 2026, and the company announced 1,294 North West apprenticeship and early careers places for 2026, more than in any other UK region, alongside a record of more than 6,800 apprentices and graduates in training across the UK.[46] MBDA plans a further 40% increase in group-wide missile production in 2026, with c. 2,800 recruits planned across the group, and has announced c. 700 new roles at Bolton as it more than

[46] Lancashire Business View (2025) 'BAE's apprenticeship drive accelerates', 2 December 2025, https://www.lancashirebusinessview.co.uk/latest-news-and-features/baes-apprenticeship-drive-accelerates (1,294 apprenticeship places in the North West in 2026, more than in any other UK region); The Manufacturer, 4 December 2025 (a record of more than 6,800 apprentices and graduates in training across the UK).

doubles the site's footprint by 2028.[47] The National Cyber Force's first trainee programme was also due to start at Samlesbury in January 2026.

Table 7.1 also highlights a range of the top occupations and skills requested by defence employers in the region. The occupational mix is engineering-focused, with production and process, electrical, civil and mechanical engineers leading the demand profile. Further, security requirements are also important, with Baseline Personnel Security Standard (BPSS) clearance directly requested as a minimum in around half of the anchor employers' advertised roles (including re-advertisements), and in c. 39% of unique postings. The data also suggests that advertised salaries at the anchor employers sit above the regional median, with medians ranging from c. £41,000 (Sellafield) through c. £48,000 (BAE Systems, MBDA) and c. £50,000 (National Nuclear Laboratory) to over £55,000 (Rolls-Royce, Urenco etc). This compares to a median of c. £29,500 across all North West postings over the same period.

Table 7.1. Most-advertised occupations and specialised skills, anchor defence employers, 2020–H1 2026

Rank	Occupation (SOC 2020)	Postings	Specialised skill	Postings
1	Production and Process Engineers	6,974	Export Control	13,941
2	Electrical Engineers	4,948	Baseline Personnel Security Standard (BPSS)	7,909
3	Civil Engineers	4,552	Project Management	3,534
4	Mechanical Engineers	4,098	Governance	3,077
5	IT Business Analysts, Architects and Systems Designers	4,032	Continuous Improvement Process	2,504
6	Programmers and Software Development Professionals	2,690	Influencing Without Authority	2,493
7	Health and Safety Managers and Officers	2,609	Stakeholder Management	2,130
8	Project Support Officers	2,286	Systems Engineering	2,066
9	Quality Control and Planning Engineers	1,776	Supply Chain	1,990
10	Buyers and Procurement Officers	1,666	Procurement	1,895

Source: Perspective Economics analysis of Lightcast job posting data, North West locations, January 2020 to June 2026. Occupation and skill counts are total postings (including re-advertisements), aggregated across the seven anchor employers.

Defence demand also extends beyond the mapped firms. Review of postings across the whole regional economy that require security clearance (SC, DV, BPSS, List X and related terms) suggests ongoing increased demand for security cleared individuals.

[47] Ministry of Defence (2025) 'UK jobs and air defences boost with purchase of new missile launchers', 22 August 2025 (c. 1,300 jobs at Bolton; 700 new jobs announced); Department for Business and Trade and UK Export Finance (2025) 'Multi-million defence investment creates 700 jobs days after UK-EU security pact', GOV.UK, 22 May 2025 (Bolton footprint to more than double by 2028); UK Defence Journal (2026) 'MBDA ramps up missile output and investment plans', 28 March 2026, https://ukdefencejournal.org.uk/mbda-ramps-up-missile-output-and-investment-plans/ (a further 40% increase in production and c. 2,800 additional staff planned across the group in 2026).

Table 7.2. Security-clearance-flagged job postings across all North West employers, 2020–H1 2026

Year	Unique clearance-flagged postings
2020	4,455
2021	6,088
2022	10,489
2023	12,218
2024	10,054
2025	12,290
H1 2026	5,937
Total	**61,531**

Source: Perspective Economics analysis of Lightcast job posting data. Postings across all North West employers whose text requires or references security clearance (SC, DV, BPSS, List X and related terms), January 2020 to June 2026.

Geographically, flagged postings appear to concentrate in Greater Manchester (c. 47% of the top posting locations), followed by Cheshire (c. 21%, driven substantially by Warrington's nuclear and secure-infrastructure services base), with Lancashire and Cumbria (c. 11% each) and the Liverpool City Region (c. 10%).

7.3 Skills Supply

The North West's higher education base is one of the largest in the UK, spanning Lancaster, Manchester, Manchester Metropolitan, Salford, Liverpool, Liverpool John Moores, Lancashire, Chester, Cumbria, Edge Hill and the University of Greater Manchester (formerly Bolton). We explore the volume of qualifiers in defence-relevant subjects (including engineering and technology (including mechanical, aerospace, electrical and materials), computing, physics and mathematics) and how that volume has grown over recent years.

