

Innovate UK - Liverpool City Region

Partnership & Action Plan Framework
November 2022



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The Liverpool City Region offers the ideal combination of natural assets, connectivity, and the world-leading science, innovation, and industry required to translate research into real world solutions.

With close links to other North West, national and global centres of excellence, the city region offers major new investment opportunities

- | | | |
|------------------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------|
| 01 ABB UK HQ | 37 IBM Global Research Lab & Discovery Accelerator | 73 National Thin Films Centre |
| 02 AIMES | 38 iCON Phases 2 & 3 | 74 Nuclear AMRC Modular Manufacturing R&D |
| 03 Albea Creative UK | 39 Industrial Energy Test Centre at Glass Futures | 75 NW Health Cluster |
| 04 Alder Hey Children's Hospital (Global Digital Exemplar) | 40 Ineos | 76 NW Space Cluster |
| 05 Alder Hey Innovation Centre | 41 Infection Innovation Consortium (iCON) | 77 Open Innovation Hub for Antimicrobial Surfaces (UoL) |
| 06 Alder Hey NIHR Clinical Research Facility | 42 Inovyn Rocksource International | 78 Orsted |
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| 08 Anti-Viral Surfaces Innovation Hub (UoL) | 44 Jaguar Landover | 80 Pharmaron Biologics (UK) Ltd |
| 09 Arrows Park Hospital (Global Digital Exemplar) | 45 Leahurst Veterinary Centre (UoL) | 81 Port of Liverpool |
| 10 AstraZeneca | 46 Life Sciences Accelerator | 82 Project Violet |
| 11 Ates Quantum Learning Machine | 47 Liverpool 5G network | 83 Royal College of Physicians North |
| 12 Baltic Triangle | 48 Liverpool Clinical Trials Centre (UoL) | 84 Royal Liverpool NIHR Clinical Research Facility |
| 13 Bristol Myers Squibb | 49 Liverpool FC | 85 Royal Liverpool University Hospital (Global Digital Exemplar) |
| 14 Burbo Bank wind farm | 50 Liverpool Health Partners | 86 RUEDI: Relativistic Ultrafast Electron Diffraction & Imaging Facility |
| 15 Cammell Laird | 51 Liverpool Heart & Chest Hospital | 87 Sensor City |
| 16 Centre for Drugs & Diagnostics (LSTM) | 52 Liverpool School of Tropical Medicine (LSTM) | 88 Sequins |
| 17 Centre for Low Energy Accelerators Research | 53 Liverpool Science Park | 89 Sony Interactive Entertainment |
| 18 Centre for Process Innovation (CPI) | 54 Liverpool Surface Science Research Centre (UoL) | 90 Stephenson Institute for Renewable Energy (UoL) |
| 19 Civic Data Cooperative | 55 Liverpool Women's Hospital | 91 STFC Accelerator Science & Technology Centre (ASTeC) |
| 20 Clatterbridge Cancer Centre (new) | 56 LJMU Astrophysics Research Institute | 92 STFC Cockcroft Institute |
| 21 Clatterbridge Cancer Centre (original) | 57 LJMU School of Pharmacy & Biomolecular Sciences | 93 STFC Daresbury Laboratory |
| 22 Clinical Diagnostic Parasitology Laboratory (LSTM) | 58 LJMU Sports Science | 94 STFC Hartree Centre |
| 23 Croda Centre of Innovation for Formulation Science | 59 DVA Labs | 95 Teva UK |
| 24 Croda Europe Ltd | 60 Manufacturing Technology Centre (MTC) | 96 The Centre for Genomic Research (CGR) (UoL) |
| 25 Croda UK Biotechnology Laboratory | 61 Maritime Knowledge Hub | 97 The Heath |
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| 34 Global Health Trials Unit (LSTM) | 70 National Biofilm Innovation Centre | 106 Virtual Engineering Centre (UoL) |
| 35 Hartree National Centre for Digital Innovation | 71 National Oceanography Centre | 107 Whiston Hospital |
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THEME

EXISTING	PIPELINE	ASSET TYPE
		AI SOLUTIONS & EMERGING TECHNOLOGIES
		INFECTION / HEALTH INNOVATION
		MATERIALS CHEMISTRY
		NET ZERO / MARITIME
		BUSINESS CENTRES
		DIGITAL BACKHAUL NETWORK
		FREPORT TAX SITES
		LIVERPOOL JOHN LENNON AIRPORT
		MOTORWAY



