



North West Regional Defence and Security Cluster

CONNECTED FOR IMPACT

October 2026

welcome to the beehive



FOREWORD



“ A Region Working Together

When the North West Regional Defence and Security Cluster was launched in 2024, our ambition was simple: to bring together the region's considerable strengths in defence, security, innovation, research and advanced manufacturing through a shared vision for collaboration and growth.

Over the last two years, that ambition has become a reality. What began as a coalition of organisations willing to contribute their time, expertise and resources has evolved into a region-wide network connecting businesses, universities, public-sector organisations and national stakeholders.

Together, we have strengthened collaboration, supported innovation and skills development, improved engagement with government and helped raise the profile of the North West as a region of national significance.

Most importantly, this progress has been achieved through partnership. The success of the ecosystem depends upon the willingness of organisations to work together, share opportunities and contribute to a common purpose. This report reflects on that journey, highlighting the progress made across the wider ecosystem and the opportunities that lie ahead.

The evidence is clear. The North West possesses one of the United Kingdom's most significant defence and security ecosystems. The challenge now is not to create capability, but to connect, strengthen and grow what already exists.

We look forward to continuing that journey together.

Professor Andrew Schofield

Chair, NWRDSC



NWRDSC STEERING GROUP



THE NORTH WEST IN NUMBERS

Independent research highlights the scale and significance of the North West Defence and Security ecosystem



1,826

NW FIRMS ACTIVELY TRADING IN
DEFENCE AND SECURITY



282

DEDICATED
DEFENCE AND SECURITY FIRMS



£20.5BN

ESTIMATED ANNUAL
REVENUE



c. 1,140

SUPPLY CHAIN LINKS
IN THE NORTH WEST
ECONOMY



83.6K

DEFENCE-RELATED JOBS
WITH A 2030 ASPIRATION
OF 100k



£9.3BN

ESTIMATED
GROSS VALUE ADDED (GVA)
WITH A 2030 ASPIRATION
OF £11bn



c. 15,900

ANNUAL QUALIFIERS IN
RELEVANT DISCIPLINES



7,030

ENGINEERING APPRENTICESHIPS
STARTS, 2024/2025

THE CLUSTER IN NUMBERS



500+

MEMBERS



12

ALL NW UNIVERSITIES
REPRESENTED



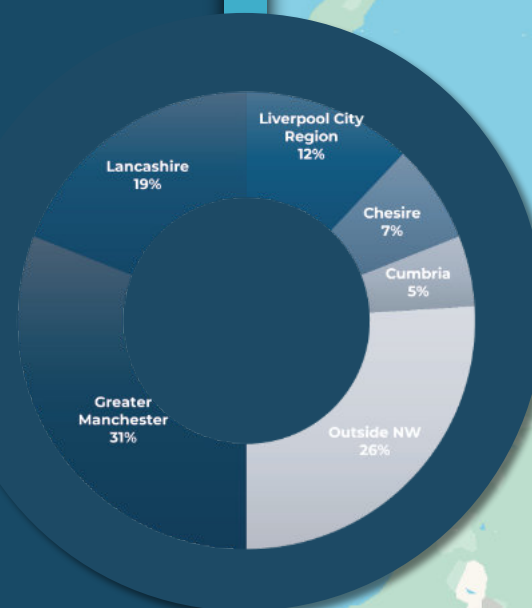
80+

ENGAGEMENT EVENTS



4,000+

INDIVIDUALS REACHED



NATIONAL
MINISTERIAL
ENGAGEMENT

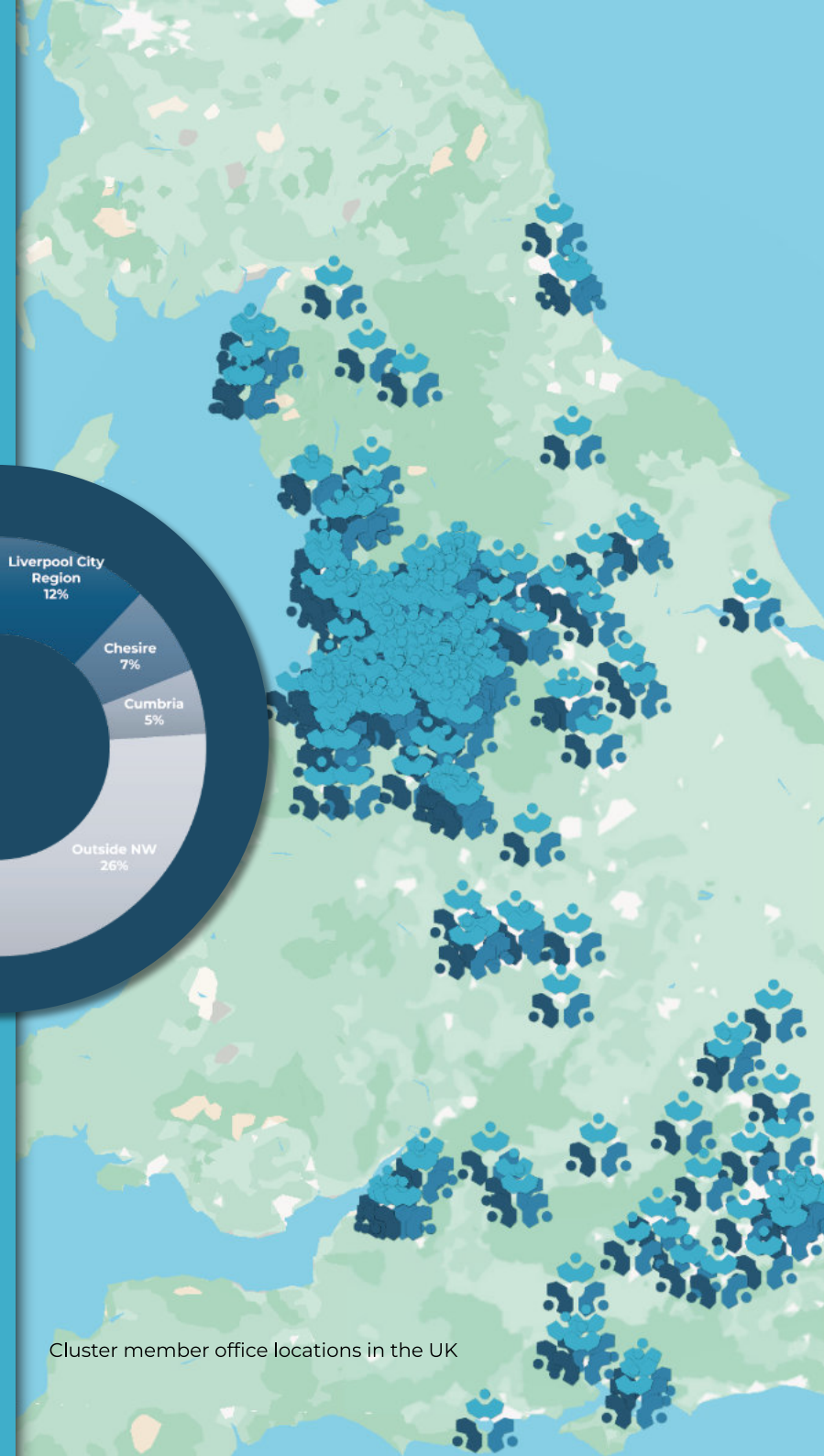


INNOVATION
PARTNERSHIPS
ESTABLISHED



REGIONAL
SKILLS INITIATIVES
SUPPORTED

Cluster member office locations in the UK





THE
NORTH WEST

A REGION OF NATIONAL SIGNIFICANCE

The Strategic Defence Review and Defence Industrial Strategy both recognise that future defence capability will increasingly depend upon innovation, industrial resilience and regional expertise. The North West is well positioned to support these ambitions, combining world-class defence programmes, advanced manufacturing, research excellence and a highly skilled workforce.

