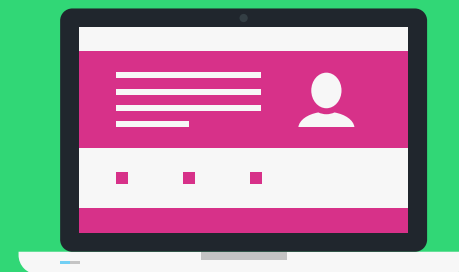


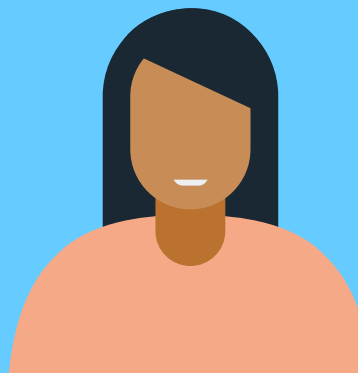


NHS
Liverpool Women's
NHS Foundation Trust



Digital Generations

Our Digital Strategy 2020 - 2024



Contents

Foreword	3	How do we get there?	43
Introduction: Delivering Digital.Generations	5	5.1 Our Digital Principles	45
Where are we now?	7	5.2 Digital.Identity	46
3.1 Our Hospital	8	5.2.1 Digital Brand	47
3.2 Hospital Headlines	10	5.2.2 Digital Front Door	48
3.3 Digital Services	11	5.3 Digital.Fundamentals	50
3.4 Strategic Context	16	5.3.1 Digital Compliance	51
3.4.1 Trust placement	17	5.3.2 Digital Accessibility	52
3.4.2 Cheshire and Merseyside Health Care Partnership Strategy	18	5.3.3 Digital Infrastructure	53
3.4.3 National Strategy	19	5.3.4 Digital Service Improvement	54
3.5 Our Digital Highlights	21	Digital.Fundamentals	55
3.6 Covid-19: Our Digital Response	24	5.4 Digital.Excellence	56
3.7 Designing Digital: Shaping IT with you!	26	5.4.1 Digital Capabilities	57
Where do we want to be?	30	5.4.2 Digital Empowerment	59
4.1 Digital Generations: Realising our Digital Promises	32	5.4.3 The Power of Information	60
4.2 What outcomes do we want to achieve?	34	5.4.4 Accreditation	61
4.3 What does this mean for our patient, staff and services?	36	Digital.Innovation	62
4.3.1 Maternity	38	Delivering Digital.Generations	63
4.3.2 Outpatients	39	6.1 Digital Leadership	64
4.3.3 Genomic Medicine	40	6.2 Partnership Working	65
4.3.4 Neonatal Services	41	6.3 Benchmarking	66
4.3.5 Gynaecology and Hewitt Fertility Centre	42	6.4 Funding	67
		6.5 Governance	68
		6.6 Quality Improvement	69
		6.7 Monitoring	69

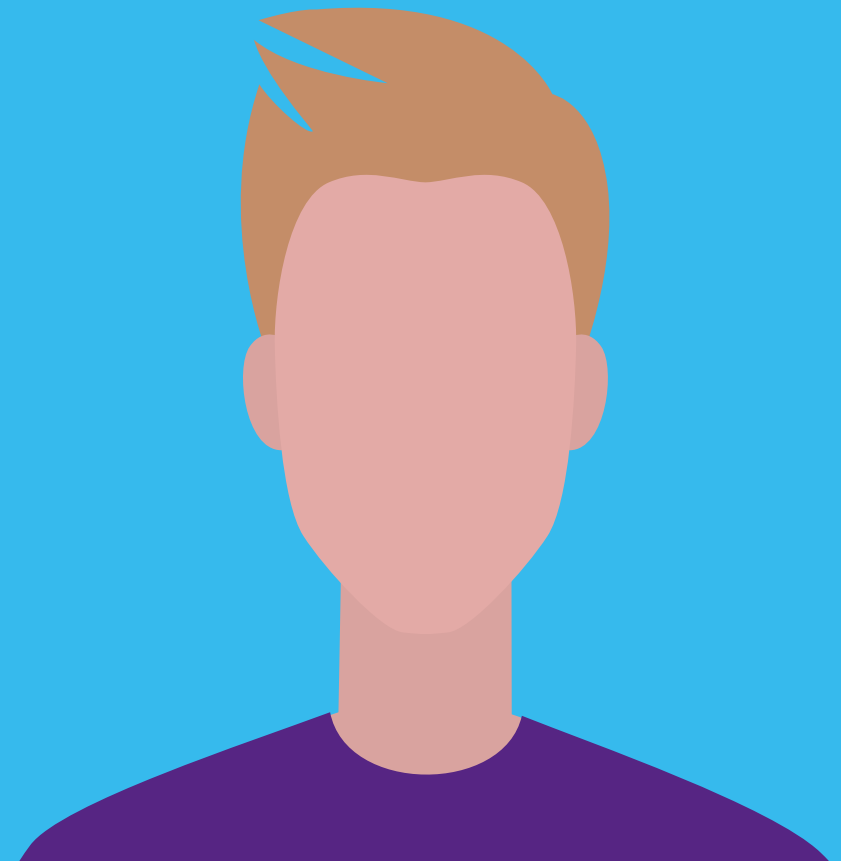
SECTION 1

Foreword

Developing the Digital Strategy has been a fantastic opportunity for me to engage with staff across the Trust, and your input has been hugely important in shaping the digital future and getting it right for our staff. The reliance on digital technologies is never more apparent than now, with advancement in new ways of working and caring for our patients, assisted through technology. What has made this successful has been IM&T and staff across the Trust working together. It is important to me that we provide a digital service that is truly embedded within the organisation, so that designing digital is a truly collaborative effort, for the benefit of our patients. We are all digitally responsible.

Delivering care effectively now and in the future will require a digital service that is at the core of everything we do within the Trust, with technologies shaped around our delivery of care and underpinned by resilient, effective and safe systems and infrastructure. We will move into a new phase of providing an integrated digital care record, and this will provide enhanced capabilities, whilst reducing the current system complexities our staff face. We want to foster and build on the strong wiliness from the trust to engage with us by exploiting the innovative thinking present across the organisation.

Matt Connor
Chief Information Officer



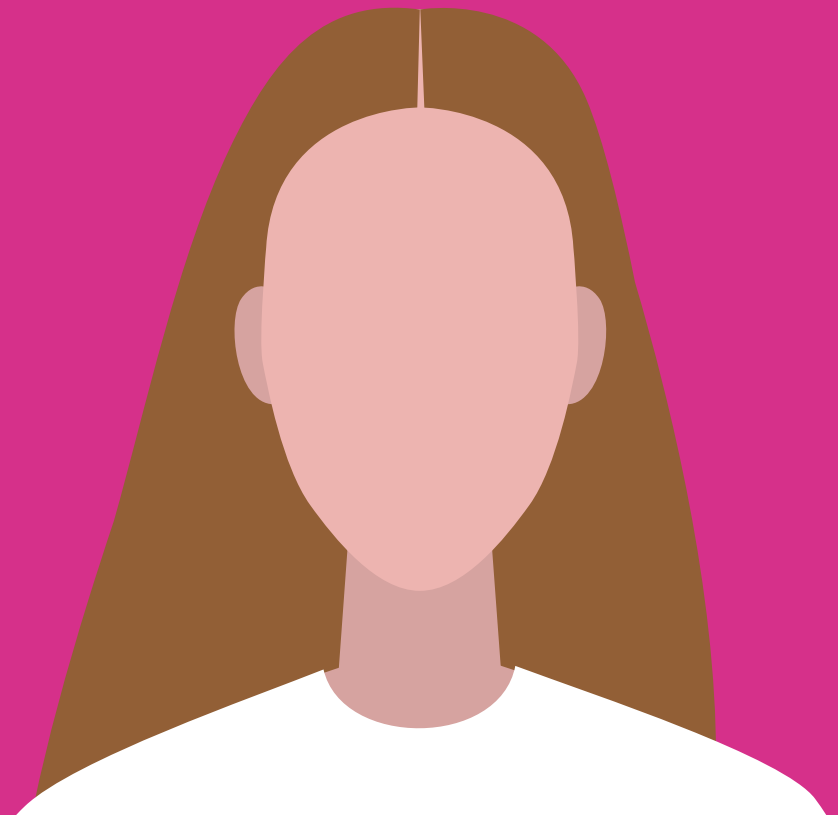
Foreword

Patient care in the 21st century cannot be properly provided without up to date, fit for purpose digital systems. The immensely rapid move to new ways of working in response to the Covid-19 pandemic has demonstrated to many within the Trust the value of the IM&T team, and particularly the importance of working closely with them. Indeed, it may inadvertently have thrust Digital Services into the limelight slightly earlier than expected when this Strategy was being conceived.

Although we are a small Trust, with an apparently fairly limited patient base, we in fact care for all ages, including as yet unborn, all genders and a huge range of disorders, arguably being the one hospital in the Cheshire and Merseyside region that any individual could plausibly be referred to. The diversity of our services and patients presents unique challenges to digital services, and it is only with the participation of knowledgeable staff members within the various departments that these challenges will be overcome. Digital Services need to have their tentacles extended into every division, actively participating in strategy and planning from the outset, which will ensure that new systems are clinician led and designed to fit the needs of the Trust and our patients.

I am excited to be part of what will be a very important time for the Trust.

Dr Natalie Canham
Consultant in Clinical Genetics and Prenatal Lead
Chief Clinical Information Officer



SECTION 2

Introduction: Delivering Digital.Generations

Welcome to Digital.Generations, a strategy that sets out the digital direction for Liverpool Women's Hospital over the next five years. We feel a five-year timescale is required to deliver on the ambitions set out within this strategy, ensuring digital transformation is implemented, adopted, and that it results in measurable benefits. To ensure this is successful, a cultural change is required in how digital services are designed and provided; ultimately to be firmly embedded at the core of our care services. We acknowledge that things change quickly in the digital world and we are committed to reviewing this strategy on an annual basis to ensure it is always aligned with national, regional and Trust priorities.

The aim of this strategy is to provide our hospital with the best digital capabilities, equip our staff with the right skills for effective use of digital and embed a digital first culture, so that we maximise the opportunity for our care services to benefit from technology.

By delivering this aim we will ensure we are aligned to the values and objectives of our hospital, and we will strive to place our patients and our staff at the centre of everything we do.



