

Building the healthcare of the future



Building the
Leeds Way

Stakeholder briefing

Foreword

Our plan to build a new hospital for Leeds is one of the most important developments in the city for a generation – and will bring improvements in healthcare for patients across the region, as well as being a catalyst for the regeneration of the city centre.

In May 2023, the Secretary of State for Health and Social Care confirmed that our scheme to build a new home for Leeds Children's Hospital, a new adults' hospital and one of the largest single site maternity centres at the Leeds General Infirmary (LGI) will be fully funded and can proceed.

This is wonderful news for our patients, staff, partners and for the economy of West Yorkshire - a new state-of-the-art healthcare facility, on our historic LGI site, by 2030.

This huge investment will produce a building designed to offer our patients modern, individual healthcare based on the most advanced treatments, technologies, innovation and research. It is an ambitious, long-term development that will change the way we think about hospital care.

As one of the country's largest and leading hospital trusts, we are delighted by what the new hospital means for the health and wellbeing of the people of West Yorkshire, but this is about more than healthcare. It provides an opportunity to redevelop our old hospital estate, to regenerate part of the city centre, creating an Innovation

Village that will generate 4,000 new jobs and provide an economic boost of almost £13billion to our region.

The new hospital development is a major part of our wider programme of healthcare improvement, and we have already made fantastic progress.

Many of our enabling works are already complete and others are in development ready to support the construction of the new healthcare facilities. Our Building the Leeds Way Programme Team has been working with architects, designers and leading global suppliers to shape our vision and complete the design for our new hospital.

Construction of our new £35million regional Centre for Laboratory Medicine – a leading-edge pathology partnership - is complete. The Centre was officially opened in September by Will Quince MP, Minister of State for Health and Secondary Care and will be fully operational in 2024.

Through our Innovation Pop-up, our clinicians are working with technology businesses and entrepreneurs, turning new ideas and emerging technologies into real world healthcare solutions.



This is a 'once in a generation' opportunity and we want your support to deliver it as quickly as we can.

We will continue working closely with the Government's New Hospitals Programme team, to realise our ambition and start building as soon as possible, because we are ready.

We are ready to deliver our Hospital of the Future and bring much needed new healthcare facilities to Leeds. We are ready to create a world-class Innovation Village. We are ready to develop ground-breaking treatment for our patients. We are ready to provide a huge economic boost to our city.

A handwritten signature in blue ink that reads "Linda Pollard". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Dame Linda Pollard DBE DL Hon. LLD
Chair Leeds Teaching Hospitals NHS Trust





A new state-of-the-art hospital

As one of the largest providers of specialist hospital services in the country, our new hospital will go beyond the delivery of excellent patient care for the people of Leeds and will improve the lives of those both regionally and nationally.



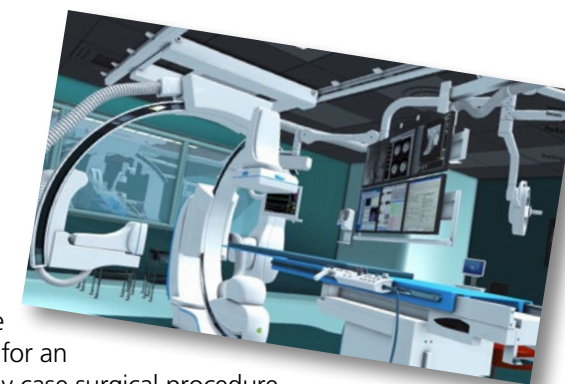
A new home for Leeds Children's Hospital

Leeds Children's Hospital is currently one of the largest specialist hospitals for children and young people in the country. Over 80% of the services it delivers are

specialist and it provides one of the most comprehensive ranges of paediatric services in the UK, including cancer treatment, transplantation and congenital heart surgery. Currently, these services are split across multiple sites in buildings not designed for children and young people, but our new children's hospital will put the needs of our patients and their families first – by bringing all these services together under one purpose-built roof for the first time.

A new adults' hospital

The new adults' hospital will support patients across the care pathway, from those attending for an outpatient appointment or a day case surgical procedure to those needing our most advanced care and support to recover from critical illness or injury. New theatres for day case surgery will reduce the number of inpatient hospital stays and there will be extra capacity within the critical care unit allowing us to treat the most complex and ill patients. A new flexible theatre and procedure unit will support a broader range of day case and urgent patient procedures.



