Mersey and West Lancashire Teaching Hospitals NHS Trust

# Digital Strategy 2024-2029

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# Forewords

## Chief Clinical Information Officer

I am delighted to welcome you to the Mersey and West Lancashire Teaching Hospitals NHS Trust's new Digital Strategy. Digital technology plays a key role in our Trust being able to deliver consistent high-quality and safe patient care, as per our 5 star patient care vision. Digital technology should allow us as clinicians to easily record and share information of our patients in a seamless manner, allowing our time to be used caring for our patients, rather than asking our patients the same questions repeatedly. During the consultation for this strategy, we have heard from many of you about the benefits and also the improvements that you would like to see in the digital systems, and it is clear to me that whilst we have made great strides over the last few years there is still much to do.

Currently all sites have an electronic patient record (EPR), however there are differences between how the EPRs are setup and used by staff. Our vision for the future is that we will have one single EPR, that regardless of where you are working the system will look the same and be able to be used with consistency by all staff. The single EPR will require a procurement process, for which I would make a personal plea for as many of you to engage with as possible, so that you can have your say about a system that works for us as a Trust. The move to a single EPR may take 3 years, so in the meantime we will be continuing our work to align the digital offer across all our hospitals, so that we have consistent, high-quality systems for all of us to use to benefit patient care. Alongside the alignment, we will also continue to develop our current EPR elements to ensure that we continue to improve our digital offering whilst we are making the move to a single EPR.

To make this digital strategy become a reality we need the collaboration of all our staff. I implore everyone to engage with the digital development within the Trust because this cannot be delivered by one team in isolation and everyone within the Trust has a role to play with helping us achieve our digital goals.

**Craig Rimmer,**

**Chief Clinical Information Officer**

## Chief Nurse Information Officer

I have been in post as Chief Nurse Information Officer (CNIO) for just over three years, initially at the St Helens, Whiston and Newton sites, and now across our new organisation MWL. I am so proud of what we have achieved with digital transformation across all five sites, in particular the positive impact this has had on the quality of our documentation, efficiency of workflows and above all safer patient care.

The next 5 years will bring further opportunity to improve the quality, efficiency and safety of the care we deliver with digital transformation as a key enabler of this. My Nursing, Midwifery and AHP colleagues have responded to the past 3 years of at-pace transformation with an unmatched enthusiasm, and I am confident that we can continue to build on this solid foundation together with new technology, further digitising our care records, ensuring our clinical systems work together seamlessly and embracing positive change to provide our patients with 5 star patient care.

**Natalie Hayes**

**RGN, MSc, BA (Hons), NMP**

**Chief Nurse Information Officer**

## Director of Informatics

I am pleased to present the first Digital Strategy for our Trust, setting out our strategic digital developments for the next five years. The focus of our strategy is clear – we must support the delivery of safe and sustainable, 5 star patient care.

Since the creation of Mersey and West Lancashire Teaching Hospitals in 2023, we have worked hard to begin the process of creating a safe, secure, performant and highly available technical infrastructure that will underpin all our digital developments. However, there is still much to achieve and we have an extensive programme of work to deliver the technical infrastructure that is required to successfully achieve our clinical systems ambitions.

We will focus on providing the same high maturity of clinical systems across all our sites. This will mean optimising our current clinical systems whilst we take the major step of procuring and implementing a new Single EPR. Moving to a single EPR is an essential step in delivering a Trust wide digital clinical record and standardised care processes that will support continued 5 star patient care delivery.

Clinical leadership is essential to the successful delivery of our strategy and we are fortunate to have a dedicated, enthusiastic and experienced clinical digital team to lead us in achieving our ambitions. This will ensure that as we optimise, develop and replace our clinical systems, we do this in a manner that supports the needs of our workforce and patients. This will make our vision of using digital technology to enable safe, sustainable, 5 star care a reality.

**Christine Walters**

**Director of Informatics**

# Executive Summary

Our digital strategy for 2024 to 2029 sets out how we will achieve our vision to enable the provision of safe, sustainable, and 5 star patient care through the provision of single, digitally mature organisation wide systems and underpinning technical infrastructure that is safe, secure, performant, highly available, and meets the needs of our patients and workforce.

Our strategy has been developed to respond to the needs of our organisation and patients as well as those of our Integrated Care System (ICS) partners and national strategies. This includes:

- The needs of our population and addressing **health inequalities**;
- Enabling 5 star integrated, **safe and sustainable care**;
- Workforce, **funding and capacity** challenges;
- The needs of our **acute and community** clinical and administrative users;
- Supporting our ICS partners **in improving integration and interoperability** and in converging on as few clinical systems as is practicable;
- National strategies for **digital and clinical systems maturity**, using digital technologies to **empower patients** and supporting **Net Zero**.

In response to these needs we have set out an extensive programme of work in the two areas of clinical systems and technology infrastructure.

### Clinical Systems

We will focus on providing the same high maturity of clinical systems across all our sites with three programmes of work to deliver this:

- **Single Electronic Patient Record (EPR)** – the procurement and implementation of a new single EPR to replace all our current functionality and make this available across all our sites. We will exceed national targets in this area and will provide information to support clinical decision making and clinical task management at the point of care delivery. This will also provide digitised care pathways, supporting patient flow through the organisation and enabling effective use of our resources;
- **Optimising our existing solutions** – as our new EPR implementation will not be finished until late 2026 we will continue to optimise our two existing EPRs, levelling across functionality between our sites, removing paper processes where we can and implementing digitised clinical pathways in preparation for the move to a single EPR. We will also undertake developments in maternity, prescribing, speech recognition and shared care records, consolidating on single Trust systems where we can;
- **Increasing Our Digital Maturity** - We will also further optimise and increase our digital maturity through initiatives such as virtual wards, a Patient Held Record (PHR), offline and remote working.

### Technology Infrastructure

Over the next two years, we will undertake a major programme of work to provide a safe, secure, performant and highly available technical infrastructure that will underpin all our clinical systems developments. This will include:

- Upgrading our onsite data centres and the hardware on which our systems operate;
- Moving safely to a Trust wide single network and replacing obsolete telephony systems;
- Rationalising our cyber security technology and processes as part of continuous improvement in this area;

- Continue to manage our desktops, laptops and handheld devices with developments that will enable devices to move between sites seamlessly;
- Implement a range of other developments that will help our workforce to be more mobile and efficient including single sign on, remote access and a 'Bring Your Own Device' capability.

What this means for our Workforce, Patients and Organisation

- **Our workforce** will experience a consistently high performance and availability of systems, on whichever site they work;
- **Our clinicians** will have the same functionality, standards and processes across the whole organisation, with streamlined data collection processes, easy access to information to support clinical decision making and standardised clinical, administration and prescribing workflows;
- **Our patients** experience of the care process will be improved, with greater choice for how they access their care. There will be no delays in the care process caused by the non-availability of our technical infrastructure;
- **Our Organisation's** reputation for 5 star care delivery will be enhanced, with reduced variation in care and multiple opportunities for service efficiencies. We will achieve the national digital standards expected of us and maintain our reputation as a digitally mature organisation.

Our technology infrastructure improvements will support our Corporate and Commercial Services colleagues in consolidating and improving the systems that support the operational management of our organisation and generate revenue.

Our business intelligence colleagues will have access to a richer, structured clinical data set to provide business intelligence for performance management, capacity and demand management, population health management and continuous improvement.

### Successful Delivery of Our Strategy

The following arrangements are in place to ensure the successful delivery of our strategy:

- Our existing digital governance arrangements will ensure robust oversight of all our digital developments, with Business Case and benefits management processes in place to ensure we deliver value for money;
- Clinical leadership will be provided by our experienced Chief Clinical Information Officer (CCIO) and Chief Nurse Information Office (CNIO), supported by clinical digital specialists. Clinical engagement and input into the design of our solutions is central to ensuring that they are fit for purpose and deliver the transformational change that we require;
- Our clinical safety officers will ensure the identification and management of any clinical risks associated with our digital programmes;
- We will engage with our patients through the Trust's Patient Participation Group. This input will be invaluable for all our digital developments but especially our Patient Held Record and virtual care projects;
- We will focus on raising our workforce digital literacy through a range of engagement, communication and training activities;
- We will develop and retain the specialist skills of our digital team through a comprehensive programme of training, professional development and career progression;
- We will work with our partners across Cheshire and Merseyside to support digital inclusion initiatives that will make our patient facing digital developments accessible to more of our population;
- We will review the progress of our strategy on an annual basis, reporting on successes, what we would do differently and our next steps.

