Northern Life Sciences

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Bionow Awards honour our greatest innovators

By Andrew Edwards

The Bionow Awards are given to honour those most deserving for their ingenuity and dedication, distinguishing them from their competitors and proving them worthy of recognition.

With a prestigious history of more than 20 years, the awards have become the leading life sciences accolades in the UK; highlighting the achievements of the sector, shining a spotlight on the North and giving the region the recognition it deserves as a powerhouse of innovation, achievement and growth.

On 6th March, the very best of the North was celebrated at the Bionow awards dinner – set in the spectacular surroundings of the Concorde Conference Centre at Manchester Airport.

A total of 14 awards were handed out to businesses and individuals who made their mark on 2024.

From Rising Star to Company of the Year, the awards, attended by 342 distinguished guests, reflected the enormous talent, dedication and ingenuity of the people leading the way in the region's life sciences sector.

Three extraordinary people stood out in the individual categories with Dr Daniel Todd, CEO of Newcastle-based InvenireX picking up the Rising Star award, AstraZeneca's Laboratory Scientist apprentice, Christina Dumitriu Jackson, winning the Rising Star: One to Watch category and Sam Whitehouse, CEO of LightOx, honoured with the Outstanding Contribution award.

The top honour of Company of the Year went to Liverpool-based Pharmaron, who were described by the judges as 'a globally formidable company which has demonstrated significant progress year on year whilst also demonstrating notable progress during the past 12 months.'

Greater Manchester, Merseyside, Cheshire, Yorkshire, Tyneside and Teesside all featured prominently as the honours were handed out.

Commenting on an evening of remarkable achievements, Geoff Davison, CEO of Bionow, said: "It was fantastic to be back at the Concorde Conference Centre this year for what turned out to be an incredible evening. The atmosphere was electric, the lineup of nominees was outstanding, and the level of talent on display was truly inspiring. Science is all about pushing boundaries and shaping the future, so it was especially exciting to introduce a brand-new 'One to Watch' award category to recognise those at the very start of their career journey. The competition was fierce, and picking the winners was no easy task! Huge congratulations to all the nominees whose work is a testament to the innovation and excellence happening across the life sciences industry right now."

The awards in full:

Start-Up Award sponsored by RSM UK:

ReNewVax, for producing vaccine products that offer protection beyond existing traditional vaccines, opening up access and delivering a step change in global health security.

Project of the Year Award sponsored by Waters Corporation:

The University of Manchester and Saraco Industries' Knowledge Transfer Partnership for a collaborative project marking a breakthrough in sustainable healthcare products, introducing the first biodegradable, plastic-free, clinical disinfection wipe to the market

Product of the Year Award sponsored by Health Innovation North West Coast, Health Innovation Yorkshire & Humber and Health Innovation Manchester:

CSL Seqirus with their zoonotic vaccine to protect occupationally-exposed workers or other vulnerable populations from a spill over event or future pandemic caused by avian influenza.

Technical Service Award sponsored by QIAGEN:

Pd-m International for its service to life science businesses who want to achieve sustainability and increase profitability through free information and advice, workshops, carbon reduction plans and product carbon footprinting.

Business Support Award sponsored by Industrial Technology Systems (ITS):

Medicines Discovery Catapult, a national life sciences service dedicated to turning drug discovery into commercial success, working with scientists on drug discovery and driving game-changing medical breakthroughs

Rising Star Award sponsored by CSL Seqirus:

Daniel Todd, founder, CEO and CTO of InvenireX, who invented groundbreaking new detection technology, built three prototypes himself, raised over £500k in VC funding and launched four commercial pilots with revenue generating over £50k - all inside18 months and whilst still a PhD student!

Rising Star - One to Watch Award:

Christina Dumitriu Jackson, a third-year Laboratory Scientist AstraZeneca apprentice studying for a BSc in Chemical Science at Manchester Metropolitan University, for showing leadership in green chemistry and lab automation, significantly advancing sustainability, efficiency, and innovation within AstraZeneca's Peptide Discovery Platform.

Social Impact Award sponsored by Dawsongroup tcs:

Health Equity North for its outstanding collaboration in producing the Women of the North study, exposing the inequalities faced by women in the region in their lives and their health. The award recognises the pioneering work carried out by health, life sciences experts and universities working together.

Partnership & Collaboration Award sponsored by Mills & Reeve:

iiCON - Infection Innovation Consortium for developing a global network of companies, from multi-nationals to SMEs working to generate a massive portfolio of new products, with 36 already being deployed and saving lives.

Internationalisation Award sponsored by BioPartner UK:

FibroFind, with a reputation as the 'gold standard' in fibrosis evaluation, their services are exported to over 160 international companies in the pharmaceutical and biotechnology industries, demonstrating their extensive international reach and impact.

Business Growth Award sponsored by SRG:

Reacta Healthcare whose turnover more than doubled in 2024 compared to each of the previous two years, delivering a £2.7m improvement in EBITDA in the last year alone, growing its staff numbers by 60%.

Investment Deal of the Year Award sponsored by Bouygues Energies and Services:

Seda Pharmaceutical Development Services who secured £5.5 million Capital Growth funding from Santander to develop a state-of-the-art GMP manufacturing facility. It enabled end-to-end pharmaceutical development, accelerated clinical trials, supported global biotech clients and created 100 jobs.

Outstanding Contribution Award sponsored by Sci-Tech Daresbury and the Science and Technology Facilities Council (STFC):

Sam Whitehouse, for developing oral cancer therapies. Sam has had a career of building life science companies in the Northeast. Sam is a Fellow of the Royal Society of Chemistry, a Royal Society Entrepreneur in Residence, and an Export Champion for the UK Department of International Trade. His leadership as Chair of the Northeast LEP Business Board, and influential Bionow member highlights dedication to regional growth and innovation.

