Great Western Hospitals
NHS Foundation Trust

Digital Strategic Plan

2023 – 2030

Contents

1) Executive Summary

Our Digital Strategic Plan builds on the work undertaken over the last five years of the IT Plan 2017-2022. It recognises that the digital world has moved on significantly since 2017, with new technologies, higher expectations on digital ways of working similar to how someone might live their every-day life. Now, national, regional and local strategies have digital at their heart as a key enabler.

By putting in place a cohesive Digital Strategic Plan with a clear vision, a set of underlying principles and key strategic programmes to achieve the vision and activities to enable successful delivery; we will have the right focus to improve our digital maturity. This will reduce the risk of investment in systems and technology that will not meet future high standards and prioritise emerging technologies where they respond to our four expected outcomes highlighted within this plan.

Our approach to digital aims to support the four outcomes, these being Quality and Safety, Efficiency and Productivity, Resilience and Business Continuity and User Experience.

Although developed to address the digital requirements of the Trust and ensure it enables wider initiatives such as the Way Forward Programme; the Strategic Plan needs to remain aligned to the wider Integrated Care System (ICS) and Acute Hospital Alliance (AHA) strategies and priorities.

This Strategic Plan is not just about IT systems, it responds to the growing requirement for responsive business intelligence and analytics in areas such as predictive modelling. This is a key area where we will work closely with ICS partners to reduce duplication and exploit the collective skills and capacity we have.

We recognise the positive impact that a strong digital offer can have on patient care and user experience. In recent years there has been significant investment in IT Infrastructure, reducing the risks associated with ageing equipment, however there is more work to undertake to support our future initiatives. Core to the next phase of improving the Trust's digital maturity is the programme of procurement, implementation and exploitation of capabilities of a new shared Electronic Patient Record (EPR). This will replace a range of disparate and legacy systems across the Trust. Importantly it will require us to think differently as to how we deliver care to our population, reducing variation and having pathways that maximise the potential of the digital technology available.

There is a clear need to invest in training and education across our digital team, our clinical leadership, wider staff groups, our partners, and our population. By focusing on education and engagement, we will look to create a strong movement towards digital ways of working, aligned with our continuous improvement approach of 'Improving Together'.

On our digital journey, we need to routinely reassess our environment and think not in a siloed approach, but envision a whole-system, population focused approach. We need to recognise that what we do locally at the level of our organisation should be interoperable within our Integrated Care System as well as with our partners across multiple clinical networks.

Naginder Dhanoa, Chief Digital Officer

2) Digital Strategic Plan on a page

Vision & Key Outcomes

Vision

To maximise and expand the improvements available from the use of technology and information, enabling joined up services for our local people across care settings and organisational boundaries, improving people's experience of using our systems.

Outcomes

Our approach to digital aims to help support one or more of the following four outcomes:

- Quality and Safety
- Efficiency and Productivity
- Resilience and Business Continuity
- User Experience

Underlying principles

- User centric design
- Collaboration and Partnership working
- High Data Quality
- Do Once Share Many
- Intelligent use of Information
- Maximising System Functionality
- Emergent Technology Opportunities
- System and Data Security

Key Risks

- Insufficient commitment and capacity across the organisation to own the delivery of the digital agenda and associated benefits
- Insufficient reconciliation and alignment of goals and priorities across ICS partners to deliver collaboration across the digital agenda to achieve potential benefits
- Insufficient funding available to deliver the Digital Plan
- Increased revenue costs associated with movement to cloud based technologies
- Skill set and capacity within IT insufficient to deliver programmes in the Digital Plan
- Insufficient funding and capacity to take opportunities to introduce and maximise potential of emerging technology
- Insufficient capacity within key third party suppliers, leading to potential delays and erosion of benefits
- Insufficient staff capacity and bandwidth to effectively engage with digital transformation

What Success Looks Like

1) Access & Mobility
- Improved speed of application access through appropriate use of Single Sign On and virtual desktop capabilities.
- Resilience, consistent and fast access to applications from any location.
- Staff have access to fit for purpose unified comms solutions with clear guidance on their use.

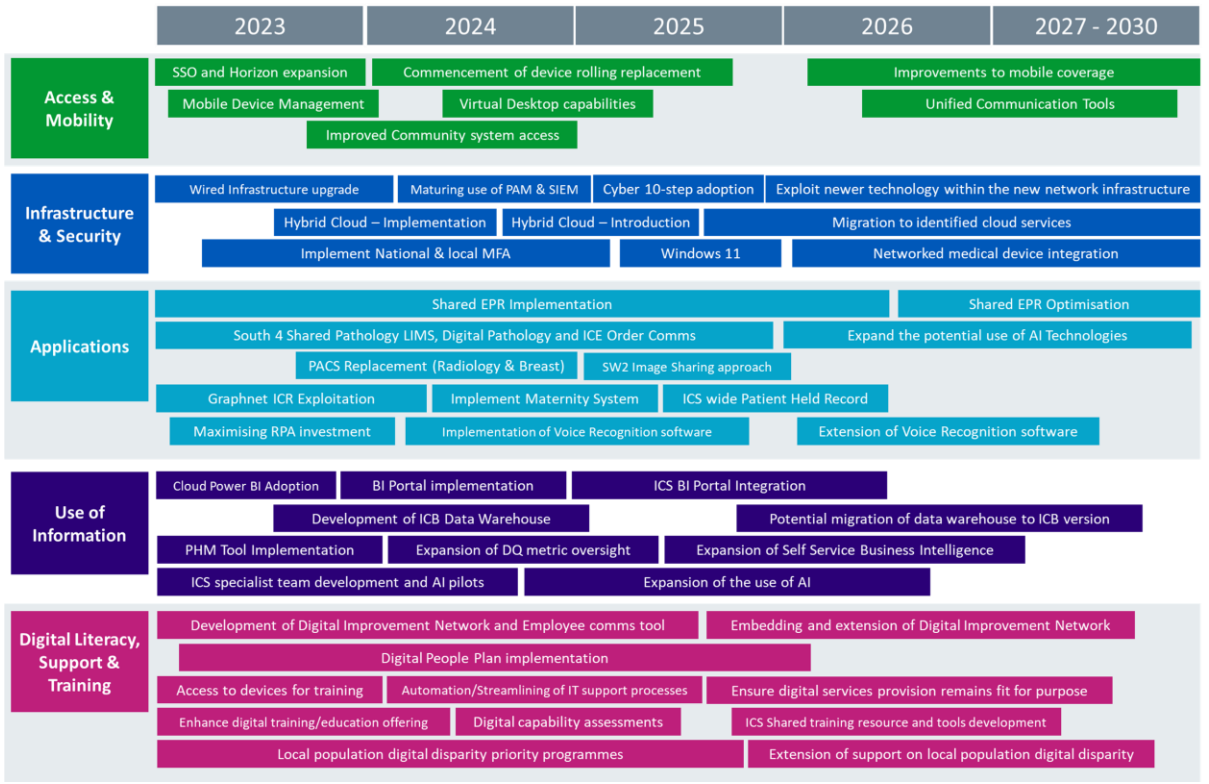
2) Infrastructure & Security
- Upgraded infrastructure that is capable of supporting emerging technologies.
- All devices across the Trusts windows 11 compatible.
- All unsupported technologies removed wherever possible.
- Adoption of the cyber 10-step framework.
- Introduction of Multi-Factor Authentication.