A centralised maternity centre



For the first time in Leeds, a new maternity centre will incorporate a midwifery-led unit and co-locate all inpatient maternity and specialist neonatal services on one site and become one of the largest single-site maternity units in the UK. The new centre will support the delivery of approximately 10,500 babies a year from across Leeds and Yorkshire with all facilities co-located in one place. This will reduce the need for mothers and ill babies being transferred or being separated at a crucial time when they need each other the most.

Designing a digital hospital

We are working with architects, designers, research bodies and health-tech industries, to design a SMART, digitally enabled hospital.

The new hospital will incorporate leading-edge medical and building management technologies, making it flexible enough to quickly introduce future innovations. This means it will be able to integrate emerging methods of diagnosis and treatment, responding to new challenges. This adaptability means it will remain fit for purpose decades into the future.



Designing an efficient hospital

The new hospital will improve the care environment for patients and staff. It will feature state-of-the-art medical equipment, communications technology and digital scheduling & appointment systems.

Together with new care models, these innovations will support single rooms for all inpatients. Patients receiving outpatient care will have more choice about the way they receive their care. Diagnostic testing will be more efficient and navigating around the hospital will be easier.



Designing a sustainable hospital

Our new hospital will be a net zero carbon, clean energy building. It has been designed and positioned to make the most of natural daylight and solar gain, without overheating.

Air source heat pumps will provide all hot water and heating. The hospital will be cooled via heat recovery systems. More than 2,000 square metres of solar panels will support the hospital's energy needs.

Sensitive to climate change the new building has been designed to withstand the forecasted climate of the year 2050, managing temperature extremes and heavy rainfall.



The Centre for Laboratory Medicine

A regional hub driving improvements in diagnosis, treatment and care for patients across West Yorkshire.

The Centre for Laboratory Medicine (CfLM) is our brand new, state-of-the-art pathology facility at St James's University Hospital. Completion of construction was officially marked at a ceremony in September 2023 attended by Minister of State for Health and Secondary Care, Will Quince MP.

The building will become fully operational in 2024 following the installation of new equipment and integration of digital technology. It will also incorporate a single, shared Laboratory Information Management System (LIMS) which will mean test requests can be ordered, tracked and results reported electronically to clinical services across West Yorkshire and Harrogate.

Accommodating cutting edge equipment and specialist technologies the new laboratory is designed to provide faster, more routine and specialist testing. The facility

will also become home to some pathology services from Mid Yorkshire Teaching NHS Trust and Calderdale and Huddersfield NHS Foundation Trust as part of a wider regional pathology services transformation programme.

This regional partnership, formed through a collaboration with the West Yorkshire Association of Acute Trusts (WYAAT), will support the delivery of innovative testing and diagnostics, using advanced equipment and new technologies to generate results faster and create a more consistent process for all patients no matter where they live in our region.

Bringing these vital pathology services together into the new building will enable routine and direct access testing from fewer sites, will create better working environments for staff and will make the continuity and transfer of care easier across the region.



“This new, cutting-edge pathology laboratory will serve thousands of patients across West Yorkshire – helping to deliver faster results, speed up diagnoses and cut waiting lists.”

**Will Quince MP
Minister of State
for Health and
Secondary Care**





It will also improve diagnostics for patients, helping to meet the growing demand for specialist treatment and care as well as providing important development opportunities for staff.

The new laboratory will replace outdated facilities at the Old Medical School and St James's which have been housing some of Leeds Teaching Hospitals NHS Trust's pathology services for many years.

Once services move to the CfLM, the Old Medical School will be repurposed as the catalyst for an Innovation Village on surplus estate at the LGI. This will be an exciting space for tech and health businesses.

Construction of a new Acute Hospital Laboratory has also completed at the LGI. Once operational in 2024, it will provide essential pathology testing facilities to support clinical services when the main pathology services relocate to the CfLM.

“ This new centre firmly cements West Yorkshire as a global leader in health technology – it will fuel innovation in diagnostic testing and deliver better outcomes for patients worldwide.

It was inspiring to meet the staff who will pioneer these new technologies, as well as the talented high school students who could be our homegrown pathologists of the future.

With this new centre, I'm confident that Leeds Teaching Hospitals NHS Trust will continue to play a vital role in our mission to build a brighter, happy West Yorkshire that works for all.”

