NHS
Warrington and Halton Teaching Hospitals
NHS Foundation Trust

WHH Digital Strategy 2020 – 2022

Digital Services

#WHHDigital

Welcome

We are excited to welcome you to our Digital Strategy. Our challenge is to provide Digital leadership within a fast moving healthcare technology environment as we look to directly contribute to our organisation aims and objectives on our journey to outstanding.

This document sets out our commitment to Warrington & Halton Teaching Hospitals NHS Foundation Trust (WHHFT) and our wider stakeholders to support the health and social care needs of our citizens in all aspects of their lives, irrespective of the services they rely upon.

The strategy is influenced by the NHS Long Term Plan, the 5 Year Forward View and the NHS vision for healthcare which clearly expect barrier free health & social care experiences through empowerment (ownership of one's own record and wellbeing), supporting care professionals and their practice, improving clinical efficiency and safety underpinned by modern technology.

Our paperless ambitions will focus upon optimisation of our Electronic Patient Records to support our staff, patients and carers in embracing digital solutions for complex yet seamless health & care services. We will continue to build upon the emerging national, regional and local solutions to realise our aim of outstanding services through our Quality, People and Sustainable objectives. Such initiatives include the MyGP app, now delivering real value to patients irrespective of their relationship with the health system.

Your data is our key asset when delivering outstanding services that allow our citizens to manage their health whilst also informing wider population health initiatives. Advanced clinical applications will demand a digitally skilled workforce to deliver responsive and high quality services reliant upon the digital care record. Security & confidentiality, accessibility & availability, accuracy, comprehensiveness and usability are all key facets of world class digitised care. It is our intention to develop ever more impactful and accessible decision support tools and insights for clinicians and patients in pursuit of the right information, advice, decision and support every time.

We are committed to supporting our workforce and our citizens to achieve outstanding care. Our rebranded "Digital Services" department states our intent.

Phill James, Chief Information Officer
Alex Crowe, Chief Clinical Information Officer

Why have we produced this strategy?

Delivering this strategy will support the Trust's work to be recognised as an outstanding provider.

The ambitions of the NHS Long Term Plan make clear references to the role of digital in enhancing out-of-hospital care, reducing A&E visits, enhancing self care opportunities and reducing outpatient appointments. This strategy defines the digitisation our patients, staff and wider stakeholders can expect from Warrington & Halton Teaching Hospitals to support these ambitions. A clear vision enables our existing and prospective employees to feel enthused by our ambitious digitisation plans whilst our patients will be confident we will deliver a high quality care experience.

Digital as a Clinical Tool

The Trust has invested in a range of technology schemes that centre upon the longitudinal Electronic Patient Record. The feedback from this experience cements the essential nature of our digital services on a par with our clinical tools. Delivering upon these needs in a cost effective manner requires clarity of vision to focus hearts and minds.

Consultation informs us of a desire to embrace a functional, responsive, well designed system experience of tailored workflows upon reliable infrastructure in pursuit of the perfect working day and the outstanding patient experience. A feeling that the system works for the user, not against the user.

What is the most important factor to consider to aid the Digitisation of your role?
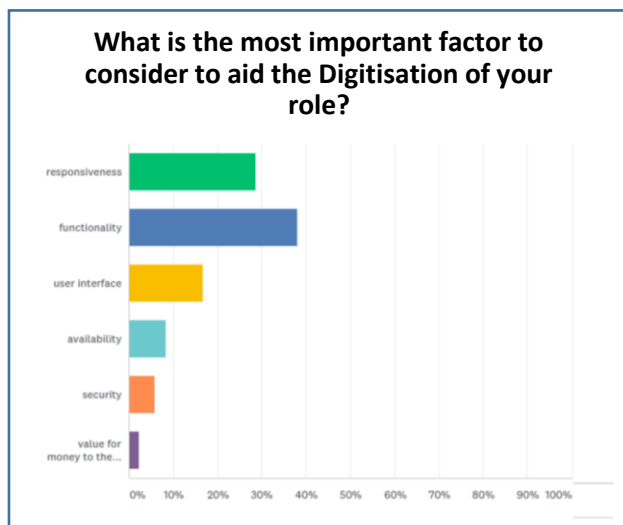
We must now move towards flexible solutions built upon open data to deliver impactful outcomes. We will enable the Trust to compliment its EPR with appropriate specialist tools to provide one seamless experience without detriment to patient care, safety and clinical effectiveness.

Strong digital services will help tackle the challenge of scarce resources versus rising workload as we develop our Teaching Trust upon sustainable solutions to attract high calibre colleagues. A credible delivery plan will support these aspirations through a skilled digitally-ready workforce, robust governance and appropriate commercial acumen, protecting the Trust's interests whilst maintaining our reactiveness to the dynamic healthcare environment.

Key Facts

Warrington And Halton Teaching Hospitals NHS Foundation Trust has a high level of digitisation in place, as the following key facts demonstrate.

870
WiFi Access Points across our estate

~4000
Desktops, Laptops and Tablet Devices in use across the Trust's three hospitals

~5500
Active Users of our Digital services

~240
Applications in use by our staff

61
Digital Personnel support our Trust

14.5
Million Pounds invested in Digital over 5 years

~55,000
Support Calls fielded by our Service Desk since April 2018

~56,000
Discharge Summaries sent electronically to GPs per annum

1,000,000+
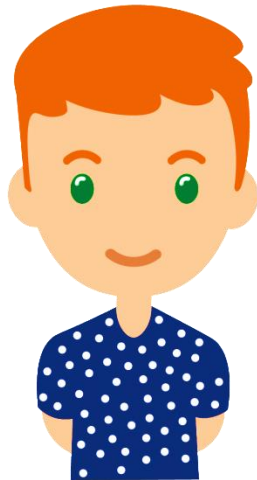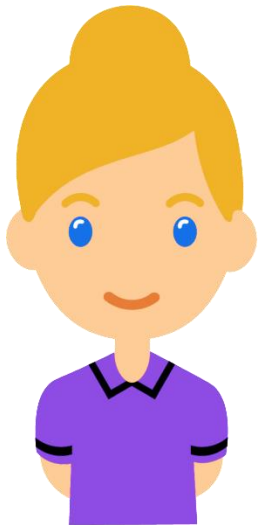Patients registered in the Trusts Electronic Patient Record

~1,000
Clinicians trained in the use of our systems per annum

Digitisation Will Support Our QPS objectives

Our digital services will enable clinical teams to successfully deliver their strategies and service transformation including service redesign and shared communication.

Quality - Well executed digital services are a key care quality enabler, avoiding security risks and interpretation errors associated with paper processes and enhancing the information available in the right place, time and manner.

A strong marriage between our technology and users will lead to higher data entry compliance rates which in turn lead to greater accuracy. Higher levels of accuracy mean greater benefits of automation and reduced variation via planned Machine Learning, Artificial Intelligence and the Decision Support tools they inform. Our operational performance will benefit from digital support for integration of clinical services where safe handovers of care and utilisation of finite resources are optimised by ubiquitous records access, thus averting avoidable delays in care.

People - The accuracy and presentation of key information in real time is growing in influence. Robust and accurate information will reduce workload pressures on frontline and corporate personnel alike with less duplication, avoidance of unnecessary effort and further opportunities to automate repetitive tasks.

We anticipate outstanding digital services that contribute to a "learning organisation" will attract the highest quality workforce which in turn will contribute to the journey to a outstanding Teaching Trust with a reputation that attracts the commissioning of a greater range of clinical services. The Trust needs an attractive environment to support our valued workforce with the digital experience a contributor.

