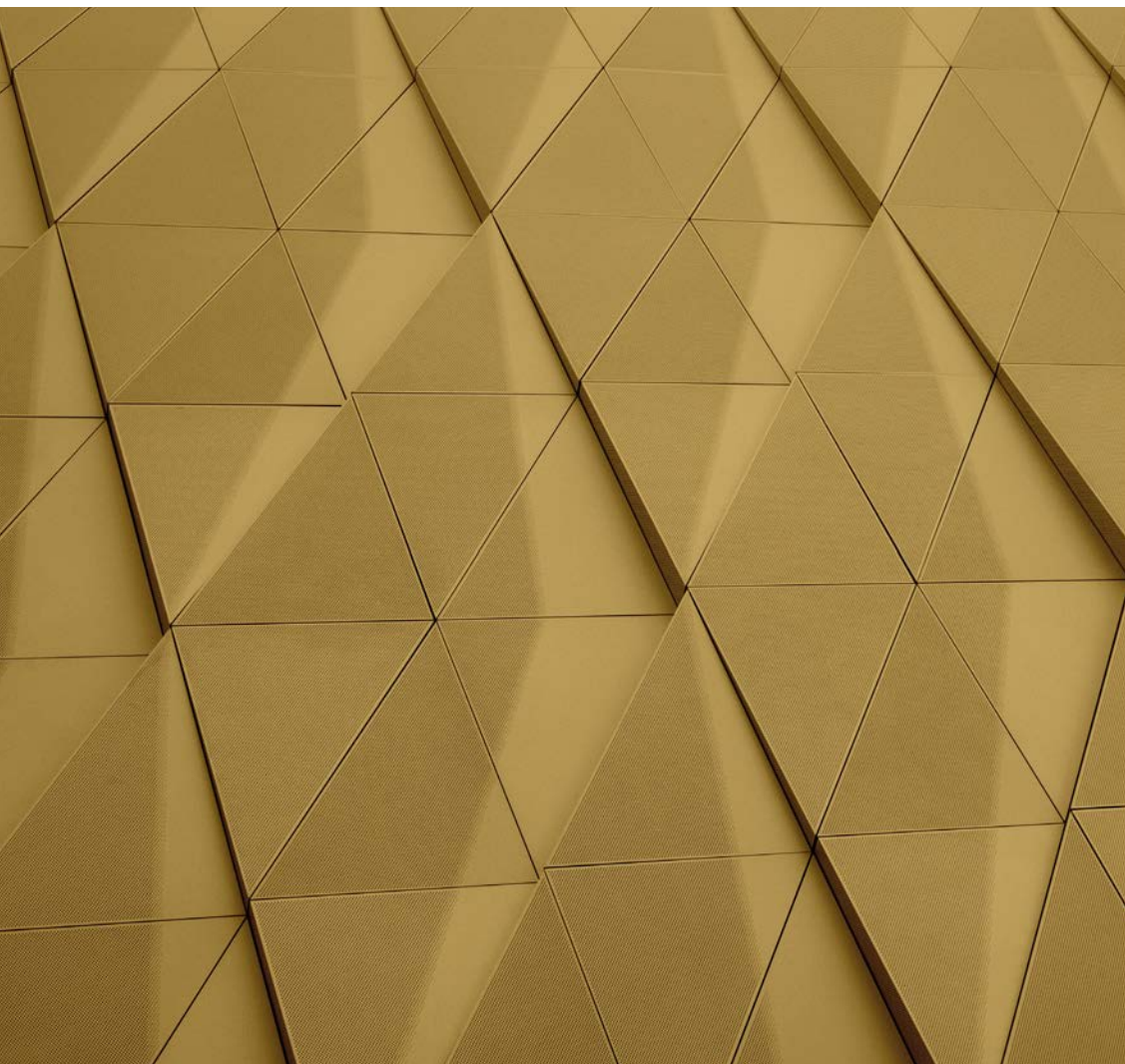


HealthTec
Cluster

CONNECTING CAPABILITIES



The North West HealthTec Cluster

Connecting Capabilities

A community dedicated to increasing intra & cross-sector connectivity, to support cutting edge research & development, commercialisation and global growth of health technology solutions

Why?

To empower citizen health and wellbeing

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“ Nothing is more important than our health, so it makes sense that this should be the focus of our ingenuity, our enterprise and most importantly our imagination. Looking around us today the changes and advancements are driven by technology, and it is in technology that the greatest potential for improving our health lies. It is therefore hugely frustrating to see the many outdated pieces of technology we use day to day in the NHS, when the potential is so much more.

Healthcare is a difficult environment to push technological change, which is why we need to work harder and create initiatives like this to break through and harness the mind blowing capabilities of modern technology. From non-invasive sensors, to artificial intelligence, nano materials and beyond. I look forward to seeing what the minds that this programme attracts can achieve for the future health of the United Kingdom.

Iain Hennessey

Clinical Director of Innovation,
Alder Hey Children’s Hospital



Foreword

Few industrial sectors rely on collaboration to the extent of health technology. We are an engineering based industry, addressing challenges identified in clinical settings, and delivering solutions that improve people's lives.

Often those solutions require a sea change in how to develop, assess and deploy new generations of technology. Sixty years ago that could have been the use of electrical stimulation, today it might be new diagnostic, robotic or digital applications. A collaborative approach to overcoming these challenges provides a significant opportunity to improve the health and wealth of our country.

The proximity of our research capability to the largest single payer health system in the world is the one truly unique advantage the UK has over its global competitors.

The reach into the local NHS provided by the Innovation Agency is particularly important in that regard. I am delighted to support the launch of the HealthTec cluster here in Daresbury, and the extended opportunity it provides for our sector alongside its sister facility at Harwell.



Peter Ellingworth

Chief Executive Officer,
Association of British
HealthTech Industries (ABHI)

What is the North West HealthTec Cluster

Clusters work to grow an innovation ecosystem around a sectoral critical mass. They utilise a strong anchor within a locality, to support the amalgamation of entities and to then maximise collaborative engagement both in & across sectors.

This environment promotes connection and collaboration - enabling those in the cluster to operate more flexibly and productively.

To date the National Science and Innovation Campuses at Harwell [PG 15] & Sci-Tech Daresbury [PG 13] host several sector clusters working with stakeholders locally, regionally and nationally to enhance connectivity.

The North West HealthTec was launched in May 2019, through a founding partnership between the Science and Technology Facilities Council (STFC) and the North West Coast Academic Health Science Network (AHSN) - The Innovation Agency.

This strong partnership provides the key resources to administer the cluster, which now includes ~50 local, regional and national stakeholders, working with key innovation hubs across the region (and beyond) to serve the innovation agenda. Clusters are a key ingredient to the wider ecosystem development.

“ Clusters create a fertile environment for the commercialisation of innovative ideas through easy access to collaborators and cutting edge technologies.

At Daresbury's sister campus, Harwell in Oxfordshire, our Space, HealthTec and EnergyTec clusters have been instrumental to driving innovation and growth within the sectors they represent but also in fostering a multidisciplinary ethos across sectors. By Virtue of the clusters strong stakeholder community we are seeing this same ethos with the HealthTec cluster in the North West of England, and the future cluster developments which is supporting a future connecting place agenda

Dr Barbara Ghinelli

Cluster Development Director,
Science and Technology
Facilities Council



Carlisle

Newcastle

Durham

Teesside

Barrow-in-Furness

Lancaster

Preston

Liverpool

Daresbury

Chester

Wrexham

Burnley

Bradford

York

Hull

Leeds

Huddersfield

Manchester

Sheffield

Wilmslow

Macclesfield

Harwell

This highlights some of the key areas in the North of England where the cluster and stakeholders interact.

Health & Life Sciences in the North West

The UK is globally recognised as a leader in health & Life Science research and innovation. This sector encompasses a number of disciplines from medical technologies and digital applications, to pharmaceuticals and biomedical technologies.

In the North of England there are over 28 universities fueling research, education and skills development and >1200 life science companies employing more than 50,000 people*.

The HealthTec cluster provides an opportunity to bring together the collective capabilities between local, regional and national organisations that are empowering the sector and work with the innovation hubs that are home to expertise from across industry, academia, public sector, investor networks and entrepreneurs together to share ideas and collaborate to stimulate innovation and tackle global challenges.

The HealthTec Cluster spans the North West of England which incorporates, Cumbria, Cheshire and Warrington, Greater Manchester, Lancashire and Liverpool City Region. These regions come together to share knowledge and facilities specifically designed to develop health and Life Science businesses and to transform healthcare.

*Northern figures were provided by Bionow, April 2019.

North West Landscape

The North West is comprised of 5 regions; Cheshire and Warrington, Cumbria, Greater Manchester, Lancashire and Liverpool. Below you'll see more information on some of the sub-regional bodies involved in the cluster stakeholder group.

Cheshire and Warrington and Greater Manchester



Cheshire and Warrington has a well-developed health tech ecosystem offering research partnerships, internationally significant research facilities and is home to the UK's largest bioscience campus. (Pg. 34)



As the only city region in the country with control of its combined health and social care budgets, Greater Manchester is able to take a system-wide view of the region's most pressing health needs. (Pg. 39)



Lancashire and Liverpool City Region



Lancashire
Enterprise Partnership

Lancashire Enterprise Partnership works closely with the three Universities in Lancashire which form the core of the health Innovation eco-system alongside the Academic Health Science Network and local health Trusts. (Pg. 42)



Liverpool City Region
Local Enterprise Partnership

Health and Life Sciences is a key sector for Liverpool City Region, with the LEP, Local Authorities, the Combined Authority, companies, NHS and universities making significant investments and supporting wider developments over recent years. (Pg. 43)



The HealthTec Cluster Stakeholder Community- Innovation hubs and campuses across the North West

The North West of England is home to a vibrant and growing community of Health and Life Science Organisations, National Assets, infrastructure and communities.

