

The Shrewsbury and Telford  
Hospital NHS Trust

# Digital Strategy 2022 – 2025



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# Foreword

## We will improve the quality, safety and experience of care for our patients

This Digital Strategy means that for patients, like me, I will be confident that my information and medical records are up to date and that my personal data is safe and secure. My doctors and nurses will easily get access to those records and I should not have to repeat myself to different members of staff, as information about my health, wellbeing or ongoing care is readily available to them.

I will soon be able to better manage my recovery and health conditions by accessing my care plans at home and I will have access to online information to support my health needs.

This Digital Strategy will mean that accessing the care I need is easy. Virtual appointments will save me time and avoid unnecessary travel; referrals for blood tests will be sent straight to the phlebotomist which will mean not having to visit the GP for a paper copy; and I will be able to manage my appointments online using my mobile phone. I will feel safe in the knowledge that my care team can monitor me remotely and that my future needs are planned for.





**Ashley May**  
Chief Clinical Information Officer

## Digital systems improve and modernise the care we deliver.

I believe digital systems play a vital role in delivering healthcare. I can already review scan results electronically from wherever I am, I can remotely identify clinical deterioration in my admitted patients, and I can share information with GPs and midwives across our region so that together we can better support our citizens.

Digital systems have helped us through the COVID-19 pandemic. We enabled our staff to work from home through the use of mobile devices. Virtual consultations have kept us in touch with patients when it was not safe or necessary for them to come into the hospital. We enabled people to book their own blood tests and provided an app for pregnant women to access their maternity records.

I believe that digital systems can support long term change and improvement in this Trust. It will help us to deliver better care that is more appropriate to the people who give it and to the people we serve.

This Digital Strategy is about building on the successes of recent years and continuing to put in place the core foundations we deserve at this Trust.

The next three years will see us implement a new electronic patient record (EPR) system; this will transform how we store and access patient notes. We will also be working with our primary care, community and mental health partners in the Shropshire, Telford and Wrekin region to share information, use data to provide more proactive and personalised care and work together to ensure the services we provide are working well for our staff and citizens.

Patient outcomes are the driving force of digital transformation and clinicians need to be key players in designing and encouraging digital change. We pledge, in this document, to challenge our organisation to think and act differently when it comes to digital strategy. This means supporting our workforce to embed digital processes in the way we work, the way we communicate and the way we improve and develop.



**Rebecca Gallimore**  
Director of Digital Transformation

## Digital impacts everything we do.

Digital touches upon the key components of our Trust. It influences how we provide our services to our patients, where we provide our services and how we are organised to provide these services.

Implementing digital change at this Trust has not been without challenge. The COVID-19 pandemic has highlighted the impact of workforce shortages, staff burnout and created unforeseen cost pressures. Yet, despite these challenges, we have successfully delivered digital solutions that enable our staff to work remotely, updated 98% of our laptops and mobile devices and enhanced our safety and security by upgrading infrastructure and software. It is vital that we continue to build on this momentum.

This Strategy builds upon the work to date and recognises recent national guidance. It will take us from where we are now to a position where we are able to provide a better care experience for our patients, while also making the most of digital opportunities in the future.

The pace of digital change has never been so fast; nor will it slow down. It is crucial that we act now, collectively, to deliver this Strategy. This will ensure that we have the digital foundations in place to provide high quality care for our patients, while allowing us to plan for the future and make the most of digital opportunities in the coming years.

To some, digital transformation is exciting and aspirational. To others, it may be difficult to picture what this means in practice or looks like in three years. Our commitment is that we will work with our patients, staff and partners to deliver this digital transformation in a way that supports everyone to maximise the potential of digital in delivering safer, more effective care.

COVID-19 has taught us that we cannot predict exactly what the next three years will look like, but this should not prevent us from planning and delivering a better future for our patients, staff and partners.



**We will use digital to  
improve care for  
patients, support our  
staff and enhance how  
we work**



# OUR DIGITAL VISION



**This strategy will enable our patients to have better understanding and experience in their care, health and wellbeing.**

**It will enable our staff to focus on delivering excellent care, by equipping everyone with the right information, tools and skills.**

# Digital will help us to deliver on our organisational ambitions, and to play our part in achieving national priorities

## Patient outcomes are the driving force behind the changes we will make

Our health is more important than our wealth, but whilst we have the ability to bank online, we still rely on a paper letter to confirm medical appointments. Our Digital Strategy will build the foundations of a digital experience that is in line with patient expectations of a modern, digitally enabled, service. Through digital, we will give our patients more control over the care they receive and more support to manage their health.

Involving patients in the design and development of digital solutions will help to ensure our service offering is inclusive. Digital solutions will be built around the person and their families, needs and patient pathways, giving people access to the right information and tools.

## National priorities recognise the importance of digital

As a provider of acute services, we are committed to delivering the NHS Long Term Plan, which emphasises the importance of transforming the way care is delivered through the use of digital tools and data.

We will work with NHS England to ensure that our programme of digital transformation meets the needs of national funding priorities and the standards expected of us. This includes aligning to the core capabilities in The Frontline Digitisation Minimum Digital Foundations (MDF), What Good Looks Like (WGLL) and working towards Level 5 on the HIMSS EMRAM maturity model which is designed to strengthen our performance as an organisation and achieve improved health outcomes for our patients.

## To achieve these standards, we will collaborate with our strategic partners, including:

**The Royal  
Wolverhampton  
NHS Trust**  
(Cancer Services)

**Birmingham  
Children's Hospital**  
(Children's  
Trauma Services)

**University  
Hospitals of  
North Midlands**  
(Cancer, Trauma,  
Critical Bed Care)

**Pathology  
and Imaging  
Networks**  
(Pathology and  
Radiology Services)

Our strategy will support us to put in place the standards and technology expected of an NHS acute hospital trust. We will:

- Improve the delivery and quality of care, support our workforce and embed a culture of continuous improvement across the organisation in line with our Trust Strategy
- Re-establish our reputation for delivering what we say we will and move beyond special measures.
- Achieve agreed performance by embedding our Quality Strategy and implementing our Maternity Improvement Plan & Getting to Good Programme.
- Achieve our agreed financial targets and establish ourselves as a sustainable organisation that is paper-lite and will support the NHS on its journey to net-zero.
- Put in place the foundations ready for our Hospital Transformation and new build from 2026.





# Digital will enable us to collaborate with our partners and deliver our collective ambitions

## Shropshire, Telford & Wrekin became an Integrated Care System (ICS) in April 2022.

The Integrated Care System (ICS) is how we partner with organisations that meet health and care needs in our area. Our partners include; Shropshire, Telford and Wrekin Clinical Commissioning Group, The Robert Jones Agnes Hunt Orthopaedic Hospital NHS Foundation Trust, Midlands Partnership NHS Foundation Trust, Shropshire Community Health NHS Trust Primary Care Networks, Shropshire Council, Telford & Wrekin Council and the voluntary sector.

Together, the ICS takes responsibility for managing resources, delivering health and social care, and improving the health of the population. We collectively serve a population of over 500,000 people across Shropshire, Telford & Wrekin and those in neighbouring regions such as Powys.

Our Digital Strategy will support the ambitions of the ICS in delivering a digital first approach to improving care. We will work together to fully utilise limited finance and resource, while enabling the sharing of information across complex platforms and delivering new insights into the services we provide our people. By 2025, in line with *A plan for digital health and social care*, the system will be digitally equipped to deliver better care.



## The ICS high profile Programmes

### Hospital Transformation Programme

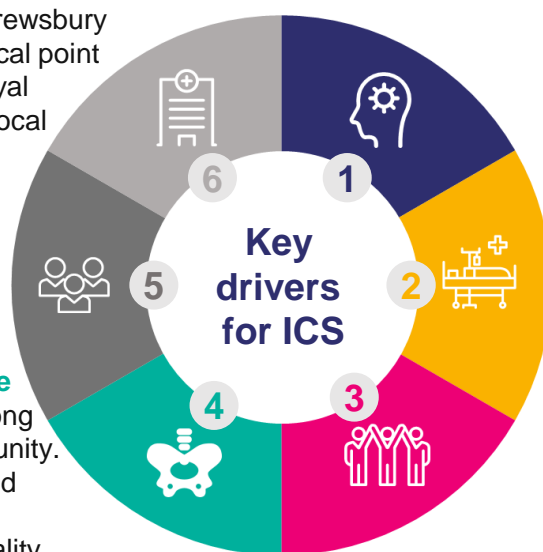
Acute reconfiguration of Royal Shrewsbury Hospital to become the primary focal point for Emergency Care. Princess Royal Hospital will become the primary focal point for planned Care services.

### Place Based Commissioning

Drive efficiencies and best value through joint commissioning and management of resources.

### The Musculoskeletal Programme

Support citizens to best live with long term MSK conditions in the community. Standardise referral to services and create a single point of referral enabling equitable access and quality of services.



### Outpatient Transformation Programme

Giving patients greater control and convenience in their NHS hospital or clinic appointments.

### Local Care Programme

Join up care across pathways and services to support keeping people out of hospital with the care they need and to remain at home as much as possible.

### Workforce Transformation

Digitally enhanced workforce with new ways of working and an ability to grow and retain our workforce.

## This Digital Strategy will support the ICS on their high profile Programmes and commit to the following digital pledges:

- Empower our collective population and workforce, co-designing digital solutions with the people who will be using them.
- Connect our organisations through interoperable systems that share information for efficient decision making.
- Commit to digital inclusion, through training and accessible technologies that support our workforce and community.
- Work together to improve quality and safety outcomes through digital processes.
- Use data to record, predict and respond to ill health and tackle inequalities.
- Embed system thinking to share resources and expertise.
- Commit to innovation, transformation and doing things differently.



# This Digital Strategy will enable us to achieve our Trust's priorities



The Shrewsbury and  
Telford Hospital  
NHS Trust

Ensure  
seamless  
patient  
pathways

Deliver a  
better patient  
journey &  
experience

Improve  
the quality of  
care that we  
provide

Make SaTH  
a great place  
to work

Enhance  
wider health  
& wellbeing of  
communities

Make our  
organisation  
more  
sustainable

## Delivering excellent care for patients



### Patient Empowerment

Enabling patients to manage their health and wellbeing and become partners in their care.



### Confidence and Trust

Enabling patients to book appointments, review their medical history and access treatments at the right place and right time.



### Care Co-ordination

Connecting our organisations to improve care, share information and improve decision making.

## Enabling staff to provide better care and services



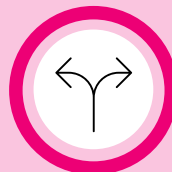
### Staff Enablement

Supporting staff to focus on delivery by equipping them with the right tools and skills to perform their jobs effectively.



### Operational Effectiveness

Driving efficient use of clinical and non-clinical resources.



### Decision Making

Supporting effective and proactive decision making by using data-driven insights and developing population-based models of care.

## Becoming a more effective and efficient organisation



### Modern Infrastructure

Facilitating a connected experience for patients, carers, and staff across our sites with infrastructure that is safe, secure and fit for the future.



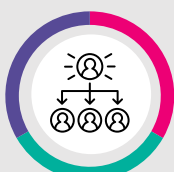
### Levelling Up

Putting in place the standards and technology expected of an NHS acute hospital trust.



### Sustainability

Reducing costs, risks and environmental impact, while promoting an improved working environment and providing a better service.