Digital.Generations will achieve this aim by:

- Placing digital services front and centre, making it accessible and designing patient-focussed digital solutions with clinicians, nursing & midwifery and other stakeholders from the start.
- Provide robust, simple to use and efficient digital technology that underpins seamlessly the systems and applications, removing barriers and dis-benefits.
- Equipping staff with the training and support to utilise the systems effectively, and to understand the implications of digital use.
- Delivering excellent digital capabilities; systems that are integrated, reducing duplication and complexity and providing information at the right place and time for the benefit of staff and patients.
- Foster the innovation that is present amongst our staff and continue to build on the excellent work delivered through the Global Digital Exemplar (GDE) Fast Follower Programme.

We recognise that partnership working is essential, and this includes developing strong relationships with the Trust's key suppliers of digital technology, local NHS organisations within the Liverpool 'place', regionally within the Cheshire and Merseyside Health Care Partnership (HCP) and beyond including NHSX and the Academic Health Science Network.

This strategy will deliver on four key themes:

Digital.Identity: place digital services front and centre across the organisation.

Digital.Fundamentals: deliver brilliant digital standards and underlying technology.

Digital.Excellence: deliver integrated digital systems and equip our workforce with the skills to get the most out of our systems.

Digital.Innovation: leverage innovative ideas and uses for digital across the trust.



SECTION 3

Where are we now?

This section describes our hospital vision, aims and objectives. It describes what IM&T solutions our Digital Services function will provide and what we have achieved. It summarises the output of the strategy engagements sessions, providing a basis for where we want to be.



3.1 Our Hospital

Liverpool Women's is a Trust providing maternity, gynaecology, genetics and fertility services in Liverpool and the North Mersey region. It is also the recognised specialist provider in Cheshire and Merseyside of high-risk maternity care including; foetal medicine, the highest level of neonatal care, complex surgery for gynaecological cancer, reproductive medicine and laboratory and clinical genomics.

The Trust recently transferred management of its Genetic Laboratory services to Manchester University Hospitals NHS Foundation Trust as part of a national programme for the consolidation of services into seven Genomic Laboratory Hubs across England.

The Trust remains a partner and stakeholder and continues to provide Clinical Genetic services.



Our Trust vision, aims and values are:

Vision

To be a recognised leader of health care for women, babies and their families

Aims

- To develop a well led, capable and motivated workforce
- To be efficient and make the best use of available resources
- To deliver safe services
- To deliver the most effective outcomes
- To deliver the best possible experience for our patients and our staff.

Values



Engage

We involve people in how we do things.



Ambition

We want the best for people



Learn

We learn from people, the past, present and future



Care

We show we care about people



Respect

We value the differences and talents of people

3.2 Hospital Headlines

Our hospital is a fantastic place to work and is the largest women's hospital in Europe, providing specialist care for women and babies. We are proud of many achievements and in 2019/20 these included:

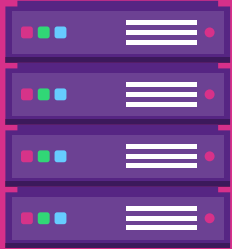
- We delivered 7,953 babies (2018/19 8,379) – an average of 22 babies born at Liverpool Women's every day (2018/19, 23)
- We undertook gynaecological inpatient procedures on 4,635 women (2018/19, 4,876) and 30,825 gynaecological outpatient procedures (2018/19, 30,611)
- We cared for 1,267 babies in our neonatal intensive and high dependency care units (2018/19, 1,013)
- We performed 1,257 cycles of in vitro fertilisation (IVF) (2018/19, 1,294)
- We celebrated our 25th anniversary since moving to the current Liverpool Women's Hospital in 1995. Whilst celebrations have been limited during 2020, it is a significant milestone which has seen approximately 250,000 babies being born over the last 25 years.
- We continued work on the redevelopment of the neonatal unit which once completed will see the unit providing much needed additional cots and space to keep our most vulnerable patients safe. The new neonatal unit is planned to be commissioned and ready for use during 2020-21, and part of the new unit opened in February 2020.
- We launched the new Nursing, Midwifery, and AHP Strategy 2020-25 which has the 'WE CARE' strapline at its heart and running through the objectives within the strategy.
- The Liverpool Women's Hospital Charity achieved its £250,000 Big Tiny Steps Appeal to raise funds for the refurbishment of the new neonatal unit and provide extra comforts for families. In the early part of 2020, the public appeal exceeded its full target.
- We took part in series five of BBC Two's 'Hospital' series which received approximately 1.6 million viewers for each episode; of which the Trust featured in one, showcasing the excellent care in our maternity and neonatal departments with a focus on functional neurological disorders during pregnancy.
- The Liverpool Centre for Genomic Medicine saw 3893 Patients across the Cheshire and Merseyside Region and the 100,000 Genomes Project Team closed 85 % of their cases (over 1000 patients), exceeding the national target



3.3 Digital Services

We are a diverse department that provides all the Trust's digital services 24x7x365. This includes providing support across various functions as well implementing new digital projects. Over 70 staff are employed across functions that include Information Technology, Information Services, Information Systems Support, Clinical Coding, Digital Programme Management Office (PMO), Information Governance and Health Records.

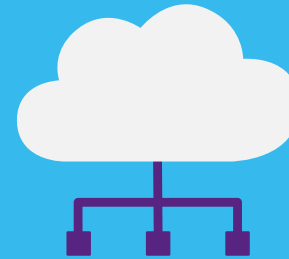




Information.Digital

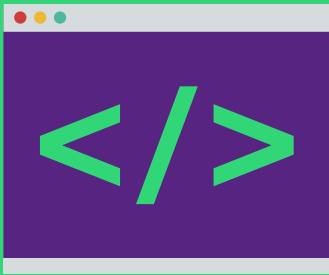
Our Information department have 10 staff supporting the information requirements across the organisation. The team ensures that all contractual and statutory reporting is adhered to, they develop and maintain the Trust's data warehouse and provide key information on request.

The data warehouse provides a central repository for all Trust reporting. Microsoft Power BI and SQL Reporting Services are used for reporting and data visualisation, providing an insight into Trust activity and performance.



Systems.Digital

The Systems team are a function within our Information department. They have 4 staff who support, maintain and develop most of the Trust's clinical systems. As well as providing 24-hour clinical systems helpdesk support. They also provide training on clinical systems and advice on how administrative and clinical information can be recorded within these systems.



Coding.Digital

Clinical coding is the translation of medical terminology into a coded format and key for both monitoring Trust performance and activity and ensuring the correct levels of income are received through Payment by Results.

With a team of 6 staff who have trained for several years to become accredited clinical coders they are responsible for coding all inpatient and outpatient activity. In recent years external audits have shown the Trust to have highly accurate coding with high productivity levels in comparison to other Trusts.



IT.Digital

Our Information Technology team are often the most familiar face of our digital service provision, providing the day to day IT support across the Trust. With 12 staff, they ensure that the essential underpinning IT infrastructure is operational. This includes first line support via the IT Helpdesk through to 2nd and 3rd line support where our engineers directly support Trust staff. They provide an on-call function for out of hours support. They also work with other digital teams to implement new systems, providing new technologies and infrastructure. They are responsible for Cyber Security and implementing the technical controls to keep our systems safe.



Health Records.Digital

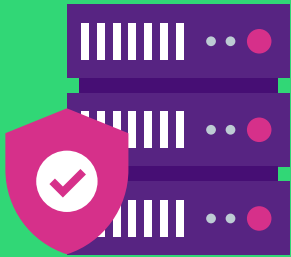
Our Health Records department plays a significant role in the daily operation of the hospital. Comprising of 20 staff, they ensure all patient records are well maintained and provided timely whether paper or electronic. Their aim is to ensure that our clinicians have the most relevant and up-to-date information available.

Legacy case notes are stored securely off-site and health records staff provide a retrieval service to provide the case notes required for clinic or for scanning. As we move into a more digital era, the health records department has an important role to play in this transition. As part of the 'Paper Free' project, Health Records have established robust processes between them and the external scanning bureau. They operate to defined service level agreements to ensure day forward and legacy notes are digitised in a timely fashion. Health Records management provide leadership and support the wider department in becoming experts in the use of digital case notes.



Programmes.Digital

The Programmes function, commonly referred to as the Digital PMO provides comprehensive management of the digital programme ensuring that all projects are delivered within a robust project management and governance framework. Comprising of five staff they apply industry standard project and change management methods to drive forward digital transformation across the Trust ensuring that project outcomes are achieved in line with the perceived benefits. They provide regular programme level reporting and highlight potential risks and issues with delivery and budget control. This function supports the Trust through innovative business change analysis, mapping current and to-be processes in collaboration with the Trusts departments. They are truly at the heart of the Trust's, working with all digital service functions and with staff across the organisation to deliver digital transformation.



IG.Digital

The Information Governance function, or IG as it is more commonly known, is a function that sits within Digital Services, comprising of five staff, the focus of the department's work falls into 3 broad areas of work. The first area is compliance and standards, where specifically they focus on Trust compliance to the Data Security and Protection Toolkit (DSPT). The toolkit covers a wide range of areas such as information and cyber security, confidentiality, data protection and the rights of individuals in respect of the information we hold about them. Under compliance, the IG department work with other staff within Digital Services to ensure new innovations have appropriate information security controls applied. The second area is in relation to information releases. There are two primary mechanisms for the

release of the information the Trust holds, the first being what is known as a Subject Access Request and the second is what is known as a Freedom of Information request. Subject Access Requests deal with the release of personal information, which the Trust holds about them; Freedom of Information requests deal with non-personal information about the Trust in general. The third area is in active monitoring and compliance to ensuring that patient information is suitably protected from inappropriate access. The Liverpool Women's Hospital has advanced capabilities to monitor, almost in real time, who is accessing patient records and, where necessary, highlight any potential suspicious activity. The system allows the Trust to take pride in the extent to which it is protecting patient information.

3.4 Strategic Context

This section will describe the key strategic drivers at local (Trust), regional (HCP) and national levels that influence the direction of travel.



3.4.1 Trust placement

The Digital.Generations strategy forms part of a set of strategies we have in place at Liverpool Women's, which forms a co-ordinated plan to deliver our aims and realise our vision. Each of these strategies has interdependencies with the others and should be viewed in this wider context.

Our overarching Trust strategy, Future Generations, was originally launched in 2015 and outlines our plans to deliver safe and sustainable services for the future. A refresh of this strategy is now underway, and a new version will be launched at the end of 2020. The refreshed strategy will feature a set of strategic objectives, which will shape our direction over the next 5 years.

Each of our supporting strategies has been put in place to help us deliver Future Generations, our Clinical and Quality strategy and our Research and Innovation strategy; enabling us to achieve our aims and objectives and realise our vision.

