
**Liverpool City Region
Life Sciences Innovation Zone**

A Wealth of Life Sciences Innovation and Opportunities





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Foreword

The Liverpool City Region is a place with a proud and illustrious history, the birthplace of countless pioneers and innovators, home to titans of industry, sport, music and invention, and integral to the success of the UK.

From public health pioneers like Kitty Wilkinson and Doctor Duncan, to the world's first school dedicated to the research and teaching of tropical medicine – few areas can claim to have contributed more to global health than ours.

Fast forward to present day and our area is fortunate to be home to world-leading clusters in life science research and innovation, supporting thousands of jobs and training opportunities for local people.

We have an enviable reputation as the home of some of the world's greatest scientific minds and technological advancements – but this is just a down payment on my future ambitions.

With up to £800m of investment and thousands of quality, high skilled jobs on offer, the Liverpool City Region Innovation Zone is an important tool in our arsenal to position our area at the head of UK science and innovation.

But in the Liverpool City Region, we're proud to do things differently.

Throughout the development of our Innovation Zone, I have been clear that any investment in our area must go further than purely financial incentives. I want to use our status as a force for good, to connect our residents up to secure, well-paid jobs and training opportunities, and attract transformational investment into our communities.

Becoming an innovation superpower is a lofty ambition – but I firmly believe that, if anywhere has the potential to achieve it, then it is the Liverpool City Region.

Steve Rotheram
Metro Mayor of the Liverpool City Region

Steve Rotheram



World Leading, World Famous





Welcome to the Liverpool City Region: a health and life sciences powerhouse fuelled by world-leading innovation, with collaboration in its DNA. It's a global gateway founded on science, invention and trade, a place for pioneers that's been changing the world for more than 300 years.

And it's a brilliant place to live and work, a European Capital of Culture, world-famous for sport and music, a magnet for talent and primed for investment.

The city region is home to one of Europe's largest pharma clusters, where multi-nationals AstraZeneca, CSL Seqirus, and Pharmaron deliver global solutions. It's the UK Government's only High Potential Opportunity for Vaccines and, with more than 7,000 volunteers, is a leader in clinical trials.

Led by Liverpool School of Tropical Medicine, the £260m high impact iiCON programme works with more than 800 companies worldwide and has brought 36 new products to market and delivered over 5 billion units of life-saving products in 3½ years. Together with the University of Liverpool, the world's first tropical disease institute is driving the UK's highest concentration

of infection research and development worth £2bn each year.

At the STFC Hartree Centre, the UK's most powerful supercomputer dedicated to industrial R&D supports digital health innovation. And the UK's largest concentration of specialist hospitals outside London is driving advances in children's health, cancer treatment, neurology and mental health.

But the city region is not resting on its laurels: with Mayor Rotherham having set an ambitious goal of investing 5% of its economic output in R&D by 2030 - nearly double the national target - it's a place with huge local ambition to deliver on the global stage.

Premier league science and industry partnerships underpin world-leading innovation while a range of tailored funds and programmes support innovative businesses through all stages of development. Great minds work together at world-class assets to shape the future of life sciences, building on strengths in therapeutics, animal health, bio-manufacturing and the use of Big Data and AI to lead healthier lives. The new 10-year Innovation Zone will

take the city region's life sciences to the next level. With the potential to drive more than £800m of Government and private investment and create 8,000 jobs, the Innovation Zone promises to deliver new state-of-the-art facilities and business and innovation support, while training a new generation of talent. And, like Liverpool City Region Freeport, it will offer attractive financial benefits to investors. Local leaders have been clear throughout the process they want to use the region's status as a force for good, to uphold workers' rights and environmental standards.

Two thriving, nationally significant and complementary campuses in Liverpool and Daresbury are the bedrock of the city region's life sciences research and innovation, with new clusters planned in Maghull and St Helens, site of global industry-led glass innovation and decarbonisation partnership Glass Futures.

Knowledge Quarter Liverpool is home to the University of Liverpool, Liverpool John Moores University, Liverpool School of Tropical Medicine, the Royal Liverpool University Hospital, Clatterbridge Cancer Centre, and many

of the city region's 26,000 health and life sciences students.

The £81m Materials Innovation Factory (MIF) – a unique industry-academia collaboration with Unilever at the forefront of global digital chemistry innovation – is also located there, along with the Digital Innovation Facility (DIF), Liverpool Science Park, the Open Innovation Hub for Antimicrobial Surfaces, and the University of Liverpool's internationally acclaimed Chemistry and Pharmacology Departments.

The Royal College of Physicians' northern HQ is located at The Spine – one of the world's healthiest buildings – which is set to be joined by two Innovation Zone-supported new builds, HEMISPHERE One and Two, packed with hi-tech labs and offices.

Innovation Zone funding will expand the work of the world-first Centre of Excellence for Long-acting Therapeutics (CELT) and the Pandemic Institute, while the new CHI-Zone will build on foundations laid by the UK's first Civic Data Cooperative, funded by the Combined Authority spearheading the use of AI to transform health and social care.





One of two national science and innovation campuses, and UKRI’s northern base, Sci-Tech Daresbury is a hub for more than 50 life sciences companies in a highly collaborative environment and has plans to build over 70,000 sq m (750,000 sq ft) of high-tech labs, offices and technical facilities with Innovation Zone support.

The Liverpool City Region has a £2bn R&D pipeline with a further £725m of projects underway and, in addition to infection prevention and control, is a world leader in materials chemistry and AI solutions with emerging strengths in net-zero and maritime.

Guided by strong, cohesive political, business, institutional and scientific leadership and driven by the UK’s first industry-led regional Innovation Board, the city region has forged landmark partnerships with Innovate UK and South Korea’s second city Busan and installed LCR Connect, a new part-publicly-owned 214km gigabit-enabled full-fibre network which will help make the region the most digitally connected area in the UK.

A new private-sector led Business and Enterprise Board helps craft policy, with the key sectors of health and life science, advanced manufacturing and digital and creative represented by new cluster boards and served by multiple

networks within a highly collaborative ecosystem.

IBM, Unilever, the Gates Foundation and AstraZeneca are among household names already recognising the city region’s potential. With new tailored facilities, low costs and wide-ranging financial incentives, the city region is geared to welcome life sciences investors and businesses of all sizes to one of the most famous, dynamic, inclusive, connected and forward-thinking places in the world.

The Liverpool City Region Life Sciences Innovation Zone Programme (LCR Innovation Zone Programme) is part of the Government’s national Investment Zone Programme.

“Compared with other places, I have experienced a uniquely can-do culture for social impact innovation in Liverpool. From Mayoral support for the UK’s first Civic Data Cooperative to world-leading responses to the COVID-19 pandemic such as mass testing, Liverpool mobilises data and shapes trustworthy technologies for all, while others ponder.”

Professor Iain Buchan
Associate Pro Vice Chancellor for Innovation, University of Liverpool.

World Leading and World Famous in Facts and Figures

Health and Life Sciences excellence



UK's only designated High Potential Opportunity for Vaccines



UK's highest number of specialist hospitals outside London



One of Europe's largest pharma clusters



UK's first Civic Data Cooperative - led COVID-19 mass testing pilot



World's first tropical disease research institute - and still world-leading



7,000 volunteers and over 100 early-stage clinical trials since 2009

The value of health and life sciences



£5bn to the city region economy. 14.2% of GVA – nearly double average for England



26,000 students enrolled on courses linked to health and life sciences



1,800 businesses involved in health and life sciences



£2bn of infectious disease research – largest concentration in UK



97,000 health-related jobs, 6,000 jobs in life sciences

Life Sciences Innovation Zone



£800m investment and 8,000 new jobs forecast over 10 years



One of only 3 UK places benefiting from Innovation Zone and Freeport



£160m of Government funding

Research and innovation assets



Two nationally significant science and innovation districts



iiCON – £260m investment and 36 products to market in 3½ years



UK's most powerful supercomputer dedicated to industrial R&D



Glass Futures – unique new global R&D centre of excellence



Materials Innovation Factory - at the forefront of global digital chemistry

Liverpool City Region Innovation



Three world leading specialisms: Infection, Materials Chemistry, AI solutions



5% R&D investment goal by 2030 – nearly double national target



£725m innovation projects underway



UK's largest western-facing port



£1.9bn projects in development



Mersey Tidal Power – plan for world's largest scheme harnessing energy of the tides

A great place to live, work and visit



Time Out's 7th best city in the world 2024 – and highest ranked non-capital city



Two Premier League Football teams – including UK's most successful



UNESCO City of Music and Eurovision host city 2023



Two Open Championship golf courses



European Capital of Culture 2008 and most filmed UK city, outside London



Home of the world-famous Grand National



Life Sciences Strengths and Specialisms

Liverpool City Region is a health and life sciences heavyweight delivering world-leading innovation from world-class assets.

The city region is home to one of Europe's largest bio-manufacturing clusters and its scientists are driving breakthroughs in infection prevention and control, therapeutics, mental health and the use of data and AI to improve lives.





World Leading Innovation in Infection Prevention and Control

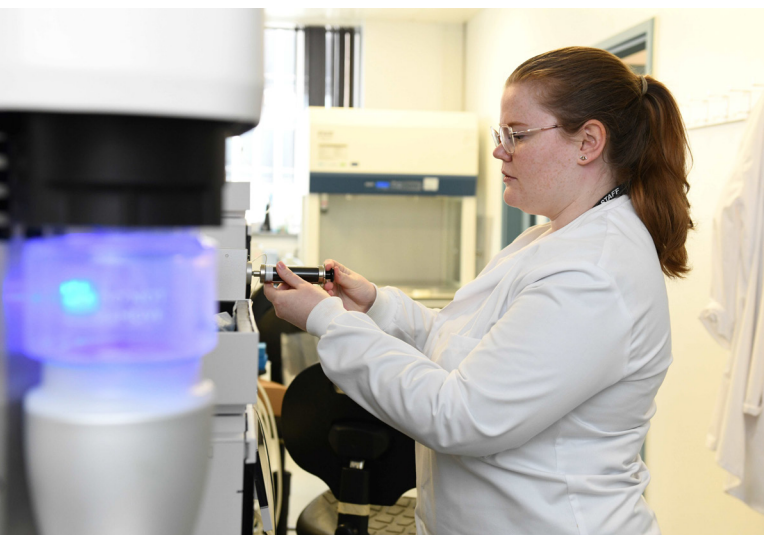
The Liverpool City Region is a powerhouse of world-leading innovation in infection prevention and control - with a long history of developing treatments that are saving millions of lives. It is home to the Liverpool School of Tropical Medicine (LSTM), the world's first institution dedicated to the research and teaching of tropical medicine, and through the Pandemic Institute is helping prepare the world to tackle future global infections.

Together with neighbouring Cheshire and Warrington, the city region delivers £2bn of infectious disease research and development each year - the biggest concentration in the UK and one of the largest in Europe. The area is also home to one of Europe's largest bio-manufacturing clusters and in 2022 was designated the UK's only High Potential Opportunity (HPO) for vaccine research, development and manufacture.

The city region's strengths are built on more than a century of collaboration between the LSTM and the University of Liverpool.

