

# Founding board members



Liverpool City Council is one of the largest local authorities in the UK. It provides a wide range of services including education, social care, leisure, parks maintenance and takes a lead role in the regeneration of the city. Over the next 15 years, the authority aims to deliver projects worth in excess of £10bn and build 30,000 new homes as the city's population rises to 497,000 people.



Founded in 1823, Liverpool John Moores University (LJMU) has a clear vision to be recognised as a modern civic university delivering solutions to the challenges of the 21st century. It is setting new standards in higher education, and recently became the first university to achieve two commended judgments in the 2016 review by the Quality Assurance Agency (QAA).



Liverpool School of Tropical Medicine (LSTM) is the world's oldest centre of excellence in tropical medicine and international public health. It has been engaged in the fight against infectious, debilitating and disabling diseases since 1898 and continues that tradition today with a research portfolio of well over £210 million and a teaching programme attracting students from over 65 countries.

### The Royal Liverpool and **NHS**Broadgreen University Hospitals

The Royal Liverpool and Broadgreen University Hospitals NHS Trust (RLBUHT) is one of the largest and busiest hospital trusts in the North of England with an annual budget of over £400 million, with 5,600 directly contracted staff and over 650 staff in the hosted services or contracted services such as catering. It provides services across two sites, which contains three hospitals: The Royal Liverpool University Hospital, Broadgreen Hospital and Liverpool University Dental Hospital.



Founded in 1881 as the original 'red brick', the University of Liverpool (UoL) is one of the UK's leading research institutions, with an annual turnover of £480 million, including £102 million for research. Ranked in the top 1% of higher education institutions worldwide, the UoL is a member of the prestigious Russell Group.

#### Hope Street, Liverpool

The Visit Hope Street Community Interest Company (CIC), was established in 2009 and comprises of some of the key businesses and organisations in and around Hope Street. The mission of the group is to promote Hope Street as a great visitor destination in Liverpool. The group is an eclectic mix of businesses, cathedrals, cultural and educational institutions, united in their passion for Hope Street and working together to develop its future.



Liverpool Vision is the city's economic development company and works within the strategic leadership of the Mayor of Liverpool. The company has three functions; Invest Liverpool, Marketing Liverpool and International Festival for Business. Liverpool Vision aims to fuse economic development and business and enterprise support to accelerate the city's growth and build a sustainable economy.

### **Foreword**

The Knowledge Quarter (KQ Liverpool) is important, not just to the future economic success of Liverpool, but to the rebalancing of the economy across the UK. For the North of England to keep pace, and eventually close the economic gap with London and the South East, we need to attract and retain the very best students, graduates, scientists, clinicians, academics and business innovators.

It's no coincidence then that we decided to launch our vision at the home of the Royal College of Physicians (RCP). The fact that Liverpool has been chosen by the RCP, one of the UK's most renowned medical institutions, as their new Northern Centre of Excellence is evidence that we can attract the very best. It is also proof of the power of city-wide collaboration as a force for change.

This plan sets out our partnership vision for KQ Liverpool and how we intend to establish one of the world's leading innovation districts. Creating a place of innovation and discovery in science, technology, education, medicine and culture.

KQ Liverpool is a place where great discoveries are made in preventing and fighting infectious diseases, personalised medicine, sensor technology, materials chemistry and sports science and this thematic focus is a great fit with the city region's unique assets in high-performance computing, cognitive computing and visualisation.

As a place, KQ Liverpool provides a unique environment for discovery by combining the arts, culture, education, science and healthcare in a single eco-system.

Chair, KQ Liverpool Vice-Chancellor, UoL

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## Why the Knowledge Quarter?

As a team, we occupy the dynamic space between ambition and delivery.
We are tasked with defining, creating and promoting the place that is KQ Liverpool.

Liverpool is a city of opportunity, which is why our vision for the Knowledge Quarter positions it at the forefront of global innovation. Ultimately, we want to help grow the economy and create new employment within the city region.

We believe that the whole is greater than the sum of its parts, which is why we bring together the city's key partners, to collaborate in a creative environment.

We don't try to do everything ourselves
- we support our partners in delivering the wider vision.

As a single point of contact, we can respond quickly to enquiries and opportunities.

The City Region then becomes a focus for innovation and KQ Liverpool enables consistent messaging and through the 'power of place' fosters clustering and knowledge transfer.

The success of the Knowledge Quarter Liverpool (KQ Liverpool) in the coming five years will be founded on the collaboration taking place right now between all of its partners and advocates.

In this document we outline our plans - creating a place where great discoveries are made - and set out how we intend to achieve this, with some ambitious improvements proposed for this 450-acre urban district.

KQ Liverpool is already home to some of the world's most influential players in science, health, technology, culture and education and with over £1bn of new developments in the pipeline, and a further £1bn likely in the next five years, we aspire to increase employment figures, improve graduate retention and attraction rates and establish Liverpool as the home to one of the world's leading innovation districts.

In order to leverage greater commercialisation of KQ Liverpool's Research & Development (R&D) activity and also promote clustering, collaboration and knowledge sharing, we plan to work with the city region's existing agencies to support more start-ups, foster business growth and attract more innovative businesses, including inward investors. These new businesses will help to improve our existing commercialised assets and maximise KQ Liverpool's economic impact for the city.

