

NORTH BRISTOL NHS TRUST

EXTENDED DIGITAL STRATEGY 2023-2025



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1. FOREWORD



“Our digitised approach to patient care is a story of collaboration, dedication, and determination...”

In 2018, North Bristol NHS Trust committed to a radical programme of innovation that would set it on a path of change, not just playing catch-up but putting NBT on the map as a leader in the field of digitising care.

It's a story of collaboration, dedication and determination; a Trust-wide aspiration achieved through a broad cross-section of staff working together amid extraordinary circumstances.

There are further milestones to come on this journey, but I hope that everyone shares the same sense of progress as I do and sees daily the benefits of a more digitised approach to patient care.

Maria Kane
Chief Executive Officer
North Bristol NHS Trust



“I've seen how digital solutions can transform the care we give our patients....”

Amid the relentless nature of our work, it's important to acknowledge how far we've come. One way of doing this is to imagine the Trust without the technology that we now take for granted. I've seen how digital solutions can transform the care we give our patients. More importantly, digitisation and automation free us up from the mundane and tedious tasks and allow us to focus on what we do best as humans.

Using our Chief Clinical Information Officers to provide the right clinical leadership, it comes back to fundamentally doing the right things by our patients and each other, courtesy of the innovation available to us. I'd like to thank everyone for taking that leap of faith however challenging it continues to be.

Tim Whittlestone
Chief Medical Officer
North Bristol NHS Trust

2. INTRODUCTION

Welcome to North Bristol Trust's Extended Digital Strategy.

This document details the profound impact of the OneNBT Digital Vision, and the desire to extend our strategy to continue our journey towards digital maturity.

Why an extension and not a new strategy? An extension of our existing strategy provides the mandate to further the essential goals outlined in the OneNBT Digital Vision - with appropriate funding - and lay the groundwork for a new strategy. A completely new digital strategy will be prepared throughout 2024/25 and will be single vision across the Acute Provider Collaborative.

At the core of this extended strategy is the commitment to the Trust's ambition to be outstanding for patients, forward thinking for staff and a leading player in delivering digitally enabled healthcare across the region.

This update contains the following sections:

RETROSPECTIVE

A look at the comprehensive delivery of the OneNBT Digital Vision. With over 30 initiatives delivered over the lifetime of the strategy, we summarise the clinical and patient perspectives on our digital transformation.

NEW CONTEXTS

Our sector is ever-changing, and we take a fresh look at the aims and aspirations of our Trust and regional system – and how we align.



OUR FOCUS

How our original vision is to be extended for the next 2 years, reaffirming the benefit to our Trust, system, and our patients. We articulate high level plans and show how each of our digital teams will support the strategy.