In conclusion, our journey to procure and implement a Single EPR that will support the delivery of safe and sustainable care will take a number of years to complete. We will ensure that digitally enabled transformation continues throughout this process through our optimisation and technology infrastructure programmes of work.

Once we have achieved a single EPR we will then move to continually enhancing the Trust's systems, raising our digital maturity and positioning us to progress further innovative technology developments.

# Introduction

Our Digital Strategy focuses on how we will use digital technologies over the next five years to support the provision of safe and sustainable care. We will seek to use our digital investments to enable continuous care quality improvements and better clinical outcomes whilst improving the experience of our patients. To achieve this we will focus on delivering standardised, integrated systems, technology and working processes.

Technology advancements are moving at pace and continue to play an increasingly important role in the delivery of care and the day-to day-working of our teams, as well as the ways in which patients choose to engage with us.

We must ensure that the Trust is able to make use of these technologies to support our workforce by getting the basics right and ensuring our digital provision is reliable. To get where we want to be we must undertake some major programmes of work alongside consolidating and extending the best elements of each of our predecessor organisations. This will take us forward in a shorter timeframe and enable the care we provide to be consistent, safe and sustainable.

## About this Document

This digital strategy document summarises our current position and our intended strategic digital developments for 2024-2029. The following sections of the document will:

- Summarise what the strategy must respond to, including our own ambitions as well as those of our ICS, regional and national partners;
- State our digital ambitions and what we are seeking to achieve and our overall vision for digital;
- Summarise the current position and the limitations this is placing on achieving our ambitions;
- Detail the strategic actions for each area and what this will mean for our workforce, patients and our organisation as a whole;
- Outline the programmes of work to deliver our ambitions.

# What Our Digital Strategy Must Respond To

In this section we consider how our digital strategy must respond to the needs of our organisation, ICS and the national strategic direction.

## Our Organisation

St Helens and Knowsley Teaching Hospitals NHS Trust and Southport and Ormskirk Hospital NHS Trust formally came together as one new NHS Trust named Mersey and West Lancashire Teaching Hospitals NHS Trust on 1st July 2023, the same week as the NHS's 75th anniversary.

### Our Population

MWL provides healthcare services to a population of circa 618,000 comprised of 360,000 people living in St Helens, Knowsley, Halton, and Liverpool and 258,000 people across Southport, Formby, and West Lancashire. The geography served by the Trust includes areas of considerable deprivation including in Knowsley and Sefton. St Helens has significant inequalities in life expectancy of up to 10.4 and Knowsley is one of the most deprived areas in the country.

Respiratory disease is the main cause of the local vs national life expectancy gap and hospital admissions for mental and behavioural disorders due to alcohol use are almost 50% higher than the averages for England.

Together with national trends of people living longer and, in many cases, with more complex health conditions this creates greater demand for NHS services.

### Our Workforce and Services

The Trust has a workforce of around 9,000 dedicated and skilled staff delivering acute hospital care, intermediate care, primary care, and community-based services. The Trust provides services at over 20 locations, the main centres of care being Whiston Hospital, St Helens Hospital, Southport & Fromby Hospital, Ormskirk Hospital and Newton Community Hospital. We provide:

- **Acute Services** – a range of medical and surgical specialties across all our hospitals and emergency and maternity services at Whiston, Southport and Ormskirk hospitals;
- **Community Services** - including adult community services for the Borough of St Helens and a wheelchair service for people in Chorley, South Ribble and West Lancashire. At Newton Community Hospital we provide rehabilitation beds for patient who no longer need acute care. Additionally, we provide urgent care at our Urgent Treatment Centre in in St Helens town centre;
- **Primary Care Services** - from Marshalls Cross Medical Centre, situated in St Helens Hospital;
- **Regional services** - for burns, plastic surgery, and spinal injuries, to more than four million people across Merseyside and West Lancashire, Cheshire, The Isle of Man and North Wales.

The business case for the creation of MWL was driven by the desire to deliver better services for all patients and secure long-term sustainability and development for our services. The business case recognised the differing levels of digital maturity between our predecessor organisations and the opportunity that this presents for levelling up in the areas of infrastructure and clinical system maturity.

As a result, a key theme of this strategy is to provide digital solutions and services that support care delivery and service transformation, in particular the redesign of patient pathways to support the smooth delivery of care for re-configured services.

By bringing our teams and resources together, we can focus on a new and exciting vision and plans for our organisation, including:

- Better outcomes for our patients and communities, better access to our services, and a better patient experience;

- New ways to engage people who use our services;
- More job opportunities for our teams;
- Investment where it is needed most.

The Trust follows its **5 Star Patient Care** approach which is front and centre of the organisation's strategy, the values of our workforce and the way we deliver care. This model guides the direction of all Trust strategies and activities. Thus, it is critical that this digital strategy is aligned with our 5 Star Patient Care approach, which is explained further below.

**Care:** We will deliver care that is consistently high quality, well organised, meets best practice standards and provides the best possible experience of healthcare for our patients and their families.

**Safety:** We will embed a culture of safety improvement that reduces harm, improves outcomes, and enhances patient experience. We will learn from mistakes and near-misses and use patient feedback to enhance delivery of care.

**Pathways:** As far as is practical and appropriate, we will reduce variations in care pathways to improve outcome, whilst recognising the specific individual needs of every patient.

**Communication:** We will respect the privacy, dignity and individuality of every patient. We will be open and inclusive with patients and provide them with more information about their care. We will seek the views of patients, relatives and visitors, and use this feedback to help us improve services.

**Systems:** We will improve Trust arrangements and processes, drawing upon best practice to deliver systems that are efficient, patient-centred, reliable and fit for their purposes.

### Trust Clinical Strategy

In 2023 we developed our Clinical Strategy for 2023 to 2025, aimed at delivering 5 star patient care. The strategy set out the following clinical priorities:

- Ensure clinical governance structures are in place to continue to deliver **safe and effective clinical** care across the Trust;
- Review and align pathways to enable **integration of clinical services** across the Trust;
- Complete the **stabilisation of fragile clinical services** and address any inequalities and barriers to delivery of high quality and effective care to patients;
- Achieve national, regional and local NHS priorities to:
    - Improve Emergency Department waiting and ambulance turnaround times;
    - Reduce waiting times for elective treatments and diagnostic tests;
    - Reduce the time to diagnose or exclude cancer in patients who are referred to hospital.

Our digital strategy must deliver the digital support for the standardisation of clinical pathways, remove technology barriers to clinical service integration and support the efficient and effective delivery of 5 star patient care that will enable us to address national, regional and local priorities.

## The NHS Challenge

The whole NHS is facing a complex mix of challenges and we are no different. The following are widely recognised as priority items on the NHS agenda:

**Workforce Constraints** - The NHS workforce is often described as in 'crisis' and in June 2023 the government issued its NHS Long Term Workforce Plan. It describes how Trusts can place staff on a sustainable footing resulting in improved patient care.

The Trust aligns its values with the themes of train, retain and reform to support and grow our workforce and whilst we have relatively good staff retention rates, maintaining this is a constant endeavour.

**Funding** - Funding for the NHS is a contentious issue spanning government and local agendas. It remains true that the demand for healthcare services is constantly rising. The funding for new services, treatments, technology and infrastructure will always be a complex balance for NHS organisations. We are however fortunate to be receiving monies from the NHSE Frontline Digitisation programme to support some of our strategic digital developments.

**Back Logs and Capacity** - COVID-19 has had a legacy effect on the backlog in patients receiving care due to the disruption of the unprecedented pandemic, patients presenting later and sicker. Additional impact has been seen nationally from industrial action further impacting post COVID-19 recovery. Areas such as cancer waiting times, elective waiting times, emergency department challenges and bed availability were a focus before the pandemic and remain a key challenge as noted in our clinical strategy.

**Ageing Population** - The UK's population as an ageing one with more complex healthcare needs, we must look to support this mixture of needs in healthcare provision. The population that we serve has some significant health inequalities as noted above.

**Evolving healthcare expectation** - We are living in a digitally connected society where information is available on demand. Our patients expect to interact with their health service in a way most appropriate to them. Our services must therefore include a mix of digital and face to face care where needed.