With in excess of 54,000 students studying in the city each year, we essentially have some of the world's best minds right on our doorstep. We intend to support programmes to invest in those young people and support them as they move into their chosen specialisms. This deeper talent pool will be vital to business growth and inward investment.

We will work closely with Liverpool Health Partners (LHP), a strategic partnership of ten NHS organisations and three Higher Education Institutions working together to deliver excellence in research, education and service delivery, to facilitate a stronger platform for talent.

By finding and presenting ways to create a dialogue across sectors, bringing complementary businesses together in a formal or informal setting, we can create leading science, biomedical and technology clusters, which will in turn, bring together academics, clinicians and the private sector and encourage SMEs to work with larger like-minded R&D firms.

The Knowledge Quarter provides an unrivalled concentration of expertise in science, technology, health, education, music and the arts - all within a city centre location. It's proximity to a seaport, a major railway station and two international airports, with our major investment plans for the Knowledge Quarter to include a new train station, will make it the best connected innovation district in the UK.

Joe Anderson,

Mayor of Liverpool

## Welcome to Liverpool - a city of opportunity

The recently published Liverpool City Region (LCR) Growth Strategy, proposes to grow the economy by capitalising on our strength in several sectors. These are health and life sciences, digital and creative, low-carbon energy, advanced manufacturing, maritime and logistics, financial and professional services and the visitor economy.

Within KQ Liverpool and the wider city region we are investing in Liverpool's world leading centres of excellence in cognitive computing, sensor technology, digital and creative businesses, precision medicine, infectious disease, children's health, independent living and eHealth, in a way that is entirely complementary to the LCR Growth Strategy.

Home to Liverpool School of Tropical Medicine (LSTM), the University of Liverpool (UoL), Liverpool John Moores University (LJMU), Liverpool Institute for Performing Arts (LIPA), Liverpool Science Park (LSP) and the new £429m Royal Hospital, KQ Liverpool is fast becoming one of Europe's leading innovation districts and a place renowned for its cultural assets, including Liverpool's two cathedrals.

Upon completion of its new hospitals it will also become one of the largest academic and clinical campuses in the UK, and due to its overall importance to the city, KQ Liverpool is a Mayoral Development Zone.

Liverpool City Region (LCR) has a population of

1.5 million

of which almost

1 million

are of working age.

### Liverpool's £28bn economy grew by 8%

in the five years leading up to 2014, and Liverpool now has the second highest incidence of high-growth firms in the UK, second only to London.

Liverpool is a great city in which to do business. We have a highly skilled local workforce manufacturing a range of innovative influenza vaccines. As well as having a strong pool of talent, Liverpool has affordable living and good access to Europe, making it a very attractive city.

Laura O'Brien,



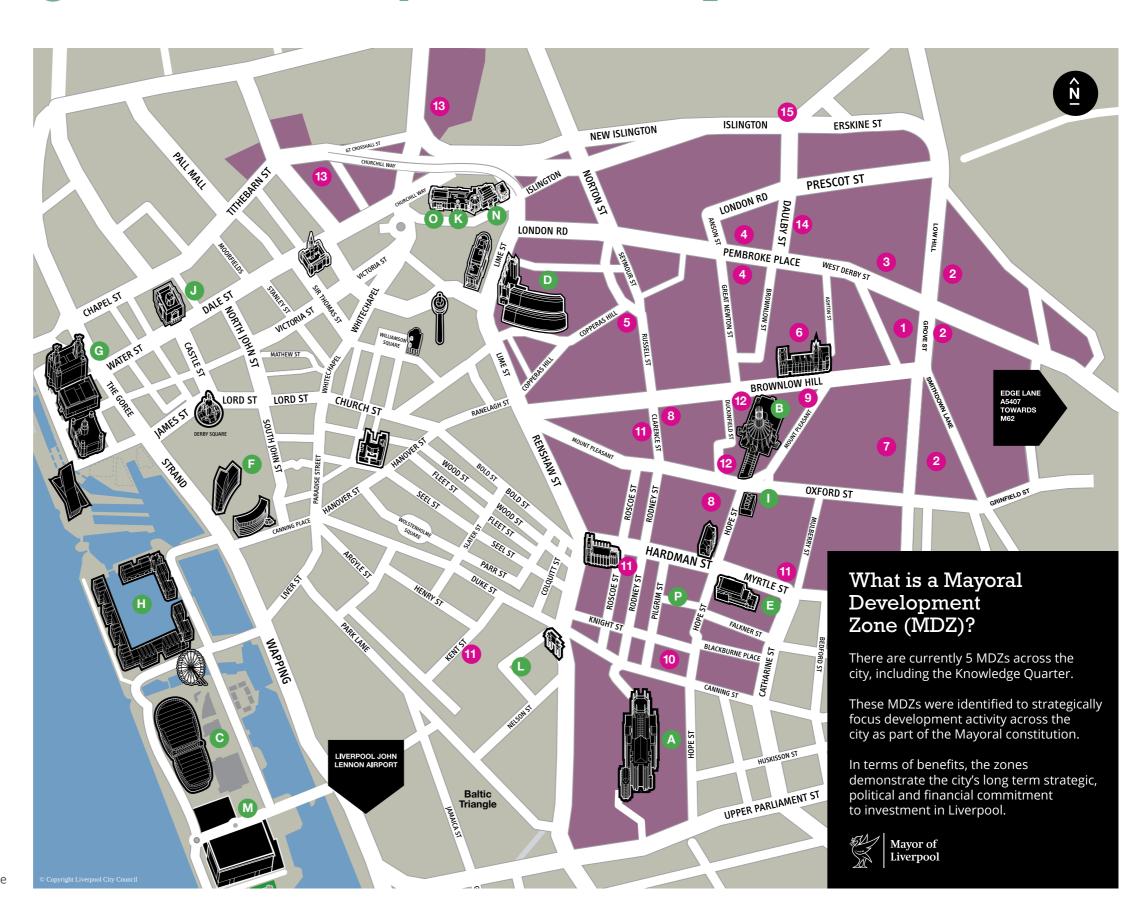
## The Knowledge Quarter Mayoral Development Zone