3) Applications
- Implementation of a new Shared EPR, with pathways and workflows optimised in line with EPR capabilities.
- Image sharing available across both clinician networks' peer organisations.
- Maximisation of investments in RPA and AI with clear benefits realisation achieved.
- Achieve a core level of digital maturity (minimum HIMSS Level 5).
- Improvement in User Experience evidenced by improved staff survey results.

4) Use of Information
- Implementation of a single place to find all data for business, information and analysis.
- Divisions have access to expertise on areas such as modelling and predictive analytics.
- Data quality metrics such as ADT timeliness achieves expected performance targets.

5) Digital Literacy, Support & Training
- Our population and staff have the access, training and support to use the systems they require.
- Mature Digital Improvement Network in place across the Trust.
- All staff have completed and passed a basic digital skills competency assessment.

Timeline 2023 - 2030



3) Strategic Alignment and Vision

The Trust Strategy has a vision of 'delivering joined up services for local people at home, in the community and in hospital helping them to lead independent and healthier lives.' The Digital Strategic Plan will enable this vision and its four strategic pillars in a variety of ways, with examples given below:

Outstanding patient care and a focus on quality improvement in all that we do	▪ Implementation of a new Shared EPR, reducing unwarranted variation, increasing a proactive user experience and streamlining pathways across the ICS. ▪ Integration of systems across care settings to enhance the sharing of information, improving clinical decision making an ultimate patient outcomes. ▪ Enable the digital people plan activities to help recruit, upskill and retain staff for the services we deliver. ▪ Providing our population with the tools and support required to improve personal ownership of care close to home.
Staff and volunteers feeling valued and involved in helping improve quality of care for patients	▪ Delivery of a patient portal to improve patient ownership of their care and engagement with clinical teams. ▪ Provide future proofed, modern, safe and resilient infrastructure and equipment devices, supporting staff to effectively undertake their roles. ▪ Implementation of the Digital Improvement Network and development of improved training and education offerings for staff and our population.
Improving the quality of patient care by joining up acute and community services in Swindon and through partnerships with other providers	▪ Expansion of the ICS Shared Care Record. ▪ Implementation of image sharing across providers in the ICS and local region. ▪ Introduction of a new Pathology Laboratory Information Management System (LIMS) across the South 4 Pathology Network.
Using our funding wisely to give us a stronger foundation to support sustainable improvements in quality of patient care	▪ Development of joint business intelligence approaches including population health management analysis and extension of self service BI. ▪ Introduction of AI where appropriate in areas such as radiology, digital pathology and decision support. ▪ Ensure the Trust is cyber secure to reduce the risk of ransomware attacks.

Any investment in digital technologies is expected to respond to four key outcomes, these being improvements in:

Quality & Safety	Efficiency & Productivity	Resilience & Business Continuity	User Experience

Our Digital Strategic Plan's vision is aimed at delivering the Trust Strategy and vision. Our digital vision is:

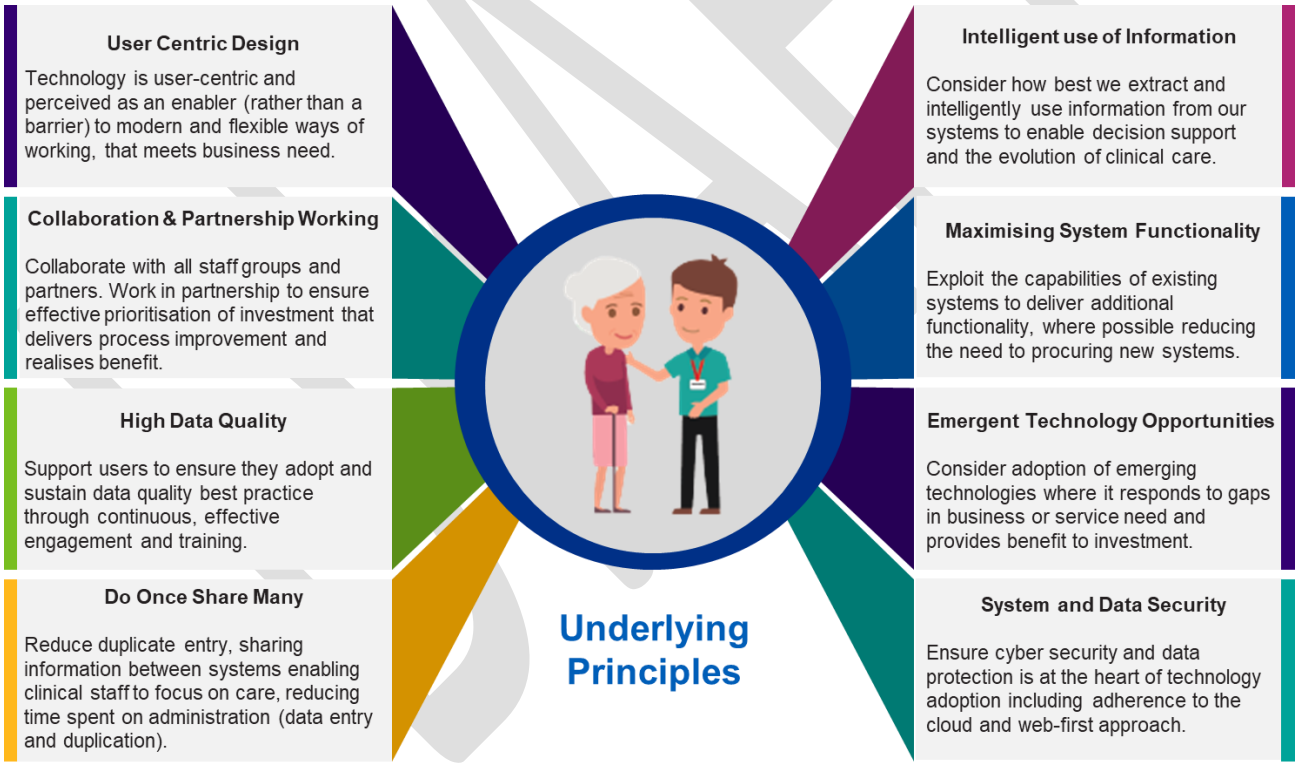
To maximise and expand the improvements available from the use of technology and information, enabling joined up services for our local people across care settings and organisational boundaries, improving people's experience of using our systems.

National and Local Context

Digital will respond to wider national strategies, such as the NHS People Plan to improve the experience of people that work in the NHS and our responsibilities within the Green Plan 2022-26. Progress against initiatives within the Digital Strategic Plan will need to link back to the seven success measures within the 'What Good Looks Like' framework (WGLL) published in August 2021 by NHS England.

4) Digital Underlying Principles

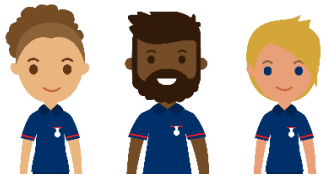
All activities undertaken to deliver the digital vision must comply with eight digital underlying principles. These principles are used to challenge our thinking when developing, implementing, or optimising systems and processes. Adherence to the principles through our work will ensure our systems work together to streamline working practices, we spend money on tools we truly need and that fit into our overall systems plan and everyone understands the importance of timely and high-quality data entry.



5) What will the future look like?

The high-level aspiration of the Digital Strategic Plan is to move the Trust to a position whereby it achieves the national expectations of digital maturity. This translates into providing technology and business information responding to the four key outcomes above. This is what the people we serve tell us that delivering the Digital Strategic Plan will mean to them:

Community Teams



Integration of systems across pathways and care settings will enable me to follow a patient's journey across our services, ensuring I have the relevant information I need about the patient and any carers at my fingertips. This will enable me to assist patients to remain at home being the best they can be and provide continuity of care. My productivity will be improved through being able to update the patient's record in real time and interact with other care professionals using standardised communication tools.

I will be able to give complex nursing and /or therapy interventions safely, either in the patient's home or in a local clinic, utilising alternative technologies such as remote patient monitoring to gain individualised clinical specialist advice which supports the patient's care where appropriate to do so.

Admin and Management

I will have the skills and confidence to use the systems that my role requires. I will have more time to proactively support clinical teams with modern technologies automating and reducing repetitive and manual tasks. I will have access to all correspondence electronically in an easy to use format, enabling me to communicate with patient and clinical queries more quickly. This will help make quicker and more informed decisions.

Nursing/AHPs

I will be able to more effectively care for patients as all relevant information about them will be available in a single system which is available to me anywhere, at any time. The information I record electronically is used by the IT systems to provide me with real time advanced alerting to help reduce risk. I have access to reports and analysis that provide me with insights into areas where the quality of care can be improved, allowing me to track the impact of improvement activities I undertake.

Patients and Carers

Having control of my own health and care records, monitoring my health issues using apps at home and speaking to clinical professions about my care without the need for face-to-face appointments will help me manage my health concerns more effectively. Supporting me to use technology and understand my health information will help me make better decisions about myself.

Doctors

By having access to a comprehensive digital record about my patients including access to information, imaging and results from outside of our organisation boundaries, means I can deliver better, more up-to-date care to my patients on a continuous proactive basis. Having decision support underpinned by proven artificial intelligence advances will make me safer and more effective as a doctor and enable me to support and empower my patients in their own care.

6) Where we are today in developing our Strategic Plan

The Digital Maturity self-Assessment (DMA) undertaken in 2019 identified the Trust as having low digital maturity using the internationally recognised HIMSS EMRAM scoring methodology, the Trust scoring below HIMMS level 2 (HIMSS is scored from level 0 to level 7).