Sustainability – By directing investment to the areas of most need, use of resources is enhanced through eradication of costly mistakes and automation of low value tasks, supporting services delivered at scale. In order to deliver clinical and financial sustainability it is imperative that we work in partnership with organisations including acute and tertiary providers and community, primary care and social care partners.

Digitisation will enable collaboration across traditional organisational boundaries through shared care records for example. As national investment in population health increased the sources of data available to healthcare professionals, digital services must assure the quality of such data. Only by deploying effective and seamless digital tools will the quality match the purpose and ensure the long term NHS commissioning decisions truly support greater self care and healthy lifestyle norms of patients.

The WHH Frame

Quality
We will... **Always put our patients first** through high quality, safe care and an excellent patient experience

People
We will...
Be the best place to work with a diverse, engaged workforce that is fit for the future
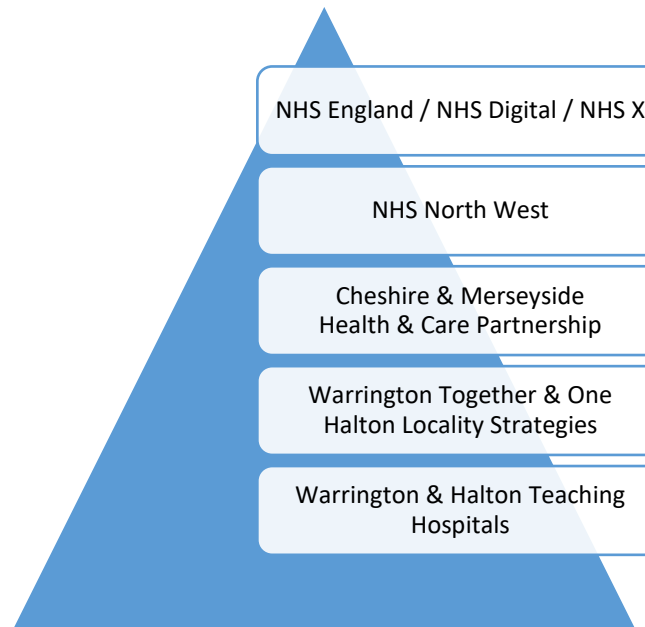
Sustainability
We will... **Work in partnership** To design and provide high Quality, financially sustainable services

Aims, Objectives & Landscape

Our digital aims and objectives are not unique yet our outstanding ambitions remain very personal. A range of digital transformations, from national to locality support, are being encouraged as the NHS aspires to a fully integrated system and we understand the value of working with peers to secure this necessary investment.

In late 2018 an NHS policy was issued to define "The future of healthcare: our vision for digital, data and technology in health and care". We acknowledge the role these measures will play in removing technical barriers, taking the steering wheel from suppliers to purchasers such as ourselves. We will harness those policy aspects that progress our journey to outstanding services.

- NHS England / NHS Digital / NHS X
- NHS North West
- Cheshire & Merseyside Health & Care Partnership
- Warrington Together & One Halton Locality Strategies
- Warrington & Halton Teaching Hospitals

- Empower
- Enhance
- Collaborate
- Secure
- Connect
- Innovate

On our regional footprint our STP's Cheshire & Merseyside Health & Care Partnership issued the Digit@LL strategy in 2018 to ensure all organisations collectively agreed a vision focused through six key themes (left). These themes have subsequently been cascaded as locality work streams. Our Warrington & Halton localities will continue to demonstrate their commitment to the Digit@LL strategy via their chosen solutions for locality care record sharing and personal health records, delivering upon the "connect" and "empower" themes.

An overarching Share2Care initiative is interconnecting the three North West shared record solutions (Cheshire & Merseyside, Lancashire & South Cumbria and Greater Manchester), further dissolving care boundaries and enabling geographically challenged providers such as the Ambulance Service to wholly partake in record sharing. These records will feed the Local Health Care Record Exemplar solution to inform STP and North West population health insights; a key facet of the NHS future plans.

We continue to support the "innovate", "enhance" and "secure" work streams in pursuit of safe and effective digital services.

The WHH Frame
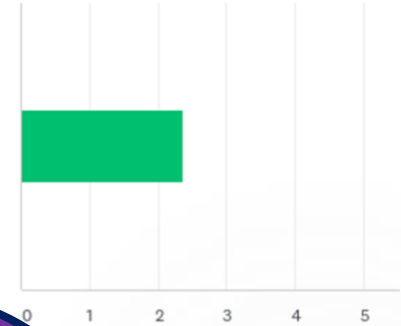
How Did We Get Here?

In 2016 we consulted with colleagues and published an IT Strategy "From PCs and Paper to Electronic Records" to progress the digital ambitions of the Trust. We have made good progress implementing what you said we should deliver with our digital expertise and resources organised as four complimentary teams.

We connected people; We introduced user devices, Patient Wifi and video services, digital telephony and infrastructure services.

We improved quality; We continue to progress structured forms, develop new datasets within our data warehouse, commission Business Intelligence services and improve communications to / from our GPs. We have successfully completed the first phase of our electronic prescribing project.

IT
- Data Centres
- User Devices
- Communications
- Cyber Security
- Service Desk

Information
- Data Quality
- Reporting
- Dashboards

EPR
- Programmes
- Patient Records
- Product Specialists
- Training
- Exemplars

Enterprise
- Standards
- Data Warehouse
- Integration
- Automation

We optimised; we enhanced the Accident & Emergency experience with swift tap to logon/off, enhanced our ward e-whiteboards and introduced our first Robotic Process Automation.

IMT DIGITAL ROAD MAP
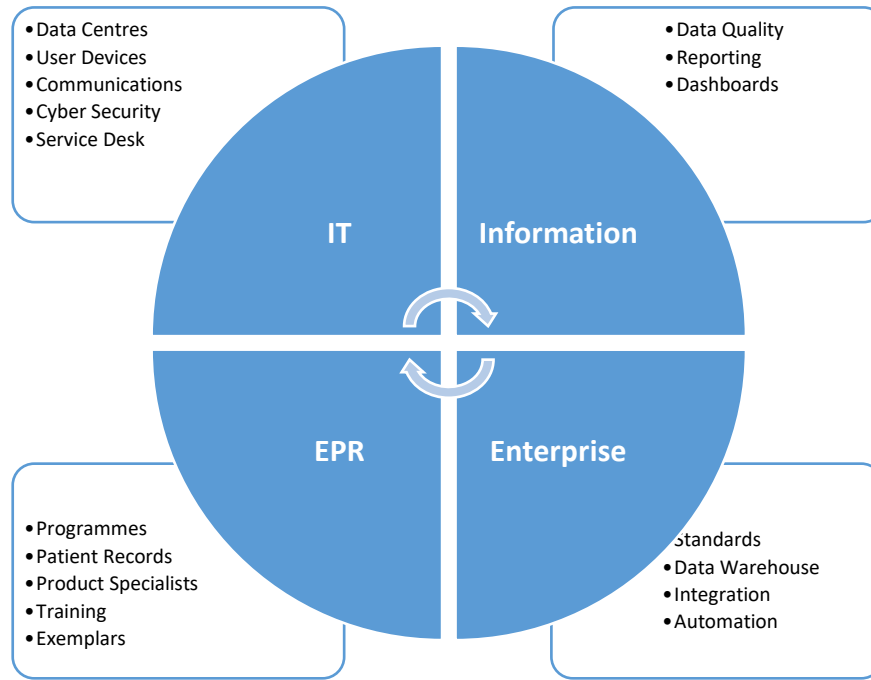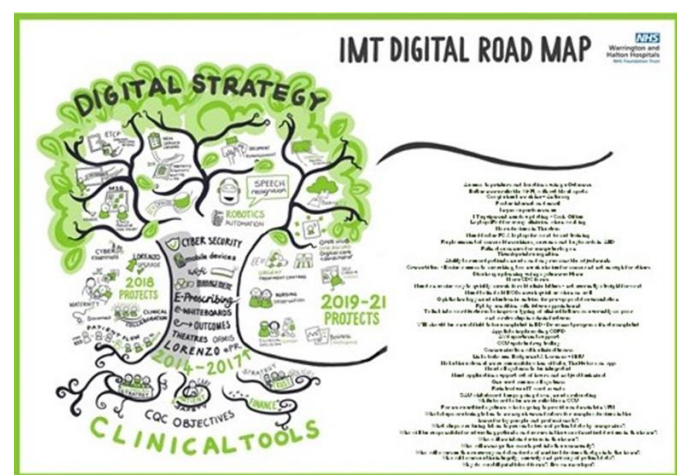
We secured Electronic Patient Record (EPR) exemplar status and have progressed the optimised design of Diabetes and Head Trauma Pathways.