## Leadership, strategic workforce, digital culture and partnerships

Changing the way we embrace digital to effectively deliver this strategy.

# Our Digital Strategy will enable us to deliver excellent care for patients

## Digital will enable us to deliver effective and safe care, first time, every time for our patients.

Our patients will not have to repeat themselves as clinicians will understand their care needs through access to consistent, high-quality and reliable information. Our patients will be able to access information about their care and treatment in a format that is easy to understand. Through digital, we will empower our patients to manage their health and wellbeing and become partners in their care, as well as contribute to their healthcare information.

The following patients outcomes are the driving force behind our strategy, service design and plans for the future.



# Our Digital Strategy will provide an environment staff can thrive in

## We will equip our staff with the right tools and skills, allowing them to focus on delivery.

Through digital, we will provide staff with a working environment that enables them to provide effective care and services. We will constantly strive to improve the services we deliver and introduce improved ways of working, and we will support staff to maximise the potential of these changes.

Our strategy will ensure data-driven insights inform clinical quality improvement, service and organisational planning, and organisational performance management.



# Our Digital Strategy will make us more effective and efficient as an organisation and partner

## The right information will be available to the right people, at the right time and in the right place.

Digital will support the Trust to deliver care that is safe, clinically effective and provides a positive patient experience. Digital will help the Trust to be sustainable, cost effective and will ensure it is fit for the future as we develop both the Princess Royal Hospital and the Royal Shrewsbury Hospital to deliver state-of-the-art facilities .

Our strategy will support the ambitions of the ICS and our Imaging and Pathology services as they progress on their journey become part of regional networks.





**We will put in place  
the core digital  
foundations to set  
us up for future  
transformation  
and innovation**



# Since the start of the COVID-19 pandemic, we have proven that we can implement digital solutions faster than ever before



The Shrewsbury and  
Telford Hospital  
NHS Trust



## Resilience

Supporting staff to continue working during the COVID-19 pandemic through rapid deployment of home working solutions.



## Improved Patient Experience

Introducing software to support online appointment booking and introducing virtual follow-up appointments for outpatients.



## Standardising Assessment

Improving the accuracy of information via electronic observations and monitoring systems, including sepsis management.



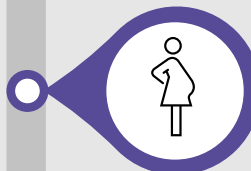
## Enhancing Performance, Safety and Security

Replacing ageing devices and infrastructure.



## Improving Maternity Records

Introducing electronic maternity records to improve the quality of and access to these records for both patients and staff.



## Simplifying Ultrasound Reporting (Maternity)

Introducing software to support reporting and image management.



## Hospital of the Future

Procurement of a network upgrade solution and commencement a two-year upgrade programme.



## 'At a Glance' Information

Introducing digital tools to make it easier for clinical staff to see the information they need.



## Improving Staff Experience and Productivity

Simplifying the sign on process for staff through single sign on software

A photograph of a young child with dark skin and dreadlocks, wearing a light blue shirt, looking down at a tablet. An older man with a grey beard and balding head, also in a light blue shirt, is smiling and looking at the tablet. The background is a blurred indoor setting with warm lighting. There are decorative graphic elements: a purple 'P' shape in the top left, a pink circle and semi-circle in the top right, yellow wavy lines on the left, and a teal 'T' shape in the bottom right.

**Our digital roadmap focuses on our strategic priorities and meeting national requirements**

**The focus for digital over the next three years at this Trust will be meeting our strategic priorities and the requirements set by NHS England.**

The Frontline Digitisation Minimum Digital Foundations (MDF) sets out the core capabilities expected of this Trust. This is aligned to Level 5 on the HIMSS EMRAM maturity model, which enables providers of care to measure IT adoption and maturity within their organisations.

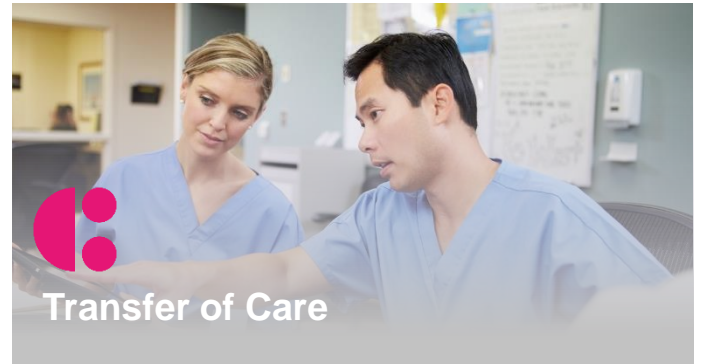
These frameworks provide a structure for planning digital delivery from 2022 to 2025 and a focused prioritisation of investment. Our programme of work puts in place the core foundations that will enable us to provide effective and safe care, while allowing us to maximise transformational and innovative opportunities in the coming years.



Our electronic patient record (EPR) programme will deliver a suite of software modules that will modernise our approach to care provision. Implementing a cloud-based EPR will provide clinicians with a single view of information, while also introducing intuitive digital workflows, decision support and care planning capabilities. Clinicians will be able to enter information at the point of care, view information via a desktop or mobile device, receive push notifications and communicate with each other more effectively.

Our patient administration system (PAS) will provide access to up-to-date information and support us to improve the quality of information that we record. Through our new maternity records system, we will ensure continuity of maternity care across settings, beyond the hospital and out into the community. We will provide our theatre teams with rich clinical content and the tools for efficient and effective theatre management, while we will also equip our emergency team to track patients as they move through the department and onto theatre or further investigations.

We will ensure that how we store and record patient information supports and enables the joint delivery of services in the ICS such as the MSK Transformation Programme.



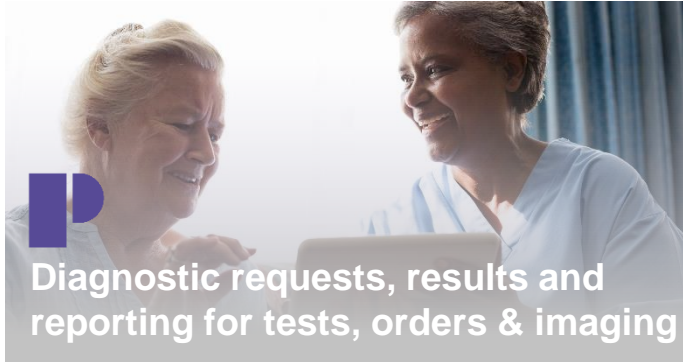
Effective patient handover reduces the risk of preventable patient harm; it promotes the recording of high-quality information, improves communication between care professionals and strengthens accountability for patient care.

We will support the transfer of care out into the community by ensuring the right data feeds into the One Health and Care shared record for this region. This programme will enable clinicians to view health and social care information in one digital solution, from a number of organisations including this Trust.

We will support staff to communicate with each other through secure mobile and web-based messaging; these messages will be recorded and stored within the patient record. We will implement a notation system which will allow clinicians to capture and share information with colleagues in real-time, rather than relying on paper-based information sharing. This system will integrate notes captured by clinicians in the community, together with information flowing in from patients themselves to give a richer picture of a patient's care plan and journey.

Patients who want to access their outpatient letters digitally will be able to do so via their mobile devices. This will simplify and improve the speed with which patients can access information, while reducing our environmental impact and supporting the NHS on its journey to net-zero.





We will deliver best in class Pathology and Imaging services through a joined-up Network based approach. We will optimise service delivery, widen contingency management and planning, develop instances of service integration and maintain and enhance quality with other diagnostic services across the region and beyond. To achieve this, we will level up services by putting in place modern systems to manage our laboratories more safely and securely.

Our staff, and those who access our services, will be able to make requests and review diagnostic results electronically. Patients will be able to book blood tests online if they want to, promoting easy access and reducing paper referrals. Phlebotomists will be equipped with tools to manage their workload effectively and ensure that they are taking the right bloods from the right patients. Our pathology and radiology services will be digitally supported to reduce manual input and the potential for data inaccuracies, minimising clinical risk.

We will expand our point of care testing devices so that results are made available to the patient rapidly. If tests need to be conducted at a lab, nurses will print off labels for tests which can be scanned in a closed loop system.



Managing medications is a critical part of safe patient care. Our digital transformation will support accurate and safer prescribing through the implementation of an Electronic Prescribing, Pharmacy and Medicines Administration (EPMA) system. In future, almost all of our prescribing and medicines administration will be done digitally; paper medicines charts and prescriptions on our wards will be a thing of the past. The traditional medication trolleys on wards will be replaced by computers, and every patient will have their medication stored securely by their bed.

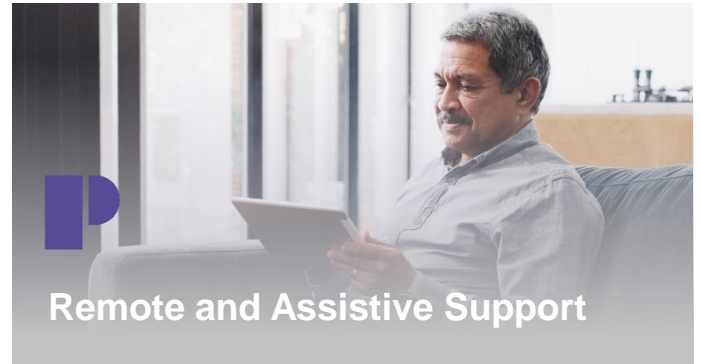
We will use technology to drive efficiencies in how we manage medications: we will enable patient-facing staff to check the status and location of prescriptions through a tracking system; discharge medications can be arranged for collection at a convenient pharmacy at the point of discharge – improving discharge efficiency. We will create a smarter and safer process for getting the right dose of the right medication to the right patient at the right time.



## Decision Support

We will provide clinicians and staff with the knowledge and information they need to make the decision that is right for their patients and this Trust. We will continue to roll out 'at a glance' screens which provide staff with the summary information they need about their wards and patients, while supporting clinicians to make decisions through the introduction of accredited reference tools and guidelines. Automatic detection of patients at risk of deteriorating, including from sepsis, will be provided to teams through eObservation alerts, to enable the identification of key risks, physiological signs and symptoms and ensure appropriate escalation.

Patients will be provided with help and direction through a self-triage tool, enabling them to answer questions about their symptoms so that they can be directed to the most appropriate care. This will particularly benefit patients who did not contact the NHS 111 service before presenting to A&E.



## Remote and Assistive Support

Working with our partners, we will introduce remote monitoring and assistive support solutions that will give our patients more control over the care they receive and increase the support available to manage their health.

We will extend our virtual appointments so that all patients will have the choice to speak with a clinician from their home or work, saving them time and money. We will give patients access and control over their own information through a patient portal; where patients can access results and records in the most convenient way. This will support the Outpatient Transformation programme delivered in partnership with the ICS.

We will continue to support the progress made with our partners since COVID-19 to expand our virtual wards; here patients can take home an observation kit to monitor vital signs and record that information so that their clinical team can monitor their condition remotely. We will also support care and monitoring initiatives in the community such as a tele-dermatology.



We will introduce solutions that enable us to proactively and automatically manage our resources and stock. Hardware, software and end-user devices will be monitored to ensure that they are fit for purpose, safe and secure to use through regular updates.