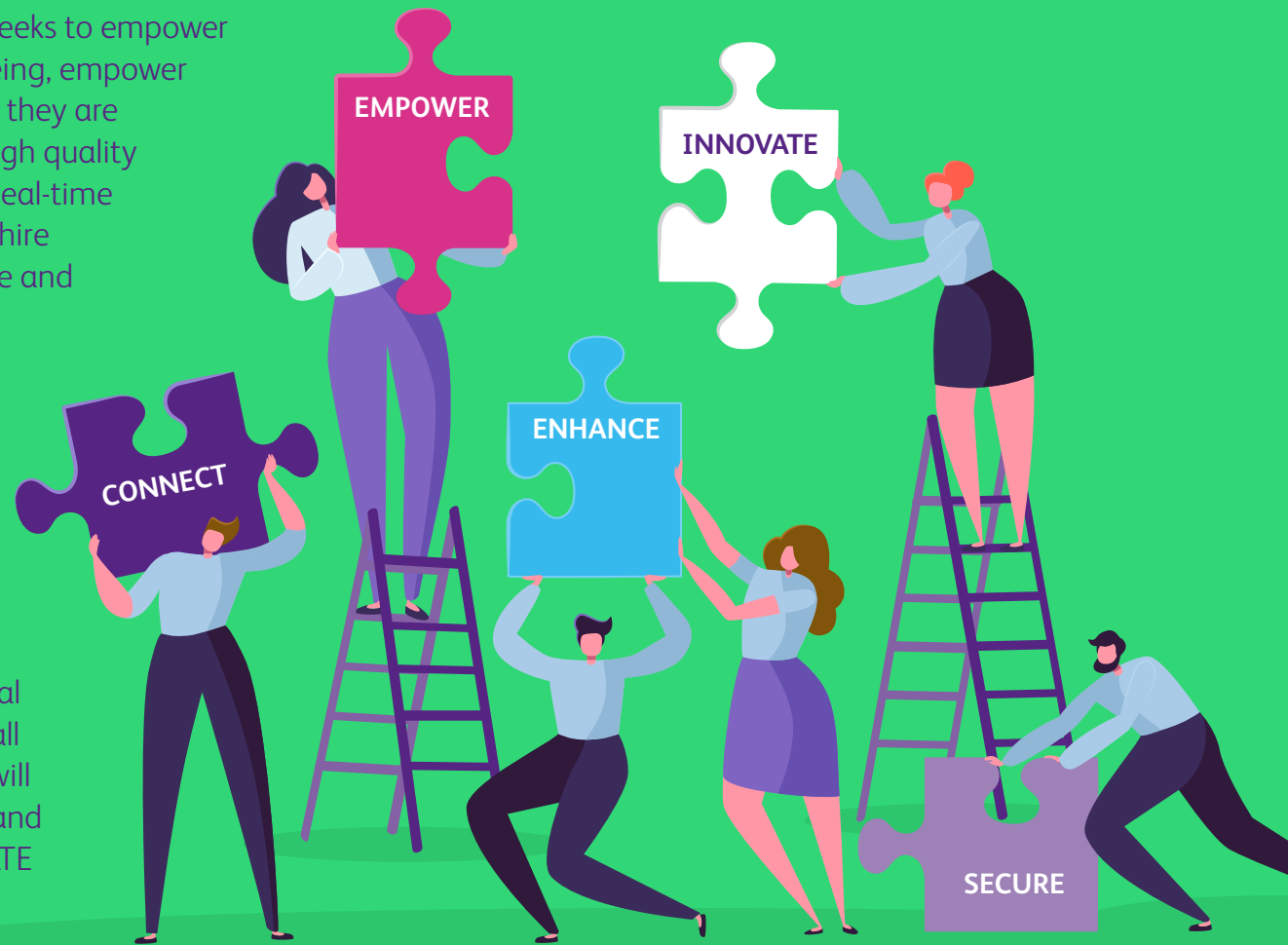
This digital strategy cuts across all services within our organisation and will support each of our teams in delivering their goals. Use of digital technologies will be central to the way we develop our model of care for the future, placing Digital.Generations at the heart of our journey to deliver safe and sustainable services for the women of Liverpool and their families in the long term.



3.4.2 Cheshire and Merseyside Health Care Partnership Strategy

Cheshire and Merseyside Health Care Partnership developed a five-year regional strategy in 2018 called Digit@ll which places a patient / citizen focus on digital activities. It sets out a digital vision that seeks to empower individuals to take control of their own health and well-being, empower staff to have access to high quality information and that they are equipped with the digital resources required to support high quality care. It aims to deliver a joined-up patient journey using real-time data to inform care delivery. Finally, it aims to make Cheshire and Merseyside an attractive place for innovators to come and learn about digital excellence. It sets out to achieve this through five key digital transformation themes.

This strategy will leverage the regional approach to support the implementation of our local digital themes. Within the EMPOWER workstream we will contribute to and benefit from system learning regarding digital inclusion for our staff, patient and their families. Under ENHANCE we will employ a 'brilliant basics' approach to reduce variation within our own digital services and we will take pride in contributing to the overall system digital maturity level. Under CONNECT the Trust will particularly benefit from the regional shared care record and population health management systems. Under INNOVATE we will work with the system to leverage partnerships and research learning to foster an internal innovation culture. As a Cyber Essential Plus accredited organisation, we will share our learning through the SECURE workstream.



Click on each jigsaw piece to read more

3.4.3 National Strategy

The NHS Long Term Plan was implemented in 2019 and set out various ambitious improvements for patient care over the next 10 years. This means we will do things differently by providing people with more control for their own health and the care they receive. A more connected health system bringing primary care, secondary care together with local partners to create an Integrated Care system. The plan will address preventing illness and tackling health inequality taking a population health and community approach. The plan recognises the importance of the workforce in delivering the changes

and ensuring they have the right skills and enough staff in the right services to deliver the care needed. The plan recognises technology and data as a key enabler, and it sets out to make services more convenient, providing a digital front door to provide better patient access to their care record, a more joined up approach in the use of data for care services to plan and shape their care services accordingly. The fifth ambition is to get the most out of taxpayer's investment by continuing to work with clinicians and other professional to reduce duplication and make better use of the NHS combined buying power.



Following the implementation of The NHS Long Term Plan, NHSX was formed to drive forward the digital improvements required to support the plan. In the latter part of 2019, NHSX delivered the Tech Plan and latterly in 2020 the NHS Digital Health Technology Standard. The tech plan and associated vision for technology in health identifies:

- Interoperability and integration standards to support more joined up data use.
- Reducing the variation in levels of digitisation across NHS providers.
- A focus on citizen privacy and information security
- Digital inclusion for citizens; NHS App
- Empowering our workforce with the right skills (Topol Report)
- National infrastructure and standards such as Cloud First directive
- Research and innovation to support the scaling of proven technical innovations.

In 2016, the Better Births report was published which set out a five-year forward view to improve the outcomes of maternity services in England.

The Maternity Transformation Programme was implemented to achieve the vision set out in the report. The programme identified ten workstreams. There is commonality between the Maternity Transformation Programme workstreams and the NHS Long Term Plan, for example local transformation of services, a focus on workforce, improving prevention, effective sharing of data and harnessing digital technology.

In particular, the harnessing of digital technology is facilitating the development and rollout of patient-held digital maternity records to support women to manage their care.



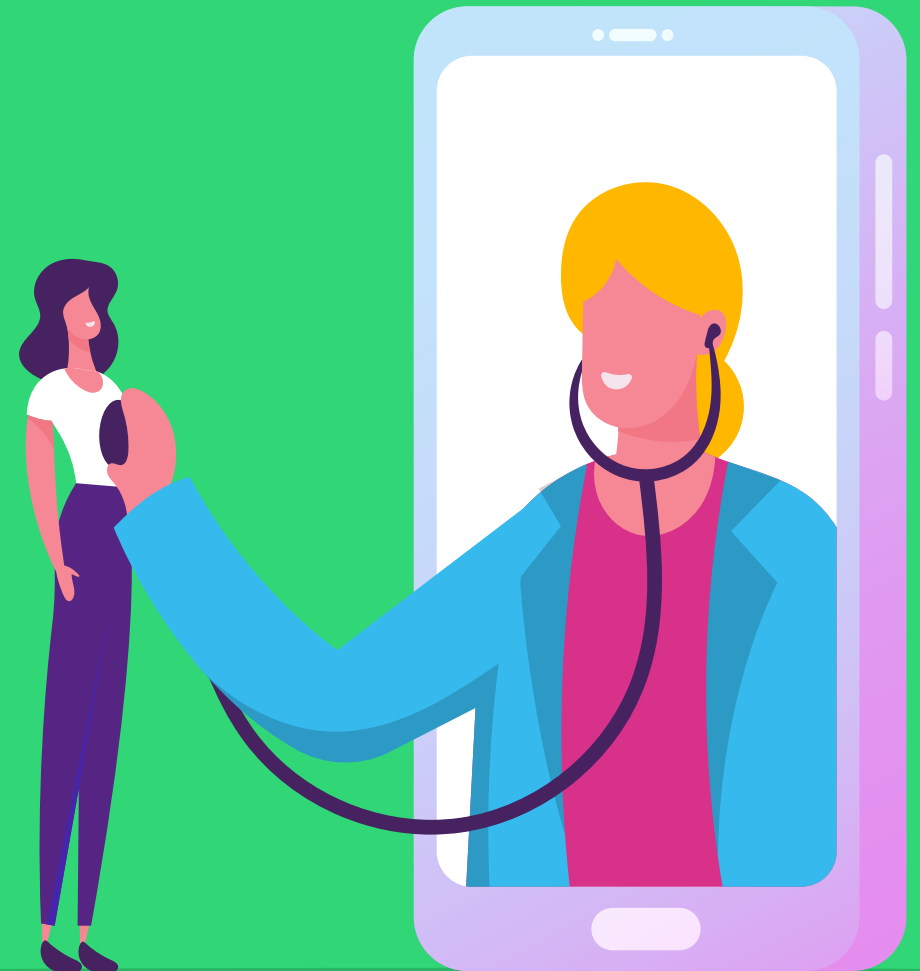
3.5 Our Digital Highlights

Liverpool Women's Hospital has delivered many digital innovations through the Global Digital Exemplar (GDE) Fast Follower Programme. A Global Digital Exemplar is an internationally recognised NHS provider delivering improvements in the quality of care, through the world-class use of digital technologies and information.

Exemplars will share their learning and experiences through the creation of blueprints to enable other Trusts to follow in their footsteps as quickly and effectively as possible. Over 20 GDE projects have either been successfully delivered or are in flight.

The Trust successfully achieved each of the four milestone gateways. The requirements to pass each one has been defined by providing evidence of completion or progress, and with a clear plan of delivery for any remaining projects.