Founded in 1898, LSTM has more than 1,000 staff worldwide and a research portfolio exceeding £500m and leads the high impact £260m Infection Innovation Consortium (iiCON). Formed in 2020, iiCON brings together industry, academia, and the NHS to accelerate the discovery and development of new products to treat and prevent infectious diseases.

Ranked second out of all UK universities for impact, LSTM collaborates with many of the world's poorest countries, saving hundreds of thousands of lives each year in partnership with leading bodies such as the World Health Organisation and the Bill and Melinda Gates Foundation – of which LSTM is the UK's largest grant recipient.



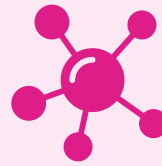
The University of Liverpool is one of the UK's leading research-intensive higher education institutions and employs around 400 infection-related academic and research staff and trains more than 200 graduates a year.

It co-directs the UKRI supported £45m National Biofilms Innovation Centre (NBIC) - established to deliver the breakthroughs needed to prevent, detect, manage and engineer biofilms caused by microorganisms like bacteria colonising surfaces. Biofilms are implicated in more than 70% of infections and are incubators of Antimicrobial Resistance (AMR). NBIC works with over 150 industry and health partners to translate research into innovation.

At the Microbiome Innovation Centre (MIC), the University is using microorganisms to develop new therapies and at AMR-X Liverpool and the CHI-Zone, the city region is spearheading the use of AI for population health management, pandemic preparedness and to tackle the global threat from antibiotic resistant bugs.

The University is also a leader in Infection Pharmacology, leading ground-breaking clinical trials, and Antimicrobial Pharmacodynamics and Therapeutics - developing new treatments for multidrug resistant infections and life-threatening invasive fungal infections.

The Innovation Zone will deliver new facilities and opportunities in a fertile ecosystem in which businesses can already access world-leading infection research, trial new vaccines and tap into a flexible manufacturing ecosystem and supply chain.



Therapeutics

The Liverpool City Region has a unique therapeutics ecosystem with a high concentration of skills, talent and facilities centred around the University of Liverpool.

With world-renowned excellence in chemistry and pharmacology - both departments have been awarded the prestigious Queen's Anniversary prize for their pioneering research and innovation - the University is prioritising therapeutics development and, together with the Liverpool University Hospitals Foundation Trust, is advancing plans for an 'Academic Health Sciences Campus'.

Established in 2020, the University's world-first Centre of Excellence for Long-acting Therapeutics (CELT) is an exemplar of collaboration, in which existing pill treatments are transformed into long-acting medicines, making vital drugs much easier for patients to take and for clinicians to administer. University scientists are also working with specialist cancer hospital Clatterbridge to develop pioneering cancer vaccines.

Building on the city region's outstanding track record for conducting specialised clinical trials, the University is bringing together world-leading clinical academics and hospitals to develop next generation therapeutics.



Liverpool City Region Mayor Steve Rotheram and Busan Mayor Park Heong-Joon view 'Meta-Liverpool'



Using data and digital innovation to help people grow, live and age well

The Liverpool City Region is addressing some of the most pressing global issues by leveraging its world-class digital expertise to enhance health and industrial competitiveness.

Using world-renowned digital assets in Knowledge Quarter Liverpool and Sci-Tech Daresbury, the city region is harnessing the power of data and AI to transform millions of lives, from birth to old age, on a local, national and global scale, and to unlock potential solutions to social and health inequalities.

The importance of data science to society was demonstrated during the COVID-19 pandemic, in which the University of Liverpool and its civic partners drove world-leading responses ranging from molecular computation

in vaccine and antiviral research to the first end-to-end evaluation of voluntary mass self-testing.

Supported by the Innovation Zone, The Civic HealthTech Innovation Zone (CHI-Zone) will quickly build on the city region's digital strengths to establish it as a leader in civic AI and data-driven technologies for health and social well-being.

The University and the Liverpool City Region Combined Authority have established world-class data and digital platforms that fuel health innovation assets, including the Digital Innovation Facility (DIF), Virtual Engineering Centre (VEC) and the Liverpool City Region Civic Data Cooperative (CDC).

The CDC is the UK's first civic cooperative of data rightsholders, controllers and innovators, working together to mobilise data securely into trustworthy AIs that improve health, social wellbeing and inclusive economic growth.

DIF, VEC and CDC are working together to develop further platforms such as the 'Meta-Liverpool' metaverse - a new city scale digital asset and policy modelling tool.

'Meta-Liverpool' was developed with the help of the STFC Hartree Centre, based at nearby Sci-Tech Daresbury and home to the UK's most powerful supercomputer dedicated to industrial R&D.

STFC Hartree supports a wide range of life sciences computing from molecular modelling to discover new medicines, to understanding pandemics and developing low-cost ventilators, to optimising NHS patient flows and designing apps to support child health and development.

STFC Hartree and the new Civic Health Innovation Labs (CHIL) will use CHI-Zone to combine national computing assets with large datasets in a practical AI solutions-building environment for health and social care.



Mental Health

The Liverpool City Region's healthcare innovators are collaborating with some of the world's biggest names to use AI and other digital technologies to tackle mental health issues that can affect one in four adults and cost the UK economy £118 bn a year. Improvements in the understanding of biomarkers, and the ability to measure them, coupled with the increasing use of technology, big data, and informatics is allowing experts to more accurately identify the right time to treat patients more effectively.

Mersey Care's Maghull Health Park is a leader in serious mental illness and forensic psychiatry. Focusing on digital, VR, and AR technology for treating mental illness and training staff, the Mental Health Digital Research Centre will provide the base to grow the UK's nascent digital mental health sector. Mersey Care recently formed a strategic partnership with the University of Liverpool which has driven £10.5m investment into the city to establish the Mental Health Research for Innovation Centre (M-RIC), headquartered in the CHI-Zone. Collaborations are also underway with Microsoft - notably their support in the development of a trusted research environment (TRE) for M-RIC, giving researchers access to a full mental health data set.

In partnership with Holmusk, the NHS Trust has developed tools for predicting mental health risk and AI tools for researchers. The Trust is also working with Concentrix on psychological safety technologies for healthcare professionals.



Advanced Manufacturing

The Liverpool City Region is an advanced manufacturing powerhouse at the forefront of pharmaceutical production, in which world-class life sciences innovation is turned into new life-saving products.

With a long history of bio-manufacturing, it's home to one of Europe's largest pharma clusters and continues to attract massive investment from global heavyweights including AstraZeneca, CSL Seqirus, and Pharmaron, who are benefitting from the city region's life sciences innovation, its talent pool and a highly developed ecosystem that's driving collaboration.

CSL Seqirus' Speke vaccine manufacturing facility is the UK's largest producing more than 50 million doses of seasonal flu vaccine each year, with the ability to increase production to 200 million doses in the event of a flu pandemic.

Industrial giant Unilever employs 850 scientists in the city region developing

new products and new production methods using Artificial Intelligence and robots. The research teams are split between the company's global R&D headquarters and Advanced Manufacturing Centre in Port Sunlight and the £81m Materials Innovation Factory, a unique partnership with the University of Liverpool. In 2021, half of the company's 524 patent applications originated in the city region – more than any other UK-based R&D organisation.

Croda's Centre of Innovation for Formulation Science is also based at the Materials Innovation Factory and the company located its UK biotechnology laboratory at Sci-Tech Daresbury in 2020 to be close to its existing manufacturing base in Widnes.

US pharma company Bristol Myers Squibb has an 11-acre campus in Wirral where scientists investigate new medicinal compounds to see how they can be best turned into effective medicines manufactured at commercial scale.

And at St Helens, world-leading not-for-profit research and technology organisation Glass Futures is pioneering ways to decarbonise glassmaking and other energy-intensive industries. Supported with a £9m investment from the Liverpool City Region Combined Authority, its members include some of the world's best-known businesses including LG, Heineken, Diageo, Siemens and Pilkingtons. Inovus Medical has located its new UK headquarters in Glass Futures and SINA Medical is developing a new medical glass making facility nearby.

In 2022 the city region was designated the UK's only High Potential Opportunity (HPO) for vaccine research, development and manufacture.

From stem cell and gene therapy treatments to large scale pharmaceuticals, vaccines and biologics production and nutraceuticals research and development, exemplar companies are located across the city region with major concentrations in south Liverpool and Runcorn.

The bio-manufacturing sector benefits from the city region's position at the centre of the UK's chemical engineering industry, while its world-leading digital

innovation is driving advances in health and life sciences and manufacturing. Together these strengths have a catalytic impact on the availability of experienced science, technology and engineering talent that underpins biomanufacturing - from production line staff to technicians and senior management. In addition, a partnership of local organisations supports existing manufacturers through programmes to invest in infrastructure, facilities and skills.

Further benefits include a strong local supply chain from medical packaging to specialist logistics, and a high level of regulatory experience across the region, working with organisations such as the Medicines & Healthcare Products Regulatory Agency (MHRA) over many years.

In 2022 Innovate UK chose the area to pilot its new £15m Launchpad grant programme, supporting innovation within the city region's advanced manufacturing cluster.

Other major bio-manufacturing investors in the city region include **Teva, Nutricia, Vitaflo and Baxter Healthcare.**



Unilever's Advanced Manufacturing Centre at Port Sunlight, Wirral



Life Sciences Sites and Innovation Zone Projects

Liverpool City Region is home to two UK-leading sciences and innovation districts, one of Europe's largest bio-manufacturing clusters and numerous centres of health and life science brilliance.

The new Innovation Zone will support 20 projects that promise to take the sector to the next level - delivering further world-class facilities, developing new strengths and clusters and driving jobs and growth.



£800m, new state-of-the-art facilities and lucrative investor benefits: Liverpool City Region's Life Sciences Innovation Zone explained

The Liverpool City Region Life Sciences Innovation Zone is a 10-year programme to drive growth and create thousands of jobs by unlocking more than up to £800m of public and private funding.

Starting in April 2024, it will deliver new facilities, innovation and training. The Innovation Zone will also offer significant financial benefits to occupiers and investors at three designated tax sites.

Twenty grant-supported Innovation Zone projects have already been identified which together have the potential to secure over £320m of private funding during the initial phase. Alongside this, the University of Liverpool has prepared a £200m investment programme to support the Zone.

The Government will contribute £160m - with 60% going towards capital schemes to develop new high-quality facilities including state-of-the-art office and lab space and also to provide capital grants to innovation businesses.

The remaining 40% will be allocated to revenue projects providing business, research and innovation support, and skills development.

In addition, Halton and St Helens Borough Councils can retain the next 25 years of business rates - up to £35m and £15m respectively - from new properties on the tax sites, with the money ring-fenced for schemes to further develop premises and capability.

Key Innovation Zone locations are the



Maghull Science Park masterplan
Design/visuals by Gilling Dod/ION developments



north of England's only national science and innovation campus at Sci-Tech Daresbury, Halton, and Knowledge Quarter Liverpool.

Further Innovation Zone sites are Maghull Health Park, St Helens Manufacturing and Innovation Campus and Earlsfield Park, in Knowsley, with projects also located at Liverpool's Alder Hey Hospital and within the Speke bio-manufacturing cluster.