Independent analysis commissioned by Lancaster University, and conducted by Perspective Economics identified 1,826 firms operating across the region's defence and security ecosystem. Together, these organisations support approximately 83,600 defence-related jobs (employed in defence-related and adjacent roles across the wider North West defence, security, aerospace and dual-use supply chain), generate an estimated £20.5 billion in annual revenue and contribute approximately c. £9.3 billion in Gross Value Added (GVA) to the UK economy. These figures reflect far more than economic scale. They demonstrate the region's contribution to national security, sovereign capability, innovation and resilience.

The North West's strength lies in the breadth and connectivity of its capabilities. From advanced aerospace and combat air programmes in Lancashire, to submarine and nuclear expertise in Cumbria, cyber and digital innovation in Greater Manchester, advanced engineering in Cheshire and Warrington, and maritime and manufacturing strengths across Liverpool City Region, the region supports every major defence domain.

As the UK delivers the Defence Investment Plan, the North West is uniquely positioned to support growth across nuclear, combat air, complex weapons, cyber and advanced manufacturing. Independent analysis concluded that the region is among the best placed in the UK to help deliver and scale future defence capability.

THE NORTH WEST RECEIVES AROUND 15% OF ALL MOD EXPENDITURE WITH INDUSTRY AND IS THE THIRD-LARGEST RECIPIENT REGION IN THE UK

A RECOGNISED REGION WITH UK SOVEREIGN CAPABILITY ACROSS NUCLEAR, COMBAT AIR, COMPLEX WEAPONS, CYBER AND ADVANCED MANUFACTURING



A UNIQUE NATIONAL ASSET

The North West's importance extends beyond the scale of activity that takes place within the region.

The region sits at the heart of some of the United Kingdom's most strategically important industrial and technological capabilities.

It is home to globally recognised defence companies, specialist SMEs, research institutions and innovation centres working across aerospace, maritime, cyber, digital, nuclear, advanced manufacturing, autonomy and emerging dual-use technologies.

This concentration of expertise creates an ecosystem that is unusually diverse, highly interconnected and capable of addressing some of the most complex challenges facing defence and national security.

Importantly, those strengths are distributed across the region rather than concentrated in a single location.

Each sub-region contributes distinct capabilities and specialisms, creating a complementary ecosystem that is greater than the sum of its parts.



CUMBRIA

A centre of excellence for submarine programmes, nuclear capability, advanced engineering, robotics and specialist technologies operating in complex and hazardous environments.

LANCASHIRE

One of the UK's most significant defence manufacturing regions, supporting combat air, advanced manufacturing, precision engineering and supply chain excellence.

GREATER MANCHESTER

A growing hub for cyber security, software, digital technologies, complex systems and innovation-led businesses.

LIVERPOOL CITY REGION

Providing strengths in maritime, manufacturing, materials, logistics and security technologies that support both defence and wider national resilience.

CHESHIRE AND WARRINGTON

Home to nationally significant nuclear expertise, advanced engineering capability and technology-intensive businesses.

Together, these capabilities provide a powerful platform for future investment, innovation and growth.

DEFENCE AS AN ENGINE FOR GROWTH

Whilst defence and security are often viewed through the lens of national capability, they are also important drivers of economic prosperity.

Investment in defence supports highly-skilled employment, strengthens supply chains, encourages innovation and creates opportunities for businesses of all sizes. Initiatives such as Team Barrow, the Government's model for linking defence investment with regeneration, skills and economic growth, demonstrate how defence can act as an engine for wider regional prosperity.

Many of the technologies being developed across the North West have applications beyond defence, including advanced manufacturing, autonomy, cyber security, data analytics, energy resilience and critical infrastructure protection.

As a result, the sector creates value not only through defence outputs, but also through innovation, knowledge transfer and wider regional economic development.

For public leaders, investors and policy makers, defence and security should therefore be viewed not simply as a sector, but as an important enabler of long-term regional prosperity.

CASE STUDY: THE CYBER CORRIDOR

The North West Cyber Corridor demonstrates the power of long-term collaboration between industry, academia and government.

Built around the arrival of the National Cyber Force at Samlesbury and supported by universities, businesses and regional stakeholders, the Cyber Corridor has become one of the UK's leading cyber ecosystems outside London and the South East. The Perspective Independent report highlights the Cyber Corridor as a catalyst for innovation, investment and skills development across the region.

Today, the Cyber Corridor provides a model for how strategically aligned investment, academic excellence and industrial capability can work together to create nationally significant capability and economic growth.

THE OPPORTUNITY AHEAD

The North West already possesses many of the ingredients required for sustained growth.

It has a strong industrial base, a thriving innovation ecosystem, internationally recognised universities, nationally significant programmes, a highly-skilled workforce and an extensive network of capable suppliers.

However, realising the full potential of these assets depends on effective collaboration. Innovation increasingly occurs at the intersection of industry, academia and government. Investment depends on visibility. Growth depends upon organisations being connected to the right people, opportunities and support mechanisms.

As the regional ecosystem has matured, so too has the need for stronger coordination, representation and collaboration. It was this opportunity, and this challenge, that ultimately led to the formation of the North West Regional Defence and Security Cluster.

Independent analysis suggests the North West could support:

- Up to 100,000 defence and security jobs by 2030
- Up to £11.1 billion Gross Value Added

Continued growth driven by nuclear, combat air, cyber, autonomy and advanced manufacturing programmes.

**"THE NORTH WEST IS AMONG THE REGIONS BEST PLACED TO
ADVANCE THE DEFENCE INVESTMENT PLAN"**

PERSPECTIVE ECONOMICS & LANCASTER UNIVERSITY, 2026



THE CLUSTER

A COALITION OF THE WILLING

The North West has long been recognised as one of the United Kingdom's most important centres for defence, security, advanced manufacturing and innovation. Home to world-class businesses, leading universities, major defence programmes and highly-skilled workforces, the region possesses one of the most diverse and capable defence and security ecosystems in the country.