There are a number of focal hubs (including campuses) across this diverse geography which are helping to fuel new R&D, collaborations and economic growth. Some are situated within bustling city centres, others in dedicated campuses. Here we discuss a number of these hubs which are key regional assets and stakeholders within the cluster initiative, including the host of the regional cluster - The National Science and Innovation Campus at Sci-Tech Daresbury.

Alderley Park *Cheshire*

Set in 400 acres of Cheshire countryside, Alderley Park's Mereside campus offers exceptional office and lab space, dedicated business support from the Alderley Park Accelerator, and a range of specialised scientific services. Glasshouse at Alderley Park provides 150,000 sq ft of contemporary office space and is ideal for tech, life science and forward-thinking businesses looking to collaborate and grow together.

Home to over 200 companies including world leading organisations such as Cancer Research UK Manchester Institute and the Medicines Discovery Catapult, Alderley Park is the ideal place to support pioneering innovation.

alderleypark.co.uk



Citylabs *Manchester*

Bruntwood SciTech's Citylabs campus is home to a cluster of diagnostics, medtech, digital health and genomics businesses driving the future of healthcare. Located on Oxford Road within the Manchester University NHS Foundation Trust campus, Citylabs offers the perfect location for companies looking to grow and scale, with direct access to the NHS and over 20,000 STEM graduates each year. The campus is home to globally recognised life science companies such as Qiagen and Takagi.

bruntwood.co.uk/our-locations/manchester/citylabs/

Health Innovation Campus – Lancaster University

Lancaster's Health Innovation Campus (HIC) brings together cross-sector, multi-disciplinary partners to create an innovation eco-system. It takes a place-based, solution-led approach - with an emphasis on co-design and co-production - and acts as a catalyst to address significant health and social inequalities, providing sustainable solutions and aiming to maximise impact at scale.

The £41m, 8,000m² Phase 1 of the HIC known as HI1 officially opened in Summer 2020, co-locating our Faculty of Health and Medicine alongside business and collaboration facilities. The aligned business innovation programme has supported over 150 SMEs to date and forms a suite of regional collaboration programmes at Lancaster. Independent evaluation of these has projected economic impacts of £18-28 per £1 of public investment.

Our close relationship with the NHS led to the installation of the city's first COVID-19 vaccination clinic in HI1, which had delivered c35k jabs to the local population within four months of opening.

bruntwood.co.uk/our-locations/manchester/citylabs/



Knowledge Quarter *Liverpool*

Knowledge Quarter Liverpool (KQ Liverpool), a 450-acre urban innovation district, is home to some of the world's most influential players in science, health, technology, education, and the creative and performing arts.

It is a strategic partnership with University of Liverpool, Liverpool John Moores University, Liverpool City Council, Liverpool School of Tropical Medicine, Liverpool University Hospital NHS Foundation Trust and Bruntwood SciTech (a joint venture between Bruntwood and Legal and General).

With over £1bn of new developments underway – and a further £1bn in the pipeline – we are bringing forward new development opportunities, successfully attracting new investment, increasing employment, improving graduate attraction & retention rates and strengthening the Liverpool City Regions position as a key player in the Northern Powerhouse.

www.kqliverpool.co.uk

Manchester Science Park *Manchester*

One of the UK's most established life sciences and tech communities, Manchester Science Park offers office space, lab space and specialist 1:1 business support in the heart of the largest clinical, academic campus in Europe. The Park is home to an innovation community of some of the region's most disruptive, fast-growing science and tech businesses including Zilico, NorthWest EHealth and Lumira Dx.

bruntwood.co.uk/our-locations/manchester/manchester-science-park/



Sci-Tech Daresbury

The National Science and Innovation Campus of Sci-Tech Daresbury is a world-class science and technology campus in the heart of the North West. Through the co-location of more than 50 years' heritage in world-changing science with high-tech, ambitious and fast growing businesses, Sci-Tech Daresbury is a dynamic and economically transformative campus.

A public - private joint venture between UKRI-STFC, Halton Borough Council and Langtree Property Partners Ltd, Sci-Tech Daresbury is a base for nearly 150 innovative and collaborative technology companies from start-ups to large corporates such as IBM and Hitachi, across sectors including biomedical and healthcare and digital/ICT. These businesses benefit from a highly collaborative environment where contacts, advice and technology ideas are shared.



Research and innovation assets include:

- The Hartree Centre, supporting UK industry in the effective adoption of advanced digital technologies
- The Virtual Engineering Centre, a leading centre for the exploitation of innovative digital engineering solutions
- The Cockcroft Institute, a national centre of excellence in particle accelerator science
- SuperSTEM, one of the world's most powerful scanning transmission electron microscope facilities
- Daresbury Laboratory has pushed the boundaries of science since the first day. It opened in 1962. Over 50 years on, it is internationally recognised for world leading scientific excellence in a diverse variety of fields, from nuclear physics to supercomputing
- Proudly hosting the regional North West HealthTec Cluster, Sci-Tech Daresbury has itself nearly 50 organisations on-site with operations/activity in the health and Life science sector supporting new research and innovation

[sci-techdaresbury.com](https://www.sci-techdaresbury.com)



A Unique Cluster Opportunity: Connecting capabilities across regions & sectors

Through the unique ability for active collaboration between the clusters hosted by the National Science and Innovation Campuses in the North West by Sci-Tech Daresbury and in Oxfordshire hosted by Harwell, we are already generating new collaborations that would not otherwise have come about.

Multidisciplinary connectivity has been further stimulated through Cross-Cluster Industrial Engagement Proof of Concept funding. This has benefited over 75 organisations to date, resulting in new collaborations, enabling rapid innovation and development.

Working with partners, these unique cross-cluster initiatives could provide a framework to support a connected place agenda.

“ The HealthTec Clusters are an incredibly exciting opportunity for the UK. They aim to drive innovation by bringing together the business and research communities, along with access to a unique suite of major scientific facilities. Our clusters are born out of a deep knowledge of the UK economy and what is driving productivity and growth, and we align our own strategy with these.

Professor Mark Thomson

Executive Chair, Science and
Technology Facilities Council

Harwell Campus

Harwell Campus is built around world leading facilities and capabilities. Located on a 710 acre campus, Harwell is home to over 200 commercial, research and public sector organisations employing over 5,500 skilled people. Activities at Harwell range across many different sectors and disciplines, reflecting the use of the large facilities at its core. Research and innovation assets include:

- The Diamond Light Source
- Central Laser Facility
- Neutron Spallation Source (ISIS)
- Rosalind Franklin Institute
- RAL Space

To encourage collaboration and knowledge exchange, clusters have been formed in Space, HealthTec and EnergyTec, these enable the cross-over of multi-disciplinary innovation.

The clusters focus on building relationships between stakeholders and across disciplines, raising the profiles of campus organisations and encouraging exports and inward investment.

harwellcampus.com



The HealthTec Cluster Stakeholder Community - Universities & Institutes

The HealthTec Cluster is made up of a number of organisations that support researchers and innovations businesses working in the Health and Life science Sector through complimentary capabilities and knowledge. These include research intensive institutions and universities throughout North West (and beyond), many involved in the HealthTec Cluster Stakeholder community. Here we provide more information on a number of these entities.

Universities

As highlighted above, there are 13 universities in the North West of England, which from training the next generation of health professionals to developing cutting edge technology are shaping the very fabric of the Health and Life Science sector to come.

- [Edge Hill University](#)
- [Lancaster University](#)
- [Liverpool Hope University](#)
- [Liverpool John Moores University](#)
- [Liverpool School of Tropical Medicine](#)
- [Manchester Metropolitan University](#)
- [University of Bolton](#)
- [University of Central Lancashire](#)
- [University of Chester](#)
- [University of Cumbria](#)
- [University of Liverpool](#)
- [University of Manchester](#)
- [University of Salford](#)

Here you will find more details of some of these universities including recent regional collaborations.

Edge Hill University

As an award-winning university, Edge Hill is dedicated to creating opportunity from knowledge – a philosophy that drives our teaching, research, and commitment to providing a great student experience, leading to a rewarding career.

We have been named University of the Year in the Educate North Awards 2020/21 in recognition of our continued commitment to delivering an exceptional student experience. We also hold Gold, the highest rating in the national Teaching Excellence Framework (TEF).