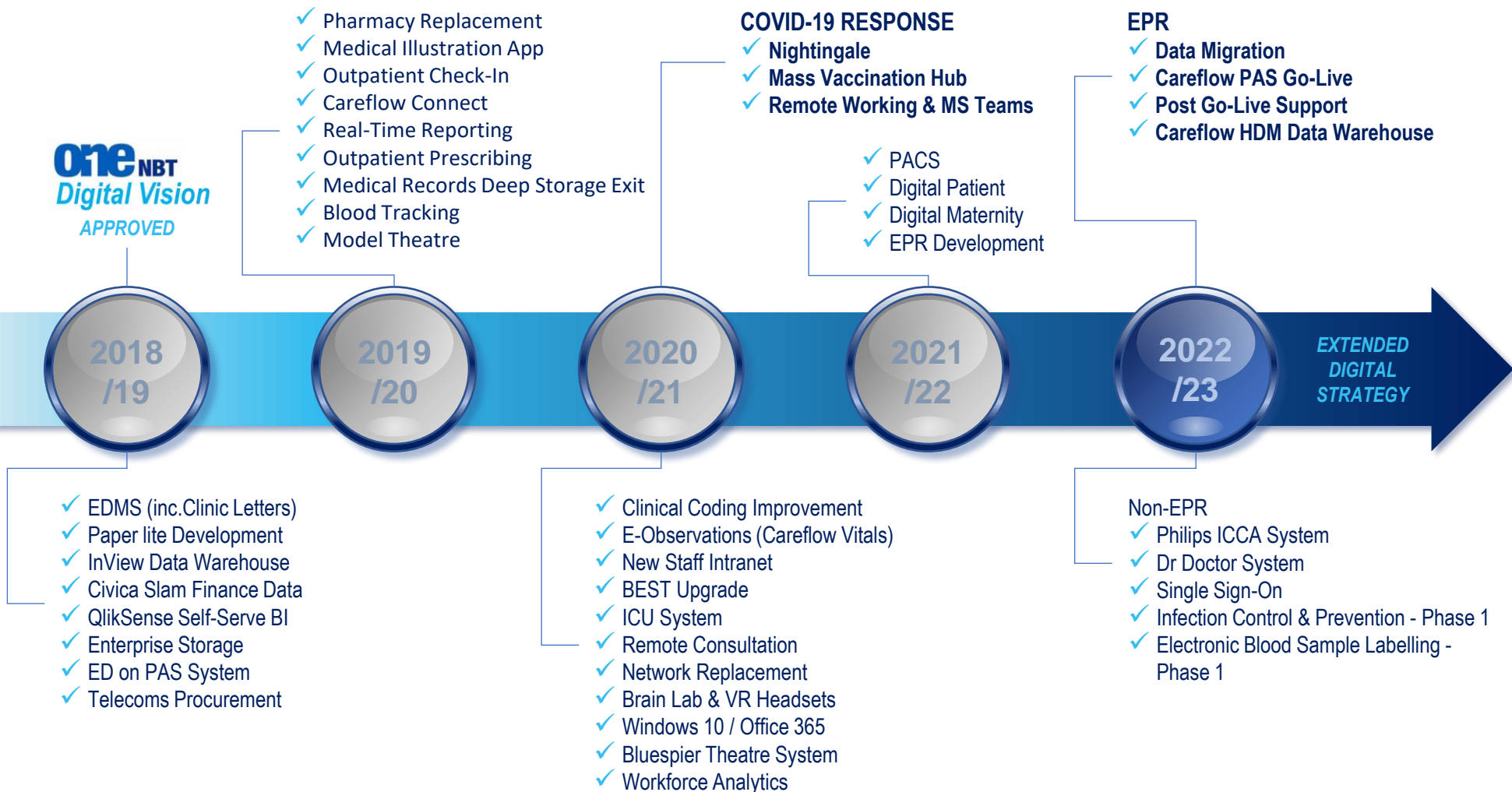
OUR JOURNEY CONTINUES

Our Joint Chief Information Officer provides a call to action, looking to the future of digital at our Trust and in our regional system.

3. OneNBT DIGITAL VISION: RETROSPECTIVE



OUR DIGITAL JOURNEY



CLINICAL BENEFITS

Our strategy has delivered numerous clinical benefits resulting from the many projects that have taken place over the last 5 years. These have been chiefly around multiple staff groups having improved/simultaneous access to real-time patient information, enabling more effective clinical collaboration/decision-making (including across organisational boundaries), and with positive implications for patient safety.



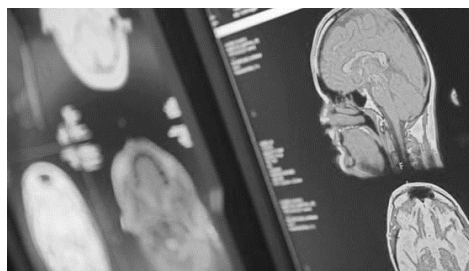
“This new system is user friendly - much quicker for staff to dispense and patients to receive medication. Labelling is now improved, and instructions are easy to read.”
- Senior Pharmacy Technician

Examples include:

- **Electronic Discharge Summary:** Sending discharge summaries electronically into GP’s clinical systems, ensuring that local practices had immediate access to information on patients attending ED.
- **Patient Records:** Digitising historical paper records leading to a significant improvement in records availability regardless of location, from 75-85% to 100% of available case notes.

“Automated charting of patient observations and other critical device and lab information into one place saves time at the bedside and makes key clinical decisions on.”

- ICU Clinical Lead



- **Data Warehouse:** New industry standard intelligence system enabling real-time breach management in our emergency zone.
- **Pharmacy Stock Control System:** Allows quicker access to prescriptions and accurate patient data on labelling.
- **CareFlow Vitals / Connect:** Vitals identifies deteriorating conditions in adult patients, linking with the National Early Warning Score, with alerts feeding through to a care co-ordination app. Connects then enables messaging and handover between clinicians.
- **PACS Alignment:** Our Picture Archive & Communication System (PACS) and Endoscopy systems are now aligned with UHBW enabling collaboration across BNSSG.
- **ICU (ICCA):** Provides immediate hospital-wide access to current ICU patient data including observations, clinical notes, medications, lab reports and bedside devices.

PATIENT BENEFITS



“Our ANC patients are getting a much better service now... the knock-on effect to staff and wider teams has also been brilliant.”
- Staff Member – ‘Women & Children’s Health’ Division.”