In 2018 we consulted once more, describing our ambitions to 2021 in the form of the tree. We changed the language to digital and looked to the exemplar scheme to drive our ambitions encompassing complimentary solutions and infrastructure. We have positioned our EPR to benefit from:

- Clinical Decision Support
- Voice recognition for outpatient clinics & wards
- Electronic patient observations and alerting
- Electronic prescribing
- Paperless (Electronic Documents).

A timeline of our subsequent EPR development journey is provided overleaf.

Reflecting

Reflecting

EPR Phase 1
- Patient Record
- Theatres
- Orders & Results
- WiFi
- Mobile Working
- Electronic Whiteboard
- Electronic Discharge
- Digital Dictation

EPR Optimisation
- Hospital @ Night Management
- Structured Clinical Data Capture
- Medical Take List
- Patient Text Reminder Service
- A&E Child Protection Service

Retaining Good
- Electronic Prescribing And Medicines Administration
- GP Medicines Reconciliation
- Primary Care Records Access
- End Of Life Records Access
- Live Dashboards
- Enhance Diagnostics Workflow
- Ward Accreditation
- Inpatient Clinical Data Capture eReferral Triage
- Patient Letter Enhancements

2015 → **2016** → **2017** → **2018** → **2019**

EPR Phase 2
- Outpatients Robotics Automation
- Nursing Risk Assessment Care Plans
- Referral to Treatment
- Care Pathways– Alcohol Smoking/Sepsis/Pre Operation Assessment/Acute Kidney Injury
- A&E Tap on/off

Transition Into Benefits Led BAU
- Record Exemplar Status (LDE)
- Community Electronic Prescription Service
- Patient Guest WiFi
- Maternity E-Whiteboard
- Patient Flow Red to Green
- Outpatients Clinic Room Management
- NHS Email
- Cyber Essentials
- Electronic Patient Letters to GPs

Business Intelligence

The Trust has recognised the need and role of accurate insights by supporting a case for enhancing our Informatics capabilities towards true Business Intelligence (BI) from the ground up. Our traditional approach to information with reporting islands allowed a range of challenges to emerge that prevented efficiency and timely insights and dashboards.

Unsystematic - Stage 1
- As needed reports
- Heavy reliance on localised spreadsheets and files
- Staff driven - single point of dependency

Operational Reports - Stage 2
- Uses data from transactional systems
- Operational data reporting
- Reports on "what happened" in the business

Management Dashboards - Stage 3
- Executive level reports
- Dashboard driven
- Better insights using charts/dials
- Reports on "Whats happening in the business and trends

Self Service Analytics - Stage 4
- Using driven analysis using data cubes
- Data explored across all dimensions
- Rich drillable reports
- In-depth data correlations

Data Driven Predictions - Stage 5
- Advanced predictive analysis
- Big data capabilities
- Help to identify patterns to predict future.

Actionable Insights - Stage 6
- Feeds off predictive analysis results
- Executive decisions based off predictions to manage business better

Investment in technology, skills and capacity has been made and the first fruits are now appearing.
The infrastructure to deliver truly corporate business intelligence has commenced and the Information Transformation road map deployed with a range of real time dashboards already successfully published.

Ward to Board: Our programme for BI development continues with a plan for ubiquitous access to a BI portal to support actionable insights from ward to board. To democratise our data, we will open previously closed data capture and processing applications.
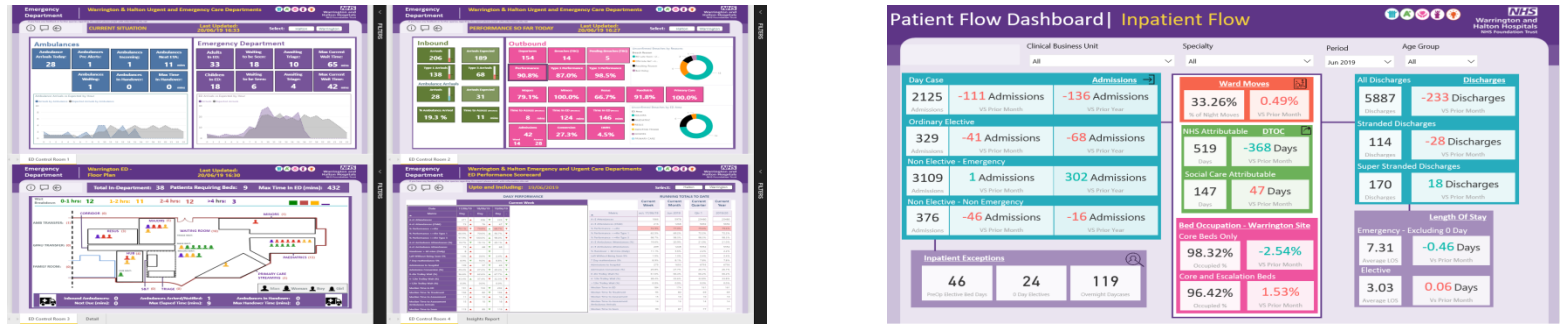
Strategic Alignment

In 2019 the Trust was successfully recognised as a "Good" organisation by CQC. This is a tremendous achievement that included recognition of our recent digital journey and reframed our ambition to outstanding. We must now set out our means to reach "Outstanding". The Trust has published a range of strategies that, delivered in a complimentary manner, will realise the optimum patient benefits that pursue our vision. The profile of the digital strategy is raised by the strategic presence of the Chief Information Officer and Chief Clinical Information Officer on the Trust Board.

GOOD

Prevent Harm

Integrate Pathways

Optimise Experience

Timely Discharge

Self Care

Quality Of Service

Equality

Efficiency

Community

Inclusivity

The benefits of outstanding digital will be judged on the effectiveness of the clinical and corporate services we underpin and the experience of colleagues and patients. We recognise the key words to the left as indicators of outstanding outcomes. Our services will be typified by:

- **Optimisation of systems** and their datasets to facilitate the most efficient and effective care pathways and contribute to a high quality patient experience.
- **Facilitating safe and secure Remote Care opportunities** where geographically dispersed skills and expertise offer enhanced care outcomes.
- **Empowering our citizens** to care for themselves and take control of their own health and wellbeing via access to personalised online information and advice, thus nurturing Self-Management.
- **Play an active role as a Cheshire and Merseyside innovator** to deliver Digital Excellence such as Genomics, Precision Medicine, Research, Process Automation and Clinical Decision Support including Artificial Intelligence.
- **Surface our operational data** as Historical and Real-Time Information in an appropriate format to aid Effective Decision Making from ward to board.