Three Innovation Zone tax sites at St Helens, Sci-Tech Daresbury and Maghull Health Park will offer new and expanding occupiers:

- 100% Business Rate Relief for five years
- exemption from Stamp Duty Land Tax (SDLT)
- relief from employers National Insurance contributions (for three years and worth £6,582 per employee)
- further cash flow benefits (Structures and Buildings Allowances and Enhanced Capital Allowances) are also available

The Innovation Zone is expected to create more than 8,000 jobs with new skills and talent programmes for local people to aid workforce creation and recruitment. Social value, net zero and equality, diversity and inclusion will be important considerations in project development.

Freeport

The Liverpool City Region is one of only three places in the UK to benefit from both Innovation Zone and Freeport status.

Established in January 2023, the LCR Freeport is focused on creating jobs, stimulating innovation, supporting skills programmes and increasing trade and investment. It is also geared towards boosting advanced manufacturing, pharmaceuticals and green energy during its 10-year lifespan. Local leaders have emphasised the potential to use the freeport as a force for good, helping to build an economy that works for everyone. The region's priority is to attract investors who believe in, and support, local ambitions – those who will help to protect workers' rights and uphold standards, and who want to work to deliver regeneration and funding in the areas that need it most.

With the UK's largest western facing port at its heart, the Freeport area is 45km in diameter, from the western point of Wirral Waters to the eastern point of Port Salford, and includes all six of the city region's local authorities. This area offers a package of customs benefits to HMRC approved operators. The freeport also includes three tax sites that span 310 hectares and cover multiple gateways and modes of transport into the city region. Situated in logistics and manufacturing hubs at Wirral Waters, Parkside in St Helens and 3MG in Halton, occupiers and investors benefit from the same tax reliefs as the Innovation Zone tax sites.

The freeport will act as a springboard to develop the city region's underlying strengths, driving R&D and innovation, particularly in green technologies, with an aim to add £850m to the local economy and create 14,000 jobs.

Liverpool City Region Life Sciences Innovation Zone

1. Aintree University Hospital
2. Alder Hey Children's Hospital: Today's Child Tomorrow's Adult
3. Arrowe Park Hospital
4. AstraZeneca
5. Bristol Myers Squibb
6. Broadgreen Hospital
7. CELT
8. CHI-Zone
9. Circular City for Healthcare Materials
10. Clatterbridge Cancer Centre
11. Clatterbridge Hospital
12. Croda Biotechnology Laboratory
13. Croda Europe Widnes
14. CSL Seqirus
15. Daresbury Laboratory
16. Digital Dispensary in a Box (D-DiaB)
17. Digital Innovation Facility
18. Glass Futures
19. Health and Life Sciences Business Incubator Centre
20. Health and Life Sciences Proof of Concept Fund
21. Health Innovation NWC
22. HEMISPHERE One
23. HEMISPHERE Two
24. IBM Global Research Lab & Discovery Accelerator
25. iiCON Phase 3
26. Inovus Skills
27. Liverpool School of Tropical Medicine
28. Liverpool Science Park
29. LYVA Labs
30. Maghull Health Park
31. Materials Innovation Factory
32. Microbiome and Infectious Disease Innovation Hub (MaID)
33. Neon at Earlsfield Park
34. Open Innovation Hub for Antimicrobial Surfaces
35. Pandemic Institute
36. Pharmaron Biologics
37. Royal Liverpool University Hospital
38. Sci-Tech Daresbury-Violet 2
39. Sci-Tech Daresbury-Violet 3
40. Southport and Formby District General Hospital
41. St Helens Manufacturing & Innovation Campus
42. STFC Hartree Centre
43. TALASCM
44. The Heath Business & Technical Park
45. The Spine: KQ Liverpool Core Resource & Innovation Services
46. TriRx
47. Unilever (Port Sunlight)
48. University of Liverpool Department of Chemistry
49. University of Liverpool School of Veterinary Science
50. University of Liverpool School of Veterinary Science Leahurst Campus
51. Whiston Hospital

- | | |
|---|--|
|  Freeport Tax Sites |  Innovation Zone Tax Sites |
|  Freeport Customs Sites |  Capital Projects |
|  LCR Connect Ultrafast Digital Network |  Revenue Projects |
|  Main Line Railway |  Revenue / Capital Projects |
| |  Health, Life Science & Innovation assets |

WIRRAL

05

03





LEADING UK INNOVATION DISTRICT

Knowledge Quarter Liverpool

Established in 2016, Knowledge Quarter Liverpool (KQ Liverpool) is a thriving urban innovation district encompassing half of Liverpool City Centre and home to the University of Liverpool, Liverpool John Moores University and the Liverpool School of Tropical Medicine.

Key innovation assets include Liverpool Science Park, the Materials Innovation Factory, the Digital Innovation Facility, The Spine and Liverpool's Health Campus, which is home to the new Royal Liverpool University Hospital and Clatterbridge Cancer Centre – Liverpool.

KQ Liverpool is widely recognised as one of the UK's leading innovation districts, with key research strengths in Health and Life Sciences, Materials Chemistry and Advanced Manufacturing Technologies.

It is also home to more than 400 creative and innovative organisations, employing over 15,000 people.

This includes two high-value manufacturing catapults – the Manufacturing Technology Centre (MTC) and Centre for Process Innovation (CPI) – leading infection innovation consortium iiCON, The Pandemic Institute, and the LCR investment and innovation vehicle, LYVA Labs.

KQ Liverpool focuses on inclusive innovation, place making and people, driving sustainable growth through partnership and collaboration. Its wrap-around Innovation and Growth services support businesses at all stages of their growth journey, as well as inspiring the next generation of innovators and entrepreneurs.

Fuelled by culture and powered by knowledge, KQ Liverpool is also a renowned visitor destination with attractions including two cathedrals, the Royal Liverpool Philharmonic, the Everyman Theatre and Liverpool

Institute for Performing Arts (LIPA). KQ Liverpool has been a partner in shaping the city region’s Life Sciences Innovation Zone, and projects located within the thriving innovation district are set to benefit from more than £60m of funding in the first five years. This investment will unlock the delivery of new, much-needed commercial and academic bio, chemistry, data and robotic lab space, accelerator programmes and incubators, alongside other key health, sustainability and skills initiatives.

As a partnership created to deliver innovation at pace, KQ Liverpool’s triple helix of subscribing members brings together the best of academic research, city and civic society, and private sector investment. Members include Bruntwood SciTech, Liverpool City Council, Liverpool John Moores University, Liverpool School of Tropical Medicine, Liverpool University Hospitals NHS Foundation Trust and the University of Liverpool.



MORE INFO

KQ Liverpool Subscribing Members



Knowledge Quarter Liverpool

About:

- 180-hectare urban innovation district.
- 400+ businesses, employing over 15,000 people.
- 70,000 student talent pipeline.
- 2 High Value Manufacturing Catapults.
- 3 Specialist NHS Trusts.
- 5 Higher Education Institutions.
- 280,000 sq m (3 million sq ft) of commercial opportunity.

Connectivity:

- 10-minute walk to main line train stations, 50 bus routes and 10-minute drive to two motorways.
- 2 international airports within a 1-hour drive.

Contact:

hello@kqliverpool.co.uk

HEMISPHERE One: A trailblazing development

In 2019, KQ Liverpool created spin-out company Sciontec Developments Limited (Sciontec) to develop world-leading science and technology workspace and labs, to house organisations and businesses involved in the commercialisation of research and emerging technologies.

These facilities are also designed to encourage more university spin-outs, spin-ins, and entrepreneur-led start-ups.

Now, more than 80 dynamic companies are based within Sciontec's innovation centres at Liverpool Sciences Park and within its flexible workspaces in The Spine, located on Liverpool City Council's flagship development site, Paddington Village.

Demand for chemistry and life science laboratories is at an all-time high and, with the existing commercial labs at Liverpool Sciences Park at full capacity, the provision of additional high-quality laboratory space is urgently required.

HEMISPHERE One will provide a home for cutting-edge commercial and academic laboratories in which the world's best minds can seize the potential of ground-breaking new technologies. The data, bio and innovation labs will sit alongside Sciontec's flexible, all-inclusive workspace product, Sciontec AI – which has already proved to be a huge success at neighbouring building, The Spine, which boasts the Royal College of Physicians as its anchor tenant.

With the majority of HEMISPHERE One earmarked for Innovation Zone funded projects, including CELT, CHI-Zone and LYVA Labs, the c13,000 sq m (c140,000 sq ft) building will be a shop window to the world for net zero carbon innovation and technology. Occupiers will benefit from the building's leading environmental and sustainable design, as well as high specification onsite facilities.

With planning permission granted and backed by Innovation Zone funding, the building is due to be onsite in April 2025 and completed within two years.



HEMISPHERE Two**126,095**
Total Building Size (sq ft)**G+7**
Floors**94%**
Laboratories**19,000**
Typical Lab Floor (sq ft)

INNOVATION ZONE PROJECT

**HEMISPHERE Two:
Liverpool labs with
global impact**

HEMISPHERE Two will be Scientec's second purpose-built laboratory development on Paddington Village, made up of c11,700 sq m (c126,000 sq ft) of incubator, grow on and commercial lab space.

The building will contain some of the world's most advanced bio and chemistry labs over its eight floors and will be a unique, city centre location for scaling and inbound lab-focused companies.

Backed by Innovation Zone funding, the new-build is already expected to accommodate commercial and academic lab occupiers, research institutes and national Catapults, as well as offering smaller labs with adjoining write-up spaces, shared services and open-access labs for SMEs. It has also been identified as a potential location for the Pandemic Institute's Pandemic Preparedness and Response Facility.

HEMISPHERE Two will provide grow-on space for KQ Liverpool's existing lab occupiers who are looking to scale.

Like all occupiers based within the innovation district, businesses landing at HEMISPHERE Two will benefit from KQ Liverpool's Innovation & Growth Services, including the inward investment soft-landing programme KQ Base, the KQ Startup scheme and business support growth programme KQ Grow.

HEMISPHERE Two will also foster cross-sector working and collaboration opportunities. This will in turn support the attraction and retention of talent in the area, whilst delivering inclusive growth through KQ Liverpool's skills and schools programmes, including its Future Innovators Programme.

On completion, HEMISPHERE Two will connect into the first HEMISPHERE building, helping to complete the Paddington Village flagship development site. Liverpool City Council owned Paddington Village provides places to live, work and play, alongside world-class amenities, public realm and events spaces.

The Pandemic Institute

Established in 2021, The Pandemic Institute (TPI) is a unique academic, health and civic partnership with a global mission to tackle emerging infections and future pandemic threats.

Innovation Zone funding will help TPI build a new Pandemic Preparedness and Response Facility in Liverpool containing state-of-the-art research laboratories that will strengthen the UK's infectious disease research and innovation capabilities. The new laboratories will accelerate the development of diagnostics, therapeutics and vaccines, and will be a national facility for use by members of the UK Pandemic Sciences Network.

Research infrastructure and capabilities to which TPI has access through its partner organisations include Containment Level III laboratories for in vitro, in vivo and mosquito work, an in-patient Human Challenge Facility with scope for studying high containment pathogens, and an outstanding Clinical Research Facility accredited for Phase I 'first in human' studies.