Tracy Brabin
Mayor of West Yorkshire





In 2022/23 we awarded



£13.2m

in grant funding at Leeds Teaching Hospitals NHS Trust



£4.3m

was to research and innovation with the potential to reach an astounding **1.83m people.**

We're the charity that champions, supports, and gives thanks to the NHS. Bringing together thousands of donors so we can make a real difference for the people and patients of Yorkshire.

£60K funding for a dedicated midwife and electronic patient data storage, benefiting 800 mums to be

Born and Bred in Leeds (BaBi Leeds) is a groundbreaking research project that involves midwives speaking to pregnant women in Leeds to build a clearer picture of people's lives and look at ways to improve health and care inequalities and planning of services.

"I enjoy the new challenges this study brings - promoting the study within our communities and linking with other professionals. There is a lot of potential to think 'outside the box'."

Jane Gavin, Research Midwife



£211k research fellowship to address health inequalities for sick children, thanks to legacy funding

The Jeremy Neil Allen Clinical Research Fellowship gives doctors at Leeds Children's Hospital the opportunity to receive specialist training at the Leeds Children's Clinical Research Facility, where there are currently over 100 active clinical research studies.



"There has been an increase in the number of babies, children and young people involved in research trials and we've now recruited a larger proportion of patients, which is a hugely positive step forward."

Kate Parmenter, Paediatric Doctor

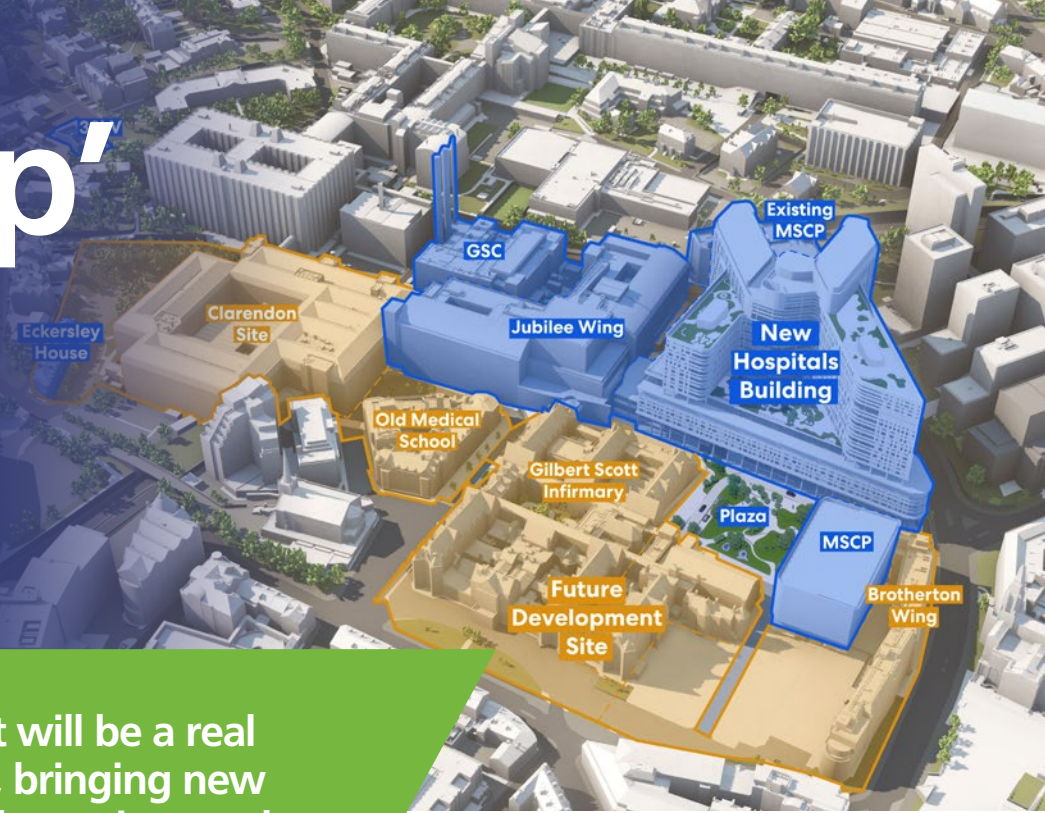
A Catalyst for Regeneration



**Building the
Leeds Way**

Stakeholder briefing

'Levelling up' through Innovation



The realisation of our plans, to create what will be a real catalyst for regeneration of our city centre, bringing new jobs and a significant economic boost for the region, took a huge step forward this year.

