



LANCASHIRE

INNOVATION PLAN

2023 - 2028



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Credits

The *Lancashire Innovation Plan* has been developed by the Lancashire Innovation Board, a working group established by the Lancashire Enterprise Partnership.

The Board brings together a range of private and public sector partners to provide the strategic leadership and accountability for the LEP's innovation strategies and investments.

Its overarching aim is to champion and challenge interventions which will deliver greater levels of innovation, and innovation-led economic growth, for the whole of the county.

For more information about the Lancashire Innovation Board, and the county's innovation focused activities, visit www.innovatelancashire.co.uk

The Lancashire Innovation Board

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Introduction

A BLUEPRINT FOR GROWTH

As the cradle of the industrial revolution, Lancashire has a long tradition of embracing innovative thinking which has gone on to change the world. Today, 250 years since Richard Arkwright's disruptive cotton spinning technology helped to reshape the global economy, our county is again on the cusp of another transformative chapter in its rich industrial history.

Through the combination of our unrivalled strengths in sectors like advanced manufacturing, telecoms, energy, aerospace, chemicals and food; our research-led HEIs, including Lancaster University and the University of Central Lancashire; our agile and responsive supply chains; and our highly skilled workforce and strong talent pipeline; Lancashire is well-placed to create an innovation-based investment offer which is truly world-leading.

We are also soon to be home to the National Cyber Force HQ, which will put the county at the forefront of the cyber industry, while Eden Project Morecambe is set become a hub of environmental R&D excellence.

Both these transformational projects will join a growing network of Lancashire assets which are already accelerating and commercialising innovation in sectors such as cleantech, industry 4.0, digital health, future flight, agritech, low carbon, AI and robotics.

But to maximise our full innovation potential, we recognise that the county needs a cohesive and pragmatic roadmap which connects these assets, consolidates our significant commercial and academic R&D strengths, and engages with businesses of all sizes and types.

To stay competitive, both domestically and globally, we also know we need to take a more joined-up and collaborative approach to innovation funding, lobbying, networking, and external communications.

As a result, we have developed a new, innovation-focused growth strategy for all of Lancashire which is summarised in this document.

It sets out our clear and measurable objectives - and a series of corresponding actions and interventions - via four core pillars: Grow, Expand, Connect and Tell. And while each pillar has been developed to drive our innovation economy in a very targeted and specific way, they all work together to enhance our overarching investment strategy.

However, a plan is only as good as the people and organisations who engage with it, which is why we are calling upon all of Lancashire's business leaders, policymakers, support agencies, and wider partners, to support its vision, ambition, and implementation, in every way they can.

“We recognise that the county needs a cohesive and pragmatic roadmap which connects our innovation assets, consolidates our significant commercial and academic R&D strengths, and engages with businesses of all sizes and types.”




Professor Graham Baldwin

Chair of the Lancashire Innovation Board
Vice-Chancellor, University of Lancaster