Whilst the benefits from our various implementations may not be immediately apparent to our patients, it’s fair to assume that there will be an indirect positive bearing on their experience and the care and safe provision of care they now receive compared to 6 years ago – partly through the time freed up to lead care. However, there have been some tangible changes, for example;

- **Virtual Attendance:** Video Consultations were introduced at the height of the Covid pandemic. Since their launch in Spring 2020, video consultations have since become an established tool to support patient care. Recent enhancements now offer new and improved patient communication functions.



- **Improved patient and visitor experience:** Improved Wi-Fi and connectivity across all NBT locations, including our Retained Estate, ensuring a consistent experience.
- **Patient Check-In:** We have installed kiosks in our Brunel building for people checking in to Outpatient appointments. This has reduced congestion, alleviated pressure on reception staff, and supported social distancing in the Brunel atrium as services resumed following the Covid pandemic. Further kiosks are due to be installed across our retained estate during Spring/Summer of 2023-2024.
- **App-Based Remote Monitoring:** During the first wave of the Covid pandemic, IM&T supported the rollout of multiple apps and digital services to enable monitoring of clinically vulnerable patients from home and optimising hospital attendance.

4. NEW CONTEXTS



INTEGRATED CARE SYSTEM (ICS) FORMATION

Healthier Together

2018



2020



2022



A NEW STANDARD FOR HEALTHCARE IN OUR REGION

With a population of nearly one million and a footprint that includes a large city and outlying towns, villages and rural locations, our citizens have a varied age profile similar to England as a whole. The region comprises of a single Clinical Commissioning Group, three local authorities, two acute trusts, three community providers and approximately 100 GP Practices

As of July 2022, the region achieved the status of an Integrated Care System, as per the original 4-year timescale declared in 2018. An Integrated Care Board has formed, and within this new entity sits the Digital Delivery Board. North Bristol Trust plays a key role within the ICS, ICB, and is represented at the Digital Delivery Board along with wider regional providers.

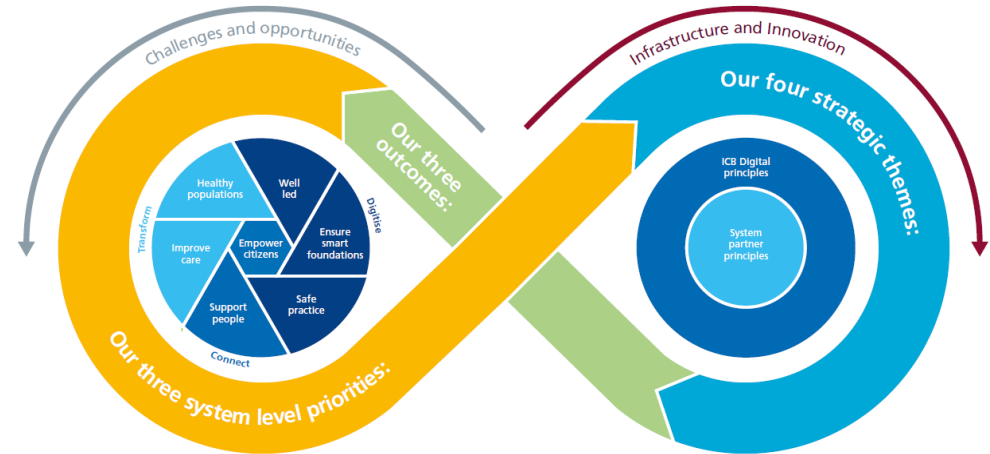
The creation of the Bristol, North Somerset and South Gloucestershire Integrated Care System provides an exciting opportunity to forge a new path for health and social care in our region, setting a new standard for what it means for our partners to work together to improve outcomes for our population and to truly address health inequalities. There is a clear commitment to working collaboratively and optimising design, data and modern technology to make ground-breaking improvements for the health and well-being of our population.

ICS DIGITAL STRATEGY 2023-25

OVERVIEW OF THE TWO-YEAR ICS DIGITAL STRATEGY

Key to the success of the new ICS will be facilitating a smoother flow of people and patients around the region's health and care systems. This will only be possible with greater use of digital tools, and smarter use of data. To achieve this, the ICS has formed its first Digital Strategy. In releasing their strategy ICS recognise that using technology effectively is a key enabler for our wider system ambition. It will create opportunities to enhance care, empower citizens and deliver efficiencies, helping make the system work better for everyone. The following diagram articulates the key aspects of the ICS vision:

"We will establish a fully integrated health and care system that enables people to live healthy lives ensuring that personalised care is delivered close to home for everyone who needs it."



KEY STRATEGIC THEMES

The ICS Digital Strategy has 4 themes:

1. Digitally integrated community health & care
2. Supporting our workforce
3. Using data better
4. Connecting the person

The themes are integral to the delivery of the three outcomes of improved experiences for 'staff', 'people' and 'carers'.