Table 7.3. HE qualifiers in defence-relevant subjects at North West providers, 2024/25, all levels of qualification

HE provider	Engineering and technology	Computing	Physical sciences	Maths	Total 2024/25	Total 2020/21
University of Manchester	2,340	930	730	770	4,770	4,125
University of Liverpool	980	975	320	345	2,620	2,180
Manchester Metropolitan	305	1,190	100	95	1,690	1,115
University of Salford	545	695	170	20	1,430	790
Lancaster University	225	475	275	320	1,295	1,190
Liverpool John Moores	525	285	160	65	1,035	1,220
University of Lancashire	485	255	265	10	1,015	990
University of Greater Manchester	360	530	0	0	890	385
University of Chester	205	220	45	20	490	200
Edge Hill University	20	310	0	10	340	210
University of Cumbria	45	0	20	0	65	65
Other NW providers	80	160	0	20	265	170
North West total	6,115	6,025	2,090	1,675	15,905	12,640

Source: Perspective Economics analysis of HESA Table 51. Qualifiers at CAH level 1: 10 Engineering and technology; 11 Computing; 07 Physical sciences; 09 Mathematical sciences. Provider names as at 2024/25: the University of Lancashire was formerly the University of Central Lancashire, and the University of Greater Manchester was formerly the University of Bolton.

Overall, HESA data indicates that the number of North West graduates across these four subject groups has risen by c. 26% between 2020/21 and 2024/25 (from c. 12,600 to c. 15,900), driven mainly by computing (up c. 80%, from c. 3,350 to c. 6,025) with engineering and technology up by 14%. Across engineering and computing, the largest disciplines align well with the demand profile in Section 7.2: electrical and electronic engineering (c. 1,255 qualifiers in 2024/25), mechanical engineering (c. 1,150), software engineering (c. 1,055, more than double the 2020/21 level), civil engineering (c. 960) and aeronautical and aerospace engineering (c. 525, up c. 48% since 2020/21).

We do note, however, that postgraduate taught volumes (c. 2,120 of the region's engineering qualifiers and c. 2,660 in computing) include substantial international cohorts whose retention in the regional labour market may be more limited. Further, the University of Cumbria's base of c. 65 qualifiers across these subjects underlines the significance of its 2026 announcement to create 277 additional engineering, robotics and computer science places.

Retention in the region also matters. Graduate Outcomes data on region of employment fifteen months after qualification indicates what share of North West trained graduates remain in the region. Graduate Outcomes data suggests that retention is relatively strong. Of the graduates from North West providers who entered work in the UK, c. 64% were working in the North West fifteen months after qualifying (2023/24 cohort), a share that has held between c. 64% and c. 67% across the five survey years to date, and is similar for undergraduates and postgraduates. Retention is strongest for those with prior roots in the region, with c. 91% of North West-domiciled graduates of North West providers who entered UK work staying in the North West. This suggests graduates with local roots tend to stay in the region, widening the pool available to defence employers. Retention within sub-regions is also important and depends on clusters of SMEs being able to offer the roles and career progression to graduates. Apprenticeships are also critically important for this ecosystem. BAE Systems and Sellafield operate two of the largest apprenticeship programmes in the UK. BAE Systems reached a record c. 6,800 apprentices and graduates in training across the UK in 2026.

Table 7.4. Apprenticeship starts by sub-region and sector subject area, 2024/25

Sub-region	Engineering and Manufacturing Technologies	Digital Technology	All subject areas	Engineering share of all starts
Cumbria	1,280	120	4,310	29.7%
Lancashire	1,610	530	11,100	14.5%
Greater Manchester	2,280	1,670	18,900	12.1%
Cheshire and Warrington	680	550	6,220	10.9%
Liverpool City Region	1,180	770	10,060	11.7%
North West	7,030	3,640	50,590	13.9%
England	46,070	31,620	353,500	13.0%

Source: Perspective Economics analysis of DfE apprenticeships statistics (Explore Education Statistics). Starts, all levels, full academic year 2024/25, aggregated from local authority districts. Figures rounded by DfE.

The apprenticeship pipeline is where the North West's specialisation is most visible. The region accounted for c. 15% of England's engineering and manufacturing apprenticeship starts in 2024/25 (above its c. 14% share of starts overall). Cumbria's engineering share of starts (c. 30%) is more than double the England average (c. 13%), and Westmorland and Furness and Cumberland, which contain Barrow and Sellafield respectively, recorded more engineering starts than any other North West district in 2024/25, consistent with the scale of BAE Systems' and Sellafield's apprenticeship programmes. Provisional data for the first half of 2025/26 shows c. 5,340 engineering and manufacturing starts across the region, suggesting a healthy pipeline as the recruitment programmes described in Section 7.2 take effect.