## Discover our key sites and buildings

- 1 The University of Liverpool Health & Life Sciences Campus, including the Liverpool Bio Innovation Hub and Biobank
- 2 Paddington Village
- 3 The Royal Liverpool & Broadgreen University Hospital and The Clatterbridge Cancer Centre
- 4 Liverpool School of Tropical Medicine
- 5 Sensor City
- 6 The Victoria Gallery and Museum
- 7 Materials Innovation Factory
- 8 Liverpool John Moores University, Mount Pleasant Campus
- 9 University of Liverpool, The Foundation Building
- 10 Liverpool Institute for Performing Arts (LIPA)
- 11 City of Liverpool College
- 12 Liverpool Science Park
- 13 Liverpool John Moores University, City Campus
- 14 Liverpool Life Sciences Accelerator
- 15 Liverpool Hope University Creative Campus

#### Discover places of interest

- A Liverpool Cathedral
- B The Metropolitan Cathedral of Christ the King
- C The Echo Arena & Convention Centre
- D Lime Street Station
- E Liverpool Philharmonic
- F Liverpool One
- G The Royal Liver Buildings
- H Albert Dock
- I Everyman Theatre
- J The Town Hall
- K Central Library
- L China Town
- M Exhibition Centre Liverpool
- N Walker Art Gallery
- O The World Museum
- P Unity Theatre
- Knowledge Quarter Mayoral Development Zone





## KQ Liverpool's leading specialisms

We have defined a number of world leading specialisms that, when combined, differentiate Liverpool from competing cities. There is a clear synergy between these specialisms, with the collaboration between them crucial to their success.

#### Infection

Liverpool has had a leading international reputation in infection research, tropical medicine and global health for more than 150 years. Key partners including UoL, LSTM and LHP, with business relationships through the likes of Seqirus and Bionow and wider regional links to Alderley Park.

The UoL's Institute of Infection and Global Health was established to bring together leading medical, veterinary and basic science researchers from across the Faculty of Health and Life Sciences. It also complements LSTM, which has a long track record of pioneering research in vector biology.

LSTM hosts the largest concentration of medical entomologists in the UK, with a research profile that spans from functional genomics of disease vectors to clinical trials, implementation research and the development of tools for the monitoring and evaluation of disease transmission. Their state-of-the-art facilities continue to develop new drugs, vaccines and pesticides, which puts them at the forefront of infectious disease research.



#### Personalised Health

Healthcare today is moving away from a 'one treatment fits all' approach and towards 'Personalised Health', with therapeutic modalities (drugs, surgery, physical and psychological therapies) tailored to treat the individual needs of each patient. In Liverpool we are uniquely positioned as a leader in the research and 'bench-to-bedside' delivery (clinical translation) of Personalised Health with world-class centres such as the MRC Centre for Drug Safety Science and Wolfson Centre for Personalised Medicine.

The UoL's current work in this area, and implementation into the NHS, already benefits the region, thanks to the partnerships and close association with LHP and its ten Hospital Trusts.

#### **Materials Chemistry**

By using Computer Aided Materials Science (CAMS) and high-throughput (HT) automation, the UoL aims to develop new approaches to materials science, rethinking applications and bringing it into the 21st Century. The potential that new, and at scale, aggregations of automation, control and cognitive computing can offer is limitless.

The UoL's world-leading research team is collaborating with Unilever to create the Materials Innovation Factory (MIF), with plans underway for MIF-D, a new incubator space.

#### Sensor Technology

Sensors play an important role in our dayto-day lives; detecting and monitoring change in temperature, light, pressure, sound and humidity, their uses are wide reaching in industry, safety and security, and within our personal gadgets and devices. Their usage can only increase as technology advances even further.

Sensor City (a new innovation centre, which will transform sensor applications across the world) is a beneficiary of LCR 4.0, is an exciting new initiative is part funded by the European Regional Development Fund (ERDF).

It will increase productivity in LCR manufacturing organisations through the development of smarter products, processes and supply chains. It offers the opportunity for Liverpool to position itself at the forefront of an

emerging global revolution, in manufacturing driven by technology advances, merging the digital and physical worlds.

#### **Sports Science**

LJMU's School of Sport and Exercise Sciences was the first institution in the world to host a single honours degree programme in sport science in 1975.

With a world leading reputation for linking sports science research with public health, LJMU are currently working with the International Olympic Committee to create a global 'Active Cities' programme, part of a global campaign waged by physical activity and public health organisations.