Despite these strengths, much of this capability existed across separate networks, sectors and geographies. Opportunities for collaboration were abundant, but there was no single mechanism to connect organisations around a shared regional vision, to showcase the full breadth of capability within the region, or to amplify the North West's contribution to national priorities.

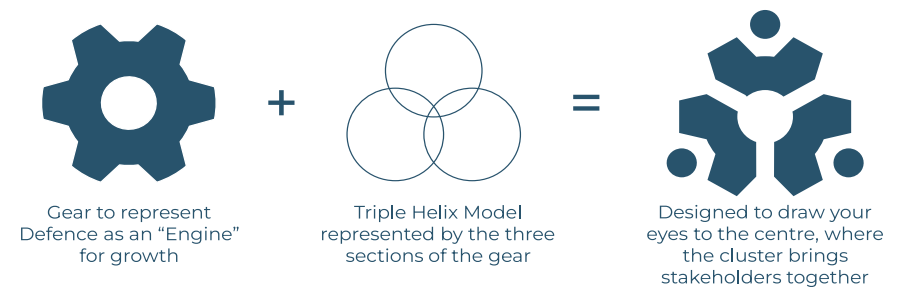
Businesses were seeking new routes to growth and partnership. Universities were looking to translate research into greater real-world impact. Public sector organisations wanted to maximise the economic and societal benefits of investment, while national stakeholders often found the scale and diversity of the region difficult to navigate.

At the same time, the UK's defence and security priorities were evolving. Innovation, resilience, sovereign capability, skills development and regional growth were becoming increasingly important to delivering national security and economic prosperity.

The opportunity was clear: to create a single regional platform capable of connecting industry, academia and government around a shared vision for the future. These principles formed the foundation of the Cluster and reflected the well-established Triple Helix model of innovation.

As the Cluster evolved, so too did its understanding of the wider ecosystem required to deliver meaningful impact. Alongside industry, academia and government, it became increasingly clear that military end-users and regional growth partners play a critical role in translating innovation into capability, developing skills and supporting long-term economic growth.

The North West Regional Defence and Security Cluster was therefore established not only to strengthen collaboration across the traditional Triple Helix, but to bring together a broader five-partner ecosystem comprising industry, academia, government, military end-users and growth partners. By connecting these stakeholders, the Cluster provides a focal point for collaboration, a stronger voice for the region and a mechanism for accelerating innovation, skills development and economic growth in support of national defence priorities.



OUR MISSION

To orchestrate a Defence ecosystem that accelerates the commercialisation, adoption, and export of North West Defence and Security innovation



OUR VISION

To be the national catalyst for the UK's Defence 'Engine of Growth' by establishing the North West as an indispensable security powerhouse.



OUR PURPOSE

To fortify the UK's sovereign capability by ensuring the North West is the primary engine of national security and regional prosperity

BUILDING THE FOUNDATIONS

The Cluster's first two years focused on building the foundations required for long-term success.



Governance arrangements were established to ensure transparency, accountability and effective decision-making. A Steering Group was formed, bringing together representatives from industry, academia and government to provide strategic direction and help shape the Cluster's priorities.

Membership grew rapidly as organisations recognised the value of participating in a region-wide network focused on defence and security. Relationships were developed across all five North West sub-regions, ensuring the Cluster reflected the breadth, diversity and depth of capability that exists throughout the region.

As the network expanded, so too did engagement with national stakeholders, including the Ministry of Defence, UK Defence Innovation and a range of public and private sector organisations with a shared

interest in strengthening the UK's defence and security ecosystem.

Most importantly, the Cluster began creating connections where none previously existed. By bringing together organisations that may never have otherwise engaged, it laid the foundations for a more collaborative, resilient and better connected regional ecosystem.

Unlike many organisations, the Cluster was not established with significant funding, dedicated infrastructure or a large delivery team.

It was built through collective commitment.

Leaders from industry, universities, local authorities, government and regional organisations recognised that the North West needed a stronger platform for collaboration, representation and growth. They volunteered their time, shared expertise, opened networks and contributed resources to help turn the concept of a regional cluster into a reality.

Meeting rooms were made available. Events were hosted. Expertise was shared. New relationships were formed.

Across the region, organisations came together around a simple belief: that by working collaboratively, they could achieve far more collectively than they could individually.

This spirit became known as a Coalition of the Willing and remains one of the defining characteristics of the North West Regional Defence and Security Cluster.

The Cluster's success has never been driven by a single organisation. Rather, it has been built by a community of organisations and individuals committed to supporting one another, strengthening the wider ecosystem, and ensuring the North West fulfils its potential as one of the UK's leading regions for defence and security.

THE CLUSTER WAS CREATED TO CONNECT THE ECOSYSTEM

Its first two years focused on building the relationships, trust and foundations needed to make that possible. The next phase is about converting those foundations into lasting impact.

Through stronger representation, deeper collaboration and increased support for innovation and skills, the Cluster is helping to ensure that the North West remains at the forefront of the United Kingdom's defence and security landscape.

The following chapters demonstrate how this work is already delivering value across the region and highlight the opportunities that lie ahead.

In just two years, the North West Regional Defence and Security Cluster has evolved from a shared ambition into a recognised regional platform supporting collaboration across industry, academia, government and the wider innovation ecosystem. To date:

- Over 500 members have been approved
- All North West universities were represented within the Cluster community
- More than 80 regional engagements had been delivered
- Over 4,000 individuals have participated in events, briefings, workshops and roundtables

The strength of the region's academic capability is demonstrated by the fact that five of the founding members of the Defence Universities Alliance are located in the North West, the highest concentration of any UK region. The Cluster has helped create stronger connections between these institutions, industry, government and regional stakeholders, supporting a more coordinated approach to innovation, skills and capability development.

Beyond the numbers, the Cluster has established a growing reputation as a trusted convenor; connecting organisations, enabling new partnerships and providing national stakeholders with a clear route into one of the United Kingdom's most significant defence and security ecosystems.

While significant progress has been made, perhaps the Cluster's greatest achievement has been the creation of a shared sense of purpose across the ecosystem.

Today, organisations that may previously have worked independently are increasingly collaborating, sharing opportunities and contributing to a collective vision for the region's future.

The North West is becoming more connected, more visible and more influential. Through the efforts of its members and partners, the Cluster is helping to ensure that the region plays an increasingly important role in strengthening both national security and regional prosperity.





CLUSTER

REPRESENTATION

GIVING THE NORTH WEST DEFENCE AND SECURITY COMMUNITY A STRONGER VOICE

As defence increasingly adopts a whole-of-society approach to capability development, ensuring that regional expertise is represented within national conversations becomes increasingly important.

The North West has long been home to nationally significant defence, security, aerospace, nuclear and advanced technology capabilities. Major defence programmes are delivered from the region, world-leading research takes place within its universities and innovative SMEs continue to develop technologies that support national security and economic growth.

Despite these strengths, the region has not always had a single, coordinated voice able to articulate the breadth of capability that exists across the North West.

The North West Regional Defence and Security Cluster (NWRDSC) was established, in part, to address this challenge.