Company of the Year Award sponsored by Squire Patton Boggs:

Pharmaron, whose biologics site in Liverpool has supported development of 12 products within the sector, launched a new service line for the development and manufacture of microbial proteins as therapeutics and vaccines.

They have also led the bid and secured the award for an Innovate UK grant to advance the manufacturing of gene therapies, advanced their sustainability goals and advanced the construction of a new building that will expand their development laboratory space and commercial manufacturing footprint.

The winners at the Bionow 2024 Awards

The 2024 Bionow Awards dinner was sponsored by Appleyard Lees and Bruntwood SciTech

Bionow: Supporting the North's Life Sciences Growth

In the fast-moving world of life sciences, one company has become a central force in driving innovation, collaboration and growth across the North. Bionow, a not-for-profit membership organisation, has emerged as a vital connector for biotech, pharmaceutical, medtech and healthtech companies in the locality – and its impact is being felt throughout the region and beyond.

Founded to support the sector's growing needs, Bionow now represents a broad and dynamic network of startups, scaleups, universities, NHS trusts and global players. Its mission? To help northern life sciences thrive – not just locally, but nationally and internationally.

At the heart of Bionow's approach is collaboration. The organisation brings together businesses and researchers across traditional boundaries, creating opportunities for partnerships, knowledge-sharing and commercial growth. Whether it's a biotech spinout looking for a manufacturing partner or a medtech firm seeking clinical insight, Bionow provides the introductions and community to make it happen.

Members can access a wide range of practical benefits designed specifically for the sector, including discounted procurement on essential lab consumables, business support services, and sector-specific training to help plug skills gaps. But the value goes beyond cost savings: Bionow also offers a platform for visibility, influence and credibility within a competitive market.

Its events calendar has become a fixture in the industry, drawing hundreds to conferences, webinars and networking sessions, plus its annual Bionow Awards - a celebration of northern excellence in innovation and growth. These events not only highlight the strength of the sector but actively drive new collaborations and investment.

Crucially, Bionow also acts as a voice for the North's life sciences industry, engaging with government and stakeholders to influence and secure support for the region. With life sciences playing an increasingly central role in the UK economy, the importance of regional champions like Bionow is only growing.

As the region continues to attract attention for its research expertise, skilled workforce and thriving innovation clusters, Bionow is ensuring that the North doesn't just keep up – it leads. For many across the sector, Bionow is more than a network: it's the engine behind the evolution of northern life sciences.

Geoff Davison

> *At Bionow, our role is to champion the potential of the northern life sciences sector – connecting the community, breaking down barriers to growth, and ensuring that innovation is recognised and supported on a national and international stage. Collaboration is at the heart of our approach, and Bionow exists to make those vital partnerships happen.*
>
> ***Geoff Davison, CEO, Bionow***

As no business is the same, Bionow membership pricing is tiered dependent on your organisation's size. We also offer two distinct membership packages; Membership and Premium Membership, which cater for different business needs. Bionow Membership pricing can be found at: bionow.co.uk/membership/features-and-charges

To become a Bionow member, join here: bionow.co.uk/membership/join-bionow

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Sci-Tech Daresbury: the North West's home for life science

Sci-Tech Daresbury, located in the Liverpool City Region, is a premier hub for life sciences innovation, playing a critical role in advancing healthcare, MedTech and biotechnology solutions.

As the North of England's only national science and innovation campus, it is home to more than 50 pioneering health and life sciences companies. Its cutting-edge infrastructure, access to world-class expertise, and collaborative environment make it a powerhouse for transformative advancements in the sector.

The campus hosts the internationally renowned Daresbury Laboratory, operated by the Science and Technology Facilities Council (STFC), part of UK Research and Innovation (UKRI) and one of the partners in the Sci-Tech Daresbury Joint Venture alongside Langtree and Halton Borough Council. This facility brings unparalleled expertise in sensor technology, nuclear physics, high-performance computing, big data analytics, and AI — key technologies driving innovation in life sciences.

One of the most significant assets at Sci-Tech Daresbury is the Hartree Centre, a world-leading facility that leverages advanced digital technologies such as supercomputing, AI, and quantum computing to support various industries, including healthcare.

The Centre's recent work in life sciences includes collaborations with REPROCELL and IBM to develop an AI-powered application for precision medicine, as well as accelerating virus-inspired drug delivery in partnership with IBM and the National Physical Laboratory (NPL).

Sci-Tech Daresbury's investment in life sciences is further amplified by its role within the Life Sciences and Healthcare Innovation Zone in the Liverpool City Region. With plans to develop over 750,000 square feet of high-tech laboratories, offices, and technical facilities, the campus is poised for major growth. Its expansion strategy aims to increase the workforce from 2,000 to approximately 10,000. The V5 building in the next stage of development will be a Class 2 laboratory building with units of 5,000-20,000 sq ft offering business rates relief and National Insurance contribution holidays for its tenants.

The campus fosters an ecosystem of collaboration, where three-quarters of businesses engage in joint projects with other on-site organisations. This synergy has led to groundbreaking advancements, such as AI-driven healthcare applications, robotic-assisted in-vitro fertilisation, ADHD-detecting wearable technology, and innovative medical devices that prevent deep vein thrombosis and accelerate wound healing. It has also helped reduce business failure rates to 6%, significantly below the UK average, and supported sales growth rates in campus companies of 25% per year over the past five years.