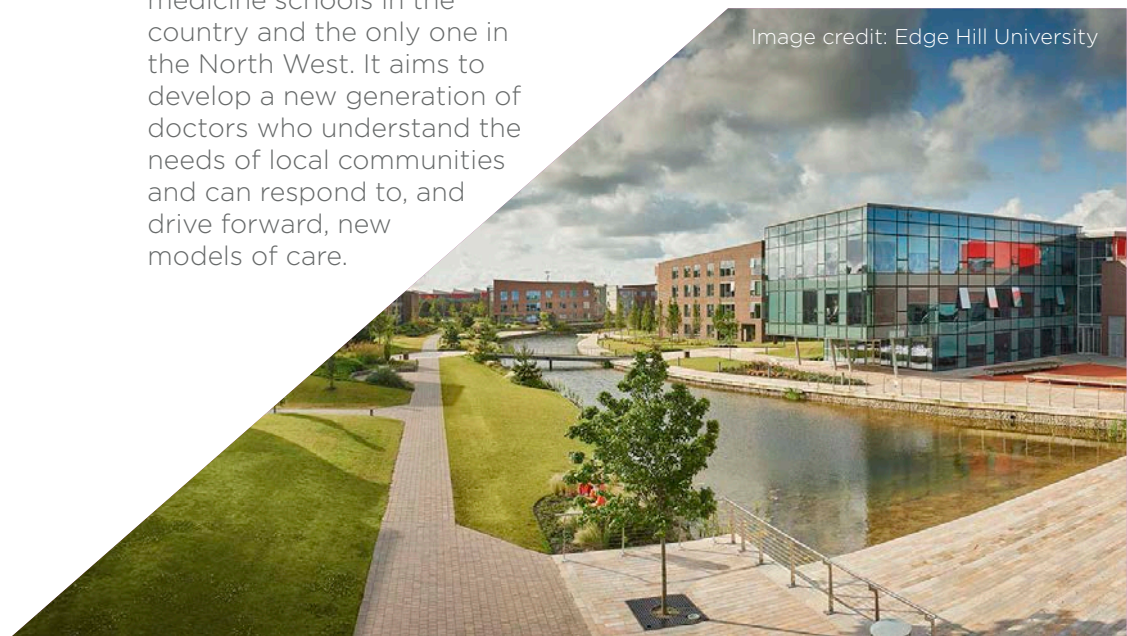
Our Medical School is one of only three new freestanding medicine schools in the country and the only one in the North West. It aims to develop a new generation of doctors who understand the needs of local communities and can respond to, and drive forward, new models of care.

The £13m Tech Hub facilitates students and staff with access to experimental and emerging technologies for teaching and research. Our specialised VR equipment enables the next generation medical training.

Our Health Research Institute offers a portfolio of multi-disciplinary research that extends beyond traditional medical approaches to reflect a broader multi-agency view of healthcare.

www.edgehill.ac.uk/

Image credit: Edge Hill University



Lancaster University

Since its foundation in 1964, Lancaster University's institutional strategy has placed equivalence on research, education and engagement. This three-pillar approach persists unchanged. Consistently ranked in the top 10 UK HEIs and top 130 globally, Lancaster reaches beyond deep local and regional impact into wider national and international appositeness. Lancaster's hard-won reputation as a research-intensive institution is balanced by its high educational standards and respected position as an innovative and effective catalyst for change. Lancaster focuses on key societal challenges and specialises in multi and

inter-disciplinary innovative engagement. As an anchor institution, Lancaster is an active facilitator and enabler for securing opportunities which benefit its various communities by prioritising quality and effectiveness of its solutions over quantity. We continue to make significant contributions to major policy challenges and local and national priority areas including productivity (particularly in SMEs), healthcare challenges (focused on rural populations in Lancashire-Cumbria and our coastal regions), leadership and management, eco-innovation/clean growth and an increasing focus on a secure digital/data driven economy.

www.lancaster.ac.uk



Liverpool John Moores University (LJMU)

Within LJMU, the Institute for Health Research (IHR) is a hub for all health-related activities. Founded on collaboration and knowledge exchange the IHR draws on expertise and high quality research across all five of the University's Faculties. Activities are thematically-aligned and operationalised through interest groups. LJMU's broad range of expertise in health research is a major strength in tackling real-world health issues and the IHR provides the structure to facilitate and coordinate related actions and impact. The vision, to establish the IHR as a world-leading institute at the forefront of health research, scholarship and knowledge exchange, across local,

national and international platforms, is gradually being realised as researchers appreciate the benefits of collaboration across disciplinary boundaries. External collaboration is an essential element of our strategy with a focus on, understanding healthy behaviours; behaviour change; the prevention of illness; and improved patient care, with particular attention towards the health needs of our city region.

www.ljmu.ac.uk/research/centres-and-institutes/institute-of-health-research

University of Central Lancashire

The University of Central Lancashire's contributions across health and life sciences are exemplified by our 'One Health' strategy which was developed in consultation with the NHS, LEPs, local authorities, other HEIs and industry. The University has invested £50m into health and life sciences facilities including a state-of-the-art pharmaceuticals laboratory, a Pharmacy Practice Suite, Aseptic and Tissue Culture Suites, a full range of biomedical facilities and the Engineering Innovation Centre (EIC).

The EIC hosts our 'MedTech Solutions' group which is an outward facing collective of scientists, engineers and technicians from across the University which supports research into the development of medical devices, computer vision, data innovation, machine learning, microbial interactions with hosts and

surfaces, rapid product development, testing and evaluation and related SME support programmes. Across the University we work with partners to help drive innovation, enable transformation and support the design and development of medical devices and related interventions providing a fast response unit for product development, testing and evaluation. This is supported by a number of initiatives, including the ERDF funded Innovation Clinic and Health Matters programs which have supported over 120 SMEs across Lancashire.

www.uclan.ac.uk/research/activity/medtech-solutions

University of Liverpool

Founded in 1881 as the original 'red brick', the University of Liverpool is one of the UK's leading research-intensive higher education institutions with an annual income of £577.7 million, including £98.6 million for research and development. 81% of our health and life science research ranked world-leading and internationally excellent (REF 2014.)

Working in partnership with Liverpool Health Partners, the Knowledge Quarter and Daresbury Science Park to name but a few, we are at the forefront of health technology innovation in research and education. Our expertise spans a wide range of disciplines, including developing new material for medical applications, medical devices, digital platforms for health care needs, point of care diagnostics and much more besides.

Our Health and Life Sciences and Science and Engineering research, expertise and facilities support the ambitions of a wide range of businesses across the private and public sector.

liverpool.ac.uk/collaborate

University of Manchester

As the first and most eminent of England's civic universities, The University of Manchester's research has global impact. Our students experience outstanding teaching and learning, helping them to develop into tomorrow's leaders, and all our activity is enriched by a commitment to social responsibility. We are the UK's most popular university in terms of undergraduate applications, and the Academic Ranking of World Universities (2018) places us 34th in the world, 8th in Europe, and 6th in the UK. We are the top institution in the world for Social and Environmental Impact (THE, 2021) aligning with the UN Sustainable Development Goals. Our Research Beacons (Global Inequalities, Advanced Materials, Cancer, Energy, and Industrial Biotechnology) generate pioneering discoveries, and foster interdisciplinary collaboration and cross-sector partnerships that are tackling some of the biggest challenges we face today. We are The University of Manchester, and we want to work with you.

www.manchester.ac.uk

Showcasing Regional initiatives The iiCON Program

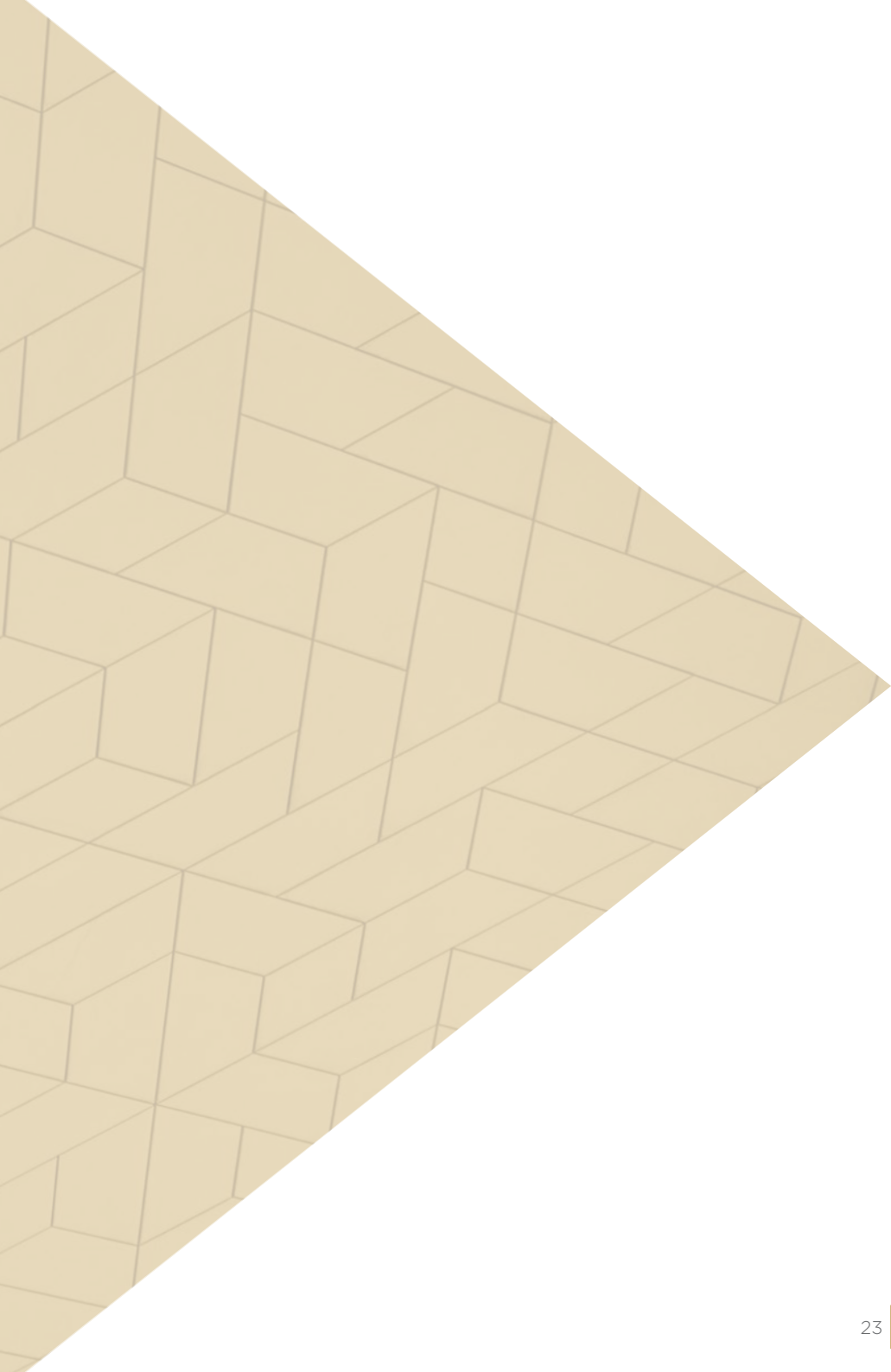
iiCON is a public-private consortium established to support the discovery and development of innovative new products and treatments for infectious diseases.