## ICS Strategy

Like all NHS organisations, the Trust operates in a broader healthcare system. The Cheshire & Merseyside ICS sets healthcare priorities based on the needs of the local population, designs and commissions services and facilitates collaboration across our region. The Cheshire and Merseyside ICS Vision, Strategy and Objectives are summarised below.

The ICS aims to increase the role that technology plays in the delivery of care. Its digital vision includes:

- A digitally empowered population;

- A digital and data capable workforce;
- A secure and reliable intelligence provision.

The ICS intends to achieve these goals through:

- Strong digital and data platforms;
- “At scale” digital and data platforms;
- Systems wide digital and data tools and services.

In line with national ambitions the Cheshire & Merseyside ICS has a wish to converge digital systems where possible. This means having as few different types and providers of systems in any one specialism across the geography. Systems convergence for the Trust means something similar, reducing the number of systems we have for anyone purpose by consolidating on one of our existing solutions or procuring a new solution to replace multiple existing solutions.

It is therefore critical that the Trust’s own digital strategy aligns with and supports the overall ICS goals for digital. Whilst the Trust is part of Cheshire & Merseyside ICS, we also provide care to residents of Lancashire and South Cumbria ICS. These cross-border patient flows place greater importance in the enablement of information sharing with multiple shared care record solutions.

## National Strategy

This section summarises the national policies that our digital strategy must respond to including:

- The NHS Long Term Plan;
- Data Saves Lives – national data strategy;
- What Good Looks Like;
- Frontline Digitisation Programme;
- Delivering a Net Zero NHS;
- NHS long term workforce plan.

**The Long Term Plan**– published in 2019, sets out the ambitions for the NHS and has a core commitment to making better use of data and digital technology that our digital strategy must respond to including:

- More convenient access to services and health information for patients;
- Digital front doors through the NHS app;
- Better access to digital tools and patient records for staff;
- Improvements to the planning and delivery of services based on patient and population data.

The LTP also sets out ambitions for joined up and collaborative care, with patients' voices at the heart of the design of services. It seeks to make the NHS an easier place to work and thrive and identifies the need for cost effectiveness and reduced spending on administration. These ambitions are picked up in more detail in subsequent operational planning guidance, making explicit the importance of digital and data not only during the pandemic but in the recovery of services.

**Data Saves Lives,** published in 2022 the NHS data strategy states that the future of the NHS depends on improving how we use data for four related purposes:

- Direct care of individuals;
- Improving population health through the proactive targeting of services;
- Planning and improving services;
- Research and innovation that will power new medical treatments.

We generate and use data across all of our services and our strategy must recognise the critical importance of safe, secure, accurate and well managed data. We are careful stewards of our patients' information and we handle all data creation, modification and use in compliance with our data governance policy.

**What Good Looks Like (WGLL)** - provides guidance on how health and care leaders can safely and securely digitise, connect and transform services. This reflects the expectation that organisations will use the standards in the framework to accelerate digital and data transformation and thus improve the experience, safety and outcomes of care delivered

to patients and citizens. We are actively working to achieve these standards against which our digital maturity is measured.

**Frontline Digitisation** - NHS England has set out a priority programme and £2 billion of central funding through 2023 to 2025 for Frontline Digitisation (FD). This FD Programme sets out Core Digital Capabilities with an initial target for this to be met by 2025, the Trust target agreed with FD is June 2026. Through this programme and central funding, we will implement a new single Electronic Patient Record (EPR). This significant investment will deliver the foundation needed to accelerate our digital transformation.

**Delivering a Net Zero NHS** - we operate within the Net Zero Greener NHS national programme and have embedded environmental sustainability into how we design our services. Digital has a core part to play in reducing our carbon footprint by streamlining and virtualising services.

**The NHS workforce plan** - in June 2023 the government issued its NHS Long Term Workforce Plan aimed at putting staffing on a sustainable footing and improving patient care. It focuses on retaining existing talent and making the best use of new technology alongside the biggest recruitment drive in health service history.

## What Our Users Told Us

During the development of this strategy, we consulted with our colleagues including management and administration roles, nurses, doctors, allied health professions, health care assistants, digital specialists and patients. Feedback was largely positive with the following common themes emerging:

- **Integration and Interoperability** – multiple systems in place between which data does not always flow, resulting in workarounds, duplication of data entry and paper processes;
- **Attitudes to Change** – our workforce are open to change and see support during implementation periods as key to success;
- **System Capabilities and Access** – our users would like to see faster and more reliable systems, more personalisation of systems and improvements in areas such as the need for multiple logins;
- **Training** - our users would like to see more digital training opportunities and particularly value 'floor-walking' support in their place of work during implementations;
- **Patient Centricity** – keenness to tailor systems based on treatment priorities and to increase patient engagement in our digital developments;
- **System Design & Prioritisation** – opportunities exist to optimise our current digital provision, with a preference for phased implementations rather than wholesale change.

Further detail of the feedback provided by our colleagues is provided in Appendix 1.

## Summarising What We Must Respond To

### Our Organisation

- The needs of our population and addressing health inequalities;
- Enabling 5 star Care, Communications, Systems, Pathway and Safety;
- Our clinical strategy and providing integrated, safe and sustainable care;
- Workforce, funding and capacity challenges;
- The needs of both our acute and community users.

### Our Cheshire & Mersey Partners

- Integration and interoperability;
- Systems ‘convergence’ where possible.

### National Strategy

- Digital as a tool for improving access to care and for patient empowerment;
- Data for care delivery, business intelligence, population health management and research and innovation;
- What Good Looks Like digital maturity standards;
- Frontline Digitisation Digital Capability Framework standards and targets;
- Delivering Net Zero;
- Technology to support our workforce.

# Our Digital Vision and Ambitions

## Our Digital Vision

To enable the provision of safe, sustainable, and 5 star patient care through the provision of single, digitally mature organisation wide systems and underpinning technical infrastructure that is safe, secure, performant, highly available, and meets the needs of our patients and workforce.

## Our Digital Ambitions

As a result of our strategic analysis and user engagement we have identified the following digital ambitions and priorities for the next five years which together will make our digital vision a reality:

- **Single Electronic Patient Record** - We will implement a single Electronic Patient Record solution across all of our sites and services. This system will ensure that patients receive the same level of care regardless of where they attend, drive standardisation and improve care quality and patient outcomes;
- **Technology Integration & Equity** - We will modernise and equalise the technology platforms across our hospitals through a programme of investment. Old technologies will be retired, the current technology strengths will be scaled and the security of our systems strengthened;
- **Digital Capability** - We want the most digitally capable workforce in the region. We will implement an ongoing programme of training and support to enable new and existing staff to improve their digital skills and confidence;
- **System access and usability** - Our patient facing teams will have a choice of how they access systems whether using their own or the Trust's devices. Digital users experiences will be improved whilst maintaining security and protecting patient information;
- **Digital Care Delivery** - Our investments in clinical systems and technology platforms will aid the delivery of digital care services such as Virtual Wards, Patient Initiated Follow-up and Patient record access. We will work closely with clinical teams to define and deliver new **safe and sustainable** models of care;
- **ICS Integration** - We will work closely with our ICS partners to ensure that our Trust is aligned and supportive of regional initiatives. Where beneficial, we will implement ICS provided systems to enable regional collaboration.

In the next section we set out the actions we will take to deliver these ambitions.

# Our Strategic Actions

This section sets out our strategic actions for clinical systems and technology infrastructure. In each area we summarise the current position, describe where we need to be in order to deliver our digital ambitions. We then set out the strategic actions we will take to achieve this.

We have also set out how our strategic actions will support our corporate services and business intelligence colleagues to move forward.

## Clinical Systems - Where We Are Now

As a result of the coming together of two organisations, our current clinical systems provision is a complex one featuring:

- **Two separate EPR solutions** from the same vendor of varying levels of maturity. Both are below the national Digital Capability Framework Core Standard and are configured differently to reflect the workflows and processes of our predecessor organisations. This creates challenges for sharing of patient information across sites and acts as a barrier to service re-design and transformation;
- **Duplication of clinical systems** with varying levels of integration with our EPRs with some standing alone outside of the EPR. This position is adding to our challenges in sharing patient information and supporting service transformation;
- **Mixed digital and paper provision** that is determined by the varying maturity of our EPRs. Alongside this we have two electronic document management systems from different vendors further adding to our cross-site record sharing challenges;
- **Community Teams** that work with two separate care records systems and do not have the order communications, results reporting and prescribing available on our acute sites, instead relying heavily on paper records for care delivery;
- **ICS Wide Record Sharing** through the Cheshire & Mersey Shared Care Record, the St Helens Care Record and the Lancashire Patient Record Exchange Service. This assists information sharing to support care delivery, however, there remains further scope to develop wider access to patient information in support of 5 star patient care delivery.