In May 2023, the Secretary of State for Health and Social Care confirmed that our scheme to build a new home for Leeds Children's Hospital, a new adults' hospital and one of the largest single site maternity centres at the Leeds General Infirmary (LGI) will be fully funded.

The agreement on this state-of-the-art building programme, unlocks the use of five hectares of city centre land and existing buildings to develop our new world-class, city centre 'Innovation Village' in Leeds.

The redevelopment of our site forms a crucial part of the Leeds Innovation Arc – a series of innovation neighbourhoods, formed around the universities, major private sector occupiers and our hospitals at Leeds General Infirmary.

Our vision is for an Innovation Village at the LGI that will harness the wealth of expertise and knowledge across the city and create thousands of jobs in health innovation, engineering, financial and business services, data analytics and digital technologies.

A once in a lifetime opportunity for the transformation and regeneration of a key city centre site in Leeds, an independent report conducted in 2023 by accountancy firm PWC estimates our development will deliver 4,000 new jobs and up to £13bn economic boost for the region - positively supporting the Government's "levelling-up" agenda.



The Innovation Village will:



deliver

4,000 jobs



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Leeds Innovation Arc

Working alongside our anchor partners, including Leeds City Council, to support the development of the Innovation Arc in Leeds, the recently adopted supplementary planning document (SPD) provides a distinctive blueprint to stimulate innovation and growth across a large area of our city.

The Arc will provide around 100,000m² of innovation space to support start-ups, growing enterprises and major occupiers, together with shared spaces where people can meet and share ideas. There will be over 3,000 new homes in and around the Arc, the potential for up to 220,000m² of public realm improvements as well as two new city parks creating four hectares of new, meaningful green space.

Visit inclusivegrowthleeds.com/leeds-innovation-arc-2 for more information.



The Old Medical School will be the first building in the LGI development site to become available for redevelopment when it is vacated upon the completion of the Trust's new state-of-the-art Pathology Laboratory at St James' University Hospital.



The Old Medical School

The first step towards an Innovation Village for Leeds

Built in 1894, the Old Medical School in Thoresby Place, a Grade II* listed building is steeped in medical innovation history. After years of producing a long line of eminent physicians the medical school moved to a new purpose-built site in the Worsley Medical and Dental Building at the University of Leeds in 1977 with the building in Thoresby Place being home to the Trust's Pathology department ever since.

The Old Medical School will be the first building in the LGI development site to become available for redevelopment when it is vacated, once the new state-of-the-art 'Centre for Laboratory Medicine' at St James' University Hospital is operational.

The future is bright for Old Medical School, located at the epicentre of our site and adjacent to world-class healthcare facilities. It will be the first phase of development in the new Innovation Village.

The building currently houses Leeds Teaching Hospitals NHS Trust's pathology department over five floors and still retains many of the features of the original medical school including a lecture theatre and library. Sitting next to the Gilbert Scott Building in Great George Street – it is truly at the heart of the new Innovation Village.



Innovation Pop Up



Designed on the advice of Florence Nightingale and completed under the exacting eye of architect Sir George Gilbert Scott in 1869, the Leeds General Infirmary (LGI) was the world's first civic hospital. It delivered national and international breakthroughs, including the UK's first liver transplant and the birth of modern emergency medicine. Now the Grade I listed Gilbert Scott Building supports a growing community of high-tech start-ups led by clinicians and entrepreneurs focused on advancing modern medicine once again, through our Innovation Pop Up.

Launched in 2021 and recently celebrating its second anniversary, the Innovation Pop Up is an initiative to support transformation of latest advances in science, research, and technology into real world solutions for the

benefit of our patients, and ultimately more widely across the NHS.

Since its inception two years ago, the Innovation Pop Up is now home to a growing community of high-tech start-ups, providing a valuable test-bed for new innovations before they are adopted and implemented. Over the last two years, the Innovation Pop Up, based at the Gilbert Scott building, has worked across 15 countries and this year secured the continued support of Leeds Hospitals Charity and established a new strategic partnership with both Fujitsu and Intel. This continued growth trajectory and new scale of partnership working represents the beginning of this exciting new chapter to become a village and the next phase of our innovation ambitions.

“ Our physical Innovation Pop Up is only the first step in creating an Innovation Village.

Looking to the future, we're determined to develop best practice in designing and creating healthcare of the future – for the NHS and to implement in our own 'Hospitals of the Future' building programme. Looking to the next phase, The Innovation Pop Up is at the heart of our ambitions for the next phase of our journey, and its growth trajectory – in one of the fastest growing health tech regions in the country – represents our momentum in delivering that vision.”