Born out of the Liverpool City Region and backed by UKRI's Strength in Places Fund, iiCON is led by the Liverpool School of Tropical Medicine (LSTM) and brings together infectious diseases R&D leaders: Liverpool University Hospitals NHS Foundation Trust, Unilever UK, the University of Liverpool, Infex Therapeutics, Evotec and the AMR Centre at Alderley Park, Cheshire.

iiCON aims to revitalise and innovate the infectious disease product pipeline by supporting industry with access to specialist, commercially sustainable research platforms, state-of-the-art equipment and skilled personnel - significantly de-risking and accelerating new product discovery, development, evaluation and impact assessment, and expediting routes to market.

The consortium's collaborative effort seeks to reduce the global burden of infectious diseases, addressing the threat posed by a lack of new antibiotics, and the devastating impact of multidrug resistant infections.

www.lstmed.ac.uk/iiicon



Institutes

Beyond the universities there are also a number of institutions and national facilities which are helping innovators and researcher's access key technologies and expertise to accelerate R&D. At the National Science and Innovation Campuses at Harwell and Sci-Tech Daresbury a number of these national facilities are located on-site, for example the Hartree centre, which is helping is transforming UK industry through high performance computing, data analytics and artificial intelligence (AI) technologies. Here we provide more detail on the leading capabilities residing within some of these institutions/facilities located throughout the region and wider UK.

Henry Royce Institute

The Henry Royce Institute is the UK's national institute for advanced materials research and innovation. Royce was established to ensure the UK can exploit its world-leading expertise in advanced materials and accelerate innovation from discovery to application. With an investment of over £330 million, Royce is ensuring that academics and industry in the UK's materials community have access to world-class research capabilities, infrastructure, expertise, and skills development.

From future cities and their energy supplies, to computing, manufacturing and medicine, the research and innovation facilitated by Royce has the potential to significantly impact peoples' lives. With its hub in Manchester and with capability distributed across nine founding Partners and one Associate, Royce works collaboratively to create real solutions and to have a positive economic and societal impact for the UK.

www.royce.ac.uk

National Horizons Centre

The National Horizons Centre (NHC), established by Teesside University, is an exciting £22M biosciences research, teaching and training facility sitting at the heart of a cluster of excellence on Darlington's Central Park alongside the National Biologics Manufacturing Centre (NBMC) and the Centre for Professional and Executive Development, in the North East of England. Opened in 2019, it has been developed in full consultation with the industry.

The NHC exists to:

- Create a pipeline of graduate talent, relevant to industry needs.
- Design and deliver industry-informed programmes to address the technical, leadership and digital skills needs of the workforce.
- Develop an internationally competitive applied research and development capability that drives innovation.

- Provide industry with access to specialised world-class facilities supporting new ideas and learning.

The NHC has core strengths in (1) Bioprocessing and manufacturing, to develop new approaches and optimise processes for manufacturing, with a focus on biopharmaceuticals, advanced therapies and vaccines; (2) Underpinning digital technologies for bioscience research, manufacturing and healthcare, with a focus on harnessing data analysis, modelling and simulation techniques, and virtual and artificial reality to achieve significant productivity gains; and (3) Disease-specific research, to understand the underlying biology of diseases (such as Alzheimer's, cancer and Parkinson's disease) and pathogens to identify novel therapeutic options

www.tees.ac.uk/nhc

SuperSTEM

SuperSTEM, the EPSRC National Research Facility for Advanced Electron Microscopy, is an internationally-renowned user facility that acts as a focal point for driving forward developments in scanning transmission electron microscopy (STEM). The facility provides world-leading capabilities for the direct imaging of atomic structures, the determination of elemental composition along with chemical and bonding analysis, in thin samples down to single atom precision. As such it supports the elucidation of structure-property relationships in advanced materials and devices in the broadest sense, embracing structural and functional materials research, the geosciences and the biosciences.

The facility's electron microscopes are optimised for studies requiring single-atom precision and sensitivity and have the specificity of operating at low to medium primary beam energies (40-100keV). This is a highly sought after and specialised capability, deployed to minimise electron beam knock-on damage, which can hamper the study of a wide variety of materials.

superstem.org

Rosalind Franklin Institute

The Rosalind Franklin Institute is a new national institute, funded by the UK government through UK Research and Innovation, dedicated to bringing about transformative changes in life science through interdisciplinary research and technology development. The Institute is constructing a hub building on the Harwell Campus, and spokes in university partners across the UK.

rfi.ac.uk

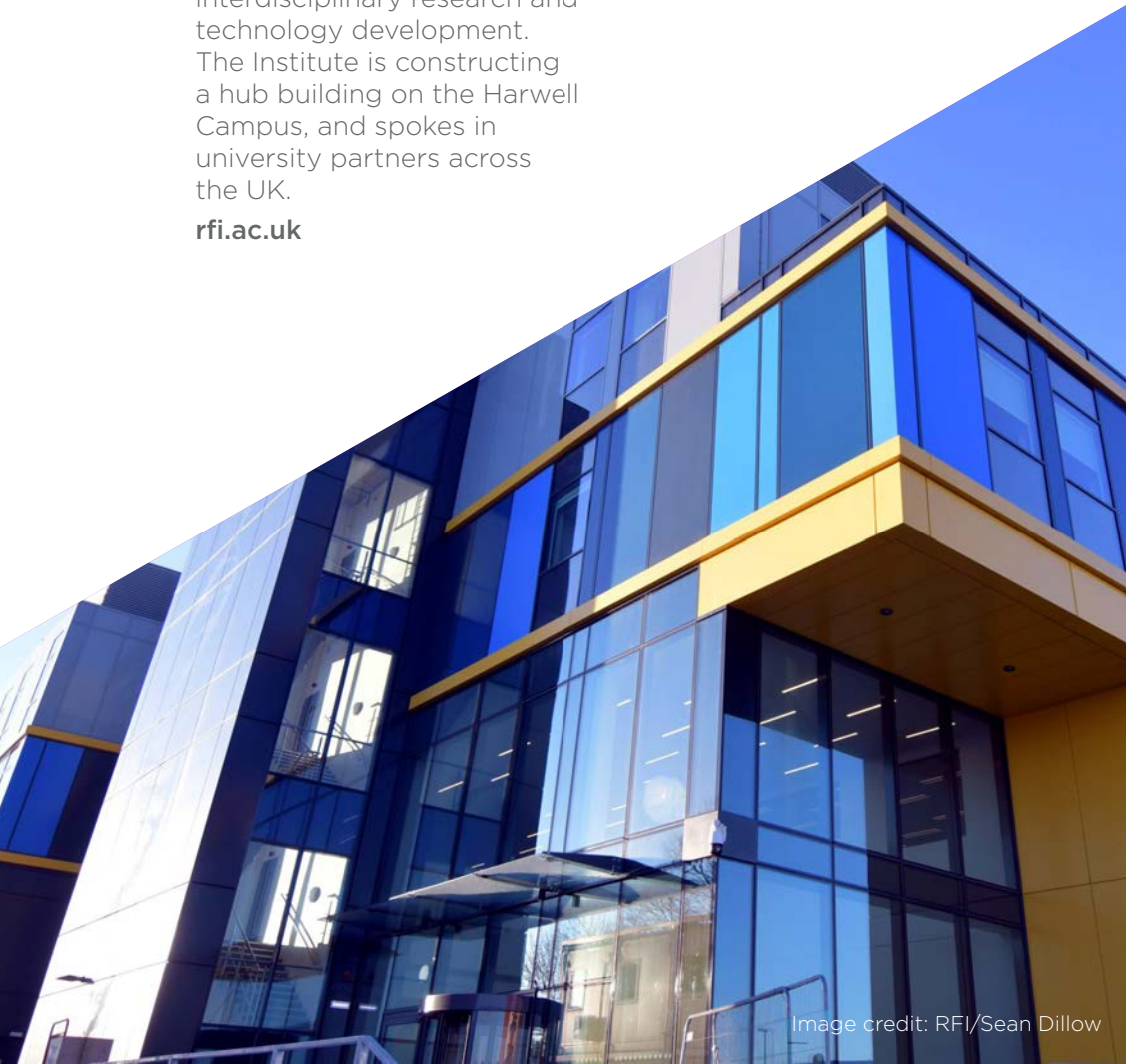


Image credit: RFI/Sean Dillow

The HealthTec Cluster Stakeholder Community - National and Regional Stakeholders

As well as working with the universities, institutes and the hubs/campuses across the region - the HealthTec Cluster is made up of a rich, stakeholder matrix of national and regional organisations, which is enhancing the collaborative environment, visibility and awareness of opportunities and creating new collaborations. In this section you will read about these stakeholder organisations in the cluster development including the founding partners; The Innovation Agency - The North West Coast Academic Health Science Network & the Science and Technology Facilities Council, part of UK Research and Innovation

Academic Health Science Network: Innovation Agency

Academic Health Science Networks (AHSNs) are described by NHS England's National Director for Innovation, Ian Dodge, as 'the innovation arm of the NHS' and they boost local economies by helping companies do business with health and social care organisations.