Established companies such as Lubrizol and Croda develop novel materials via industrial biotech processes. At the same time, dynamic start-ups are exploiting the latest technology to become healthcare trailblazers. AI Sight is breaking new ground with its next generation AI system for diabetic retinal screening while Spotlight Pathology uses AI to develop decision support tools to help in the diagnosis of blood cancer.

Harnessing the power of AI, data science, and supercomputing alongside scalable laboratory and pilot facilities, Sci-Tech Daresbury is transforming life sciences and healthcare on a local, national, and global scale.

Bruntwood SciTech and Imperial: unlocking science and tech growth in the capital and regions

By Andrew Edwards

White City Deep Tech Campus

It was the £200m deal between the North and the South that got the whole UK life sciences sector talking.

Bruntwood SciTech, the Manchester-HQ'd property and ecosystems powerhouse - backed by Legal & General, Greater Manchester Pension Fund and Bruntwood - partnering up with Imperial College London, one of the World's highest-ranked centres of scientific excellence.

A partnership designed to unlock growth for innovation in both the capital and regional cities.

The ground-breaking deal to build a new innovation centre at Imperial's White City deep-tech campus to the west of the capital raises one very important question ...

With this powerful north-south alliance in place, what happens now to grow the life sciences sector across the UK as a whole?

How will this unique link up between the north, midlands and Golden Triangle of London, Cambridge and Oxford inspire further investment, economic growth and job creation?

The answer, according to Bruntwood SciTech's Chief Scientific Officer Dr Kath Mackay can be summed up in one word - collaboration.

"Bruntwood SciTech and Imperial working together in a collaboration of our combined strengths can connect world-leading discovery and research with the unparalleled specialist facilities, expertise and access to funding and growth support we can provide," she says.

"A collaboration of this scale can open up opportunities for existing life science, tech and innovation-led businesses based with us in the UK's high growth regional cities of Manchester, Birmingham, Leeds and Liverpool to grow, new ones to start up and for innovators to find the facilities they need to realise their ambitions, whether they're a one-person startup, all the way through to a global company looking for a world-class UK HQ.

"It breaks down the regional barriers. The connection between the north and the midlands with the golden triangle offers an opportunity to create a backbone of innovation clusters across the UK and a truly connected ecosystem, where businesses in regional cities can, through our partnerships and connections, tap directly into research, more funding - particularly VC funding, an even larger pool of highly-skilled talent; and even more access to specialist research via Imperial.

"And conversely, businesses in London will be enabled with access to our like-minded community across the UK that will increase collaboration opportunities, as well providing them with the intrinsic growth support Bruntwood SciTech is now recognised for. It harnesses the power of the collective and will encourage life science companies of all sizes to consider the UK as their first choice for future investment."

Bruntwood SciTech will plough £200 million into building the new innovation centre, taking up at least 200,000 square feet, at a campus that is already home to 110 early-stage companies and 5000 people. Long term the masterplan for the site will span 23 acres of academic, commercial, R&D, clinical, residential, retail and leisure space for more than 25,000 people to live, work, collaborate and innovate so the future for life sciences and deep tech in West London is certainly bright!

Dr Kath Mackay

It promises to deliver world-class specialist labs and workspaces where life science and deep tech start-ups, scale ups and global businesses can co-locate, collaborate and grow with Imperial's renowned academics, clinicians and researchers.

Work is anticipated to start on the facility next year and is expected to unlock opportunities to commercialise research and design innovation and support highly skilled talent retention and job creation.

The new building will also emphasise Bruntwood SciTech and Imperial's commitment to the environment. The new hub at White City will be net zero carbon in construction and operation in its communal spaces, while all communal areas will be run using 100% renewable energy.

All Bruntwood SciTech's new-builds across the UK are being constructed and operated under the same principal of supporting environmental sustainability, supported through their £9.7m investment in a wind farm in Ayrshire, Scotland.

The deal with Imperial is its first venture into the London marketplace – chosen by Imperial because of its unrivalled status in the sector.

Bruntwood SciTech is the country's leading developer of city-wide innovation ecosystems, and the largest dedicated property platform for the UK knowledge economy.

It now has 11 life science and tech campuses and 31 city centre innovation hubs in six UK cities, supporting more than 1,100 startup, scaleup, and global science, tech and innovation businesses.

It takes a partnership approach, working with key stakeholders across cities and regions in a range of public, private, academic and clinical partnerships to align goals and jointly deliver them, and has become a trusted partner to deliver large scale developments and create elevated innovation ecosystems with competitive advantages for fast growing cities.

Already working in joint venture partnerships with the University of Manchester; Manchester University NHS Foundation Trust; and the University of Birmingham on the Midlands' first dedicated life science campus due to open this summer - Birmingham Health Innovation Campus, it can now add Imperial College and an expansion to London to its portfolio.

Forming life science, tech and innovation clusters and connecting them together to create city-wide ecosystems, they're able to support all sizes of businesses and can accommodate their growth, be it a one-person startup or an international global-leading business.

Dr Mackay says: "Getting to the point where we would consider the capital as an opportunity, and also be considered as a preferred partner of choice didn't happen overnight. Bruntwood has been creating best in class workspaces for almost 50 years, first entering the science and tech workspace market in 2009. Bruntwood SciTech formed with Legal & General in 2018, subsequently undergoing huge growth in 2023 with a £500million investment and welcoming GMPF as a new shareholder.

"That journey is years of hard work building Bruntwood SciTech into the brand and model it is today, and we've worked earnestly to become intrinsically deep in the places that we invest in.