The Institute was born out of a unique collaboration between The University of

Liverpool, Liverpool School of Tropical Medicine, Liverpool John Moores University, Liverpool University Hospitals NHS Foundation Trust, Liverpool City Council, Liverpool City Region Combined Authority, and Knowledge Quarter Liverpool.

That collaborative ethos, typical of the city region's health and life sciences sector, has continued through TPI's close working with the UK Health Security Agency (UKHSA) and its extensive network of commercial partners and international collaborators.

Launched with an initial donation of £10m, TPI researchers are now supported by more than £36m from philanthropic, commercial and UK government sources. It has a target to raise £250m by 2026.

Beyond its research, TPI is already having a major impact on national and international health policy, plus creating jobs and supporting economic growth.

Key contact – contact@thepandemicinstitute.org



“There’s a creative streak in Liverpool and there’s an energy in Liverpool that we find in our labs as well - and we’re very proud of that.”

Professor Rasmita Raval
Director,
Surface Science Research Centre,
University of Liverpool.



INNOVATION ZONE PROJECT

The Infection Innovation Consortium (iiCON) Phase Three

Founded in 2020 with an £18.6m UK Government grant, iiCON brings together industry, academia and clinicians to accelerate the discovery, development and deployment of new treatments and products for infectious diseases – saving and improving millions of lives across the world.

Led by Liverpool School of Tropical Medicine (LSTM) and with core partners LifeArc, Unilever, Evotec, Liverpool University Hospitals Foundation Trust, University of Liverpool, and Infex Therapeutics, the consortium has quickly grown into a £260m programme working with a global network of more than 800 companies.

By enabling industry access to world-leading facilities and expertise, it has supported 36 new products to market, with more than 5 billion units of life-saving products and treatments reaching communities across the world.

It has also created 559 jobs and bolstered the region's R&D infection spend by £700m.

As iiCON has grown so has its demand for high quality facilities. A Capital and Workforce Development Centre was created in its expansion Phase One and Phase Two will see development of an extended clinical trials facility, increasing the capacity and complexity of trials available.

Innovation Zone funding will support Phase Three, which includes development of large Category 3 laboratories within LSTM capable of handling deadly pathogens and fitted out with leading-edge robotics and AI technology.

Larger scale facilities will be required as iiCON's portfolio expands over the next decade. Two new buildings planned within the Innovation Zone will support this projected growth and iiCON will also develop plans for a new facility with specialist biotech and Category 3 laboratory space, housing expanded R&D platforms and driving significant growth in high-level jobs.

The Civic HealthTech Innovation Zone (CHI-Zone)

Led by the University of Liverpool, CHI-Zone will spearhead the use of artificial intelligence (AI) to transform healthcare, social care and wellness – raising international visibility and driving exports.

Using a ‘technologies for all, for life’ approach, it will develop AI to tackle global challenges - giving children a better start in life and helping adults to thrive. It will also create AIs to enable older people to live better, including the use of AI-powered assistive technologies in homes and communities.

Initially based in Liverpool Science Park, CHI-Zone will expand into HEMISPHERE One as it builds on the city region’s civic data foundations to establish a world-leading civic AI cooperative.

It will build on regional strengths to support innovations in:

- Infection Resilience: Developing AIs to ready society for future pandemics and tackle the global threat from antibiotic resistant bugs.
- Mental Health: Training AIs to support mental wellbeing, including in the workplace, deliver digital therapies

and better integrate mental and physical healthcare to meet rising demand.

- Child and Maternal Health: Using AIs to build smart, child-friendly cities that help families to maximise their child’s future health from conception to two years.
- Bio-data Banking and Health Avatar: Empowering residents to combine health records with biological sample-derived data to fuel discoveries, improve therapies, and personalise care.
- Pressure-resistant Health and Social Care: Shaping technologies that support vulnerable people at home, preventing hospital admissions and improving use of NHS and social care services.
- Medicines Optimisation: Developing AIs that improve the clinician-prescribing and patient-use of medicines for better safety, effectiveness, and value for money.
- Conversational Data Analytics: Enabling fuller use of big data in conversations with AIs that help people generate insights.

Contact: chil@liverpool.ac.uk



Professor Lucy Chappell, Mayor Steve Rotheram and senior University of Liverpool representatives at the launch of the CHI labs



INNOVATION ZONE PROJECT

Centre of Excellence for Long-acting Therapeutics (CELT)

The world's first Centre of Excellence for Long-acting Therapeutics (CELT) was established by the University of Liverpool in 2020 as part of a £30.5m international research consortium.

Primarily funded by global health organisation Unitaid, CELT combines the University's world-renowned expertise in pharmacology and materials chemistry to transform treatments that already exist in pill form into long-acting medicines, making key drugs much easier for patients to take and for clinicians to administer.

These injectable, implantable or transdermal approaches are also applicable to new drugs in development.

Spinning out of CELT-based research, pioneering company Tandem Nano is a key collaborator in the Unitaid funded LONGEVITY project, and has also secured commercial contracts with major players in a variety of sectors.

The Innovation Zone will enable CELT's rapid expansion into HEMISPHERE One,

a new high-tech development at Paddington Village, part of Knowledge Quarter Liverpool. CELT will occupy around 4,000 sq m (43,000 sq ft) of pharmacology and chemistry laboratories in a purpose-built facility for the creation and understanding of long-acting medicines.

Opportunities to co-locate with Clatterbridge Cancer Centre Liverpool, Liverpool University Foundation Hospital Trust and NIHR Liverpool Clinical Research Facility into HEMISPHERE One are also planned. The new facility will accommodate more than 270 researchers and innovators working to maximise CELT activities - addressing key technology questions and ensuring patient involvement in future developments.

CELT will also bring together global health stakeholders, patients and industry to advocate for strategies to develop and deploy new medicines, ensuring the UK benefits from the economic and healthcare opportunities while maintaining a key focus on global equity.

Contact: Dr Sam Naghibi,
CELT Operations Manager, at
S.Naghibi2@liverpool.ac.uk

Circular City for Healthcare Materials

Circular City for Healthcare Materials is a unique programme providing global leadership towards sustainability in the healthcare and life sciences sectors. The NHS produces millions of tonnes of waste each year including large amounts of single-use plastics. Current waste systems are inadequate to deliver current sustainability targets, threatening the licence-to-operate for ecosystem partners.

Investments in future waste collection and processing systems are challenging. Public and private capital is not forthcoming as business cases from siloed partners are rarely sufficiently compelling. Also, constraints on internal capacity and insight limit the ability to design optimal interventions.

Many solutions already exist, from simple process changes to mega-capital infrastructure – such as simplified inventories, better sorting, advanced recycling centres, material trading platforms and re-use systems – but the best course of action is rarely clear.

Run by CPI in partnership with the University of Liverpool and the Liverpool University Hospitals Trust, the Circular City Innovation Zone project addresses these challenges through a radical approach, in which diverse datasets and deep insights are curated across the healthcare ecosystem, including hospitals, pharmacies, universities, commercial and residential.

Material-flow modelling and city digital-twinning enables better interventions.

By incorporating broader industry and consumer insight and designing holistic solutions, the project is producing game-changing investment cases towards a world-leading healthcare sustainability.

Technology Assisted Living and Social Care Management (TALASCM)

Based at Liverpool John Moores University (LJMU), Technology Assisted Living and Social Care Management (TALASCM) is a research collaboration using technology to improve quality of life for older adults and people living with dementia.

The partnership brings together expertise from across the university, along with Mersey Care and a growing cluster of technology SMEs.

Supported by the Innovation Zone, TALASCM is developing a technology incubator to serve as a platform for users, care-givers, health and social care professionals, SME technology providers and researchers to work together to develop new products and services.

These include the use of social robots and large touchscreens and touchtables in conjunction with a sensor network to provide companionship, cognitive stimulation therapy and wellbeing monitoring.

Such innovations will assist older adults and people living with dementia in their day-to-day living and mental health by developing a safe, supportive, interactive living environment.

TALASCM is centred around the needs of the individual and aims to enable them to live well independently through a social and cultural environment that offers opportunities for stimulation and interaction that are highly meaningful to the individual and their families.

INNOVATION ZONE PROJECT

Microbiome and Infectious Disease (MaID) Innovation Hub

Based in Liverpool and supported by Innovation Zone funding, the Microbiome and Infectious Disease (MaID) Innovation Hub will drive development and commercialisation of microbiome therapies, novel antimicrobials and diagnostics for infectious disease.

Microbiomes - communities of microorganisms - offer a new frontier in tackling infectious disease, cancer, inflammatory bowel disease and mental health. They are also an important source of novel antimicrobials such as bacteriophage that can act as alternatives to antibiotics and help to tackle global antimicrobial resistance (AMR).

MaID will harness the world-leading expertise of the University of Liverpool's Microbiome Innovation Centre (MIC), and Liverpool Science Park-based High Value Manufacturing Catapult CPI, alongside manufacturer TriRx Speke, to provide end-to-end support for businesses and



organisations seeking to de-risk and to accelerate microbiome and phage therapeutics to market.

Through scientific consultancy, access to cutting-edge technology, a strong partnership network and a rich range of guidance relating to funding, regulatory, IP, manufacturing and more, MaID will position Liverpool as the place where life sciences innovators thrive.

Contact: liverpool.ac.uk/microbiome-innovation-centre/contact/

INNOVATION ZONE PROJECT

Digitalised Dispensary in a Box (D-DiaB)

The D-DiaB programme will develop a pre-commercial prototype pharmaceutical Digitalised Dispensary in a Box.

Developed by Liverpool Science Park based MTC, the innovation is intended to allow clinicians, consultants and GPs to digitally raise prescriptions directly to D-DiaB.

The development will be used as an opportunity to develop capacities, resilience and opportunities in the manufacturing supply chain with a focus on local suppliers and talent. The scale of tablet variability of the prototype will ensure confidence in commercial scale-up to around 1,000 variants.

Contact: Adrian.Barrett@the-mtc.org

Sci-Tech Daresbury: a national science and innovation campus with big plans and tax site incentives

Innovation powerhouse Sci-Tech Daresbury is the North of England's only national science and innovation campus and home to the UK's most powerful supercomputer dedicated to industrial R&D.

Fifty health and life sciences companies are among more than 150 businesses clustered on the campus - ranging from SMEs to multinationals such as IBM, Hitachi, Croda and Lubrizol.

With the help of Innovation Zone funding and tax site status, Sci-Tech Daresbury plans to expand its 2,000-strong workforce to around 10,000 over the next 15-20 years.

The site hosts the internationally recognised Daresbury Laboratory offering world-class expertise in

accelerator technology, nuclear physics, high performance computing, big data analytics and AI. Run by the Science and Technology Facilities Council (STFC), part of UKRI, the laboratory's work has helped secure three Nobel Prizes.