NBT'S STRATEGIC ALIGNMENT

Our extended digital strategy has been developed to maintain support for system-wide integration and to provide citizens with similar digital experiences wherever they interact with the NHS across the ICS. Our strategies align through shared aims for remote care, persistent monitoring and data flows, and system-wide information sharing.



FORMATION OF THE HOSPITAL GROUP

A NEW MILESTONE IN COLLABORATION BETWEEN NBT AND UHBW

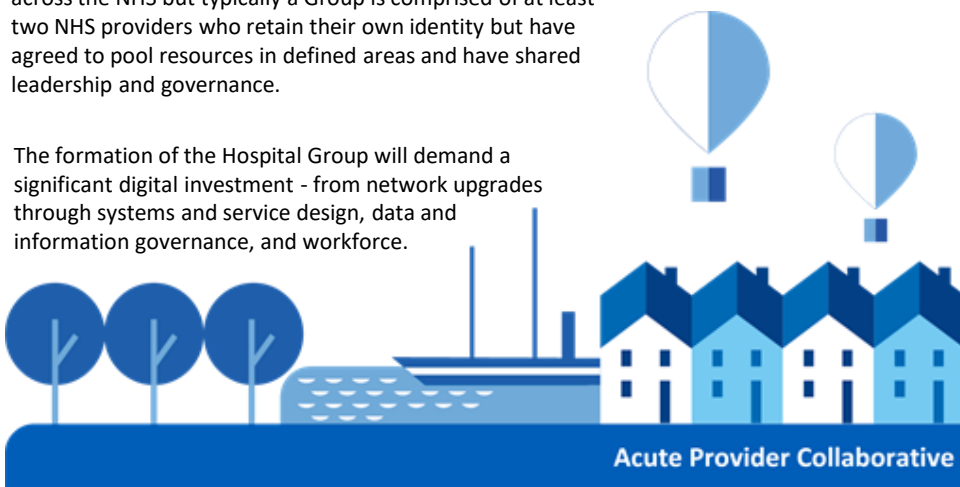
In December, North Bristol NHS Trust and University Hospitals Bristol & Weston NHS Foundation Trust (UHBW) announced the decision to move to a Joint Chair and Joint Chief Executive as we look to establish a Group model. Forming a Hospital Group demonstrates clear commitment from our organisations to formally create an environment which enables a deeper partnership and strengthens collaboration.

Following the Joint Chair and Joint Chief Executive appointments, it is our strategic intent to form a Hospital Group within the next two years to help remove barriers that can sometimes get in the way of providing seamless patient care between our organisations. This builds on the long and successful history of collaboration between NBT and UHBW – from Stroke services to the Bristol ECMO service. The Hospital Group will enable delivery of our Joint Clinical Strategy. This is not a merger, we are joining forces to address shared challenges around workforce, estates and finances whilst remaining independent Trusts.

NHS Trusts nationwide are working together at scale to benefit their populations. This is a fundamental shift in the way the health and care system is organised, moving from an emphasis on organisational autonomy and competition to collaboration and partnership working.

The exact model and extent of a Group varies significantly across the NHS but typically a Group is comprised of at least two NHS providers who retain their own identity but have agreed to pool resources in defined areas and have shared leadership and governance.

The formation of the Hospital Group will demand a significant digital investment - from network upgrades through systems and service design, data and information governance, and workforce.



SUPPORTING THE JOINT CLINICAL STRATEGY

A VISION FOR CLINICAL SERVICES ORGANISED AROUND POPULATIONS AND PEOPLE

In March 2024, the Acute Provider Collaborative launched its Joint Clinical Strategy, outlining our vision to deliver seamless, high quality, equitable and sustainable care, putting patients at the centre of everything we do. Working as a Group to deliver our Joint Clinical Strategy will enable us to address shared challenges, improve access, experience, and outcomes, while addressing inequalities and supporting the wider community. The strategy sets out four themes, as well as our new approach to clinical service design.

The Joint Clinical Strategy supports duplicated services to work together as ‘Single Managed Services’ and every clinical service to consider the opportunities of collaborative working. NBT and UHBW digital strategies will ensure immediate support as the Joint Clinical Strategy moves from approval to delivery. Digital is a key enabler and fundamental to delivering the key principles of the clinical strategy. Accordingly, we will move away from an organisation-based approach to digital services that may frustrate the clinical model.



As we move into our extended strategy, we have already successfully delivered the digital response to pathways spanning multiple providers including a new Maternity system, Stroke and Urology pathways, and the launch of a new Community Diagnostics Centre. Each programme required sharing of resource, expertise, the alignment, configuration and deployment of systems and services, and a unified governance model to ensure delivery.

