

LYVA LABS ANNUAL REPORT 2023-24

Igniting Innovation
in the Liverpool City Region



**LIVERPOOL
CITY REGION**
COMBINED AUTHORITY

METROMAYOR
LIVERPOOL CITY REGION

A moment in time for innovation in the Liverpool City Region

LYVA Labs delivers economic growth through commercialisation of innovation, inspiring ideas, creating partnerships, providing and attracting investment.

Our region has an abundance of research and innovation strengths, and our role is to support ideas, people and projects that can shape the future.





A hive of innovation, Liverpool City Region (LCR) has always been home to organisations powered by research and development to **deliver scientific and technological firsts** through inspirational partnerships.

Liverpool City Region aims to **invest 5% of its GVA into research and development (R&D) by 2030**; if realised this would deliver an estimated net additional £20B GVA, 44,000 jobs, and 10% productivity.

LYVA Labs was set up to support these ambitions through investment into start-ups in key growth sectors and by enabling collaborative innovation across the region to drive economic growth.

We've supported SMEs, start-ups, and mature businesses of many sizes to **harness innovation and commercialise great ideas** through investment and business support. LYVA Labs connects people with great ideas to regional resources, skills, and partnerships, helping them to scale up and become sustainable. We work with knowledge partners to identify new opportunities in our innovation ecosystem.

Liverpool City Region aims to invest 5% of its GVA into research and development (R&D) by 2030

Our year in numbers



37 Companies

supported with private investment/grant funds



+£8 Million

in grants and investment secured for LCR companies



12 new jobs

created in 3 life science start-ups through £705k investment and £1m grants secured



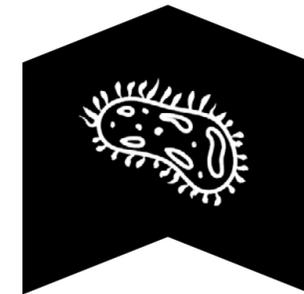
+200 SMEs

supported through our investment and R&D consultancy services



4 new companies

established in the region creating 20+ knowledge economy jobs



24 UK founders

supported through LYVA Labs' Innovate UK-funded microbials pre-accelerator & accelerator



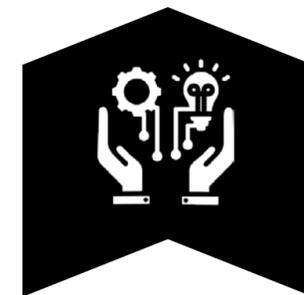
600+ individuals

joined LYVA Labs' Advanced Manufacturing Innovation network



18 collaborative R&D partnerships

set up to enable new product development (5 grants of £15,000 awarded to SMEs)



£1m Deep tech incubator & investment fund

first of its kind launched in the region. £130,000 invested in 4 start-ups so far



CEO's report

As we move into our third year, LYVA Labs has many achievements to celebrate. We continue to support the creation of high-growth businesses and quality jobs in the Liverpool City Region (LCR) through targeted investment, funding, and business support.

LYVA Labs' ambitious approach has seen us support more than 200 SMEs. We have invested £835,000 in seven innovative companies and supported 30 companies to secure a further £8m from private investment and grants.

We have listened to businesses across different sectors and tailored our support to add value where it is most needed. By diversifying our funding and support offers, we've helped businesses explore product ideation, commercialisation plans, and market readiness, whilst our grants enable collaborative R&D opportunities. We launched our deep tech incubator and funding and have several large-scale consortia opportunities in development with ecosystem partners.

This approach has led to new ventures for LYVA Labs including:

- ▶ **Developing our R&D consultancy service** to help businesses embed innovative practices - allocating £75,000 to five companies through our R&D partnership fund
- ▶ **Launching the region's first Deep Tech Incubator** - investing £130,000 in four innovative businesses financially and providing a modular training programme tailored to their needs
- ▶ **Co-delivering a national Innovate UK-funded Biomedical Catalyst Microbials Accelerator** for 11 businesses from across the UK
- ▶ **Developing an Advanced Manufacturing Innovation Network** with over 600 members for Innovate UK's Launchpad Programme - hosting industry-themed events across the region and supporting ambitious manufacturing firms to secure Innovate UK funding.