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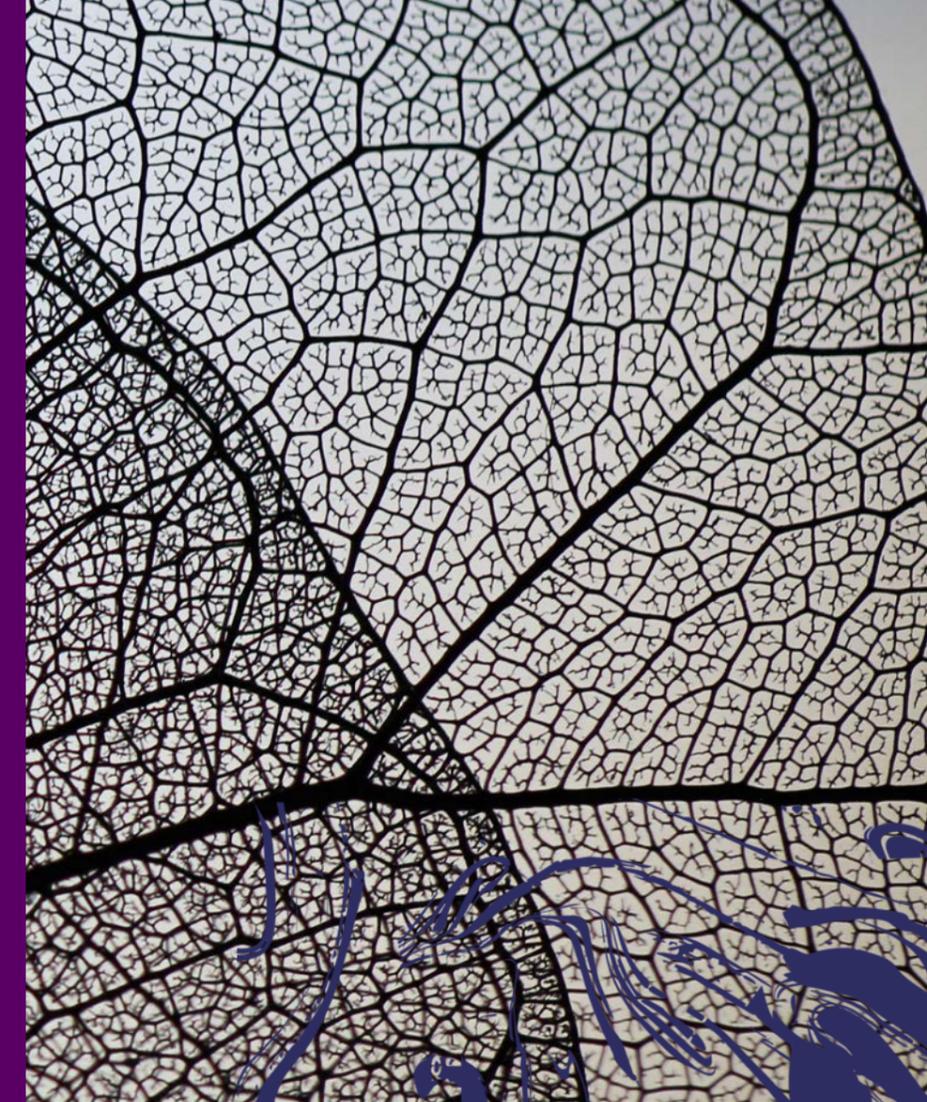
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Forewords

Innovate UK – Liverpool City Region Partnership & Action Plan

Innovate UK is the UK's innovation agency. We drive productivity and economic growth by supporting businesses to develop and realise the potential of new ideas.

We are living in a time of challenge; a time of constant change; but also, a time of significant opportunity. There's the opportunity to help and improve the present, but also the opportunity to create the future.

Innovation strongly helps to create the future, and there has never been a better time for us to focus on supporting our economy and society through innovation.

The Innovate UK Plan for Action lays out our commitment to work with leaders across the UK to develop innovation strategies that recognise the strengths and opportunities in their nations and regions across the UK.

So, as an important milestone and example of this work, I'm pleased to welcome this Partnership and Action Plan, which was co-created with leaders from across the Liverpool City Region.

There are exciting and significant opportunities to help drive economic and societal improvement through business innovation right across the Liverpool City Region, and the Partnership and Action Plan sets out key themes and ambitions to fulfil those opportunities.

The Innovate UK team is ready to commit to working with partners across the UK nations and regions, across the research and innovation ecosystem and across government to drive Place based impact.