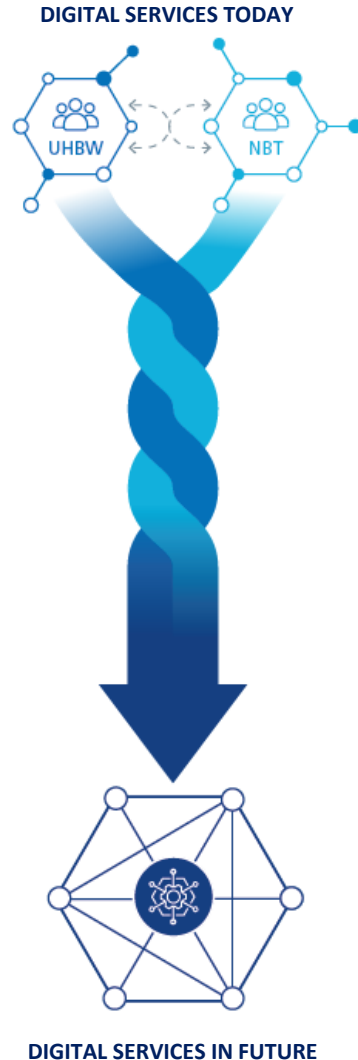
As both NBT and UHBW strategies are now linked, we expect single clinical pathways will become the norm. The principles driving our digital strategy and delivery will meet these new demands.

<p>SEAMLESS</p> <p>Care is consistent and seamless.</p> <p>No gaps, no barriers, no boundaries.</p>	<p>HIGH QUALITY</p> <p>High quality care means the best outcomes, experience and safety for every patient.</p> <p>Our combined knowledge skills and experience realises our potential to be world-class for innovative and modern healthcare.</p>	<p>EQUITABLE</p> <p>Care is based on the needs of our patients and populations.</p> <p>We strive to eliminate inequalities in access to services, options for treatment, opportunities to participate in research and outcomes.</p>	<p>SUSTAINABLE</p> <p>Care is sustainable now and for the future generations.</p> <p>Building on the strengths of each Trust, we achieve greater sustainability working together and at scale to provide comprehensive healthcare in Bristol and Weston, the wider South West region and beyond.</p>
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TOWARDS A SINGLE DIGITAL COMMUNITY

THE 7 PRINCIPLES POWERING OUR DIGITAL STRATEGY

- 1. Joint Governance:** Digital delivery will be overseen through a joint governance model that unites and scrutinises NBT and UHBW's portfolio and plans.
- 2. Upgraded Infrastructure:** An ongoing need to invest in NBT digital infrastructure, together with commitments to level-up UHBW's infrastructure, will enable the joining and connectivity that lay the foundations for long term maturity and convergence.
- 3. Shared Assets:** At the core of our approach is the commitment to share digital assets and resources as part of the Group model of coordination and delivery, This will enable projects and initiatives to be delivered as one digital organisation to the highest clinical, operational and technical standards. Examples will include shared clinic design, duplicate services using one best-of-breed system, and staff working across organisational boundaries to deliver new products and services.
- 4. Convergence of Systems & Services:** We will identify the best systems from across our combined digital estate to deliver our future transformation plans, consolidating and removing legacy solutions in the process. In addition, we will create a single digital community, moving beyond collaboration to a digital shared service.
- 5. One Digital Team:** Digital teams will align and ultimately converge into a single expert workforce, under a joint leadership team, creating new opportunities for development, progression, collaboration and significantly enhanced delivery and assurance.
- 6. System-Wide Outreach:** Outreach is needed to benefit primary, secondary, third sector and community care. Our single digital community will carry the potential for more organisations to benefit from the shared service if the digital boundary moves beyond the Hospital Group.
- 7. Joint Digital Strategy:** Our plans will drive us to a single digital vision for the Hospital Group, expected in 2025.



ALIGNMENT WITH NBT TRUST STRATEGY

OVERVIEW

Our new Trust strategy launched in February 2023, and Patient First is the approach we are adopting to implement this strategy. The Trust's key aim is to achieve Outstanding Patient Experience through three objectives: 'Delivering Great Care', 'Healthcare for the Future', and being an 'Anchor in our Community'.

PATIENT FIRST APPROACH

The fundamental principles of the Patient First approach are to:

- Have a clear strategy that is easy to understand at all levels of NBT
- Reduce our improvement expectation at NBT to a small number of critical priorities
- Develop our leaders to know, run and improve their business
- Become a Trust where everybody contributes to delivering improvements for our patients.

