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Velindre University NHS Trust

Digital Excellence: Our Strategy 2023 - 2033

Enabling Services of Tomorrow... Today



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Foreword

A very warm welcome to ‘Digital Excellence’, the digital vision and strategy for Velindre University NHS Trust. We are very proud of the excellent care and services we provide to patients, donors, a wide range of partners and our track record of success.

We care deeply about the communities we serve and see clearly the difference that digital technology and insight can make in supporting us to continually improve the quality, safety, experience and outcomes of the services we provide.

We are keen to build upon our past, as we look to the future, and our Trust strategy ‘Destination 2033’ sets out a clear direction for the organisation over the coming years, as we seek to achieve our purpose and vision.

Our Purpose:

To Improve Lives

Our Vision:

Excellent Care,
Inspirational Learning,
Healthier People

We have identified five strategic goals which we will focus upon over the coming years. We believe that the delivery of these goals will see the Trust provide services to patients, donors and our partners that are comparable with the best in the UK and Europe.

These are exciting times for the Trust, with a wide range of opportunities ahead of us. The importance of digital technology, digital services, good information and insight in delivering safe, high quality services and our long-term goals cannot be overstated.

One of the most important components of our future success will be how well we embrace the opportunities that digital services offer. 'Digital Excellence' sets out our strategy for the next ten years and will help us use technology and insight to support our vision of excellence.

Strategic Goal 1:

Outstanding for quality, safety and experience

Strategic Goal 2:

An internationally renowned provider of exceptional clinical services that always meet, and routinely exceed, expectations

Strategic Goal 3:

A beacon for research, development and innovation in our stated areas of priority

Strategic Goal 4:

An established University Trust which provides highly valued knowledge and learning for all

Strategic Goal 5:

A sustainable organisation that plays its part in creating a better future for people across the globe



Digital Excellence: What Does Digital Mean For you?

Digital can mean a variety of different things to a variety of different people. But what does it mean for our donors, patients, carers and staff:

Digital technology and services provide the opportunity to make a real shift in the relationship between health and care professionals, the people we serve and the healthcare services we provide. Designing services in partnership with patients and donors will allow us to reimagine services and provide a more personal experience enabled by digital technology.

It is important we understand what it means for each group. What does digital mean for a:

Blood Donor

- I can manage my donation appointments on the move
- I can view my donation history and understand where my donation has gone
- It allows me to keep my details up to date
- It helps me identify donation sessions close to my current location
- It signposts me to other services I may find useful
- It lets me see the difference my donation is making

Cancer Patient

- It gives me information about my health and care, and supports me to make more informed decisions over what I need from the services you provide

- It gives me more choice about where or how I access the services I need
- It signposts me to other services I may find useful
- It provides information for families and carers who support me as a patient receiving care