Lancashire's Innovation Ecosystem

An Economic Powerhouse

 **£33.3bn**
regional economy -
one of the UK's largest

 **1.5m**
residents + 6m within
an hour's commute

 **55,000**
businesses supporting
700,000+ jobs

 **Highly Ranked**
UK region for
innovation activity

World Class R&D Assets

**Advanced Manufacturing
Research Centre North West**

**Lancaster University
Cyber Research Centre**

UCLan Engineering Innovation Centre


Lancaster Health Innovation Campus

**Springfields Clean Energy
Technology Park**

**RedCAT Alternative
Technology Centre**

UCLan Innovation Drone Zone

Powerful Talent Pipeline

 **1,000**
technology + engineering graduates per year

 **4,000**
computing + mathematics students

 **Above**
UK average for further maths
+ computing A Level performance

 **Highest**
ranked UK region for engineering-related GCSEs

 **Award**
winning technical education programmes

Highly Skilled Workforce

 **84,000**
engineering + aerospace workers

 **37,000**
energy specialists

 **30,000**
digital + technology professionals

 **15,000**
software developers

 **5,300**
telecoms experts

On The Horizon

 **60,000**
new low carbon jobs by 2050


 **Cyber Force**
National Cyber Force HQ


 **Eden Project**
Eden Project Morecambe

 **£200m**
of Levelling Up investment

 **Lancashire 2050**
a countywide plan for growth and prosperity

Innovation-led Sectors

 **4th**
biggest aerospace cluster in the world

 **2nd**
highest concentration of manufacturing in the UK

 **Leader**
in Small Modular Nuclear Reactors


 **Producer**
of more than 30% of UK's low carbon electricity


 **£1bn**
telecoms market

Research-led HEIs

 **4**
universities + 60k students

 **Top 1%**
Lancaster University ranked in top 1% globally

 **UCLan**
The University of Central Lancashire (UCLan),
one of the UK's best entrepreneurial universities

 **13**
FE colleges, majority in UK's top 20%

 **2023**
Lancashire Institute of Technology opens 2023

Agile + Innovative Supply Chain

 **4,000**
technology + digital enterprises

 **2,000**
computing businesses

 **500**
aerospace firms

 **200**
telecoms companies

 **100+**
automotive suppliers

Fast Growth Sectors

Cyber + Cybersecurity

Cleantech + Low Carbon

Future Flight + Mobility

Digital Health + Medtech

Electech + Embedded Systems

1

MAXIMISE AND GROW OUR EXISTING INNOVATION ASSET BASE

CONTEXT:

Through many of its core industrial sectors, including aerospace, energy, chemicals and materials, Lancashire has the foundations for a fast-growth and thriving innovation economy.

These – and other industries - are being transformed via digitalisation, decarbonisation and other disruptive processes; the result being the creation of an innovation ecosystem which has the potential to benefit other subsectors and supply chains.

But in order to stay ahead, and stay competitive, we need to support these priority sectors. We also need to recognise the importance of diversifying our economic base, and seek out cross-sector opportunities which will create new routeways.

OBJECTIVES:

The *Grow* pillar will focus on the following:

- Maintaining and strengthening Lancashire's world-class sector capabilities in sectors such as aerospace, advanced manufacturing, energy and chemicals
- Exploiting new growth areas such as electech, cyber, the digital industries, health, and low carbon
- Ensuring Lancashire's innovation-led sectors maximise both national and global market opportunities

ACTIONS:

To deliver these objectives, *The Lancashire Innovation Plan* proposes five specific actions:

- 1.1 Enable effective clustering activity in support of the National Cyber Force (NCF)
- 1.2 Boost spin-offs from the county's universities, and secure spin-ins from outside Lancashire
- 1.3 Increase the supply of flexible and digitally-enabled office and lab space
- 1.4 Define and develop a detailed *Smart Specialisation* strategy
- 1.5 Secure more dedicated funding to support and strengthen Lancashire's innovation ambitions

“Lancashire is a leading region for innovation, with a strong track record of supporting businesses to develop and commercialise new products and services.”

JUDSON SMYTHE
MGS Plastics

1.1 Enable clustering activity in support of NCF cluster

The NCF locating to Samlesbury could help to create a dynamic, high-growth cyber cluster.

PROPOSED ACTIVITIES:

- Develop an integrated cyber growth plan
- Establish a multi-partner cyber advisory group
- Explore potential of a new cyber business incubator at Samlesbury
- Embedding of cyber skills throughout county's education/training provision
- Enable more SME engagement with cyber sector
- Promotion of Lancashire as a world-leading cyber investment destination

1.3 Increase volumes of flexible and digitally-enabled office & lab space

The creation of more workspaces which are flexible and futureproofed will help enable more innovation-led growth.

PROPOSED ACTIVITIES:

- Audit of current/planned workspaces in all key Lancashire conurbations
- Work with developers to ensure new workspaces are 'smart' and digitally enabled
- Work with landlords to help transform existing stock into innovation-friendly offices and labs

1.2 Catalyse more spin-offs and spin-ins

Increased spin-off activity from Lancashire's universities - and more external spin-ins - would enhance, accelerate and grow Lancashire's innovation ecosystem.

PROPOSED ACTIVITIES:

- Benchmarking of Lancashire's current spin-off activity vs other regions
- Deep-dive into all HEI funding opportunities linked to innovation
- Explore new strategies + funding mechanisms to seed/nurture more spin-off activity

1.4 Define and develop a detailed Smart Specialisation strategy

Successful regional innovation strategies are built upon evidenced strengths and unique characteristics.

PROPOSED ACTIVITIES:

- Develop a focused innovation investment vision based on Lancashire's genuine USPs and strengths
- Initiate a *Smart Specialisation Plan* process which will capture and communicate our core specialisms
- Work with industry to identify new innovation-led growth opportunities underpinned by existing sector expertise

1.5 Secure more dedicated funding to support and strengthen Lancashire's innovation ecosystem

The post-Brexit funding landscape means securing government support for specific innovation projects and programs is challenging.