Representation remains one of the Cluster's core strategic pillars because visibility matters. Organisations that are connected, visible and engaged are more likely to access opportunities, influence decision-making, build partnerships and attract investment. Equally, regions that are able to clearly communicate their strengths are better positioned to secure government support, research funding and commercial growth opportunities.

Over the last two years, the Cluster has worked to strengthen the profile of the North West defence and security community and ensure that regional capabilities are better represented at local, national and international levels.

CREATING A COLLECTIVE VOICE

The defence and security ecosystem is diverse, bringing together major defence organisations, innovative SMEs, universities, research institutions, public-sector organisations and regional partners.

One of the Cluster's earliest achievements was creating a forum through which these organisations could collaborate around shared opportunities and challenges. By connecting stakeholders across the ecosystem, the NWRDSC has helped establish a stronger and more unified regional voice.

This collective approach has strengthened engagement with government, defence stakeholders, industry bodies and strategic partners, while improving collaboration across the region.

Working with Lancaster University, the Cluster also helped commission the first independent mapping of the North West defence and security ecosystem, delivered by Perspective Economics. The study identified 1,826 organisations operating across the sector, providing an evidence-based understanding of the region's capabilities, strengths and growth potential.

The strength of the Cluster lies in its ability to connect, represent and support one of the UK's most significant defence and security ecosystems.

RAISING THE PROFILE OF THE REGION

A key objective of the Cluster has been to raise awareness of the North West as a nationally significant centre for defence and security capability.

This has been achieved through stakeholder engagement, industry collaboration, participation in national defence networks and the promotion of regional strengths to government, industry and academic audiences.

The Cluster has created opportunities for organisations across the region to showcase their expertise, build strategic partnerships and contribute to discussions on future defence, security and industrial priorities.

These activities have helped position the North West not just as a supply chain contributor, but as a region with strengths in innovation, advanced manufacturing, research, skills and sovereign capability.

As awareness of the Cluster has grown, so too has recognition of the wider ecosystem it represents, strengthening the visibility of North West organisations and their contribution to national defence and security objectives.

CONNECTING THE DEFENCE INNOVATION ECOSYSTEM

The North West possesses a unique combination of industrial capability, research excellence, military end-users and regional partners that together create a powerful environment for innovation.

The Cluster builds the Defence Eco System by connecting industry, academia, government, military end-users and growth partners, helping organisations identify opportunities, develop partnerships and accelerate innovation.

By strengthening these connections, the Cluster helps ensure that research is aligned to real-world challenges, innovation is connected to operational needs and organisations can access the expertise required to develop future capabilities.

BEYOND REGIONAL BOUNDARIES

While the Cluster's focus remains firmly rooted in the North West, its ambition extends beyond the region.

Defence and security challenges are increasingly complex and interconnected. Addressing them requires collaboration across geographical and organisational boundaries.

The NWRDSC has therefore sought to establish relationships with national organisations, other regional clusters and strategic partners who share common objectives.

These connections help ensure that the North West remains visible within wider defence and security networks while creating opportunities for collaboration, market access and export growth that benefit members and the broader ecosystem.

The result is a region that is increasingly connected, outward-looking and engaged.

A PLATFORM FOR MEMBERS

At its heart, representation is about creating opportunities for others.

The Cluster provides members with a platform through which they can showcase expertise, share success stories and engage with audiences that may otherwise be difficult to access.

Whether through speaking opportunities, events, introductions, collaborative activities or stakeholder engagement, members have benefited from being part of a wider community that actively promotes regional capability.

For many organisations, these connections have become as valuable as any individual event or initiative.

The ability to access a trusted network, build relationships and increase visibility has helped members strengthen their position within the defence and security sector.





WHAT WE HAVE LEARNED

The experience of the last two years has demonstrated that representation is not a passive activity.

It requires consistent engagement, collaboration and advocacy.

The North West possesses exceptional defence and security capability, but capability alone does not guarantee opportunity. Organisations must also be visible, connected and engaged.

By providing a coordinated voice for the region, the Cluster has helped ensure that the strengths of the North West are better understood by those who influence policy, investment and future defence priorities.

LOOKING FORWARD

As the Cluster continues to grow, representation will remain a central pillar of its strategy.

The focus will be on deepening existing relationships, expanding engagement with national stakeholders and continuing to create opportunities for members to showcase their expertise.

The ambition is not simply to promote the Cluster itself, but to ensure that the North West is recognised as one of the UK's most important defence and security regions.

By working together, members are helping to create a stronger voice, a stronger network and a stronger future for the defence and security community across the North West.

SUCCESS STORY: NPD STUDIO



www.npd.studio

Raising North West SMEs onto the National Stage

npd Studio is a North West design and innovation business helping organisations transform ideas into products, technologies and commercial opportunities.

One of the key objectives of the North West Regional Defence & Security Cluster is to ensure that regional capability is visible within national defence and security conversations. For SMEs in particular, raising awareness amongst key stakeholders can create opportunities that may otherwise be difficult to access.

As part of its engagement with the Ministry of Defence, NWRDSC highlighted npd Studio to the MOD's Defence Office for Small Business Growth as an example of an innovative SME operating successfully within the sector.

Subsequently, npd Studio was selected as one of just five SMEs to feature as a dedicated case study within the MOD's SME Action Plan, launched nationally in 2026 - describing the delivery of a 7" avionics display unit for BAE Systems' Typhoon programme in 3 months against a 12-month internal projection.

This recognition not only raised the profile of npd Studio but also showcased the strength of the wider North West defence and security ecosystem.

Key Outcome

- North West SME highlighted to the MOD Defence Office for Small Business Growth.
- One of only five SMEs nationally selected for a dedicated, standalone case study within the MOD SME Action Plan.
- Case study built around a named BAE Systems (Typhoon programme) delivery result
- Increased visibility of both the company and the wider regional ecosystem.

"THE CLUSTER HELPED RAISE OUR VISIBILITY WITH ORGANISATIONS WE WOULD NOT OTHERWISE HAVE REACHED."



SUCCESS STORY: HYDE GROUP



www.hydegroupp.com

Showcasing North West Leaders

Hyde Aero Products was founded in Greater Manchester in 1968 and has grown over the decades to now employ over 700 people. The company is a leading engineering service provider specialising in design and manufacture solutions, trusted by the world's most prestigious OEMs and tier one suppliers across a range of highly regulated industries.

The NWRDSC has provided a platform for Hyde to increase their profile at both a regional and national level, as an industry leader and trusted voice from the supply chain.

Through the cluster, Hyde have participated in strategic discussions with the Minister for Defence Readiness and Industry and the National Armaments Director. Following connections made by the NWRDSC, Hyde hosted a prestigious visit from the Royal Navy, where the Naval Regional Commander Northern England & Isle of Man gave an inspiring talk to Hyde's team of 70 apprentices. This brought to life how the apprentices' work in the factory ultimately delivers for the military end-user.