Indro Mukerjee
Innovate UK, CEO

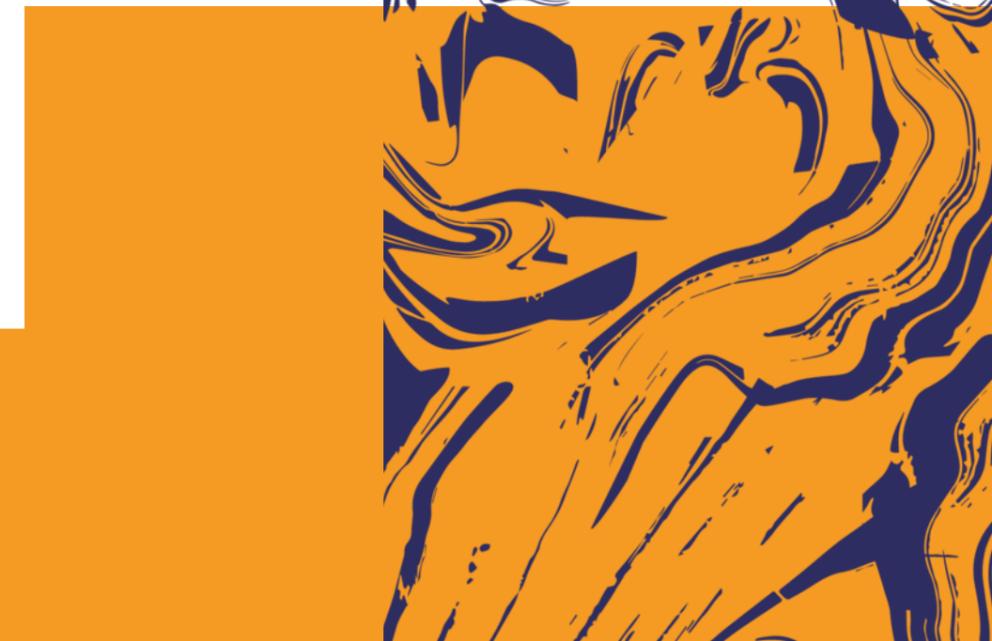


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Forewords

Innovate UK – Liverpool City Region Partnership & Action Plan

As Mayor, establishing the Liverpool City Region as one of the most attractive places in the country, and the world, for innovation and investment is one of my top priorities. I want our area to punch above its weight and ensure that our communities feel the benefits of that success with more well-paid local jobs, training and opportunities for our 1.6m residents.

Since I was elected, we've made strong progress on realising that ambition. For example, in the 5 years before the pandemic we attracted over £2bn of innovation investment, and now have more than £1bn of live projects. This means that we can begin the next phase of that journey from a position of strength.

I am incredibly proud of how much we have achieved so far, but I want to go even further, and put the region where it belongs: at the forefront of global innovation.

That means taking advantage of our strengths, turning potential into profitable businesses and creating better-paid, greener jobs, putting us at the vanguard of some of the industries of tomorrow, creating more opportunities for our people, and natural environment, to flourish. This, the first such partnership with the UK's innovation agency, demonstrates that commitment.

I truly believe that we have the capacity, and the

potential, to be the country's innovation engine, and we are putting our money where our mouth is to get there. Over the next few years, we will be investing 5% of our GVA in research and development, almost double the government's national target.

Our distinctive world-leading capabilities in infection prevention and control, materials chemistry innovation, and applied artificial intelligence, have gone from strength to strength. We have a £3bn pipeline of new projects that have the potential to add £42bn of GVA to the local economy, create 44,000 jobs and deliver a 10% increase in productivity.

From Mersey Tidal Power, harnessing the power of our river to generate clean, predictable energy, to partnerships with globally significant companies to decarbonise and revolutionise polluting industries, the Liverpool City Region has all the assets, capabilities, and political will, to be a leader of the Green Industrial Revolution.

But for all our strengths there is one natural asset we have in abundance that you simply cannot put a price on: our people. You won't find a resource like them in them anywhere in the world. My role, therefore, is to ensure they get the opportunities they deserve to unleash their full potential.

And that is why I am so excited by this pioneering partnership with Innovate UK, namely its capacity for turning some of that latent potential into growth, opportunity and success for local people, plus contributing to national economic growth.

I hope that one day we look back on this as another significant moment in the Liverpool City Region's evolution into a global innovation powerhouse.



Steve Rotheram
Mayor of the Liverpool City Region





1. Context

1.1 Global & UK context

The global and UK landscapes have changed dramatically over the last three years. Geopolitics, climate emergency, the global pandemic, current energy supply crisis, exponential increases in the cost of living, and turbulence in global economies, all continue to disrupt long-established patterns, norms, and behaviours, creating new challenges and new opportunities.

Innovation, the process that turns science and technology into added-value business reality, is the vital ingredient to helping address the

challenges of the present and creating future prosperity.

To that end, the UK Government is investing in Research and Development (R&D) at record levels, and with an explicit focus on areas beyond the Greater South East, as it strives to consolidate the UK's position as a science and innovation superpower and increase levels of private sector investment into R&D. This is all driven by the mission laid out in the [2022 Levelling Up White Paper](#).

Innovate UK, the UK's innovation agency, published its [Action Plan for Business Innovation](#)

in November 2021. This plan sets out how Innovate UK will help businesses to grow through the development and commercialisation of new products, processes, and services, supported by an outstanding innovation ecosystem that is agile, inclusive, and easy to navigate.