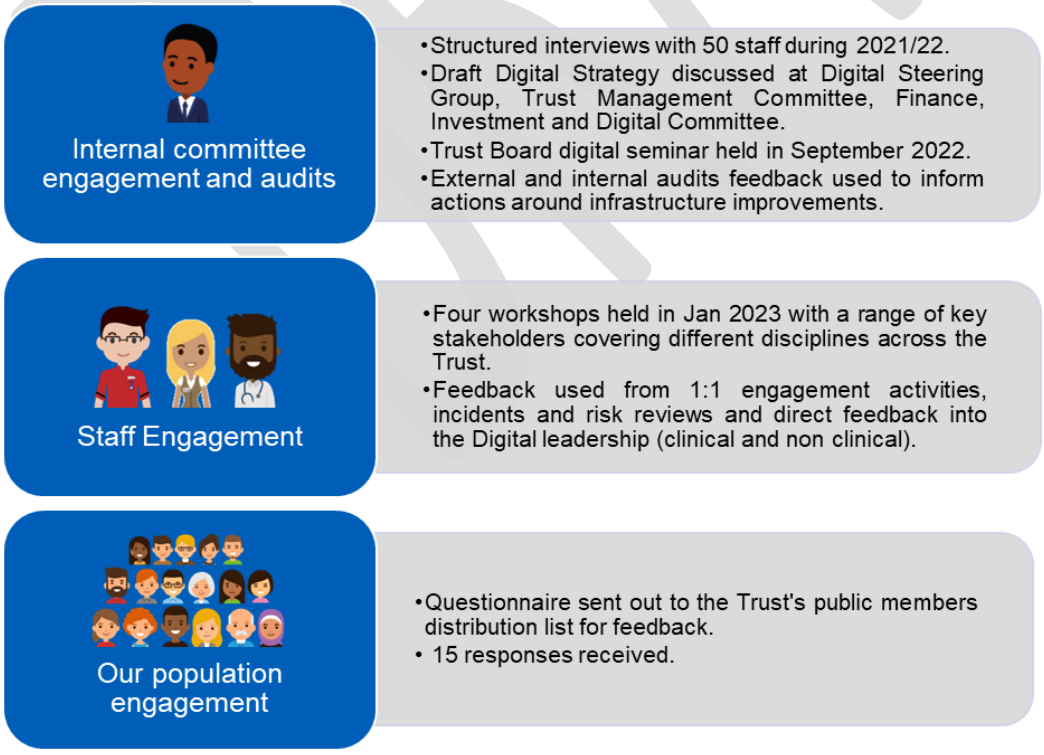
Over the last three years a range of programmes and improvements in digital maturity have been either delivered or have commenced. The significant investment in our underlying technical infrastructure over the last two years provides a resilient platform to build upon in future years. It will provide opportunities to bring in emerging technologies, ensure our shared EPR functions effectively and create a safe and secure environment for people to use their devices.

Whilst good progress has been made, there is recognition our plan needs to go further. Feedback from users of the Trust digital applications and information highlight several key areas where improvement is needed. Examples include numerous separate IT systems which are not fully interacting with one another, variability in the speed and quality of devices in use, multiple system log ins and limited proactive specialist analysis to support decision making.

Wider examples of our progress and areas for improvement can be seen in Appendix 1.

Developing the Strategic Plan

It is vital that the Digital Strategic Plan responds to both areas of weakness and/or poor user experience from both staff and our local population, as well as consider the requirements to enable future innovation and service development. To understand this a series of activities were undertaken to both socialise the emerging Digital Strategic Plan and listen to key stakeholders. These activities are shown below with feedback themes seen in Appendix 2.



7) The Priorities of the Digital Strategic Plan

The expectation is that all Acute Trusts will reach HIMMS level 5 by March 2025 with an aspiration to progress to HIMSS level 7. To achieve this, investment in both a new shared EPR and underpinning infrastructure is required. This will only get us so far, with a fundamental cultural shift required of how our organisation approaches the use of digital as a tool to truly enable and facilitate how we work.

There are five priority areas to support the delivery of the vision.

1) Access & Mobility

Expected deliverables:

- Improved speed of application access through appropriate use of Single Sign On and virtual desktop capabilities.
- Resilient, consistent and fast access to applications from any location.
- Staff have access to fit for purpose unified communications solutions with clear guidance on their use.

2) Infrastructure & Security

Expected deliverables:

- Upgraded infrastructure that is capable of supporting emerging technologies.
- All devices across the Trust are Windows 11 compatible.
- All unsupported technologies removed wherever possible
- Adoption of the cyber 10-step framework.
- Introduction of Multi-Factor Authentication.

3) Applications

Expected deliverables:

- Implementation of a new shared EPR, with pathways and workflows optimised in line with EPR capabilities.
- Image sharing available across both clinician networks' peer organisations.
- Maximisation of investments in RPA and AI with clear benefits realisation achieved
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- Improvement in User Experience evidenced by improved staff survey results.

4) Use of Information

Expected deliverables:

- Implementation of a single place to find all data for business, information and analysis.
- Divisions have access to expertise on areas such as modelling and predictive analytics.
- Data quality metrics such as ADT timeliness achieves expected performance targets.

5) Digital Literacy, Support & Training

Expected deliverables:

- Our population and staff have the access, training and support to use the systems they require.
- Mature Digital Improvement Network in place across the Trust.
- All staff have completed and passed a basic digital skills competency assessment.

The key programmes to achieve the above priorities are in Appendix 3.

8) Emerging Digital Opportunities

The Digital Strategic Plan looks to introduce a range of new technologies and systems, building on what we have now. However, there will always be solutions not articulated in the Plan that could have the potential of progressing our digital maturity, reducing emerging risks or delivering improvement for our four stated outcomes. We will consider whether it is appropriate to investment in these solutions on a case by case basis, aligned with Trust future strategies and priorities. The table below outlines some areas which we know are evolving but are not currently in our Strategic Plan to give a flavour of potential future considerations:

Theme	Opportunity	How evolved is the market?	Benefits	Capital or Revenue
Infrastructure	Artificial Intelligence and Automation in IT infrastructure	Growing	Prevention of downtime through early prediction and remediation of risks/failures • Increased cyber threat detection • faster deployment of new infrastructure	Capital & Revenue
	Use of drones	Immature	Swift transportation of organ transplants, small medical devices, medicines and vaccines and time sensitive diagnostic samples.	Capital & Revenue
Data and Insights	Artificial Intelligence supported advanced analytics	Growing	Undertake analytics or large datasets, providing insight and predicative analytics • Proactive scenario modeling based on trends/insights through machine learning	Revenue
Clinical Solutions	Secure Clinical Messaging	Growing	Significant time savings • Cessation of legacy bleep systems • Expedited communications enabling earlier discharge • UK GDPR compliance	Revenue
	Virtual Reality	Immature	Improving medical education • Delivering Chronic Pain Management • Supporting mental health therapy	Revenue
Patient Engagement	Remote Patient Monitoring	Growing	Improve quality of care • Timely interventions, reducing cost further down	Revenue
	Digital therapeutics	Immature	Prevent, manage, or treat behaviour-modifiable conditions such as diabetes, obesity and Alzheimer's disease.	Capital & Revenue
Other Areas	Artificial Intelligence use in various services	Growing	Early detection of diseases such as cancer • Augments clinicians in their diagnosis process • Staff productivity • 24/7 productivity	Capital & Revenue
	IoT Wearables	Growing	Accurate diagnoses at the point of care • More data collected for analytics purposes • Timely interventions	Revenue