The Innovation Agency is the North West Coast AHSN based at Sci-Tech Daresbury with satellite offices in Liverpool Accelerator and Preston Business Centre.

They are one of 15 AHSNs working together in a national AHSN Network, funded by NHS commissioners to spread innovations in health and care.

The Innovation Agency is also a partner in three ERDF funded business support programmes – in Liverpool City Region, Cheshire and Warrington, and Lancashire – with dedicated teams supporting health and care sector businesses.

In the last year, 99 companies reported some sort of benefit from working with the Innovation Agency; 25 created a total of 72.5 jobs; seven safeguarded 13 jobs; 31 companies gained a total of £2.5m worth of new contracts; 21 received £5.7m investment or grant funding.

innovationagencynwc.nhs.uk

Association of British HealthTech Industries

Association of British HealthTech Industries (ABHI) is the UK's leading industry association for health technology.

ABHI supports the Health Technology community to save and enhance lives. Members, including both multinationals and small and medium enterprises (SMEs), supply products from syringes and wound dressings to surgical robots and digitally enhanced technologies. We represent the industry to stakeholders, such as the government, NHS and regulators. HealthTech plays a key role in supporting delivery of healthcare and is a significant contributor

to the UK's economic growth. HealthTech is now the largest employer in the broader Life Sciences sector, employing 121,000 people in 3,500 companies, with a combined turnover of £22.2bn. The industry has enjoyed growth of around 5% in recent years. ABHI's 300 members account for approximately 80% of the sector by value.

abhi.org.uk

Bionow

Bionow is an award-winning specialist business development and services company serving the life sciences sector in the North of England. We provide our members with the tools and support to become the most competitive in the industry through our range of specialist products and services.

Supporting your Businesses to Grow.

Bionow's core mission is to support and be part of a growing Northern Life Sciences and Healthcare community, a mission closely aligned with the goals and values of our sponsor companies and universities.

Bionow's range of specialist business support includes our Procurement Scheme which is designed to specifically reinforce the competitiveness of businesses in the North by maximising the savings for companies in our region. In addition, we also design, manage, and deliver a range of accelerator programmes aimed at helping businesses to scale. We partner with a number of specialists and experts to deliver these courses and design them to address key barriers to your growth.

bionow.co.uk

Bruntwood SciTech

Bruntwood SciTech is the UK's leading developer of innovation districts, creating the environments and ecosystems for science and technology businesses to form, scale and grow.

A 50:50 joint venture between leading property company Bruntwood and Legal & General, Bruntwood SciTech provides high quality office and laboratory space and tailored business support, offering unrivalled access to finance, talent and markets, an extensive clinical, academic and public partner network and a sector-specialist community of over 500 companies.

Bruntwood SciTech has unique experience in creating and developing strategic partnerships

with UK regional cities, universities and NHS Trusts to drive economic growth through investment in science and technology infrastructure.

Bruntwood SciTech has a portfolio of over 1.8m sq ft including Alderley Park in Cheshire, Platform in Leeds, Innovation Birmingham, a cluster in the heart of Manchester's Oxford Road Corridor innovation district - Manchester Science Park, Citylabs 1.0 & 2.0 part of the Manchester University NHS Foundation Trust (MFT) campus and Circle Square - a joint venture with Vita Group and a development pipeline of 850,000 sq ft which includes Birmingham Health Innovation Campus.

bruntwood.co.uk/scitech



Catapults

The Catapult network was established by Innovate UK to support innovation and its widespread use by UK businesses. They do this by providing access to expert technical capabilities, equipment and other resources required to take innovation ideas from concept to reality.

catapult.org.uk

Cell and Gene Therapy Catapult

The Cell and Gene Therapy Catapult was established as an independent centre of excellence to advance the growth of the UK cell and gene therapy industry, by bridging the gap between scientific research and full-scale commercialisation.

With more than 180 experts focusing on cell and gene therapy technologies, it works with partners in academia and industry to ensure these life-changing therapies can be developed for use in health services throughout

the world. It offers leading-edge capability, technology and innovation to enable companies to take products into clinical trials and provide clinical, process development, manufacturing, regulatory, health economics and market access expertise.

Its aim is to make the UK the most compelling and logical choice for UK and international partners to develop and commercialise these advanced therapies.

ct.catapult.org.uk

Medicines Discovery Catapult

Medicines Discovery Catapult is a national facility connecting the UK community to accelerate innovative drug discovery. We provide unique scientific capabilities and act as a gateway to UK resources and expertise, supporting UK SMEs to drive the development and industrialisation of new approaches for the discovery of new medicines.

By validating new ways of discovering medicines and driving key talent

and expertise across the sector, we will support the UK life sciences industry, SMEs and innovators to deliver growth for the UK economy and maintain the UK's heritage position as a global leader in medicines R&D. Ultimately, new industrialised technologies are vital for delivering new medicines to patients, faster.

md.catapult.org.uk

“ We wholeheartedly support the setting up of a Northwest HealthTec cluster. We have received support from both KTN and the Innovation Agency in our growth from a start-up at Alder Hey Innovation Hub to now having multiple embedded medical 3D printing facilities in hospitals across the UK.

Henry Pinchbeck
CEO, 3D LifePrints

Satellite Applications Catapult

The Satellite Applications Catapult is a unique innovation and technology company, which boosts UK productivity by helping organisations harness the power of satellite-based services.

We are changing the way that healthcare and wellbeing services are delivered by working with organisations to use satellite applications to deliver transformational change. We are initially working with the NHS across the UK to demonstrate our ability to diffuse satellite-based innovation at scale before expanding to also focus on export and private healthcare markets. We have a strong partnership with NHS Arden and Greater East Midlands Commissioning Support Unit, and strong links with a range of other NHS organisations across the whole of the UK.

The primary focus is scaled diffusion of remote healthcare solutions. The key use cases are based on managing long term conditions and solutions for improving the efficiency of emergency response; both use cases prioritise early intervention/diagnosis and remote monitoring/consultation, which should reduce service delivery costs and alleviate pressure on hospital and GP services.

We have a strong track record of helping businesses, areas and regions unlock customer demand, open new markets, drive exports, attract investment and create new jobs.

Through our work we aim to support UK industry to capture a 10% share of the predicted £400Bn global space market by 2030.

sa.catapult.org.uk

Cheshire and Warrington Local Enterprise Partnership

Cheshire and Warrington has a well-connected health tech ecosystem offering research partnerships, networking opportunities and state of the art facilities, including a £42 million seed and early stage venture capital fund, a national facility for collaborative R&D as well as the UK's largest bioscience campus, Alderley Park.

This ecosystem is linked by the Cheshire Science Corridor bringing together internationally significant research facilities and businesses enabling collaboration and product innovation.

Key sectors include: advanced scientific analysis and research; pharmaceuticals R&D and manufacturing; chemical engineering; CROs, instrumentations, medical devices.

The area has the highest productivity in the North of England and a talented workforce with 40% of Cheshire & Warrington's working age population qualified to degree level or above and 6,000 working in the life sciences sector.

Cheshire and Warrington Growth Hub support businesses of all sizes, by helping them to accelerate growth, innovation and skills. We support businesses to access and collaborate with the public and private sectors.

The Growth Hub is part of Cheshire and Warrington Local Enterprise Partnership who set the strategic direction for our sub-region and work closely with partners and government.

candwgrowthhub.co.uk
871candwep.co.uk

CPI

CPI is a leading independent technology innovation centre and a founding member of the UK Government's High Value Manufacturing Catapult. We act as a catalyst bringing together academia, businesses, government and investors to translate bright ideas and research into the marketplace. As experts in healthcare innovation, we provide partners with access to the right experts, equipment, networks, funding and more – connecting the dots for effective innovation. Our capabilities for the healthcare market cover medtech, flexible and hybrid electronics, photonics, biotherapeutics, biotechnology, advanced materials and formulation. This enables applications in several

areas including medicines manufacturing innovation, biologics manufacturing, medical device development including in-vitro diagnostics, nanotherapeutic delivery systems, along with smart packaging of medicines and smart connected devices.

We work with partners in the UK and around the world, driving their innovations forward and helping them to reduce the risk and cost associated with product development.

www.uk-cpi.com

Department for International Trade

The Department for International Trade (DIT) is a UK Government Department that helps businesses export, drives inward and outward investment, negotiates market access and trade deals, and champions free trade.

DIT helps businesses to locate and expand in the UK and provides tailored guidance to support the realisation of international business ambitions.

The Department's Investment Services Team in the Northern Powerhouse region engages with companies, offering a single-point of contact around policy and business issues, connecting investors into a larger network of international business support. DIT's Northern Powerhouse Investment Hub also has a Life Sciences Specialist to support Foreign Direct Investment into the region.

invest.great.gov.uk



European Space Agency: Business Applications

Space is open for business and has the power to improve the everyday lives for everyone on Earth. European Space Agency (ESA) Business Applications enables and supports companies to apply space data and technology (GPS, Earth Observation data, Satellite Communications, etc) in commercial services.

Of particular interest are applications that promote the use of space to previously 'untapped' consumer markets. ESA Business Applications seeks to fund innovative new services developed for these markets, which could provide major benefits (better efficiency, employment, etc) on both the demand and supply sides of the economy.