Delivering this experience will rely upon the support of our people strategy to recruit and retain the right skills and expertise and improve practice with full Digital inclusivity. Digital will play a role in nurturing the characteristics of a learning organisation creating feedback loops to inform best practice. New ways of working will transform our Trust. Our delivery will dovetail into the Trust's Quality Academy initiatives, supporting innovative tests of change to migrate new solutions swiftly into practice. Accreditation regimes to support Nursing/Midwifery and Clinical Strategies present us with opportunities to encourage new Digital behaviours.

Assuring Clinical Flexibility & Agility

Acknowledging the need to assure basic performance and availability, our key Electronic Patient Record will remain our centrepiece to orchestrate our clinical digital services. We will strengthen our commercial position and resilience by allowing colleagues to influence the most appropriate workflow solutions within each care domain, centred around open data and rich integration, whilst we hold the tiller to protect efficiency, efficacy and thus value for money.

We will derive benefits from existing investments whilst introducing flexibility and agility. Innovations are often mentioned in harmony with Digital and true transformational change depends upon such measures. We will work with the Trust Quality Academy to assess opportunities, nurture their potential, assess their priority and realise their benefits whilst accepting that some will fail fast. We will be work with colleagues to further the influence of maturing technologies such as Robotic Process Automation, Voice Recognition and "Internet of Things".

The Trust has demonstrated its forward looking nature via its early adoption a board level Chief Information Officer whom also holds responsibilities across the two localities and accountability across

the region. The time is right to extend the thinking to the entire pre-hospital, primary, acute, community, mental health and social care domains including self actuation of patient behaviours. Tightly coupled solutions through rich integration will deliver Digital in a seamless and resilient manner.
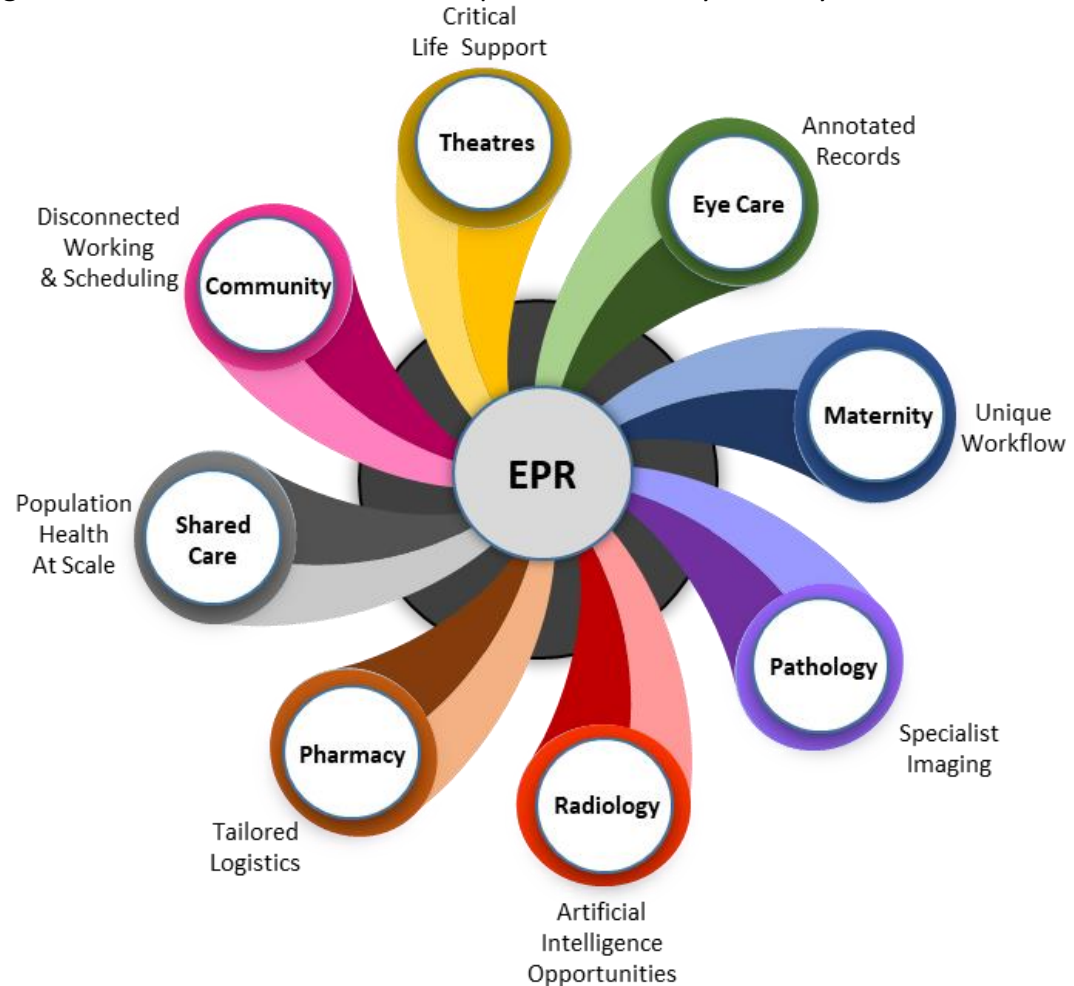
Moving To Outstanding – User Experiences

Our digital ambitions require strong foundations upon which to build. Consultation has gleaned our critical success factors with usability at the core. Whilst the Trust has achieved a strong level of digitisation the basics must be improved if the aspired transformation opportunities are to be successfully adopted.

We must meet this challenge whilst paying respect to national Digital Healthcare policy. Whilst our digital environment has introduced an impressive range of digital clinical services into a complex environment, we must review the most basic performance of our infrastructure and key applications that represent our foundations.

This will mean modernisation of our infrastructure and workforce to facilitate continuous optimisation without constraints and barriers.

Delivering upon this aim will require new workforce capacity and capability in areas such as Project Management, Product Application Development, Vendor Management and communications (publicity & consultation).

The NHS has adopted the international HIMSS framework to measure digital maturity. Raising our maturity is fundamental to demonstrating our digital credentials and wider credibility as a healthcare provider. We aim to move our capabilities from HIMSS EMRAM Stage 4 to Stage 7 over the coming 4 years by investing further in our EPR and its ecosystem to introduce capabilities such as management of blood products and human milk administration whilst further strengthening our business continuity and cyber security measures.

Our Electronic Patient Record (EPR) solution will benefit from NHS blueprints as part of the evolving Global Digital Exemplar regime; an expectation of the NHS Operating Framework. We will put in place a structure and team that will continually optimise our technology to make the organisation more safe and sustainable. This work will rely upon the skills and expertise of our CCIO structure, a key recommendation of the Watcher report. Our CCIO structure will be assessed to ensure its spread of expertise is adequate to fulfil its purpose.