The Action Plan also sets out Innovate UK's commitments to supporting 'Place and Levelling Up' as one of its key foundations. This includes helping to maximise local strengths that can enhance UK capabilities and to increase the regional and national impact of innovation clusters. It also sets out a commitment to build greater coherence between national

economic plans, local growth strategies and the Government's overall innovation strategy, by working with local and national partners.

Innovate UK's recently published its [2022-2025 Strategic Delivery Plan](#) built on the Action Plan with a commitment to co-develop local action plans with local leadership, leveraging the reach and breadth of UKRI collaborations.

This is the first of these plans, laying out a shared ambition with Liverpool City Region to work together in systematic local-national place-based co-creation, to drive greater innovation, productivity and growth.



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1.2 Liverpool City Region (LCR) Context

The LCR has a unique international cultural heritage, and for over 300 years has been creating life-changing science and inventions, plus translating ideas and research into commercial and real-world applications.

For the first time in its history however, innovation is now an explicit priority – for the Mayor, the **Combined Authority** (CA) and the region as a whole – at the very heart of long-term economic strategy¹. This is enshrined in the “North Star” ambition to invest 5% of GVA per annum in R&D by 2030 – nearly double the current national target, and the LCR’s only numerically specific headline goal other than net zero by 2030.

Building on the LCR’s longstanding pedigree and track record, this clear prioritisation of the innovation agenda - as set out in the inaugural **Innovation Prospectus** launched in April 2022 – is predicated on the following:

- **Evidence-led smart specialisation:** rooted in the original BEIS-commissioned **the LCR+ Science & Innovation Audit** (SIA) published in 2017, and updated **the LCR+ SIA2** published in 2022², plus bespoke ongoing CA-led innovation logic modelling and metrics work.
- **Distinctive world leading assets and capabilities:** as evidenced by SIA1 and SIA2, the LCR is at the global forefront of translational R&D in Infection Prevention & Control, Materials Chemistry, and AI Solutions & Emerging Technologies.
- **World firsts in industrial decarbonisation and net zero:** global scale offshore wind, hydrogen, and tidal energy solutions are all being pioneered in the LCR.
- **Two, rapidly expanding, nationally significant science and innovation campuses:** **Knowledge Quarter Liverpool** - home to anchor institutions the **University of Liverpool**, **Liverpool School of Tropical Medicine**, **Liverpool John Moores University**, and the **Royal Liverpool University Hospital**; plus **Daresbury Laboratory** at **Sci-Tech Daresbury** – UKRI’s northern hub, where the **STFC Hartree Centre** is co-located with an IBM Global Research Lab, and a key regional base for Innovate UK Edge.
- **Well-established innovation infrastructure:** £2bn investment in the 5 years prior to the Covid-19 pandemic.
- **Investment track record:** £1+bn of catalytic projects are underway; these include major, government-backed industry investments into **iiCON**, the **Hartree National Centre for Digital Innovation**, **Glass Futures**, and the **Materials Innovation Factory**.
- **£3bn+ innovation projects pipeline**, plus a further £9+bn of future opportunities relating to **Mersey Tidal Power**, hydrogen, and **the LCR Freeport**.
- Pioneering, potentially transferable approaches: notably: (a) a proprietary quantitative and qualitative methodology for assessing the performance and maturity of established and emerging assets with perceived cluster potential; (b) the **Lyva Labs** innovation commercialisation vehicle; (c) the UK’s first **Civic Data Cooperative**.
- **Novel, targeted business support:** includes the seminal UK-leading **the LCR4.0** projects on which the UK Made Smarter programme was founded, plus catalytic investments by the CA in the Future Innovation Fund, High Growth Innovation Fund, Baltic Ventures tech accelerator, developing the LCR Angels network, and emerging Seed Fund.
- **Innovation skills for growth:** the LCR is the first (and probably only) UK place to have produced a dedicated plan in this sphere.
- **Deeply embedded partnership across an integrated ecosystem:** led by the UK’s first

¹ [the LCR Plan for Prosperity \(2022\)](#)

² the LCR is the only place among the 25 completed SIAs to have updated its original.



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sub-regional **Innovation Board** (established up in 2012), and facilitated by comprehensive subordinate collaboration structures, plus expert coordination.

- **A longstanding, exceptionally close working relationship with Innovate UK.**
- **Strong, consistent leadership:** thanks to a forward-thinking Mayor, Innovation Board Chair Dr. Jon Hague (Unilever Homecare R&D Head of Clean Future Science & Technology), anchor institutions, and across the whole innovation ecosystem.
- **Potential impact:** realising the 5% annual of GVA R&D investment goal by 2030 could add an estimated additional £19.7bn GVA to the City Region's economy, create 44,000 jobs, and increase productivity by 10%.