## Clinical Systems - Where We Want to Be

To support the achievement of our organisation objectives, enable clinical service transformation and support the provision of safe and sustainable care we need to resolve our current system duplication and information sharing challenges by:

- Providing a **single Trust wide EPR** to meet national standards;
- Increasing our **clinical digital maturity** and ensuring the same clinical functionality provision across all our sites;
- Eliminating the current duplication of clinical system provision;
- Increasing the integration of clinical systems with our EPR;
- **Closing the gap** in provision between our acute and community services though the provision of a single community care record system and provision of order communications, results reporting and prescribing functions to our community teams;

### Clinical Systems - Where We Want to Be cont…

- **Increased virtual care** provision in our community services, such as the frailty service to reduce avoidable hospital admissions;
- Increased and more accessible digital provision **for our patients** to enable them to take control of their own care;
- Increased used of the **Shared Care Record** systems available to us by sharing more of our own data and using more of that which is shared with us.

Delivering this will enable:

- **Consistent delivery** of 5 star patient care as a result of standardised, Trust wide digital administration, clinical and prescribing workflow;
- Aligned data capture and system workflow processes across all our sites;

## Clinical Systems - How We Get There

### A Single EPR

**We will** complete the procurement of a new single EPR in 2024 to replace our two existing EPRs, with implementation completing in 2026/27. Our new EPR will replace all our existing EPR functionality, exceed the national digital capability standards and provide a single platform for the further digitisation of our care record. This will deliver:

- The same functionality across all our sites, closing the current gaps where clinical functionality is only available on certain sites, including in Theatres and Critical Care;
- Provide a single Trust wide electronic clinical record, making information to support clinical decision making and clinical task management available at the point of care delivery;
- Digitised care pathways, supporting patient flow through the organisation and enabling effective use of our resources.

Implementation will be complemented by a process redesign and change management programme to align and standardise administrative and clinical procedures, improve integration and streamline data capture and sharing processes across all sites.

### Optimising Our Existing Clinical Solutions

As a single EPR will not be available for over 2 years, we must continue to make progress in consolidating our clinical systems and aligning working processes in the meantime.

**We will** continue to optimise our two existing EPRs, levelling across functionality where we can and continue to work to remove paper from the care process, whilst implementing digitised clinical pathways in preparation for the move to a single EPR. This includes optimising configuration in areas such as inpatient handover of care letters and outpatient clinic letters to primary care.

Alongside this **we will** also:

- Replace our current CareFlow Maternity solution with the Badgernet solution, ensuring that the Trust meets national requirements to provide an electronic version of notes held by the pregnant person, commonly referred to as the ‘red book notes’;
- Roll out prescribing functions on our sites that do not currently benefit from this capability;
- Seek to expand the information that we contribute to Shared Care Record systems, working with our ICS partners to achieve this;

- Procure and implement a speech recognition solution to enhance clinical dictation within both inpatient and outpatient settings;
- Reduce duplicate clinical systems and improve integration where we can in advance of a single EPR;
- Deliver a programme of work to move to a single care record system in our community services and to implement order communications and results reporting and electronic prescribing solutions for our community teams;
- Develop a plan to consolidate our two Care Record Electronic Document Management Systems and implement this to align with the Single EPR Programme;
- Work with colleagues across the region to implement a new Laboratory Information Management System (LIMS) for our regional pathology network. This is a significant undertaking and will require review and update of laboratory processes and interoperability with our current and future pathology order communications and results reporting capabilities.

### Further Increasing Our Digital Maturity

Implementation of a Single EPR will also be an enabler for a further programme of work to eliminate duplicate clinical systems, including electronic document management and theatre solutions.

**We will** also further optimise and increase our digital maturity including:

- Roll out of virtual wards to include patient monitoring at home;
- Roll out of a Patient Health Record (PHR) via the NHS App to provide patient access to their hospital letters, appointment management, condition specific information and direct communication with their care professionals;
- Offline and remote working for clinical teams, for example those working in our community service teams;
- Support improved access to clinical systems through further enhancements to integration, single sign-on, personalised access and reducing the need for our workforce to have multiple mobile devices through a Bring Your Own Device capability, these items are covered more fully in the next section of this strategy.

## What This Means for Our Clinicians

- A single Clinical Record with same functionality, standards and processes across the whole organisation, meaning wherever you are in the organisation the digital elements will look and feel the same. For clinical staff how this looks will be informed by feedback during the procurement and implementation phases;
- Less time and effort required in searching for information that will support care delivery and enhance clinical decision making;
- The ability to complete digital care documentation easily, securely and effectively;
- Clinical task management support and real time patient tracking;
- The ability to easily work on any Trust site as a result of standardised digital administration, clinical and prescribing workflow;
- Improved clinical audit and research capabilities as a result of improved data collection and accessibility.

## What This Means for Our Patients

- Increased confidence that care outcomes will continually improve as a result of timely clinical decision making and continuous care quality improvements;
- An improved experience as a result of a refined journey through the care process and the enhancement of communication from the PHR allowing patients to be in control of their own healthcare;
- Access to care professionals and remote consultations in their own homes;
- Access and input to their own record and support for managing their own conditions.

## What This Means for Our Organisation

- A richer, structured clinical data set to provide business intelligence for performance management, capacity and demand management, population health management and continuous improvement;
- Reduced variation in care and multiple opportunities for service efficiencies;
- Enhancement of the Trust reputation for delivery of 5 star care;
- Achievement of national digital standards and a continued reputation as a digitally mature organisation;
- Support for the achievement of Net Zero benefits, including reduced carbon emissions arising from less paper consumption and travel;
- Societal benefits associated with improved healthcare outcomes.

## Supporting Our Organisation Ambitions

**Care**

- Reduced variation and improve patient outcomes;
- Improve access to comprehensive patient records;
- Removal of digital barriers to transformation.

**Communications**

- Share best practices and strengths across the Trust;
- Enable closer integrated working with partners;
- Instant access to management information;
- Two-way communication to encourage patient empowerment.

**Systems**

- Digitally mature single EPR with real time access to patient information;
- Customisable views of clinical data, based on individual user preferences;
- Personalised access and device choice for front line staff;
- Data management for business intelligence.

**Pathways**

- Closer alignment and integration across the Trust;
- Scalability and flexibility to react to patient needs and service development;
- Improve patient flow within and external to the Trust;
- Ability to plan and support capacity and demand management;
- Creation of remote digital care delivery offerings including Virtual Wards.

**Safety**

- Alerting and monitoring in real time;
- Reduced risk of missed actions and;
- Efficient incident reporting.

## Technology Infrastructure - Where We Are Now

The Trust has completed a due diligence exercise on its technical infrastructure to identify risks associated with the multiple instances of core infrastructure and networking that currently exist. We have made good progress in rationalising and improving this in the last year but there remains much to be done. The current position is as follows:

- **Wired Networks** – we have two separate network domains; this prevents a consistent user experience accessing systems and services when moving between sites. We have successfully connected our two networks to provide the foundation for sharing resources and moving forward with more strategic infrastructure developments;
- **Wireless Networks** - we have separate wireless network infrastructures meaning that users cannot take a laptop or handheld access device between sites and seamlessly access the services they need. In the past year we have upgraded the unreliable and obsolete part of our wireless network infrastructure providing more connection between our sites;
- **Internet and Intranet Access** – we have separate connections to the internet and public sector networks resulting in differing user experiences across sites;
- **Email and virtual meetings** – we have moved all our email and Microsoft Teams virtual meeting accounts onto a single domain and established the 'merseywestlancs' email address suffix, we will be migrating all our email accounts to this address to achieve a single email identity for our organisation;
- **Telephony Services** - we have two different telephony solutions with some obsolete telephony technology in use that results in support and maintenance challenges and prevents moving toward the latest integrated data and voice services;
- **Data Centres** – we have four data centres that host applications and store our data, two of which do not meet the standards required to ensure acceptable resilience and performance;
- **Servers and Storage** - we have recently procured new hardware to replace the servers that host our applications and store our data, this will provide a more resilient platform and enable us to upgrade the software used to operate these servers. In the past year we have implemented a new single backup solution for all our servers to provide appropriate robustness and assurance in this area;
- **Access Devices** - we have a device refresh strategy (laptops, desktops and hand-held devices) that ensures that no user has a device that is more than five years old. We have kept pace with this device refresh but some users need multiple devices to work effectively and as noted above, our workforce currently cannot easily move between sites and use the same device;
- **Data Integration** - we have two integration engines, inherited from our predecessor organisations, this limits the extent to which we can share data between our systems and results in clinical teams needing to search for the information they need to deliver care;
- **Cyber security** – whilst we have effectively defended our infrastructure from cyber-attacks, we have different firewall and security rules across our sites, creating more work for our specialist teams in managing cyber security threats. We perform regular cyber security checks and work pro-actively with partners across Cheshire and Merseyside to identify and mitigate threats;
- **Technical Support** – as a result of our varying technical architecture, our technical support specialists largely operate as two separate teams, using different management and monitoring toolsets to manage and maintain their particular element of the infrastructure;
- **User Support** – We have a single service desk provided by the Mid-Mersey Digital Alliance (MMDA), a shared service providing Information Technology support to a number of healthcare organisations across Cheshire and Merseyside. MMDA is hosted by the Trust and provides a

4-star service desk (the highest level available to a non-international organisation) accredited by the Service Desk Institute. We have started the process of aligning our support processes across all sites in line with the Information Technology Infrastructure Library (ITIL) standards.

## Technology Infrastructure - Where We Want to Be

Achievement of our clinical and business system strategic actions requires a technical infrastructure that includes:

- A single high performing wired and wireless network that enables users to move between sites and not experience any difference in the systems and services they can access;
- Converged infrastructure and services with robust, resilient and performant connectivity between all Trust locations so the user experience is consistent and seamless;
- Network traffic that is routed and secured via a set of highly available firewalls and standardised rules that keep all our systems and data secure;
- Rationalised and resilient connectivity to public sector networks and the internet via the Health and Social Care Network (HSCN) for fast and reliable access to these services;
- Reducing our current four data centres to two modern, secure and highly available data centres to improve the availability and security of our systems and data;
- A single digital telephony network across all our main sites, that is reliable and takes advantage of new capabilities in this area;
- All our servers and the operating systems on which they run are up to date and regularly maintained to improve both performance and security;
- Maintenance of our device refresh programme to provide reliable and performant desktops, laptops and handheld devices with a 'Bring Your Own Device' capabilities to enable our workforce to use their own mobile devices safely and securely and to prevent the need for them to carry multiple devices;
- A single technical team using a single set of tools to monitor, manage and maintain the performance of all parts of our technical infrastructure.

## Technology Infrastructure – How We Get There

### Data Centres, Servers and Hosting

The Trust is about to procure new on-premises server and storage infrastructure equipment to be deployed into two data centres on the Whiston site. This will support our goals to have a robust infrastructure to support our clinical and business systems. This is the enabler for the following strategic actions:

- **We will** remove unsupported server operating systems software by early 2025;
- **We will** consider 'cloud' hosting services for all future developments in line with Department of Health policy in this area – this includes cloud hosting as a requirement for our new Single EPR;
- **We will** implement technologies to manage the loads placed on our hardware, this will improve both performance and resilience of our server and storage hardware.

## Networking and Telephony

- **We will** further increase the level of sharing between our two current networks to a 'trusted relationship' status so that whilst remaining separate, they appear to be as one;
- **We will** provide a new single solution to enable consistent and reliable remote access to our systems and services providing greater flexibility and increasing support for mobile working and our homeworkers;
- **We will** migrate to a single firewall and cyber security processes, coupled with new hardware, access device upgrades and operating software this will further protect us from cyber security threats;
- **We will** implement software to manage the traffic on our network, reducing any bottle necks and improving performance;
- **We will** implement a single digital telephony solution replacing our current obsolete solutions to improve reliability and to take advantage of the additional capabilities that an integrated voice and data network provides for agile working such as call queuing, roaming numbers, and telephony services on laptops and desktops;
- **We will** migrate fully to a single domain network our final step for providing a solid foundation upon which all our digital systems and services are provided.

## Access Devices

- **We will** integrate more applications into our Single Sign-on solution to reduce the need for our workforce to login onto multiple systems;
- If affordable, **we will** maintain investment in device refresh to meet our policy of having no device over 5 years old;
- **We will** upgrade the operating software on all our access devices to Windows 11 by October 2025;
- **We will** roll out a standard build for all our access devices, this will streamline technical support requirements and will make it easier to achieve the seamless transition between sites that we need. This will also support our homeworkers;
- **We will** implement a Bring You Own Device policy across the organisation to reduce the need for multiple devices.

## Service Alignment

- **We will** implement and align to ITIL processes across the organisation, increasing the level of compliance and maturity with the objective of maintaining the existing Service Desk Institute 4-star accreditation;
- **We will** move to single monitoring solutions and tools for all our services as we develop and converge our infrastructure;
- **We will** integrate our technology teams into a single team, focused on building the specialist technical skills required to achieve our strategic aims and to effectively manage a converged infrastructure;

## Technology Infrastructure

### What This Means for Our Workforce

Our workforce will experience consistently high performance and availability of systems, on whichever site they work. They will be able to take laptop and mobile devices to any of our sites and logon to systems and services without noticing any difference between sites.

Staff will have to enter their login details less and will be able to access services remotely if they need to. Everyone will have access to a device that is reliable and suitable for their role. Where appropriate, staff will be able to use their own devices on the Trust network to reduce the need for individuals to have multiple devices.

Furthermore, as our technology developments are implemented, we aim for the only impact to be that the service improves with all transitions happening seamlessly.

### What This Means for Our Patients

When patients attend for treatment their care delivery will not be negatively impacted by systems being slow or unavailable – our infrastructure and how it works will be invisible to our patients. There will be no infrastructure barriers to sharing patient data across our sites.

### What This Means for Our Organisation

Our reliance, resilient, secure and performant technical infrastructure will support the achievement of our other strategic objectives, providing the solid foundation on which we will deliver a single EPR and converged clinical and business systems.

## Supporting Our Organisation Ambitions

**Care**

- Increase staff capacity by reducing wasted time as a result of slow available systems and services;
- Improve the workforce experience.

**Communications**

- Implement new ways of working to support workforce communication
- Enable integration of teams across all sites.

**Systems**

- Ensure that our systems are on reliable and supported server platforms;
- Single telephony system across the new Trust.

**Pathways**

- Enable the delivery of digital care at all sites;
- Support the development of digital care pathways by providing the infrastructure needed to implement these.

**Safety**

- Increase the security of our systems;
- Ensure that staff can use systems in any location;
- Our systems are well supported and staff can get help when needed.

# Business Systems & Intelligence

This section of our strategy considers how we must also support our Corporate, Commercial Services and Business Intelligence colleagues to deliver their ambitions.

## Corporate Services

Our business systems play a critical role in both our internal operations and our services to other NHS organisations. They are the backbone of our Trust and are equal in priority to our clinical digital ambitions. Our Corporate Services colleagues manage the systems that run our everyday operations including finance, human resources and estate management.

As with our clinical systems, many of these are duplicated and whilst progress has been made in providing single Trust wide systems such as in finance and the ESR solution, there is still duplication of provision. Many of these systems are also standalone with no linkage to other corporate systems or our clinical systems.

Our digital strategy must deliver the reliable, performant and secure technical infrastructure to enable our Corporate Services colleagues to deliver a programme of system rationalisation. This includes removing technical barriers to converging systems and to staff accessing them wherever they work. The preceding technical infrastructure section sets out how this will be achieved, particularly important for our corporate services colleagues are:

- Providing a single network and data storage capability so that systems can be accessed from all our sites;
- Moving to a single platform for our integration and interoperability capability;
- Ensuring our systems and data are safe from cyber security threats;
- Maintaining the standard of our laptops, desktops and hand held devices and standardising the format of these so that our workforce can move seamlessly between Trust sites;
- Implementing more advanced single sign on technologies to reduce the number of systems our users must log onto;
- Implementing a bring your own device policy.

We will also support our Corporate Services colleagues in specifying technical requirements for any systems they procure and in improving interoperability between our existing business and clinical solutions.