9) Delivering our Strategic Plan

To realise the priorities and outcomes outlined in the Digital Strategic Plan, there are three main dependencies which the Trust will need to make progress in, some of which have already started. These dependencies are outlined below with some of the key focus areas to achieve success.

There is an overarching need to ensure there is sufficient funding to respond to both the priority areas within the Digital Strategic Plan as well as any emerging investment needs based on changing risk profiles, national NHS policy changes or local partnership working. The digital team plays an active part in annual business planning, with assurance of proposed rolling investment plans through Digital Steering Group to ensure it aligns with the principles in this Digital Strategic Plan. The actions to mitigate the potential lack of funding is picked up in the risk section later in the document.

Engagement and Leadership

The Digital Strategic Plan outlines a range of priorities to help improve the engagement around digital. This is not just about delivering new technologies successfully but about the day to day interactions between the Digital Team and the people they serve.

Actions to include:

a. Ensure there is a voice of all staff groups within the Digital senior leadership team through maintaining and expanding the dedicated clinical resources as necessary.

b. Development and implementation of digital improvement network to identify and upskill digital champions and superusers across the Trust.

c. Wider clinical engagement, where possible using our existing governance structures led by the CCIOs, CNIOs and other digitally focused clinicians.

d. Introduction of a 'service level agreement' and relevant key performance indicators to enable staff to understand what to expect from the digital teams (for example turnaround times for application access requests, new BI dashboards or new device provisioning).

e. Implementation of a digital communication plan, aligned with the three acute Trusts in the AHA, bringing together key programmes such as the shared EPR programme.

f. Leadership across the Trust champion and empowering staff to engage with the key programmes within "Digital Literacy, Support and Training" priority, to improve staff digital capability.

g. Introduction of a patient/carer engagement forum to improve interaction and feedback on programmes that impact their experience and care.

Digital team capability and capacity	It is recognised that the Trust must look at building productive relationships with both NHS and non-NHS partners to help supplement our highly skilled internal capabilities.

Actions to include:

a. Annual training needs analysis will be implemented within the digital team, ensuring there is a clear understanding of skills required to support the future digital agenda, with space and funding provided (often as part of new technology implementation) for staff to undertake the necessary training.

a. Build upon existing and develop key partnerships with third party suppliers in areas where capability or capacity gaps exist including networking, cloud, infrastructure and telephony.

a. The Trust has been working with ICS partners for a number of years, seeking to reduce duplication and co-develop core capabilities. Areas of success include joint procurements, shared cyber lead for the ICS, alignment of documented used in Information Governance and having a single team of experts on SharePoint. The shared EPR programme will see a fundamental review of many digital teams to consider how we should work differently going forward as a joint team for core activities such as EPR configuration and training. Another key area of focus is the alignment and co-design of business intelligence and data warehousing, creating single ICS teams for predictive analytics and modelling to better support our customers.

Strong Governance and Programme Management	The Digital agenda continues to grow and often there are competing requirements and insufficient capacity to deliver everything within the ideal timeframes. Therefore it is imperative that structures and processes are in place to ensure there is robust and realistic planning and management of expectations, aligned to our Improving Together methodologies.

Actions to include:

a. Successful programme delivery and benefits realisation relies on having the right people identified to help support this both in championing and technical delivery. No programme will be commenced without confirmation the resources needed for it to be a success are available at the outset and for the likely lifetime of the programme.

b. The recent changes in digital governance is designed to help improve the oversight and assurance of all aspects of the digital agenda. Digital Steering Group remains the key executive led assurance forum for programme delivery and consideration of how emerging technologies/programs align with this Digital Strategic Plan.

c. Programme and Improving Together governance will be aligned, creating a single entry point for requests for programme and change resources, prioritising these with existing commitments.

10)Strategic risks to delivery

The following have been identified as potential risks to delivery of the Digital Strategic Plan with proposed mitigating actions.

Risk	Rating	Mitigating Actions to be taken
Insufficient reconciliation and alignment of goals and priorities across ICS and AHA partners to deliver collaboration across the digital agenda to achieve potential benefits.	Medium	Engagement on digital through ICS governance by CDO. CDO representation at Board, AHA, ICS and ICB level. Clinical pathway transformation agenda to support prioritisation of digital programmes, digital representation through ICS governance to support discussions. Joint procurements of systems/technology across the ICS. Alignment of strategic priorities between ICS partners.
Insufficient funding available to deliver the Digital Strategic Plan.	High	Plan structured to be as realistic as possible. Bids to be put in for any available external funding where appropriate. Consideration of further funding options should external funding not be available for large programmes. Full Business Case for the EPR Programme to clearly articulate the full resource needs for successful implementation to limit financial "surprises".
Increased revenue costs associated with movement to cloud based technologies.	Medium	Maximise nationally procured cloud-based products (e.g. Microsoft 365). National guidance around use of capital for cloud-based system purchases available (where Trust has a preferred appetite for capital purchase).
Skill set and capacity within IT insufficient to deliver programmes in the Digital Strategic Plan.	Medium	Work to align and/or converge key teams across GWH and SFT. Some restructures will be formed as part of shared EPR procurement. 3rd party partnerships with key suppliers in place for Infrastructure and networking contracts to be reviewed and bolstered where necessary. Upskilling of existing staff through professional development. Where appropriate seek partners to provide managed support. Shared EPR programme developing joint resource plan across the three Trusts (SFT, GWH, RUH) for coming years including seating arrangements to ensure there is an effective approach to resourcing the programme successfully.
Insufficient engagement, commitment and capacity across the organisation to own the delivery of the digital agenda and associated benefits.	High	Agreement from Board, executive team and senior management, including clinical leaders, to champion the use of technology and adhere to consistent message. Improved engagement with staff on digital agenda with revised governance structures to help ensure benefits identified are owned. Clinical ownership needs identified at the outset of all projects to ensure effective change management and benefits realisation.