A network of five Regional Ambassadors are tasked with identifying and supporting businesses across the UK that might benefit from this funding programme, acting as a 'front door' and providing guidance during the early stages of application. Your Ambassadors in the north of England are: Alan Cross (NW) & Kavitha Muthu (NE).

business.esa.int

European Space Agency: Space Solutions

ESA Innovation Partner Network

ESA's Innovation Partner Network (ESA IPN) finds new applications for technology originally developed for the space sector, such as rockets, robots, and even astronaut suit cooling systems. By identifying industrial challenges and connecting these with the high-tech capabilities of Europe's space sector, the ESA IPN has successfully supported more than 300 transfers of space technology, systems, and know-how into other sectors. With representatives in 16 countries across Europe offering fully funded technology scouting, the ESA IPN is the ideal partner to connect you with the right solution for your business.

esa.int/ttp

ESA Business Incubation Centre United Kingdom

Space technology can offer ambitious entrepreneurs the opportunity to gain a competitive advantage within their sector. The ESA Business Incubation Centre United Kingdom (ESA BIC UK) is a nationwide programme that equips start-ups and small companies to help accelerate business growth.

Start-ups utilising space technology in any way at all can take part – from robots that weigh chickens using GPS, to insect proteins grown using life support technology from space stations!

esa-bic.org.uk



Image credit: ESA

eHealth Cluster – Liverpool City Region

Liverpool City Region eHealth Cluster is a membership led organisation working across technology, health and social care sectors. Established in 2013 by local SMEs, the cluster has developed to meet the needs of members across our categories of membership:

- Technology SMEs and Individuals
- Public bodies and professionals
- Academic and Research
- Health and Social Care Providers
- Support Functions
- Supply Chain Partners
- Other/Emerging Equipment Providers

The cluster stimulates growth and success of the region by joining up developers, commissioners, suppliers and service providers in a structured, impartial way. Recently we have supported the digitisation of homecare services for Liverpool City Council and are currently managing the implementation of the DCMS funded Liverpool 5G Testbed.

Working with our members we have developed our Adoption Readiness Level® tool, a free self-assessment tool designed to help understand the practical barriers that can be encountered in the adoption of digital solutions in health and social care.

ehealthcluster.org.uk

Greater Manchester Combined Authority

Greater Manchester is the only city region in the country with control of its combined health and social care budgets - a sum of more than £6 billion annually. This unique approach enables the city-region to take a system-wide view of the region's most pressing health needs; joining up the work of all commissioners and providers and capitalising on streamlined governance arrangements to transform the health and wellbeing of its 2.8m citizens. The Greater Manchester Combined Authority's (GMCA) vision is to make Greater Manchester one of the best places in the world to grow up, get on and grow old. An age-friendly Manchester is one of GMCA's ten priorities, while health innovation is one of the city-region's science

and innovation strengths as identified in the Greater Manchester and Cheshire East Science and Innovation Audit. GMCA works closely with the Greater Manchester Health and Social Care Partnership, Health Innovation Manchester and Greater Manchester universities to ensure that these priorities result in economic growth for businesses as well as improved public services for local citizens.

greatermanchester-ca.gov.uk

Health Innovation Manchester

Health Innovation Manchester is an Academic Health Science System driving proven innovation into health and social care services at pace.

Harnessing the region's exceptional academic and clinical assets, alongside industry know-how, we bring forward a constant flow of innovative research and solutions, accelerating them through the evaluation process and supporting them through our devolved decision-making structures into clinical practice system-wide.

Operating within a devolved health and social care system enables us to create a unique infrastructure and environment for innovators to flourish - with a single gateway and pathway, world-class informatics and processes that enable speedier decision-making and more certain routes to adoption.

healthinnovationmanchester.com



Knowledge Transfer Network

Knowledge Transfer Network (KTN) is Innovate UK's network partner. We connect people to accelerate innovation. We link new ideas and opportunities with expertise, markets and finance through our network of businesses, universities, funders and investors.

From agri-food to autonomous systems and from energy to design, KTN combines deep knowledge in all sectors

with the ability to cross boundaries.

KTN's Health team has expertise across medical technologies, digital health and medicines, and can connect you to the health innovation support & funding landscape across the UK. Connecting with KTN can lead to potential collaborations, horizon-expanding events, bespoke support and innovation insights relevant to your needs.

ktn-uk.co.uk

Lancashire Local Enterprise Partnership

Lancashire Enterprise Partnership works closely with the three universities in Lancashire which form the core of the health innovation eco-system alongside the AHSN and local health Trusts.

The three main access points for research and business are:

The Health Innovation Campus (HIC) at Lancaster University, which provides the physical space to support researchers, healthcare providers, businesses, local authorities and policy makers in working together to overcome significant health challenges.

The Faculty of Health & Wellbeing at UCLan, that works with two clinical trials units with a focus on

complex trials in population and public health, cancer, musculoskeletal health and stroke. There are also strong links to the Faculty of Science & Engineering in developing product solutions.

The PGM Institute at Edge Hill University, part of Edge Hill University Medical School which works with Aintree and Alder Hey Children's Hospital. There is notable work in antibiotic discovery, Cystic Fibrosis gene therapy and skin disease.

Contact the local enterprise partnership for strategic access to collaborative innovation projects.

lancashirelep.co.uk

Liverpool City Region

The Liverpool City Region LEP and Combined Authority work together to deliver the Growth Strategy for the City Region. The Combined Authority is led by Metro Mayor Steve Rotheram and brings together Liverpool City Region's six local authorities – Halton, Knowsley, Liverpool, Sefton, St Helens and Wirral. For the City Region, the LEP provides strategic advice and guidance on economic development priorities while the Combined Authority brings democratic accountability and oversight. Working together in this way gives the region insights and benefits of both the public and private sectors. Health and Life Sciences

is a key sector for the region, with the LEP, Local Authorities, the Combined Authority, companies, NHS and universities making significant investments and supporting wider developments over recent years. Key commercial strengths of the region include biopharmaceutical manufacturing, infectious diseases and medtech/digital health.

localgrowthhub.com



Liverpool Health Partners

Liverpool Health Partners (LHP) is a vehicle for collaboration between NHS Trusts and Higher Educational Institutes in the Liverpool City Region (LCR). LHP brings together the capabilities of its partners to provide an industry-leading platform for healthcare research and education. Through this, LHP looks to improve economic productivity and population health outcomes.

A crucial development for the City Region is the Joint Research Service (JRS) which goes live April 2019 and co-ordinates Research and Development teams from the whole of LHP to work closely together, providing a service of excellence to investigators and sponsors of clinical research.

The JRS aims to provide a responsive, flexible and professional research support service that will reduce duplication and fragmentation in the way that clinical research is delivered, streamlining the pathway and quickening the pace of delivery. It represents a united vision for LHP to provide connected, integrated and effective resources for collaborative healthcare research.

liverpoolhealthpartners.org.uk

“Connecting with the NW HealthTec cluster is possibly the most important thing SME’s can do in their commercialisation journey. The true benefit of representation, platform, introductions and advice collectively, and from stakeholders such as STFC, Innovation Agency, Health Innovation Exchange and KTN has been incalculable.
Phil Blything
CEO, Glow Media

Medicines Health Regulatory Authority (MHRA)

The MHRA Innovation Office provides a single point of access to free, confidential and expert regulatory information, advice and guidance that helps organisations of all backgrounds and sizes develop innovative medicines, medical devices or novel manufacturing processes.

mhra.gov.uk/innovation

Medilink

Medilink is a 'not for profit', membership based, professional association and specialist consultancy for the Life Science sector. It brings together on a regional basis the NHS, industry and academia to drive innovation and improve patient care. Its primary focus is on fast tracking the development of Life Science companies (medical devices, diagnostics, drug delivery and digital health) through enhancing their connectivity (regionally, nationally and internationally) and through the provision of specialist resource, spanning 'Innovation and Commercialisation', 'PR & Communications' and 'International'. Medilink North of England forms part of the Medilink UK network which is now the largest representative body for the UK Medical Technology industry; this provide members with national reach in addition to regional connectivity. Medilink is also an accredited partner for the Department of International Trade and in this capacity organises and manages UK pavilions and trade missions to major life science shows across the world.

medilink.co.uk

National Institute for Health and Care Excellence (NICE)

The National Institute for Health and Care Excellence (NICE) is known internationally for the scientific rigour of its approach to evaluating the effectiveness and value of medicines, medical technologies and clinical interventions. There are several opportunities to engage with NICE at all stages of health technology development which aim to help innovators deliver better and measurable outcomes.

The NICE Office of Market Access (OMA) helps companies to engage with NICE and key stakeholders across the NHS to gain valuable insights to inform their market access strategy. Companies can engage at any stage in the product development lifecycle. Areas for discussion could include identifying the most appropriate route to patient access, understanding the impact of the changing

landscape, understanding how disruptive innovations may be managed into the system, and exploring barriers to uptake. The broad exploratory nature of the discussions facilitated by OMA provide useful context for further product development plans.

The NICE Scientific Advice team helps developers of pharmaceuticals, devices, diagnostics and digital health technologies. Companies can discuss and ask questions about their clinical development and health economic modelling plans. The advice is then used to help ensure that the evidence they produce is adequate to support a future reimbursement submission. As part of this process, patient representatives, clinicians, and health economic experts can be invited to contribute to the in-depth discussions.

nice.org.uk/about/what-we-do/life-sciences

National Institute for Health Research

The National Institute for Health Research (NIHR) is the nation's largest funder of health and care research. The NIHR:

- Funds, supports and delivers high quality research that benefits the NHS, public health and social care
- Engages and involves patients, carers and the public in order to improve the reach, quality and impact of research
- Attracts, trains and supports the best researchers to tackle the complex health and care challenges of the future
- Invests in world-class infrastructure and a skilled delivery workforce to translate discoveries into improved treatments and services

- Partners with other public funders, charities and industry to maximise the value of research to patients and the economy

The NIHR offers a range of support service to the life sciences industry including:

- Access to expertise, facilities and data
- Research funding
- Support to deliver studies in the UK's health and care system

To find out how the NIHR can support your company, contact [*nocri@nihr.ac.uk*](mailto:nocri@nihr.ac.uk)

nihr.ac.uk

National Physical Laboratory (NPL)

As the UK's National Measurement Institute, NPL plays a leading role in maintaining the UK's position as a world leader in translating life sciences research, accelerating access to new diagnosis and treatment techniques, helping support rapid adoption of advanced healthcare technologies across the country. Working closely with organisations like the NHS, setting standards for lifesaving radiotherapy treatment.