Usability

Intuitive   Accessible   Flexible   Responsive   Seamless
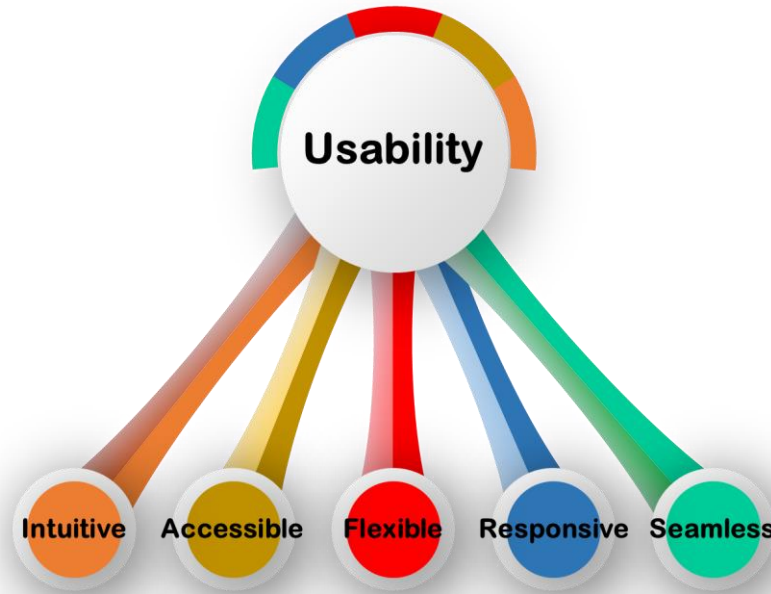
Moving To Outstanding – Forward Looking Architecture

Our technical architecture will revolve around key clinical and enterprise systems built upon open datasets to remove legacy barriers. We will further develop our integration capabilities to support modern healthcare messaging and embrace flexible hosting options (on premise / cloud / shared services) to improve accessibility, reduce risk, increase value and enhance our agility. Our approach will support greater collaboration and the emerging forms of healthcare providers.

A well architected infrastructure will facilitate our aims of improved data quality and thus greater access to insights and more effective decision making for outstanding care. Our aim is to provide the right information in the right format at the right time, on a live or retrospective basis, all assured from a single version of the truth. Our developing Business Intelligence (BI) environment will have a direct and positive impact on the Trust's performance by improving the ability to accomplish the mission by making more informed decisions at every level of the Trust from corporate strategy to operational processes. We have successfully deployed new real-time dashboards for A&E patient management and patient flow but there remains much more to do as we unlock the data.

Our associated staff skills will ensure we harness the available technology and spot opportunities to introduce more capable tools. As our infrastructure and repositories becomes more "open", so will the opportunities to bring datasets together for reporting as one and thus surfacing of new insights, all on the terms of the user.
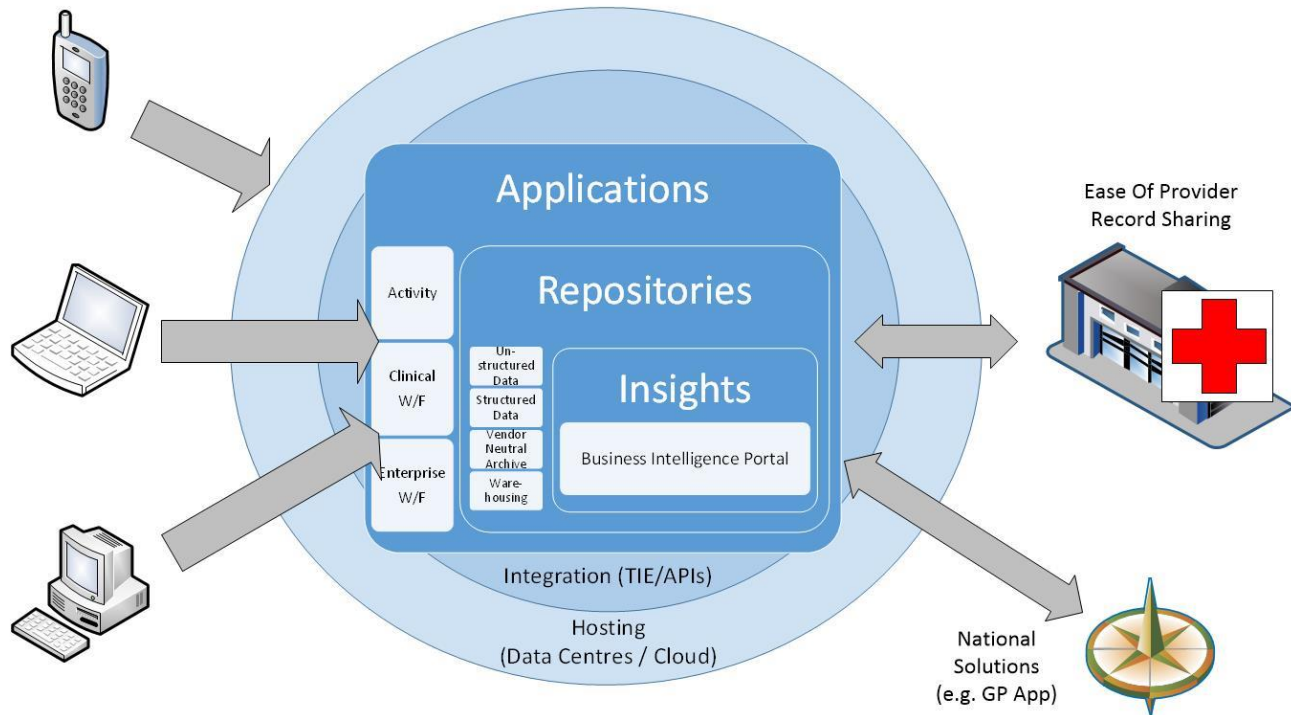
Inclusive Workforce Planning

The success of Digital healthcare is now reliant upon culture, capability and capacity of our entire workforce and the populations we serve.

International research confirms the acceptance of digital solutions is significantly influenced by delivery capability over product choice. We have assessed our department structure (see right) and identified the skills gaps we must address (red) and existing skills where capacity issues are known to exist (orange). Recent investments in Business Intelligence have proven to be effective.

Frontline Stakeholders	Programme Management	Enterprise Solutions	Operations	Business Intelligence	Compliance
Chief Nursing Information Officer	DevOps Programme Management	Solutions Development	Architecture		Cyber
Wider Workforce Skills	Data Quality Co-Ordination		Chief Technician		
Deputy CCIOs	Benefits Management		Data Centres		
	Communications		Asset Management		
			Security		

We are committed to embracing the transformation opportunities available to all aspects of care by installing the correct blend of skills and influencing organisational culture. Our workforce capability is key to deriving maximum benefits from our enterprise and clinical services, whilst our patient skills and motivations are paramount to digitally enable holistic care.

We are committed to structuring our technology and governance to promote opportunities for colleagues to "own" their digital services in pursuit of agile and responsive service developments. Our "Clinical Digital" team will harness their energy and passion to co-ordinate a structured response to these aims and objectives, bringing our digital teams front of house. We will embrace and nurture a co-operative culture where our core Digital Services team has

the tools and skills to work closely with our wider colleagues - Digital Champions - with their deeper understanding of digital needs and nuances in their respective field, or greater resources across the region. This strategy is borne on a belief that all staff and patient skills and knowledge are vital to instilling a can-do culture that eases the burden on the Digital Services department whilst protecting their good governance and administration values.