"We create truly valuable partnerships with local authorities, universities, alternative training providers, hospitals, and many other growth support providers to be able to open doors for life science, tech and innovation-led businesses and offer them direct access to what they need to further their growth, and directly positively affect the economic impact of these sectors in the cities we're in.

"I believe we were chosen by Imperial because of our story. People from outside of the north and midlands are taking notice of what we're doing and want to be part of it.

"We've been waiting to find the right opportunity in London and this is a perfect alignment in terms of our joint ambitions and values in adding to the UK's eco systems."

Dr Mackay expects this to be just the start of more collaborations in the future which will further grow the sector to the benefit of the UK economy as a whole.

Bruntwood SciTech's London announcement is just one of a number of hugely significant steps forward by the business.

UK Biobank, the world's most significant source of data and biological samples for health research, is to move its headquarters into Manchester Science Park, the home of more than 150 life science and tech businesses, right next door to the University of Manchester.

Most significantly, the deal and the financing behind it, safeguards the future for UK Biobank and secures its presence in Manchester.

Dr Mackay says: "The Imperial and UK Biobank partnerships are undoubtedly two of our biggest life science highlights this past year. These kinds of new collaborations and the progress we have made are testament to the quality of the workspaces and growth networks we now have."

As to the future, Bruntwood SciTech is committed to delivering on its mission statement and establish a £5bn portfolio by 2033 that will support 2,600 science, tech and innovation businesses and continue to contribute to the growth of the sector as a whole.

An enormous part of that commitment is in the delivery of Sister, the £1.7billion transformation project located in the heart of Manchester city centre. Sister is a joint venture between The University of Manchester and Bruntwood SciTech that will see the transformation of the University's former North Campus into a 4 million sq ft globally competitive innovation district, complete with workspace and innovation spaces, new homes, community space and retail and leisure opportunities.

In February Sister announced plans for the next main phase of development within the new district, Zone C, which will mark a significant milestone in the delivery of the masterplan.

Located next door to Manchester's main line rail station Piccadilly Station, Sister's Zone C will see the creation of over half a million sq ft of flexible commercial space across two new buildings.

According to Dr Mackay the future is looking very bright indeed, but essential to that bright future is the relationship with the government and how it supports the life sciences sector through its Industrial Strategy – Invest 2035. The 10-year plan to support economic growth is expected to be finalised later this year.

The relationship between the sector and government is already developing following the appointment of Lord Patrick Vallance as Minister of State for Science, most well known as the government's Chief Scientific Adviser during the Covid crisis.

Lord Vallance visited one of Bruntwood SciTech's campuses,Manchester Science Park, and the site for the new UK Biobank HQ, within two weeks of Labour coming to power.

Dr Mackay says: "We were very interested to see who got the key government posts in the science sector and were encouraged by the appointment of Lord Vallance who has vast experience in the field. I've got to say the interest he had in what we were doing was second to none and it was fantastic to be selected as the location of his first official visit in post."

Now the business is waiting to see what recommendations to government come from the Industrial Strategy Advisory Council, whose deputy chair is Professor Dame Nancy Rothwell, the former President and vice chancellor of the University of Manchester.

Says Dr Mackay: "Yes, I am optimistic, but this industrial strategy has got to get it right if we are to continue to see growth, innovation and jobs throughout the sector.

"If the government wants to create a world class innovation strategy it needs to engage with and invest in the regions, specifically those with high growth regional cities. It also shouldn't be at the expense of the golden triangle but be holistic and inclusive. As a country we need to move away from a narrative of geographies competing against each other and instead build complementarity and connections between regions. Grant funding is of course important, but there are a variety of ways government can support the growth of the science and tech sectors and the infrastructure it needs.

"There are more opportunities for the public and private sectors to work together too. We currently have £314m of new and refurbished best in class workspace and highly specialist lab space underway to support the growth of these sectors. Labs are high cost endeavours; the more specialised and sophisticated, the more expensive from a development perspective. But working with government we can unlock further growth and address viability gaps that currently exist."

In the meantime, the job of impressing and informing government recommendations for the industrial strategy goes on.

In March Dr Mackay gave evidence to the Science, Innovation and Technology Select Committee in the House of Commons to reinforce this message and discuss the role infrastructure plays in the growth of innovation in the regions.

Bruntwood SciTech breakout space in West Village, Leeds

UK Biobank's new £75m HQ will drive discovery and industry collaborations

Work is due to be completed next year on the building of UK Biobank's new £75m headquarters at Bruntwood SciTech's Manchester Science Park, which is already home to more than 150 businesses and is one of the most established science and tech campuses in the country. UK Biobank is the world's most important health research database, supplying health and lifestyle data and biological samples to approved researchers across the globe.

The move, supported by a £127.6m award from the UK Research and Innovation (UKRI) Infrastructure Fund for the next phase of UK Biobank's development, will increase UK Biobank's capacity, speed and efficiency. The planned state-of-the-art specialist lab facility is testament to the quality of the specialist knowledge and infrastructure that Bruntwood SciTech can deliver. The new building will be 100% electric and net zero carbon in construction and operation in its shared spaces - one of the first lab spaces in the UK to be so, and one of the greenest ever built.

UK Biobank's biological samples, laboratories, headquarters and around half of its 300 staff will move to the new facility.

Their new HQ will include a latest-generation robotic freezer that stores and retrieves UK Biobank's 20 million biological samples four times faster than before, revolutionising the pace of scientific discovery. These samples have all been donated by UK Biobank's 500,000 volunteer participants. The facility will enable new projects to turn the samples into data and drive discoveries into how to prevent and treat a wide range of diseases.