LJMU are also collaborating with the KQ Liverpool partners, including The Royal Liverpool and Broadgreen University Hospitals NHS Trust (RLBUHT) to bring forward plans for an iconic, global sports science and health campus.

The proposed new campus will add further scale to the existing Research Institute for Sport and Exercise Sciences (RISES), whose activity ranges from working with British Cycling, through to physical activity in chronic disease prevention research.

This excellence in sports science and health is aligned to Hope University's studies in sports injuries and rehabilitation and to Liverpool's other world leading specialisms of sensor technology, personalised health and high performance cognitive computing, as well as the city's Commonwealth Games bid.

## High performance computing

KQ Liverpool's other leading specialisms - infection control, materials chemistry, precision medicine, sensor technology and sports science - are further strengthened by the UoL's research excellence and the application of high performance computing led by STFC Hartree, especially in materials and infection. This digital excellence, along with the city region's key business relationships, including IBM and Tech North, will be key to establishing Liverpool's uniqueness in science.

## The KQ Liverpool Eco-System

Liverpool is a global brand, with music, the creative and performing arts and sport synonymous with the city's international reputation.

One of the things that most differentiates KQ Liverpool from other innovation districts is the richness of the culture that is embedded into the fabric of the place.

The KQ Liverpool Eco-System is fuelled by culture - it's what gives the place vibrancy and energy.

Music is a key part of the KQ Liverpool proposition, with the Liverpool Philharmonic and the UoL institute of Popular Music located here but it also plays a much wider role in the city. Earlier this year, Liverpool was recognised as a UNESCO City of Music, due to its extraordinary musical heritage.

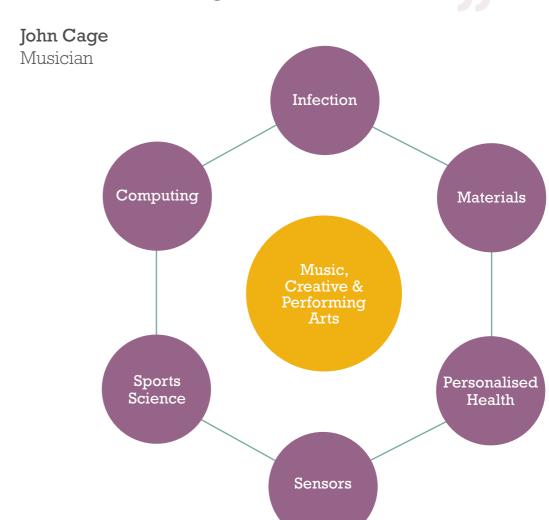
The creative and performing arts are also at the heart of KQ Liverpool, with the Everyman and Unity theatres.

LIPA, which is located between the two cathedrals, is one of the UK's leading institutions for the creative and performing arts and includes Paul McCartney and George Harrison's old school, as well as the old art school attended by John Lennon.

Music and the creative and performing arts are just two of the smaller things that paint the bigger picture.

People work hard in the Knowledge Quarter but they also know how to enjoy themselves. The independently owned restaurants on and around Hope Street offer residents, and visitors alike, some of the best food in Liverpool. These include The London Carriage Works at The Hope Street Hotel, the award winning Art School, 60 Hope Street, The Quarter, HOST, The Pen Factory, Moose and Moonshine, Free State Kitchen, Puschka, Frederiks and The Old Blind School.

I can't understand why people are frightened of new ideas. I'm frightened of the old ones.





# Exciting times ahead

## Making the place:

KQ Liverpool offers a unique mix of education, healthcare, science, innovation and culture and its success as an innovation district is completely reliant on providing a place where people not only want to live, work and play but a place where they want to stay.

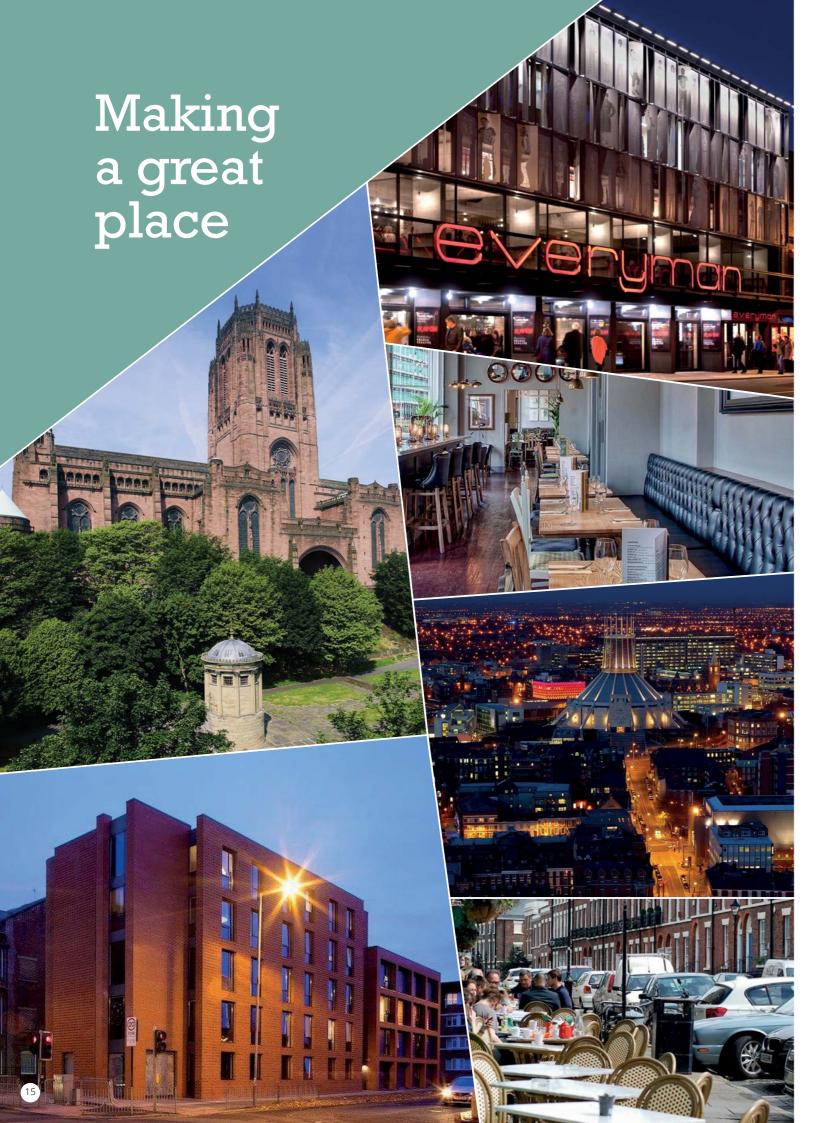
Our activity for the next five years can be broken down into three themes:

## Improving connectivity:

It isn't just about the physical connection between places, we want to connect people physically, digitally and professionally. Our work will focus on getting the transport right, as well as using events and digital media to build a strong sense of community.

## Attracting investment & creating opportunities:

With countless development and redevelopment opportunities across the district, it's important that we continue to present key investment sites to the market, whilst growing and improving the commercial assets that we already have. Our plan is to work with partners to attract greater research funding, attract and retain more talented people, help secure vital investment for growing businesses and encourage the commercialisation of academic research.



The unique mix of science, technology, health, education and cultural institutions, combined with the stunning architecture and its position at the heart of the city, really sets KQ Liverpool apart from competing cities.

Combine the assets of the KQ Liverpool with the regenerated waterfront and the exhibition and conference centres and it soon becomes clear why LCR is uniquely placed and attracts leading conventions from around the world.

People make places and our objective is to work with the community to create a unique place to live, work and play. Although the physical borders of KQ Liverpool are established, we need to make sure that it's defined as a place that people are not only aware of but a place where they actually want to be. And more importantly – stay.

Many of the elements that we need to make the area a success are already here but we need to work with the different partners, such as the Visit Hope Street CIC, the Rodney Street Association and Love Canning, to bring their ideas to the fore.

As vital as top of the range buildings and facilities are to the success of KQ Liverpool as an innovation district, there also needs to be somewhere for the doctors, scientists, students and entrepreneurs to live. Whether that's within a few minutes' walk or a short commute, we will work to establish the right mix and quality of residential accommodation.

Another important part of making the place is attracting independent and artisan retailers to the new development sites. There is already a fantastic mix of coffee shops, bars and restaurants here but we want to see more of these ventures opening up over the next few years. We also want to animate the streets by encouraging retailers to trade out into the public realm. Think European city vibe.

A successful place is a sustainable place and working with the existing Knowledge Quarter Sustainability Network (KQSN), whose collaborators include Liverpool Food People, the Friends of St James Gardens and the Canning residents, we intend to support the projects that they identify, from improving the energy infrastructure, to creating green corridors or ribbons running east-west and north-south. We will also assist KQSN in bringing forward local food growing, ethical procurement, health and wellbeing campaigns and responsible waste management, including the recycling of surplus food.

A public realm scheme will be devised and implemented by the KQ Liverpool partners, creating more green space, including better utilisation of St James Gardens at the Anglican Cathedral, new pedestrianised areas, a market garden where locals, workers and students can find sustainable produce and introducing places designed to encourage peace and calm for contemplation or quiet working.

New electric/hybrid car charging points will be installed throughout the area too, making it easier for people to use electric cars, or for those who prefer to get around the city on two wheels, we will be looking to extend the current City Bike scheme.

Finally, we will provide better illuminated, well signposted parking for evening and weekend visitors who travel into the city to the likes of the Everyman and Liverpool Philharmonic on Hope Street. All of this being important to Liverpool's continuing success in the visitor economy.





## At the heart of innovation



"The Liverpool Health Campus will be built on the site of the current Royal Liverpool Hospital and will consist of 200,000 sq ft of space, attracting life sciences, biomedical research companies and health organisations. It will generate 5,000 high-value jobs and help Liverpool develop a thriving life science economy and by regenerating the surrounding area will improve the prosperity and wealth of the city."

Aidan Kehoe CEO, The Royal Liverpool and Broadgreen University Hospitals NHS Trust

"We were born out of the city's international success as a port, making us part of Liverpool's diverse heritage, while our continued expansion ensures our position as a major contributor to its resurgent future."

Professor Janet Hemingway Director, Liverpool School of Tropical Medicine "The Liverpool City Region is the place where Unilever has some of its most important research and development partnerships. The partnership with the University of Liverpool is particularly exciting and visionary. The University's and Unilever's co-investment in the MIF will, from 2017, house the largest and most advanced cluster of Robotics for R&D anywhere in the Unilever world. This will transform innovation speed and impact in the years to come."