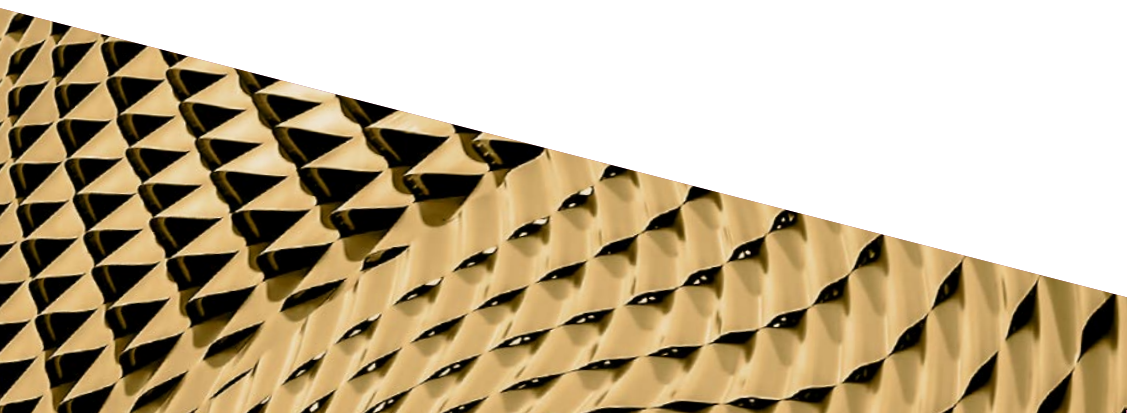
We help tackle some of the world's biggest health challenges, from reducing attrition rates in drug discovery and development, to treating cancer and dementia, creating new antibiotics and helping develop new medical devices.

NPL conducts high-quality measurement science and provides products and services enabling businesses and public organisations to make reliable measurements and have confidence in the decisions they make based on the results.

NPL helps SME's with:

- Testing and validation of technologies
- Safety assessment
- Quality assurance and product development
- Access to state of the art analytical and imaging techniques
- Training

npl.co.uk



Northern Health Science Alliance

The Northern Health Science Alliance (NHSA) is a front door to the North of England's health research system, working together for a healthier, wealthier region.

As a partnership established by the leading universities, NHS Hospital Trusts and Academic Health Science Networks in the North of England, the NHSA provides a portal to its internationally recognised health science excellence.

We work across a population of 15 million bringing together research, health science innovation and commercialisation.

The NHSA works directly with commercial partners to provide access to researchers, universities, hospitals and leading health research institutions.

The NHSA is a focal point for our members and partner organisations to work collaboratively on projects that leverage the combined potential of the North. Our members, work as one to harness the resources, infrastructure, intellectual capital and experience of the whole ecosystem.

thenhsa.co.uk

North West Cancer Research (NWCR)

We are the leading independent cancer research charity in North West England and North Wales. We place a strong focus on the forms of cancer which have the biggest impact on the people of our region, particularly around early diagnosis, improved therapies and understanding the inequalities which lead to a higher prevalence of cancers in this area.

North West Cancer Research is interested in partnering on projects focussed on improving our

understanding of, ability to diagnose, and treat, cancer. We bring 70-years of experience, connections into local universities, bodies, healthcare companies and researchers, and an ability to fund research. By collaborating we believe we can make a difference to the lives of people living across our region, reducing the impact of cancer on the North West and North Wales.

We would also be interested in working with organisations wanting to support our charitable aims.

nwcr.org/our-work

Royal College of Physicians

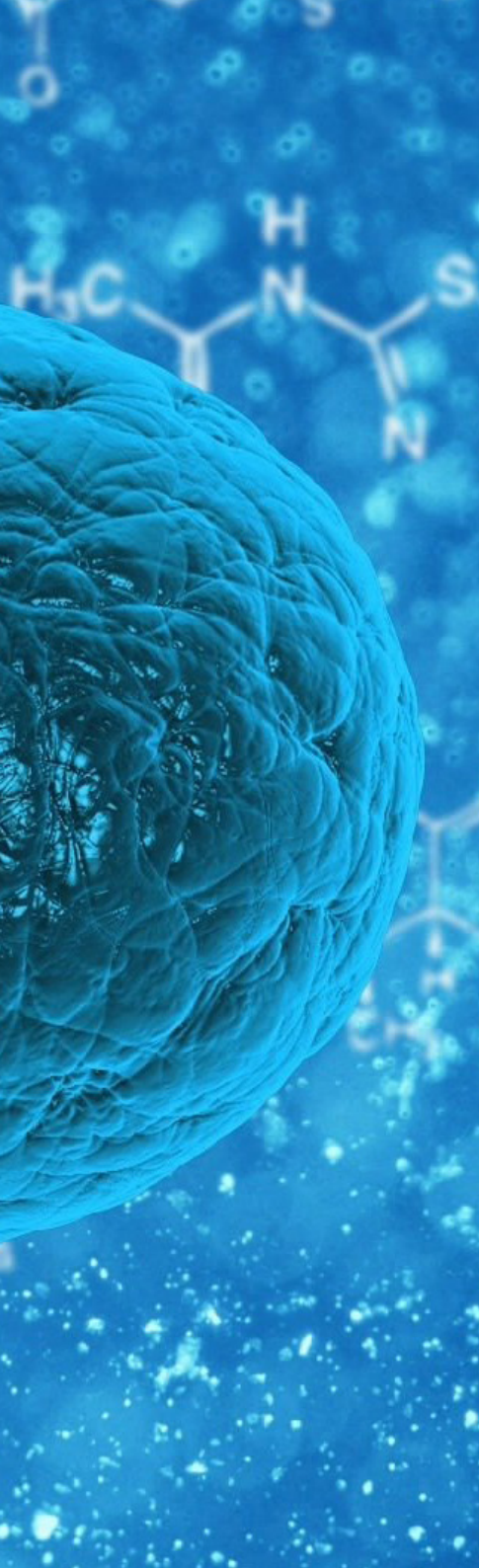
The Royal College of Physicians (RCP) is a professional membership body for physicians, with over 36,000 members and fellows around the globe working in hospitals and communities across 30 medical specialties. Everything that we do at the RCP aims to improve patient care and reduce illness. Our work is patient centred and clinically led; we drive improvement in the diagnosis of disease, the care of individual patients and the health of the whole population, both in the UK and across the globe. We also work to ensure that physicians are educated and trained to provide high-quality care.

Our new building in Liverpool, The Spine, will attract high-quality healthcare professionals and drive quality improvement in a pioneering atmosphere of collaboration and partnership. The RCP's ambitions for having a second main base outside London are:

- to be a beacon of academic excellence and medical leadership, connecting more closely with our communities in the north
- to lead the improvement of patient care and public health
- to be a world-class learning and assessment centre
- to drive quality improvement and implementation science.

The Spine has a key location in Paddington Village, part of KQ (Knowledge Quarter) Liverpool. It will be at the heart of a medical and scientific precinct, with close neighbours focused on providing healthcare, including the new Royal Liverpool Hospital and the Clatterbridge Cancer Centre. The Spine has been made possible by a strong and generous partnership between the RCP and Liverpool City Council.

rcplondon.ac.uk



RTC North

RTC North is an innovation management company whose mission is to help clients to innovate, compete and grow. Specialising in the commercialisation of new products and services, we work with individuals, businesses and the public sector to help create more innovative and vibrant economies. We have vast experience of helping organisations with all stages of the innovation and IP commercialisation process and currently use this expertise to support partners at a UK regional, national and European level. RTC North is also a lead UK partner in the worlds' largest business support network - Enterprise Europe Network - and has established relationships with partners in Asia as well as North and South America.

rtcnorth.co.uk

STFC CERN Business Incubation Centre

The STFC CERN Business Incubation Centre offers extensive support to entrepreneurs aiming to take high energy technologies from an initial innovative concept to market.

It combines the incubation experience of STFC with the unique opportunity to access STFC and CERN intellectual property (IP), technologies and expertise. The centre helps businesses to grow from technical concept to market reality, from small start-ups into thriving high-tech companies.

The STFC CERN BIC provides an ideal package of both funding and business support to accelerate innovative business concepts, including:

- £40,000 incentive funding
- Access up to 40 hours of CERN and 40 hours of STFC scientists and technical expertise
- Use of CERN intellectual property at favourable conditions
- Access to collaboration and networking opportunities
- Wider access to potential sources of financial support through STFC's links with venture capitalists and funding bodies

cernbic.stfc.ac.uk





The North West Clinical Senates

The North West Clinical Senates provide independent strategic clinical advice and guidance to health and care commissioners. Their work ensures future clinical configurations of services are based on the considered views of clinicians and in the best interest of patients.

Organisationally agnostic, they are able to take a broader strategic view on the totality of healthcare in a particular geographical area. In the North West there are two clinical senates: Cheshire and Merseyside; and Greater Manchester, Lancashire and South Cumbria. Their membership spans health and care professions and includes representatives of patients, volunteers and other groups.

nwscsenate.nhs.uk

The North West Coast Strategic Clinical Networks

The North West Coast Strategic Clinical Networks (SCNs) are strategic drivers of improvement, innovation and change in healthcare across Cheshire, Merseyside, Lancashire and South Cumbria. Their work is centred around improving and innovating health services to achieve better patient outcomes and reduce unwarranted variation in quality of care and services.