The supply side is also being actively expanded in response to defence demand, as set out in Section 2.3. In April 2026, Blackpool and The Fylde College, working in collaboration with Furness College (Barrow), was designated one of five Defence Technical Excellence Colleges in England under the Government's £175m Technical Excellence Colleges programme; the University of Cumbria secured c. £4m to create 277 additional places in engineering, robotics and computer science; the Ministry of Defence's Digital and Cyber Bursary expanded to 500 students in Lancashire; the NDA's One Project Academy went national in partnership with the University of Cumbria; and a Trident Training Facility Extension opened to train crews for Barrow-built submarines. In July 2026, five universities in the North West were named founding members of the Defence Universities Alliance, the largest number of any UK region (Section 6.4).

Lightcast profile data also provides an indication of where the major employers' existing workforces were educated, and this aligns with the 2026 interventions noted above: regional colleges and universities (including Furness College, Blackpool and The Fylde College, the University of Lancashire, the University of Cumbria, Lakes College and the region's larger universities) are among the main feeder routes into the anchor employers. We note that coverage of this data is partial, and it is therefore used as an indicator only.

Further, c. 15,000 personnel leave the UK armed forces each year (around four in five of whom use the Career Transition Partnership), and those settling in the North West represent an experienced workforce with military and security backgrounds which the region's employers can draw upon.

SECTION 08

8. Assessing the Ecosystem

8.1 Introduction

This section brings together the evidence from the previous chapters into an overall assessment of the North West's defence and security ecosystem, using a SWOT (strengths, weaknesses, opportunities and threats) framework. Strengths and weaknesses draw upon the mapping evidence in Chapters 4 to 7, whilst opportunities and threats also consider the policy context (Chapter 2) and the growth potential explored in Chapter 9.

8.2 SWOT Analysis

Strengths

- **Scale of the existing base:** we identify 1,826 firms (282 dedicated), supporting c. 83,600 defence-related jobs and c. £9.3bn of GVA, and the North West receives the third-largest share of MOD spend with UK industry of any region or nation (Sections 2.2 and 4.3).
- **Breadth across the Defence Investment Plan's funded lines**: established programme infrastructure across most of the plan's funded areas, including nuclear and submarines (Cumbria and Cheshire), combat air (Lancashire), complex weapons (Greater Manchester) and cyber (Lancashire and Greater Manchester), with emerging capability in autonomy (Sections 2.2 and 4.3.2).
- **Growing demand and established supply chains**: defence-relevant contract awards to firms in scope roughly quadrupled between 2020 and 2025 to c. £19.3bn (at group level), and we identify c. 1,140 supplier-customer relationships within the region, with Sellafield providing a working example of anchor demand channelled into the regional supply chain (Sections 6.2 and 6.5).
- **Dual-use capability**: 655 firms (36%) offer products or services that serve both defence and civil markets, and capability in design and simulation, advanced manufacturing and materials is present across all five sub-regions (Section 5.4).
- **A skills system responding to demand:** one of five Defence Technical Excellence Colleges in England, more BAE Systems apprenticeship places than in any other UK region, an engineering apprenticeship share in Cumbria double the England average, c. 64% graduate retention, and five founding members of the Defence Universities Alliance (Sections 6.4 and 7.3).
- **International reach**: 909 firms cite at least one international customer (including 45% of UK-headquartered firms) and 284 firms are internationally owned, with export markets aligned to the UK's key partnerships (AUKUS, GCAP and NATO) (Section 6.3).

Weaknesses

- **Workforce availability as a potential constraint on growth**: security-cleared roles appear to attract a salary premium in the region[48], anchor employers' demand for key occupations has increased substantially since 2020, and the largest programmes are collectively increasing at the same time (Section 7.2).
- **Concentration of employment**: the ten largest employers account for c. 59% of the employment estimate, and Cumbria alone for 32%, so the region's growth is closely tied to the timing and delivery of a small number of major programmes (Section 4.3).
- **Indirect access to demand**: only 66 dedicated or 'high' intensity firms hold direct MOD contracts, and defence and aerospace accreditations sit with a relatively small core of firms, so most firms appear to access defence demand through primes and their supply chains (Sections 6.2 and 6.5).
- **Limited external investment**: only 17 dedicated or 'high' intensity firms have raised external investment since 2020 (c. £152m across 24 deals), and the pool of venture-backed firms remains small (Section 4.4).
- **Regional coordination is still developing**: the North West Regional Defence and Security Cluster and several sub-regional strategies are recent, so the mechanisms for coordinating across the five sub-regions, whilst growing, are relatively new and may require ongoing support and investment (Sections 2.3 and 6.5).