Inclusion extends to the ability to utilise the services as much as owning the developments. Usability is a key barrier to adoption and optimisation relies upon the right inputs to be successful. #WHHDigital will succeed as a whole Trust initiative with Digital Services directing operations from the centre. Colleagues and stakeholders will be invited to contribute to our governance regime.
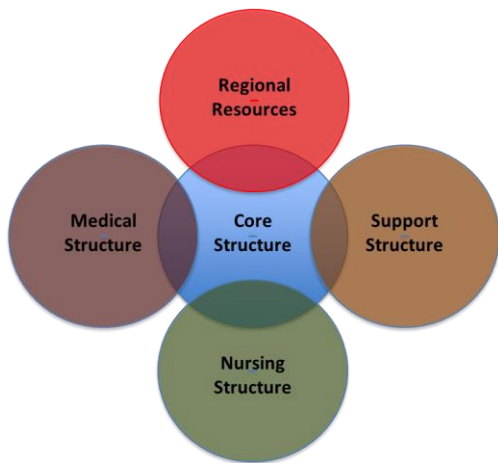
The Way To Outstanding
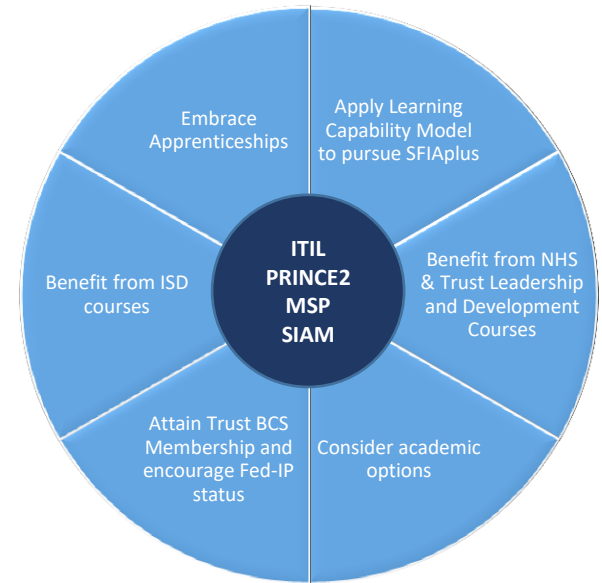
Nurturing Outstanding Capabilities

Outstanding digital relies greatly upon our digital personnel. We will target 6 areas which together aim to re-energise our service in readiness for the programme of work. We will consult on structure changes to align our staff capabilities and capacity with the demands of the vision. We will address gaps by assessing our department against the recognised BCS Learning Capability Model in line with the SFIAplus definitions. Moving to a high performing service will require a mix of apprenticeship opportunities for new and existing staff alike, with access to NHS, academic and vocational courses.

Fed-IP is being promoted by NHS Digital and the NHS Digital Academy as a marker of an outstanding digital workforce. We will support our staff to become accredited, recognising that this is a cornerstone of raising the professionalism of digital roles and their growing influence on safe patient care. We will build upon our successful Informatics Skills Development Network Level 1 accreditation to pursue Level 2 at pace and leverage the associated benefits.

We will also align our on-call capabilities with the increasing demands of the programme to continuously optimise and enhance the Electronic Patient Record. As we deploy Electronic Prescribing, Electronic Observations and Clinical Decision support to name a few, our services now impact directly upon patient care and our traditional 24/7/365 infrastructure support must be made fit for purpose.

Our use of resources metrics are now a key indicator of appropriate investment in capability and capacity and encourage us to think SMART as we align digital services with growing clinical needs. Working closer with peer organisations will provide options to protect UoR outcomes as we widen and deepen capabilities but local skills and expertise will continue to lead.

To assure the value and performance of our services we must re-enforce basic responsibilities such as contract/vendor management (via the Service Integration and Management (SIAM) model), customer relationship management and license management whilst nurturing emerging skills such as robotic process automation, cyber security, cloud services and new ways of delivering agile application developments including open data. Whilst we will not develop complex software in-house, we will enhance our skills in workflow / business process management developments to aid efficient and effective support and corporate services. Where possible, we will maintain separation between clinical and non-clinical solutions to protect clinical services.

The Way To Outstanding

Embrace Apprenticeships

Apply Learning Capability Model to pursue SFIAplus

Benefit from ISD courses

ITIL PRINCE2 MSP SIAM

Benefit from NHS & Trust Leadership and Development Courses

Attain Trust BCS Membership and encourage Fed-IP status

Consider academic options

Outstanding Governance

Seeking assurance in the right forum is key to strong delivery. Our digital activity includes a Digital Optimisation Group for prioritising a large range of competing initiatives on a needs and resources basis.   Our Solutions Design Group assesses requests for solutions and directs the owner to the correct path. This group will utilise frameworks to consistently optimise the digital experience. As we strive to deploy technology that touches ever more directly upon patient experience and safety we must continually assess the robustness of our governance.
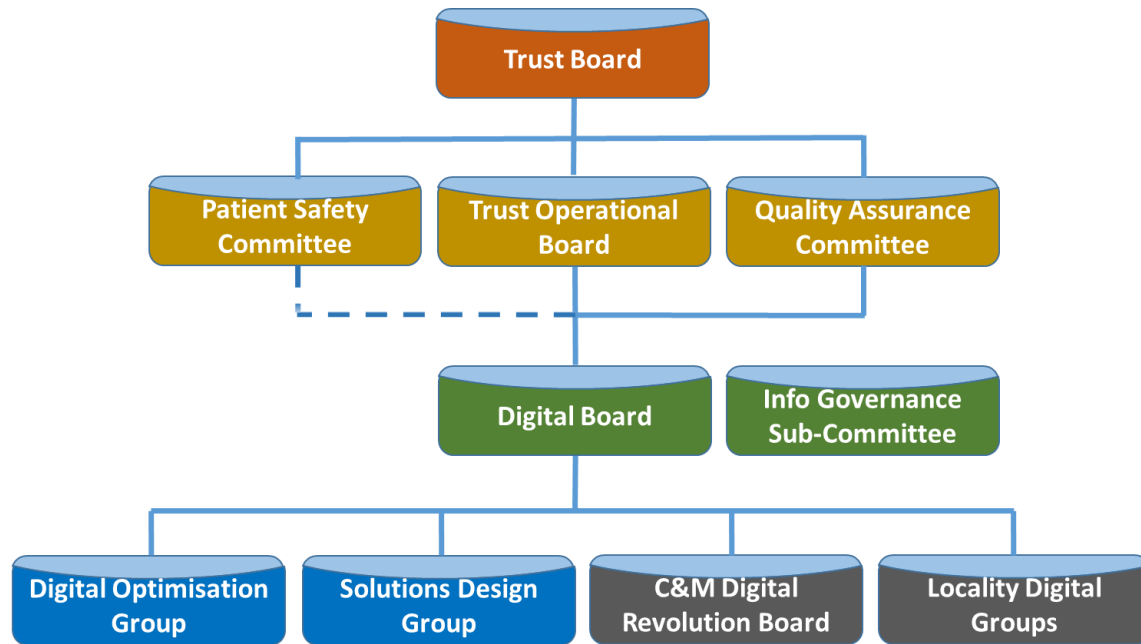
We will seek assurance through Quality Assurance and Patient Safety committees as necessary. As we look to the Cheshire & Merseyside Health & Care Partnership to access national digital funding and collaboration at scale initiatives and apply those opportunities to our localities, we look to our Digital Board to orchestrate all internal and external Digital proceedings. We will seek to develop more robust project boards and vendor management meetings to aid the management of the large range of change and operational services activities.