		Proactive engagement with people in their place of work to better understand concerns, demonstrate benefits, provide training and support uptake of digital technologies.
Insufficient funding and capacity to take opportunities to introduce and maximise potential of emerging technology	Medium	Trust prioritisation process to be finalised for possible future investments from external funding streams and/or potential opportunities of funding for pilots. Proactive horizon scanning to support understanding of emerging technologies and the possible benefits, consider the merits of developing an internal business case for funding.
Insufficient capacity within key third party suppliers, leading to potential delays and erosion of benefits.	Medium	Jointly agree programme plans with suppliers to ensure there are realistic business cases accurately reflecting expected benefits. Ensure contracts are of a sufficient strength to hold third party suppliers to account for delivery within agree timeframes. Strong governance to maintain oversight of programmes and emerging capacity/delivery risks, enabling the development of relevant mitigation plans.
Insufficient staff capacity and bandwidth to effectively engage with digital transformation	Medium	Effective prioritisation of programmes aligned to Improving Together methodologies, helping to maintain a realistic level of transformation activities (both digital and non-digital). Escalation processes through divisional management teams to highlight where different approaches are required to better support staff to interact with digital transformation programmes.

Appendix 1 – Examples of progress to date and areas requiring improvement

Examples of progress made during the last IT Strategy 2017-2022:

• Implementation of an electronic ICU solution	• Implementation of Digital Nursing Handovers and Assessments (e.g. Sepsis, AKI, Smoking & Alcohol, Fluid Balance)
• Extension of the use of Electronic Prescribing & Medicines Administration	• Introduction of Video Consultations for outpatient appointments
• Introduction of new Patient Portal for the delivery of digital correspondence and appointment information, linked to the NHSApp.	• Implementation of a RPA tool with a number of manual processes now automated (specifically within Outpatients)
• Introduction of Patient Flow/Bed Management interactive views from Ward to Board	• Implementation of a decision support tool for Radiology requesting
• Implementation of Medical photography Image capture via Mobile Technology	• Deployment of an Integrated Care Record as part of the ICS shared solution
• Extension of IP Telephony across the organisation	• Extension of digitisation to paper Medical records for Outpatient appointments
• Introduction of shared Wi-Fi networks across Swindon Healthcare locations enabling staff to use the GWH Wi-Fi in more locations	• A complete refresh of the Trust's wireless network infrastructure with the replacement of the wired network underway
• Upgrade to external lines and associated Firewalls and Security products	• Commencement of a Shared EPR Programme to replace the current EPR and disparate systems
• Commencement of a programme to expand the use of Single Sign-on and functionality	• Commencement of Digital Pathology Imaging implementation
• Commencement of a Shared Pathology LIMS implementation across the S4 Network	

Examples of areas requiring improvement include:

• There continues to be over 100 separate IT systems with many not interacting with one another creating risk and duplication of data entry	• There is no single point of access to good business intelligence and reporting to support management of the organisation and decision making.
• The speed of using some applications remains slower than expected, particularly from remote locations at time of high usage	• There is variability around the use of Horizon and the speed/quality of devices across the Acute site
• Limited predictive analytics, population health information and modelling to support decision making	• Users still need to log in to multiple systems to get a view of a patient
• History of rolling out IT systems without sufficient change management to embed pathway/workflow changes ensuring benefits are realised.	• The current maternity IT solution does not meet the requirements laid out in Better Births
• There is some variation across the Trust for access to Trust IT systems, devices and training/education.	• Local population disparity in the ability to use and have access to technologies, equipment and information to support self care

Appendix 2 – Digital Strategic Plan engagement sessions feedback

Feedback Theme	Digital Strategic Plan Response
- Ensure we have a clear order to migrate from paper to digital, looking at the dependency between different workflows - System agnostic in regard to EPR – work towards digital maturity regardless of application in use	The Digital Strategic Plan has been ordered with the aim to ensure that improvement in digital maturity occurs without increasing the risk of unintended creation of paper silos. The shared EPR programme will be the key programme for digitisation with dependencies fully considered in planning. The new shared EPR will be expected to integrate with key systems seamlessly and be agnostic of supplier as per national guidance.
- Ensure the approved digital maternity strategy features in the Digital Strategic Plan	This has been noted in the Digital Strategic Plan with key elements such as moving core IT systems in the plan itself.
- Digital competencies of workforce and maintaining skills - Inclusivity considerations both patient and workforce	Priority 5 – Digital Literacy, Support & Training – responds to these areas.
- System wide considerations with the different clinical networks and interfaces - Information follows the patient regardless - Ensuring there are strong interfaces with Primary, Community and Acute pathways	Priority 3 – Applications – seeks to ensure that integration and the flow of information across care settings is fully considered as part of future procurements and work on key programmes such as the Patient Health Records and Maternity.
- Key programmes that need to be reflected including Single Sign On, Virtual Desktop Infrastructure (VDI), Picture Archiving and Communication System (PACS), Improvement in Electronic Document and Records Management System (EDRMS), Single place for information, Patient Portal, Bi-directional feedback with patients, Remote monitoring	All of these programmes feature in the Digital Strategic Plan. Some programmes are already in progress and actively monitored through programme governance. Others are planned in but subject to the annual prioritisation process as per normal Trust governance arrangements.
- Ensure there is a strong communication plan of the vision, achievements and plans - Ensure programmes have the right resources and testing with end users - Ensure there is a framework of how the Digital Strategic Plan will be delivered - Digital workforce skills to match future demands and technologies	The 'Delivering our Strategic Plan' section outlines intended actions on communication, ensuring appropriate programme resourcing
- Alignment of data and process across the three acute providers - Empower the workforce to make effective decisions	Priority 4 – Use of Information – responds to these areas with the development of Applications (priority 3) also looking to ensure data flows between clinical systems, facilitating intelligent decision support solutions
- Reduce variation and double entry, Ease of use paramount - Consistency of interaction and common platforms	The Digital Strategic Plan's underlying principles are designed to ensure all activities in the digital agenda focus on areas such as reducing variation, duplication and user centric design.
- Ensure there is alignment with the needs of the Trust Strategy so that the plan enables the priorities within this	The Digital Strategic Plan outlines examples of how it responds to the priorities within the Trust Strategy. The plan also outlines the expected thematic outcomes any programme is expected to achieve which mirrors the expectations in the Trust Strategy.