Opportunities

- **Delivering the Defence Investment Plan through the existing base**: the North West is one of the regions best placed to advance the plan, as scaling established firms, sites and skills is likely to be faster and lower risk than developing new capability elsewhere (Section 10).
- **Improved SME access to demand**: the MOD's SME Action Plan, the Commercial X fast-track route and the £7.5bn a year SME spend commitment provide new routes for regional SMEs to access defence demand more directly (Section 2.2).[49]
- **Replicating the Sellafield anchor-demand model**: the approach taken at Sellafield to connect SMEs to programme demand (e.g. the Matchmaker scheme, c. £19m of framework work for regional SMEs) could be applied across the region's other anchor employers and programmes (Section 6.5).[50]
- **Export growth**: Norway's Type 26 order (reported to support 47 North West firms), Typhoon assembly at Warton for Türkiye and the next phase of GCAP all offer export opportunities, building on the 909 firms already citing international customers (Sections 6.3 and 9.1).
- **Dual-use spillovers**: investment in defence capability also supports the region's wider technology strengths (e.g. AI, advanced manufacturing, robotics and materials), with benefits for the wider productivity base (Section 5.4).

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[48] Median advertised salary of clearance-flagged North West postings, c. £47,600, against c. £29,500 for all North West postings, 2020 to mid-2026 (Lightcast; Table 7.2).
[49] Ministry of Defence (2026) SME Action Plan, July 2026; Ministry of Defence (2026) 'Government backing future British 'defence unicorns' as new contracts awarded to drive innovation', GOV.UK, 19 May 2026, https://www.gov.uk/government/news/government-backing-future-british-defence-unicorns-as-new-contracts-awarded-to-drive-innovation (the first 13 Commercial X fast-track contracts).
[50] Solomons Europe's Matchmaker scheme on Sellafield's Programme and Project Partners framework: 16 SMEs, c. £19m of contracts (New Civil Engineer, 6 May 2026).

- **Research base and spin-outs:** a strong university research base (five Defence Universities Alliance founding members; 87 firms in scope with a North West research partner) and an emerging pipeline of new entrants (e.g. Quantum Base and SmartIR), although realising this depends on coordinated funding and access to scale-up capital (Sections 4.4 and 6.4).

Threats

- **Dependence on national programme decisions**: SSN-AUKUS is planned at up to 12 boats, with the number built dependent on national decisions and Barrow's production capacity, and the pace of GCAP on national and partner funding decisions, so regional growth plans are exposed to decisions made outside the region (Section 9.1).[51]
- **Place and infrastructure constraints**: housing, transport and local services may constrain growth before programme funding does. For example, the Commons Defence Committee has suggested the £200m Barrow Transformation Fund may be short of what is needed to attract and retain the submarine workforce (Section 2.3).
- **Fiscal and political uncertainty**: any re-phasing of the Defence Investment Plan's four-year envelope may affect the region, particularly as contract values have grown and the medium and high scenarios assume sustained levels of defence and security spending in the region (Sections 6.5 and 9.2).
- **Competition**: the five Defence Growth Deal areas and other national designations may compete with the North West for skilled people, investment and policy attention (Section 2.2).

[51] Ministry of Defence (2026) The Defence Investment Plan ('up to 12 next-generation SSN-AUKUS'); House of Commons Defence Committee (2026) AUKUS, HC 841, 28 April 2026.

SECTION 09

9. Growth Potential

9.1 Introduction and Approach

Chapters 4 to 8 describe the ecosystem as it is today. This chapter considers the current estimates and longer-run growth potential. For many defence and security firms, much of the future demand is already committed, with the Defence Investment Plan providing a four-year funded plan (with longer-term programme commitments beyond that), and the region's anchor programmes have published workforce trajectories over the coming decade.

We therefore explore potential ecosystem growth from the baseline, driven by how actualising these investments may shape overall growth in the region. As noted, programme delivery depends on workforce, place and continued national spend, and several published figures are targets rather than guarantees.

Announced ambitions in the region include:

- **Submarines (Cumbria):** BAE Systems employed an estimated 13,500 people at Barrow in 2026, up from c. 11,000 in 2023, with Defence Nuclear Enterprise jobs in the region expected to reach c. 16,500 by 2027 and the shipyard workforce rising towards c. 17,000 as the Dreadnought and SSN-AUKUS programmes run concurrently.