A robust programme involving Trust collaboration and working with NHS Digital on the benefits realisation, blueprints and digital maturity assessment has been a key factor of success.



- Transition of the Trust's on-site email system to Office 365 Cloud aiding more flexible access to the email system and access to Microsoft Office online.
- Improved remote access technologies to aid remote working (Always On-VPN).
- Deployment of Microsoft Teams for Community Midwifery service to improve collaboration while working off-site.
- Deployment of a new ward dashboard system (ADT) that provides information from several systems in one place,
- Commitment to a new 'Paper Free' project that introduces a new EDMS system (UCR), external scanning bureau and plans to reduce day forward scanning and remove legacy case note dependence.
- The use of Artificial Intelligence (AI) technology to improve prediction of a pregnant woman's due date.
- The successful implementation of Virtual Clinics (Attend Anywhere) to enable outpatient services to offer digital consultations.
- The commitment to use Robotic Process Automation (RPA) to improve back office efficiency as well as explore wider use within the Trust.
- A virtual reality tour of the hospital to support our patients and relatives when planning to visit the hospital and improve patient experience.
- On-going design and deployment of Virtual Desktop Infrastructure (VDI) which will improve end user experience and further support flexible working.
- Implementation of a new Genomics Pedigree Drawing system, replacing the legacy system.
- The ongoing implementation of a closed loop system for the ordering of milk and blood products to improve patient safety.

The success of digital has not been limited to GDE Fast Follower projects, and there have been some excellent areas of digital innovation and support.



- Trust wide deployment of Microsoft Teams to support remote collaborative working.
- Digital Services department played an important role in the readiness and opening of the newly refurbished Neonatal unit during 2019-20, supplying all the network and computing infrastructure and supporting a smooth transition to the new build.
- Development and implementation of near real-time Power BI Information Dashboards, that supports our care divisions and operational services with accurate business intelligence.
- The tender and procurement of a new Trust-wide physical and wireless network which will be implemented during 2020-21.
- Replacement of the Trust's legacy Telephony systems during June 2020, with a new fully robust and modern telephony system. This complex project was implemented with minimal impact on the trust.
- The IT function successfully maintained their accreditation of Cyber Essentials +
- Development and approval of an Electronic Patient Record (EPR) Business Case which provides the Trust with a clear direction for an integrated EPR system.
- The Trust appointed a new Head of Technology (Oct 2019), new Chief Information Officer (CIO) (Dec 2019) and a new Chief Clinical Information Officer (CCIO) (April 2020).
- As part of the Trust's commitment to strong digital leadership, two Digital Midwives (Mar 2020) were appointed to provide an effective link between digital and maternity services.
- A new digital maternity system (K2) has been procured and is planned for go-live during November 2020.
- Information Governance achieved "Standards Exceeded" for the Data Security Protection (DSP) toolkit submission (2019-20).
- Successful deployment of the Health Care Partnership (HCP) GovRoam Wi-Fi project to simplify accessing Wi-Fi across Cheshire and Merseyside.
- Excellent response to provide new technologies for staff and patients in the Trust's response to Covid-19, including increasing the remote access capacity from 100mb to 500mb.

3.6 Covid-19: Our Digital Response



Over 850 active
Microsoft Teams users
per month



Over 2000 Microsoft
Teams meeting
participants per month



Over 450 laptop upgrades
or new deployments
(Apr – Jun 2020)



3.6 Covid-19: Our Digital Response cont...



Over 2200
Remote Access
sessions per month



848 Virtual clinic
appointments using Attend
Anywhere (Apr – Jun 2020)



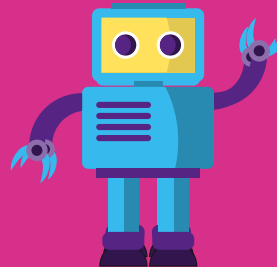
Increased 100mb
Internet link
to 500mb



Increased 100mb
Internet link
to 500mb



Over 190 cameras and
speakers deployed
(Apr – Jun 2020)



2 Robots deployed
for Neonatal
Telemedicine

3.7 Designing Digital: Shaping IT with you!

Listening to our staff across the Trust has been an important part of developing this strategy. During May 2020, four virtual workshops were hosted for staff to share their views on what IM&T and Digital means to them. We called this engagement 'Designing Digital: Shaping IT with you' and over 50 staff attended representing a diverse cross section of the organisation.

Those that were unable to attend had the opportunity to share their views via an on-line survey and through 1 to 1 meetings.

Three key questions were asked of staff; What does IM&T mean to you? What is your experience of IM&T? and What do you want from IM&T (3 wishes)?



What does IM&T mean to you?

Staff recognise the important role that IM&T has within the organisation, more so now with the increasing need for home working and supporting other ways of working to help care for our patients. Technology is playing an increasingly important role in the care of patients and reliance on robust systems and infrastructure is increasing. IM&T needs to be central. There is a mixed understanding of what IM&T represents, with many staff across the Trust associating the IT department and IT support as the face of IT; however, we provide a diverse set of services for the organisation. Staff feedback asked whether IM&T is the right name, that it is quite vague, traditional, and that Digital Services better represented a modern service.



What is your experience of IM&T?

The workshops reflected some valuable experiences that can shape how we deliver digital services for the future. Staff identified areas of excellent practice and areas where we can focus on improving.

What is great?

We have a supportive, friendly and responsive on-site support team. We have delivered changed very quickly across the Trust to support new ways of working. Our Power BI information dashboard reporting is accurate, effective and provides near real-time business intelligence for the Trust's divisions. Recent collaboration working has been strong and recognised by staff across the Trust. Staff are knowledgeable.

Where can we improve?

We have too many systems and using these can be complex. Our IT Service Desk lacks several capabilities such as first line fix, incident prioritisation to aid swift resolution and a lack of effective reporting. As a service we should be more visible and act as one, signpost staff to the right service when required. There is a perception that we are very busy and often reactive. The training facilities are poor. Staff feel that at times digital has been delivered 'to' and not 'with'.



What do you want from IM&T (3 wishes)?

Perhaps, the most productive output from the workshops was listening to what staff would like from our service in the future. Staff were asked to provide 3 wishes. There were some common themes identified.

Stronger engagement and more visibility from IM&T within the organisation was consistently requested. Engaging at the start of new projects and co-designing with staff, building digital around clinical services, and working collaboratively in the spirit of 'with' and not 'to' was a clear theme. There is demand for greater clarity on the programme of work, a clear forward plan supported by regular communications and linkage into the organisation. Robust IT infrastructure and end user computing is desired, based on simplicity and efficiency. Staff want the right type of end user devices in the right places, running on systems that are consolidated and integrated. Reducing the number of systems and logon is important. Staff requested that we increase the levels of real-time information, that they enter information once, thereby reducing duplication and removing reliance on paper processes.

The 'front door' to the IT support service should be responsive, accessible, and provide staff with confidence that their incidents and requests will be handled efficiently, with staff understanding the clinical impact when IM&T systems and technology fails. Staff want support with designing new processes and service improvements to leverage technology where appropriate to streamline the way we work. Enhanced training capabilities, and support and guidance to educate and inform staff on the best use of technology, the impact of use (and misuse) and resources to aid upskilling our staff across the Trust is important.



SECTION 4

Where do we want to be?

The aim of this strategy is to provide our hospital with the best digital capabilities, equip our staff with the right skills for effective use of digital and embed a digital first culture, so that we maximise the opportunity for our care services to benefit from technology.



Trust Aims	Our Digital Promise
To develop a well led, capable and motivated Workforce.	<p>We promise to embed digital thinking and two-way engagement across the organisation so that staff understand the services we offer and can make best use of them.</p> <p>We promise to co-design with staff across the organisation, ensuring digital innovations are delivered 'with' and not 'to'.</p>
To be Efficient and make best use of available resources.	<p>We promise to provide our staff with the digital skills and training capabilities to ensure they can maximise the use of technology.</p> <p>We promise to provide IT systems that are robust, efficient and less complex.</p> <p>We promise to provide an integrated care record that provides information at the right time and in the right place.</p>
To deliver Safe services.	<p>We promise to listen to our staff when we design systems and learn from our experiences of implementation; both the good and the bad.</p> <p>We promise to deliver digital capabilities that maximises the delivery of safe services.</p> <p>We promise to provide the organisation with near real-time up to date business intelligence that aids the organisation in providing the best and safe services.</p> <p>We promise to ensure digital governance is robust, transparent and thorough to ensure that the impact on digital innovations is minimised.</p>
To deliver the most Effective outcomes.	<p>We promise to work collaboratively with our Trust staff, and in accordance with the Trust's quality improvement (QI) framework to design digital with an outcome led emphasis.</p> <p>We promise to deliver the best digital capabilities that frees up our clinicians, nurses and midwives to deliver the best care.</p> <p>We promise to deliver digital innovations with robust benefits realisation support to ensure we deliver on perceived benefits.</p>
To deliver the best possible Experience for our patients and our staff.	<p>We promise to deliver reliable and efficient IT infrastructure, removing technical barriers and reducing issues.</p> <p>We promise to simplify and reduce the number of systems, so that trust staff can easily access and enter information.</p> <p>We promise to design our digital services so that our patients can make use of technology to access care services, access their care record and make informed decisions regarding their care, health and wellbeing.</p>

Placing digital front and centre within of the Trust is at the heart of this strategy; with the need for this strongly emphasised through the digital strategy workshops. By doing this we enable staff to consider, design and embed the use of technology within their daily activities, ensuring that digital has a positive part to play in the provision of care for our women and babies.

Ultimately, the ambition of the strategy is aligned to the Trust aims and objectives.

4.1 Digital Generations: Realising our Digital Promises

The reality of delivering on our digital promises requires a layered approach, starting with a clear digital.identity embedding our digital services within the fabric of the organisation.

We require a layer of strong digital.fundamentals, incorporating robust IT infrastructure, efficient digital support and effective governance by which we work within. On top of this we can then deliver digital.excellence which provides our Trust staff with the integrated systems and necessary skills to maximise their use.

Finally, digital.innovation will foster the collective skill and imagination across the organisation to deliver exciting digital innovation. This can only be achieved if the other layers are effective.