CGI of Greenheys at Manchester Science Park

With the support of the University of Manchester, Bruntwood SciTech is developing the new 131,000 sq ft facility, called Greenheys, within Manchester Science Park, which sits at the heart of the city's Oxford Road Corridor knowledge quarter. It will also offer opportunities for collaboration with multi-disciplinary researchers and industry, and access to additional talent due to the proximity to leading institutions operating across research, academia, business and the NHS.

Dr Mackay says: "The ability for UK Biobank to grow here is testament to the quality of talent, innovation and support within the city. We're very much looking forward to welcoming them to the well-established community at Manchester Science Park, and the opportunity it brings for new businesses to join too. Half of the building will be UK Biobank's HQ whilst the other half has world-class workspace available for small and medium life science, medtech, diagnostics, and data health companies to be co-located alongside UK Biobank which is an incredible opportunity."

Citylabs 4.0 opens its doors... to a world of opportunity

The latest big development for Bruntwood SciTech officially opened its doors only last week.

Citylabs 4.0, the newest phase of Manchester's world-leading health innovation campus, further strengthens the city's reputation as a major centre for life sciences, precision medicine and health innovation.

Located in MFT's Oxford Road hospital hub and within Europe's largest clinical-academic campus, Citylabs 4.0 is the latest addition to the growing Citylabs cluster.

Citylabs 4.0, with its state-of-the-art workspace and opportunities available for businesses to work directly with the NHS, plays a major part of Bruntwood SciTech's strategy to drive investment into Manchester's science and technology ecosystem.

The joint venture with Manchester University NHS Foundation Trust (MFT), the UK's largest NHS Trust - the £42 million, 125,000 sq ft facility is set to drive forward life sciences and healthcare innovation across Greater Manchester.

The building provides a mix of high-specification office and laboratory space, including containment level 1 (CL1) and level 2 (CL2) biology and chemistry labs, designed to support businesses of all sizes working in life sciences, medtech, biotech, diagnostics, genomics, precision medicine, AI and digital health.

Citylabs 4.0

Kath Mackay - Bruntwood SciTech, Katherine Boylan - MFT and Gillian Dalgliesh - QIAGEN at Citylabs 4.0 launch

The Citylabs campus is already home to major global life science companies, including global diagnostics company QIAGEN, which has established its Global Centre of Excellence for Precision Medicine at Citylabs 2.0, as well as Apis Assay Technologies, ophthalmic instrument manufacturer Takagi and MAC Clinical Research, one of Europe's largest contract research organisations.

Designed with collaboration at its core, Citylabs 4.0 offers life science businesses direct access to joint clinical trials, diagnostic collaborations, medtech adoption, and advanced resources including sample supplies, clinicians, industry expertise and research. Many companies based at Citylabs are already engaged in these partnerships, leveraging MFT's expertise to accelerate the development and application of new healthcare innovations through to rapid, large scale adoption.

Kath Mackay commented: "Citylabs 4.0 is a significant milestone in the continued evolution of Manchester's world-leading life sciences ecosystem. The campus has already played a crucial role in supporting pioneering healthcare businesses to scale and work in direct collaboration with the NHS, and this latest development further cements its position as a location for scientific breakthroughs and innovation. By bringing together industry and the NHS we're creating a collaborative environment where innovation can thrive, ultimately leading to real-world healthcare advancements that will benefit patients across Greater Manchester and beyond."

Bruntwood SciTech fact file

1. UK's largest property platform dedicated to the growth of the science, tech and innovation sectors
2. £1.5bn portfolio spanning 11 campuses and 31 city centre innovation hubs in 6 high growth UK cities
3. Like-minded innovation community of 1,100 startups, scaleups and global companies
4. Backed by property company Bruntwood, Legal & General and Greater Manchester Pension Fund
5. Deeply embedded and connected in its locational cities to support innovation growth;

   including with University of Manchester, University of Birmingham, Manchester University NHS Foundation Trust, and Imperial College

A digital revolution for our future

By Andrew Edwards

COVID produced the fastest acceleration of invention, production and best practice ever seen in the UK's pharmaceutical sector.

Innovators in the industry found solutions to challenges that literally made the difference between life and death for hundreds of thousands of people.

But since the pandemic has the revolution continued? Has the sector kept up the pace of change and transformation that saw production systems improve dramatically?

According to leading experts at CPI, one of the country's biggest innovation centres and digitalisation specialists, much more needs to be done.

And there is one huge challenge that the industry must meet head-on to make the future sustainable: digitalisation.

Without taking huge strides towards true digitalisation across the pharmaceutical sector the industry will never be fully efficient and fail on tackling its carbon footprint and achieving net zero carbon emissions.

The warning comes from two of CPI's most senior specialists on the subject, Jess Andrews, team leader for Automation and Digital and Director of Digital Business Systems Dave Berry.

CPI, with its Medicines Innovation Manufacturing Centre in Glasgow and linked-up centres across the north east, helps companies develop, prove, prototype and commercialise the next generation of products and processes.

The company acts as a catalyst bringing together academia, businesses, government and investors to translate bright ideas and research into the marketplace. They do this by giving customers access to the right experts, equipment, networks, funding and more – connecting the dots for effective innovation.

Jess Andrews

Jess Andrews says: "Collaboration is key to unlocking the full potential of Industry 5.0 in pharma. As we enter the next phase of industry evolution, both the rate and scope of change are only set to accelerate.

"Industry 5.0, and the integration of novel technology for human-machine collaboration, will bring a step change in productivity, carbon efficiency, and compliance that will revolutionise pharma, with benefits for patients, the planet, and the bottom line.