- **Combat air (Lancashire):** The Global Combat Air Programme is moving from demonstrator to development. BAE Systems' combat air flying demonstrator was c. 75% complete by volume by mid-2026[52], with the fuselage built at Samlesbury and the wings at Warton, and first flight targeted for late 2027, and the £4.6bn international development contract signed in July 2026 (with Italy and Japan, via the Edgewing joint venture)[53] moves the programme into its next phase. Alongside GCAP, the Defence Investment Plan commits £300m to a sovereign collaborative combat aircraft programme, for which BAE Systems unveiled the Warton-built Brontanax demonstrator in July 2026, adding a further line of demand at Warton and Samlesbury. GCAP demand at Warton and Samlesbury will build as the programme transitions from design towards production, sustaining and extending the c. 12,000 Lancashire combat air workforce even as the last UK-built Typhoon completes and the line depends on GCAP, Typhoon sustainment, F-35 work and export assembly (including the Turkish Typhoon fleet).

- **Complex weapons (Greater Manchester):** MBDA is increasing production capacity at Bolton, where its footprint is set to more than double by 2028 with c. 700 new roles, and plans a further c. 40% increase in group-wide output in 2026.[54] The confirmation of KNDS UK's Heaton Chapel site

[52] ADS Advance (2026) 'BAE Systems offers a sneak peek into near-complete GCAP Tempest demonstrator', 3 July 2026, https://www.adsadvance.co.uk/bae-gcap-tempest-demonstrator-progress/ (c. 75% complete by volume; fuselage sections at Samlesbury and wings at Warton; first flight scheduled for late 2027).
[53] Ministry of Defence (2026) 'Over £4 billion invested in next-generation fighter jet with new international contract': a £4.6bn contract, jointly funded by the UK, Italy and Japan, awarded through the GCAP Agency to Edgewing (BAE Systems, Leonardo and Japan Aircraft Industrial Enhancement Co.). MOD (2026) DIP Funding explainer: £8.6bn to GCAP over four years.
[54] Department for Business and Trade and UK Export Finance (2025) 'Multi-million defence investment creates 700 jobs days after UK-EU security pact' (Bolton footprint to more than double by 2028; 700 new jobs); Defense News (2024) 'MBDA books record

(Stockport) as the manufacturing base for the RCH 155 Boxer artillery programme adds a second, land-domain industrial ramp in Greater Manchester, the first major land-systems work-share the sub-region has secured under the post-SDR settlement.

- **Cyber and national security (Lancashire and Greater Manchester):** The National Cyber Force is building towards full operating capability at Samlesbury, with its first trainee programme due to start in January 2026 and a supporting £13.2m innovation hub in delivery. In Greater Manchester, GCHQ maintains an established Manchester base, and the Manchester Digital Campus, confirmed in March 2026, will bring c. 8,800 civil service posts from multiple departments, with a focus on digital work, to a site in Ancoats.[55] Together these will draw sustained demand for cyber, digital and national security specialists into the North West Cyber Corridor over the DIP period, complementing the region's existing base of more than 300 cyber firms.

- **Nuclear (Cumbria and Cheshire):** Beyond submarines, the wider defence nuclear enterprise carries a long demand pipeline. Sellafield's Decommissioning and Nuclear Waste Partnership framework (worth up to £4.6bn over 15 years) was awarded in October 2025 and opened to the wider supply chain in 2026[56]. The DIP commits more than £20bn to the nuclear enterprise including fuels and materials (Springfields, Capenhurst), and Rolls-Royce is scaling submarine reactor production. These are decades-long programmes with embedded demand.

9.2 Potential Growth Scenarios to 2030

The evidence above can be extended into illustrative growth scenarios. This study is the first baseline of its kind, so there is no historic series to project forward.

Instead, the scenarios are based upon the proposed increase in national defence spending, the estimate for what the North West can be anticipated to secure (based on the MOD's published regional expenditure shares) and uplifts to employment and GVA using this study's own baseline ratios. These are scenarios and not forecasts. At the time of writing:

- UK defence spending is committed to reach 2.5% of GDP by 2027 and 2.7% by the end of the decade under the Defence Investment Plan, with an ambition of 3% in the next Parliament and a NATO commitment of 3.5% by 2035; the medium and high scenarios below assume 3% by 2030[57]. At 3%, the defence budget would be around £20bn a year higher in real terms than today, implying

orders amid European air-defense rush', 13 March 2024, https://www.defensenews.com/global/europe/2024/03/13/mbda-books-record-orders-amid-european-air-defense-rush/ (MBDA doubling production capacity at Bolton); UK Defence Journal (2026) 'MBDA ramps up missile output and investment plans' (group-wide figures).

[55] Government Property Agency (2026) 'Manchester Digital Campus confirmed' (c. 8,800 people from multiple government departments).

[56] Sellafield Ltd (2025) 'Sellafield Ltd awards high hazard risk reduction framework contract', GOV.UK, 31 October 2025 (Decommissioning and Nuclear Waste Partnership: maximum value £4.6bn, up to 15 years, four lots); DNWP supply chain engagement event, Energus, Lillyhall, 3 June 2026 (Business Crack, 'Step forward in £4.6 billion Sellafield nuclear decommissioning programme').