Delivering Digital.Generations means:

- Our Trust staff better understand the services we offer, and that we can help support them in delivering their services.
- The Digital Service is more integrated, with a shared identity and can act as one.
- A ‘customer-focused’ approach with direct links into the Trust’s divisional structure.
- We co-design our systems with Trust staff so that they are fit for purpose and have clear benefits and outcomes.
- Our underlying IT infrastructure is reliable and efficient, where Trust staff are not hindered by technical barriers or areas of inconsistency.
- End user computing that is aligned to an ethos of right device in the right place, supporting our staff accessing computers and mobile devices at the point of care.
- Delivering technology to support new ways of working including remote or home working.
- An integrated electronic patient record system, that reduces and simplifies the number of systems in use meaning that staff have less clicks and logons to access information.
- An ethos of secure by design, by implementing cyber security technologies and strong information security principles into our systems that are aligned to our policies and procedures.
- Maximising the use of information to provide business intelligence to our divisions so they can make informed management decisions.
- Equipping our Trust staff with the digital skills to use the systems most effectively.
- Educating and supporting our Trust staff so they understand the implications of using digital systems.
- Providing our patients with a ‘digital front’ door so that they can access services in different ways, exploiting the existing digital skills and expectations they have.
- We exploit innovation and deliver transformation using Artificial Intelligence (AI), Automation, Telehealth and monitoring technologies to change the ways we provide care and diagnostics services.
- We build on the partnerships within Cheshire & Merseyside Health Care Partnership (HCP) to support a system-wide approach to digital transformation and delivery.
- The safe sharing of our data with the HCP Shared Care Record (Shared2Care) and Population Health Management for the benefit of improving health outcomes for our women and babies.
- Our hospital is a recognised leader of health care for women, babies and their families.

4.2 What outcomes do we want to achieve?



Through Digital.Generations we want to influence all aspects of our hospital care services for the better. We want to help deliver the best safety for our patients by implementing systems that reduce errors and never events. Integrated systems that provide a holistic record, that reduce variation and supports closed loop prescribing, decision support and alerts will benefit safety.

We want to enable the best patient experience possible, by freeing up our staff to provide direct care for our patients, this means we need effective and efficient IT and systems. We believe providing our patients with digital access will provide them with a more engaging care experience.

We want to ensure our staff are digitally equipped and motivated to use digital systems, so they exploit technology to provide the best quality of care, and so that they are engaged in supporting new ways of working through technology advancement.

We want to maximise the efficiency of the organisation by providing the business intelligence it needs to shape and deliver its care services in the most effective way. The Trust has a 'Good' overall CQC rating. We want to support the Trust going from 'Good' to 'Outstanding'.

Digital Standards


We aspire to achieve the best digital standards and demonstrate progress through benchmarking and accreditation. Digital maturity reflects the level of digital culture, capabilities and adoption in place within an organisation. As part of the Trust's commitment to the GDE Fast Follower programme it aspired to reaching level 5 within the Healthcare Information and Management Systems Society (HIMSS) Europe Electronic Medical Record Adoption Model (EMRAM). This is an internationally recognised maturity model, which is applicable to all NHS organisations.

The EMRAM model has 8 levels of maturity (0 – 7). This strategy aims to achieve level 7 by 2024. This means the Trust will have a fully integrated electronic patient record (EPR) system, with full closed loop technology enabled medication, full physician, nursing, midwifery and AHP documentation (replacement of paper processes), full lab and diagnostics integration with decision support, alerting and data analytics. To achieve this standard, there needs to be demonstratable evidence of adoption, pervasive use, and underpinning information and security policies and technologies. Meeting level 7 alone will not be considered an achievement without demonstrable evidence of clinical benefits and patient care outcomes.

In terms of service excellence, we want to maintain the current Cyber Essentials Plus accreditation and look to enhance our capabilities further whilst sharing our good practice and experiences with other local organisations within Cheshire and Merseyside.

We are committed to reaching Level 2 of the Informatics Skills Development (ISD) network 'Excellence in Informatics' standard. The Trust is not currently accredited at any level.

As part of our commitment to paper free we will attain accreditation for BS 10008 Evidential Weight and Legal Admissibility of Electronic Information. This standard outlines the best practice for ensuring the authenticity and integrity of electronic information.

 EMR Adoption Model Cumulative Capabilities	
STAGE	
7	Complete EMR: external HIE, data analytics, governance, disaster recovery, privacy and security
6	Technology enabled medication, blood products, and human milk administration; risk reporting
5	Physical documentation using structured templates; full CDS; intrusion/device protection
4	CPOE; CDS (clinical protocols); Nursing and allied health documentation; basic business continuity
3	Nursing and allied health documentation; eMAR; role-based security
2	CDR; Internal interoperability; basic security
1	Ancillaries - Lab, Rad, Pharmacy, PACS for DICOM & Non-DICOM - All Installed
0	All Three Ancillaries Not Installed

4.3 What does this mean for our patients, staff and services?

Our patients and their families will enjoy the best experience possible. They will be informed patients, having access to their information digitally and they will benefit from a plethora of digital innovations that support advice and guidance regarding their health and wellbeing, and enable them to interact with the hospital to book and change appointments electronically.

They will have choice regarding how they wish to have their consultations, whether this is via a tele-consultation or in person. Prior to a hospital appointment or planned inpatient stay, they will be able to use immersive technologies to familiarise themselves with our services.

When they attend hospital, they will be provided with a joined-up experience where health care workers have the most up to date information about them, including care episode information previously undertaken in other secondary and primary care organisations. On-site hospital signposting will provide them with guidance and supporting information to get the most out of their experience, and they will be able to connect to on-site patient resources using the NHS Wi-Fi facility.



Their journey through the hospital will be efficient, they will tell 'their story' once and our services will have information available at the point of care to aid decision making and supporting effective patient flow and discharge processes.

Upon discharge their information will be shared with their GP electronically and other relevant health care bodies in a timely fashion to ensure their wider care experience is based on the effective use of their data.

Our staff will have access to everything they require when treating women and babies and they will no longer log onto multiple systems. The hospital electronic patient record means that staff no longer rely on inefficient legacy paper processes. They benefit from systems that provide alerting and decision support. The underlying IT infrastructure will be reliable, performant and cyber secure safe. They will utilise computers and mobile devices that are reliable and best suited to the care setting they are working in.

The use of the shared care record provides staff with a comprehensive view of care surrounding their patient. Our clinical dashboards will provide them with accurate operational information so that they may make informed decisions around care provision. Our staff will be equipped with the digital skills they require, and they operate in a culture where digital systems are a shared responsibility meaning they are effectively designed, used, and maintained.

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In relation to supporting nursing staff an integrated Digital Service underpins our ability to provide safe and effective processes, but we need to simplify the number of multiple entry points into the service. Digital Services supports the need for information to be accessible in a timely manner, in an environment that is often time limited. It supports the delivery of best practice safe care.

Mel Pickering
Head of Nursing, Gynaecology

4.3.1 Maternity

Our Maternity service will be fully digital, with a single digital maternity system in use across both inpatient and community settings and providing an integrated care record that includes antepartum, intrapartum and postpartum elements of the care pathway. Our systems will be compliant with the latest national reporting requirements (CNST). Staff working within delivery suite and inpatient maternity wards will record all aspects of maternity care electronically. The digital maternity record will be integrated into other hospital systems to ensure information flows to where it is required. They will have access to the most up-to-date care information which includes information captured within the community.

Staff working across the community will no longer have a poor disconnected experience of digital systems. Staff will have modern mobile devices and they will experience improved network connectivity that allows them to use digital maternity system in real-time, and where this is not possible offline working will be optimised to reduce the burden of recording information.

Women under the care of maternity will be able to access their own maternity record and they will benefit from innovations such as artificial intelligence and sensor technology to allow them to be monitored from home and to inform how their care is provided.





4.3.2 Outpatients

Technology will aid new ways of working. We will reduce face to face consultations as we will offer our patients choice in how they wish to undertake their consultations with the adoption of virtual and tele consultations. We will extend our digital check-in systems to support check-in via the patient's personal smartphone to improve their experience on hospital premises.

Our systems will be fully integrated meaning our Trust staff will be fully aware of when our patients arrive and where they need to be within their patient journey. We will use immersive technology to provide our patients with the best experience of attending our hospital. We will employ robotic automation technologies to reduce variation and duplication, meaning our services are as efficient as possible.

4.3.3 Genomic Medicine

“The Genomic Medicine workforce is young, dynamic, technologically literate and tech-hungry. Our ambition is to work flexibly, quickly and securely from a location that allows both patients and clinicians to achieve a better work-life balance and provide equitable access to all patients, but especially to hard-to-reach communities. Improved digital healthcare will allow LCGM to fulfil its desire to be environmentally sustainable with less travel and less paper. We want to, and indeed are in the process of harnessing the power of digital healthcare to deliver many aspects of our service and for this reason it forms a key part of our Clinical Strategy. We want to be a nimble, responsive genomics centre with a firm and complete focus on providing the absolute best genomic healthcare to every patient, all day every day, by utilising the best and most up-to-date technology. This will only be possible with excellent support, vision and horizon scanning via collaborative engagement with our Digital colleagues - a concept we in LCGM relish.

Many of our patients are very keen on technology-enabled healthcare to improve their access and experience; we have previously piloted telemedicine but COVID-19 has seen our patients and clinicians overwhelmingly embrace video consultations. We are well established in our aim to provide all clinicians with brilliant IT fundamentals and continue our journey to be a completely paper free service, including offering digital correspondence with patients. However, we want to go further – we want to use technology to prevent and to diagnose disease and to provide care and new treatments. We want to create and utilise digital innovation to enhance communication with other clinical colleagues,

for example developing chatbots for primary care use and exploring Artificial Intelligence in rare disease diagnosis.

If we are to realise our Clinical Strategy, we need to harness the power of digital excellence, from top-down, highly advanced technological innovations to bottom-up processes including reliable access to electronic patient records and streamlined, integrated clinical systems. For this reason, information technology is one of the key and urgent priorities of our strategy and we look forward to working with Matt and his colleagues to contribute to and deliver the LWH Digital Strategy.”

Emma McCann
Clinical Director
for Genetics



4.3.4 Neonatal Services

“Neonatal medicine is at the cutting edge of science so to ensure that we can deliver world class care we as clinicians needs our IM&T partners to work with us to drive forward innovation and technology to ensure we can meet not only the clinical needs of the babies we care for but the emotional and mental well-being of our families.

This is achieved by working together to design the digital needs of our service from the first touch of a button, ensuring that we have set the best foundations and we have the most robust network and people helping us achieve digital excellence. To ensure this within the neonatal world we need to inspire our team to become digitally competent and push them to want to more, we need to have systems that are reliable, easy to navigate and challenge us on completeness. Resus trollies would self-check, dispensing of medications would be automated, easy access computers, training could be accessed and recorded easily and reliably.

We would have a virtual world where the families and babies would have ease of access to services not on our site, but the use of telemedicine would allow consultations like they were right in the room with us. Parents and family members would be able to see the unit virtually before admission. Families could have instant contact with their baby virtually and introduce to all. Good would mean that we have totally embraced family centre care.”