Also on site, STFC's Hartree Centre gives businesses access to world-leading facilities and expertise in supercomputing, data science, AI and quantum computing. Its supercomputing and AI platforms help organisations identify and apply digital technologies to boost performance, reduce costs and enhance productivity. The Hartree Centre's strategic partnerships and funded R&D collaborations range from IBM and NVIDIA to Innovate UK and the UK Atomic Energy Authority, and it works across sectors including life sciences, engineering, materials and



healthcare. Located equidistant between Liverpool and Manchester and just 20 minutes' drive from two international airports, the campus is known for its high growth, innovation and collaboration. Three-quarters of companies collaborate with another organisation located on site, and sales increases average around 25% per year. Around 4 million employed people live within a one-hour commute of the campus, which has assisted companies to attract and retain talent. The number of businesses citing lack of talent as a growth impediment is less than half the UK average.

Sci-Tech Daresbury runs a 'Home for Life' strategy which enables technology companies to access fitted out incubation laboratory and office facilities on flexible terms - with the potential to scale to larger facilities, including their own building, without a need to relocate. Rental costs are typically low £20s to low £30s per sq ft - significantly less than typical rents in the Golden Triangle. Health Innovation NW Coast, part of the NHS, is headquartered on campus and supports the discovery, development and deployment of innovations and improvements in healthcare across Cheshire, Merseyside, Lancashire and South Cumbria.

Managed through a collaboration of STFC and Health Innovation NW Coast, the NW Healthtech cluster is also hosted on site and brings together 50 local, regional and national organisations supporting the sector. These include NIHR, MHRA, Innovate UK, Catapult Centres and key local Universities, NHS Trusts and the Liverpool School of Tropical Medicine.

Health and life sciences innovation on the site ranges from global leaders in validating healthcare apps to in-vitro fertilisation using robotic technology, developing bracelets that help diagnose ADHD and a groundbreaking device that prevents DVT and accelerates wound healing.



Sci-Tech Daresbury

About:

150+ businesses employing 2,000 people. Forecast to employ 10,000 in 15-20 years

Facilities:

Laboratories ranging from fitted incubator labs to Class 2 shell labs 93 sq m to 1,900 sq m (1,000 sq ft to 20,000 sq ft) - supported with Grade A office accommodation

Rents:

from low £20s to low £30s sq ft

Development plans:

Plans to deliver 70,000 sq m (750,000 sq ft) of laboratory and office developments

Innovation Zone Tax Site:

Benefits include 5-year business rates relief and National Insurance contribution holidays

Connectivity:

- Close to M56 and 20-minute drive from two airports serving more European business destinations than Heathrow
- Diverse, high-speed internet connection

Contact:

John Leake -
info@sci-techdaresbury.com



INNOVATION ZONE PROJECT

Violet Phase 2

Violet Phase 2 is a £24m speculative development at Sci-Tech Daresbury, which will deliver around 300 jobs and 7,500 sq m (80,000 sq ft) of innovation buildings to the Liverpool City Region Life Sciences Innovation Zone.

The development is based around two new three-storey buildings, to be known as V4 and V5, with work due to start in Spring 2024.

The £17.8m first phase completed in February 2022, supported by £8.4m cornerstone funding from the Combined Authority, and delivered 4,000 sq m (43,000 sq ft) of Grade A office and innovation space across three buildings, V1, V2 and V3, which are now nearly 90% occupied.

The first new building in the proposed scheme, V4, measures approximately 2,100 sq m (23,000 sq ft) and will expand the availability of Sci-Tech Daresbury's Grade A office accommodation with larger floor plates of up to 560 sq m (6,000 sq ft). V4 will be suitable for companies in sectors such as advanced

engineering, healthcare, digital technology, and sustainability. V5 is a 5,600 sq m (60,000 sq ft) dedicated CL2-enabled laboratory space along with areas to encourage collaboration and positive wellbeing, including an accessible roof terrace. Large floor plates of 465 sq m (5,000 sq ft) to 1,860 sq m (20,000 sq ft) will be available along with high ceilings, fume extraction and external door access - part of a package of outstanding specifications configured to provide best-in-class research space. V5 will be suitable for companies in life sciences, materials development, and instrumentation.

Both buildings have been designed to BREEAM Excellent standard with sustainable features throughout. These include solar photovoltaics and highly efficient air source heat pumps plus green roofs and a comprehensive planting scheme to maximize bio-diversity.

Violet is central to Sci-Tech Daresbury's strategy of expanding the range of high-quality facilities to provide a 'Home for Life' for companies.

Violet is central to Sci-Tech Daresbury's strategy of expanding the range of high quality facilities to provide a 'Home for Life' for companies.



INNOVATION ZONE PROJECT

Violet Phase 3

Violet Phase 3 is a planned 8,400 sq m (90,000 sq ft) development on remaining land in Sci-Tech Daresbury's Violet Zone.

With outline planning consent already granted, the development has been indicatively split across two buildings: a 6,500 sq m (70,000 sq ft) HQ facility (which could include laboratories) and a second 1,860 sq m (20,000 sq ft) Grade A office.

The land for Phase 3 is being enabled as part of Violet Phase 2 and will provide development plots in a high-profile location at the junction of the A56 Warrington road and the Daresbury Expressway.

The scale of the plot provides for a large, dedicated R&D HQ facility suitable for a major global life sciences or healthtech company. It would have the potential to accommodate a mix of high specification technical space comprising laboratories, pilot facilities or instrumentation workshops, or a combination of these, alongside Grade A office space.

The office building provides scalable Grade A office space beneficial for healthcare companies, or those in digital and advanced engineering technologies and services complementary to the life sciences and advanced manufacturing sectors.

Following completion of the Violet Zone developments, a new bridge is planned across the Bridgewater Canal connecting and unlocking around 30 acres of allocated Employment Land which would enable long-term expansion of the campus.

The development would allow Sci-Tech Daresbury's footprint to increase by 60% and would deliver up to a further 56,000 sq m (600,000 sq ft) of high-quality lab, technical and office space – helping attract an even greater number of international health and life sciences companies to the Liverpool City Region.

Maghull Health Park and the Mental Health Digital Research Centre

The 42-hectare Maghull Health Park is home to Europe's largest concentration of complex secure mental health services and sector leading clinical excellence for serious mental illness.

More than £250m has already been invested in the site just off the M58 motorway which is owned and operated by Mersey Care NHS Foundation Trust, one of the country's largest mental health and community providers. Mersey Care is recognised as a national leader in digital mental health innovation to create new, more effective models of care. Maghull Health Park currently employs around 1,800 people with a further 1,270 jobs expected under ambitious expansion plans set to start in April 2024.

Supported by Life Sciences Innovation Zone funding, Phase 1 will create a world class centre of excellence for digital mental health research, which will act as a gateway for investors and innovators to revolutionise the future of mental health care and speed up product development.

The Mental Health Digital Research Centre (MHDRC) will apply UK and world-leading capabilities, expertise and assets to improve mental healthcare as it seeks to address deep rooted inequalities, improving equity of access to better care and providing better outcomes for patients locally, nationally and internationally. The MHDRC will be built for sustainability, with immersive and interactive spaces, augmented reality labs, accommodation, and space for future expansion.



Mental Health Digital Research Centre
Design/visuals by Gilling Dod/ION developments



It will anchor the development of Phase 2, a new 10-hectare Science Park - providing up to 30,000 sq m (320,000 sq ft) of accommodation for a medical research, technology and data-based cluster. This will include organisations and businesses at the leading edge of digital and virtual reality technologies for treating mental illness. The existing workforce talent will be capitalised, while attracting world leading researchers, clinicians, digital expertise, support staff and supply chain roles.

A further 15 hectares of safeguarded land will support key worker housing and supported living.

Mersey Care recently formed a partnership with the University of Liverpool which has already driven £10.5m investment into the city. Existing collaborations include Microsoft, Holmusk, Concentrix, Quantexa and Social Finance.

Benefiting from Innovation Zone tax site status, the Science Park provides an opportunity for investment in state-of-the-art facilities while patients, service users, staff and the wider population benefit from research and innovation and the costs saved through better prevention and treatment of mental health conditions.

Maghull Health Park

About:

42-hectare single ownership site housing Europe's largest concentration of complex secure mental health services employing 1,800 people.

Investment:

£250m to date.

Development plans:

Phase 1 - Mental Health Digital Research Centre (MHDRC). Phase 2 - 10-hectare Science Park with up to 30,000 sq m (320,000 sq ft) accommodation for medical research, technology and data-based occupiers. Further plans to develop additional 15 hectares for key worker housing and supported living.

IZ benefits:

Designated tax site offering substantial financial benefits for new and expanding occupiers.

Activities:

Digital mental health research, innovation, training and manufacturing. Testing facility for secure products for both public, academic and private sector manufacturers, supported by NHS-accredited clinical teams.

Connectivity:

Close to junction 1, M58 and benefiting from £6m infrastructure investment. Two local train stations with 20-minute journey time to Liverpool city centre.

Digital Connectivity:

Linking LCR Connect – a new £30m ultrafast, full-fibre network.

Contact:

alison.walsh@merseycare.nhs.uk

Speke Pharma Cluster

Liverpool's southern gateway is home to one of Europe's largest bio-manufacturing and pharma clusters.

Chosen by the UK government in the 1940s as the site for the world's largest penicillin manufacturing plant, Speke has a long association with biomanufacturing and continues to attract tens of millions of pounds of investment from some of the world's top pharma companies, notably CSL Seqirus, AstraZeneca and Pharmaron.

CSL Seqirus' Speke vaccine manufacturing facility is the UK's largest producing more than 50 million doses of seasonal flu vaccine each year, with the ability to increase production to 200 million doses in the event of an influenza pandemic.

In 2022 the company entered into a £5m research partnership with the Liverpool-based Pandemic Institute

providing financial support, research materials and expertise towards the development of scientific and medical advancements in seasonal and pandemic influenza prevention.

The same year the city region was designated the UK's only High Potential Opportunity (HPO) for vaccine research, development and manufacture - recognising its status as the country's leading hub for vaccine innovation.

AstraZeneca's Speke facility supports flu vaccination programmes in the UK, USA and around the world and has the capability to research, develop, produce and distribute more than 20 million vaccine doses a year. The company has invested £35m in redesigning the site's egg-based influenza vaccine drug substance manufacturing facility. Well-connected to the UK and





Inside CSL Seqirus' Liverpool vaccine facility

world markets, the Speke-Garston corridor is also home to other advanced manufacturing, supply chain, logistics, large-scale chemical and food and drink companies, and has a long association with the automotive industry. Built by Ford Motor Company in the early 1960s, the Halewood car factory is now operated by luxury maker Jaguar Land Rover, with Ford retaining a large presence at its transmission plant.

With a strong local skills base and close links to the motorway network, rail freight infrastructure, air freight (via Liverpool and Manchester airports) and the UK's largest western facing port in Liverpool, the area is an attractive location for global advanced manufacturing companies and their supply chains.

More than 25 hectares of brownfield land has been designated for industrial usage in the Speke-Garston area, including sites within established industrial parks, close to ports and long

vacant plots prime for remediation. The area also offers the opportunity to repurpose vacant, old industrial stock. The total development opportunity is approximately 75,000 – 100,000 sq m of industrial premises.

Investing in Speke-Garston enables access to the city region's wider life sciences innovation ecosystem, with its world-class facilities and capabilities, its pool of talent and the area's other global innovation strengths in materials chemistry and AI solutions.