## Commercial Services

Our Commercial Services colleagues provide services to both the Trust and external organisations, such as payroll services. This is an important revenue generation activity for the Trust. The same foundational need for a reliable, performant and secure technical infrastructure applies to these services.

Additionally our Commercial Services arm is building an extensive capability in Robotic Process Automation (RPA) . This is software that enables the creation of software robots or ‘bots’ to emulate data collection and processing activities that humans perform. It automates the tasks that humans undertake including opening applications, typing and keyboard actions, such as shortcuts and mouse clicks and has significant potential to reduce the effort required in the performance of repetitive processing tasks.

This provides significant potential for service efficiencies that will benefit both the Trust and its commercial services clients. We will also continue to support our Corporate Services colleagues in the use of RPA technology to achieve these efficiencies.

We must also ensure that our technology infrastructure supports elimination of paper records in Corporate Services by providing a suitable document storage capability.

## Business Intelligence

The Trust Business Intelligence team is reliant on outputs from our clinical systems to produce performance management reports, statutory returns and to provide information for planning and modelling. Our clinical systems also act as the source of information to wider Population Health Management initiatives.

Data is currently provided in extracts from our two current EPRs which must then be combined to produce Trust wide reports and intelligence. This is time consuming for our business intelligence colleagues and limits the extent to which they can develop both the depth and breadth of their reporting provision.

We will ensure the following in support of our Business Intelligence colleagues:

- Our single EPR will provide a single extract of a richer clinical dataset to support our Business Intelligence colleagues in streamlining and developing their services to meet the reporting requirements of clinical and operational colleagues;
- We will also improve the extent to which we able to extract data from our clinical and business systems for analytical purposes, placing more focus on this and not just on ensuring they work effectively.

We will work with our Business Intelligence colleagues to deliver this and will provide input to support them in the development of the Trust Performance and Information Strategy.

# Successfully Delivering Our Strategy

This section sets out how we will ensure we successfully deliver our strategy. There are multiple arrangements and areas of work that will aid our success including ensuring robust governance, programme delivery, benefits management, user and patient engagement, training and digital skills development. We also consider a range of other standards and best practices that will help us to implement digital developments safely and maximise their potential.

## Governance

The delivery of this strategy and all our digital programmes will be accountable to the Trust Board through the following governance arrangements:

- An Information Management Technology (IM&T) Council reporting to the Trust Finance Performance and Investment Committee and in turn to the Trust Board. It is established to have direct responsibility, delegated by the Trust Board, for governance, direction and operational review of Information Management and Technology across the Trust;
- The Frontline Digitisation Board has been established to oversee the programme of work to deliver a single EPR, reporting to the IM&T Council.

Any clinical risks associated with digital programmes risks are reported through both the IM&T Council and the Trust Risk Management Council.

It is through these governance arrangements that we will also ensure compliance with Information Governance and Data Protection regulations and best practice.

Regular progress updates will be provided to our governance groups and business cases will be developed for each of our digital developments. Depending on the subject matter and whole life costs of these business cases, they will be submitted for final approval to the Trust Executive and Trust Board and externally as necessary. This will ensure financial oversight of our investments and maintain a focus on providing value for money.

## Programme and Project Management

Our digital programmes and projects will be managed in accordance with the Managing Successful Programmes (MSP) and Managing Projects in a Controlled Environment (PRINCE2) methodologies. We have an established digital Programme Management Office function for the co-ordination, tracking and control of all our projects and programmes. This includes common processes and documentation for project planning, tracking and risk and issue management.

This ensures a standardised approach to programme and project management and ensures the consistency and quality of reporting, both for individual projects, and for programme summaries for senior management.

The work of our Programme Management Office will include ensuring the effective review and closure of projects and programmes, and collating lessons learned to ensure that we apply these as part of our effort to continuously improve.

## Benefits Management

Identifying, measuring, tracking and managing the benefits of our digital investments is essential to both ensuring value for money and measuring our success. Our digital teams will work closely with the Trust Benefits Realisation Manager, to ensure the appropriate management of benefits across all our programmes and projects. The Trust Benefits Realisation function also provides us with a toolset to support this work including benefits registers, profiles and realisation plans.

Our benefits work will include a focus on identifying the Net Zero benefits of our investment to support the achievement of the Trust's Green Plan.

For our FD funded investments such as our new single EPR we must also follow the mandated FD benefits reporting and tracking process. Along with the Trust benefits management processes, this will provide rigour to ensure we maximise the potential of our digital investments.

## Clinical Leadership and Engagement

Our CCIO and CNIO have been closely involved in the development of this strategy. They are supported by a very strong team of digital clinicians and the continued clinical leadership of our programme is critical to its success. Clinical engagement and input into the design of our solutions is central to ensuring that they are fit for purpose and deliver the transformational change that we require. For our larger programmes (such as the Single EPR) we will make financial provision in our business cases for additional clinical resources to support this work.

Similarly our larger programmes will be supported by a dedicated stakeholder engagement plan to ensure we appropriately engage with all clinical, managerial and administrative colleagues, as well as our partners across Cheshire & Merseyside.

We will also take advantage of the advice and expertise of the Trust Communications team to maintain communication with all our stakeholders.

### Patient Engagement

We will engage with our patients through the Trust's Patient Participation Group. This group meets quarterly with membership including both patients and staff. We will engage regularly with the group to gain their input to our clinical and patient facing developments, including via in person meetings, briefings, presentations and demonstrations. This input will be invaluable for all our digital developments but especially our Patient Held Record and virtual care projects.

### Clinical Risk Management

Our Trust Clinical IT Safety Officer will lead activities to ensure the identification and management of any clinical risks associated with our digital programmes. We have invested in strengthening our clinical risk management provision through the training of additional Clinical Safety Officers and will keep this level of provision under review as we embark on our clinical systems optimisation and replacement programmes.

## Workforce Digital Literacy

We recognise that maximising the potential of our digital developments will not be achieved by just providing new systems and infrastructure. In order to achieve a position where our workforce have a greater understanding and awareness of how digital technologies can be used to efficiently deliver 5 star care we will:

- Ensure the early involvement of colleagues in major programmes to engender ownership and co-design;
- Develop a structured approach to change management which is communicated throughout our programmes;

- Develop a communications capability within Informatics to inform, engage and enthuse all our stakeholders;
- Provide comprehensive training programmes as we introduce new solutions and technologies and provide follow up and refresher training where it is needed.

Together with our clinical leadership and engagement activities we aim to increase digital literacy in our workforce.

## Specialist and Technical Skills Development

Ensuring that our team have the specialist skills to deliver our strategy and effectively maintain our digital estate will be a constant endeavour. Securing the skills and capabilities that we need in a competitive market place, with increasing technical specialisms is a constant challenge. The Informatics team have implemented a programme of regular review of resource, skills and capacity to ensure effective support for the Trust. This includes significant investment in training, professional development and career progression for team members and regular tracking, review and adjustment of plans to meet any changing requirements.

## Digital Inclusion

We must recognise that when we provide digital tools for our patients and their carers and families, some may choose not to use them or may have difficulty accessing them. Recognising the many causes of digital exclusion is critical to reducing it and the Trust cannot address this alone.

We will work with our partners across Cheshire and Merseyside to support digital inclusion initiatives including:

- Access and accessibility - creating more opportunities to engage with digital technology and ensuring that these follow NHS England accessibility guidelines;
- Digital Skills - provide digital engagement and training sessions for patients, run from local General Practitioner premises. Focusing on supporting and encouraging patients to access services using digital technologies through applications such as the NHS App. Such sessions will be invaluable as we seek to roll out our patient portal.

We will also need to ensure we gain the trust of patients so that they are confident that their information is safe and secure and are motivated to use the technologies that we offer.

## Review and Update of This Strategy

We will review progress against achieving this strategy on an annual basis, providing a report to our governance groups and the Trust Executive Committee and Trust Board. We will use this as an opportunity to reflect on what has been achieved, what we would do differently and to set out our plans for the coming year, adjusting and re-prioritising these to respond to any changing needs of our organisation.