New strategic partnerships confirmed our commitment to collaborating with regional stakeholders including, University of Liverpool, CPI (Centre for Process Innovation), and STFC and Sci-Tech Daresbury. Each agreement has clear objectives, aligned to shared goals and the wider ambitions for innovation in Liverpool City Region.

Female founders and people from ethnic minorities combined, receive less than 10% of UK venture capital investments. Investment and grant funding for businesses based in Liverpool City Region falls well behind the Southeast and other cities in the North.

LYVA Labs can play a vital role in building a more diverse and inclusive innovation ecosystem. 56% of our Challenge Fund invested to date has supported female founders and 62% has supported founders from ethnic minority groups. Our team has doubled over the year, and we now have one of the most diverse teams in the region, in terms of gender, age, and ethnicity.

I believe this diversity is key to delivering our ambitions to drive change and support more founders from underserved groups. I was delighted to be invited to chair a new regional board to support high-growth female founders as part of the national Lifted Project, established in response to the government's Taskforce on Women-Led High-Growth Enterprises.

Moving forward, we will continue to work with Liverpool City Region Combined Authority and partners across the ecosystem to deliver our mission to increase investment in innovation across the region by:

- › Providing tailored innovation consultancy
- › Exploiting the wealth of innovation assets
- › Identifying and securing appropriate funding and investment
- › Inspiring collaboration across the ecosystem

The year ahead:

LYVA Labs' programmes and activities throughout the past year have laid solid cornerstones for our future. **Our core aim remains the same: to deliver economic growth through commercialisation of innovation; inspiring ideas, creating partnerships and attracting investment.**

We're well-placed to expand our scope and ambitions in the year ahead.

As part of the Liverpool City Region Investment Zone, LYVA Labs **will design and deliver new programmes that build on support we provided businesses this year**, from multiple sectors, at different stages of their journey.

We will **continue to develop partnerships** forged through our Advanced Manufacturing Innovation Network, R&D consultancy services and grant provision, investor events, and consortia work. We will launch our Talent Academy pilot in 2024, to nurture new talent and keep innovation skills at the heart of our region.

We would like to thank partners and collaborators who helped deliver our programmes, and our funders Liverpool City Region Combined Authority and Innovate UK. We would also like to recognise the amazing founders and entrepreneurs who inspire us, and our board and investment committee members who continue to support us with their knowledge, experience, and expertise.

Lorna Green

LYVA Labs CEO

LYVA Labs works with each type of company at every stage of the innovation journey:

From start-up to ambitious high growth enterprises through to collaboration with multi-nationals, by **nurturing innovation** to drive economic growth, we will create **higher-value jobs in key growth sectors**. Developing skills and talent in the region to deliver a **better quality of life for people living here**.





A word from our chairman, **Steve Stuart**

As we approach our third year in business, LYVA Labs is becoming an integral part of Liverpool City Region's innovation landscape. We have built a talented, passionate team to help businesses convert innovative ideas into commercially viable products and services.

I am proud of how far LYVA Labs has come in the past year. I can see the economic impact and value of our work. We've set up new programmes in deep tech, microbials, and advanced manufacturing, enabling us to reach out to more diverse groups of innovators and entrepreneurs. We can support them at every stage of their journey to embrace new technologies and practices and to build sustainable jobs and futures.

We have also established collaborations with industry and knowledge partners to explore and develop clusters and consortia to deliver large-scale opportunities.

This is an important moment for the region; the Liverpool City Region Investment Zone recognises the importance of our innovation assets for regional growth and development, and LYVA Labs looks forward to playing its role in this exciting era for our innovation ecosystem.

Liverpool City Region Mayor, Steve Rotheram

LYVA Labs launched in 2021, with £10.5m funding from Liverpool City Region Combined Authority:

“From the moment I was elected Mayor, it has been one of my priorities to cement our reputation as an attractive environment for businesses to invest.