NBT DIGITAL STRATEGY ALIGNMENT

Our extended digital strategy has been developed to maintain the trajectory defined in our original digital vision and to enable the Trust's Clinical Strategy. To ensure that the extended digital strategy meet the goals of the Trust strategy, all new digital projects will pass through the Patient First project charter and prioritisation process. This will ensure that the strategy moves at a pace that the Trust defines.

Key projects identified within the strategy are expected to align with - and enable - the 5 improvement priorities articulated within the Patient First approach, with each project passing through robust governance.



5. OUR FOCUS



EXTENDING & UPDATING OUR DIGITAL VISION

The OneNBT Digital Vision has successfully merged digital transformation into our culture, becoming a foundation of change that leads to improved patient care and safety. Digital technology is now recognised as a key component of organisational transformation, and we will continue to ensure that it is part of every clinical pathway. IT Systems must improve our teams' ability to support patient

care rather than be viewed as an administrative barrier. We are committed to the principles of data at the point of care, removing digital friction, digitising core activities, and sharing our data.

The key themes of our original Digital Vision remain but have evolved in line with our growing digital maturity, and as our contexts and focus have shifted.

OUR UPDATED VISION

WE WILL EXPAND OUR DIGITAL TRUST, PROVIDING AN OUTSTANDING PATIENT EXPERIENCE BY ENABLING GREAT CARE, A SINGLE VIEW OF INFORMATION FOR OUR CLINICIANS, WITH COLLABORATION AT OUR CORE

Our strategy will continue to deliver for **OUR TRUST, OUR PATIENTS, and OUR SYSTEM.**

ENABLING STRATEGIES

We will accelerate digital adoption across the Trust, create compelling information products to enable data-driven decisions, and deploy reliable streamlined systems and services.

OUR AMBITION

We will extend our highly successful and effective approach to digital transformation, with our plans endorsed by the Trust Board. Our innovative and successful approach to funding our strategic plans remain, and we will continue to harness the knowledge and capability available in the local and national health communities to deliver each new digital initiative.

DIGITALLY ENHANCING PATIENT EXPERIENCE

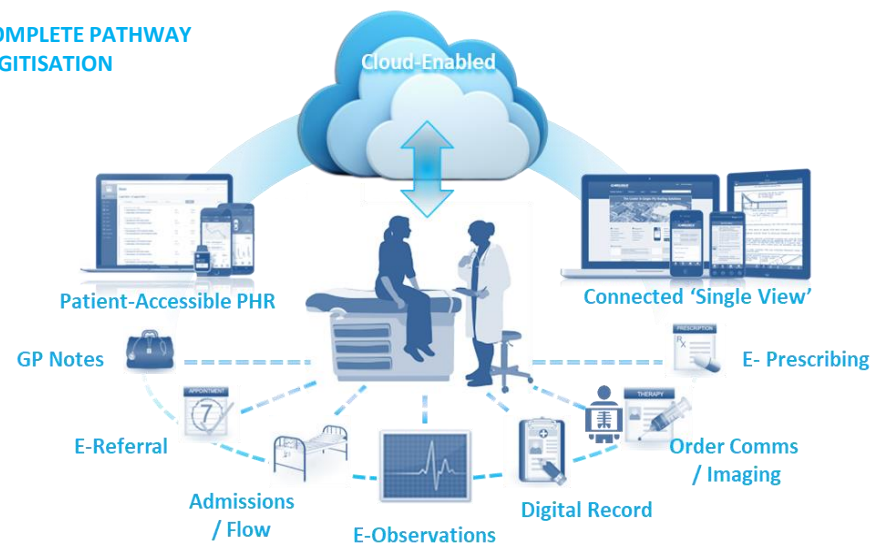
COMPLETE PATHWAY DIGITISATION

We are continuing our commitment to clinically-led digital change. Our strategy reaffirms the goal of digitising the complete care pathway, from admission through medicines administration and onto discharge. Patients will receive better and safer care, and all of our digital endeavours will reflect that the patient is always at the centre of the service.

CONTINUAL MONITORING & INTERACTION

Our patients must be able to interact with clinical services in more innovative and efficient ways than in-person appointments. We will accelerate remote monitoring, enable continual patient surveillance, leading to patient-initiated or care-indicated clinical interventions. We will learn from patient feedback (PROMS) and use data to plan future care capacity and capability.