## Our Programmes of Work

We have an extensive programme of work to deliver the strategic actions we have set as follows:

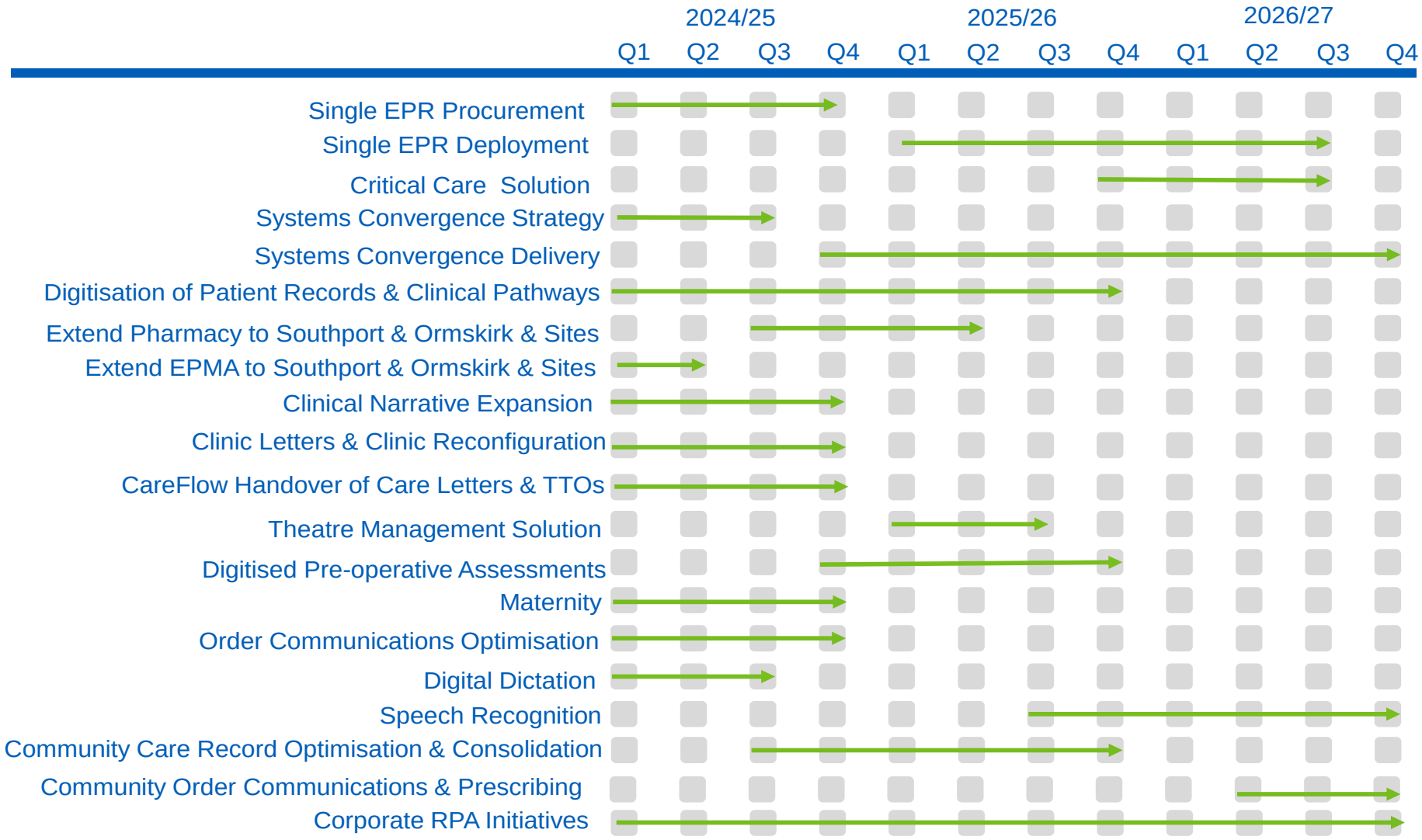
| Strategic Development | Description |
|---|---|
| **Single EPR** | |
| **Single EPR Procurement** | Procurement of a new EPR to replace our two current EPRs, following public sector procurement regulations. |
| **Single EPR Deployment** | Implementation of our new single EPR, to replace all our current functionality and level up across sites. |
| **Critical Care Solution** | Implementation of specialist functions to replace paper processes in our critical care units as part of our single EPR implementation. |
| **Optimising our Existing Clinical Solutions** | |
| **Systems Convergence** | Review all duplicate clinical digital systems and develop a strategy for convergence for each to a single Trust wide solution.<br>Align the plan with the single EPR implementation and clinical service transformation plans. |
| **Digitisation of Patient Records and Clinical Pathways** | An accelerated programme of work to fully digitise end-to-end clinical workflows to improve patient safety and care delivery efficiency in advance of a single EPR. |
| **Extend Pharmacy to Southport and Ormskirk Sites** | The replacement of the current Pharmacy system on the Southport and Ormskirk sites, adopting the system used on the Whiston and St Helens sites. |
| **Extend EPMA to Southport and Ormskirk Sites** | Extending the system used on the Whiston and St Helens sites to the Southport and Ormskirk sites. |
| **Clinical Narrative Expansion** | Enhancing our current EPRs, data input and access processes to reduce duplication of effort. Enhancing interoperability with other clinical systems to ensure data is captured once and used many times. |

| Strategic Development | Description |
|---|---|
| **CareFlow Handover of Care Letters & To Take Out (TTO) Prescribing Information** | Migration away from the ICE and EMIS Secondary care solutions used for the production of in-patient handover of care letters to the production of these from our current CareFlow EPRs. |
| **Clinic Letters & Reconfiguration** | Outpatient clinics rebuild and process redesign to enable the production of clinic letters in the current Careflow EPRs and the decommissioning of the current solution. Modernise and streamline outpatient booking processes across the Trust in advance of a single EPR. |
| **Theatre Management Solution** | Implementing a Trust wide Theatre Management Solution to replace the obsolete system on the Whiston and St Helens sites and replace the remaining paper processes on the Southport and Ormskirk sites. |
| **Pre-operative assessments** | Providing functionality to digitise pre-operative assessments, implementing initially on our Southport and Ormskirk sites and extending to all sites in line with the roll out of the Theatres solution. |
| **Maternity** | Replace the current CareFlow Maternity system with the Badgernet solution to support the provision of electronic notes held by the pregnant person ('red book' notes) and accessed via a mobile phone app. |
| **Order Communications and laboratory processes optimisation** | Fully deploy order communications across the organisation and review and modernise laboratory process on our Whiston, St Helens and Newton sites. |
| **Patient Portal** | Roll out and development of our patient portal to provide patient access to their letters, appointment management functions, condition specific information, completion of questionnaires and direct communication with care professionals. Aligned with our current EPRs and our new single EPR. |
| **Digital Dictation** | Replace our currently unsupported digital dictation solution at the Whiston and St Helens sites until speech recognition is implemented. |
| **Speech Recognition** | Speech enabled direct entry of information into the patient record in real time to reduce data input effort and streamline the production of clinic outcome letters. |