Member of Staff and other Healthcare Partners

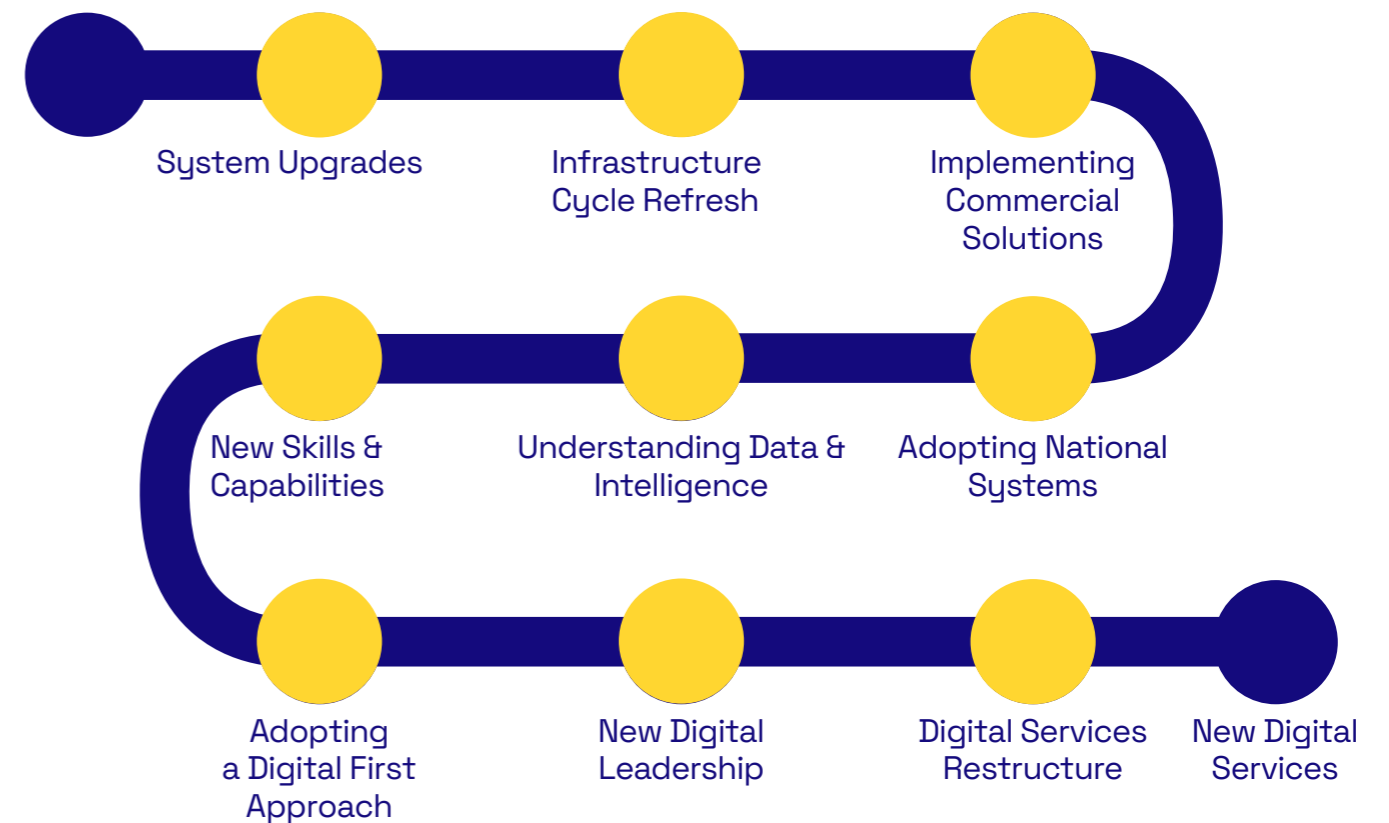
- It makes my role easier and more efficient
- It connects me to my team and my organisation
- It gives me flexibility in how and where I work
- It allows me to innovate and explore better ways of doing my job
- It gives me the right information at the right time
- It allows me to share information across organisations to improve care

We recognise that digital transformation and change is as much to do with the people and culture of our organisation as it is to do with the technologies we choose to deploy. With this in mind, when we say 'digital' in this strategy, we mean the following definition, widely adopted in the UK public sector:

"Applying the culture, processes, business models and technologies of the internet era to respond to people's raised expectations"

Our Journey So Far

Velindre University NHS Trust has built a proud history of significant developments in digital services which have made a difference to the quality, safety and experience for the users of the services we provide.



Our vision: to ensure patient, donor and staff experience of digital services is the same as our care, outstanding.

These achievements over the last five years have put strong foundations, skills and capabilities in place to support the next stage of digital transformation across the Trust.

Looking to 2033: Our Digital Transformation

To deliver our vision, we have set out a number of themes which will support us in delivering a connected, people focused, personalised and sustainable future.



Theme 1:

Ensuring Our Foundations

We will empower our staff to have access to the high-quality information, equipment and technology they require 24 hours a day, 7 days a week to deliver high-quality and safe services.

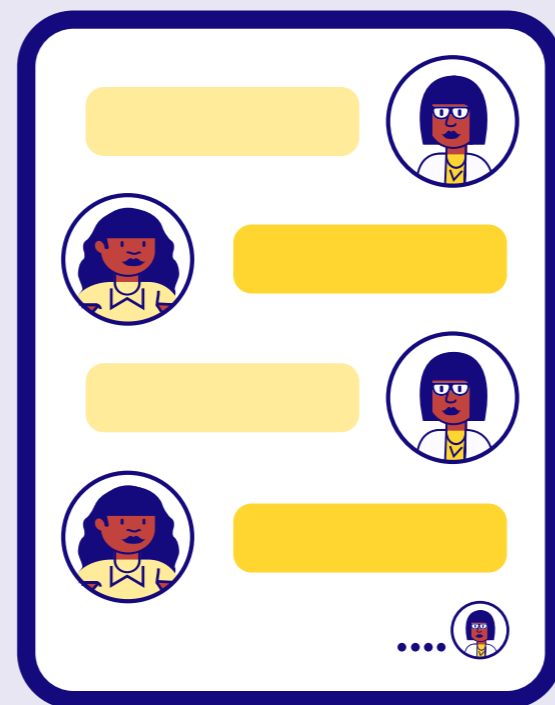
Our objectives are to:

- Maintain resilient hardware and software across the organisation
- Develop and implement a suite of application services which maximise the benefits of an integrated all-Wales systems approach
- Deliver digital systems and services which are designed with interoperability and integration as a core requirement

We will:

- Develop 'fit-for-the future' technologies that are resilient with a hybrid of cloud and data centre/on-premise deployment
- Design all systems around the national principles (e.g. open and interoperable) to support integration across organisations
- Implement a range of national systems to support a once for Wales approach, including the Welsh Clinical Portal, Welsh Patient Administration System, Welsh Laboratory Information Systems and electronic prescribing
- Continually develop and maximise the benefits of our existing business systems, including the Blood Establishment Computer System and Digital Health Care Record

- Implement local solutions relevant and appropriate to the needs of the population we serve
- Strengthen our prioritisation and governance arrangements to maximise the benefits of any investment in digital services and technology
- Design and implement a new strategy for the telephony services used across the Trust, including the adoption of new digital telephony services such as those available via Microsoft Teams



Theme 2:

Digital Inclusion

We will support people to become more digitally confident, included and connected.

Our objectives are to:

- Digitally connect our donors, patients, carers and staff to our services 24/7
- Place uncomplicated and accessible information into the hands of patients and donors to enable them to make better decisions about the services and support they require
- Deliver technology which supports the provision of more services at home and as locally as possible
- Provide our staff with technology to work from a wide range of locations across Wales
- Reduce the digital exclusion of people across Wales

We will:

- Create a new integrated platform for our digital patient and donor services including the delivery of a suite of mobile applications for clinical and non-clinical services
- Work with patients, donors and third parties to explore opportunities to develop a suite of apps that that can be plugged in or out easily, providing new forms of value
- Work with the local and national

programmes to ensure staff have devices to use anytime and anywhere, and access to mobile working

- Fully implement Microsoft 365 and realise the benefits of connected working
- Implement the digital requirements of the Transforming Cancer Services, Velindre Futures and Blood and Transplant Futures transformation programmes
- Hardwire the digital inclusion principles into our day-to-day activities and decision-making by:
 - developing a digital inclusion programme to support patients, donors, volunteers and the public in accessing our services (including training and provision of tablets/devices etc.)
 - delivering our programme of work in the Digital Communities Initiative
 - sharing and learning from best practice with Digital Communities Wales and other public, private and third sector partners, to coordinate our approach for maximum impact
 - commit to the key pledges set out in the Digital Communities Wales Digital Inclusion Charter
- Build local and national partnerships to share ideas and coordinate activities with others in their area

Theme 3:

Insight-Driven

We will optimise the use of data and knowledge to help us make informed and insight-driven decisions within the organisation and in collaboration with partners across organisational boundaries.

Our objective is to:

- Develop a data-driven, insight-led culture and evidenced-based decision making within the organisation at all levels

We will:

- Improve the quality of our data by driving data standards, identifying data champions and improving data sharing protocols
- Work with Digital Health and Care Wales (DHCW) to maximise the benefits of the National Data Resource (NDR) and integrate it with our Local and Clinical Data Resource (LDR/CDR)
- Develop a business aligned intelligence service that can:
 1. democratise data, supporting frontline staff to own and analyse it
 2. provide a range of standardised information using PowerBI and other tools
 3. provide capacity and demand modelling
 4. provide predictive analysis and service modelling
 5. provide advanced analytics and intelligence to support service planning, improvement and redesign
- Establish a programme of work which will seek to identify further opportunities in the following areas:

1. operational and clinical intelligence
 2. tools for aligned intelligence and insight, including service-specific simulation models
 3. embedding operational research methodology and tools to enable whole system pathway modelling via the LDR/CDR to support service planning, improvement and value based healthcare. automation of processes
 4. artificial intelligence
 5. knowledge, learning and skills sharing to evolve from reporting to discovery
 6. embedding value-based healthcare principles and processes
- Facilitate an open culture that encourages colleagues to challenge and question the ways of doing things by using data to drive service improvements and measure outcomes
 - Provide colleagues with training and support in a range of areas including data standards, data analysis and the use of analytical tools and techniques
 - Build partnerships with academia to develop new methods of training and education in data science at all levels of the organisation
 - Provide opportunities for research studies with local universities, offering MSc and PhD students the opportunity to use our data to provide insights and develop impactful research
 - Implement linked outcome reporting such as Patient Reported Outcomes Measures (PROMS) and Patient Reported Experience Measures (PREMS)

Theme 4:

Safe and Secure Systems

We will secure our data and information through an effective approach to general data protection and cyber security, working in collaboration with the Cyber Resilience Unit and the National Cyber Security Centre.