Hyde's increased profile through NWRDSC events has resulted in new business connections with both buyers and suppliers. Hyde's experienced team have shared best practice guidance with North West engineering companies that are new to defence, thereby strengthening the region's supply chain.

For the NWRDSC's International Women's Day event in March 2026, Hyde provided the largest delegation of any organisation in attendance. This gave the Hyde cohort a wonderful opportunity to connect with other women from across the North West for a day of inspiration, peer support and celebration.

Key outcome

- Speaking engagements at national and regional events
- Direct introductions to buyers and suppliers
- Royal Navy visit to Hyde's facilities
- Access to unique development events for early careers employees
- Best practice sharing with new entrants to defence, thereby strengthening the region's industrial base

"THE NWRDSC IS EXACTLY THE KIND OF INITIATIVE THE UK NEEDS: IT STRENGTHENS NATIONAL RESILIENCE, GIVES THE NORTH WEST A CLEARER VOICE IN DEFENCE AND SECURITY, AND INCREASES THE BANDWIDTH OF COMMUNICATION BETWEEN THE END USER AND THE MANUFACTURER."





CLUSTER

INNOVATION

TURNING COLLABORATION INTO CAPABILITY

Innovation sits at the heart of the North West's defence and security community.

The region is home to globally recognised defence organisations, advanced manufacturers, digital technology businesses, research-intensive universities and specialist SMEs that are developing solutions to some of the most complex challenges facing national security. However, innovation rarely happens in isolation. New ideas emerge when organisations collaborate, knowledge is shared and expertise is brought together around common problems.

This principle underpins the Innovation pillar of the North West Regional Defence and Security Cluster.

Since its formation, the Cluster has sought to create an environment where industry, academia, government and end-users can work together more effectively, accelerating the development of new technologies, strengthening regional capability and helping organisations access opportunities that might otherwise be beyond their reach.

Innovation within the Cluster is not simply about new products and technologies. It is about creating the conditions that allow innovation to thrive.

THE POWER OF COLLABORATION

Many of the opportunities within defence and security increasingly require multidisciplinary partnerships.

Challenges such as autonomy, artificial intelligence, cyber resilience, situational awareness, secure communications, advanced manufacturing and resilient infrastructure cannot be solved by a single organisation acting alone.

The Cluster has therefore focused on bringing together organisations with complementary expertise and creating opportunities for collaboration.

By facilitating introductions, sharing opportunities and encouraging joint engagement, the Cluster has helped lay the foundations for new relationships across the regional ecosystem.

These connections are creating a more integrated innovation community where businesses, researchers and public sector organisations can identify common interests and develop solutions together.

STRENGTHENING THE DEFENCE INNOVATION ECOSYSTEM

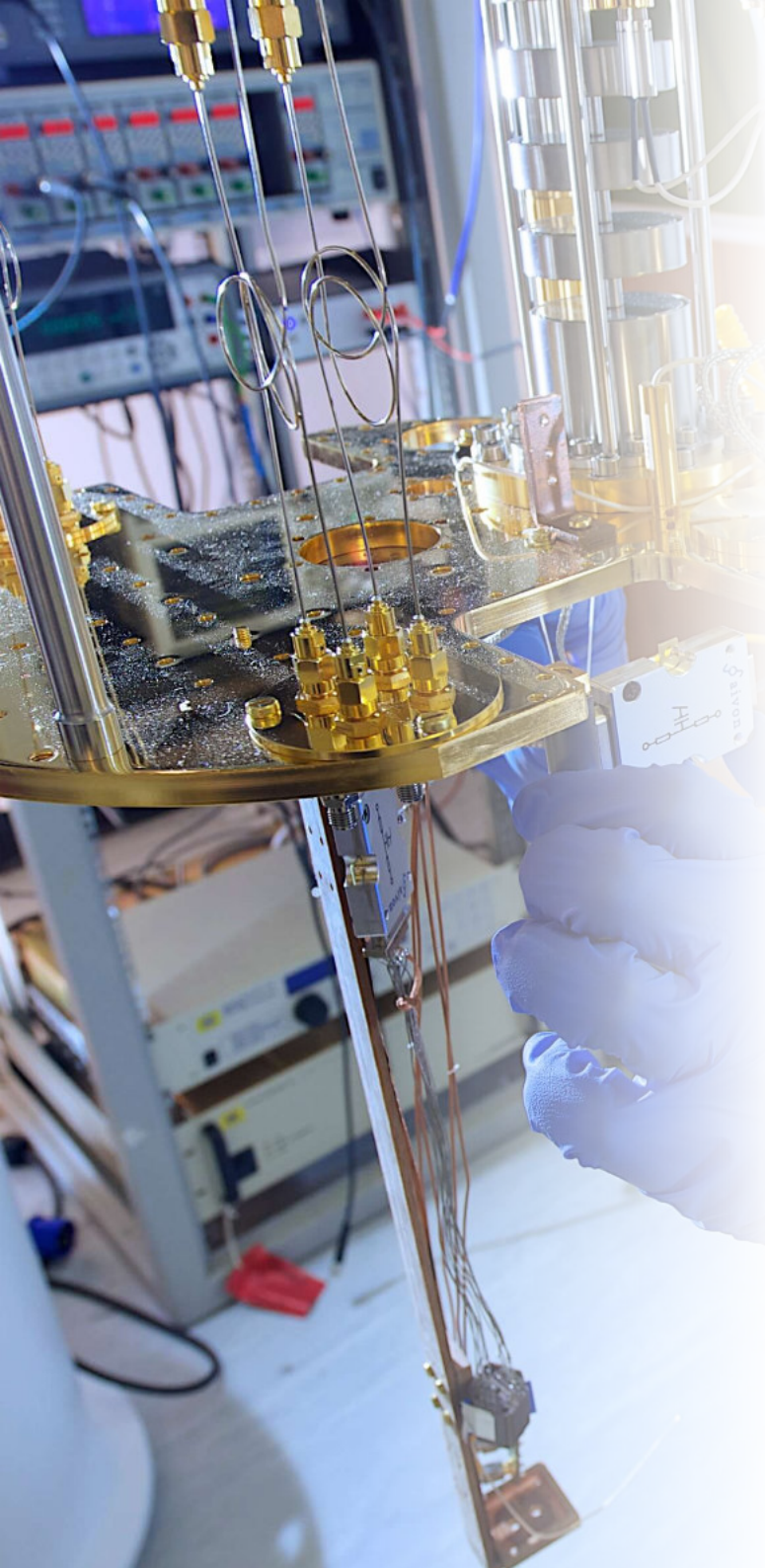
The North West benefits from a unique combination of industrial capability, research excellence, operational end-users and regional partners that together create a powerful environment for innovation.

The Cluster's approach builds upon the traditional Triple Helix model with a five stakeholder model by bringing together industry, academia, government, military end-users and regional growth partners. Recognising that successful defence innovation depends upon contributions from all parts of the ecosystem.