We will remain active contributors in the Cheshire & Merseyside footprint to influence and benefit from shared digital opportunities that abide by the shared Digital Roadmap. The 5 key Digit@LL themes remain important enablers to all trusts within the region. We will continue to report upon all such live schemes including cyber security, patient portal, sharing of patient records for direct care, enhancing our infrastructure towards a common standards and innovating to deliver the best services possible whilst assuring value for money.
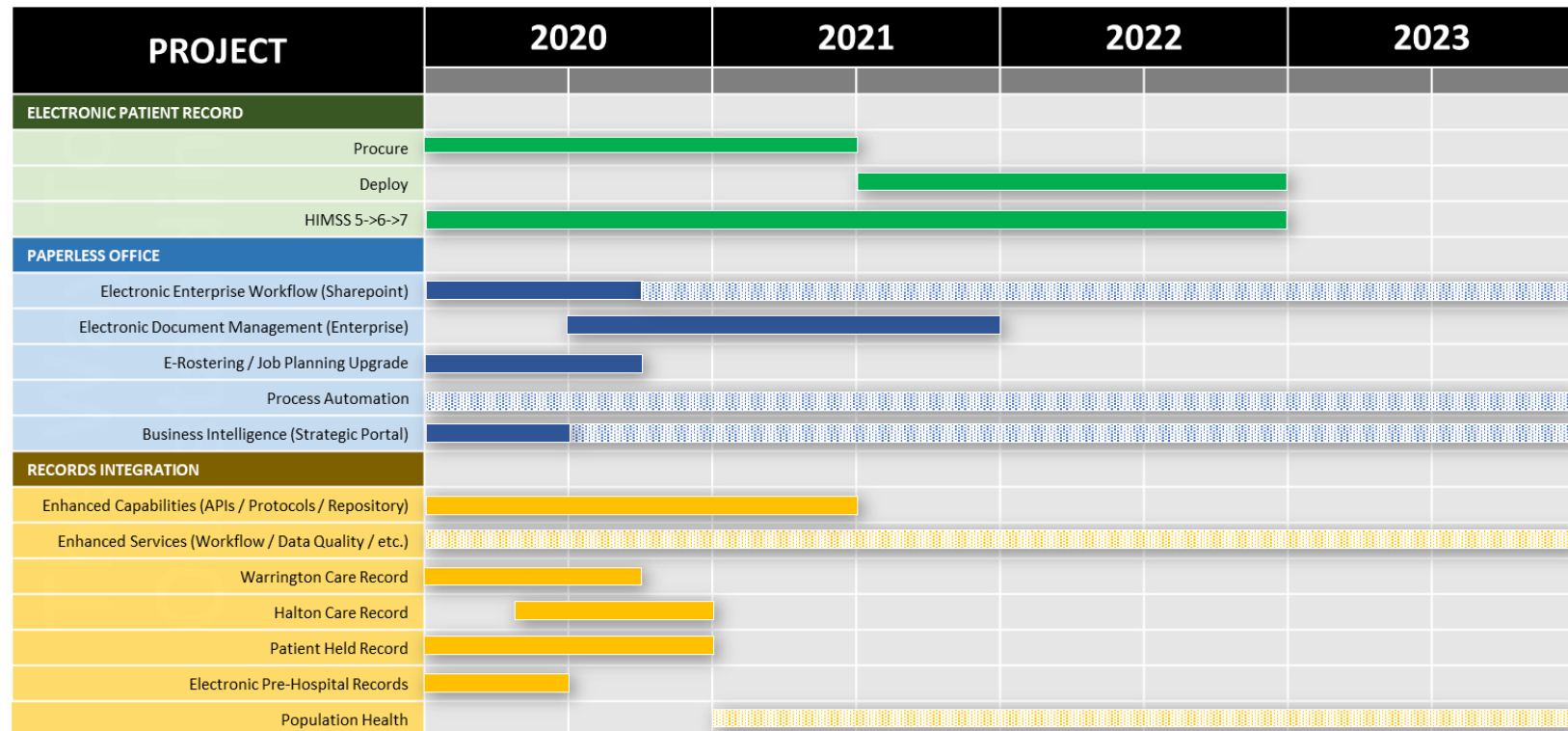
A Portfolio To Deliver The Vision

The success of Digital is highly reliant upon the culture, capability and capacity of our entire workforce and the populations we serve. As clinical and personal data merges, so does the challenge of the right skills to do the right things. There are many examples of the same digital services succeeding and failing in alternative environments. We are committed to embracing the transformation opportunities available to all aspects of care by virtue of the skills and willingness of all contributors and beneficiaries. We will work to identify funding sources to deliver this vision.

Our ambition is set out in the high level programme of work outlined over the following 2 pages, broken down into 5 themes of:
- Electronic Patient Record – Identifying an EPR solution fit for the future.
- Paperless Office – Ensuring we digitise all areas of our organisation.
- Records Integration – Technology and services to underpin our system level vision for connected care.
- Infrastructure – Getting our basics right to underpin our outstanding services
- Paperless Care – Digitising care pathways for high quality, safe care.

Shaded bars indicate ongoing, evolving activities with no end date.

PROJECT	2020	2021	2022	2023
ELECTRONIC PATIENT RECORD				
Procure	███████			
Deploy		██████████		
HIMSS 5->6->7	███████████████			
PAPERLESS OFFICE				
Electronic Enterprise Workflow (Sharepoint)	████░░░░░	░░░░░░░░	░░░░░░░░	░░░░
Electronic Document Management (Enterprise)	░██████	██████		
E-Rostering / Job Planning Upgrade	███			
Process Automation	░░░░░░░░	░░░░░░░░	░░░░░░░░	░░░░
Business Intelligence (Strategic Portal)	██░░░░░	░░░░░░░░	░░░░░░░░	░░░░
RECORDS INTEGRATION				
Enhanced Capabilities (APIs / Protocols / Repository)	████████			
Enhanced Services (Workflow / Data Quality / etc.)	░░░░░░░░	░░░░░░░░	░░░░░░░░	░░░░
Warrington Care Record	███			
Halton Care Record	░███			
Patient Held Record	████			
Electronic Pre-Hospital Records	██			
Population Health		░░░░░░░░	░░░░░░░░	░░░░

PROJECT	2020	2021	2022	2023
INFRASTRUCTURE				
Telehealth / Advice And Guidance / Remote Pre-Op	▬	▬	▬	
Networks (LAN including Internet)	▬	▬		
Data Centre Refresh / Upgrade Cycle / Storage / Cloud	▬	▬	▬	▬
Productivity Tools (Office / O365 / Remote Working)	▬	▬	▬	
End User Compute (virtualisation plus devices refresh)	▬	▬	▬	▬
Cyber Security	▬	▬	▬	▬
Communication Tools (VoIP & SIP / Paging / Task Mgt)	▬	▬	▬	
Patient Entertainment Services	▬	▬		
Scan 4 Safety (GS1 Barcoding)	▬	▬	▬	▬
Removal of Faxes (as other schemes enable)	▬	▬		
PAPERLESS CARE				
Digital Workforce Readiness (TOPOL Report)	▬	▬	▬	▬
EPR Digital Exemplar	▬	▬		
Voice Dictation	▬	▬		
E-Prescribing (towards Closed Loop)	▬	▬		
E-Observations	▬			
Clinical Decision Support (Pilot onto scope increase)	▬	▬	▬	▬
Regional (STP) Bed Management	▬	▬		
Potential Maternity Electronic Workflow / Record	▬	▬		
Enhanced E-Outcome	▬	▬		
Ongoing EPR Forms Development (Day Forward Docs)	▬	▬	▬	▬

Outstanding Outcomes

Our Outstanding Picture – Supporting Targets Through Technology

Outstanding digital services will contribute to the delivery of outcomes that directly support Trust objectives. Dedicated benefits management, customer relationship management and greater change management capacity will aid the realisation of the outcomes that deliver the benefits.