Other major manufacturing and supply chain companies located in Speke/Garston include: IAC, Magna, Nerudia, Chargepoint Technology, BAC, GEFCO, Adient, Cargill, Lloyds Banking, Gencoa, B&M, Very Group, Powder Systems, ABP Garston, Freight Liner, Becker Industrial Coatings, Biodeg Chemical Co, ACA, Automation, Aughton Instrumentation, Algeos, Wynne Aviation Services, Kays Medical, Yanco, Brainboxes.

Scientific work at
the Seqirus vaccine
factory in Speke



INNOVATION ZONE PROJECT

Neon at Earlsfield Park, Knowsley

Neon is a high-quality development set to be built next to the M57 at Earlsfield Park, Knowsley. Benefiting from planning permission and recently completed infrastructure, developer Marshall CDP plans to start construction of new commercial units in early 2024, with availability for sale or to let.

Phase 1 comprises five bespoke industrial, manufacturing and distribution units providing 18,350 sq m (197,500 sq ft) which will sit in a landscaped setting alongside a new 154-home residential development, with excellent ancillary support services for employees.

The well-connected 13-hectare site is in a prominent position, close to junction 2 of the M57, with easy access to nearby Knowsley Business Park and Kings Business Park.

£4m of Innovation Zone funding has already been assigned to Neon and occupiers could benefit from Liverpool City Region's Freeport status, subject to successful applications to become a Customs site operator - which could see businesses benefit from duty suspension, exemption, and inversion dependant on their business model.

Each unit will provide a highly specified detached warehouse on a secure self-contained site with accommodation ranging from 2,050 sq m (22,000 sq ft) to 6,800 sq m (73,000 sq ft), accessed via an internal spine road. All buildings will be constructed to net-zero specifications.

Phase 2 has the scope to provide an additional 9,900 sq m (106,500 sq ft) to support the Health and Life Sciences sector and meet specific end user requirements.



Neon highlights

Key info

- 13 hectares of employment land plus 13 hectares of green space
- £62m overall investment
- 650 new jobs plus 800 construction jobs
- £18.7m GVA to local economy

Contacts:

Invest Knowsley on 0151 477 4000 or email Invest@knowsley.gov.uk

B8 on 0151 675 5000 or email [Jon Thorne jon@b8re.com](mailto:Jon.Thorne@b8re.com)

Savills on 0161 236 8644 or email [Jonathan Atherton jatherton@savills.com](mailto:jatherton@savills.com)



A surgical training simulator created by St Helens company Inovus Medical

INNOVATION ZONE TAX SITE & PROJECT

St Helens Manufacturing and Innovation Campus: Huge plans at the home of glassmaking

St Helens has been at the centre of global glass making and innovation for nearly 200 years and through the new Glass Futures research facility is now leading the world in decarbonising energy intensive industries.

The Life Sciences Innovation Zone will support the development of a St Helens Manufacturing and Innovation Campus on the former United Glass and current NSG Pilkington UK Watson Street site. A mix of redevelopment, growth and land development projects, the location will see around £500m investment to expand its manufacturing and innovation capability, building on the area's existing cluster.

Supported by St Helens Borough Council, SINA Medical Glass, Inovus Medical, Glass Futures, NSG Pilkington and Network Space, the Campus will be one of three designated Innovation Zone tax sites offering financial benefits to businesses relocating and expanding in the area.

SINA Medical is redeveloping the former United Glass Warehouse into a modern medical glass manufacturing location while Glass Futures will expand its capability to support innovation in life sciences products with a new centre of excellence in medical glass. Meanwhile, Inovus Medical will continue to grow its surgical simulator business from its new headquarters in Glass Futures - transforming training for surgeons across the world.

As part of the Innovation Zone plans, St Helens Borough Council and Network Space will bring forward a life sciences development - Project Halo - on a 2.1 hectare (5 acre) site adjacent to town centre-based Glass Futures. It has the potential to employ more than 300 people in up to 7,900 sq m (85,000 sq ft) of life science laboratories, innovation, manufacturing and storage space.

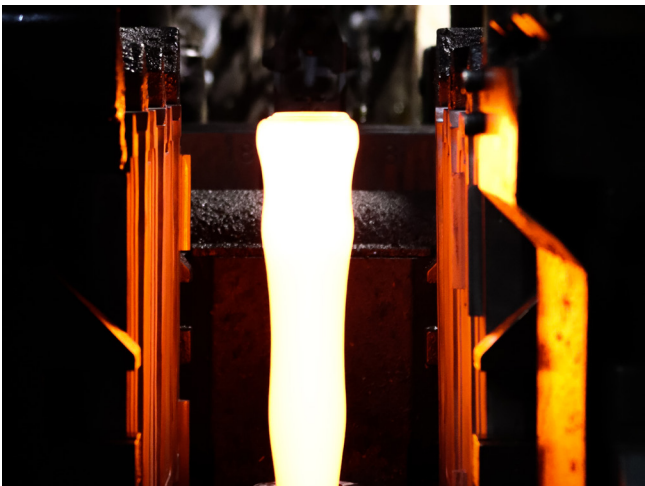
Development Manager Network Space is working closely with landowner, St Helens Borough Council, to submit

a planning application in 2024. The programme allows for planning to be secured by the end of March 2025 and a construction period starting in 2025/26. The site is aimed at attracting pre-let occupiers from April 2026.

St Helens Borough Council and NSG Pilkington will also bring forward a masterplan for the 12.5 hectare (31 acre) mixed use development of the Watson Street site, which is due to cease glass production in Spring 2024.

Next to the St Helens town centre regeneration area and close to the M62, the development has the scope to accommodate residential, research and development, commercial and light industrial uses. Initial master planning indicates that 413 new homes alongside 44,300 sq m (477,000 sq ft) of commercial and industrial floorspace could be accommodated. The masterplan is expected to be consulted on in late summer of 2024 and considered for approval by the council by the end of 2024.

The regeneration proposals provide an opportunity to celebrate the site's unique heritage while securing a vibrant future legacy by creating 1,000 new jobs and securing £400m GVA of additional economic value to the town.



A Glass Act

About St Helens Manufacturing and Innovation Campus:

Mixed-use development projects with a focus on medical glass innovation and life science.

About Project Halo:

2.1 hectare town centre site with up to 7,900 sq m (85,000 sq ft) of life science laboratories, innovation, manufacturing and storage space.

About Watson Street:

12.5 hectare site to include residential and 44,300 sq m (477,000 sq ft) of commercial and industrial floorspace.

IZ/Freeport benefits:

Project Halo and Watson Street are LCR Life Science Innovation Zone tax sites which qualify for five years of 100% business rate relief and 3 years employer NIC reliefs among other financial benefits. The area also offers customs benefits as part of the LCR Freeport to approved businesses who import and export.

Connectivity:

Close to the M62 motorway via the primary route network. Walking distance to rail and bus stations with regional and national links. Readily served by LCR Connect and with planned connectivity to the Hynet initiative.





LIFE SCIENCE INNOVATION SITE

Alder Hey Children's Hospital

Alder Hey is one of Europe's biggest and busiest children's healthcare providers and considered amongst the best in the world. The hospital in Liverpool looks after nearly 500,000 children and young people each year, treating everything from common illnesses to highly complex and specialist conditions.

Alder Hey has been an innovator in children's healthcare since day one – from antibiotics and specialised neonatal surgery in its original Victorian hospital, to a world-first artificial intelligence chat bot and 3D printing at the point of care in the hospital's state-of-the-art health campus.

The hospital's determination to push through barriers is born of a belief that 'better' is always possible. It is a restless and insistent force that still drives Alder Hey today, and is manifest at its Innovation Centre, the largest, dedicated, purpose built, hospital led innovation centre in the UK.

Alder Hey fuses unrivalled clinical understanding of unmet needs with an innovative culture and its Innovation Centre assets to move at speed from problems to cutting edge solutions that are deployed at the point of care after rigorous in-house testing.

The hospital collaborates with a thriving partnership ecosystem that includes large corporates, small to medium enterprises, investors, entrepreneurs, scientists, engineers and academia. Its award-winning partnerships are recognised by industry experts as excellent returns on investment due to the proximity and availability of clinical expertise, patients, and supporting infrastructure.

Through technology, creative thinking and an ecosystem of powerful partnerships, Alder Hey believes it can deliver a healthier, happier and fairer future for children and young people everywhere.

INNOVATION ZONE PROJECT

Today's Child, Tomorrow's Healthier Adult

Healthier children become healthy adults and in turn create healthy cities that are productive and economically prosperous.

Alder Hey focusses its innovation on improving the health of children and young people. By deploying paediatric healthcare solutions that target illness prevention, early intervention, and improving access to care, Alder Hey enables children to live better lives.

Its pioneering innovations include:

- Little Hearts at Home: A paediatric first, life enhancing, clinically validated remote monitoring platform. Connecting congenital heart patients in the community with their clinical teams. Reducing time in hospital and anxiety for families, through data driven personalised care.
- Improving access to mental health services: CYP As One is an online resource to help children, young people, parents and professionals

to make referrals more easily into partnership mental health services in Liverpool and Sefton.

- AI Hospital Optimisation Platform: Offering highly accurate predictive data and insights across a suite of tools, including Emergency Department demand prediction, length of stay prediction, and the probability of non-attendance to appointments.
- Precision medicine in Rheumatology: A treat-to-target (T2T) digital health care platform helps calculate the time for patients to reach progress towards their treatment target, highlighting when treatment needs to be changed and provide clinical decision support.

With its partners, Alder Hey deliver healthcare innovation solutions with impact, improving the health of children and young people, and creating jobs and skills for the region.



Health and Life Sciences Business Incubation Centre

The Health and Life Sciences Business Incubation Centre (Health BIC) will drive innovation and commercialisation of research.

Run by the UK's Science and Technology Facilities Council (STFC), the programme will provide a stimulus to the city region's health and life science entrepreneurs, researchers and clinicians to commercialise products and services by identifying the best opportunities and working with them to de-risk the early stages.

Spin-out or early-stage businesses, less than 5 years old, will receive a targeted package of support to validate their product or to deliver a minimum viable product and increase their investment potential. Businesses will receive grant funding against an agreed programme of work, innovation vouchers to spend with public sector bodies and bespoke 1-2-1 business support.

The Health BIC will:

- Drive innovation and commercialisation
- De-risk the translation journey from the region's knowledge base
- Improve investor readiness for early-stage businesses
- Support economic growth in the region
- Support collaboration between the research base and businesses
- Support the growth of the life sciences sector in the region

Health and Life Sciences Proof of Concept Fund

The Health and Life Sciences Proof of Concept Fund will stimulate collaboration and knowledge exchange between businesses, research centres, facilities and other organisations in the Innovation Zone.

Projects will be grant funded up to £45,000 each, to be matched by the lead organisation and project team with cash and/or in-kind contributions.

As well as stimulating business engagement and collaboration, the fund will:

- Facilitate industry access to the excellent people, national facilities and diverse capabilities at the Sci-Tech Daresbury campus and across the region
- Drive the development or demonstration of novel concepts, technologies or services
- Demonstrate the feasibility of new technologies or capabilities, or a new application of existing technology
- Support economic growth, helping high-potential businesses to progress new or novel ideas and secure follow-on-funding and investment.