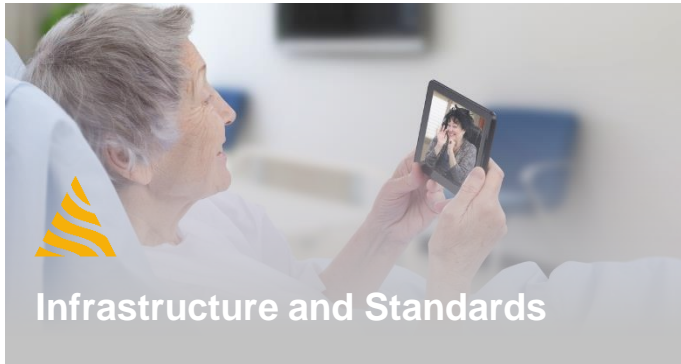
We will provide our staff with the flexibility to book rooms at sites across the Trust, promoting a more flexible service that meets the needs of patients and clinicians alike. Proactive patient tracking will ensure that pathways and treatment timescales are appropriate and compliant.

We will support the Hospital Transformation Programme, where we will introduce real-time location services which will enable us to automatically locate our devices at any given time, ensuring that these are available at the right place and at the right time. We will also enable patients to check-in digitally, to reduce queues and improve patient experience.



Our ambition is to develop a Performance and Business Intelligence capability for the Trust which acts as a reporting centre of excellence, producing standard reports and initial analysis, as well as showcasing a proactive, predictive capability that drives improvement and service design. To get there we will build a new data warehouse which will house a single version of the truth. Access to data will be driven through supported self-service initiatives and staff will be equipped with the right information to enable more informed decision making. We will use live data feeds to help prepare and plan for patient care which will mean widening our data sets to include information provided by others such as West Midlands Ambulance Service. Predictive analysis of data will support us and others in the ICS to better understand the patient journey and work towards reducing admissions and unnecessary hospital stays.

We will collaborate with partners in the region to use data to benchmark services, improve our services and support the development and adoption of innovative population-based, digitally-driven models of care. We will collaborate with our partners in the ICS to share data that will drive better service provision across the region and encourage integrated Place Based Commissioning. Our data will not only drive improvements in this Trust, but will be at the heart of change for the region.



## Infrastructure and Standards

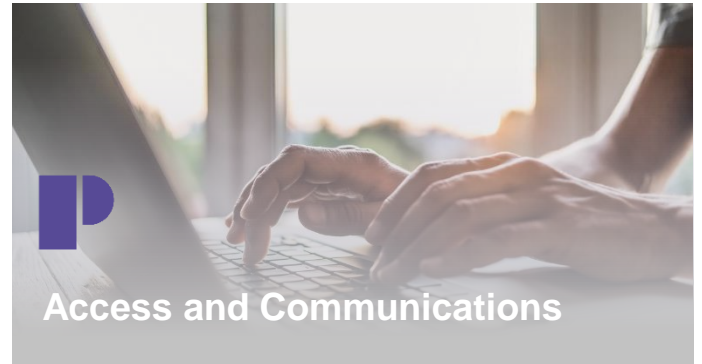
We will develop high-performing IT infrastructure to enable our 'digital first' approach to health and care. This infrastructure will underpin the everyday activities of our staff; improving processes, saving time and ensuring that they can focus on delivery.

We will improve our patients' experience through access to more WiFi points across the hospital as we begin our 2 year programme of replacing the Networks across the Trust.

We will further improve our cyber security, working with our partners in the ICS to ensure our staff, patients and hospitals are safe and secure.

We will increase our capacity to hold data and open up greater flexibility to maximise the impact of future digital opportunities as we will have the infrastructure to support this in place.

Our infrastructure will support the Trust to be sustainable, cost effective and will ensure we are fit for the future as we develop both the Princess Royal and the Royal Shrewsbury Hospitals to deliver state-of-the-art facilities.



## Access and Communications

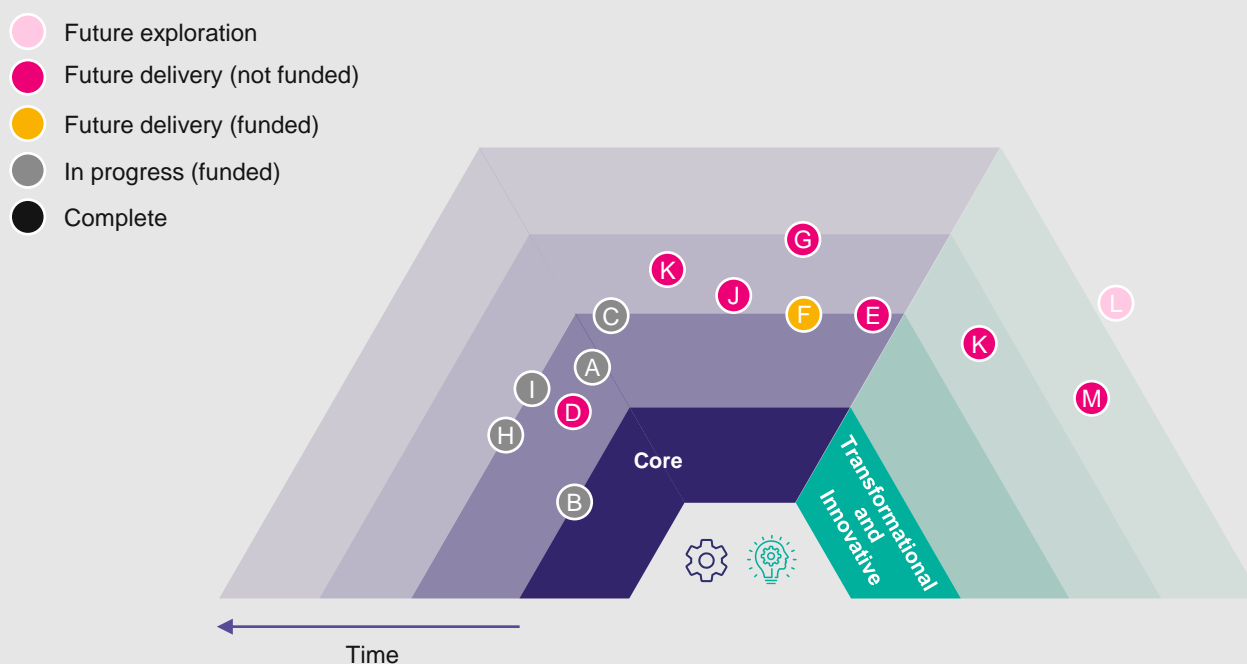
The Hospital Transformation Programme will deliver new and refurbished facilities that will need to co-exist and operate seamlessly with legacy facilities. This should deliver effective experiences for staff and patients interacting with the building, making their journey to the hospital facilities as frictionless as possible by making available the information they require easily. We will put in place the technologies in readiness for the change such as digital screens and kiosks to provide interactive guidance and mapping to direct patients to where they need to get to quickly.

Our Switchboard will be a focal access point for staff and the public; adding greater value to interactions where queries are resolved at first point of contact, no phone call goes unanswered and our operators are using the intelligence gathered to help drive improvements to services right across the Trust. Access to our services will be inclusive: we will provide staff and the public with different ways to get in touch with the Trust including web chat and speech recognition and we will ensure our Directory is up to date and staff can easily find and access the information and services they need via the Intranet. We will also work on how we better support staff to communicate with each other and will work with clinicians to find the right solution for them.

Our staff will also have the ability to work from home or at a remote location where appropriate and will be equipped with the most up to date tools and devices to enable them to do their job effectively. They will not have to log on to multiple systems to get the information they need and will be able to access digital support 24/7.



# Key activities within our 2022 – 2025 Digital Strategy



## Core (minimum level of digital maturity for the levelling up agenda)

A	Patient Administration System
B	Theatre Management System
C	Emergency Care Management System
D	Maternity Records System (incl. Neonatals)
E	Digital Order Comms Results & Reporting
F	Laboratory Information Management System
G	Electronic Prescribing and Medicines Management
H	Data Warehouse build
I	Network refresh
J	Stock Management System

## Transformational & Innovative

K	Population Health Management ( <i>system-wide benefit</i> )
L	Remote Monitoring ( <i>system-wide benefit</i> )
M	Patient Portal

# Our Digital Strategy supports the ambition of the Integrated Care System

## This Trust will act as a key partner in the Integrated Care System as we deliver a joint Digital Strategy that will provide better care to our patients

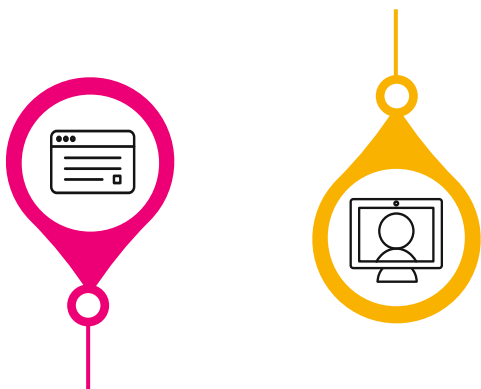
By working together, our provider collaboration within the ICS and across the West Midlands region will ensure our patients and citizens access the right services for their needs. We will adopt technology to aid patient flow throughout our services. We will identify new technologies and innovation with industry to future proof our services. We will use technology to help us achieve our wider vision to empower our people and provide services closer to home and support our communities.

This Trust will act as a key player in delivering the Digital Priorities for the ICS over the next 3 to 5 years. Our Trust Digital Roadmap is aligned and supportive of the ICS Digital Roadmap and the key planned deliverables are outlined below. We will take a partnership approach to planning, delivering and optimising digital services for the benefit of the citizens in this region.

## ICS planned deliverables

### Remote monitoring

We will be expanding on our virtual ward, remote monitoring and virtual consultations services deployed in response to COVID-19. We will give our patients more control over the care they receive and increase the support available to manage their health.



### Levelling up

We will develop our infrastructure to support future transformation plans & focus on ensuring equitable digital access to patient records. All providers, including this Trust will be working towards the core capabilities set out in the Minimum Digital Foundations & HIMSS Level 5.



### Shared care record

We will support the transfer of care out into the community by ensuring the right data feeds into the One Health and Care shared record for this region. This programme will enable clinicians to view health and social care information in one digital solution, from a number of organisations including this Trust.



### Digital strategy

The Strategies for each organisation and ICS promote collaboration and convergence. Patient outcomes are the driving force of digital change and together we have a commitment that is built on citizen and staff inclusion, robust planning and prioritisation.



### Population Health Management

Population Health Management tools will give us insights into our population which will facilitate clinical decision making to deliver interventions. We will collaborate to use data to benchmark services, improve our services and support the development and adoption of innovative population-based, digitally-driven models of care.

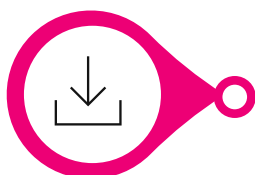


# Our Digital Strategy supports the Maternity Transformation Programme

**This Trust has embarked on a Maternity Transformation Programme. This aims to achieve sustainable improvements within maternity services, whilst focussing on implementing and embedding all actions outlined in the findings of the Ockenden Report in March 2022.**

This Digital Strategy aims to promote safe and effective care across the Trust, whilst supporting the objectives of the Maternity Transformation Programme (MTP). We will continue to build upon the successful introduction of core solutions such as Viewpoint and BadgerNet, and will respond to opportunities to use digital to enable the implementation of actions within the Ockenden Report. Our future delivery means giving our service users greater access to their records through the Patient Portal and putting in information screens in the maternity department as well as throughout the hospital sites. We will continue to work with our Maternity Voices Partnership to ensure we have digital inclusion, our solutions are designed with our service users' needs first and we continue to report our progress through tools such as Monday.com. We will continue to seek support and guidance from colleagues at Sherwood Forest NHS Trust through our Maternity Alliance so that we can be putting in place the most up to date technologies. Our aim is to use digital to support clinicians, midwives and service users to have a safe and positive experience of our care.