Dr Jonathan Hague VP, Unilever



"Our extensive networks with SMEs are part of a wider strategy of Liverpool John Moores University to engage with businesses. The ability to attract to our campus in the Knowledge Quarter the Manufacturing Technology Centre, part of the UK High Value Manufacturing Catapult supported by Innovate UK, highlights the attractive offer in the Liverpool City Region."

Professor Nigel Weatherill Vice-Chancellor, Liverpool John Moores University

## How will we improve connectivity?

A platform for networking

© Glenn Howells Architects

A Knowledge Quarter train station

The fastest broadband speeds in the UK

Connectivity – whether it be physical, technological or professional – is important for the growth of KQ Liverpool and there are several areas that we will look at over the coming years.

One of the unique selling points of KQ Liverpool is the ability to walk to any part of the City Centre in a relatively short amount of time. The retail district is within a ten-minute walk and the Commercial District and The Waterfront can be reached in around 20 minutes.

A priority for us is to improve the pedestrian gateways into KQ Liverpool. We want the main arterial routes to be modern, clean, well-lit, have great street furniture and clear signage.

We will also work with our partners and providers to improve digital connectivity across KQ Liverpool. Ubiquitous ultra-fast broadband will increase productivity and assist with the application of digitisation, recognising that it's emerging and disruptive technologies that are shaping our future.

As announced at the International Festival for Business 2016, we're going to work with the City and Merseytravel to bring a new train station to the district. This will be joined to the existing underground network, connecting people with the rest of city in a matter of minutes.

There are also plans to extend Lime Street Station, including works to connect it to the proposed HS2 line, which will link the city to the region's two international airports and the South of England.

We will also look at ways to improve the cycle paths in the immediate vicinity, making it easier and safer for cyclists to travel to and from work or into other areas of the city.

We want KQ Liverpool to be part of a community and not operate in isolation, whether that be somewhere nearby like the Baltic Triangle or an area outside of the city, with a common interest, like the STFC Hartree Centre.

We will also be working very closely with the Visit Hope Street Community Interest Company to create more events and networking opportunities for those in the health, education, science and tech sectors. That could be anything from cultural events, to seminars or interesting debates. There are countless venues across KQ Liverpool and we are keen to find the right type of events and mix of people to compliment those spaces.

Finally, we want to connect people to people. This will involve hosting global conferences and exhibitions, both in the Knowledge Quarter and on the Waterfront, that target future occupiers. It isn't only about bringing new people to KQ Liverpool, we also want to connect the people that are already here. That is why we want to create a networking platform to support business growth and join up existing incubator and grow-on spaces.

## Finding ways to attract investment

Working in partnership with Liverpool Vision's Invest Liverpool team and the LCR Local Enterprise Partnership (LEP) we propose to employ KQ Liverpool as an attack brand to attract more inward investment from Europe, Asia and the USA. The strength of Liverpool's relationships in China will help us to build on existing Chinese investment across the North West. These connections include Xi'an Jiaotong-Liverpool University (XJTLU), which is an international university formed in partnership between the UoL and Xi'an Jiaotong University in China.

We're planning to engage with the American owners of Liverpool FC and Everton FC's new majority investor to join our inward investment campaigns with their activity in the US, the middle east and Asia.

In order for KQ Liverpool to accommodate these new occupiers and investors we need to provide the right environment and also new spaces for work and research.

There are already over £1bn of new developments planned in the Health and Science sectors, including the Royal Liverpool Hospital (£429m), the Clatterbridge Cancer Centre (£124m), the Liverpool Life Sciences Accelerator (£24m), Materials Innovation Factory (£68m) and Sensor City (£15m). In the education sector LIMU are investing over £100m into their 335k sq ft Copperas Hill development and the UoL's new Estate Strategy and Masterplan involves an equally significant capital investment.

This focus and concentration of research activity covers all aspects of the life sciences research and draws in expertise from other disciplines, such as engineering, chemistry and computer science, to develop the next generation of therapies, diagnostics, medical devices (particularly digital sensors) and care practices that are transforming human health care in the 21st Century.

These new developments will join existing assets and, although introducing new opportunities to the KQ Liverpool is important, we need to focus on redeveloping some of the existing ones. There are three current commercialised buildings within the Liverpool Science Park portfolio and we want to bring these spaces up to date and make sure that they have the best facilities that any other innovation district can offer. They need to have standout unique selling points that set Liverpool apart from other cities, making them the obvious choice when looking for new premises.

It isn't just about the physical look and feel of these buildings, although that is high on the priority list, we also want them to offer a community and a network. A place where businesses can meet, collaborate, share and grow. In order to achieve that we need to make sure that the right types of spaces are there – events space, breakout space, outdoor areas and formal meeting rooms. All are as important as the last.

## We're going to invest in innovation and research

Equity investment needs to be made available to small and medium sized life sciences and technology businesses. A priority is therefore to establish a KQ Liverpool innovation fund, which complements the proposed wider city region offer. This is important to create the right entrepreneurial environment in Liverpool and KQ Liverpool for science and tech businesses. Our goal is to support start-ups and existing businesses with their next stage of growth. The fund will help these businesses with 'proof of concept' funding, to identify and reduce the risks and to accelerate successful innovation.