[57] At the time the scenarios were developed, the Government's stated ambition was to reach 3% of GDP on defence in the next Parliament, and the medium and high scenarios assume this is reached by 2030. We note, however, that fiscal decisions may affect both the timing of this trajectory and the allocation of spend across programmes and regions; the scenarios should therefore be read as illustrative rather than as forecasts.

a potential increase of c. £10–12bn a year in MOD expenditure with UK industry (currently £31.9bn).

- MOD regional expenditure statistics show the North West received £4.78bn of MOD expenditure with UK industry in 2024/25, c. 15% of the UK total and the third-largest regional share, with the largest year-on-year increase of any region and the highest proportion of spend on equipment (92%). The region's capture share rose from 13.3% in 2023/24.

Table 9.1 sets out three scenarios for 2030 on this basis. The captured increment is converted using the baseline ratios established in Chapter 4 (c. £245,000 of revenue and c. £112,000 of GVA per defence-related job), with productivity held constant. The low scenario broadly coincides with the committed programme activity in Section 9.1, where Barrow, GCAP industrialisation, complex weapons and decommissioning alone imply c. 5,000–7,000 additional jobs.

Table 9.1. Illustrative growth scenarios for North West defence and security employment and GVA, 2030

Scenario	Key assumptions	Estimated employment (2030)	Estimated GVA (2030)
Low	Spending reaches c. 2.6–2.7% of GDP; North West capture share slips to c. 13%	c. 88,000–90,000	c. £9.9bn
Medium	3.0% of GDP by 2030; North West share held at c. 15%	c. 91,000–93,000	c. £10.2bn
High	3.0% of GDP by 2030; North West share rises towards 18%, alongside export and security demand growth	c. 95,000–100,000	c. £10.6–11.1bn

Source: Perspective Economics analysis. National trajectory reflects HM Government commitments and stated ambitions; regional capture shares from MOD regional expenditure statistics with industry, 2023/24 and 2024/25 (GOV.UK); conversion ratios from the Chapter 4 baseline (headcount basis, productivity held constant). Scenarios are conditional on the stated assumptions and are not forecasts.

On this basis, we estimate the region could reach up to **100,000 defence and security jobs and c. £11bn of GVA by 2030 (in current prices)**.

This is a high but achievable ambition for the region (from a base of c. 83,600 jobs and £9.3bn of GVA), conditional on the workforce, place and demand conditions set out in Chapters 7 to 9. In summary, the North West holds the industrial capability, the programme infrastructure and a degree of demand certainty, which needs to be sustained, to grow substantially as the Defence Investment Plan is delivered.

SECTION 10

10. Strategic Implications

This concluding chapter sets out what the mapping suggests for the North West's role in delivering the Defence Investment Plan, and the conditions on which this depends. The points below are for strategic consideration by the region's stakeholders, who are best placed to shape how growth is delivered, and are not formal recommendations. Some of these points draw directly upon the evidence set out in Chapters 4 to 9; others are propositions that the evidence supports but does not itself prove.

The North West is one of the regions best placed to advance the Defence Investment Plan

The Defence Investment Plan commits funding across nuclear, combat air, complex weapons, munitions, autonomy, cyber and space, and we find the North West holds relevant industrial capability across most of these areas (Sections 2.2 and 4.3). As the UK seeks to deliver the Defence Investment Plan at pace, we argue that the North West is one of the best placed regions in the UK to advance it. This reflects the industrial base, workforce and programme infrastructure already in place across all five sub-regions.

The evidence in this report does not suggest that the North West should do everything. However, it does show that a substantial share of the capability funded by the plan is already established in the region, and that scaling an existing base of firms, sites and skills is likely to be faster and lower risk than developing it elsewhere.

The baseline and the supply chains already exist

The mapping identifies 1,826 firms, 282 of them dedicated defence and security businesses, supporting c. 83,600 defence-related jobs and c. £9.3bn of GVA, connected by around 1,140 intra-regional supplier links (Sections 4.3 and 6.2). Defence-relevant contract awards to North West firms roughly quadrupled between 2020 and 2025 (Section 6.5). The primes, their supply chains, the accredited firms and the anchor customers are established and interconnected. Advancing the Defence Investment Plan in the North West therefore involves scaling and deepening an existing system. In our view, this is likely to be more effective than developing capability from a standing start elsewhere.

An often-overlooked base built on the industrial foundations the UK most needs

Much of this activity sits within sectors that arguably receive less attention than they merit, including manufacturing, fabrication, construction, materials and precision engineering (Sections 5.2 and 5.3). These are foundational capabilities for sovereign defence, which the UK cannot readily import. The North West holds these capabilities at scale, with the workforce, supply chains and industrial heritage needed to sustain them, and recognising and supporting this base is important for the UK's long-term security and industrial resilience.