## Maternity planned deliverables

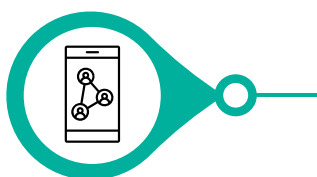
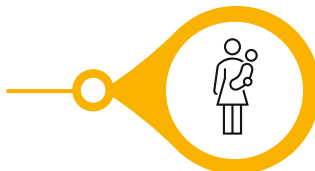


### Viewpoint

Ultrasound reporting and image management solution.

### BadgerNet

Total continuity of maternity care across settings beyond the hospital and out into the community using a fully-inclusive solution, which captures and records information for women antenatally and postnatally, as well as during the intrapartum period.

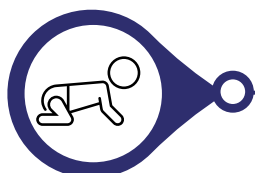
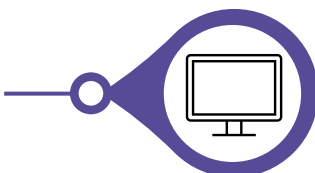


### ImproveWell App

Enhancing staff engagement and boosting morale, using the innovative idea hub, push notifications, pulse surveys and sentiment tracker features within the platform.

### Maternity Whiteboard

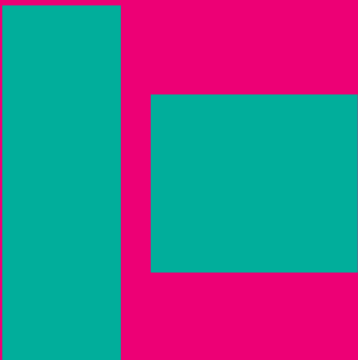
Introducing screens to share key information with clinicians 'at a glance' to improve service user flow, reduce errors and releasing staff time to provide care.



### Fertility Viewpoint scanners

System and scanners to support fertility management.

# We will evolve to become a digitally smart organisation and partner





# We will change the way we embrace digital to effectively deliver this strategy

**Digital transformation is a business change; it is far broader than introducing new processes, systems or devices.**

Through digital transformation, we will bring together data, processes, people and technology in new ways to fundamentally change how departments and other partner organisations serve and provide value to our patients.

Change at this Trust cannot be from technological innovations alone; change will happen through disruptive technology implementations combined with workforce revolutions. Our new electronic patient record (EPR) will take the Trust further along our journey to paper free working, but we will only see the outcome we desire through embedding a shift in the way we work, our skills to adopt digital innovation and our motivation to learn and expand on our digital landscape.

This digital strategy not only outlines the digital initiatives being planned, but challenges our organisation to think and act differently when it comes to digital transformation.

At the heart of our digital strategy is shaping a digitally smart workforce for the future. This means enabling our staff by equipping them with the right tools and skills, allowing them to focus on delivery. It also means revolutionising our workforce so that digital is embedded in the way we work, the way we communicate and the way we improve and develop.



# Revolutionising our digital workforce starts with leadership

**If we want digital to be a driver in the delivery of our services and care, we need to ensure that it is entrenched in the running of the organisation and that our digital ambition reflects the needs of the Trust.**

We must ensure our digital programmes are well-led and that our Trust Board is equipped to lead digital transformation and collaboration. They will own and drive the digitally enabled transformation journey, placing citizens and frontline perspectives at the centre.

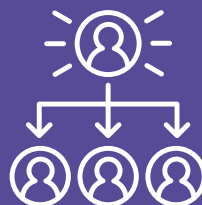
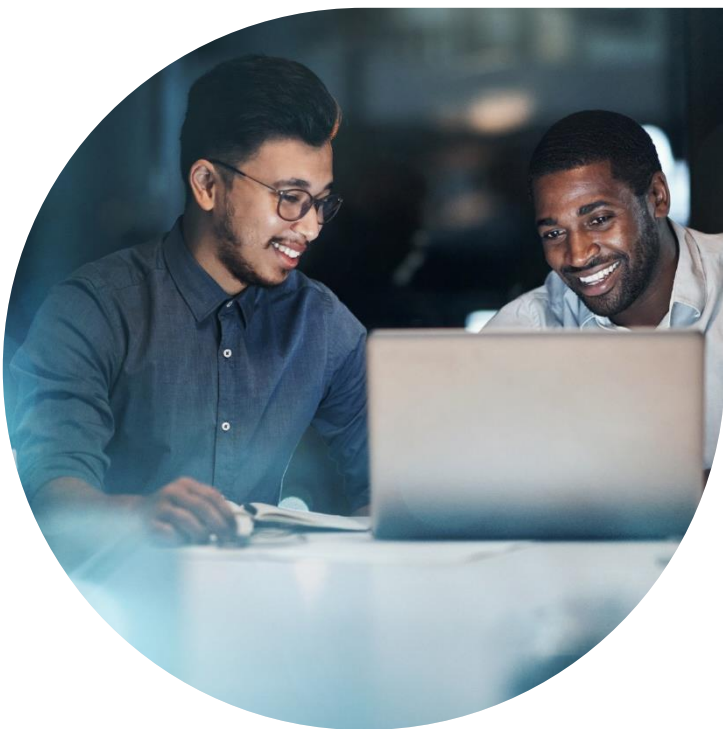
## The principles we will adopt:



**Every change we make has clinical leadership and influence**



**Digital is part of the Trust's core business**



**NHS**

**The Shrewsbury and  
Telford Hospital**  
NHS Trust

## Actions we will put in place:

- We will invest time and energy into creating a team of well-informed clinical informaticians who will assist in the delivery of every transformation.
- We will invest in regular board development sessions to develop digital confidence, manage cyber security risk and achieve the sustainability agenda.
- Our Digital Programme Team will feed into the Trust Board as well as to the ICS Digital governing bodies.
- We will build a network of clinical ambassadors for digital.
- We will establish board governance that regularly reviews digital and data strategy, cyber security, services, delivery and risks, underpinned by meaningful metrics and targets. The Board have accountability and sponsorship for digital transformation.
- Our Digital plans will align with and support the ICS strategy.
- We will invest in a Clinical Nurse Information Officer role.
- We will extend and mature the Chief Clinical Information Officer role and function to increase its importance and influence.
- Our leadership will visibly advocate for digital transformation and will support staff throughout this journey.

# Our digital workforce needs to reflect the needs of our Trust

## The shape of our Digital team must reflect the needs of our business and our patients.

We need to have the right people in the right roles to ensure resources are optimised and used in the most effective and efficient way. We need to have the right processes and frameworks in place to ensure we are able to design and deliver a service that is reflective of the Trust's needs and is co-designed with our staff delivering care.

Recruitment and retention of staff is a long standing issue for this region. Digital is no different. In order to deliver against the ambitions and programme of work outlined in this strategy, we will need to adopt a flexible resource plan that allows us to bring in the right people at the right time. We will also need to be actively looking for ways to share our resource across the region and beyond so that we can grow as a system and not just as an organisation.

## The principles we will adopt:



**Digital is strategic and we plan for our future needs**



**Digital solutions are driven by innovation and innovative thinkers within and around our organisation**



**Delivery of digital services is delivered by the right people for that job and at the right level**



**Digital support is value adding where we do more than 'log and flog'**



## Actions we will put in place:



Using a Business Relationship Management Framework, we will regularly assess and gather requirements from clinicians and managers to proactively plan for our future needs.



We will have enterprise architecture capability within the team which will create design accountability for long term success of the Trust.



We will produce a Statement of Service to show what services the IT function will deliver to its customers, to what level (KPIs) and hours (service window) and to what costs.



We will review the current processes, compliance methods and tools used to identify whether more effective or efficient options are available.



We will continually review and assess our portfolio of work to ensure our projects meet the needs of the Trust.



We will collaborate with the ICS and our strategic partners to learn and develop and seek opportunities for innovation.



We will establish clear responsibilities and accountabilities required including required roles, FTE and supporting relationships needed to deliver the services today and in the future.



We will adopt a range of digital solutions such as web chat and modern technologies to enhance communications between services to provide support that is reliable and trusted.



We will undertake a detailed capability and capacity assessment to identify gaps in current team & develop resourcing plan.



We will work with our partnering organisations across the region to identify shared requirements and pool/share resources where possible.



We will bring in the right people where needed to deliver a fixed term project to ensure we have the right skills when we need them.



We will use the NHS Digital Academy to develop our capabilities and continually learn.

# We need to embed a digital way of thinking and embrace digital into our culture

Successful digital transformation cannot be delivered by the Digital or IT teams alone. It requires people from all across the Trust to challenge their current ways of working and adopt and adapt to change. We have an ambitious digital programme of change ahead of us, including implementation of the EPR which will require a dramatic change in how we process and deliver care and how we communicate with each other. Learnings from the past have shown us that it is not enough to expect a technology system to drive behavioural change, we must be better in equipping our staff with digital knowledge and preparing them for change. We must build a culture where technology and digital services are not only trusted enablers of care, but where our staff are excited and motivated by digital change.

## The principles we will adopt:



**We support and empower our staff and patients to understand the opportunity of digital ways of working**



**Staff and patients are properly prepared for digital change**



**Communications from digital is honest, timely, relevant and engaging**

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## Actions we will put in place:



We will invest in digital champions and clinical ambassadors across the Trust so that there are advocates of digital at each level of the organisation who can support digital communications and fast track the voice of their colleagues.



We will establish a digital change management programme to support the change in culture and help staff embrace and feel confident with new ways of working.



Our approach to engagement will be practical and there will be different forms of two-way communication around digital programmes e.g. roadshows, drop in sessions, digital fayres.



We will assess staff confidence in digital via the NHS staff survey to establish a baseline.



We will develop a super user programme for the EPR implementation where we will enable staff to act as champions of the implementation and new system.



We will build a library of FAQs around how digital works and key elements of digital programmes that staff will find useful.



We will support all staff to attain a basic level of data, digital and cyber security literacy, followed by continuing professional development.



We will work alongside ICS colleagues to deliver a joined-up approach to improving digital literacy.



Our trust job descriptions will have a digital expectation.



We will proactively seek staff feedback and input into digital developments.



We will share case studies and examples of how digital has positively impacted patients, staff and the organisation.



Partnering · Ambitious  
Caring · Trusted



# We will take a partnership approach to planning, delivering and optimising digital services for the benefit of our citizens in this region

Our partnerships will build on the assets that already exist within our community. They will adapt as populations, priorities and relationships develop over time. Through our partnerships, we will drive and enhance integrated approaches and collaborative behaviours at every level of the system, where these can improve planning, outcomes and service delivery. We will address health challenges that the health and care system cannot address alone, especially those that require a longer timeframe to deliver, such as tackling health inequalities and the underlying social determinants that drive poor health outcomes.