Our objectives are to:

- Maintain compliance with national policies and the Network and Information Systems (NIS) and General Data Protection Regulations (GDPR)
- Increase awareness and training in cyber security principles and information governance
- Reduce the risk of cyber security breaches

We will:

- Implement our strategic delivery plan for cyber security
- Develop and test cyber security business continuity and disaster recovery plans
- Continue to develop our colleagues' cyber awareness and skills
- Conduct periodic exercises simulated on cyber attacks
- Ensure the Trust is fully compliant with the Network and Information Systems (NIS) regulations
- Implement the national Vulnerability Management Solution (VMS)

- Ensure all devices across the Trust utilise automated patch management
- Develop new policies and procedures to support our security delivery plan
- Implement new controls for third party removable media scanning
- Enable further system protections and disable legacy communication protocols

Theme 5:

A Digital Organisation

We will work with patients, donors, staff and partners to create a service culture that embraces the use of digital technology to offer the best quality services.

Our objectives are to:

- Create strong digital leadership at all levels of the organisation
- Build a highly skilled digital team that has the capacity and capability to deliver our digital ambitions
- Create a digitally literate workforce which embraces the use of technology to improve the services we provide
- Become a paperless organisation

We will:

- Strengthen our digital education and training programme from 'ward/lab to board' to improve knowledge and understanding
- Work with the Intensive Learning Academy and other partners to develop the core digital competence of the workforce aligned to their role
- Identify a range of digital leaders and support them in attaining digital/transformation qualifications e.g. degrees, MScs
- Build the capacity and capability of the Digital Services Directorate to support the delivery of the digital transformation roadmap

- Create uncomplicated ways to share learning and knowledge through communities of practice, e.g. 'lunch and learns', sandpit environments and online resources that staff can use to acquire skills and knowledge
- Actively promote digital as a profession within other clinical and non-clinical professions
- Operationalise the principle of 'Bring Your Own Device' to allow staff to access the Trust's digital services using mobile technology of their choice
- Develop a plan to transition to a paperless organisation, whilst ensuring non-digital options remain available for those unable to utilise digital services



Theme 6:

Working In Partnership

We will work with our partners to make Wales a country that attracts innovators to learn about digital excellence.

Our objectives are to:

- Build a network of partners and capabilities which enable us to maximise the benefits from research, development and innovation
- Become an exemplar within NHS Wales for digital innovation

We will:

- Develop a suite of technology partners to support all aspects of our digital strategy
- Develop an agreed work programme(s) with local universities in stated areas of shared interest to drive the use and evaluation of digital technology in healthcare
- Recruit students and academic personnel to drive forward our research, development and innovation plans for digital technology
- Develop a Collaborative Centre for Learning, Technology & Innovation to be a physical and virtual point of contact for all partners and stakeholders to collaborate and innovate
- Establish partnerships which enable us to implement the concepts of 'smart' technology into our digital estate, including the Welsh Blood Service (Llantrisant), the Radiotherapy Satellite Centre and the new Velindre Cancer Centre. This will allow us to share knowledge, innovation and learning across Wales

- Become an active member of the Digital Inclusion Alliance for Wales, working in collaboration with organisations across Wales to move the digital inclusion agenda forward in Wales

How Will Digital Technology Make a Difference For Our Patients and Donors?

Rachel's Story: A Cancer Patient

Rachel is referred to us by her local health board after surgery for breast cancer. Rachel books her first appointment to see a consultant online using an app. She books her car parking online and emails her consultant on our platform with the questions she has in advance of her first appointment. She can access her medical records and information and uses our app to tell us how she is feeling in advance of her first outpatient appointment. This allows us to support her as she is feeling anxious and provide her with useful information and access to other services which can assist e.g., therapy service contacts, financial information etc.