Taken together, these highlight the LCR's well-developed innovation ecosystem and exceptionally advanced place-based innovation strategy and smart specialisation approach. This is centred on maximising its distinctive internationally significant assets, capabilities, and competitive strengths, in order to exploit global market opportunities and drive inclusive economic growth.

At the same time, the LCR continues to face a series of deep-seated challenges, both in overall socio-economic terms, and specifically relating to business innovation and commercialising science and research.

The City Region is 13% less productive than the national average in terms of GVA per hour worked, and has a relatively small business base (543 per 100,000 residents, compared to 789 nationally).

Businesses in the LCR are less likely to engage in R&D (expenditure on R&D is 1.1% of GVA compared to 1.4% across England), introduce new innovative products or services to market (only 7% of the LCR firms in 2017), operate in knowledge-intensive sectors (22% of total business base compared to 26% nationally), or scale up (4.2% of businesses are High Growth Enterprises compared to 4.4% nationally). This is driven by a range of factors, notably deficits in innovation absorption, access to finance and venture capital, appropriate sites and premises, peer networks, and skills.

From a national perspective, this makes the LCR an excellent test-bed for new approaches to supporting place-based R&D within the wider levelling up context. A prime example is the LCR being one of two national pilots for the new UKRI Launchpad programme, where Innovate UK

and the LCR were already working in concert to encourage more businesses within the LCR to innovate and stimulate wider prosperity by driving forward the local knowledge-based economy.

In tandem, and over and above macro-economic and political challenges, it is a time of considerable flux in the City Region's business innovation and support landscape. The CA is in the process of commissioning an extensive review of the LCR business support and inward investment provision accordingly.

All of this makes greater collaboration and investment in innovation, research and development even more critical to the long-term resilience and growth of the LCR's businesses, economy, and society.



In September 2022, the LCR was announced as one of two places in the UK as part of the £15 million pilot programme for Innovate UK's new **Launchpad** initiative. As an explicit response to the Government's Levelling Up agenda, this UKRI programme is designed to build on innovation clusters outside the Greater South East that have clear growth potential, and provide successful applicants with both funding and wrap-around support from local and national organisations.





Innovate UK Award Offered £m in Liverpool City Region 2017/18 to 2021/22

1.3 Innovate UK's support for LCR in numbers

In the five years 2017/18 to 2021/22 Innovate UK has awarded £67.72 million in competitive grants to businesses and other organisations in the LCR.

Almost half of this funding (47%) was awarded to SMEs, while £4 million (6%) was awarded to large businesses. £31.73 million (47%) was awarded to universities and other academic, research and technology organisations. This includes the notable award of £18.6 million to a consortium led by the Liverpool School of Tropical Medicine for the 'Delivering Integrated Solutions for Human Infections' project (now known as iiCON), from the Strength in Places Fund (SIPF) in 2020 – a UKRI fund co-delivered by Research England and

Innovate UK, that will fund and support business innovation until 2025.

Most of this funding secured in the LCR comes via Innovate UK's responsive competitions, notably Smart and KTPs. These winners attracted £22.68 million, 33.5% of the total.

£11.3 million was for Manufacturing, Materials & Mobility, representing 16.7% of the total, while Ageing Society, Health & Nutrition (excluding SIPF) attracted £9.75 million (14.4%). £3.78 million of Innovation Loans (5.6%) completed the top 90% of funding secured in the Liverpool City Region.

Innovate UK EDGE

Innovate UK EDGE, Innovate UK's national business growth and scaling service, provided tailored support to 252 innovation-focused the LCR companies from April 2020 to October 2022, which created 79 jobs and maintained 192 jobs.

This support is available to SMEs to help them make a commercial success of their innovation on the national and international stages. Support is provided by innovation and growth specialists and ranges from market access information, technical enquiry support and cross referrals to other parts of the ecosystem, through to intensive support with capacity building, innovation management, commercialisation, investment readiness, internationalisation, collaborations and partnerships.

Innovate UK KTN

The world we live in faces ever-changing societal, environmental and economic challenges, which are felt regionally, nationally and also globally. Innovate UK KTN's mission is to connect ideas, people and communities to respond to these challenges and drive positive change through innovation.

More than 1,000 of the LCR businesses and other organisations have attended events and meetings organised by Innovate UK KTN in the last five years. These events include our 2022 KTP Awards ceremony, hosted by Professor Suzannah Lipscomb at St. George's Hall in, Liverpool, and attended by business and university collaborators from across the UK.



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2. Rationale & Guiding Principles

2.1 Rationale

Against the backdrop set out above, the Chief Executive of Innovate UK and Mayor of the LCR agreed at their inaugural meeting on 30 July 2022 to enhance and extend the existing close collaboration between Innovate UK and the LCR Combined Authority to build a broader, deeper, more systematic Partnership.

The overarching rationale for this is to enhance and accelerate national and regional economic growth and productivity ambitions, with an explicit focus on delivering measurable impacts through the detailed Action Plan that will follow.