## The principles we will adopt:



**We will take a holistic view of people's interactions with services**



**We have a shared interest in improving care co-ordination for our patients, and we will provide our population with a single view of their care.**



**We are jointly accountable for supporting patients along their care pathway**



**We support the regional ambition**

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## Actions we will put in place:



We will understand the needs and preferences of the population and use this insight to inform and develop strategies.



We will agree on the implementation level for each programme where management and delivery of digital programmes is co-ordinated and delivered at the most appropriate level e.g. ICS or organisation.



We will explore opportunities to engage with a variety of stakeholders including, but not limited to; local residents, adult social care providers, health service providers, Healthwatch, and the voluntary sector.



We will engage with strategic partners to plan, deliver and optimise digital services.



We will utilise population health management approaches to manage the health and care of the local population, understand risks and design services to best meet needs.



We will foster, structure and promote an ethos of partnership and co-production.



We will share resources and utilise blended roles to make the best use of the capabilities and skillsets across the system.



We will commit to sharing information across the system to support a joined up approach.



We will build a system-wide reputation for effective and meaningful delivery.



We will establish a flow of data between providers of care.



We will focus on smoother transitions between care providers using digital enablers.



We will support the citizen inclusion strategy.

# Appendix 1

## Digital Roadmaps

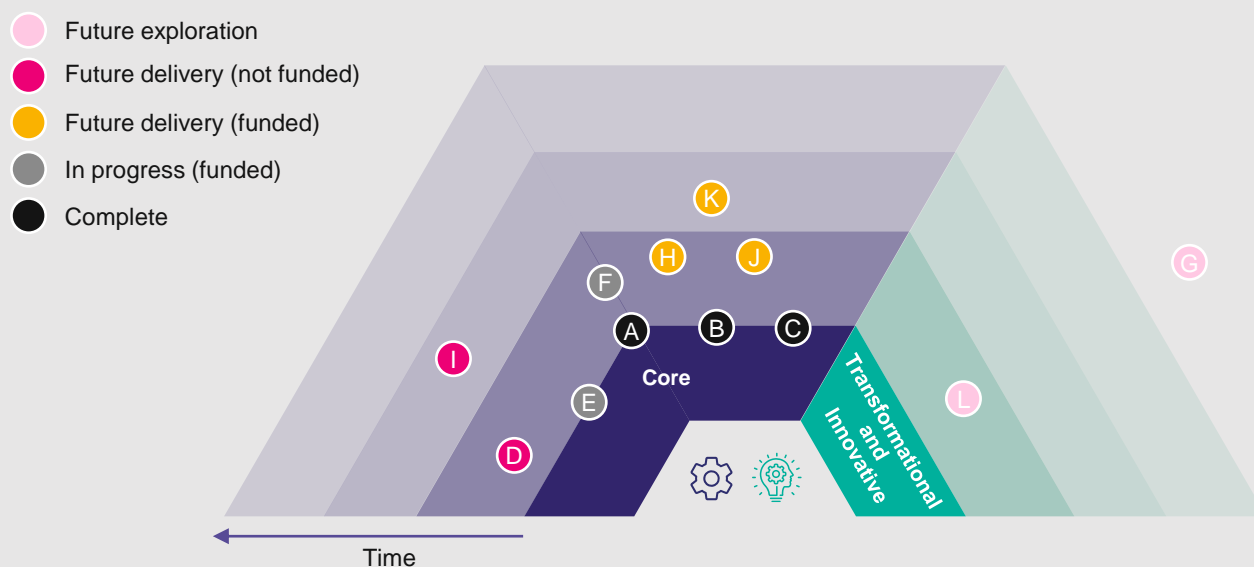


# 1 Records Management

## Supporting the capture, sharing and access to key information at the point of care

Our electronic patient record (EPR) programme will deliver a suite of software modules that will modernise our approach to care provision. Implementing a cloud-based EPR will provide clinicians with a single view of information, while also introducing intuitive digital workflows, decision support and care planning capabilities. Clinicians will be able to enter information at the point of care, view information via a desktop or mobile device, receive push notifications and communicate with each other more effectively.

Our patient administration system (PAS) will provide access to up-to-date information and support us to improve the quality of information that we record. Through our new maternity records system, we will ensure continuity of maternity care across settings, beyond the hospital and out into the community. We will provide our theatre teams with rich clinical content and the tools for efficient and effective theatre management, while we will also equip our emergency team to track patients as they move through the department and onto theatre or further investigations.



What we will implement	What this will achieve
<b>A</b> Ultrasound reporting and image management ( <i>Viewpoint</i> )	Simplifying ultrasound image management, reporting and data gathering.
<b>B</b> Infection control system ( <i>ICNET</i> )	Preventing infection through holistic clinical surveillance and outbreak management.
<b>C</b> Maternity records system ( <i>BadgerNet</i> )	Giving mothers greater access to and more control of their pregnancy records or care notes through paperless records. Capturing and recording information for women antenatally and postnatally, as well as during the intrapartum period.
<b>D</b> Neonatal records system ( <i>BadgerNet</i> )	Expanding the maternity records functionality to Neonatal services.
<b>E</b> Theatre management system ( <i>Bluesprier</i> )	Enabling theatre staff to manage and optimise theatre resourcing and planning.
<b>F</b> Patient administration system ( <i>CareflowPAS</i> )	Expediting the identification of patients and location of their records. Introducing complete administration and clinical management of emergency care ( <i>CareflowED</i> ).
<b>G</b> Information system ( <i>ARIA</i> )	Upgrading and combining medoncology and radiology information systems and adopting a cloud-based approach.
<b>H</b> Electronic medical records system ( <i>mediSIGHT</i> )	Supporting rapid data entry, improved patient safety and clinical reporting for ophthalmology.
<b>I</b> Data protection ( <i>ProKnow DICOM Agent</i> )	Enhancing data protection by introducing the ability to remove or replace protected health information or personally identifiable information prior to upload to ProKnow.
<b>J</b> Therapy monitoring ( <i>TMON Dialysis</i> )	Improving quality of data collected before, during and after dialysis treatment.
<b>K</b> Digital consenting ( <i>EIDO</i> )	Replacing of paper-based consenting with a digital solution to improve quality of informed consent, promote patient choice, and reduce cancellations caused by lost documentation.
<b>L</b> Linked Longitudinal Dataset	Supporting the development of a fully linked dataset across ICS partners to enable population segmentation, risk stratification and population health management.





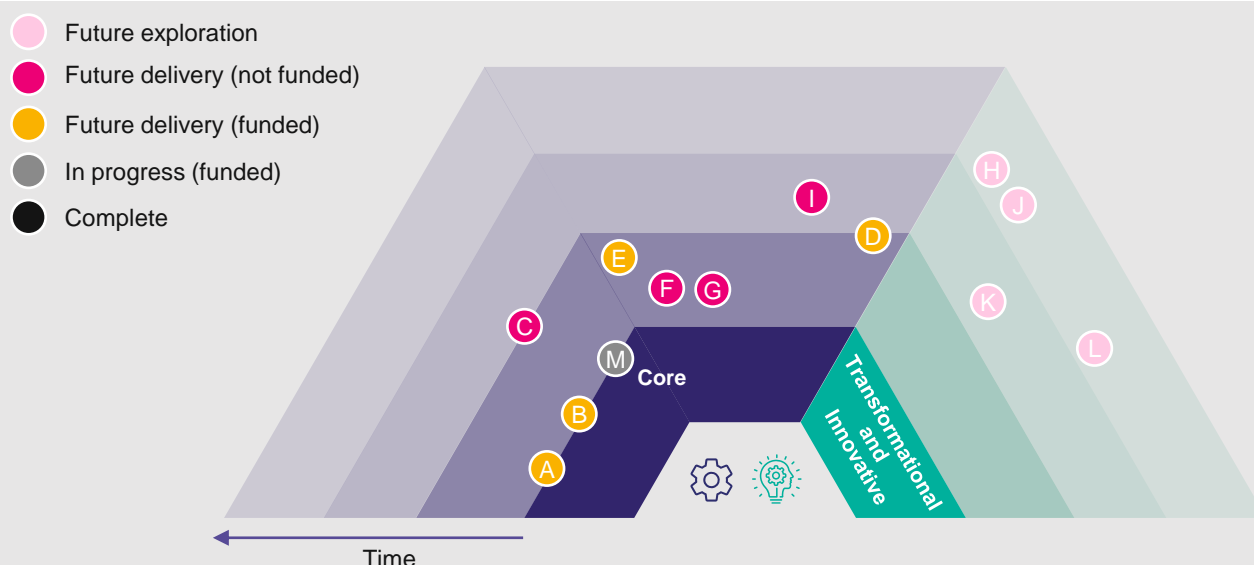
# ③ Diagnostics Management

## Diagnostic requests, results and reporting for tests, orders and imaging

We will deliver best-in-class Pathology and Imaging services through a joined-up Network based approach. We will optimise service delivery, widen contingency management and planning, develop instances of service integration and maintain and enhance quality with other diagnostic services across the region and beyond. To achieve this, we will level up services by putting in place modern systems to manage our laboratories more safely and securely.

Our staff, and those who access our services, will be able to make requests and review diagnostic results electronically. Patients will be able to book blood tests online if they want to, promoting easy access and reducing paper referrals. Phlebotomists will be equipped with tools to manage their workload effectively and ensure that they are taking the right bloods from the right patients. Our pathology and radiology services will be digitally supported to reduce manual input and the potential for data inaccuracies, minimising clinical risk.

We will expand our point of care testing devices so that results are made available to the patient rapidly. If tests need to be conducted at a lab, staff will print off labels for tests which can be scanned in a closed loop system.