"At CPI, we have taken on grand challenges to help drive pharma manufacturing towards a future that is efficient, sustainable, and has low impact on the planet. These include transforming tablet production and delivering just-in-time clinical supply.

"Our newest grand challenge, the Digital Membership, links them together through a vision to create the digital pharma factory of the future.

"The Digital Membership delivers vendor-agnostic enterprise architecture designs that demonstrate the effective use of connected data, systems, and technologies to achieve key pharma objectives such as real-time release.

"These technologies can ensure the flow of a diverse range of medicines through continuous manufacturing, which is faster and more efficient than wasteful large-batch manufacturing. This agile, flexible manufacturing process will make pharma more resilient to changes in demand and reduce costs for the benefit of patients.

"The industry will also operate more environmentally sustainably, through responsible use of raw materials, digital-first design experiments and testing, as well as the use of low-carbon energy and supply networks."

There's a very good reason why this must happen. The pharmaceutical sector is responsible for 4.4% of global greenhouse gas emissions (GHG). This share could triple by 2050 at the current rate – unless action is taken now.

The pharmaceutical industry's emission intensity is about 55% higher than that of the automotive industry.

As part of the NHS supply chain, the sector needs to reduce carbon emissions to help meet the NHS's 2040 net zero ambition and achieve greater sustainability.

By 2030 the NHS aims to only purchase from suppliers that align with its net zero ambitions, highlighting the urgency for the industry to adapt and minimise its environmental impact.

Dave Berry says: "Despite the benefits of many products, especially in health and medicine, industrial processes have dealt unprecedented, perhaps irrevocable, damage to human and planetary health. Industrial production has put a strain on natural resources like water and released vast quantities of pollutants and greenhouse gases into the air.

Dave Berry

"We now stand on the cusp of a new industrial revolution. One that will integrate people and technology to produce customised products for individuals with diverse needs, sustainably and within planetary health boundaries.

"Digital technology will be at the heart of the revolution. Pharma is undergoing a transformation into smart spaces that use machine learning and deep learning, which underpin technologies like smart computing, cognitive computing and AI.

"CPI is embracing this journey and helping to drive the future of pharma manufacturing towards Industry 5.0; a future which is more sustainable and has less environmental impact."

As part of the drive towards digitalisation CPI has been working on a major three-year project to build and test a Digital Architecture to revolutionise digital transformation.

In partnership with industry leaders including AstraZeneca, Atos, Amazon Web Services (AWS), Capgemini, GSK and Siemens, CPI has spent the last 3 years leading a large-scale collaboration to develop a game-changing strategic roadmap and coded blueprint to facilitate digital adoption in pharmaceutical manufacturing.

Dave Berry says: "We recommend that companies align on common data models, enterprise architectures, and best-practice implementation guidelines. Our Digital Architecture provides this much-needed structure, ensuring that pharmaceutical manufacturers can successfully integrate digital technologies in a way that is scalable and effective.

"Large pharma companies often appropriately embark on digitalisation projects using internal teams but having an external reference point on which to 'check your homework', can be invaluable."

Medicines Manufacturing Innovation Centre

Photographs in this article courtesy of CPI

The grand challenges

CPI has developed two revolutionary digital demonstrators to help transform the industry.

Grand Challenge 1

A new method for tablet manufacturing.

Continuous direct compression (CDC) of oral solid dosage medicine is a novel manufacturing method that aims to eliminate some of the cost and complexity of old traditional batch processes. It enables drugs to be developed and scaled up using much lower quantities of expensive and complex ingredients, facilitating rapid production of formulations at a range of scales

Shorter production runs enable pharma companies to respond more effectively to differing patient needs while simultaneously reducing the development burden and costs.

As shown by the COVID-19 pandemic, pharma needs to be able to respond to peaks in demand for unexpected or new health events. Creating a more agile and responsive supply chain enables manufacturing plants to respond to demand and supply in real-time.

Grand Challenge 2

The Just-in-Time (JIT) production model to show a real-life process for how clinical trial medicines could be produced and packaged in the future.

Manufacturing medicines for clinical trials is a significant – but essential – investment for drug manufacturers. Yet, due to inherent uncertainty in the medicine's development process, pharma companies currently rely on a 'just-in-case' approach, which leads to over-production. This leads to wasted time and resources, as well as causing delays in getting drugs to patients.

Creating a more agile and responsive supply chain is one of the key challenges for the pharmaceutical industry today. JIT will facilitate the transition towards manufacturing plants that can respond to 'real' demand and connect to subsequent supply in real-time.

The model developed by CPI relies on an innovative, automated supply chain platform to enable late-stage customisation of trial stock and single-patient ordering during the clinical trials process.

Celebrating the innovators of the North East

By Andrew Edwards

A triple winning night at the Bionow life sciences awards dinner was the icing on the cake for the North East after a spectacular year of innovation and growth.

Five businesses, two outstanding individuals and a role in a groundbreaking report into inequalities facing women of the north featured in the 2024 awards dinner in Manchester, cementing the region's growing status in the sector.

The region has a large and talented workforce for life sciences, employing more than 9,000 people in the sector, and nearly 69,000 people in specialist advanced manufacturing.

It has also seen spectacular progress in terms of international connections, backed up at the awards with the Internationalisation award going to Gateshead-based Fibrofind.

The award recognises businesses trading their products, services, and expertise overseas, with its patented human fibrosis bioassays, FibroFind offers a critical pre-clinical service platform that gauges the effectiveness of anti-fibrotic medicines.