All parts of the UK need to maximise private sector investment in R&D to support the national

Levelling Up mission and objectives. The LCR is perfectly positioned to deliver the exponential growth required to achieve UK targets, as evidenced by its annual R&D investment target of 5% of GVA by 2030.

Building on excellent, longstanding collaboration between Innovate UK and the LCR, this new Partnership will embody the UK's Place agenda, bringing to bear national expertise, influence and capacity in order to maximise distinctive place-based assets, capabilities and approaches, and helping to unlock additional public and industry investment to realise global-scale innovation opportunities.

Increasing the quality, quantity, breadth and depth of business R&D – both in-house, and

in collaboration with Research & Technology Organisations (RTOs) - is key to this. This not only aligns with Innovate UK's core mission, but is also a crucial area where the LCR can and needs to markedly improve. Making a demonstrable difference in the nature, volume, and success of engagement by the LCR businesses across the full spectrum of Innovate UK's support, is therefore a core rationale of this Partnership. This support will work in tandem with ongoing efforts to align, consolidate, and integrate local business support provision.

Radically improving equality, diversity and inclusion outcomes is an organisational priority for Innovate UK and the LCR, and a fundamental purpose for this Partnership.

The LCR has some of the most deprived and disadvantaged communities in the UK. Engaging and nurturing this untapped talent, and creating opportunities for all are a "must do" in order to build the skills and talent pipeline required to realise local and national innovation and growth ambitions.

This local levelling up challenge - of how to apply the LCR's distinctive world-leading assets, expertise and capabilities across industry, academia, research bodies, the public sector and beyond, to redress local inequalities and disadvantage, and improve quality of life - presents many opportunities. There is equally a need for much greater concerted action on driving "inclusive innovation", as set out in the LCR Plan for Prosperity.



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This pioneering Partnership with Innovate UK provides an important precedent for exploring more systematic collaboration with other parts of UK Research and Innovation (UKRI) and other national bodies across the innovation system. It is also intended as a blueprint to extend to other priority policy areas of the LCR's.

2.2 Guiding Principles

Innovate UK and the LCR share and endorse the following principles that will guide all aspects of ongoing collaboration, as well as the development and delivery of the activities to be set out in the Action Plan:

- Genuine, collaborative partnership: characterised by co-creation, joint action, open communication, and trust.
- Playing to strengths: maximise the respective insights, assets, capabilities, and resources of Innovate UK and the LCR CA and partners; being equally mindful of respective limitations and not over-extending.
- An evidence-based approach: whereby data, evidence, best practice, and independent evaluation underpin and inform all interventions as far as possible.
- Solution-focused and impact-driven:

geared towards delivering measurable change and improvements.

- Leverage and value for money: maximising wider public funding opportunities, plus catalysing even greater industry investment.
- Equality, Diversity & Inclusion: an explicit emphasis on mainstreaming EDI considerations and delivering inclusive innovation actions to build a robust talent and skills pipeline.
- Push boundaries: develop and apply approaches that are themselves innovative and potentially transferable to other places and/or use cases.
- Sustainability and transferability: engage in activities that can be evolved and sustained over the longer term, plus potentially applied to other places.
- Net zero: contribute to realising this unequivocal local, national and global imperative.



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3. Key Themes & Workstreams

areas of focus under which detailed partnership-based workstreams will sit. These will be set out in more detail in the dedicated Action Plan against which progress will be monitored.

3.1 Data, Evidence, Metrics, Policy, & Evaluation

Driven by smart-specialisation focused the LCR+ Science & Innovation Audits (2017, 2022) and bespoke innovation logic modelling, plus exemplified by its Innovation Prospectus, the LCR actively applies an evidence-led approach to policy, strategy, and programme development. This theme is the core foundation on which Partnership-based actions will be built. It

encompasses the following workstreams:

- Data sharing & business intelligence: share relevant data sets, including data re. specific businesses and applications for IUK and the LCR competitions (in accordance with GDPR and subject to legal and contractual agreements), with the aim of improving targeted support.
- Evidence, analysis, & metrics: share evidence, undertake joint comparative econometric analysis, and collaborate to identify and set effective quantitative and qualitative place-based targets, including for this IUK-LCR Partnership and Action Plan.
- Policy & Strategy development: mutual consultation and input into relevant strategies and policies, plus using the partnership as a sounding board – and in some cases a pilot - for new initiatives.
- Evaluation: ensure that robust monitoring and evaluation of process, impact and value for money, is embedded into all partnership-based interventions from the outset. Sharing key findings and evidence of what works, why, and in what circumstances, to better inform future policy and programme development.

In early 2021, the LCR CA developed a proprietary logic model to break down and explain the importance of innovation to all aspects of overall local economic growth and productivity, and identify meaningful associated metrics. Innovate UK was the only external body invited to be involved in the steering group, and continues to make an invaluable contribution to this work.