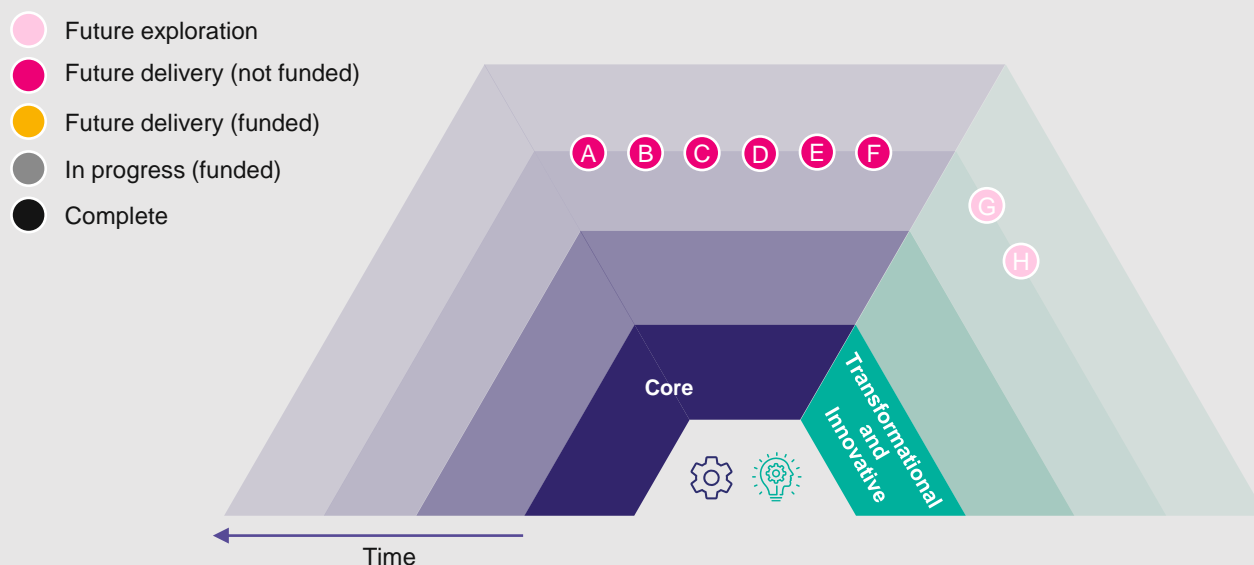


What we will implement	What this will achieve
<b>A</b> Clinical Radiology Information System (CRIS)	Upgrading our Clinical Radiology System so that is up to date and fit for our services.
<b>B</b> Structured clinical vocabulary (SNOMED)	Updating our clinical coding for imaging, to ensure that the language used for recording patient information is consistent with national requirements and can be exchanged between systems and organisations more easily.
<b>C</b> Digital Order Comms Results & Reporting	Providing digital access to ordering and reviewing pathology and imaging requests. This will reduce manual or paper processes and increase the safety and quality of services.
<b>D</b> Laboratory Information Management System (LIMS)	Replacing the legacy LIMS with a single system for the regional network to effectively manage requests, samples and reports. Automation and streamlining of workflows eliminates the need for maintaining information manually and enables the pathology service to meet regulatory guidelines. Without an effective LIMS, the pathology service could not operate.
<b>E</b> Digital Pathology technology	Converting glass slides to digital pathology slides through scanning solutions. A digital slide image allows for high resolution viewing, interpretation and image analysis.
<b>F</b> Point of Care Testing (POCT) Programme Expansion	Expanding the number of POCT devices, such as glucose meters, across the Trust. By connecting these to systems, diagnostic testing results can be recorded and analysed at the site of the patient, providing rapid access to results and the opportunity to change the care provided to the patient where appropriate.
<b>G</b> On-demand blood transfusion	Improving the management of blood through the introduction of shared stores that can be drawn upon on demand.
<b>H</b> Convergence of Imaging Systems and Services	Working with other organisations to share Radiology Information Systems or the systems we use to view images (subject to the development of the Imaging Strategy).
<b>I</b> Mobile access to CRIS	Providing clinicians with access to the Radiology Information System from a mobile devices or tablet.
<b>J</b> Clinical diagnostic hubs	Reporting of imaging tests 24/7 through a remote pool of radiology resources.
<b>K</b> Integrated Digital Order Comms Results & Reporting	Enabling clinicians to order and review pathology and imaging tests from anywhere in the region and to any diagnostic service.
<b>L</b> Pathology Network Digital Order Comms Results & Reporting	Enabling clinicians to order and review pathology tests from anywhere in the pathology network (includes Mid and East Cheshire, Staffordshire & Shropshire) region and to any diagnostic service.
<b>M</b> Imaging hardware refresh (Agfa Enterprise)	Upgrading our patient imaging record hardware to enhance current functionality and take advantage of updated features in order to speed up image sharing, support improved patient care and enhance collaboration internally and with partners.

## e-prescribing, decision support and closed loop medicines supply and administration

Managing medications is a critical part of safe patient care; e-prescribing is highlighted repeatedly as a panacea to improve patient safety. Our digital transformation will support accurate and safer prescribing through the implementation of an Electronic Prescribing and Medicines Administration (EPMA) system. In future, almost all of our prescribing and medicines administration will be done digitally; paper medicines charts and prescriptions on our wards will be a thing of the past. The traditional medication trolleys on wards will be replaced by computers using bar coded safety features to limit the chance of errors.

We will use technology to drive efficiencies in how we manage medications, making medicines more accessible whilst improving safety: We will create a smarter and safer process for getting the right dose of the right medication to the right patient, helping to improve the overall patient medication experience and care and further enabling treatment closer to home.



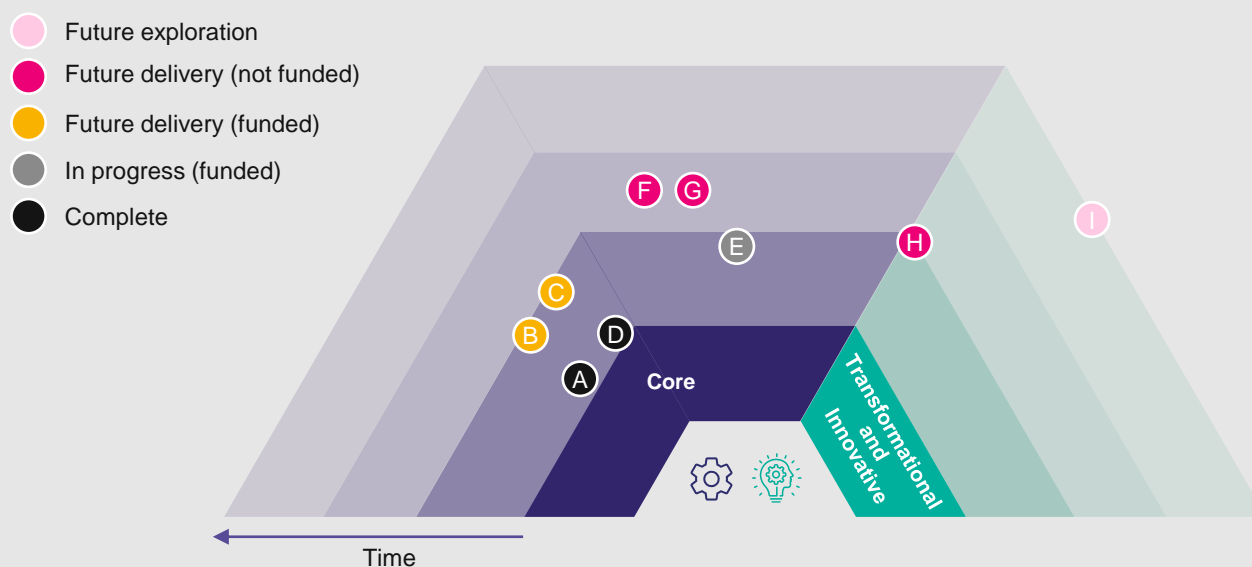
What we will implement	What this will achieve
<b>A</b> Electronic prescribing and medicines administration (EPMA)	Reducing the risk of patient safety challenges linked to paper based prescribing and medicines administration systems. Achieving greater efficiency and improving data access, while releasing patient facing time to care.
<b>B</b> Closed loop medicines administration	Safer medicine administration by using bar codes to confirm the right medicine is administered to the right patient at the right time whilst freeing up time to care.
<b>C</b> Discharge Medicines Service (DMS)	Integrating access to information about medicines between the Hospital and community partners services such as GPs and Pharmacies. This will improve the safety of patients when they transfer between care settings, reducing the likelihood of hospital readmission. Digital referrals will be made to Pharmacies, who will review the patients medicines when they are at home to ensure that patients and carers, understand the medicines that they have been prescribed and any changes to them so they are safe and effective.
<b>D</b> Closed loop medicines supply including the expansion near patient and implementation main dispensary automation	Improved supply chain management and increased access to medicines by using automation to decrease the complexity of medicine supply in patient facing areas and the Hospital dispensaries.
<b>E</b> Following the implementation of EPMA the adoption of the Electronic Prescription Service (EPS)	Supports outpatients by decreasing the administrative burden and enabling patients to pick up medicines from their regular pharmacy. In addition this enables the expansion of home delivery for medicines avoiding hospital visits and improving the patients' quality of life.
<b>F</b> Adoption of new interoperability standards	Enabling the simple, consistent transmission of patient medicine information, including drugs, doses and administration frequencies between care providers. This is backed up by the NHS spine and Summary Care Record (SCR). In addition this supports the research ambition of the NHS by enabling the rapid access to new medicines.
<b>G</b> Virtual wards	By enabling EPMA the Trust will support virtual wards ensuring patients that's still require monitoring and support to get complex treatment at home safely and conveniently.
<b>H</b> Sterile and diagnostic medicines supply and manufacture	Adoption of automation for the manufacture of sterile medicines, plus the use of new systems that support the manufacture of complex radiopharmaceutical diagnostics

# 5 Decision Support

## Providing alerts, notifications and guidance

We will provide clinicians and staff with the knowledge and information they need to make the decision that is right for their patients and this Trust. We will continue to roll out 'at a glance' screens which provide staff with the summary information they need about their wards and patients, while supporting clinicians to make decisions through the introduction of accredited reference tools and guidelines. Automatic detection of patients at risk of deteriorating, including from sepsis, will be provided to teams through eObservation alerts, to enable the identification of key risks, physiological signs and symptoms and ensure appropriate escalation.

Patients will be provided with help and direction through a self-triage tool, enabling them to answer questions about their symptoms so that they can be directed to the most appropriate care. This will particularly benefit patients who did not contact the NHS 111 service before presenting to A&E.



What we will implement	What this will achieve
A Acute Medical Unit Whiteboard	Introducing screens to share key information with clinicians 'at a glance' to improve patient flow, reduce errors and increase patient facing time.
B Surgery Assessment Unit Whiteboard	
C Maternity Whiteboard	
D Electronic observations and monitoring system ( <i>Vitals 4.2</i> )	Supporting practitioners to detect and respond to clinical deterioration, including sepsis.
E Urgent care self-service tool ( <i>NHS Streaming and Redirection Tool</i> )	Providing patients with the ability to self-triage and stream at A&E, enabling emergency teams to focus on the most serious cases.
F Heart assessment database	Clinical decision rule aimed at the identification of risk in the undifferentiated chest pain patient embedded in cardiology system
G Clinically Ready to Proceed metric	Assessment tool for A&E which supports discharge embedded into emergency care system
H iRefer (part of Order Comms implementation)	Facilitating appropriate radiology referrals, through the introduction of a reference tool and guidelines for clinicians, radiologists, radiographers and other healthcare professionals to determine the most appropriate imaging procedures for a wide range of clinical problems.
I A&E Command Centre	Building on the function of digital whiteboards to overlay a live data feed that highlights ambulance attendance to A&E and predicts the duration of a hospital stay in order to allow for the co-ordination of community support services upon discharge.