Evidence suggests that investment into early stage SMEs makes a significant difference in shortening the journey from idea to commercial reality.

The KQ Liverpool fund will be delivered as equity rather than grants and will not only accelerate the growth and development of science and tech businesses but in doing so it will also create new jobs and attract new businesses to Liverpool.

It's not only investment into start-ups and growing businesses that is critical, it is access to the latest scientific facilities and equipment. We plan to work closely with the Technology Directorate, which manages the large research infrastructure at the UoL. Through its portfolio of academic led shared research facilities it provides access to the world class research facilities that are essential in the delivery of cutting edge science. In addition to promoting the highest quality research science at the University, the Technology Directorate also provides a conduit for partners outside the university to access its knowledge, expertise and facilities.



## Innovative workspaces



#### Liverpool Science Park

Liverpool Science Park currently provides over 120,000 sq ft of high-specification office space and commercial laboratory space in the heart of KQ Liverpool. The newest wing of Innovation Centre 1 opened in March 2014 and houses an additional 40,000 sq ft of space and adds eleven new commercial laboratories, along with fit-for-purpose write-up accommodation, office space and meeting rooms.

With the current buildings running at 90% occupancy we intend to work with the LSP management team to deliver a business case for a fourth innovation centre in Paddington Village with a specific focus on digital technology and healthcare.

## Materials Innovation Factory

The £68m Materials Innovation Factory is a partnership between Unilever and the UoL and by combining one of the largest research-active companies with the strongest chemistry department in UK, it is set to be one of the most exciting developments of its kind in recent years. It will become a global leader in computer aided materials science and discovery.



#### **Sensor City**

Sensor City is a joint venture project between the UoL and LJMU which brings together knowledge and experience in sensor technology and houses and supports high-tech businesses working on sensor systems and applications. It aims to create 300 start-up businesses and 1,000 jobs over the next decade, as well as foster industry - academic collaborations. Sensor City will include a Technology Development Zone, an Open Innovation Lab, and offer coaching, business mentoring and access to funding. Both universities will support entrepreneurial talent to enable the translation of innovative ideas from bench to revenue, stimulating business growth regionally, nationally and ultimately internationally.

#### Liverpool Bio Innovation Hub

In addition to state of the art laboratory units within the LBIH Bio Incubator, the Liverpool Bio Innovation Hub also houses an SME suite complete with a training room, open access laboratory, and seminar room; and the LBIH Biobank, which offers bespoke and archival collections from any patient cohort required, including cancer and non-cancer disease types, as well as healthy donors and a number of services, including but not limited to project management, histology services, and advanced analysation, such as next generation sequencing.

Part of this £33m building will soon become the temporary home to the prestigious Royal College of Physicians, until their new building completes in Paddington Village in 2019.



#### Liverpool Life Sciences Accelerator

Located next to the new Royal Hospital and close to the LSTM, this purpose built Accelerator will have facilities for life science companies and is intended to support greater collaboration between the private sector, clinicians and researchers in the NHS. Its location is ideal: in close proximity to clinicians to facilitate a better understanding of patient/clinician needs, and to a clinical setting for testing new devices and medical technologies.





#### Tech Hub

The UK Tech Industry is growing 32% faster than the rest of the UK economy and Liverpool is home to the UK's 2nd fastest growing digital cluster (TechNation 2015). The proposed restoration of the heritage listed Wellington Rooms building, next to Liverpool Science Park's ic1, will complement the city's existing clusters.

It will provide additional floor space for start-up creative industries and act as a focal point for business networking and innovation in the magnificent ballroom.

#### Centre of Excellence in Infectious Disease Research (CEIDR)

CEIDR will bring together scientific expertise from LSTM and UoL in three pivotal areas: anti-microbial drugs, vaccines and insecticides for eradicating diseases. Potential locations for this new centre of excellence include the land near to the Liverpool Life Sciences Accelerator and Paddington Village.

#### Materials Innovation Factory 2 - Digital (MIF-D)

The creation of MIF-D, linked to the UoL Leverhulme Centre for Functional Materials Design, to combine the in silico discovery and design of new materials using high powered computing with robotic automation would allow established companies to co-locate with new or growing SMEs in a purpose built incubator. This in effect being the next step after the defended research-hotel contracts provided by MIF itself. Furthermore, MIF-D would enable the design, testing and validation of new materials using digital infrastructure, which would extend beyond fast-moving consumer goods (FMCG) to energy, healthcare and the communications sectors.

#### Residential places

The close working relationship between the City, the Universities and private sector residential developers has been critical to KQ Liverpool becoming a place for people to live and play.

Through our partnerships we will provide continued support to ensure that people are offered the very best places to live in an environment designed to cater for all ages and groups. It is envisaged that Paddington Village

will include some residential provision to create the right mix of workspace and amenities in the day and in the evening and at the weekend.

## Mount Pleasant multi-storey car park

Our intention is to work with the City, wider KQ Liverpool partners and other interested parties to update the masterplan for this gateway site, which is adjacent to Sensor City and Copperas Hill, with the objective of bringing forward a development plan within the next five years.

### Haigh building and Hardman Street

We are speaking to LJMU and landowners Carpenter Investments to help facilitate a landmark development; forming a Southern gateway to the LJMU campus, with associated public realm improvements. This would create a link from Hardman Street through LJMU's Mount Pleasant site into the heart of the Knowledge Quarter.