Jennifer Deeney, Head of Neonatal Service

“Technology solutions have worked for us when they have been simple to use for the end user and where a tangible benefit is seen by that user. If the tech is “done to” the user or if the benefit is not visible to them, the tech ends up being unused.

Simple solutions such as a working “single sign on” rather than having to remember multiple passwords for systems saves so much time and frustrations. Systems that integrate are hugely important. We can have electronic data in one system that needs to be transcribed into another system, wasting time and resources. Our smartphones now automatically log our activity, where we have been, our likes and dislikes and does all of this behind the scenes. This is the sort of digital healthcare system we should aspire to be working with.”

**Dr Christopher Dewhurst,
Consultant Neonatologist**



4.3.5 Gynaecology and Hewitt Fertility Centre

As we move into an ever increasing digital world and remote working becoming accepted into hospital healthcare, good partnership working with IMT / Digital has never been so important. Safe, secure, stable and reliable platforms are vital for both the patients and clinicians.

From a gynaecological perspective, fully integrated digital patient pathways are needed to include booking and scheduling referrals from primary care into specialist clinics. Digital waiting rooms, remotely accessible electronic management systems; investigation ordering and medication prescribing; letter dictation; procedure listing and consenting; in patient management; patient follow up with results available. Clinical coding, invoicing and billing and automated activity reports also play a vital part in the smooth running of the service.

For the Hewitt Fertility Centre, patients have been referred from the gynaecology managed workup stage and embark on medically assisted reproduction, fully utilising the electronic management record system is needed for both the laboratory and clinical teams. Integrating the ultrasound follicle tracking scans and embryoscope time lapse imaging in one place will improve analysis and image pattern recognition. This then lends itself well to utilising the interrogative power of artificial intelligence, with convolutional

neural networks and augmented vision software becoming available in this field. This will aid decision making at different steps in the fertility pathway such as dose adjustment, timing for maturation trigger and oocyte harvest, as well as egg, sperm and embryo selection. Electronic consents are already here, with voice biometric and facial recognition improving identity confirmation. Patient mobile phone application exist which as well as educating patients and reminding them when to take medications, monitor their health and wellbeing, alerting the clinic when their patients need extra emotional support. Automated laboratory key performance indicators, generating reports on specified time points would save an enormous amount of scientific staff time. Robotic aspects of some steps in the fertility process such as ICSI (fertilisation technique) and cryostorage (freezing) are due to launch soon.

The digital landscape will by its nature continue to evolve, develop and improve. Our current position in 2020 is best described as mixed, but getting better steadily. Some areas of gynaecology and fertility are quite advanced whereas others are less so. It is pertinent to consider commissioning a critical appraisal of our clinical digital position, articulating vision, mission and strategy for present, short term and medium term goals by sub-discipline.

Andrew Drakeley,
Consultant Gynaecologist and Clinical Director

SECTION 5

How do we get there?

This section describes how we will deliver the strategy. The aim of this strategy is to provide our hospital with the best digital capabilities, equip our staff with the right skills for effective use of digital and embed a digital first culture, so that we maximise the opportunity for our care services to benefit from technology.

The Designing Digital strategy workshops outlines four themes that we will address through the strategy. Delivering on these themes will fulfil the aim of this strategy, which is aligned to aims of the hospital, and aligned to local, regional and national policy.

The four themes are: Digital.Identity, Digital.Fundamentals, Digital.Excellence and Digital.Innovation.



Theme What will we achieve?



Digital.Identity

We will define a clear digital identity for the service.

We will embed digital services within the organisation.

We will improve digital service accessibility through a Digital Front Door.



Digital.Fundamentals

We will deliver end user technology that is robust, performant and with right device in the right place.

We will delivery underpinning infrastructure that is reliable, secure and without barriers.

We will support new ways of working.

We will improve our supporting IT systems, removing complexity.

We will streamline our operating processes.

We will strengthen our governance.



Digital.Excellence

We will implement an integrated Electronic Patient Record (EPR).

We will adopt and connect to the wider health system.

We will optimise our systems, reducing logons, mouse clicks.

We will be paper free

We will provide digital care capabilities.

We will provide enhanced clinical intelligence.

We will equip our trust with digital skills.



Digital.Innovation

We will foster an innovation culture.

We will explore new technical innovations that improve care provision and patient experience

We will co-design service improvements across the trust.

5.1 Our Digital Principles

The manner in how we deliver on this strategy is important. Our trust values will be adhered to all times. From a digital perspective will abide by the following principles.

Principle	Objective	Trust Values
Alignment	Clear alignment to the Trust's, local & regional and national priorities.	Ambition & Learn
Simplify	Simple by design, reducing complexity, less clicks, less logons.	Engage & Learn
Digitally Responsible	A two-way synergy and commitment between Digital Services and Trust staff to foster successful transformation and change. We are all digitally responsible!	Engage, Learn Care & Respect
'With' and not 'To'	Plan digital solutions with the organisation from the start, shape digital around the services not the other way around.	Engage, Learn & Respect
Right Technology	The right technology in the right places to best support staff interfacing with digital services in the most efficient way.	Engage & Care
Not so technical	Keep things simple and accessible, provide a human face to digital services and support the least technical.	Engage & Respect
Digital innovators	You don't need to work in Digital Services to be a digital innovator and no idea is a bad one, we want to foster the creativity across the Trust to shape digital innovation.	Engage, Ambition & Learn
Listen & Learn	Digital needs to reach out to Trust departments and more widely across the regional health community, listen and learning from good practice and experiences.	Ambition, Engage, Learn & Care
One-team	An integrated and well branded service will support no wrong door and better signposting.	Engage, Care & Respect

5.2 Digital.Identity

Our Trust staff recognise the importance of effective digital services and the increasing reliance they have on it. They want a digital service that has a clear identity, one that is unified and easy to access, that can listen and provide support, advice and guidance in simple and easy to understand language. They want a service that will shape digital design around the needs of them and their care services and one that listens and allows their input into the design and adoption of digital innovations.



5.2.1 Digital Brand

Staff across the Trust felt that our current label - IM&T fails to accurately describe all the services we provide. There is variation in the Trust's understanding of what we provide and who we are. We also have some disconnection between IM&T teams due to the differing nature of the services they provide.

We will implement a new a digital identity for the service, we will be known as Digital Services. Our management team within Digital Services will support localising this identity for their department. Each of our departments will have a clear link to Digital Services and will adopt a consistent branding, so that staff across the Trust can identify with them. We will work with partners and the Communications and Marketing team to define a clear visual identity and strapline which will be aligned to the Trust's wider identity and strategic direction. We will work with the Communications and Marketing team on improving the awareness of Digital Services through improved intranet presence and monthly Digital.Generations newsletters.

We will work with our Workforce department to define a clear organisation development (OD) plan for Digital Services. We will use this programme of work to listen to our staff and allow them to shape our OD plan activities. A key driver for this will be to embed our digital services identity and measure how our staff feel they identify with the digital service brand.



5.2.2 Digital Front Door

While we will have established a clear identity, we need to ensure our service is truly integrated into the Trust. We will “no longer be a hermit crab, but rather an octopus with tentacles everywhere” by providing a number of ways to contact and interact with digital services. We will call this programme the Digital Front Door and through this we will achieve the aim of successfully embedding our service Trust-wide. We will take a strong customer focused approach by allocating a digital lead for each division. Our digital leads will be a point of contact for advice and guidance and will represent digital services across the division’s governance and various meetings, providing consistent and relevant updates on our performance and digital delivery programme.

Effective clinical, nursing and midwifery leadership is important to ensure digital delivery is successfully adopted. We will strengthen this by appointing a Chief Nursing & Midwifery Information Officer (CNMIO) to complement our Chief Clinical Information Officer (CCIO) and Digital Midwives roles. We will establish a Clinical Digital Advisory Group (CDAG) which will be led by our CCIO, CNMIO and Digital Midwives to seek wider trust involvement in our digital delivery and understand digital priorities in the context of clinical need.

As part of this programme we will establish a digital taskforce service that provides a pro-active means of ensuring IT systems and services are operating effectively across our trust departments. Our digital taskforce will routinely drop into departments in accordance to an agreed schedule and provide a general health check, liaising with staff to ensure any problems or issues are being effectively managed and resolved. They will provide regular feedback to the divisional digital lead. The digital taskforce will be an additional service to our IT Service Desk and IT support service. The IT Health clinics that we implemented as part of the Covid-19 IM&T response was well received, and we will commit to introducing this service as a permanent alternative method of accessing effective IT support. We will need to ensure that this offer is compatible and aligned with the IT Service Desk service.

Finally, we will implement a You Said We Did! communications mechanism. We will achieve this through a closed loop ‘ongoing’ engagement and communications process. We will listen by holding virtual drop in sessions with Digital Management providing an opportunity for staff to feedback on the services we provide. We will attend Ward Rounds and we will factor any feedback via the divisional digital leads. We will communicate our You Said We Did! progress through our monthly Digital.Generations newsletters.



Digital.Identity		Timescales				
Programme	Initiative	2020/21	2021/22	2022/23	2023/24	2024/25
Digital Brand	Digital Identity	✓				
	Digital OD plan	✓	✓	✓		
	Intranet	✓	✓			
	Digital Generations Newsletter/ Establish Comms	✓				
Digital Front Door	Embed Divisional Digital Leads	✓				
	Appoint CNMIO		✓			
	Implement Clinical Digital Advisory Group	✓				
	Digital Taskforce Service	✓	✓			
	Digital Health Clinics	✓	✓			
	You Said We Did!	✓				

5.3 Digital.Fundamentals

Our Trust staff want a digital infrastructure and end user service that is efficient, reliable and without complexity.

They don't want technical barriers and inefficiencies when accessing and entering important patient care information.

The technical underpinning should almost be 'invisible' with the right equipment in the right place.

Digital.Fundamentals is focused on a comprehensive approach to deliver excellent fundamentals, and this goes beyond the technology.



5.3.1 Digital Compliance

Effective digital compliance reflects the activities we undertake to maintain and improve upon the standards within Digital Fundamentals. Perhaps considered business-as-usual, it is important to draw out and reflect within this strategy. Maintaining excellent digital standards means our digital teams prioritise and deliver on our external and internal audit recommendations ensuring our service adopts the right standards in-line with internal quality expectations, regulatory requirements and the digital standards set within the wider system across Cheshire and Merseyside via the Digital Design Authority. Excellent digital standards result in reduced variation and supports our overall Digital Fundamentals theme. We will commit to these activities, ensuring they are not neglected in favour of digital innovation.