Appendix 3 – Associated programmes for the five priorities

1) Access & Mobility

Objective:
We aim to ensure we provide a good user experience for either our staff, when accessing the technology to undertake their roles, or the people we serve when interacting with our services from any location. By providing reliable and fast access staff will have improved productivity on a day-to-day basis.

Key Programmes

First 2-3 years:

- Extend a consistent GWH identity and authorisation experience to the network and to the cloud using industry leading technology like card or biometric network authentication
- Assessment and remediation of any identified connectivity issues across existing and future planned locations for GWH community services
- Complete roll out of single sign-on solution across the organisation where appropriate.
- Mobile devices using the right software and the right applications
- Complete review of clinical areas to ensure appropriate use of Trust virtual desktops
- Add functionality and security to all GWH-managed devices

Longer term:

- Offer multiple tiers of authenticated access based on staff GWH identity and managed device
- Further exploit pervasive, seamless use of unified communications tools: integrated voicemail, email, text messaging, chat, phones, and video conferencing
- Consider opportunities to broaden 4G/5G mobile device coverage
- Further extend wi-fi integration across partner organisations

Expected deliverables:

- Improved speed of application access through appropriate use of Single Sign On and virtual desktop capabilities
- Resilient, consistent and fast access to applications from any location
- Staff have access to fit for purpose unified communications solutions with clear guidance on their use.

2) Infrastructure & Security

Objective:

Build on our existing infrastructure improvement work and cyber security activities, bolstering resilience, proactively responding to emerging cyber risks and minimising down time; increasing safety and improving the experience of people when they interact with our services supported by our underpinning infrastructure.

Key Programmes

First 2-3 years:

- Complete the programme of work to refurbish the organisation's core IT network infrastructure, laying the firm foundations for improved services.
- Continue migration to cloud-based collaboration tools, integrating new tools for use by the GWH community.
- Continue to consolidate and virtualise computing equipment to realise energy savings and reduce operating expenses.
- Combine data centre and cloud solutions to improve business continuity and resilience
- Put in place controls to improve oversight through internal governance of plans relating to resolve cyber security weaknesses as identified.
- Enable SIEM (Security Information and Event Management) integration in collaboration with BSW to collect & correlate data.
- Further progress with PAM (privileged access management) enforcement for all admin roles across the infrastructure.
- Implement in line with national and regional requirements MFA (multi-factor authentication)
- Conditional Access & device posturing in place to access company resources (Windows, iOS, Web)
- Full adoption of the 10-step framework promoted by the UK National Cyber Security Centre (NCSC).
- Removal of unsupported software, end user devices and servers, including application upgrades/replacement as appropriate.
- Maintain and enhance cyber monitoring tools

Longer term:

- Continue to migrate towards cloud services.
- Adopt and implement emerging technologies where appropriate.
- Continue to integrate medical devices.
- Ensure our cyber security measures go hand-in-hand with physical security and personnel and people security
- Expand on our near-term cyber security control actions with local, regional and national peers, increasing our oversight of emerging cyber risks and providing flexible yet secure access to technology and information.

Expected deliverables:

- Upgraded infrastructure that is capable of supporting emerging technologies
- All devices across the Trust are Windows 11 compatible
- All unsupported technologies removed wherever possible
- Adoption of the cyber 10-step framework
- Introduction of Multi-Factor Authentication

3) Applications

Objective:

To provide modern, fit for purpose applications and other systems that enable our staff to work productively, removing duplicate data entry, reducing clinical risk and having integration across care settings. Empower our population to have access to the tools to manage their own health and access their holistic health and care records cover cross organisation board information.

Key Programmes

First 2-3 years:

- Implementation of a shared EPR solution.
- Implementation of a new shared pathology LIMS and digital pathology across S4 Pathology Partnership.
- Migration to a shared order communications shared solution with S4 Pathology Partnership.
- Undertake the replacement of the Radiology and Breast PACS.
- Align with the image sharing approach agreed with the West of England Imaging Network.
- Expansion of the integrated care record functionality and use across ICS.
- Work with ICS partners to implement an agreed Patient Held Record (PHR).
- Enable additional functionality within the Microsoft 365 offering.
- Maximise the potential of the investment in Robotic Process Automation (RPA) technology.
- Introduction of voice recognition in areas to support the collection of data and reduce administration overhead.
- Continue upgrades of applications to ensure they remain within version support and meet the required standards for security and data returns.
- Implementation of a new maternity system with integration to the future EPR as part of the wider approved digital maternity strategy implementation.
- Improvement in electronic document management software functionality and usability.

Longer term:

- Exploit the full functionality of the shared EPR.
- Realisation of benefits in line with the shared EPR full business case.
- Increased use of patient self-management and monitoring apps.
- Expansion of voice recognition use with shared EPR.
- Consider the appropriate use of AI technologies to complement clinical and non-clinical practices.