PROPOSED ACTIVITIES:

- Map and share with partners existing/emerging funding streams which will further support Lancashire's overarching innovation agenda
- Help Lancashire's local authorities embed innovation into funding bids through a more strategic, coordinated and collaborative approach
- Proactively encourage Lancashire businesses, universities, and LAs, to seek innovation-related investment + support individual bid applications



2

WIDENING THE SCALE, REACH AND DIVERSITY OF OUR R&D ACTIVITY

CONTEXT:

Across a number of KPIs, Lancashire currently punches below its weight in terms of R&D investment and innovation activity. However, as initiatives like the Made Smarter Industry 4.0 support programme have demonstrated, Lancashire firms (including SMEs) have an appetite for innovation-based growth.

In addition, we now have a wealth of world-leading innovation assets sited across the county which companies of all types, from many different sectors, can access. We therefore have an opportunity to not only expand the overall scale of R&D investment activity across the county, but also to target those businesses and vertical markets which are currently less engaged with the innovation agenda.

By doing this, we will enable more firms to adapt, grow and excel within the Lancashire's fast-growth sectors.

OBJECTIVES:

The *Expand* pillar will focus on the following:

- Ensuring Lancashire fully maximises the benefits of its key R&D assets
- Increasing local businesses commitment to pursuing innovation-led growth
- Converting that commitment to economic activity, helping to close the county's R&D investment gap

ACTIONS:

To deliver these objectives, *The Lancashire Innovation Plan* proposes two specific actions:

- 2.1 Utilise innovation assets such as AMRC North West, Engineering Innovation Centre (EIC), and the Health Innovation Campus (HIC), to build innovation capacity and increase innovation capabilities within Lancashire businesses
- 2.2 Develop and deliver specific programmes of practical and effective innovation support for Lancashire's SMEs

“I had a vision to create a world leading business based on innovation. That vision is now a reality. Access to a skilled workforce, and room to grow, were essential to our success, both of which Lancashire offers.”

TONY ATTARD OBE DL
Panaz

2.1 Utilise innovation assets such as AMRC North West, EIC, and HIC to build innovation capacity and increase innovation capabilities within Lancashire businesses

Connecting Lancashire's innovation assets will drive increased clustering, help upskill our workforce, and create new sector and cross-cutting growth opportunities, both internally and externally.

PROPOSED ACTIVITIES:

- Ensure all key Lancashire innovation assets are represented on Lancashire's *Innovation Board*
- Offer innovation audits to local businesses, diagnose specific innovation challenges + offer innovation vouchers to support improvement
- Use key innovation assets as gateways for new commercial/academic collaborations
- Use key innovation assets to spearhead funding bids and strategic R&D partnerships
- Use key innovation assets as source of innovation thought leadership, influencer engagement, and lobbying

2.2 Develop and deliver specific programmes of practical and effective innovation support for Lancashire's SMEs

The *Made Smarter* Industry 4.0 programme demonstrated that Lancashire's manufacturers are receptive to innovation-focused support, and that the right provision at the right time can effect positive change within Lancashire's SME sector.

PROPOSED ACTIVITIES:

- Development of a practical and accessible online portal where Lancashire SMEs can access advice and resources to support innovation activity
- Employ a full-time innovation adviser to engage with SMEs and signpost them to specific support programmes, funding opportunities, and other innovation growth pathways
- Work with Lancaster University's Management School to expand SME access to its innovation-led leadership programmes
- Continue to amplify the *Made Smarter* initiative, and expand its intern programme which matches Lancashire-based technology students to specific SME needs



3

STRENGTHENING AND EXTENDING LANCASHIRE'S INNOVATION NETWORKS, REGIONALLY & NATIONALLY

CONTEXT:

Lancashire has a great opportunity to maximise the benefits of increased innovation activity both inside and outside the county. And while Lancashire has the potential to be a hub of national and international innovation, the advantages of clustering means making more strategic connections with its regional neighbours is vital.

Strengthening and extending Lancashire's innovation networks should also not be limited to formal partnerships and transactional relationships. 'Soft' infrastructure also needs to be enhanced - both inside and outside the county - to enable the flow of knowledge, facilitate new ideas, and drive more collaborative opportunities between individuals as well as businesses.

OBJECTIVES:

The *Connect* pillar will focus on the following:

- Establishing and growing stronger strategic partnerships with both neighbouring north west regions and across the country
- Ensuring people working within Lancashire's innovation ecosystem – including individuals in universities, businesses, local authorities and public agencies – develop a wider network of contacts regionally and nationally

ACTIONS:

To deliver these objectives, *The Lancashire Innovation Plan* proposes three specific actions:

- 3.1 Enabling Lancashire to increase levels of participation in innovation networking activities in Greater Manchester, the Liverpool City Region, and beyond
- 3.2 The establishment and development of new cluster organisations aligned to Lancashire's *Smart Specialisations* (where they don't already exist)
- 3.3 Creation of a dynamic pitch events programme for Lancashire start-ups

“Lancashire is a hive of innovation. There is a passion that exudes from the region itself: from businesses, entrepreneurs and innovators who want to make real change.”