A natural testbed for new technology, with established suppliers to adopt it

The combination of anchor primes, a dense supplier base and strong applied research institutions makes the region a natural place to test, prove and scale new defence technology, alongside the firms that would ultimately build it. The research base is already engaged. Of the 241 firms in scope that participated in UKRI-funded projects between 2020 and 2025 (with a combined project value of c. £5.4bn), 87 did so alongside a North West university or research institute; 243 firms cite a university as a customer or partner; and five of the region's universities are founding members of the Defence Universities Alliance, the largest

number of any UK region (Sections 5.4 and 6.4). New capability developed in the region can therefore be industrialised locally, as the suppliers are already present, accredited and engaged in innovation. We consider this proximity between research, innovation and manufacturing to be one of the region's key strengths, as it shortens the path from demonstration to deployment.

An internationally connected base, with allied demand rising

The evidence in Chapter 6 also shows the ecosystem is internationally connected. Half of the firms in scope cite international customers, including 45% of UK-headquartered firms, and 284 firms are internationally owned, including subsidiaries of major international defence and aerospace groups. The region's markets align closely with the UK's defence partnerships: the United States and Australia through AUKUS, Japan through GCAP, and NATO allies raising defence spending across Europe. Norway's c. £10bn Type 26 frigate order, reported to support 47 North West supply chain firms, is one of the clearest indications of allied demand embedding in the regional supply chain. As spending rises, these established relationships position the region to capture exports alongside domestic programme growth.

These are established firms whose legacy is worth securing

The firms in this ecosystem are mature and established. The median firm in scope was incorporated c. 18 years ago, and many have decades of specialist capability behind them (Section 4.4). The strategic opportunity is therefore to secure and grow the firms that already exist, rather than to chase the next emerging area. It involves helping strong, established businesses to scale from where they are today (e.g. towards tens of millions of pounds in turnover, and into export markets), whilst protecting the specialist capability they hold. This is a different growth model to that typically applied to technology clusters, and one which builds on assets the region already possesses.

Established firms can and will adopt new technology, and the region is strong at it

Established firms are also adopting new technologies. The evidence in this report shows these firms are engaging with the growth technologies on which defence increasingly depends, and they sit within a region with considerable strengths in these areas, e.g. Greater Manchester's digital and cyber depth, Lancashire's composites and autonomy, Cumbria's and Cheshire's nuclear engineering, and the Liverpool City Region's security and materials base (Section 5.3). A new generation of entrants, from AI security and reusable launch to autonomous robotics (Section 5.4), is now commercialising these strengths directly. The dual-use evidence in this report shows these capabilities are held across firms serving both civil and defence markets and are present in every sub-region (Section 5.4). The opportunity is to bring the five sub-regions together, connecting the established industrial base with the region's technology strengths, so that technology adoption becomes a shared regional capability.

The institutions and the research base are in place

The coordinating infrastructure is emerging and making progress. The North West Regional Defence and Security Cluster now counts over 200 of this study's mapped firms (more than one in nine) among its membership, giving the region a convening body across all five sub-regions and all operational domains (Section 6.5). The universities are central to both projects and pipelines: Lancaster University's long-standing strength in cyber security and history of defence and security spin-outs; the University of Lancashire's drone and autonomous-systems work, including its Altitude programme and Engineering Innovation Centre; the University of Salford's internationally significant acoustics research; and the wider

research depth at Manchester, Liverpool and beyond. These institutions supply the applied research, the graduate and apprentice pipelines, and the innovation partnerships the ecosystem draws on.

Realising growth requires certainty of future spend

We stress that no growth is automatic. Established firms will invest in new capacity, new technology and skills in their own communities only if they can see a reliable, sustainable pipeline of demand. The 2026 experience of a delayed Defence Investment Plan[58], alongside the workforce and place pressures set out in Chapters 7 and 8, highlights how uncertainty can create risks for recruitment, investment decisions and the retention of specialist skills which, once lost, are very difficult to rebuild. In our view, greater and sustained certainty of future demand is the single most important condition for the North West to convert its established strengths into long-term national capability, regional growth and resilient communities. We note that, at the time of writing, there is no Defence Growth Deal for the North West; however, this does not change the evidence, as the region is already delivering a substantial share of the programmes the plan funds. What a place-based arrangement for the North West might look like is a question for its stakeholders and government to explore further.

[58] The Defence Investment Plan was expected in autumn 2025 and was published on 30 June 2026 (House of Commons Library (2026) Defence Investment Plan: key decisions, CBP-10935).