David Brettle
Chief Scientific Officer,
Leeds Teaching Hospitals
NHS Trust

Case studies

Histosonics

Healthtech company Histosonics are pioneering the development of histotripsy as a non-invasive treatment for a range of cancers. If proven to work, the system has the potential to transform cancer treatment.

Working with interventional radiologist Tze Wah, Histosonics are undertaking a series of clinical trials on a range of cancers and looking at how the technology could be introduced to the UK market if proven successful.

Kheiron Medical Technologies

Kheiron Medical Technologies have been working with Leeds Teaching Hospitals to develop MIA, an AI algorithm for detecting cancers in the breast screening pathway.

Working with consultant radiologist Nisha Sharma, work has been carried out to support training of the algorithm alongside health economics work looking at the value of such an algorithm to the healthcare system. Further clinical studies are now live looking at the utility of MIA in the screening pathway.



Scan me



Award-winning

The ambitious initiative has won the research and innovation category in the Chief Scientific Officer's Excellence in Healthcare Science Awards, which champions ground-breaking translational scientific work and strong collaborations for innovation and enterprise to make a real difference in patient care.

“ There are a number of impressive new technologies and innovations coming out of the new Pop Up at Leeds Teaching Hospitals. One of the brilliant things the team have been developing is real-time location services to help track samples in pathology to improve efficiency. This innovative application of tracking technology is testament to the cross fertilisation of ideas that happen by bringing entrepreneurs and clinicians together.”

Professor Dame Susan Hill
*Chief Scientific Officer
for England*

Case studies

Little Journey

Little Journey is a digital eSupport platform that psychologically prepares, informs and supports children and families before, during and after healthcare procedures, all from the comfort and safety of their own home. Designed to reduce healthcare-induced anxiety, the Little Journey platform has been co-created with children, families and healthcare staff to provide end-to-end support throughout each hospital journey.

The Little Journey team have been working with Leeds Children's Hospital to assess the benefits of the platform in the pre-operative pathway and have now adopted it as part of routine practice.

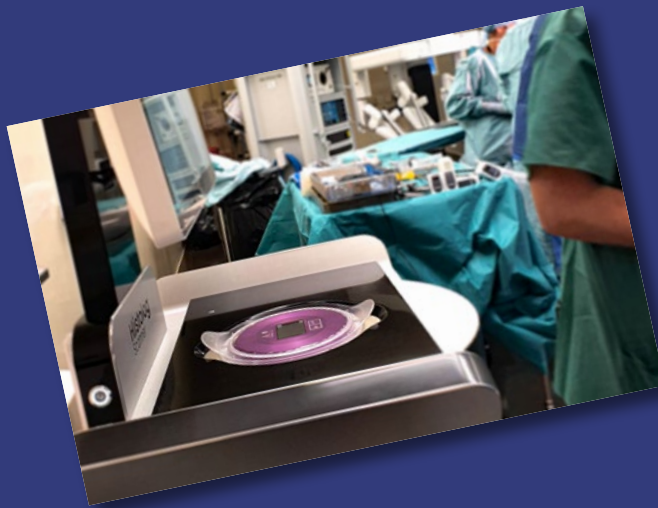


Samantree

Innovation Pop Up member company SamanTree Medical has developed a confocal microscope for real-time, high-resolution imaging of fresh surface tissue. The Histolog® Scanner can help clinicians to confirm diagnoses during operations and make it easier to remove cancerous tissue with confidence, protecting healthy tissue and avoiding the need for invasive follow-up procedures.

Currently, tissue samples are taken and sent for analysis at a pathology lab, which can take up to 90 minutes. The Histolog® technology is based on a breakthrough in confocal microscopy that allows tissue specimens of up to 20 square centimetres to be scanned and accelerates the imaging process to under a minute.

This technology is being evaluated by neurosurgeons and pathologists at the Trust, with interest from pancreatic surgery and interventional radiology groups.



This briefing is the latest update on our exciting Building the Leeds Way Programme and vision to create an Innovation Village as part of the wider transformation of the Leeds Innovation Arc.

Look out for further updates as our work continues.

To find out more about Building the Leeds Way, Innovation Village and Hospitals of the Future, please email: btlw@nhs.net or visit: www.leedsth.nhs.uk/about-us/btlw



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Third Edition