Expected deliverables:

- Implementation of a new shared EPR, with pathways and workflows optimised in line with EPR capabilities
- Image sharing available across both clinician networks' peer organisations.
- Maximisation of investments in RPA and AI with clear benefits realisation achieved
- Achieve a core level of digital maturity (minimum HIMSS Level 5)
- Improvement in User Experience evidenced by improved staff survey results

4) Use of Information

Objective:

To ensure timely business information and analytics are available at the fingertips of those who require it; whether in acute, community, managerial, clinical or research settings. To work with partner organisations to increase skills and resilience across the business intelligence function, streamline reporting and data management, reduce duplication and improve data quality. To help staff to analyse performance and activities trends to help drive improvement and reduce inefficiencies.

Key Programmes

First 2-3 years:

- Adoption of cloud Power BI using the national shared tenant in line with ICS partners.
- Co-design Power BI dashboards and value add business intelligence with staff, helping to deliver self-service ways of working.
- Implementation of BI Portal for single access point to business intelligence.
- In conjunction with ICS Partners, lead on the piloting, benefits analysis and introduction of Artificial Intelligence products for data analytics and modelling.
- Adoption of population health management tools analysis tools
- Development of ICS wide virtual teams for specialist areas such as modelling and predictive analytics
- Support the development of an ICB data warehousing solution so that it has the potential of extended across the ICS including the GWH.
- Introduce oversight of data quality as part of performance management framework (for example within executive performance reviews).

Longer term:

- Expansion of self-service business intelligence
- Integration with ICS wide BI portal
- Migration of data warehouse to the ICS warehouse solution should there be sufficient benefits of doing so, in line with ICS BI Strategy.
- Expansion in the use of intelligent automation to improve data quality, real time analysis and decision support.

Expected deliverables:

- Implementation of a single place to find all data for business, information and analysis.
- Divisions have access to expertise on areas such as modelling and predictive analytics.
- Data quality metrics such as ADT timeliness achieves expected performance targets.

5) Digital Literacy, Support & Training

Objective:

Create an environment where staff and people using our systems and data have the necessary training and confidence to effectively use them, having parity of access to equipment and training materials. For people who require an alternative to digital methods, provide a conduit for access to appropriate care and information. Develop a network of likeminded people to help proactively drive and encourage the use of technology.

Key Programmes

First 2-3 years:

- Development of Digital Improvement Network across GWH, linking in with wider ICS peer groups
- Build upon existing core digital learning resources/training programmes, making this available through appropriate mediums.
- In tandem with the shared EPR programme, provide staff with digital capability self-assessments to help inform areas for professional and personal development as part of appraisals and job planning
- In conjunction with ICS peer organisations, implement key priority areas to improve digital disparity in local population, including options where digital is not suitable.
- Improve customer experience of using IT support services through streamlining and automating workflows.
- Work with divisions to ensure staff have appropriate access to devices for education and training, including dedicated time to undertake these activities.
- Digital tools in place to improve methods of communication during incidents and planned works.
- Agree and implement the immediate priorities from the Digital People Plan

Longer term:

- Further evolution and embedding of Digital Improvement Network with digital champions and superusers identified. Alignment with Improving Together ethos and inclusion of local population champions.
- In conjunction with ICS peer organisations, expand the support to our population in the use of technology, maximising the digital interactions with the Trust.
- Ensure the Digital services provision remains fit for purpose, aligned with wider ICS peers to provide the support emerging technology and service models.
- shared training resources and tools across the ICS.
- Continued delivery of priorities of the Digital People Plan.
- Continued evaluation of the potential benefits of introducing emerging digital innovations

Expected deliverables:

- Our population and staff have the access, training and support to use the systems they require
- Mature Digital Improvement Network in place across the Trust
- All staff have completed and passed a basic digital skills competency assessment

Appendix 4 – Glossary of Terms

Term Description	Definition
Way Forward Programme	The Way Forward Programme is a series of site developments with support from £45 million of government funding. The programme will expand and improve services for the growing population of Swindon and Wiltshire. Examples of successful projects include our new Urgent Treatment Centre and Radiotherapy Centre, in partnership with Oxford University Hospitals NHS Foundation Trust.
Improving Together	Improving Together is our approach to continuous improvement, empowering all staff to make improvements in their own area, making a real difference to the experience of patients and the working lives of staff.
BSW AHA	The Bath and North East Somerset, Swindon and Wiltshire (BSW) Acute Hospitals Alliance (AHA) was formed in 2018. It sees hospitals in Bath, Swindon and Salisbury working together, actively looking at opportunities to build on individual and collective strengths to the benefit of our population. The joint projects including joint procurements and the shared EPR programme will ensure our hospitals are organised around what our populations need rather than what we as individual hospitals determine needs to be done.
ICS	Integrated care systems (ICSs) are partnerships of organisations that come together to plan and deliver joined up health and care services, and to improve the lives of people who live and work in their area.
ICB	An integrated care board (or ICB) is a statutory NHS organisation which is responsible for developing a plan for meeting the health needs of the population, managing the NHS budget and arranging for the provision of health services in a geographical area.
Power BI	Power BI is data visualisation software that enables stronger interaction with business intelligence.
HIMSS (EMRAM)	Healthcare Information and Management Systems Society (HIMSS) is a global advisory company who among other areas, specialise in assessing digital maturity. Their Electronic Medical Record Adoption Model (EMRAM) is an outcome driven approach of assessment for healthcare.
ADT	Admission, Discharge and Transfer (ADT)
PHM	Population health management (PHM) brings together health-related data to identify a specific population that health and care systems may then prioritise for particular services.
DQ	Data Quality (DQ)
AI	Artificial intelligence (AI) is intelligence demonstrated by machines, often mimicking the problem-solving and decision-making capabilities of the human mind.
ICU	Intensive Care Unit (ICU) provides critical care and life support for acutely unwell patients.
S4 Pathology Partnership	South 4 (S4) Pathology Partnership covers Buckinghamshire Healthcare, Milton Keynes University Hospital, Oxford University Hospitals, and Great Western Hospitals NHS trusts with the purpose of improving pathology services across the region.