Companies benefiting from the fund will participate in a showcase event at Sci-Tech Daresbury to promote and communicate the impacts of the projects and facilitate further networking and engagement within the NW HealthTec Cluster.



INNOVATION ZONE PROJECT

LYVA Labs

LYVA Labs was launched in 2022 to turn great ideas into high-growth businesses and quality jobs in the Liverpool City Region – by offering a range of investment, funding, and business support. Established with £10.7m of Combined Authority funding, it has already supported more than 200 SMEs and helped establish eight new companies. Innovation Zone funding will help LYVA Labs expand its investment, incubator, and accelerator activities.

LYVA Labs has invested £835,000 in seven innovative companies and supported 25 companies to secure a further £7m from both private investment and grants. It continues to grow and develop - setting up an Innovation R&D Consultancy Service and launching the region’s first Deep Tech Incubator, to extend investment activity into new sectors. It delivered one of the national Innovate UK-funded Biomedical Catalyst Accelerators focused on microbials. Programme partners included Bionow, CPI, Health Innovation NWC, iiCON and University of Liverpool and participants received support and mentoring to gain the skills, funding, and expertise to prepare them to scale their businesses. As part of Innovate UK’s Launchpad Programme, LYVA Labs established the Advanced Manufacturing Innovation Network to support regional innovation and collaboration. It now has over 400 members.

INNOVATION ZONE PROJECT

Digital Health Innovation Hub

Digital health technology has the potential to improve efficiency and patient outcomes and is a key part of the NHS Long Term Plan and UK Life Sciences Vision.

Funded through the Innovation Zone and run by CPI, in partnership with the Liverpool University Hospitals Trust, the Digital Health Innovation Hub will help innovators quickly turn great ideas into products that can be adopted within the NHS and healthcare systems.

Focusing on stroke and cardiology, it will drive innovation by digitally mirroring healthcare systems and patient pathways, while allowing innovators access to clinicians, health economists, innovation experts, academia and product development specialists.

The hub has the potential to position the Liverpool City Region at the centre of the UK’s drive to become a world leader in digital health by building on the strengths of the existing ecosystem, while providing affordable and accessible clinical and economic evidence for innovators in a field that lacks a standardised and regulated innovation pathway such as pharmaceuticals or medical devices.

A fertile ecosystem fuelling innovation

Liverpool City Region is home to great minds tackling global health challenges at world class assets - in a fertile ecosystem that delivers greater than the sum of its parts.

Underpinned by premier league collaborations, the city region's life sciences are driven by cohesive leadership, thriving networks, business support, skills programmes, world-class hospitals and leading clinical trials facilities.

It's also a brilliant, cost-effective place to live, work and invest.





Developing Skills and Talent to Enable Access to Opportunities

With the Life Sciences Innovation Zone expected to create 8,000 high quality jobs in the Liverpool City Region, the drive is on to ensure local people have the right skills and expertise to seize the opportunities.

That means providing tailored education and training to give all local people the chance to secure new roles, while ensuring growing businesses can tap into a diverse local talent pool to help drive success.

The Combined Authority's Access to Opportunities Plan sets out the local response to delivering the skills needed by the Innovation Zone and wider life sciences sector.

The first step will be to work with schools, colleges, universities and training providers to increase awareness of the high-quality jobs available and to inspire the life sciences workforce of the future. The plan also highlights the need to better retain graduates and harness their entrepreneurial spirit,

whilst attracting people back to the area to take up their second and third jobs.

Many of the key life sciences roles are already in high demand and include:

- Advanced Manufacturing Technicians
- Chemical Engineers
- Data Analysts and Data Scientists
- Health Care Technologists
- Laboratory Technicians
- Mechanical and Process Engineers
- Mental Health Nurses
- Product Engineers
- Quality Assurance Professionals
- Service Support Engineers
- Software Engineers
- Therapists

The Innovation Zone will also create a range of associated non-life sciences roles including digital marketing, finance, management and sales. These will be promoted through the award winning Be More portal and other initiatives to recruit local people and encourage equality, diversity and inclusion. The Access to Opportunities Plan also recommends ways to maximise social value.





INNOVATION ZONE PROJECT

Inspiring Young People, Developing Skills and Supporting Enterprise

KQ Liverpool drives inclusive innovation across the city region, with a particular focus on young people, raising aspirations and developing skills.

A strategic triple helix partnership that oversees the delivery of innovation services, cultural programmes and skills initiatives, KQ Liverpool is set to invest £1.26m over the next five years matched by Innovation Zone funding, to enable the scaling up and delivery of existing innovation, skills and outreach programmes. It will also bring forward new partnership programmes that will target underprivileged communities and address issues around digital barriers, social mobility and access to opportunities.

Delivered within the KQ Liverpool innovation district, the series of programmes will be part of a skills and innovation testbed that will benefit the whole city region, looking to improve outcomes for local communities by creating pathways into innovation. It will also support the creation of new traineeships. The KQ Liverpool skills and outreach work will focus on work readiness, behaviours and soft skills and connect the curriculum to local initiatives and employers.

INNOVATION ZONE PROJECT

Inovus Skills

Founded in 2012 by surgeon Elliot Street and engineer Jordan Van Flute, Inovus Medical is an innovation success story built on creating accessible and affordable simulators for surgical training.

Headquartered in the St Helens Manufacturing and Innovation Campus and with a new US HQ in Florida, Inovus employs around 50 people with a further 50 interns and exports its technology to more than 80 countries – helping solve a global surgeon shortage and ultimately saving lives. The award-winning company has a strong track record of training local apprentices so it's fitting that Inovus is leading an Innovation Zone project to develop the practical and technical skills (applicable skills) required on 'day one of employment' by innovative businesses in the city region's expanding life sciences sector.

Inovus will help develop young people's applicable skills through a novel embedded skills programme that leverages the existing talent and technology within the city region's life sciences businesses. The programme will allow businesses to set the agenda for the skills they require such as laboratory operations, design, creative, digital and manufacturing. Ultimately, the goal is to develop a network of 'host businesses' across the city region - increasing access to the programme and expanding the talent base.

A Pool of Talent

The Liverpool City Region is a powerhouse of health and life sciences teaching, research and innovation. With more than 64,000 higher education students including 26,000 enrolled on courses linked to health and life sciences, the city region has the talent pool and world-class academic resources to enable businesses to scale and grow.

It's also home to the UK's first Life Sciences University Technical College (UTC) for 14-19-year-olds, working closely with local employers including CSL Seqirus and Unilever, and offering industry standard laboratories and equipment to create the next generation of scientists, healthcare practitioners, engineers and entrepreneurs.

The University of Liverpool

alone provides one of the largest concentrations of health and life sciences expertise in the UK and is the only Russell Group University to offer the full range of Clinical Medicine, Health Sciences, Dentistry, Veterinary Science, Life Sciences, and Psychology.

Its Faculty of Health and Life Sciences employs more than 2,300 people and is responsible for over 6,000 undergraduates and 1,800 postgraduates (research and taught) each year. Through partnerships with NHS Trusts, the University has trained 80% of GPs in the Liverpool City Region.

With 91% of its health and life sciences research ranked world-leading and internationally excellent, the University excels in biomedical sciences, whole organismal biology, molecular genetics,



infection and microbiology, structural biology, biological chemistry, ecology and evolution.

The University welcomes collaboration with investors looking to utilise research expertise and recruit from the pool of highly skilled graduates and postgraduates.

Liverpool John Moores University (LJMU)

has more than 10,000 undergraduate and postgraduate students in its faculties of health and sciences, supported by more than 700 staff.

LJMU delivers a range of health and life sciences programmes, from nursing and allied health to biological and chemical sciences. It also collaborates with health and life sciences partners across the world including four research institutes, seven research centres and 29 research groups and exchanges.

Liverpool School of Tropical Medicine

attracts around 300 students from 68 countries annually - delivering programmes ranging from PhD research to professional courses.

LSTM's research is ranked second in the UK for overall impact and includes studies into infectious diseases such as malaria, tuberculosis, neglected tropical diseases and HIV/AIDS. It works with health ministries, universities and research institutions worldwide to train the next generation of doctors, scientists, researchers and health professionals.

With more than 5,000 students, **Liverpool Hope University** offers health and life sciences courses ranging from health and social care to human biology and nutrition.

The City of Liverpool College's

health and social care department delivers real-world skills training and industry knowledge.



As an engaged civic university, rooted in place, the University of Liverpool is pivotal in developing local and regional capital which supports the strategic ambitions of the Liverpool City Region. We are committed to creating ambitious plans that will deliver growth in investment, jobs and innovation.

We strive to support our communities in addressing inequalities and improving life chances by working with employers to identify and address skills gaps in the region's workforce and developing the next generation of talent through our innovative, impactful and effective initiatives.

We will work with the Combined Authority to facilitate a step change in investment, collaboration and delivery of life science and health innovation - focussed on infectious disease, mental health, data and materials science - resulting in excellent and impactful research and highly productive businesses supporting the NHS to improve health outcomes across the city region, the UK and globally.

Professor Tim Jones

Vice Chancellor of the University of Liverpool



Home to the UK's highest number of specialist hospitals and health centres, outside of London

The Liverpool City Region is home to the highest number of specialist hospitals and health centres in the UK, outside of London - with a strong focus on innovation, collaboration and working with industry and investors.

It has four internationally recognised 'Global Digital Exemplar' NHS providers and benefits from nationally significant centres of excellence in children's health, cardiology, oncology, neurology and women's health. The varied network of specialist hospitals ensures a diverse and highly skilled clinical workforce.

The Clatterbridge Cancer Centre has three locations in Wirral, Aintree and Knowledge Quarter Liverpool. The **Clatterbridge Cancer Centre - Liverpool** delivers highly-specialist cancer care including pioneering chemotherapy, immunotherapy, gene therapy, haemato-oncology and radiotherapy. Opened in 2020, its city centre location is a specialist 11-storey hospital with 110-inpatient beds.

With a strong history of research and innovation, **Liverpool Women's Hospital** delivers more than 7,500 babies each year, performs 50,000 gynaecological inpatient and outpatient procedures, cares for more than 1,000 poorly and premature newborns and carries out around 1,000 IVF cycles.

Mersey Care offers specialist inpatient and community services that support physical and mental health. It also provides learning disability, addiction and brain injury services. Mersey Care is one of only three UK trusts with high security mental health facilities.

Alder Hey Children's Hospital provides a wide range of paediatric services, including surgery, cardiology, oncology, for children and adolescents and has the largest, purpose built, hospital-led innovation centre in the UK.

Walton Centre for Neurology and Neurosurgery is a renowned centre specialising in the diagnosis and treatment of disorders affecting the brain, spinal cord, and peripheral nerves.

Liverpool Heart and Chest Hospital focuses on heart and lung conditions, providing care in cardiology, cardiothoracic surgery, and respiratory medicine. It shares its site with **Broadgreen Hospital**, a surgical diagnostic and treatment centre.

The specialist hospitals are supported by the **Royal Liverpool University Hospital** which offers a comprehensive range of medical services and plays a significant role in medical research and education.

Aintree University Hospital provides a range of services, including general and specialist medical care, surgery, and emergency care. It is known for its expertise in trauma and orthopaedic services and is a major centre for cancer treatment.