MICHAEL GIBSON
Fuuse



3.1 Enabling Lancashire to increase levels of participation in regional innovation networking activities in the north west, and beyond

By aligning itself more closely to the innovation economies of areas like Greater Manchester (GM) and the Liverpool City Region (LCR) - and other UK regions - Lancashire can tap into the economic opportunities and political influence which comes from operating at scale.

PROPOSED ACTIVITIES:

- Develop a programme of regular strategic meetings with Lancashire's neighbouring regions - such as GM and LCR - to explore increased joint working
- Identify multi-region innovation funding opportunities for north west projects and further afield
- Establish an annual north west *Innovation Summit* to agree regional strategy and collaborative actions

3.2 Establish and resource enablers to develop new innovation-led clusters

By dedicating more resource to identify, facilitate and drive new clustering opportunities, Lancashire has the opportunity build on existing and emerging innovation clusters to support its *Smart Specialisation* strategy.

PROPOSED ACTIVITIES:

- Support more cluster-enabling activities such as cluster identification, network building and funding coordination
- Establish new industry-led cluster organisations to identify challenges, devise solutions, and exploit new market opportunities



3.3 Develop a dynamic start-up pitch events programme

The creation of pitch competitions, where start-ups bid for funding from potential investors, can enhance a region's innovation ecosystem and raise awareness of the wider innovation agenda.

PROPOSED ACTIVITIES:

- Explore how to build on Lancashire's current *Innovation Challenge* competition
- Map other existing local start-up initiatives which could incorporate an investment pitch element
- Design and cost a innovation-led pitch programme calibrated to meet Lancashire's specific needs
- Undertake a deep dive into start-up pitch event best practice



4

COMMUNICATE LANCASHIRE'S INNOVATION OFFER, ANTICIPATE NEW GROWTH OPPORTUNITIES, AND SHAPE THE WIDER INNOVATION AGENDA

CONTEXT:

Like many other UK regions, Lancashire has to proactively compete for investment from both the public and private sectors to grow its economy, stay competitive, and create opportunities for all its people.

And while the county has a strong track record in securing private and public sector investment across a wide range of transformational infrastructure projects, and several high-profile economic growth initiatives, a cohesive innovation narrative has arguably been lacking.

However, with a growing portfolio of world-class innovation assets - and several strong and fast-growth innovation-led sectors - the county has a fantastic opportunity to develop and communicate a compelling investment offer which is underpinned and evidenced by its thriving innovation ecosystem.

OBJECTIVES:

The *Tell* pillar will focus on the following:

- Increasing external awareness of Lancashire's innovation-led investment potential, high value career pathways, and its outstanding quality of life offer
- Ensuring Lancashire is plugged-in to the national innovation agenda at the highest possible levels of policymaking and decision making
- Increasing awareness of Lancashire's innovation-led capabilities, and significant commercial opportunities, within the county itself

ACTIONS:

To deliver these objectives, *The Lancashire Innovation Plan* proposes two specific actions:

- 4.1 Develop and resource a new innovation-focused marketing and communications strategy for Lancashire
- 4.2 Develop and resource an Innovation Observatory to help monitor, anticipate and evidence Lancashire's innovation-led economic growth potential

JANE DALTON
Groundswell
Innovation

“Great quality of life benefits, and Lancashire’s thriving innovation ecosystem, were really strong reasons to situate and grow my business here.”

4.1 Develop and resource a new innovation-focused marketing and communications strategy for Lancashire

4.2 Develop and resource an Innovation Observatory to help monitor, anticipate and evidence Lancashire's innovation-led economic growth potential

To be perceived as an attractive and competitive destination for innovation investment and employment, Lancashire needs to build a reputation as a place where strong investor ROI is matched with high quality career pathways and an outstanding quality of life.

PROPOSED ACTIVITIES:

- Develop an engaging innovation-focused communications strategy - aimed at both external and internal audiences – which clearly articulates Lancashire's investment, careers and lifestyle offer
- Ensure Lancashire's innovation narrative is embedded in local partner activity (e.g. skills and business support programmes, local partner communications, generic destination marketing campaigns)

Real-time understanding of current and future market needs - including insights into evolving technologies, skills requirements, sector trends, government policy, and new funding opportunities - will help shape Lancashire's innovation investment strategy.