The strength of the region's academic capability is reflected by the inclusion of five North West universities within the founding cohort of the Defence Universities Alliance, the highest concentration of any UK region. This provides a strong foundation for collaboration between research, industry and government, helping ensure that innovation, skills and capability development remain closely aligned to national priorities.

Through these connections, the Cluster helps organisations identify opportunities, access specialist expertise and build partnerships capable of accelerating innovation and strengthening future defence capability.





CREATING OPPORTUNITIES FOR INNOVATION

For many organisations, particularly SMEs, the biggest challenge is often not generating ideas but accessing the networks, partners and resources needed to turn those ideas into reality.

The Cluster has therefore prioritised the creation of opportunities that help members move from concept to collaboration.

These opportunities have included:

- Connections between businesses with complementary capabilities.
- Introductions to research partners and academic expertise.
- Engagement with innovation programmes, funding opportunities and defence challenge areas.
- Facilitation of collaborative discussions around emerging MOD technologies and operational needs.
- Access to stakeholders across the wider defence and security ecosystem.

By reducing barriers between organisations, the Cluster is helping accelerate the development of new ideas and potential future capabilities.

BUILDING A REGIONAL INNOVATION ECOSYSTEM

A successful innovation ecosystem is more than a collection of individual projects. It is a network of organisations that trust one another, share knowledge and recognise the value of collaboration.

One of the most significant achievements of the Cluster has been the creation of a community where conversations that were previously unlikely to happen are now occurring regularly.

Businesses that may once have viewed each other solely as competitors are increasingly identifying areas where collaboration creates mutual benefit. Universities are gaining improved visibility of industry challenges. Public-sector organisations have access to a broader network of expertise and capability.

Over time, these relationships create the conditions necessary for sustainable innovation.

INNOVATION IN SERVICE OF DEFENCE AND SECURITY

Innovation is not an end in itself.

Within the defence and security sector, innovation must ultimately deliver operational advantage, strengthen resilience, improve security or create economic value. The technologies being developed across the North West have the potential to contribute to many of the national priorities identified within the UK's evolving defence and security landscape.

From advanced sensing and autonomous systems to data analytics, cybersecurity, advanced manufacturing and resilient infrastructure, the region possesses capabilities that can support both current and future requirements. The role of the Cluster is to help ensure that these capabilities are connected, visible and able to reach the organisations that need them.

INNOVATION IN ACTION

The Cluster's role is not to invent the next breakthrough itself.

Its role is to create the conditions in which innovation can thrive by connecting organisations, facilitating collaboration and helping ideas move towards real-world applications.

Success is measured not only by new technologies, but by new partnerships, new opportunities and new capabilities created through collaboration.



CONNECT

Helping organisations find partners, expertise and opportunities.



COLLABORATE

Bringing industry, academia and government together around shared challenges.



ACCELERATE

Supporting the transition from concept to capability.

LOOKING FORWARD

The North West already possesses many of the ingredients required for a world-class defence and security innovation ecosystem.

The opportunity now is to build upon these foundations.

The Cluster will continue to strengthen connections between industry, academia and government, support collaborative activity and help members identify opportunities to develop new technologies and capabilities.

By creating an environment where innovation can flourish, the Cluster is helping ensure that the North West remains at the forefront of defence and security capability development in the years ahead.

SUCCESS STORY: GENER SOL



www.genersol.co.uk

When Gener Sol joined the North West Regional Defence & Security Cluster, it was seeking to develop MaRIE (Military Regulatory Intelligence Engine), an AI-enabled regulatory intelligence platform designed to address complex regulatory challenges within the defence sector.

Rather than simply attending events, Gener Sol used the Cluster as a platform to build relationships, access expertise and identify opportunities to accelerate development.

An early introduction through the Cluster connected the company with UK Defence Innovation. Although its subsequent proposal was assessed as fundable but unfunded, the engagement led to further introductions and new opportunities. Through these connections, Gener Sol began working with the STFC Hartree Centre to explore how artificial intelligence and research software engineering expertise could support the development of MaRIE.

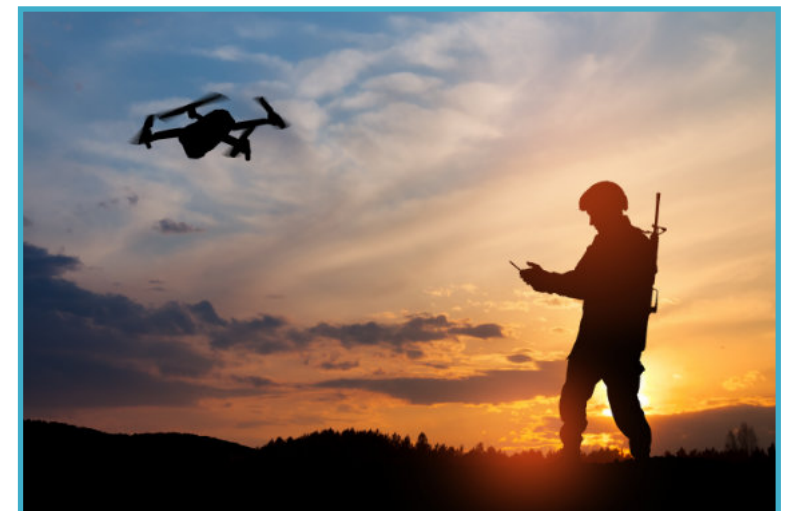
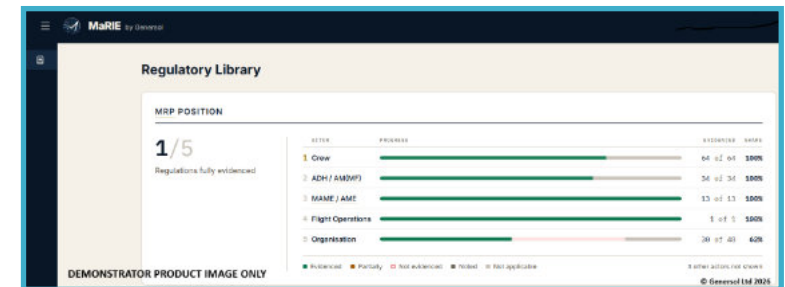
What started as a conversation evolved into a funded development project. Additional support from DSIT and the Royal Academy of Engineering has since helped strengthen both the technology programme and the company's external credibility.

For Gener Sol, the greatest value has not been a single event or introduction. It has been access to an ecosystem of organisations, specialists and partners capable of turning ideas into tangible outcomes.

Key Outcome

- UK Defence Innovation engagement led to introductions beyond the initial opportunity.
- Collaboration established with the STFC Hartree Centre.
- Funded development support secured.
- Additional backing obtained through DSIT and the Royal Academy of Engineering.
- MaRIE progressed from concept towards capability through collaboration and partnership.

"NWRDSC HAS HELPED US TURN A NETWORK INTO AN ECOSYSTEM AROUND THE BUSINESS."