We are already home to world leading clusters in life sciences, gaming, advanced computing, and infectious disease control – but I am never content with resting on our laurels. That is why we will invest 5% of local GVA in R&D by the end of the decade.

I truly believe that innovation will be the fuel that powers our economy forward and by establishing ourselves as a hotbed of innovation and new technology, we will be ready to attract many more highly skilled, well paid jobs, businesses and opportunities from around the world.”



Celebrating our programmes, services, and successes

LYVA Labs' R&D Innovation Partner consultancy service has built a strong reputation for providing tailored innovation workshops, training, and funding for businesses, connecting them with the right expertise and assets at all stages of their R&D journey.





Joe Cooke,
LYVA Labs' Innovation Partner

“Studies show that organisations that embrace open innovation and prioritise strong ecosystem engagement have a 58% revenue growth rate premium over organisations that pursue innovation alone [IBM, 2022].

A core part of our mission is to ensure that businesses and knowledge assets, with shared interests and ambitions, are building new partnerships and seeing those benefits.”

The consultancy team supports new product innovation in all sectors and this year made several discretionary awards of £15,000 to fund new collaborations through our R&D Partnership Fund. When those partnerships are formed, LYVA Labs continues to support the projects and people behind them. This helps businesses to secure follow-on funding to develop and commercialise innovations that will drive business growth and create new jobs.

The LYVA Labs team has worked with businesses spanning the city region's key growth sectors over the past year. From advanced engineering R&D projects with start-ups like GT Green Technologies, to established local manufacturers such as JJ Smith, Bomac Electric and Apollo Conveyors with ambitions to bring new products to their customers. The team has supported life science innovators 5D Health Protection Group, as well as digital technology businesses MGISS and Asset Handling, all of whom are looking to drive growth in their businesses through innovation.

These projects have established a number of new open innovation collaborations with ecosystem partners including the Materials Innovation Factory (MIF), STFC Hartree, CPI, University of Liverpool and specialist LCR technology and design engineering firms like Hooper Quinn and DefProc Engineering.



BOMAC

You can watch a film about this partnership here.



Julia McDonald,
**Commercial and Marketing
Director, Bomac Electric**

“Winning Launchpad funding was a big milestone – but we knew it was just the beginning. Being able to develop and execute the product is a big challenge for us and takes us outside of some of our core expertise. Having LYVA Labs’ support to navigate those early kick-off stages has been incredibly helpful. The team put us in contact with DefProc as a development partner. They understood our requirements and identified exactly the sort of partner we were looking for.”

Bomac Electric

Bomac Electric design and manufacture heating elements and waste oil management products to enable recycling from restaurants and manufacturers.

The Knowsley-based company took part in a series of LYVA Labs’ consultancy workshops to develop their product value proposition, marketing, and commercialisation strategy. They reached several important milestones throughout the support provided, including:

- › Creating an improved oil waste management sensor system to accompany their high-quality storage equipment
- › Securing £96K from Innovate UK’s Launchpad programme, which enabled them to build an IOT sensor and system product solution
- › Securing new external R&D partners, DefProc Engineering, after joining LYVA Labs’ Advanced Manufacturing Innovation Network to support them with their electronics and software development
- › Optimised the user experience design of the new waste oil management system, including the different user interface systems being developed.

LYVA Labs will continue to support Bomac, finding ways to strengthen and support the commercialisation of their new product into the market.



**Johnny Mataparae,
Founder and CEO, BossIT**

“Joining LYVA Labs’ Advanced Manufacturing Innovation Network helped me make some valuable connections in the industry, and to identify and successfully win funding I needed to progress product development. I have also been able to explore expansion and scale up opportunities for my product and have worked to develop a brand that fits the story I want to tell my customers.”

LYVA Labs’ Advanced Manufacturing Innovation Network

Liverpool City Region was selected to pilot Innovate UK’s national Launchpad programme because of the established advanced manufacturing cluster and its importance to the local economy.