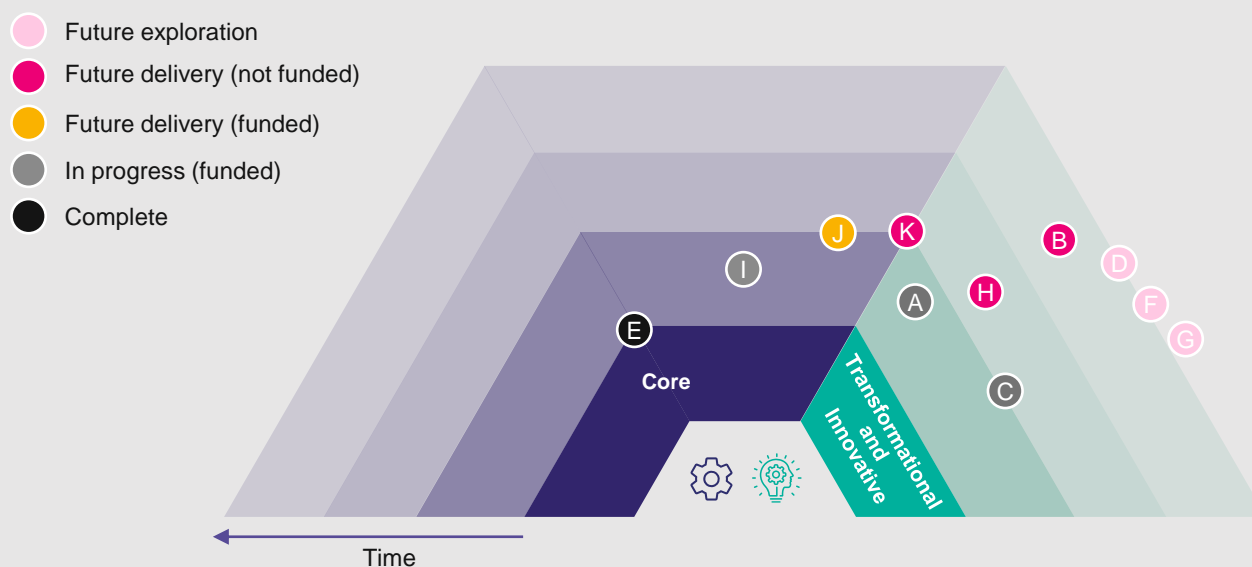
# ⑥ Remote and Assistive Support

## Remote devices, monitoring and consultations

Working with our partners, we will introduce remote monitoring and assistive support solutions that will give our patients more control over the care they receive and increase the support available to manage their health.

We will extend our virtual appointments so that all patients will have the choice to speak with a clinician from their home or work, saving them time and money. We will give patients access and control over their own information through a patient portal; where patients can access results and records in the most convenient way.

We will continue to support the progress made with our partners since COVID-19 to expand our virtual wards; here patients can take home an observation kit to monitor vital signs and record that information so that their clinical team can monitor their condition remotely. We will also support care and monitoring initiatives in the community such as a tele-dermatology.



What we will implement	What this will achieve
<b>A</b> Virtual Consultations ( <i>AttendAnywhere</i> )	Building on the introduction of video clinics during the COVID-19 pandemic to offer virtual consultations for outpatients.
<b>B</b> Patient Portal	Quickly and easily sharing results and records with patients, while enabling management of appointments. Reducing our environmental impact by replacing letters with digital alternatives.
<b>C</b> Virtual Ward	Extending current capacity across our ICS partnership to a 200-bed virtual ward, where patients can take home observation kits and draw on support while monitoring from home.
<b>D</b> Technology Enabled Care ( <i>ACTIVAGE</i> )	Building on partner initiatives to help people to stay independent, safe and active in their home by adapting consumer technology such as smart watches, smart phones and sensors to support the health and social care needs of vulnerable people.
<b>E</b> Real-time insight into staff experience and the quality of patient care ( <i>ImproveWell App</i> )	Enhancing staff engagement and boosting morale, using the innovative idea hub, push notifications, pulse surveys and sentiment tracker features within the platform.
<b>F</b> Community Virtual Assistant	Introducing digital appointment management and patient pathway management.
<b>G</b> Extend remote monitoring across the ICS	Enhancing the connectivity and availability of our partnership-led remote monitoring and assistive support solutions through development of a Remote Monitoring Strategy to help patients communicate with care professionals, stay safe and independent in their own homes and subsequently avoid unnecessary hospital attendances.
<b>H</b> Tele-Dermatology Service	Enabling patients to share images of skin disorders or concerns remotely, to be reviewed by a dermatologist.
<b>I</b> Glucose Meters ( <i>Nova</i> )	Enabling accurate and precise self-monitoring of blood glucose and ketones by people with diabetes.
<b>J</b> IV Pumps (Braun)	Futureproofing equipment to enable connectivity, while allowing for remote software updates.
<b>K</b> NHS App	Enable patients to view medical records, book appointments and order repeat prescriptions via their mobile device.



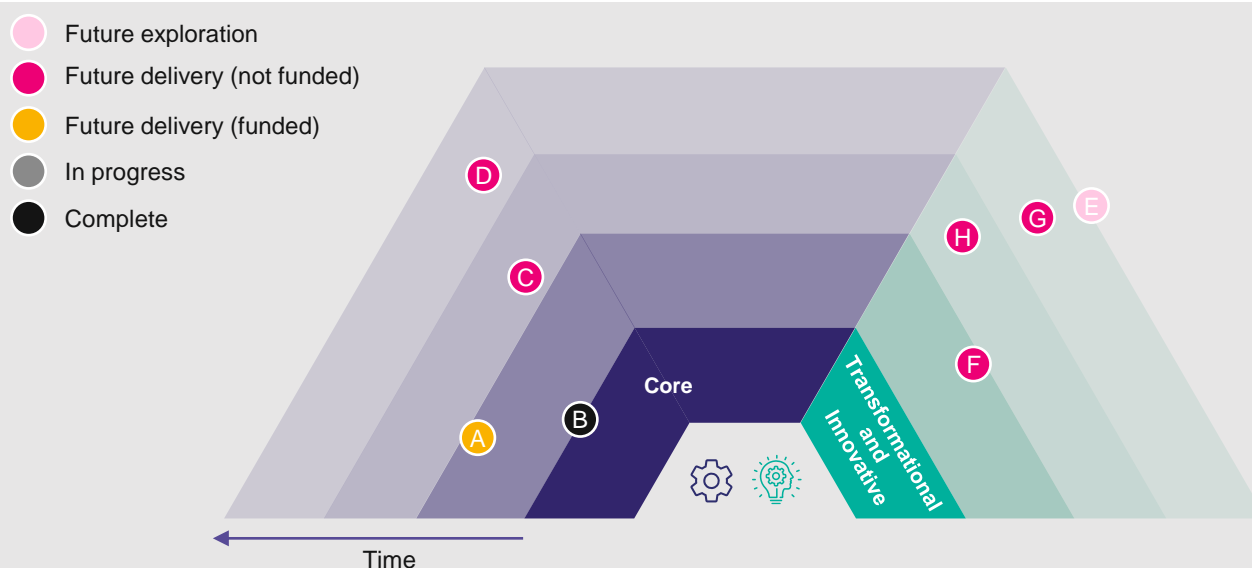
# 7 Asset and Resource Management

## Scheduling, appointments and asset tracking

We will introduce solutions that enable us to proactively and automatically manage our resources and stock. Hardware, software and end-user devices will be monitored to ensure that they are fit for purpose, safe and secure to use through regular updates.

We will provide our staff with the flexibility to book rooms at sites across the Trust, promoting a more flexible service that meets the needs of patients and clinicians alike. Proactive patient tracking will ensure that pathways and treatment timescales are appropriate and compliant.

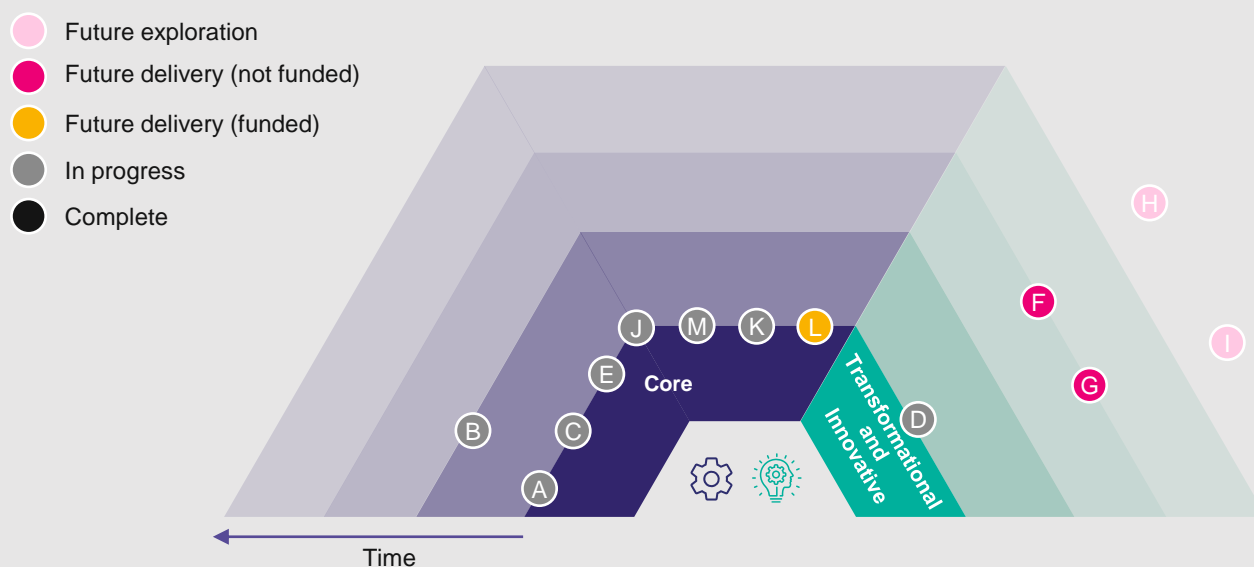
We will support the Hospital Transformation Programme, where we will introduce real-time location services which will enable us to automatically locate our devices at any given time, ensuring that these are available at the right place and at the right time. We will also enable patients to check-in digitally, to reduce queues and improve patient experience.



What we will implement	What this will achieve
A Compliance Management Software ( <i>Snow</i> )	Ensuring hardware, software and end-user devices are within life cycle and are fully supported through the introduction of compliance management software.
B Cyber Security ( <i>ITHealth</i> )	Enhancing system and data security, software management and automating monitoring processes.
C Stock Management System	A system that will enable us to more efficiently and effectively order, store, track and control our inventory for the whole Trust.
D Space Booking	Enabling professionals to book rooms in other hospitals for consultations to improve flexibility and choice for staff and patients.
E Patient Tracking List (PTL)	Monitoring all patients to ensure pathways and treatment timescales are appropriate.
F Smart Cards	Digital Smart cards that enable staff to access clinical and personal information applicable to their role.
G Real-time location services	Using Internet of Things (IoT) technologies and applications to identify where assets are on the premises, helping to manage service demand, increase productivity and manage cost pressures by ensuring that resources are available where they are needed.
H Patient Checking In Screens	Preventing the need for staff to manually check in patients, reducing queues and enabling patients to confirm their personal details independently.

## Support mandatory, operational and performance reporting from within the EPR

Our ambition is to develop a Performance and Business Intelligence (BI) capability for the Trust which acts as a reporting centre of excellence, producing standard reports and initial analysis, as well as showcasing a proactive, predictive capability that drives improvement and service design. To get there we will build a new data warehouse which will house a single version of the truth. Access to data will be driven through supported self-service initiatives and staff will be equipped with the right information to enable more informed decision making. We will use live data feeds to help prepare and plan for patient care. We will collaborate with partners in the region to use data to benchmark services, improve our services and support the development and adoption of innovative population-based, digitally-driven models of care.