SUCCESS STORY: TELEPLAN FORSBERG AND UAV AEROSYSTEMS



The North West Regional Defence & Security Cluster exists to create connections that enable organisations to combine their strengths and develop new capabilities.

One example is the collaboration between Teleplan Forsberg and UAV Aerosystems, bringing together complementary expertise in unmanned aerial systems, situational awareness and battlespace management.

Through this partnership, the companies have integrated UAV Aerosystems' long-endurance unmanned platforms with Teleplan Forsberg's MANTIS battlespace management capabilities, demonstrating how complementary technologies can enhance situational awareness, information sharing and operational decision-making.

The collaboration has been demonstrated during military exercises including EX EAGLE'S EYE, DRAGON RIDER and HEDGEHOG, providing opportunities to showcase integrated capabilities directly to military users in realistic operational environments.

By combining airborne sensing, communications and command-and-control capabilities, the partnership has demonstrated persistent overwatch, multi-domain information management and enhanced situational awareness. The collaboration highlights how companies can work together to create capabilities that are greater than the sum of their individual technologies.

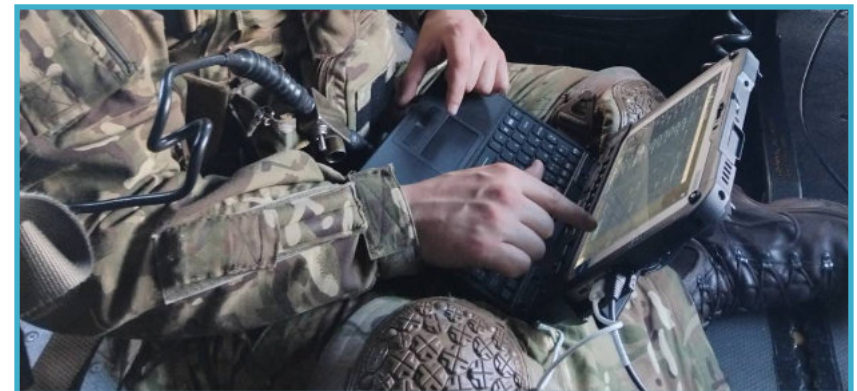
The Cluster has also facilitated engagement with military users, industry partners and academic stakeholders through demonstrations and industry events, helping innovative companies build relationships and gain valuable feedback.

For Teleplan Forsberg and UAV Aerosystems, the value of the Cluster has been its ability to turn connections into collaboration and collaboration into demonstrable capability.

Key Outcomes

- Strategic partnership established between Teleplan Forsberg and UAV Aerosystems.
- Integrated capabilities demonstrated during military exercises.
- Direct engagement with operational users and stakeholders.
- Enhanced situational awareness and information management concepts validated.
- Increased collaboration between industry and defence stakeholders.
- Real-world demonstration of innovative UK-developed defence capability.

"THE CLUSTER CREATED THE CONNECTIONS THAT ENABLED US TO COMBINE COMPLEMENTARY CAPABILITIES AND DEMONSTRATE INNOVATION IN REALISTIC ENVIRONMENTS."





CLUSTER IMPACT

STRENGTHENING SKILLS, COMMUNITIES AND FUTURE CAPABILITY

While Representation raises the profile of the sector and Innovation creates new opportunities, the ultimate measure of success is Impact.

For the North West Regional Defence and Security Cluster, impact is about creating lasting benefits for people, organisations and communities across the region. It is about ensuring that the growth of the defence and security sector translates into opportunities for individuals, supports economic development and helps build the skills and capabilities required for the future.

The Strategic Defence Review and Defence Industrial Strategy both recognise that future defence capability will depend upon a combination of skilled people, strong regional ecosystems and closer collaboration between industry, academia and government. Through its membership and partnerships, the Cluster is helping create the conditions in which those ambitions can be realised across the North West.

ARMED FORCES COVENANT



PROUDLY
SUPPORTING
THOSE WHO
SERVE.

The North West Regional Defence and Security Cluster is proud to be a signatory of the Armed Forces Covenant, reaffirming its commitment to supporting serving personnel, veterans, reservists and military families.

This commitment reflects the strong connection between the defence community and the wider North West ecosystem. Through its members, partnerships and activities, the Cluster seeks to promote opportunity, recognise the value of military experience and support successful transitions between military and civilian careers.

Veterans, reservists and members of military families bring valuable skills, leadership, technical expertise and operational experience to organisations across the region. Their contribution strengthens businesses, supports innovation and helps address the growing demand for skilled people across the defence and security sector.

By signing the Covenant, the Cluster has reinforced its belief that those who have served, or supported those who serve, should be treated fairly and supported in making valuable contributions to both regional prosperity and national resilience.



ON DEFENCE AS A NATIONAL ENDEAVOUR:

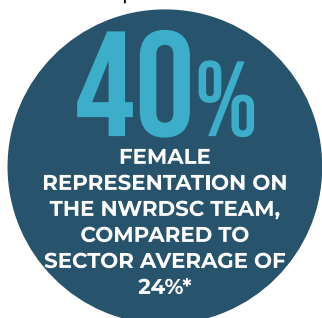
"IT MUST FOSTER A COLLECTIVE NATIONAL ENDEAVOUR THROUGH WHICH THE STATE, BUSINESS, AND SOCIETY UNITE IN PURSUIT OF THE SECURITY OF THE NATION AND THE PROSPERITY OF ITS PEOPLE."

STRATEGIC DEFENCE REVIEW 2025



WOMEN IN DEFENCE

The NWRDSC is committed to creating an inclusive and empowering culture for women in the defence industry. Through our events and engagements, we have profiled North West women leading the way across numerous areas of the defence industrial base. This includes CEOs, Directors, Engineers, Researchers, Project Managers, Marketing Professionals, Veterans, Military Spouses, Educators, Civil Servants and Finance professionals.



* Source: Women in Defence, Insight and Data 2025



"OPPORTUNITIES LIKE TODAY'S NWRDSC INTERNATIONAL WOMEN'S DAY CELEBRATION HELP US BUILD CONFIDENCE, CAPABILITY AND COMMUNITY AND ENSURE OUR WORKFORCE REFLECTS THE STRENGTH AND DIVERSITY OUR INDUSTRY NEEDS. THANK YOU TO THE NWRDSC FOR HOSTING THIS INSPIRING, IMPORTANT AND IMPACTFUL DAY."

FEEDBACK FROM AN ATTENDEE

EDUCATION AND DEFENCE CAPABILITY

The North West possesses one of the strongest concentrations of defence-related academic capability in the United Kingdom.

Five North West universities were selected as founding members of the Defence Universities Alliance (DUA), the highest concentration of any UK region. These institutions play an important role in generating research, supporting innovation and developing the future workforce required to meet growing defence and security demand.

By working closely with industry, government and regional partners, universities across the region are helping strengthen the pipeline of talent, research and innovation that underpins future defence capability.



TECHNICAL SKILLS FOR THE FUTURE FORCE

Long-term defence capability depends upon a highly-skilled workforce.