LYVA Labs was awarded a contract by Innovate UK to develop an innovation network for the Launchpad programme to stimulate innovation in this growing sector. We established an innovation support network for the region’s advanced manufacturing cluster and run quarterly innovation-themed events around supply chain, digital advancement in the sector, and carbon net zero, with more to follow. Closely aligned to our R&D Innovation Partnership service, our events take place across the innovation ecosystem and have connected SMEs, researchers, and businesses to share ideas, network, and to identify funding opportunities. Our LinkedIn page promotes our upcoming events, alongside funding and partnership opportunities. It now has over 600 members. The Launchpad programme funded 37 innovation projects in Liverpool City Region and the events showcase some of the unique challenges and opportunities driving the innovation agenda in advanced manufacturing.

**You can join
LYVA Labs’
Advanced
Manufacturing
Innovation
Network [here](#).**

Investing in innovation and grant support

LYVA Labs has so far invested £705k into three health and life sciences portfolio companies Myma Medical, Daresbury Proteins, and Frequasense. Our investment into these companies enabled them to secure £1m in grant funding. Since then, we have supported them with follow-on grant applications totalling £800,000 in follow-on grants and to create 12 new jobs. More recently, we have invested £130k in four deep tech start-ups who joined our incubator programme.





Daresbury **Proteins**

Jennet Beesley

Founder, Daresbury Proteins

“LYVA Labs invested £250k into our company, enabling us to secure a grant for £240k from the Eureka Eurostars fund. Their support and mentoring helped us strengthen our board and to develop our commercialisation strategy to steer future growth. We’ve been able to hire new staff and expand our facilities at Sci-Tech Daresbury.

In addition to our EU programme we have established a pipeline of promising collaborations with global businesses. The investment from LYVA Labs has given us the resources to explore a range of exciting opportunities for a strategic partnership and helped us attract new customers.”

Daresbury Proteins

Liverpool City Region-based company Daresbury Proteins manufactures exceptionally high-quality proteins for high-end applications. Recombinant proteins manufactured and supplied by Daresbury Proteins, can play a role in overcoming challenges in the global reagent, diagnostic, and drug markets.



Deep Tech Incubator

This year we launched our second Challenge Fund for deep tech start-ups and a pilot incubator programme offering tailored support and mentoring. The four successful companies, selected by an external panel were Bundant, Heatio, Boss.IT, and Left Field FC.



bundant

Ike Cooke
Founder and CEO, Bundant

“LYVA Lab’s Deep Tech Incubator has been an exceptional experience. The team are experts in their respective fields and have introduced us to excellent advisors in areas such as IP, finance, team building, and fundraising. Being part of the incubator helped us position our product effectively, expanded our network significantly, and facilitated direct introductions to relevant investors. What sets LYVA Labs apart is the personalised support they offer, which surpasses any other incubator we’ve encountered.”

Working with Innovate UK and regional partners to deliver a national Microbials Accelerator programme

In 2023, LYVA Labs ran its first accelerator, with Bionow as co-lead for the programme. Twenty-four national SMEs developing innovations in microbiome, biofilm, and phage completed an online pre-accelerator programme, with eleven of them going on to complete a tailored accelerator programme with support from partners across the region including Infection Innovation Consortium (iiCON), University of Liverpool (UoL), CPI (Centre for Process Innovation), and Health Innovation Northwest Coast.

The eleven companies: Agile Life Sciences; AMPLY Discovery; Booby Biome; BugBiome; Ferryx; LightOx; Matrix Bio; MetalloBio; Oxford Silk Phage Technologies; Oxford SimCell; and Vitec Microgenix received funding, business support, and through expert-led workshops explored topics like intellectual property, legal requirements, commercialisation, investor readiness, and pitch training. [Learn more here.](#)



Hannah Randles,
LYVA Labs' Innovation Ecosystem Partner

“This programme has helped solidify our partnerships and relationships with local experts in the microbials and in business start-up. It was a great way for us to connect SMEs and foster collaboration.”



The companies applied for £100k of Innovate UK Biomedical Catalyst Feasibility Funding, with LYVA Labs' support. Nine companies were successful and secured £857k in total to advance their R&D products and technologies.

Our Microbial Accelerator companies and partners highlight the benefits of taking part in LYVA Labs’ accelerators and incubators.