With a reputation as the 'gold standard' in fibrosis evaluation, their services are exported to over 160 companies in the pharmaceutical and biotechnology industries across various countries, demonstrating their extensive international reach and impact.

While businesses in the region make their mark, so too do individuals who make an outstanding contribution to the life sciences sector.

One such innovator, DanTodd, founder and CEO of InvenireX, the Newcastle-based developers of real-time detection instrumentation.

He was named Best Rising Star having invented groundbreaking new detection technology, built three prototypes himself with no formal training, raised over £500k in VC funding, established a team of four, and launched four commercial pilots with the likes of CPI and QuantuMDx with revenue generating over £50k, all inside of 18 months ... and whilst still a PhD student.

Sam Whitehouse, CEO of Newcastle-based LightOx, specialists in developing new treatments for oral cancer, won the Outstanding Contribution Award, honouring his remarkable impact on the sector over the course of his career

Sam has a long and successful career building life science companies in the North East and making a very active contribution to the ecostystem in the region and supporting its success.

Beyond business, Sam is a Fellow of the Royal Society of Chemistry, a Royal Society Entrepreneur in Residence, and an Export Champion for the UK Department of International Trade.

Sam Whitehouse

DanTodd

His leadership as Chair of the Northeast LEP Business Board, board member of Medilink and influential Bionow member highlights dedication to regional growth and innovation.

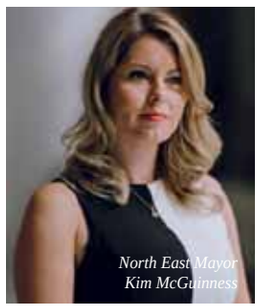
And he is now continuing the journey as an active member of the North East Combined Authority Business Advisory Board, supporting the Mayor and cabinet in growing the region's economy.

One of the best-received awards of the night was the Social Impact award that went to Health Equity North for its ground-breaking work in tackling health inequalities in the region.

One of the eight major reports published by the group was the Women of the North study into health and living inequalities faced by women in the region.

The work was backed by North East Mayor Kim McGuinness who said: "From leaving school to the boardroom, at home and at work, women and girls across the North bear the brunt of failings in our economy, society and public services. The lack of equality and opportunity that remains ingrained in modern Britain is unacceptable.

"As Mayor I'm determined to make the North East the home of real opportunity – and that means breaking down barriers which hold women and girls back. I will drive wholesale reform of the support we provide in schools, in our skills system, in childcare and in industries where too often women are shut out or overlooked. I welcome this report as a roadmap to a fairer, more equal North of England."


North East Mayor Kim McGuinness

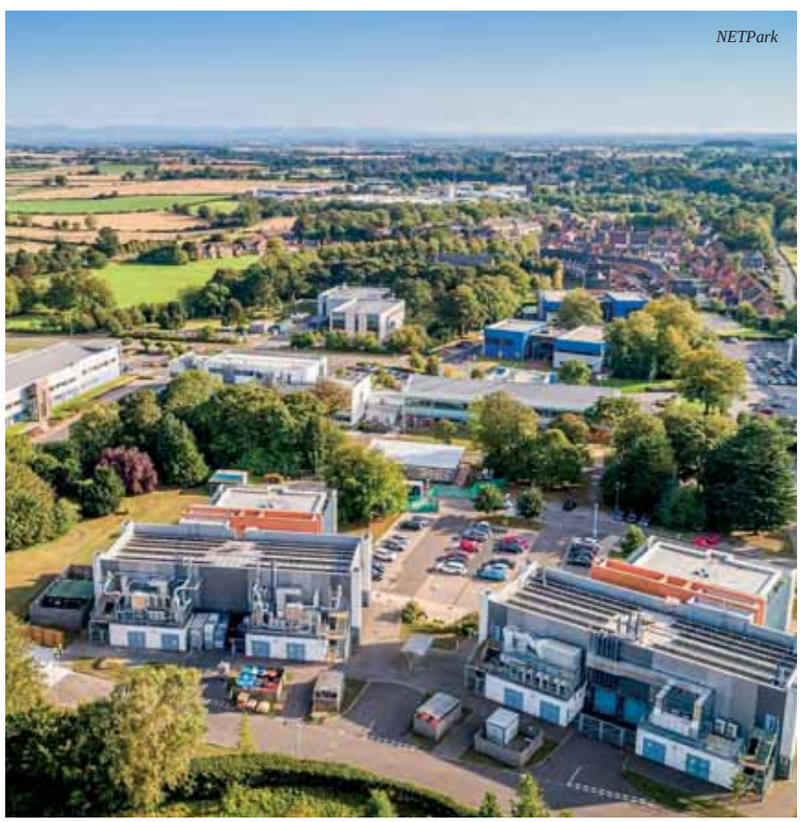
Health Equity North brings together health and life sciences experts from across the North of England's leading universities and NHS trusts who share a common goal – to end health inequity through research, policy impact and public health improvement.

Others from the North East to be recognised in the awards were:

Arrow: a multi-university initiative fostering industry-academia collaboration: highly commended in the Business Support category.

CPI: Phage Therapy for Antibiotic-Resistant Bacteria – overcoming the UK's manufacturing barriers:. Shortlisted for the Partnership and Collaboration award.

PulmoBioMed: Newcastle-based medical technology manufacturer: shortlisted for the Investment Deal of the Year award.


NETPark

The North East, a magnet for talent, innovation and growth

World renowned Life Sciences and pharmaceutical companies have chosen to position themselves in the North East; GSK, Piramal, Accord, Sterling and Quotient Science continue to invest in world-leading biotech and pharmaceutical excellence.