Other major hospitals are located in **Whiston, Wirral, Southport, Ormskirk, St Helens and Halton.**



Major research into ovarian cancer is taking place at Clatterbridge Cancer Centre, thanks to a ground-breaking partnership with Nashville-based, Pierian Biosciences.

The company opened its first permanent UK laboratory at Liverpool Science Park in October 2022 and has since expanded its presence.

“This strategic alliance between Pierian and The Clatterbridge Cancer Centre signifies a significant step forward in the quest to provide personalised medical solutions for patients facing cancer and auto-immune diseases. The combined expertise and resources of both organisations are poised to drive innovation and contribute to improving the lives of countless individuals.”

Robert E Henry
Pierian president and chief executive



The new Royal Liverpool University Hospital



A leading centre for clinical trials

The Liverpool City Region has an outstanding track record for all stages of clinical trials and is a premier centre for early phase studies of new medicines, vaccines and diagnostics.

Two adult clinical trial units are located in the city region along with the MRC North West Hub for Trials Methodology Research. The Liverpool School of Tropical Medicine (LSTM) also hosts a dedicated tropical clinical trials unit and a clinical trials facility in Malawi, in partnership with the University of Liverpool, the Wellcome Trust and Malawi College of Medicine.

The NIHR Liverpool Clinical Research Facility (CRF) was the first NHS facility in England to be granted Medicines and Healthcare Products Regulatory Agency (MHRA) standard and supplementary Phase I Accreditation, within a state-of-the-art Clinical Phase 1 unit based in the Royal Liverpool University Hospital. Smaller units are located at Clatterbridge Cancer Centre and Liverpool Heart and Chest Hospital. It manages the Trust's database of

more than 7,000 volunteers and enables clinical trials with some of the most rigorous standards in the world. Since 2009, more than 100 early phase clinical trials have been conducted recruiting local patients and volunteers. The CRF works closely with pharma and biotech businesses achieving more than £20m in collaborative funding to advance clinical development of therapeutics.

Through the £13m AGILE platform, ground-breaking early-phase clinical trials have been performed for experimental COVID-19 therapies. Liverpool also leads the Unitaid-funded platform DoPHIN delivering large-scale clinical trials of HIV treatment.

The city region's specialist NHS hospital trusts work alongside industry to lead major pan-European studies, while the presence of global leaders such as LSTM provide opportunities to access patient populations across Africa, Asia and South America.





Life sciences networks

With a strong sense of community and a firm belief that people work better together, networking is a way of life in the Liverpool City Region's health and life sciences sector.

Talent and businesses from around the world are brought together in collaborative networks and shared spaces to create a special alchemy.

In addition, a new Liverpool City Region Health and Life Sciences Cluster Board was established in early 2024 to help to drive the sector forward, supported by focus groups to address issues affecting performance and competitiveness.

The board, which includes business leaders, academics and healthcare experts, reports to the city region Business and Enterprise Board – along with cluster boards representing Advanced Manufacturing and Digital and Creative Industries.

The city region's life sciences networks include:

- Bionow: supports business growth, innovation and competitiveness within the biomedical and life sciences sectors across Northern England.
- Liverpool Health Partners: a thriving network of universities and NHS organisations working together to develop ground-breaking research.
- MedilinkNW: a membership-based professional organisation with a remit to stimulate growth and innovation in the medical and health technology sector across the North West.
- HealthTec Cluster: a health technology community dedicated to increasing intra and cross sector connectivity.
- eHealth Cluster: Liverpool City Region is home to the UK's only SME-led eHealth Cluster. The cluster drives innovation by working across organisations in the public, private and third sectors, engaging with and supporting both technology SMEs and the long-term care sector.

The National Institute for Health & Care Research, Clinical Research Network, North West Coast helps to ensure health and social care research is delivered in an effective way - allowing new medicines, treatments and care to be developed.

Premier league collaborations delivering world-class goals

World-leading scientists, assets, industry and clusters are the bedrock of innovation excellence, but alone they do not guarantee success.

For that, the ecosystem must be right, so that inter-connected strengths can be bound together, great ideas can be nurtured, and innovation can move at pace.

The Liverpool City Region has been perfecting the art of innovation and knows exactly what is required. It is large enough to have the critical mass but compact enough to get things done at speed - with abundant networks and visionary leadership helping oil the wheels.

Premier league industry and academic partnerships have been forged that underpin the city region's life sciences innovation - with two UK-leading science and innovation campuses complementing each other perfectly and both offering investment and expansion potential.

Led by Liverpool School of Tropical Medicine, iiCON collaborates with more than 800 companies worldwide and in three years has delivered 5 billion units of life-saving products. Based at Knowledge Quarter Liverpool, the consortium has become the centre of an emerging infection supercluster.

Nearby, the Materials Innovation Factory (MIF) is the result of a unique partnership between the University of Liverpool and Unilever. Opened in 2017 with the help of a £33m Government grant, the £81m facility in Knowledge Quarter Liverpool is a world-leader in the computer and robotics-assisted discovery and design of materials and provides open access to cutting edge technology and world-class expertise, driving the next generation of discoveries.

MIF is the culmination of a unique 'Liverpool model' of industry-academia partnership based on 'open by design' access. Perfected over two decades, the model is supported by state-of-



the-art computing and professional management and business engagement services. MIF also has close partnerships with industry giants Johnson-Matthey, BASF, and Croda.

In June 2021, the £210m Hartree National Centre for Digital Innovation was announced on the back of £172m investment from UKRI, matched by £38m from IBM. The partnership works across sectors, including life sciences, and in addition to creating the only IBM discovery accelerator outside the USA, the move consolidated Sci-Tech Daresbury as a permanent IBM global research lab. Three quarters of companies at Sci-Tech Daresbury collaborate with another organisation located on site.

The Liverpool City Region's ambition for a future founded on innovation has been driven by its Mayor, supported by expert guidance from the UK's first regional Innovation Board. Established in 2013 and chaired by Homecare R&D Head of Clean Future Science & Technology, Unilever Dr Jonathan Hague, it brings together leading industry, academic and public sector figures to realise the city region's 5% R&D target by 2030, focusing on commercialisation, cluster development and development of skills and talent.

“The Liverpool City Region is a dynamic hub for innovation and collaboration and is a compelling place to start and build a life science company. The world-class research facilities and skilled talent pool, make it an ideal foundation to seed and grow or land and expand.”

Dr. Elliot Street

CEO, Inovus Medical, which has grown in the city region and now exports surgical training simulators to more than 80 countries.

Health Innovation North West Coast

Health Innovation North West Coast works with SMEs, clinicians and entrepreneurs in the Liverpool City Region to discover, develop and deploy innovations into the NHS.

Based at Sci-Tech Daresbury, it has a 10-year track record of helping deliver ideas, services, products and processes that improve health and quality of care and lower NHS costs.

Health Innovation NWC has supported 65 SMEs in Merseyside, Cheshire, Lancashire and South Cumbria, including 18 new business start-ups, with these companies securing nearly £75.6m of inward investment and providing employment to 338 people.

It offers a range of support including value proposition development; market intelligence and access; securing investment, funding and grant opportunities; and real-world validation of the innovation.

Successful Liverpool City Region businesses to have benefited from Health Innovation NWC's expertise include Inovus Medical, Blum Health and Pro-Lab Diagnostics.



A world famous city region

From world famous culture and sport to architectural gems and stunning natural scenery, Liverpool City Region is a place where people love to live, work, visit and invest.

The world's seventh best city according to Time Out, Liverpool is a vibrant, welcoming UNESCO City of Music, famed for its nightlife, sport, humour and, of course, The Beatles. It's home to two cathedrals, great public parks, museums, galleries and theatres, two Premier League football teams, the Grand National, Liverpool Philharmonic Orchestra, Europe's oldest Chinese community and one of the world's most recognisable waterfronts.

It's a European Capital of Culture and in 2023 redefined Eurovision - hosting the most successful song contest in its history. And a thriving grassroots arts scene is putting the cool into Liverpool City Region. Miles of beaches, dunes and world famous golf courses adorn its stunning coast which is a powerhouse for renewable energy. However, its greatest asset is its 1.6m people and their passion, character, warmth, ideas and creativity. But the Liverpool City Region is not resting on its laurels.

The River Mersey has defined the city region and its industries for centuries and plans are now being drawn up for the world's largest tidal power scheme to harness its abundant, predictable energy.

Mersey Tidal Power has the potential to generate enough clean energy to power up to 1 million homes for 120 years – and support thousands of green jobs and training opportunities in its construction.

A new £500m publicly owned train fleet, new publicly owned hydrogen buses and LCR Connect, a new 214 km full-fibre gigabit enabled network, are powering the Liverpool City Region into the future. More than £70m has been invested in active travel infrastructure and a brand new ferry will soon 'Cross the Mersey'.

If that's not enough, a wide range of business support funds and programmes are helping drive innovation and economic growth. And, incredibly, compared to many other major UK cities, it's a low cost place to locate and invest. Prime commercial office space in Liverpool is 40% less expensive than Manchester.

Thinking of investing? Speak to our experts

From helping to access finance and premises, to facilitating introductions and business support, Invest Liverpool City Region is available to guide businesses every step of the way through the sometimes-daunting task of relocating.

Its Inward Investment Service, part of the Growth Platform – Liverpool City Region Growth Company, offers a range of support including a dedicated account management service tailored to meet the individual needs of businesses and entrepreneurs.

That’s assuming your business has already made the right decision to invest in the Liverpool City Region. And why wouldn’t it? With world-class life sciences innovation, one of Europe’s largest pharma clusters, Innovation Zone and Freeport incentives, top Universities and Hospitals, a fertile innovation ecosystem and world-famous culture, sport and natural scenery, Liverpool City Region is a great place to live, work and invest.

The Inward Investment Service offers the following:

- Bespoke research intelligence.
- Advice on availability and costs of commercial property, land, lab space and soft-landing schemes.
- Guidance on financial incentives and business support organisations.
- Introductions to business networks, professional business services, ecosystem and universities.
- Facilitate introductions to hospital trusts, clinicians and leading Health and Life Sciences academics.
- Assistance on staff recruitment and training.
- Organising and hosting briefing visits

for key staff, including foreign delegations.

- Connections to research and technology expertise.
- Maximising PR.
- A dedicated aftercare account manager to support a business.

Key Contacts

Victoria Hincks, Internationalisation Manager for Health & Life Sciences.

Victoria works to attract inward investment and develop international partnerships providing advice on property, land, office and lab space.

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Matt Biagetti, Cluster Manager for Health & Life Sciences.

Matt supports the development of the Health & Life Sciences cluster, working with local businesses and key partners to accelerate the growth of the city region economy.

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We have a team of business location experts and life sciences experts from across Liverpool City Region that can assist you with your next project.

We can provide detailed research on markets, sectors and workforce demographics. We can put you in touch with the right contacts at industry networks and partner organisations. We're happy to introduce you to potential partners at our world-class universities and our existing businesses. We can help you to identify all the available support to help your expansion and show you a wider range of sites, premises and development opportunities.

SPEAK TO AN EXPERT

For further information and support contact:

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