Lydia Mapstone, PhD
CEO, Booby Biome

“The programme unlocked several partners to help with many facets of the business: regulatory support, grant writing, and access to healthcare networks. We highly recommend the programme to start-ups in the healthcare sector!”



Samantha Westgate
Executive Director, Perfectus Biomed

“I was delighted to support four of LYVA Labs’ Microbial Accelerator companies as a mentor. Surrounding yourself with people who have experienced the highs and lows of the entrepreneurial journey is hugely beneficial. The freedom to ask questions and share concerns in a safe environment can help teams build confidence and success in their business plans. All four companies had great business ideas and knowledgeable teams keen to learn and grow. It was a pleasure to work with them, and to support them on their onward journey.”

Apply to be a mentor on one of LYVA Labs’ incubators or accelerators

LYVA Labs plans to run more accelerator and incubator programmes throughout 2024 and is looking for mentors to support businesses. If you have the relevant experience to become a mentor, please complete [this survey](#).

Unlocking the future of innovation: where will the journey take us beyond 2024?

We live in an ever-evolving scientific and technological landscape: biotechnology, quantum computing, and artificial intelligence, and the need to invest in and prioritise regional innovation assets, resources, and talent has never been greater.

LYVA Labs is central to the development of a sustainable innovation ecosystem for the Liverpool City Region as we connect ambitious people and organisations with funding, ideas, resources, expertise and knowledge. We will continue to invest in and support innovative talent and future leaders.





“Our role is to identify industry needs and connect organisational skills, resources, and assets.”

Identifying and building strong consortia in the Liverpool City Region

Building on the success of consortia and industry collaborations like iiCON, the Materials Innovation Factory, and the Hartree National Centre for Digital Innovation, LYVA Labs is identifying opportunities for innovation collaborations across the region to attract private and public investment.

Our role is to identify opportunities for our research and innovation assets to address underserved industry needs and overcome innovation and resource challenges in key industry sectors.

We connect people, organisational capabilities, skills, resources, and assets from across the innovation ecosystem to explore opportunities to collaborate and create consortia and clusters.

Our aim is to help secure investment into Liverpool City Region to help build capacity and capability that will attract industry and private sector investment and establish LCR as a leading region for innovation.

Microbiome Open Innovation Consortium

Often referred to as the “second genome” the microbiome is an exciting scientific frontier for human, animal, and planetary health. Our region has research and translational expertise at the University of Liverpool’s Microbiome Innovation Centre and at Liverpool School of Tropical Medicine, and an industry cluster investing in microbiome R&D, with multinational corporations including Unilever, Croda, and TriRX. Microbiome research is supported by the analysis and interpretation of large data sets, which takes place at IBM and STFC Hartree, through the Hartree National Centre for Digital Innovation. LYVA Labs formed a strategic advisory group to explore opportunities to create a microbiome cluster and secure investment, and will take part in the national One Health Microbiome Conference in Liverpool in September 2024.

Open innovation for health for inclusive growth

Liverpool City Region can become a beacon for open innovation in health, catalysing the region’s systems, institutions, and communities to help overcome health inequalities. LYVA Labs is working with the Civic Health Innovation Lab (CHIL), the University of Liverpool, Infection Innovation Consortium (iiCON), Liverpool Health Partners, and Health Innovation Network Northwest Coast to explore how our regional health assets could be used to create an open innovation ecosystem for health. A system that can support local communities and service providers by creating a seamless pathway between SMEs and industry to access resources, insights, and data to develop effective, affordable solutions and provide a speedier route from idea to adoption.

Biotechnology

Liverpool City Region has one of the largest biomanufacturing clusters in the UK. The cluster includes multinational corporations, Higher Educational Institutes (HEIs), Centres of Excellence, NHS trusts, dedicated business incubators, SMEs, and research and technology organisations. The region is designated a “high potential opportunity” by the UK government for vaccine development and manufacture. LYVA Labs and stakeholders are exploring how to grow the biotech cluster by building on the LCR Investment Zone, freeport status, NW Industrial Biotechnology Innovation Catalyst, and broader UK ambitions under the National Vision for Engineering Biology.