ANNEX A

ANNEX A

Methodology and Definitions

This annex summarises how the North West defence, security and aerospace ecosystem was identified, classified and measured for this study.

Approach

The research was undertaken in five stages between March and July 2026:

- **Desk review and consultation:** review of several hundred web and policy sources, an automated tracker of regional announcements, and around ten stakeholder consultations across the five sub-regions.
- **Longlisting:** review of every firm registered or trading in the North West through Companies House and web data; over 30,000 firms in relevant domains were screened with a defence and security keyword library and a large language model classifier.
- **Definitional scoping:** a functional definition and a defence relevance score reflecting the strength of evidence across web, procurement, investment and labour market signals (Section 3.2).
- **Firm-level review:** manual review of every shortlisted firm for trading status, an active North West presence and evidence of defence and security activity, with false positives removed.
- **Final list and enrichment:** 1,826 firms brought forward as of April 2026 and enriched with accounts, web, profile, investment, research, procurement and location data, with the dataset closed in June 2026.

Definitions and conventions

Firms are considered in scope where they have a UK registration, an identifiable North West presence, and evidence of commercial activity related to defence, security, aerospace, nuclear or aligned dual-use applications (the full criteria are set out in Section 1.3). Each firm in the dataset carries three classifications:

- **Dedicated or diversified:** whether defence and security is the firm's core offer (282 dedicated firms) or one part of a broader business (1,544 diversified firms).
- **Defence relevance score:** the strength of evidence of defence and security engagement.
- **Employment intensity:** the estimated share of the firm's North West activity attributable to defence and security, tagged All, High, Medium or Low.
- Firms are classified against a **taxonomy** of sectors (Section 3.2) at two levels: a best-fit domain, and multi-fit tags for every domain in which a firm holds an identifiable offer. Products, services, technologies, certifications, customers and partners cited in web and profile data were extracted and classified using large language models with human review. The 655 firms with at least one product or service serving both defence and civil markets are treated as dual-use.
- The five sub-regional geographies aggregate the North West's 35 local authority districts. Firms are counted in each sub-region where they have a presence, so sub-regional counts exceed the number of distinct firms. Where a single location is needed, a firm's principal location is the sub-region of its largest estimated North West employment.

Data sources

- **Companies House and Perspective Economics' UK firm database:** registration, accounts, incorporation dates and trading locations.
- **Company websites and web search:** descriptions, products and services, customers and partners, certifications and locations.
- **Lightcast:** workforce profiles by location and skill set, and de-duplicated job postings from January 2020 to June 2026.
- **Beauhurst:** equity fundraisings and grant awards since 2020.
- **UKRI Gateway to Research:** publicly funded research participations from 2020 to 2025, reviewed for defence, aerospace and security relevance.
- **Tussell:** public contract awards from 2020 to 2025, classified for defence relevance by contracting authority, CPV category and description.
- **HESA and Department for Education open data:** qualifiers by provider and subject, graduate outcomes, and apprenticeship starts by district.
- **MOD regional expenditure statistics, ADS Group and the Defence Investment Plan:** national and policy context.

Estimation

Employment is estimated North West headcount, not full-time equivalents. It draws on accounts, web evidence and Lightcast profiles, moderated by each firm's intensity weighting. The headline of c. 83,600 employees comprises dedicated firms plus high and medium intensity diversified firms, with the largest employers weighted using site-level evidence. Revenue and GVA are estimated for dedicated and high-intensity firms only, from reported accounts where available and apportioned by regional employment share for firms operating beyond the North West. GVA is estimated only where accounts allow, covering c. 81% of estimated employment and c. 97% of estimated revenue. The indicative sub-regional split in Table 4.4 retains firm-level values where known, with estimation applied where unknown. The growth scenarios in Section 9.2 apply the study's revenue and GVA per job to the region's published share of MOD expenditure under stated spending assumptions, and reflect growth scenarios rather than forecasts.

Confidence and caveats

This study should be considered a supply-side estimate of a sector whose definitions and boundaries are contested, and in which many firms are unable to disclose the detail of their defence work. Measures drawn from web evidence (e.g. customers, partners, programmes, technologies and certifications) reflect what firms choose to publish and therefore may understate actual activity; these are labelled as indicative throughout. Contract award values are recorded at UK group level and may overstate in-region activity and are labelled accordingly. Where data is insufficient, the approach taken is conservative: revenue and GVA are not estimated for 'medium' or 'low' intensity firms, GVA is not imputed where it is unreported, and the sub-regional revenue and GVA split is indicative only. Figures drawn from public announcements and third-party reporting are footnoted and have been verified against primary sources where these exist. The dataset reflects a baseline as of April 2026, with job posting and investment data to mid-2026 and contract data to the end of 2025.

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