We will ensure that our systems are designed securely and maintained safely during their operational life. Our systems will be secure by default. Legacy systems contribute to poor end user experience and introduces protentional security and support risks on the Trust. We will work with our staff; particularly Information Asset Owners (IAO) to ensure our Trust systems are maintained and updated in-line with supplier supported roadmaps and cyber security good practice. We will ensure the Trust is not placed at risk by unmitigated legacy systems. We will deliver this through Secure by Design, Modern in Nature.

Through Strengthening our Governance, we will create, review and ensure our Digital Service operating framework is robust, comprehensive, fit for purpose, and providing the Trust with appropriate levels of assurance, transparency and clarity. This initiative will include our Policies, Procedures, SOPs covering our meeting forums and committees, risk management, financial management, performance and delivery demand management. Our operating framework effective is crucial to support our Digital Fundamentals theme.

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Digital Compliance is an important part of our digital fundamentals. Strong standards provide a safe environment in which to deliver the exciting digital innovations. I liken it to an umbrella keeping us dry from the rain.

Philip Moss
Head of Technology

5.3.2 Digital Accessibility

Providing our Trust staff with the best end user experience is important and forms a core programme of work within Digital Fundamentals. Through the Right Device, Right Place initiative we will ensure that our Trust staff have access to the most appropriate end user equipment to best fulfil their duties, and we will work with our them to understand what they need and where they need it. We will ensure our end user equipment is modern, performant and reliable.



The logon process can act as a digital disbenefit and can negatively impact our trust staff during their daily duties. Too many logons, remembering passwords is both a security risk and an inconvenience. Additionally, a slow logon can impact the efficiency of our services and the patient experience. We will focus on Single Sign On activities to reduce the logon burden and improve the end user experience.

Perhaps the most obvious method of accessing digital services is through the IT Service Desk. We know through staff engagement that this is a key issue within Digital Fundamentals that we can improve on. We will ensure the improved IT Service Desk initiative, provides a more user centred service, with ease of access, accurate prioritisation, swift resolution, improved communications and improved performance reporting.

We will ensure our hospital is supported with new ways of working, particularly with effective remote working which not only includes home working but also working across various provider premises. Collaboration has come to the fore over recent times, however there is still much to do, including implementing effective video conferencing capabilities within our hospital premises to support our committees and boards. This will be achieved through the collaboration and remote working initiative.

5.3.3 Digital Infrastructure

The underpinning infrastructure should be invisible and present 'no barrier' to using the clinical and corporate systems. We will ensure staff have a reliable network experience, with reliable and performant fixed network and Wi-Fi access that allows patients, visitors, and trust staff to securely connect their corporate or personal device. We will ensure our datacentres and hosting strategy is aligned to the national Cloud First ambition which will support an increasing demand for remote working and less reliance on internally hosted systems.

We will ensure our server, compute and data storage components are robust, performant, secured and maintained within their recommended lifespan.

This will ensure we maintain high levels of availability and minimise the risk of poor performance for our end users. We will ensure our digital infrastructure is protected by robust cyber security controls, and that we have a robust cyber security strategy, incident response and supporting backup and disaster recovery processes.



5.3.4 Digital Service Improvement

Our processes are as important as having reliable technology. Providing our Trust staff with a pro-active and responsive service is important and was reflected in the designing digital workshops feedback. We will commit to improving our processes through a digital service improvement plan.

We will look to simplify and streamline our internal processes ensuring our Trust staff experience is a good one. We will look to leverage innovative technologies to automate many of our processes and we will ensure we maximise the best use of our digital resources and knowledge. We will undertake our service improvements in accordance with the Trust's Quality Improvement (QI) framework to demonstrate and evidence the improvements.



Digital.Fundamentals		Timescales				
Programme	Initiative	2020/21	2021/22	2022/23	2023/24	2024/25
Digital Compliance	Excellent Digital Standards	✓	✓	✓	✓	✓
	Secure by Design, Modern in Nature	✓	✓	✓	✓	✓
	Strengthening our Governance	✓	✓			
Digital Accessibility	Right Device, Right Place	✓	✓	✓	✓	✓
	Single Sign On	✓	✓			
	Improved IT Service Desk	✓	✓			
Digital Infrastructure	Network Replacement	✓				
	Data Centre Review & Refresh			✓	✓	
	Server & Compute Refresh	✓	✓	✓	✓	✓
	Data Storage Refresh		✓		✓	✓
	Cyber Secure	✓	✓	✓	✓	✓
Digital Service Improvement	Improving our processes	✓	✓	✓		

5.4 Digital.Excellence

Our Trust staff want our digital systems to be integrated, simple to use where they allow them to record data once, at the point of care and provide important care information at the right time and in the right place.

They have already embraced digital technologies that have supported new ways of working and they are keen for further digital adoption that supports this. Empowering our staff, equipping them with the right skills and capabilities is essential to get the most out of our digital systems. Providing our patients with access to hospital services through digital means is important because it improves their care experience and empowers them to make informed choices.

Digital.Excellence also means that our staff have accurate and up to date clinical intelligence to support the provision of care and in the operational management of our services.



5.4.1 Digital Capabilities

We will deliver a new Meditech Expanse Electronic Patient Record system (EPR). This will replace the Trust's current Meditech Magic Patient Administration System (PAS) with a fully integrated electronic patient record system. We will ensure that this is clinically led meaning our new processes will be aligned to our care services and pathways.

We will deliver an improved end user experience meaning our staff require access to less systems, and where the care information is easily available to record and read. We will deliver demonstrable improvements through a robust benefits realisation programme. Will we implement a complete digital maternity records system in collaboration with our maternity service, ensuring our midwives have access to a contemporaneous maternity record regardless of the care setting; inpatient or community and underpinned by effective Digital.Fundamentals.

We will ensure the digital maternity system is aligned to the national maternity standards and that it provides efficient digital processes, and wider systems integration. We will leverage the benefits of a fully digital maternity record to allow our women to have near real-time access to their record.



The ability to tie together our very disparate systems in a single EPR, with integration of both the internal and external services available currently and in the future into one logon and patient identifier will be a game-changer, saving enormous amounts of clinical time, and reducing the chances of errors.

Dr Natalie Canham
CCIO



We have recently embarked on a Paper Free project which has initially provided an updated electronic document management system (EDMS) known as Unified Care Record (UCR) which provides staff with access to scanned case notes. We will ensure our legacy case notes are scanned and made available digitally and in a timely fashion, where these have a clear value to the provision of care. We will achieve the British Standard (BS) 10008 Evidential Weight and Legal Admissibility of Electronic Information. This standard outlines the best practice for ensuring the authenticity and integrity of electronic information and this will allow the trust to securely transition away from the reliance on storing legacy health records. Currently the Trust still utilises paper forms for various means in the provision of care. This is often known as day forward scanning. We will review and optimise the day forward composition to ensure we are scanning only what we need to. As part of the paper free project we will leverage functionality within the Electronic Patient Record (EPR) system known as clinical documentation which will allow the Trust to eradicate the need for paper through digital means of capture. We will work with our services to design the processes to enable the digitisation of our documentation. We will reduce the day forward scanning demand through this digital transition. We will undertake other supporting projects to meet our paper free initiative by removing reliance on fax machines, corporate paper processes and further reducing the requirement to print paper.

Building on the capabilities that our EPR system will provide, we undertake a digital optimisation initiative to ensure we fine tune our systems to allow our hospital services to operate efficiently. We achieve this by reducing the reliance on other incumbent systems, transitioning their capabilities into the integrated EPR system. We will also configure our systems optimally by working with trust staff to simplify their experience using a minimal clicks ethos, and by enriching the data available in the EPR for optimal decision support. We will build on the recent success of our Virtual Consultation and Neonatal Telemedicine implementations by exploiting tele-care technologies for the benefit of delivering care in different ways.



5.4.2 Digital Empowerment

During the designing digital strategy workshops our Trust staff said that they would like to see better training capabilities and support for getting the most out of our systems. How we deliver training is changing, no longer dependant on classroom style means. We will implement digital training tools to provide effective training and delivering the content in the most effective way. We will achieve this through immersive technology and e-learning tools. We will digitally upskill our Trust staff through our digital staff initiative. We will deliver this in accordance with the Health Education England (HEE) strategy. We recognise the way people learn is changing, they often prefer to access specific bite-sized online material, as opposed to traditional training methods. We will ensure our training is adaptive and informal whilst cognisant of the time constraints imposed on staff. We will allow staff to contribute to our training material so that it is authentic, and we will ensure our training is care pathway focused and not technology focused. We will take a 'day in the life' approach. We will work in collaboration with our Education and Training department to deliver this in the most holistic way.

Empowering our patients through digital provision is important, as this allows our patients to make informed and involved decisions about their care. Through our digital patient initiative, we will exploit the digital capabilities within our systems to enable our patients to have digital access to their information and allow them to have two-way engagement with the hospital. Digital inclusiveness is important, we recognise that not all patients will have access to digital technologies, or they may need reasonable adjustments. We will ensure we engage with local and system-wide patient experience groups to address inclusivity requirements. Digital responsibility is an underlying principle and it means that digital systems are not the sole responsibility of the Digital Services department, but that all staff have responsibilities for the effective use of digital systems. We will deliver this through an Information Governance led programme to embed and support the concept of Information Asset Owners (IAO) and Information Asset Administrators (IAA). Through this initiative we will educate our Trust staff on their responsibilities and support them with implementing effective processes.



5.4.3 The Power of Information

Making informed decisions is only as good as the information they are based upon. Through our Digital Dashboards initiative, we will develop and mature our business intelligence reporting, leveraging the power of our integrated systems to provide near real-time ward to board clinical intelligence to support operational and clinical decision making. Understanding the digital impact of information recording is essential, poor data 'in' results in poor information 'out'. The accuracy of our data can impact operation and clinical decision making as well as the statutory performance reporting. Therefore, we will work our Trust staff to ensure there is a comprehensive understanding how information is impacted by the accuracy, timeliness and completeness of data entry.

We will support Trust divisions with the understanding and changes of statutory reporting and the potential implications on Trust performance. We will enhance trust hand-over and huddle capabilities by using technology, systems and digital dashboards to equip our Trust staff with comprehensive clinical data and KPI's to inform daily clinical care and operational decision making. We will work closely with the HCP digital programme, to deliver on the Share2Care programme, implementing robust information sharing for the benefit of direct care and population health management. We will ensure the HCP shared care record (e-Xchange) is implemented and adopted Trust-wide with robust integration to the trusts Electronic Patient Record system.