Hosted by NHS England, the networks provide in-depth, high quality clinical leadership and advice to inform health and social care commissioning decisions. They work in partnership with the 'Healthier Lancashire and South Cumbria' Integrated Care System and the Cheshire and Merseyside Health and Care Partnership to redesign and transform services

and drive large scale change at pace and across complex pathways. They do this in priority areas of health and care which include diabetes, mental health and dementia, stroke, maternity and perinatal mental health, and palliative and end of life care.

The SCNs have also established quality and governance assurance measures in order to monitor progress and results of publicly-funded health programmes in the North West Coast including the National Diabetes Prevention Programme, Suicide Prevention and Local Maternity System Transformation Plans.

england.nhs.uk/north/north-west-coast-strategic-clinical-networks

UK Research and Innovation

What we do

Operating across the whole of the UK with a combined budget of more than £7 billion, UK Research and Innovation (UKRI) aims to be an outstanding organisation that ensures the UK maintains its world leading position in research and innovation by creating a system that maximises the contribution of each of the component parts and creates the best environment for research and innovation to flourish.

We will be measured by the impact we deliver, and this will have three elements:

- We will push the frontiers of human knowledge and understanding
- We will deliver economic impact and social prosperity
- We will create social impact by supporting our society and others to become enriched, healthier, more resilient and sustainable

Our councils

UKRI brings together the UK Research Councils, Innovate UK and a new organisation, Research England.

ukri.org



UK Research and Innovation



Science and
Technology
Facilities Council



Arts and
Humanities
Research Council



Engineering and
Physical Sciences
Research Council



Biotechnology and
Biological Sciences
Research Council



Economic
and Social
Research Council



Research
England



Natural
Environment
Research Council



Medical
Research
Council



Innovate
UK

Biotechnology and Biological Sciences Research Council (BBSRC)

The Biotechnology and Biological Sciences Research Council is a non-departmental public body which works in partnership with universities, research organisations, businesses, charities, and government to create the best possible environment for research and innovation to flourish.

BBSRC invests in world-class bioscience research and training on behalf of the UK public. Our aim is to further scientific knowledge, to promote economic growth, wealth and job creation and to improve quality of life in the UK and beyond.

BBSRC drives innovation in the biosciences by fostering interaction, collaboration, and technology transfer between research users and our science community, including:

- Training skilled people and supporting their movement within the economy, including our Collaborative Training Partnerships (CTPs)
- Developing collaborative research programmes, such as our Industrial Partnership Awards (IPAs)
- Supporting businesses to realise the potential of new technologies, for example through our Follow-on Funding (FoF)
- Supporting impact-related capabilities, such as our Impact Accelerator Accounts (IAA)
- Supporting innovation infrastructures that enable knowledge exchange and collaboration between researchers and users, for example Research and Innovation Campuses.

BBSRC is part of UK Research and Innovation.

bbsrc.ukri.org

Engineering and Physical Sciences Research Council (EPSRC)

The Engineering and Physical Sciences Research Council (EPSRC) is the main funding body for engineering and physical sciences research in the UK. By investing in research and postgraduate training, we are building the knowledge and skills base needed to address the scientific and technological challenges facing the nation.

Our portfolio covers a vast range of fields from artificial intelligence technologies, healthcare technologies to structural engineering, advanced manufacturing to mathematics, materials science to chemistry. By contributing to a healthy, connected, resilient, productive nation, EPSRC investment will play a critical role in the UK's growth and recovery.

Business can engage with a portfolio of almost 4000 investments based at universities across the UK. EPSRC also supports businesses to build long lasting partnerships with leading researchers to tackle some of the UK's most important challenges and to advance the technologies of tomorrow.

epsrc.ukri.org

Economic and Social Research Council (ESRC)

ESRC is the UK's largest organisation for funding research on economic and social issues. We support independent, high quality research which has an impact on health and wellbeing, business, the public sector and civil society. ESRC's total budget for 2017-18 was around £202 million. At any one time ESRC supports over 4,000 researchers and postgraduate students in academic institutions and independent research institutes.

esrc.ukri.org

Innovate UK

Innovate UK drives productivity and economic growth by supporting businesses to develop and realise the potential of new ideas.

We connect businesses to the partners, customers and investors that can help them turn ideas into commercially successful products and services and business growth.

We fund business and research collaborations to accelerate innovation and drive business investment into R&D. Our support is available to businesses across all economic sectors, value chains and UK regions.

Innovate UK is part of UK Research and Innovation.

innovateuk.ukri.org

Medical Research Council (MRC)

The Medical Research Council's mission is to improve human health through world-class medical research. To achieve this, we support academic research and development of skills and capabilities across the biomedical spectrum, from fundamental lab-based science to clinical trials, and across disease areas.

We aim to ensure that UK bioscience and clinical researchers are well-positioned to swiftly de-risk and advance innovative therapies, diagnostics and interventions towards the clinic and/or commercialisation. Fostering and strengthening collaboration and engagement across academia, business and the NHS is a major strategic priority for MRC, supported through flexible, innovative ways of working and shared access to resources, knowledge and talent.

MRC is part of UK Research and Innovation.

mrc.ukri.org

Science and Technology Facilities Council

The Science and Technology Facilities Council is at the forefront of UK science and technology.

Through our collaboration with industry and long-term investment in research and development, STFC underpins sectors that contribute billions of pounds annually to the UK economy, including space, pharmaceuticals, digital and health technology.

STFC supports industry by providing world-class large-scale facilities, highly-skilled people, and a structure of support and investment that allows innovation to flourish. As a trusted and experienced partner, STFC has a long track-record of delivering tailored solutions to industry challenges.

Flexible access to over £2 billion worth of scientific facilities, complementary technologies and IP, provides businesses with the opportunity to work with STFC to transform products and processes, and to increase productivity. Through the co-location of high-tech, high-growth business with STFC's world-leading research and innovation sites, entrepreneurs, start-ups, SME's and corporates become part of a collaborative and dynamic ecosystem designed to help businesses succeed.

STFC is part of UK Research and Innovation.

stfc.ukri.org



“ Creative transformative research and innovation comes from bringing together diverse people with high quality infrastructure in an environment where everyone feels supported to contribute. UKRI has a key role to play in fostering the communities we need to deliver the inclusive, sustainable and productive knowledge economy we need.

A great example is the National Science and Innovation Campus at Sci-Tech Daresbury. So I am delighted to see the continued partnership between UKRI-STFC and the North West Coast Academic Health Sciences Network working so effectively to deliver this regional cluster initiative for the Health & Life Science Sector.

Professor Dame Ottoline Leyser

Chief Executive, UK Research and Innovation



Common Language: Acronyms

AHRC – Arts and Humanities Research Council

AHSC – Academic Health Science Centre

AHSN – Academic Health Science Network (15 in England)

API (Digital) – Application programming interface

BBSRC – Biotechnology and Biological Sciences Research Council

BIC – Business Incubation Centre

CCG – Clinical Commissioning Group

CDS – Commissioning Data Sets

CLAHRC – NIHR Collaborations for Leadership in Applied Health Research and Care

CQC – Care Quality Commission

CRN – Clinical Research Network

CRO – Contract Research Organisation

DIT – Department for International Trade

EEN – Enterprise Europe Network

EHR – Electronic Health Record

EPSRC – Engineering and Physical Sciences Research Council

ESA – European Space Agency

FIHR – Fast Healthcare Interoperability Resources

GDE (Trust) – Global Digital Exemplars

GDPR – General Data Protection Regulation

HDR – Health Data Research UK

HPC – High Performance Computing

HRA – Health Research Authority

IAPT – Improving Access to Psychological Therapies

ICS – Integrated Care System

ICU – Intensive Care Unit

KTN – Knowledge Transfer Network

KTP – Knowledge Transfer Partnership

LEP – Local Enterprise Partnerships

LHCRE – Local Health Care Record Exemplars

MHRA – Medicines Health Regulatory Authority

MRC – Medical Research Council

NHSD – National Health Service Digital

NHSE – National Health Service England

NHSI – National Health Service Improvement

NHSX – National Health Service X

NICE – National Institute for Health and Care Excellence

NIHR – National Institute of Health Research

NIHR MICs – NIHR Medtech and In vitro diagnostics Co-operatives

NOCRI – NIHR Office for Clinical Research Infrastructure

PACS – Picture archiving and communication system

PAS – Patient Administration Systems

PHE – Public Health England

RE – Research England

ROI – Return on Investment

SQE – Safety, Quality, Experience

STFC – Science and Technology Facilities Council

STP - (health finance)
– Sustainability and transformation payments
STP – Sustainability and Transformation Partnership

UKRI – UK Research and Innovation

Contacts

The cluster is here to help you better understand how you could benefit from these stakeholders and to help signpost you to the people behind them. For more information please contact the following:

For enquires about the HealthTec Cluster:

Dr Philip Carvil, HealthTec Cluster Manager
philip.carvil@stfc.ac.uk

For enquiries about the AHSN:

Mike Kenny, Associate Commercial Director,
North West Coast Innovation Agency
mike.kenny@innovationagency.nwc.nhs.uk

For enquires about cluster development:

Dr Barbara Ghinelli, Cluster Development Director
barbara.ghinelli@stfc.ac.uk

To stay up to date with the cluster please visit
sci-techdaresbury.com



Dr Philip
Carvil



Mike Kenny



Dr Barbara
Ghinelli