3.2 Business Innovation, Capacity, & Culture

Creating a high performing innovation ecosystem depends on the development of a clear, integrated approach to helping frontier, high growth and scale-up businesses absorb and apply innovation through high intensity support, seamless access to finance, and expert local and external networks.

It also requires dedicated initiatives and support to embed and drive-up innovation for early and late majority firms across all sectors of the wider business base.

Based on detailed evidence and engagement, the LCR is using its Strategic Investment Fund (SIF) to develop and deliver a suite of inter-linked interventions (with embedded EDI considerations) to address identified market failures across its business ecosystem, as well as to drive a more innovation-focused capacity and culture³. Considerable energy is also being directed to developing better links with national finance and investment institutions and intermediaries.

- **The LCR National IUK Launchpad pilot:** ensure successful programme promotion, delivery, and evaluation (completing March 2025) across the distinct tiers of grant competitions

³ These include: commercialising our research strengths (LYVA Labs), network development (Baltic Ventures), investment readiness (the LCR Finance Hub), and early stage equity funding (the LCR Angels, Baltic Ventures plus the emerging Seed Fund).

plus ancillary local cluster development support, to inform future local and national programmes, and with a particular focus on engaging with businesses beyond the core advanced manufacturing cluster innovation ecosystem.

- **Bolster the LCR innovation business support:** ensure that IUK EDGE and all other products and programmes connect businesses to the relevant LCR, SIF-funded, and SPF-funded business innovation support initiatives, whereby the offer to businesses is as simple, accessible, aligned and integrated as possible.
- **Business capacity building:** identify, develop and deliver existing and additional support and pilot mechanisms to create better awareness, understanding and access for the LCR businesses across the full spectrum of IUK/UKRI programmes; plus to increase business innovation/R&D activities and investment, and enhance innovation readiness and absorption, including via peer networks and leadership development.
- **Collaborative Research & Development:** support industry and research organisations to increase the volume, value and impact of business-led R&D projects.



- **Sector development:** support for developing and enhancing strategies and interventions for key identified the LCR growth sectors.

3.3 Cluster Development, Project Pipeline, & Major Programmes

This theme is central to realising the LCR’s ambitious 5% of GVA annual R&D investment target, and UK levelling up and productivity aims. This Partnership plan aims to maximise opportunities created through the LCR’s distinctive world-leading assets, capabilities, and competitive strengths, in collaboration with the ‘best of the best’ regionally, nationally, and globally.

Key workstreams are:

- **Cluster development:** supporting the evolution and implementation of the LCR’s singular approach to scale out established and emerging innovation assets into growth

clusters - based on a proprietary quantitative and qualitative self-assessment methodology – is a key strand of the LCR innovation strategy. This is grounded in a smart specialisation focus on established world-leading capabilities in Infection Prevention & Control, Materials Chemistry, and AI Solutions & Emerging Technologies.

- **Innovation Projects Pipeline:** engage with identified and future projects across the £3+bn LCR innovation pipeline as a critical friend, and provide development advice plus signposting to relevant UKRI, BEIS and wider programmes and competitions.
- **Mersey Tidal Power & Net Zero:** unlock opportunities to devise and deliver the R&D solutions required to realise the infrastructure challenge inherent in the global scale Mersey Tidal Power programme, plus other major hydrogen, offshore wind and industrial decarbonisation schemes, and to realise associated national and local economic and

net zero benefits.

- **The LCR Freeport:** support the development and delivery of the LCR Freeport innovation programme within the wider context of the UK Freeport Regulatory Engagement Network and prospective Freeports Innovation Network.
- **Testbeds & Trials:** explore the potential for the LCR testbeds and regulatory flexibilities to trial new innovations, technologies, and solutions, across a range of use cases, from maritime decarbonisation to tackling health and inequality, linked to the asset-based clusters and major projects/programmes above.

3.4 Skills, Inspiration, & EDI

The effective supply of people with the right skills and talent is imperative to unlocking the full innovation potential of the LCR and its contribution to UK levelling up and growth.

Within the context of some of the UK’s most

severe deprivation and inequalities, it is equally critical to proactively maximise opportunities for everyone across the LCR to realise their potential. There are existing initiatives already in place that need to be expanded or refocused onto innovation, plus a number of potential additional activities being explored, that could fill gaps in the current provision:

- **‘Inspiration!’ communications and engagement campaign:** co-create and co-deliver a national pilot to develop a comprehensive communications programme - aimed at primary schools, secondary schools, and the population at large – to showcase (a) how the LCR-made innovations have changed the world over the last 300 years, complementing and adding value to existing support and campaigns; (b) highlight the largely unknown people, ideas and businesses from across the LCR that are changing the world right now.