COMPLETE PATHWAY DIGITISATION



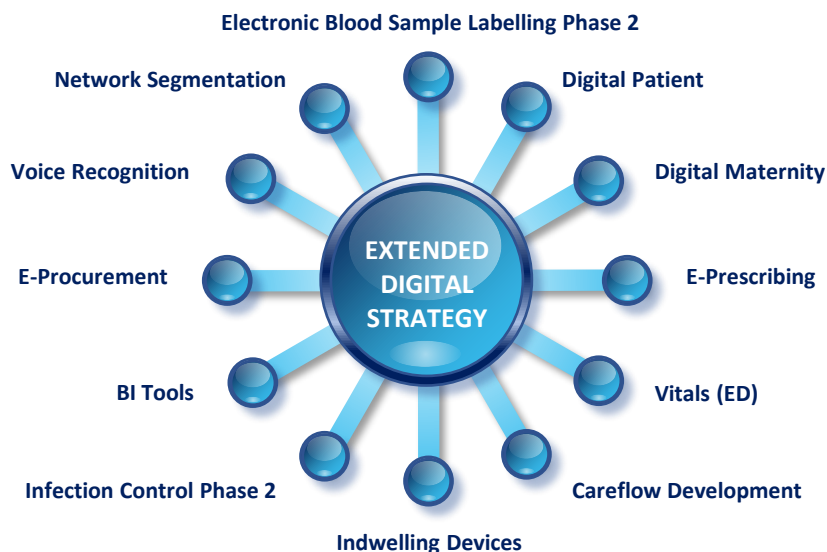
PUTTING PATIENTS AT THE CORE OF OUR SERVICES

Digital solution and service design will continue to be underpinned by the principles of respecting patient choice, decisions and voice. We will remain open to new clinical service design enabled through adoption of new digital innovation, and we will continue to align technology and support to roles in our Trust. We will use our wealth of data to shape our understanding of demographic changes and inequalities in the population we support, and we will continue our collaboration into research with academic and care partners to shape our understanding and future response.

HIGH-LEVEL PLAN

CONTINUING OUR DIGITAL TRANSFORMATION

Extending our digital strategy means our ongoing commitment to quality, safety and patient experience. We will continue to improve our Trust and our ICS by using innovative digital solutions to create an environment in which the right information is available to our staff at the right time. The extended strategy will allow the completion of initiatives that have already vastly improved ways of interacting with the local health system - and ensures NBT continues to accelerate its digital ambitions. Our outline delivery plan delivery plan includes the following:



DELIVERY IN 2023-2024

Key activities enabling further phases of the strategy will be undertaken, notably Careflow Development, Digital Maternity delivery, and progression of Digital Patient and E-Prescribing projects. An updated data strategy and a refresh of BI Tools will be undertaken together with enabling tasks on our network segmentation.

DELIVERY IN 2024-2025

Consolidation of EPR developments and adoption activities will further enable a programme of digital delivery supporting our patient, clinician and system-wide plans. A new Hospital Group Digital Strategy will be created to support the Joint Clinical Strategy, detailing the next phase of digital maturity.

ENHANCED DIGITAL MATURITY

HIMMS EMRAM OVERVIEW

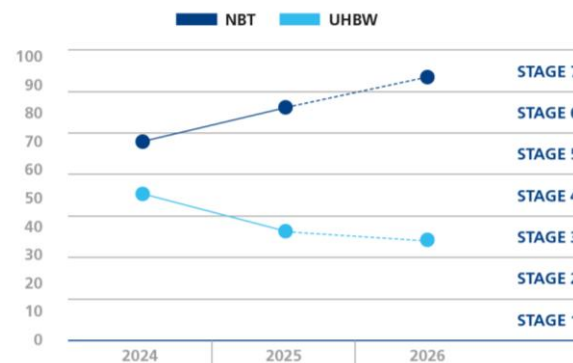
The Healthcare Information & Management Systems Society (HIMMS) EMRAM framework contains 7 Stages and remains the benchmark of digital capability assessment within the health sector. Our delivery of the OneNBT Digital Vision has already enabled significant process in our maturity journey, and this is set to continue under the plans of the extended strategy.

HIMMS EMRAM REQUIREMENTS

All healthcare providers are required to have achieved HIMMS EMRAM Level 5 by 24/25. Our aspiration is to meet this requirement and exceed it through key programmes like EPMA, Electronic Blood Sample Labelling, and advanced security and data analytics work. Our target remains the achievement of the Level 7 rating over the course of our strategy.

HIMMS INFRASTRUCTURE MATURITY ASSESSMENT (INFRAM) AND 2-YEAR TRAJECTORY

The HIMMS INFRAM model covers multiple aspects of digital infrastructure maturity. Each sub assessment inform the overall rating against 7 maturity stages. The 2024 Infrastructure (INFRAM) assessment highlights the necessity of levelling-up and sustaining investment to achieve Hospital Group objectives.



73%
NBT OVERALL SCORE
with a predicted trajectory of reaching Stage 7 in 2026.

47%
UHBW OVERALL SCORE
with an expectation to drift downwards as requirements advance.