PROPOSED ACTIVITIES:

- Create an *Innovation Dashboard*, which can be shared by all relevant partners, to capture Lancashire's overarching innovation landscape 'at a glance'
- Research, writing and circulation of regular *Innovation Briefing Reports* - based on proprietary Observatory data and insights - which can be used to inform investment decisions and determine strategic priorities



OUR VISION: a globally connected, competitive and resilient innovation ecosystem throughout Lancashire

Pillar 1: Grow

OBJECTIVES:

- Maintaining and strengthening Lancashire’s world-class sector capabilities in sectors such as aerospace, advanced manufacturing, energy and chemicals
- Exploiting new growth areas such as electech, cyber, the digital industries, health, and low carbon
- Ensuring Lancashire’s innovation-led sectors maximise both national and global market opportunities

ACTIONS:

- 1.1 Enable effective clustering activity in support of the National Cyber Force (NCF)
- 1.2 Boost spin-offs from the county’s universities, and secure spin-ins from outside Lancashire
- 1.3 Increase the supply of flexible and digitally-enabled office and lab space
- 1.4 Define and develop a detailed *Smart Specialisation* strategy
- 1.5 Secure more dedicated funding to support and strengthen Lancashire’s innovation ambitions

MEASURING SUCCESS:

- ££ cyber-related inward investment
- # computer science students (FE + HEI)
- # spin-offs from Lancashire universities
- ££ investment in office developments
- ££ innovation funding secured by Lancashire businesses
- ££ investment secured for innovation support offers

Pillar 2: Expand

OBJECTIVES:

- Ensuring Lancashire fully maximises the benefits of its key R&D assets
- Increasing local businesses commitment to pursuing innovation-led growth
- Converting that commitment to economic activity, helping to close the county’s R&D investment gap

ACTIONS:

- 2.1 Utilise innovation assets such as AMRC North West, Engineering Innovation Centre (EIC), and the Health Innovation Campus (HIC), to build innovation capacity and increase innovation capabilities within Lancashire businesses
- 2.2 Develop and deliver specific programmes of practical and effective innovation support for Lancashire’s SMEs

MEASURING SUCCESS:

- # businesses using key innovation assets
- # SMEs engaged with by innovation support offers
- # SMEs supported by innovation support offers
- % businesses ‘innovation active’
- # businesses aware of innovation support offers

Pillar 3: Connect

OBJECTIVES:

- Establishing and growing stronger strategic partnerships with both neighbouring north west regions and across the wider north
- Ensuring people working within Lancashire’s innovation ecosystem – including individuals in universities, businesses, local authorities and public agencies – develop a wider network of contacts regionally and nationally

ACTIONS:

- 3.1 Enabling Lancashire to increase levels of participation in innovation networking activities in Greater Manchester, the Liverpool City Region, and beyond
- 3.2 The establishment and development of new cluster organisations aligned to Lancashire’s *Smart Specialisations* (where they don’t already exist)
- 3.3 Creation of a dynamic pitch events programme for Lancashire start-ups

MEASURING SUCCESS:

- ££ investment secured for regional innovation projects
- ££ investment secured for regional innovation infrastructure
- % increase in cluster-specific employment
- # investors engaged with pitch events
- ££ investment raised by Lancashire businesses

Pillar 4: Tell

OBJECTIVES:

- Increasing external awareness of Lancashire’s innovation-led investment potential, high value career pathways, and its outstanding quality of life offer
- Ensuring Lancashire is plugged-in to the national innovation agenda at the highest possible levels of policymaking and decision making
- Increasing awareness of Lancashire’s innovation-led capabilities, and significant commercial opportunities, within the county itself

ACTIONS:

- 4.1 Develop and resource a new innovation-focused marketing and communications strategy for Lancashire
- 4.2 Develop and resource an Innovation Observatory to help monitor, anticipate and evidence Lancashire’s innovation-led economic growth potential

MEASURING SUCCESS:

- # innovation-led inward investment enquiries
- % increase in 18-35 workforce on innovation career pathways
- Monitoring Lancashire’s reputation as innovation leader regionally
- Monitoring Lancashire’s reputation as innovation leader nationally
- ££ secured for nationally significant innovation projects in Lancashire

INTERESTED IN INNOVATION?

JOIN OUR NETWORK

We're building an innovation community across the county, featuring professionals from every kind of business, organisation and sector.

If you'd like to be part of this growing network, and add your voice to Lancashire's innovation conversation, email your details to maya.ellis@lancashire.gov.uk and we'll be in touch.

You can also contact us via InnovateLancashire.co.uk, where you'll find information about innovation events, business support, R&D funding, and other useful innovation-focused resources.



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