## London Road and Islington Regeneration Zone

Discussions are now taking place with the City Council and key strategic land-owners to bring forward mixed use schemes, adding creative workspace to the existing residential proposals for the regeneration of the area.

#### Liverpool Science Park ic4

Liverpool Science Park's fourth Innovation Centre could, on realisation, provide a dedicated facility for businesses working on the commercialisation of new health technologies.

Students now have the opportunity to live in superb accommodation, conveniently located within KQ Liverpool, with fantastic facilities on their doorstep. Our vision is for Liverpool's reputation to blossom as a magnificent place to study, work and live.

#### Laura Irving

Haus and Liverpool Student Lets



## Making collaboration real

Each of the partners offer differing areas of expertise, share the same vision and are collaborating to achieve the same goals. This is the key to the success of KQ Liverpool and this collaboration extends beyond its physical boundaries.

KQ Liverpool has representatives on the LCR LEP Innovation Board as well as the new Health and Life Sciences Board. This enables partnership at a strategic level.

We plan to work closely with Sci-Tech Daresbury, the City Region's other main concentration of science and innovation assets. It's key strengths in high performance computing and big data (STFC Hartree Centre - the UK's leading supercomputer dedicated to industrial R&D), accelerator science (Cockcroft Institute), sensor technology and advanced engineering being entirely complementary to the assets of KQ Liverpool.

The City of Liverpool College has five main sites with three located within the boundaries of KQ Liverpool. More than a third of Liverpool's 16-18 year olds study here. Modelled on a university system, it's vibrancy and business links form a key part of the KQ Liverpool Eco-System.

Liverpool Hope University is on the northern edge of the Knowledge Quarter and the Life Sciences UTC is to the South West in the nearby Baltic Triangle. Hope is one of the UK's leading Universities for student satisfaction and a key part of the city region's contribution to science, arts and humanities, all of which are central to the KQ Liverpool proposition. With students from more than 80 countries, Hope is another example of Liverpool's status as a global city.

In addition to what is already in KQ Liverpool, two of Europe's largest hospitals in their specialist fields, are right on our doorstep. Liverpool Women's Hospital and Alder Hey Children's Hospital are part of an extended collaboration that stretches across the city.

We will also continue to forge links with Baltic Creative, working with them to grow the city's creative, digital and media sector through new initiatives.

This spirit of collaboration extends across the North West and here in KQ Liverpool we will continue to liaise with colleagues at the University of Chester's new Science & Engineering faculty at Thornton Science Park, where visual computing is a strategic research area as well as Alderley Park (BioHub, Antimicrobial Research Centre, Medicine Technologies Catapult).

National partners and collaborators include the Science and Technology Facilities Council (STFC), Innovate UK, the Smart Specialisation Hub, the Knowledge Transfer Networks and Catapults, Research Councils, the LEP network, the Core Cities, and the N8.

## So, what will we do?

We will collaborate with our partners across KQ Liverpool and the wider city region to deliver this vision:

## Attracting investment & creating opportunities:

Act as a single point of contact for leads and enquiries in KQ Liverpool

Target and win inward investment

Support start-ups, encourage spinouts and grow existing businesses

Encourage the commercialisation of academic research

Promote KQ Liverpool as an attack brand for investment into the city region

Upgrade our existing science facilities and deliver new ones

Make the technology, equipment and expertise within the universities available to other users

Provide easy access to investment for start-ups and growing SMEs through the KQ fund

Provide a sub-fund to help with 'proof of concept' work for innovative businesses

Identify and promote development sites, such as Paddington Village

Strive for 'best in class' residential developments

#### Making the place:

Define and promote KQ Liverpool as a place

Encourage a diverse retail offer, including artisan traders

Promote the cultural offer of Hope Street and the surrounding area

Animate Hope Street with road closures for key events, such as graduations

Encourage retailers to trade out into the public realm

Create a green corridor or ribbons running east-west and north-south

Improve the energy infrastructure

Facilitate and host networking events

Bid to bring more global science and health conferences and conventions to Liverpool

#### Improving connectivity:

Plan and deliver a new KQ Liverpool train station

Develop an integrated mobility strategy for KQ Liverpool

Deliver the fastest broadband speeds available in the UK and more free public WiFi

Optimise links with SciTech Daresbury and STFC Hartree

Encourage greater collaboration with Alder Hey Children's Hospital

Provide safe well-lit car parking for evening visitors

Improve routes into and across KQ Liverpool for cyclist

Install electric/hybrid car charging points

Following the launch of this vision we will be consulting with partners on the timescales for delivery for each of these priority actions.

#### With thanks

The following people and organisations have been consulted in the drafting of this vision and we would like to thank them all for their support and encouragement.

Agent Marketing Downtown in Bu
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Bruntwood Haus
CBRE Heseltine Institut

The City of Liverpool College
Liverpool Food People
Liverpool Football Club
Liverpool Health Partners
Liverpool Hope University
Liverpool John Moores
University
Liverpool Knowledge Quarter
Sustainability Network

Liverpool Science Park
Liverpool Vision
Marketing Liverpool
The Materials
Innovation Factory
Morgan Sindall
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### Contact us

If you're looking for workspace or labs, or just want to share your ideas, discoveries and musings with us, please get in touch.

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