And there are a multitude of good reasons why they did choose a region whose pharmaceutical product manufacturing contributes £1,521 million Gross Value Added (GVA) to the economy

It boasts some of the most cost-competitive industrial and incubator space in the UK, with highly competitive cluster locations including science parks and Investment Zones

The North East is one of the best locations to undertake drug trials with a coherent and industry-engaged health service that has consistently been in the top 3 health trusts for clinical trials over the last 10 years.

It has sponsored over 40 highly complex clinical trials with more than 13,000 patients recruited to studies annually making it the largest NHS provider of commercially funded clinical research trials in the UK.

The region is recognised nationally and internationally as a leading centre for the implementation and delivery of advanced therapies, providing access to innovative treatments, through expert services in processing, storing and manufacturing cell, gene, and tissue products. Key features include significant expertise in the development and manufacture of high-quality advanced therapy medicinal products.

Additionally, the region is a centre of learning and training, as home to four universities, CPI's capabilities in advanced manufacturing, biologics and mRNA Training Academy, alongside the National Horizons Centre, providing expertise in process development, scale up, smart packaging and sustainable manufacturing.

West Yorkshire: a region of innovation, opportunity and growth

West Yorkshire Combined Authority | Tracy Brabin Mayor of West Yorkshire

By Andrew Edwards

From start-ups to global giants, the healthtech sector in West Yorkshire has become a trailblazer for the UK life sciences industry.

The region's collaborative infrastructure, skilled workforce and national and international links all make it the cluster of excellence that it is today.

And why is that?

West Yorkshire is exceptionally well-placed to drive the growth of health innovation in the UK.

Nexus

The region is the UK's top location for training, evaluating and scaling healthtech solutions. Strengths in data science, software development and AI—supported by initiatives like the Leeds Office of Data Analytics—align with key government health decision-makers, including NHS England and the Department for Health and Social Care.

West Yorkshire combines world-class academic and commercial innovation hubs, such as Nexus and the University of Huddersfield's Health Innovation Campus, with nationally significant healthcare datasets.

These assets underpin a mature and innovative ecosystem with over 300 healthtech firms, centred on digital health, medical devices and diagnostics. West Yorkshire healthtech firms generate around £3 billion a year in revenue and offer a strong breadth offer and the drive for progress in the region.

The Old Medical School in Leeds is one of the flagship projects for the West Yorkshire concentration of high-skill, high-wage jobs.

The West Yorkshire Investment Zone will develop this strength further. The £80 million infrastructure and support package will drive the invention, manufacture and adoption of healthtech solutions, creating more than 2,500 new jobs across the region over the next five years and unlocking an anticipated £220 million in private investment.

Here are just some of the outstanding highlights of the Investment Zone, aiming to create a leading healthtech innovation hub.

Tracy Brabin, Mayor of West Yorkshire

Nexus at the University of Leeds gives innovative startups access to space, support and community with their peers. It helps cutting-edge firms navigate innovation and investment opportunities to grow at scale.

The National Health Innovation Campus at Huddersfield University hosts small businesses and connects them with research, equipment and growth support. It will improve health outcomes and lead innovation in healthcare for the North of England, the UK and internationally.

Propel@YH an accelerator run by Health Innovation Yorkshire and Humber. It gives innovative digital health organisations access to a six-month structured course of support and advice, which helps them grow their business and increase their market presence. A new Propel programme specifically tailored for West Yorkshire will be rolled out this month.

The progress and success of the region is recognised by the Mayor of West Yorkshire, Tracy Brabin, who said: "I am immensely proud that our region is home to some of the best and the brightest health and life sciences firms anywhere in the world, which are driving technological advancements and scientific breakthroughs.

"These businesses are not just vital for the jobs and economic growth they create for local people, but for the lifechanging impact they have on health professionals and patients both in the NHS and around the world.

"Here in West Yorkshire, we're committed to supporting this sector to grow through our £160 million Investment Zone, which will help ensure that businesses have the finance, workspace and skills that they need to succeed and grow, working in partnership with our fantastic universities and hospitals."

CASE STUDY

DigiBete: How the Propel@YH accelerator supported Maddie and Rob

DigiBete is a remarkable Leeds-based success story, built from the innovative work of Maddie and Rob Julian who wanted to launch a business that would improve the lives of those living with Type 1 diabetes.

They had good reason ... their son developed the condition at just 20 months and the diagnosis came as a complete shock.

Trying to take in all the written guidance to care for their 20-month-old baby proved challenging and their vision in creating DigiBete was to simplify this in a way that would also help other families improve health inequalities – and bring equity of access to diabetes self-management for the digital age.

DigiBete is a free-to-access tool that gives users a way to manage their own education and training around diabetes. It is entirely community-led and clinically approved.

Maddie Julian

Before DigiBete, families that needed help would have to wait until clinics were open or contact emergency services. Now patients and families can get support at their fingertips around the clock. The platform hosts a range of videos and written resources to support children and young people and their families throughout their diabetes journey.

Rob Julian

The pioneering platform has disrupted the status quo of patient education and today is widely recognised as a key national digital resource supported by NHS England.

Maddie and Rob successfully bid for a place on the Propel@YH digital accelerator programme, and the support provided played an enormous part in the initial development and adoption of their product. They were provided with a tailored package of support to help with their development, including close collaboration with the Propel team to build the evidence base for their product and to help with procurement and NHS structures.

Maddie said: "The programme was an incredibly timely and incredibly helpful resource for our company.

"This was just before we were commissioned by the NHS, which meant that by the time we were commissioned centrally we were compliant with Digital Technology Assessment Criteria and well-versed in the regulatory landscape required for our product."