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- Maker space pilots: as a corollary to the inspiration communications campaign and publicising existing maker spaces, supporting the creation of new maker spaces, with state of the art technology, software and expertise, within real world industry settings, and potentially in prominent town city or town centre locations.
- The future of work and innovation skills for growth: joint working (potentially also involving UK Government departments) to understand the skills requirements of employers, refocus existing provision to meet these needs, and develop cases for further investments; this will directly contribute to supplying the requirements of the LCR SIA2 and innovation projects pipeline, and updating the LCR Innovation Skills for Growth Action Plan.
- Schools outreach programme: develop new as well as enhanced initiatives to engage students across the primary and secondary education spectrum, potentially also seeking to ensure that businesses and other organisations benefiting from IUK funding actively engage in this programme.
- Education capacity: joint IUK-CA work with local colleges, training providers and universities to ensure that they have the facilities, curriculum and expertise to meet the current and future needs of learners and employers.
- New employer – education institutions engagement models: with IUK inputs, scale out effective existing practice between employers and schools, colleges and universities, facilitate greater, sustained input from employers into curriculum delivery, and provide more immersive work experience for pupils and students, plus pilot a staff exchange programme across business, research and policy stakeholders to support new knowledge, skills and career development.
- Inclusive innovation: embed an inclusive approach to innovation at all levels and highlight the potential for people from all backgrounds to make a difference, plus explore opportunities to co-create a programme to identify and solve critical local challenges, in part by applying our world class capabilities to redress major inequalities and disadvantages across our own communities.
- The LCR/IUK innovation week & awards: explore the potential for a new annual LCR “Innovation Week” of events and celebration, together with a new awards programme that drives new innovation solutions to identified local challenges (as above) as well as recognising local innovation talent and achievement.



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3.5 Partnerships & Promotion

Positive, proactive relationships and partnership are not only at the heart of this framework, but also the dynamo driving the LCR's place-based approach to innovation.

The LCR is keen to use this as a springboard to broaden and deepen the range and scale of its national partnerships across government and industry. The publication of the City Region's first ever Innovation Prospectus in 2022, and subsequent formation of a dedicated pan-stakeholder Innovation Comms Group, mark a major new emphasis on effectively promoting the LCR's distinctive approaches and global investment opportunities. This also reflects the greater international dimension to its outlook.

Key workstreams in partnerships and promotion are as follows:

- Innovation governance & coordination: continue and extend close IUK involvement in the LCR innovation and economic growth-related structures, plus facilitating greater LCR representation in IUK/UKRI innovation-related fora.
- Enhancing national, regional & sub-regional relationships: help create and extend new or enhanced relationships across IUK, UKRI and government, industry and the LCR stakeholders, including links and networks between regions and across Research

Councils on projects or programmes of mutual interest, and with IUK acting as a voice for the LCR within UKRI and BEIS.

- Internationalisation: closer collaboration on existing and additional activities to support mutual ambitions and objectives re. international trade and investment, e.g. including the LCR-Busan innovation twinning within the dedicated BEIS UK-South Korea programme, and exemplified by the proposed IUK-organised inward mission from India in early 2023.
- Showcase the LCR's place-based innovation approach and longstanding co-creation with IUK: promote existing and ongoing IUK-LCR partnership as a model of good practice in its own right, plus help to elevate and amplify the profile of the LCR's distinctive innovation work and approaches, and feature LCR case studies and innovation assets more prominently via IUK and UKRI channels, linked to wider the LCR and UK levelling up priorities.
- Communications & events: use respective channels to amplify reach and impact re innovation-related news, developments, and opportunities, potentially including more national events in the LCR, more slots for the LCR speakers at UKRI innovation events, and more involvement for IUK in the LCR events.



Working closely with the LCR's Innovation & Commercialisation Lead, Innovate UK has formal membership of the LCR Innovation Board and the ancillary LCR Innovation Policy & Funding Coordination Group. This provides an invaluable, direct two-way interface to mutual benefit.



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4. Next Steps

Innovate UK, the LCR Combined Authority, and cross-sector stakeholders will use best endeavours to align and bring to bear the requisite capacity and resources to deliver on the potential set out in this ground-breaking Partnership and Action Plan framework.

Following the launch and initial engagement on 10 November 2022, the key next steps, in active dialogue with key local, regional, and national stakeholders, will be to:

- Build out the Action Plan, with detailed actions under each of the key themes and workstreams
- Define specific meaningful performance and evaluation targets
- Agree systematic ongoing meeting, monitoring and reporting arrangements
- Continue and commence the delivery of identified actions
- Engage with other IUK partnership localities to share learning and best practice.



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To find out more about innovation assets, programmes and opportunities across the Liverpool City Region, please visit:

www.liverpoolcityregion-ca.gov.uk/what-we-do/innovation

or contact:

innovation@liverpoolcityregion-ca.gov.uk

For more information about Innovate UK, please visit:

www.ukri.org/councils/innovate-uk



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