Centre of Excellence for Long-Acting Therapeutics

We are working with CELT to explore the development of a regional long-acting therapeutics ecosystem that includes manufacturing capabilities. This is part of a broader vision for a UK national hub, called HALO, based at the University of Liverpool and builds on CELT’s low- and middle-income countries hub, LONGEVITY.

Throughout 2024, we will explore other consortia opportunities in sectors relating to hydrogen use, smart cities, AI, maritime, and quantum computing.



LYVA Labs is supporting the development of talent in the region

LYVA Labs continues to support young talent into the region and has taken on several staff members from a variety of backgrounds over the past year.



Anaz Abbas joined LYVA Labs as an Innovation Analyst. A business analytics and big data postgraduate from the University of Liverpool, Anaz has a background in engineering and management. He will support the development of large-scale innovation opportunities and the LYVA Labs Innovation Ecosystem Platform.



Harry Chrimes joined LYVA Labs from Lockton, with economics degrees from Glasgow and Sheffield universities. As Investment Analyst, Harry assesses opportunities for investment through our health and life sciences and deep tech challenge funds.



Natalie Niven joined us from Liverpool John Moores University after graduating with a first-class degree in law. Natalie initially joined on a one month internship and is now supporting our office manager Kate and the team with business operations and project management.

Professor Phil Vickerman, Pro-Vice-Chancellor (Student Experience) Liverpool John Moores University, said:

“We’re delighted to see Natalie thriving in her role with LYVA Labs.

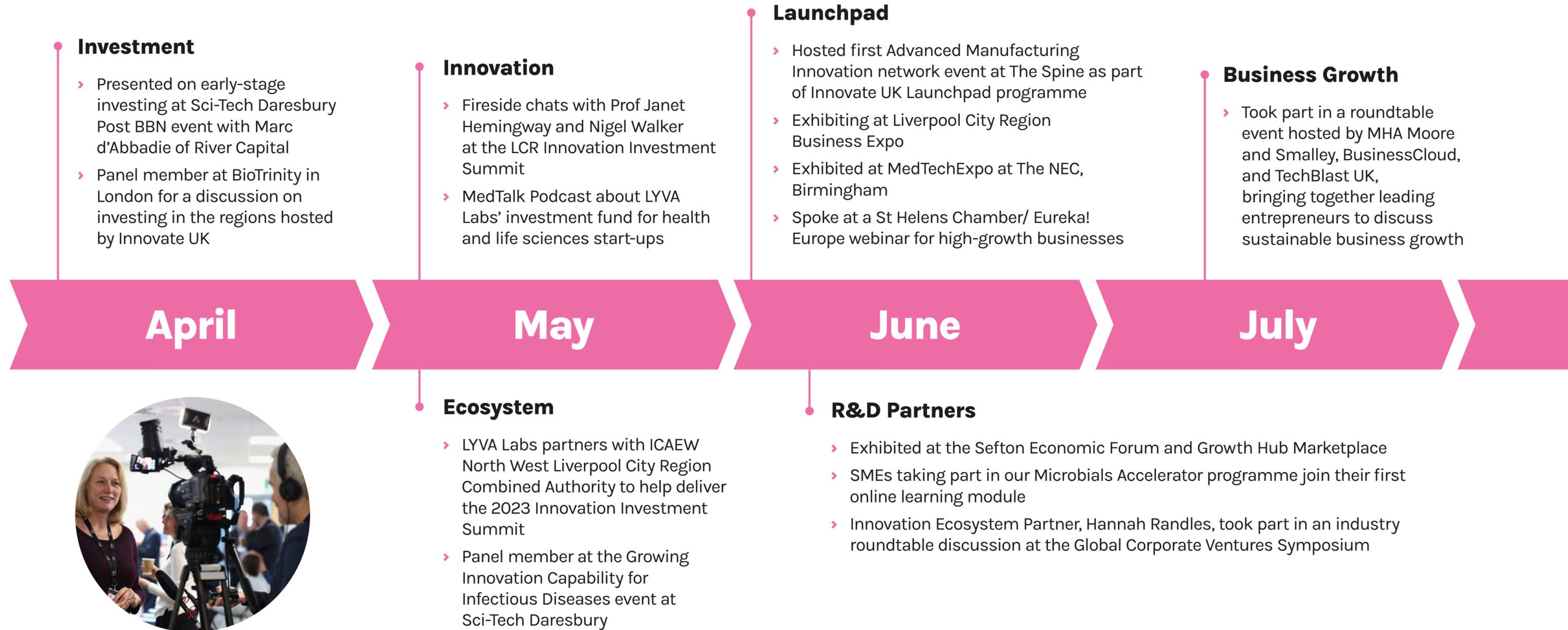
It’s a priority for us as a university to provide a wide range of career support and opportunities to our students and graduates to help them develop the employability skills and experience they need to flourish in their careers, alongside their academic qualifications.