5.4.4 Accreditation

We aspire to deliver Digital.Excellence and we will measure this success primarily through how our Trust staff adopt digital innovations, using surveys to receive their feedback and levels of satisfaction, understand our patients experience and through the Trust's operational performance reporting. Formal accreditation does have value, and provides an industry marker for digital maturity and good practice. We will undertake formal accreditation, so that we can celebrate the digital capabilities, to learn where our good practice and gaps are. As part of this programme we will work with our peers to benchmark and learn from their good practice. We will conclude the Global Digital Exemplar (GDE) Fast Follower programme through a formal closure and accreditation process. We aspire to reach HIMSS EMRAM Level 7 accreditation which will help to demonstrate the effectiveness of the digital capabilities programme. We will work with the Informatics Skills Development (ISD) network to attain the ISD Level 2 in Informatics Excellence.

Digital.Excellence		Timescales				
Programme	Initiative	2020/21	2021/22	2022/23	2023/24	2024/25
Digital Capabilities	Electronic Patient Record (EPR)	✓	✓	✓		
	Digital Maternity	✓	✓			
	Paper Free	✓	✓	✓	✓	✓
	Digital Optimisation			✓	✓	✓
	Tele-Care	✓	✓	✓	✓	
Digital Empowerment	Tools for Training		✓	✓		
	Digital Staff		✓	✓	✓	
	Digital Patient		✓	✓	✓	✓
	Digitally Responsible	✓	✓	✓	✓	✓
The Power of Information	Digital Dashboards (Power BI)	✓	✓	✓		
	Digital Huddle and Handover	✓	✓			
	The system-wide view	✓	✓	✓	✓	✓
	Understanding digital impact	✓	✓	✓	✓	✓
Accreditation	GDE	✓				
	HIMSS Level 7				✓	
	ISD Level 2			✓		

5.5 Digital.Innovation

Through the Global Digital Exemplar Fast Follower programme, the Trust has a proven track record of delivering digital innovations. Through this strategy we want to continue to deliver on this whilst exploiting research opportunities; for the benefit of our patients and their families. We will implement a robust framework to foster innovative ideas across the Trust, underpinned with the philosophy that no idea is a bad one. The framework will favour a service led approach, providing a holistic means to solving a problem or improving our services. We will measure the perceived benefits and outcomes through the Trust's quality improvement framework. Through the embedding of digital services within the Digital. Identity theme, we will encourage a culture for digital innovation across the Trust.

We will leverage clinical leadership within digital services and across the Trust to aid innovative thinking with an emphasis on care delivery as opposed to the delivery of technology.

We will explore partnerships and build strong links with external organisations including the innovation agency, education and research bodies, suppliers and relevant commercial entities. We will keep abreast of the latest technologies that support empowering our patients and staff. This will be achieved either through tangible technological innovations for the use of direct care such as sensors for remote monitoring or patient apps that enhance their care, or we may use intelligence-based technologies to support optimised care service delivery.

Digital.Innovation		Timescales				
Programme	Initiative	2020/21	2021/22	2022/23	2023/24	2024/25
Digital Innovation	Research and Digital Innovation Framework	✓	✓			
	Embed a digital innovation culture		✓	✓	✓	
	Build strong partnerships		✓	✓	✓	✓
	The use of technologies		✓	✓	✓	✓

SECTION 6



Delivering Digital Generations

This section describes how we will monitor the effectiveness and progress of the digital strategy.



6.1 Digital Leadership

Effective digital leadership will be essential in delivering this strategy to a successful outcome. The digital team will consist of a highly visible and connected management team, who have overall responsibility for the functions of the service.

We will operate in a consistent manner, adhering to the Trust values always. Effective communication is important, and we will ensure that all staff within digital services attend regular team and one-to-one meetings. We will ensure we adopt a consistent approach to how we lead and promote our service within the Trust, particularly with how we engage with the hospital divisions and wider workforce.

Recognising that clinical leadership is fundamental to the success of this strategy and for the service as a whole, our digital clinical leaders will play a front line role in shaping the needs for digital delivery and support across the organisation, utilising their specialist knowledge and experience to support wider clinical engagement and developing digital services into a more patient and care service aware department.



6.2 Partnership Working

The Health Care Partnership (HCP) promotes a system-wide approach for the delivery of care services, and this includes how we design and implement digital technologies.

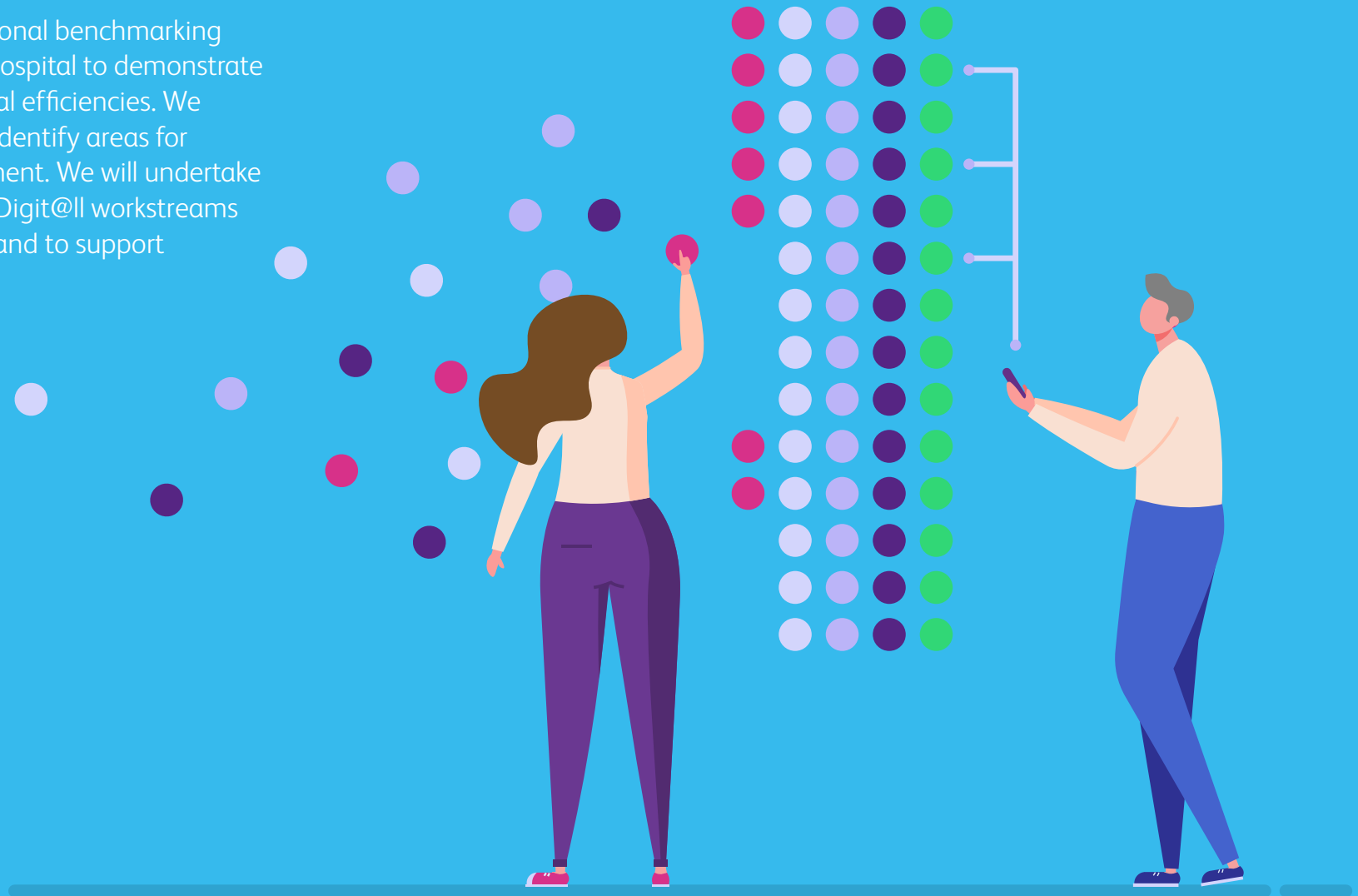
We will work with peer organisations across Cheshire and Merseyside to deliver the objectives of the Digit@ll strategy, and we will proactively participate in the underpinning digital workstreams and exploit opportunities to lead, influence and learn from other organisations.

We will build strong relationships with organisations regionally and beyond so that we remain at the fore front of national strategy and innovation. We will ensure our regulatory obligations are fulfilled.



6.3 Benchmarking

We will utilise national and regional benchmarking data and tools such as Model Hospital to demonstrate value for money and operational efficiencies. We will use benchmarking data to identify areas for investment or service improvement. We will undertake baselining activities within the Digit@ll workstreams to support a system-wide view and to support collaboration at scale.



6.4 Funding

We will undertake robust planning activities in conjunction with the Trust finance department to establish an affordable annual operating budget.

We will work collaboratively with departments across the Trust and with Senior Management Team (SMT) to identify their digital needs and subsequently associated funding commitments.

We will develop robust business cases to present a clear digital case of need. Where appropriate and when opportunities present, we will seek external funding either through a system approach or where specific digital funding is available.

We will ensure that robust digital programme management and benefits realisation activities demonstrate the effective use of funding.



6.5 Governance

The Digital Hospital Committee (DHC) will oversee all digital activities such as the digital programmes of work and the departments operational performance. DHC will seek assurance on the progress and delivery of this strategy, as well as the associated annual operating plans. DHC will where appropriate include external membership to support accountability and alignment to regional and national priorities.

DHC will report into Finance, Performance & Business Development (FPBD) committee.

Where the Trust has significant programmes of change such as the Electronic Paper Record and Digital Maternity projects, separate project boards will be formed and underpinned by robust terms of reference. DHC will seek assurance on all digital programmes of work as a parent committee. We will establish a new Clinical Digital Advisory Group to assess digital demand and prioritisation. The information governance committee will provide assurance on information security matters including the Trusts data security and protection toolkit compliance. DHC will be kept informed regarding the Health Care Partnership (HCP) Digit@ll programme governance and supporting workstreams.



6.6 Quality Improvement

In terms of measuring the outcomes of this strategy, we will align to the Trust's Quality Improvement strategy, which will provide a consistent means to measure outcomes across the Trusts interlinked strategies. We will combine this with benefits realisation activities within the discrete digital projects to measure the impact of our progressing digital maturity.

6.7 Monitoring

The strategy will be reviewed on an annual basis, and where required revised to reflect any changes in local or national policy or priorities. An annual operating plan will be developed to support the strategic activities within that year. The monitoring of this strategy including approving any revisions to it will be within the remit of DHC responsibilities.