Reduce Incomplete shift rosters and use of temporary personnel through more effective and accessible planning tools

Increase Referral Time To Treatment performance with effective communications and actionable real-time intelligence

Reduce rates of Did Not Attend through automated patient communications and conformations plus more appointment flexibility

Increase data quality levels through intuitive user interfaces and avoidance of duplication

Reduce admissions and delayed transfers of care and discharges through greater access to accurate information and timely involvement of relevant expertise

Reduce attendances through technology options such as video and voice conferencing and timely advice and guidance to primary care

Reduce variation in care quality through real-time decision support and learning feedback

Reduce the use of paper by digitising internal and external care and administration process

Increase staff satisfaction by feelings of investment through fit for purpose digital tools

Our Outstanding Vision Of Experiences

Our Patient's

Our patient's will be able to see their medical history including records and appointments from the comfort of their residence and securely share with carers as required. They will receive one, accurate and informative communications via their preferred method and automatic reminders to ensure they don't forget, prepare themselves as required and are fully aware of what to expect. Only absolutely necessary visits to NHS facilitated will be made with others conducted via technology. When a visit is necessary it will be a stress free experience with apps to aid parking and way finding their destination. Their clinicians will be informed, only asking necessary questions once and providing clear advice and feedback without interruption or distraction. They will manage their condition in their daily lives with the full support of the Trust and its partners.

Our Allied Health Professionals

Our AHP's will be assured of ease of access to a computer to plan their daily workload. As they spend time with each patient digital tools will allow them to interact with their patients without distraction, making accurate notes with ease. Records will include accurate data from a range of NHS and home devices including photographic evidence. Automatic reminders and work plans, especially associated with colleagues within my multi-disciplinary environment, would be a bonus.

Our Nurses

Our Nurses will have the equipment they require to fulfil there caring duties without paper and without delay. Time sensitive processes such as E-Observations and Prescribing will be achieve via adequate mobile computing resources that perform at all times. Digital tools will be as reliable as the water, gas and electricity utilities. Communications will be seamless irrespective of their purpose, keeping busy staff informed whilst aiding the safe and effective management of the workload. High quality patient care and staff welfare will be supported.

Our MidWives

Our Midwives will feel assured that the digital tools they use are fit for the complexities and challenges of all stages of pregnancy services. Information will only be entered once, partners such as the GP will be kept informed in a timely manner and the relationship between mother and baby will be clear, supporting the right of choice. Women will feel informed of their planned home visits via their online record access and contributions. Their community based midwife will be aided by automated work plans including efficient routing and will be empowered to complete the comprehensive electronic record within the home environment.

Our Outstanding Vision Of Experiences

Our Doctors

Our Doctors will be able to rely upon responsive and efficient services beginning with a swift logon experience. Their ability to work wholly electronically will relieve them of unnecessary filing duties that interrupt their flow of ward work. Typing information once and once alone is a must, but limiting typing is paramount with the technology working in harmony with the doctors to maintain their concentration upon their patients. Decision support tools will be proven and reliable and the multiple systems will be presented as a seamless experience. Our outpatient teams will benefit from real-time visibility of on-site patient location to allow slots to be re-arranged rather than cancelled. The entire patient record picture will be available with minimal extra clicks to inform the most appropriate care interventions for the most complex of care requirements. Our doctors will be assured that end of life arrangements will be honoured by all carers irrespective of their host organisation.

Our Support Staff

Our support staff will benefit from digital inclusivity, able to access communications and their planning tools whilst on the move through right sized personal devices. Tracking technology will reduce the time required to locate vital equipment such as beds, wheelchairs, pathology samples, medications, medical devices and other items, plus the patients themselves! Automated audit trails will strengthen investigations and reviews including surgical items and equipment and infection control measures, contributing to lower costs and process improvement opportunities. More patient will receive the meal they ordered due to more timely online ordering whilst food waste will be reduced in our kitchens.

Our Corporate Staff

Systems access will be swift and reliable with no frustrating frozen screens and issues due to versions of productivity tools. An ability to work anywhere with no loss of digital features will be key to agile ways of working. The equipment we use must be fit for the purpose – so clinical coding personnel must feel supported to quickly find and code records accurately whilst facilities personnel must be able to read plans and maps with ease, HR personnel will be assured all personal records ae secure and retrievable whilst informatics personnel will have the power to turn information requests around quickly, and only where self service is not possible. Our data specialists will have unhindered access to all records databases, assured by open data standards as we re-procure our solutions, Our Use Of Resources will benefit from automation plus local user interface / workflow developments based upon robust and non-complex forms and app development technology that avoids specialist skillsets.

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All contributors to the staff digital survey

The Trust Grand Round

Trust Corporate Business Unit Management Teams

Trust Deputy Chief Clinical Information Officers

Trust Medical Cabinet

Trust Governors Engagement Group

Trust Executive Management Team

Trust Board

Trust Corporate Services

Trust Operational Board

Trust Communications

Warrington & Halton Clinical Commissioning Groups

and many colleagues plus external individuals.

We recognise the following contributions to this strategy:

a) NHS (2014) *Five Year Forward View*
b) NIB Personalised Health and Care 2020 (2014) *Framework for action supported frontline staff, patients and citizens to take better advantage of the digital opportunity*
c) Department Of Health & Social Care (2018) *The future of healthcare: our vision for digital, data and technology in health and care, Policy Paper*.
d) Wachter, R. M. (2016) *Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England: Report of the National Advisory Group on Health Information Technology in England*
e) Health Education England (2019) *The Topol Review; Preparing The healthcare workforce to deliver the digital future.*

Ratified: insert date for review insert date

NHS
Warrington and Halton Teaching Hospitals
NHS Foundation Trust

WHH Digital Strategy 2020 – 2022

Strategy On A Page

#WHHDigital

Digital Services As A Clinical Tool

Our staff require an **outstanding** Electronic Patient Record at the heart of an optimised environment with the required functionality, performance and reliability.

Quality	People	Sustainability
Deliver a paperless environment to eradicate errors and provide the right information in the right place in the right manner. A marriage between user and technology for outstanding data compliance and accuracy enabling automation, reduced variation and safe integration of clinical services.	Reduce workload pressures by less duplication, avoidance of unnecessary effort and automation of repetitive tasks. Present key information accurately and in real time for ward to board actionable insights. Contribute to a "learning organisation" with digital services usability at the epicentre.	Enhance use of resources and eradicate costly mistakes. Assure the quality of data for local, regional and national decision making.

Aims & Objectives

We will use digital services to underpin Trust commitments to provide our patients with high quality, safe care. Our staff will have access to outstanding digital services with usability at the epicentre, supporting them to deliver a service fit for the future. Our digital service will be fully integrated both internally and with the wider health system to realise sustainable, connected models of care. This will be enabled through targeted local and national support with the requisite investment to support the Trust's aims and objectives.

Past and Present

Optimisation of our Electronic Patient Record led by a capable Digital Services team. We have connected people, devices, systems, and infrastructure to empower our staff to deliver an outstanding service for our patients. We improved quality through structured forms, datasets, business intelligence and EPMA.

Outstanding Future

Building upon our enhanced Informatics capabilities towards true Business Intelligence (BI), removing the reporting islands challenges to realise efficient and timely insights and dashboards. Our Information Transformation road map will continue to deploy real time dashboards via a planned BI Portal and support accuracy of data capture. We will assure basic performance and availability around our key Electronic Patient Record, allowing our staff to influence appropriate workflow functionality underpinned by open data and rich integration. We will derive benefits from existing investments whilst introducing flexibility and agility via latest standards, with extended thinking to the entire pre-hospital, primary, acute, community, mental health and social care domains including self actuation of patient behaviours and tightly coupled solutions. Our Digital Services and wider workforce planning, capabilities and governance will underpin these outstanding ambitions.

Strategic Alignment

In 2019 the Trust was successfully recognised as a "Good" organisation by CQC. Digital services will support the Trust aim to move to "Outstanding". This will be judged on the effectiveness of our clinical & corporate services and the experiences of our patients and staff, typified by optimisation, safe and secure remote care, patient empowerment, and our active role as an STP innovator to deliver Digital Excellence Genomics, Precision Medicine, Research, Process Automation and Clinical Decision Support including Artificial Intelligence.