Across the region, Cluster members work closely with colleges and training providers to ensure technical education remains aligned with industry needs. These partnerships help connect employers, educators and learners across the North West. Member organisations support curriculum development, provide industry insight, contribute to advisory groups and create pathways into employment across engineering, manufacturing, cyber, software and advanced technology disciplines.

The emergence of Defence Technical Excellence Colleges, growing collaboration between universities and industry, and increased regional investment in engineering, cyber and technology education are helping create a connected skills ecosystem across the North West. Together, these initiatives form a "golden thread" linking schools, colleges, universities, employers and defence stakeholders, supporting both regional prosperity and future defence capability.



"THE HIGHER EDUCATION SECTOR WILL PLAY AN IMPORTANT ROLE IN PROVIDING US WITH THE DEFENCE SECTOR WORKFORCE OF THE FUTURE."

DEFENCE INDUSTRIAL STRATEGY 2025

“ Over the past two years, we have seen the North West Regional Defence and Security Cluster (NWRDSC) drive regional prosperity by uniting industry, academia, and government agencies. It provides vital value to the North West Reserve Forces' and Cadets' Association (NW RFCA) by strengthening civilian-military integration and actively promoting the Armed Forces Covenant. Since its inception, the NWRDSC has successfully bridged the gap between commercial innovation and Ministry of Defence needs.

We believe this cross-sector collaboration has accelerated advanced regional research, expanded vital skills pipelines across the North West, and will critically help unlock future economic investments through the Defence Investment Plan.

Ultimately, the cluster enhances local security infrastructure while directly supporting the North West's Reserve Forces and the local resilience that anchors the region's overall defence.

The NW RFCA is a proud supporter of the NWRDSC, and we look forward to continuing our work alongside the cluster and its members in steadfast support of the United Kingdom's National Interest.

Geoff D Nuzum

Head of Engagement
The Reserve Forces' & Cadets' Association for the North West of England & the Isle of Man

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WHAT WE HAVE LEARNED

The true impact of the Cluster cannot be measured by membership numbers or event attendance alone.

It can also be seen through:

- Stronger links between industry and education.
- Increased awareness of defence and security careers.
- New opportunities for students, graduates and apprentices.
- Improved collaboration between organisations.
- Greater business resilience and growth.
- Enhanced regional capability and competitiveness.
- Increased confidence in the North West as a place to build a career and grow a business.

These outcomes are often long term in nature, but they represent some of the most important contributions the Cluster can make.

LOOKING FORWARD

The demand for skills, innovation and industrial capability within the defence and security sector is expected to continue grow in the years ahead.

Meeting this challenge will require continued collaboration between industry, academia, government and education providers. The Cluster is well positioned to support this effort by strengthening partnerships, supporting workforce development and creating opportunities for organisations across the region.

By investing in people, nurturing innovation and strengthening regional capability, the North West can continue to play an increasingly important role in delivering both national security and economic prosperity.



THE
FUTURE

BUILDING THE NEXT CHAPTER

The North West has never lacked capability.

What it has sometimes lacked is visibility, coordination and a collective voice. Over the past two years, we have taken important steps towards changing that.

The journey is only just beginning, but together we are building a stronger, more connected and more influential defence and security community for the future.

Independent research by Perspective Economics and Lancaster University identified the region as one of the UK's most significant defence and security ecosystems, bringing together industrial capability, research excellence, innovation assets and a highly-skilled workforce.

Our ambition is to harness those strengths through stronger collaboration between industry, academia and government, accelerating innovation, strengthening sovereign capability and creating long-term economic prosperity.

By connecting people, organisations and opportunities, the North West Regional Defence & Security Cluster aims to help establish the region as an indispensable contributor to the UK's future defence and security capability. This ambition aligns closely with the Cluster's vision to become a recognised national catalyst for the UK's Defence Engine of Growth.

OUR AMBITION

To help establish the North West as an indispensable contributor to the UK's future defence and security capability.

What Success Looks Like

-  A stronger and more connected regional ecosystem.
-  Greater engagement between government, industry and academia.
-  Increased visibility of North West capability.
-  More innovation transitioning into operational capability.
-  A growing pipeline of future defence and security talent.



HELP SHAPE THE FUTURE OF DEFENCE & SECURITY IN THE NORTH WEST



Join over 500 organisations and stakeholders helping strengthen:
Defence capability | Innovation | Skills | Regional prosperity

The North West Regional Defence & Security Cluster brings together industry, academia and government to strengthen innovation, skills and national resilience.

Whether you are a business, university, public-sector organisation or stakeholder, we welcome opportunities to collaborate, share expertise and help shape the future of defence and security in the North West.

500+ Members | 80+ Events | 4,000+ People Reached

Building a stronger, more connected and more influential North West defence and security ecosystem.

Our ambition is to help establish the North West as an indispensable contributor to the UK's future defence and security capability.

How members contribute:

-  Collaborate with other members.
-  Engage and support universities and colleges.
-  Share opportunities and expertise.
-  Be an advocate for North West capability.
-  Help shape future defence and security innovation.

**"A COLLECTIVE NATIONAL ENDEAVOUR THROUGH WHICH
THE STATE, BUSINESS AND SOCIETY UNITE IN PURSUIT OF
THE SECURITY OF THE NATION AND THE PROSPERITY OF
ITS PEOPLE."**

STRATEGIC DEFENCE REVIEW 2025

Together, we are building a stronger, more connected and more influential North West defence and security ecosystem.



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A NOTE FROM UK DEFENCE INNOVATION



Over the past two years, the North West Regional Defence and Security Cluster has become one of the UK's leading examples of how regional collaboration can drive defence innovation and deliver meaningful impact. By bringing together industry, academia, government and investors, NWRDSC has created a vibrant ecosystem that is helping to identify, develop and accelerate innovative capabilities that support Defence and wider national security objectives.

The North West possesses an exceptional concentration of expertise across advanced manufacturing, digital technologies, AI, cyber, space and dual-use innovation. NWRDSC has played a pivotal role in harnessing these strengths, providing Defence with a trusted and effective route into the region and enabling innovators of all sizes to engage more easily with Defence challenges and opportunities.

From a UK Defence Innovation perspective, the Cluster has demonstrated the value of strong regional networks in helping us access new ideas, broaden participation in the innovation ecosystem and strengthen the pipeline of technologies available to UK Defence. Importantly, NWRDSC is now recognised as a model of best practice, demonstrating how a regional cluster can successfully convene stakeholders, foster collaboration and translate regional capability into solutions that address national priorities.

As we continue to deliver the Defence Investment Plan and unlock innovation from every corner of the United Kingdom, organisations such as NWRDSC will be increasingly important. The Cluster has established itself as a key strategic partner for Defence, and its continued success provides a blueprint for the development of other regional defence and security clusters across the UK

John Cunningham

Director, UK Defence Innovation (UKDI)





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BAE SYSTEMS





NWRDSC
North West Regional
Defence & Security Cluster

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