CONTINUING THE PATH TO DIGITAL MATURITY

Our journey so far has seen organisational leadership encourage and support staff moving from traditional solutions towards digital working at all stages of patient care. As we extend our strategy, our clinical and operational leadership will remain at the forefront our digital delivery portfolio. As a Trust we will continue to embrace and advocate digital change, supporting individuals as their jobs and working practices adapt to new technologies. All our staff will become well-versed in the need to move from traditional practices into digital solutions. Our clinical and operational teams will become the drivers of digitally enabled change and maturity.

PROGRAMMES



Our IT Programmes function will use their team of highly experienced programme managers, project managers, and business readiness change agents to deliver the portfolio of change described in our strategy. The team has the responsibility for the delivery of the IM&T Capital Plan ensuring that we remain on-track and spend is defined, planned, approved, monitored and prioritised, with robust communications plans engaging the Trust throughout.

Key areas are:

For Our Trust

- Capital Plan delivery for 23/24 and 24/25
- PMO analysis, adoption & compliance
- E-Procurement system replacement

For Our Patients

- Electronic Blood Sample Labelling (P2)
- Infection Control & Prevention (P2)
- E-Prescribing (EPMA)

For Our Health System

- Digital Maturity Assessment
- 'What Good Looks Like' digital lead
- System-wide funding opportunities

TECHNOLOGY



Our digital infrastructure has undergone a huge transformation to provide the stable foundations for our future aspirations. As our digital transformation moves forward in our extended strategy, the dependency on devices that can connect reliably and at speed is critical; without this our staff and patients will become locked-out from the information they need. To optimise our service, we will invest in cloud platforms, best in class cyber security, and reduce legacy technology.

Key areas are:

For Our Trust

- Cyber Security Enterprise network controls
- Equipment refresh and new device types
- Single mobile phone provider network

For Our Patients

- 300 mobile workstations
- Patient / Guest Wi-Fi upgrades
- Rollout / support for indwelling devices

For Our Health System

- Network segmentation / upgrades
- System-wide cyber security
- IT for Elective Care Centres and CDC

SYSTEMS



With the launch of the new EPR in summer 2022, the Trust now has an integrated suite of solutions to effectively manage the patient journey. The EPR's capability will be enhanced and optimised over the lifetime of this strategy, reaching every speciality and offering improvements to ways of working across every interaction. Integration with new ICS-wide platforms is key, and our systems will move in closer alignment across the Hospital Group.

Key areas are:

For Our Trust

- Careflow enhancements / optimisation
- Real-Time Clinical Outcoming
- Digital VTE assessments

For Our Patients

- Additional remote consultation tools
- Re-engineered SMS patient alerts
- E-Observations (Vitals) in ED

For Our Health System

- Digital Maternity
- Digital Patient
- System-wide data flow enhancements

BI & ANALYTICS



Our Business Intelligence improvements have revolutionised information consumption within the Trust. The use of our existing BI platform embedded in the early phases of the OneNBT Digital Vision now runs consistently at capacity. Real-time data in our Emergency Zone, and Faster Data Flows across the national and local health sector is now the norm. In our extended strategy, we will revisit our BI Tools and craft a new data strategy.

Key areas are:

For Our Trust

- Real-Time 'Operations Centre' in ED
- Enhanced BI tools and data products
- Data supporting income from activity

For Our Patients

- Analytics addressing Health Inequalities
- National Data Opt-Out compliance
- Contribute to advanced research and AI

For Our Health System

- 'Intelligence Central' Platform lead
- 'Care Traffic Control Centre' data flows
- System-wide Information Governance

6. OUR JOURNEY CONTINUES



“We move forward with pace and purpose, with the shared goal of technology as an enabler of improved patient care and safety...”

We've come a long way.

Whilst there have been occasions since 2018 to pause and recognise what's been delivered, it's only seeing the sum of these digital achievements side-by-side that shows the enormity of what we've accomplished. I say 'we' because this has been a team effort where change has been clinically-led and technically enabled to collectively turn our vision into reality.

Of course, change is never 'over'. We move forward with pace and purpose. There are many exciting possibilities still ahead of us - not just in what we'll deliver, but how we'll deliver it. There is an unprecedented opportunity in the Hospital Group to accelerate our digital maturity through collaboration, convergence, and transformation of services. We must seize and fully commit ourselves to this opportunity.

The goals set in this extended strategy continue the exceptional work of the past five years and takes our transformation across organisational boundaries for the greater good. What doesn't change is our shared goal of technology as an enabler of improved patient care and safety, and this will continue to drive our work throughout this strategy and beyond.

Neil Darvill
Joint Chief Digital Information Officer
North Bristol NHS Trust





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