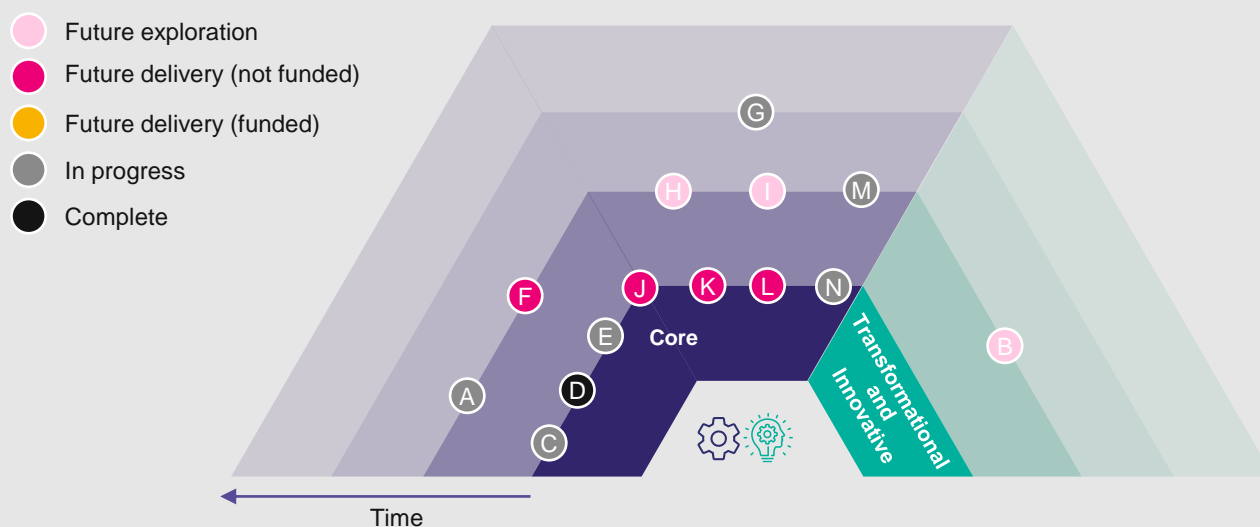


What we will implement	What this will achieve
A Trust Reporting Strategy	Reduction in the number of manual reports produced, while ensuring system and reporting data is stored appropriately.
B New data warehouse	Ensuring that the data we capture across the Trust no longer exists in silos and provide a single source of truth to make better, more informed decisions.
C Developing the Performance and Business Intelligence Team	Building the capacity and capabilities to automate reporting and utilise predictive analytics to improve proactive decision making.
D Self service reporting and BI	Utilising PowerBI to provide a self-service approach whereby clinicians can access dashboards for the information they need on demand, via desktop or mobile devices. This will commence with Urgent Care reporting and will subsequently rolled out further.
E KPI Alerts	Notifying colleagues and teams when performance against KPIs is predicted to slip in order to improve performance management.
F Migration of data centre to the cloud	Exploration of the potential to move to a cloud-based solution in partnership with the ICS to promote value for money and effective decision making.
G Population Health Management Tools	Collaborating with partners to access linked datasets that are visible to all system partners in order to use this intelligence to inform local care planning.
H Shared infrastructure across the region	Shared data centre with other organisations in the region
I Pooling resources and capabilities across the region	Bringing together the skillsets and capabilities across the region in order for all partners to benefit from broader expertise and experience.
J Getting to Good	Working with each Trust division to understand the data that is available, starting with the Learning from Deaths dashboard. Ongoing work will understand how data compares with peers nationally and internationally to generate actionable insights.
K Maternity Dashboard Maturity	Maternity information linked to National Maternity data set
L Capture Stroke	Enabling real-time analytics and care alerts for the stroke clinical pathway.
M ICS Data Strategy	Developing a partnership-wide strategy for sharing and using data to inform care planning and decision making in the Trust and region.

# 9 Infrastructure and Standards

## Infrastructure, hardware and networks that are safe, secure and meet national standards

We will develop high-performing IT infrastructure to enable our 'digital first' approach to health and care. This infrastructure will underpin the everyday activities of our staff; improving processes, saving time and ensuring that they can focus on delivery. We will improve our patients' experience through access to more WiFi points across the hospital. We will further improve our cyber security to ensure our staff, patients and hospitals are safe and secure. We will increase our capacity to hold data and open up greater flexibility to maximise the impact of future digital opportunities as we will have the infrastructure to support this in place. Our infrastructure will support the Trust to be sustainable, cost effective and will ensure we are fit for the future as we develop both the Princess Royal and the Royal Shrewsbury Hospitals to deliver state-of-the-art facilities.



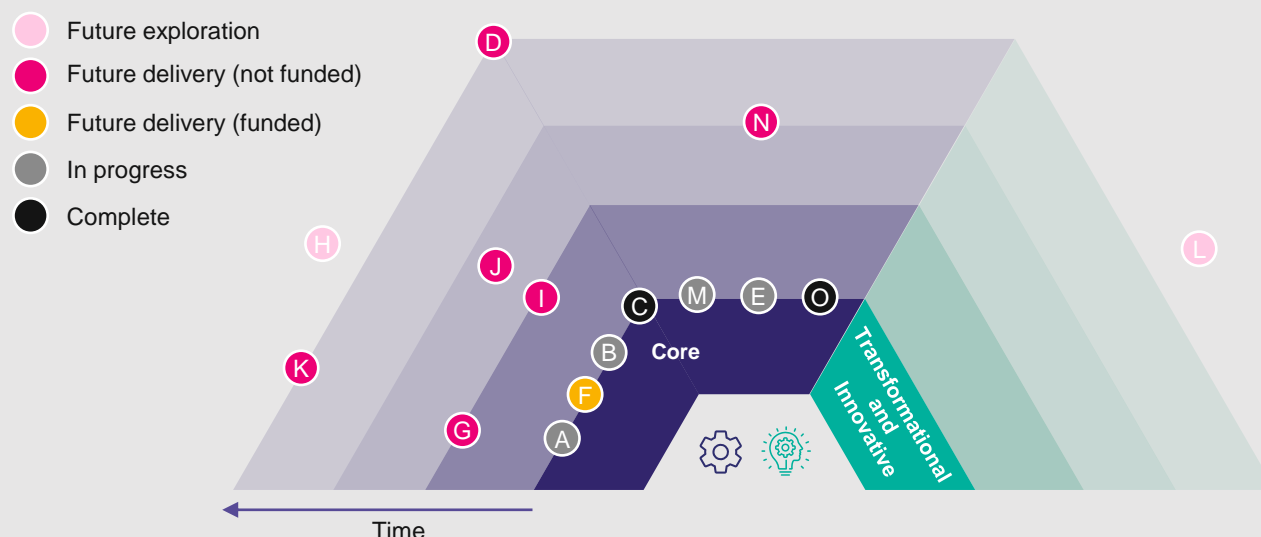
What we will implement	What this will achieve
<b>A</b> Network Refresh	Delivering a strong, safe and reliable data network performance to enable widespread use of mobile devices and accommodate increased traffic as part of a 'Hospital of the Future'.
<b>B</b> Data Centre Strategy	Considering the potential move to cloud-based hosting and partnership opportunities to achieve efficiencies.
<b>C</b> Modernising Infrastructure ( <i>Nutanix</i> )	Replacing ageing infrastructure with fit for the future hardware.
<b>D</b> Backup infrastructure upgraded	Updating the existing backup infrastructure to meet the requirements identified via an NHS England audit in 2021.
<b>E</b> Cyber Maturity Action Plan	Identifying the medical and Internet of Things (IoT) devices connected to the network at the Trust, and using this to define a future Cyber Security Strategy.
<b>F</b> Cyber Device Management Business Case	Putting in place the structure and governance required to ensure our services and systems are safe and secure from cyber threat
<b>G</b> Industry standards (ITIL)	Embedding and maturing the practices for IT service management and aligning IT services with the needs of the Trust.
<b>H</b> Security Operations Centre	Implementing a 24/7 Security Operations Centre (SOC) to ensure constant IT and cyber security responses are available.
<b>I</b> ICS Cyber Strategy	Developing a partnership-wide strategy for cyber security, and exploring the potential for partnership working to achieve value for money.
<b>J</b> Server Upgrade	Upgrading 215 servers operating on Windows 2012.
<b>K</b> Disaster Recovery and Business Continuity Plan	Developing and testing business continuity plans to ensure coverage across the Trust.
<b>L</b> Automation	Freeing up capacity by automating patching tasks and backup testing.
<b>M</b> Immutable backups	Improving data security through the introduction of backups that cannot be edited.
<b>N</b> Imaging hardware refresh ( <i>Agfa Enterprise</i> )	Upgrading our patient imaging record hardware to enhance current functionality and take advantage of updated features in order to speed up image sharing, support improved patient care and enhance collaboration internally and with partners.

# 10 Access & Communications

**Supporting our staff and the public to get the right information when they need it and in a format that is appropriate to their needs**

The Hospital Transformation Programme will deliver new and refurbished facilities that will need to co-exist and operate seamlessly with legacy facilities. This should deliver effective experiences for staff and patients interacting with the building, making their journey to the hospital facilities as frictionless as possible by making available the information they require easily. We will put in place the technologies in readiness for the change such as digital screens and kiosks to provide interactive guidance and mapping to direct patients to where they need to get to quickly. Our Switchboard will be a focal access point for staff and the public; adding greater value to interactions where queries are resolved at first point of contact, no phone call goes unanswered and our operators are using the intelligence gathered to help drive improvements to services right across the Trust. Access to our services will be inclusive: we will provide staff and the public with different ways to get in touch with the Trust including web chat and speech recognition and we will ensure our Directory is up to date and staff can easily find and access the information and services they need via the Intranet. We will also work on how we better support staff to communicate with each other and will work with clinicians to find the right solution for them.

Our staff will also have the ability to work from home or at a remote location where appropriate and will be equipped with the most up to date tools and devices to enable them to do their job effectively. They will not have to log on to multiple systems to get the information they need and will be able to access digital support 24/7.



What we will implement	What this will achieve
A Home Working Solutions	Enabling remote access to reporting for radiology teams.
B Single sign-on software ( <i>Imprivata</i> )	Minimising the need for staff to repeatedly log into applications to get what they need.
C Windows 10	Upgrading 5000 desktops and laptops across the Trust.
D Windows 11	Ensuring that the Trust remains on supported platforms with a fit for purpose device build.
E Office 365	Rolling out up-to-date Cloud based applications across the Trust.
F Mobile Device strategy	Ensures our staff have access to modern devices that enable them to do their job effectively
G Multi Channel Communications	Enabling different communications formats such as voice technology, chatbots and intelligent phone systems to request Switchboard support and to communicate internally.
H Modern Telecommunications	Implementing technology to support internal communications and referrals beyond the Bleep system.
I Intranet Improvements	Making it easier for staff to find the right information.
J 24/7 Digital Support	Enabling self-service and automated technology to log requests 24/7.
K Digital Switch	Moving from analogue to digital, internet-based telephony infrastructure to ensure continuity of performance beyond 2025.
L Switchboard Consultancy Service	Utilising the capabilities within the Call Centre and Switchboard Team to take on complex cases and support the organisation to deliver key services, for example, logging of admissions.
M Two factor authentication for external suppliers ( <i>Osirium</i> )	Building on the current temporary solution to ensure that third parties can securely access, update or troubleshoot issues on Trust servers.
N Patient Information Screens	Introducing digital screens to provide up to date information to patients about Maternity Services.
O Phlebotomy online booking	Enabling patients to book blood tests online.



**NHS**  
The Shrewsbury and  
Telford Hospital  
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