We can only do that with the support of engaged employers in the Liverpool City Region and beyond and we have an excellent, mutually beneficial relationship with LYVA Labs. I look forward to seeing that partnership grow further and hope to see more LJMU students and graduates following in Natalie’s footsteps.”



Finance Assistant, **Adil Ghafoor**, joined LYVA Labs after completing his master’s degree in accounting and finance from the University of Northampton. Adil has more than five years of experience in accounting, payroll, and HR, gained across a variety of organisations including Federation Handicap International, a French NGO, and Deloitte Consulting Overseas Projects.

LYVA Labs external activities throughout the year



LYVA Labs external activities throughout the year



Networks

- › Exhibited at the Wirral and Chester Business Fair

Training

- › LYVA Labs and Liverpool Chamber hosted an innovation workshop for local businesses

Investment

- › Talked about innovation opportunities and investment at a Sedulo business networking event
- › Hosted a 2-day pitch event with iiCON for SOSV
- › Hosted a panel debate with companies funded by Innovate UK's Launchpad Programme, supported by LYVA Labs, at the 1st anniversary of Innovate UK and Liverpool City Region Combined Authority's innovation partnership

August

September

October

November



Start-up

- › Took part in a panel discussion at the Liverpool Slush'D about regional deep tech opportunities
- › Hosted Microbials Accelerator Demo Day event at LSTM



Advanced Manufacturing

- › Exhibited at Halton Business Fair
- › Innovation Network Launchpad Event: Net Zero, held at Glass Futures

Partnerships

- › Attend the first anniversary of Innovate UK and Liverpool City Region Combined Authority's innovation partnership

LYVA Labs external activities throughout the year

Climate tech

- › Took part in a panel discussion at the LCR Climate Tech Ecosystem Mapping Report launch, hosted by LCR CA and Sustainable Ventures



Manufacturing

- › Presented at Wirral Chamber of Commerce's Manufacturing Support Roadshow

Consortia

- › Attended an iiCON sandpit event, supported by UK Research & Innovation (UKRI) to accelerate disruptive approaches to combat infection spread

December

January

February

March

Charity

- › Chose Alder Hey Children's Charity to support as its charity of the year
- › Staff volunteered to help at the Alder Hey Children's Hospital Christmas Carol Concert for families with children at the hospital and collected toys and books for children



Funding

- › Chaired an Innovation Funding Masterclass at Hope University with presentations from Innovate UK Business Support and a panel discussion with CEO Lorna Green

Skills

- › The LYVA Labs team sat on the investor panel at Innovate UK's Brighter Futures Young Investor for a Day event, promoting careers in innovation and investment to young people
- › Innovation Network Launchpad Event: Digitalisation, held at Sci-Tech Daresbury

We're not standing still at LYVA Labs. Our plans remain ambitious, and our journey exciting.

So, stay in touch and follow our continued innovation journey!





lyvalabs.com

Keep up to date with LYVA Labs
by [subscribing to our newsletter](#)

enquiries@lyvalabs.com

The Spine, 2 Paddington Village,
Liverpool L7 3FA

Innovation Centre, Sci-Tech,
Daresbury WA4 4FS