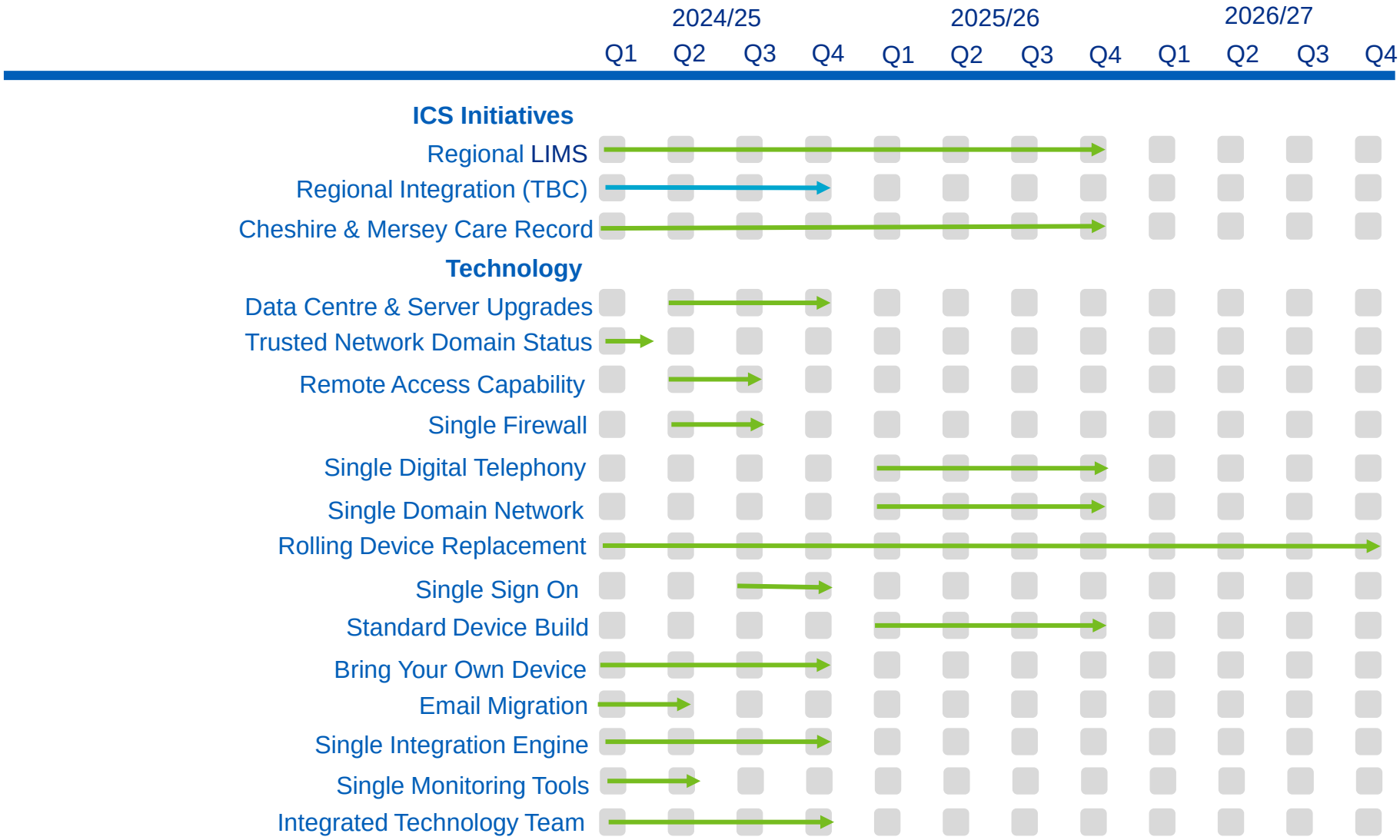
| Strategic Development | Description |
|---|---|
| **Care Records Document management system review** | Develop a strategy for the convergence of our two Electronic Document Management Solutions (EDMS) to deliver a single point of access for digitised copies of paper care records. Set out a roadmap for a single solution in alignment with the single EPR programme. |
| **Community Care Record Optimisation and Consolidation** | Develop plans to move to a single community care records system. Optimise our existing solutions to remove paper from community care processes. |
| **Community order communications, results reporting and prescribing** | Implement laboratory order communications and results reporting and electronic prescribing and medicines administration for our community teams, aligned with our single EPR deployment. |
| **Corporate RPA initiatives** | Continue to deploy Robotic Process Automation (RPA) technologies in corporate services to automate repetitive tasks. |
| **ICS Workstreams** | |
| **Clinical Network Support Regional LIMS** | Support the development and deployment of a regional Laboratory Information Management System (LIMS). |
| **Regional Integration** | Aligning with regional initiatives to increase interoperability for diagnostic services and other regional systems. Work is currently in the planning stage. |
| **Cheshire & Mersey Shared Care Record** | Migrate the current St Helens Care Record to the Cheshire & Mersey Care Record solution in line with the ICS digital strategy. |
| **Regional Clinical Network Support** | Aligning with regional initiatives to increase interoperability for clinical networks and general practice communications. |
| **Technology Workstreams** | |
| **Data Centre and Server Upgrades** | Implement new on-premises server and storage infrastructure equipment in the Trust's two main data centres. |

| Strategic Development | Description |
|---|---|
| **Trusted Network Domain Status** | Increase the level of sharing between our two current networks to a 'trusted relationship' status so that whilst separate, they appear to be as one. |
| **Remote access capability** | Provide a new single solution to enable consistent and reliable remote access to our systems and services supporting our homeworkers. |
| **Single Firewall** | Migrate to a single firewall and cyber security processes to further protect the Trust from cyber security threats. |
| **Single Digital telephony** | Implement a single digital telephony solution replacing our current obsolete solutions to improve reliability and provide a modern capability. |
| **Single Domain Network** | Migrate fully to a single domain network – the final step for providing a solid foundation upon which all our digital systems and services are provided. |
| **Rolling device replacement** | Maintain our laptop, desktop and hand held device refresh programme (if affordable) so that no device is over 5 years old. |
| **Single Sign on** | Integrate more applications into our Single Sign-on solution to reduce the need for multiple system logins. |
| **Standard device build** | Roll out a standard build for all our access devices to streamline technical support requirements which will make it easier to move devices between sites. |
| **Bring Your Own Device** | To reduce the need for multiple devices and to improve the user experience of our staff. |
| **Email Migration** | Complete the migration of all our email addresses to the 'merseywestlancs' address. |
| **Single Integration Engine** | Move to a single provision of the technology that allows us to exchange data between our clinical systems. |
| **Single Monitoring Tools** | Single monitoring solutions and tools for the management of all our infrastructure and services. |
| **Integrated Technology Team** | Move to a single team, focussed on building the specialist technical skills required to achieve our strategic aims. |

## Timescales for Our Programmes of Work – Clinical Systems



# Timescales for Our Programmes of Work – ICS & Technology Infrastructure



# Conclusion

This Digital Strategy through user engagement, technology review and clinical systems gap analysis, sets to deliver a **Single EPR** across Mersey and West Lancashire Teaching Hospitals NHS Trust. The journey to procure, implement and transform services via the Single EPR may take a number of years to complete, however we will ensure that digitally enabled transformation continues throughout this process.

Ahead of the EPR implementation we will complete infrastructure upgrades such as the single cross site network, improved Wi-Fi, device upgrades and increased access to modern devices with improved login processes as a result of expanding our single sign on capabilities.

For our current clinical systems we have already established a programme of systems optimisation and rationalisation, leveraging the best of our organisations current systems to strengthen our 5 Star Patient Care. We will focus on **safe, sustainable services** across all areas of the organisation.

Once we have the right digital foundations of a **Single EPR** across the organisation, we will be positioned to design and deliver more collaborative, personalised care using evidence-based learning to improve the outcomes of our patients. We will then move to continually enhancing the Trust's systems, raising our digital maturity to the highest possible level and positioning us to progress future lifesaving, innovative and efficient technologies.

# Glossary

| Abbreviation | Definition |
|---|---|
| **CCIO** | Chief Clinical Information Officer |
| **CNIO** | Chief Nurse Information Officer |
| **EPR** | Electronic Patient Record |
| **FD** | Frontline Digitisation |
| **HSCN** | Health and Social Care Network |
| **ICS** | Integrated Care System |
| **IM&T** | Information Management & Technology |
| **IT** | Information Technology |
| **ITIL** | Information Technology Infrastructure Library |
| **LIMS** | Laboratory Information Management System |
| **MMDA** | Mid Mersey Digital Alliance |
| **MSP** | Managing Successful Programmes |
| **PHR** | Patient Held Record |
| **PRINCE2** | Managing Projects in a Controlled Environment |
| **TTO** | To Take Out – refers to prescription medication for patients leaving hospital |

# Appendix 1 – User Engagement Feedback

### Integration and Interoperability

- Multiple systems in place contributing to manual workarounds like printing, scanning, double data entry in maternity services and outside of the EPR;
- Opportunity to better share patient data across care settings;
- Hopes for integrated systems and freely flowing data.

### Attitudes to Change

- Staff reported openness to change;
- Continue to ensure sufficient support and resources during implementations;
- Build on and extend mechanisms already in place for user feedback in changes;
- Preference for ongoing incremental changes rather than disruptive.

### System Capabilities and Access

- Build on personalisation, capability and usability of existing systems;
- Desired requirement for system speed, uptime, accessibility across all sites;
- Requests for increased choice of devices across all sites;
- Multiple passwords hard to manage, expand use of single sign-on and the EPR Workspace product.

### Training

- Request for more practical training opportunities when new systems are introduced;
- Needs identified for protected time for more interactive training;
- Floor-walking & ongoing support valued.

### Patient Centricity

- Focus on people-centered design;
- Needs identified to tailor systems based on patient treatment priorities to enhance patient care;
- Support for patient engagement and representation.

### System Design & Prioritisation

- Desire to optimise and extend current systems so they enable smooth workflows and increase usability;
- Preferences expressed for phased implementations;
- Opportunity to redesign some clinical workflows to optimise use of different systems in a better way.

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