Rachel arrives for her first consultant appointment, parks in her allocated space and checks in using the digital check in desk. This immediately alerts us that she has arrived and helps ensure she is seen on time. Rachel uses the Velindre app on her wearable device to access the wayfinding function, helping her easily find the cafeteria and outpatients department.

Rachel's clinical information and the data she shared with us whilst waiting to see the consultant is all available to Dr Davies when she sits down with her for the consultation. Rachel and Dr Davies agree on a treatment plan which includes radiotherapy systematic anti-cancer therapy together with mindfulness and support from Maggie's.

Rachel downloads our app onto her wearable watch device and iPad and this allows her to monitor her health and share her data with us on a number of vital signs (bloods, temperature, heart rate) as well as diet and sleep patterns. Our artificial intelligence systems monitor Rachel's health remotely 24/7 to ensure there are no concerns whilst she is waiting to start her treatment.

If anything is of concern, the remote monitoring triggers an automatic email to Dr Davies and the clinical team who review her situation and provide her with clinical guidance. Rachel also has video calling access to our teams to address any questions or concerns she has during her time with us. She also has access via our platforms to our Support Community, which consists of current and previous patients and families who provide support

for each other through shared experiences. Following her first appointment and treatment Rachel goes home, and we keep in touch via the app. Rachel continues to monitor her vital signs and health information on the app, and shares her data for us to monitor.

Unfortunately, Rachel begins to feel unwell at 3am and calls our 24/7 intelligent assistant for support which provides her with the information she needs. It also books a virtual call with her Cancer Nurse Specialist the following day. Rachel discusses her concerns with her Cancer Nurse Specialist the next day and they agree that she needs to speak to an oncologist locally at the V@UHW facility for further examination. They book the appointment online and Rachel speaks to Dr Davies in the afternoon who prescribes some antibiotics.

Rachel continues to feel unwell and Dr Davies decides to admit her to the Cancer Centre for further review. Rachel has her own room and uses the iPad to change the lighting and temperature in her room, order food and keep in touch with family and friends. She is still sharing her data with us (blood pressure, sleeping hours etc) and when Dr Davies visits her all this information is available immediately on Dr Davies' iPad in real time. This allows the cause of the problem to be quickly diagnosed with no unnecessary delays and the infection is treated quickly.

Rachel returns home and continues to monitor her health on her wearable device/iPad which we monitor remotely. Rachel continues to talk to the clinical team and asks any questions she has whilst receiving her treatment. Her treatment was successful, and she continues to monitor her vital signs using our app and shares her data with us whilst she continues her recovery. Our clinical team will continue to monitor Rachel's recovery using the data she provides via her wearable device/iPad using our artificial intelligence systems. This will alert us immediately to any concerns. She is also a regular contributor to the Support Community and accesses a range of other local services through the signposting on our platform such as the local gym, choir and walking routes.

Malik's Story: a blood donor

Malik lives in west Wales and is in his first year of university. He has never donated blood, but a friend mentioned it to him whilst chatting over lunch.

Malik searched for blood donation on his phone and clicked on the Blood and Transplant Services link. He was taken to our platform which provided him with a wide range of information and videos about why he should consider donating, the blood journey and the way in which it changes people's lives.

Malik wanted further information so clicked on the 'Send Me More Info' button and received an automatically generated email offering him the opportunity to speak with an intelligent assistant 24/7 or have a virtual chat with one of our recruitment team. He goes onto our platform and selects a time and date which suits him to speak to our recruitment team to discuss the opportunity further.

Malik calls Tracey from our recruitment team via FaceTime and they discuss a range of issues which Malik had identified in an email he had sent Tracey in advance. Malik decides he wants to become a blood donor but donating needs to work around his busy life. He sets up his user-ID online and logs into the donation app and completes the donor application form online in five minutes.

We undertake all the necessary checks to ensure it is safe for him to be a donor and we email Malik back with the good news. Tracey follows up with a FaceTime call to thank Malik for becoming a donor. She also mentions that our platform offers a wider range of information and signposts to a range of other local services that Malik may find of use, such as information on healthy living, local clubs, and amenities such as gyms, libraries, local transport etc.

Malik books his blood donation appointment online using his wearable watch device. He books his appointment at a location which suits him in two weeks' time after using our platform to access the local bus times to ensure he can attend the donation clinic easily.

Malik receives information about his appointment immediately, and a few days before his appointment receives an email asking for information that allows us to undertake the donor screening process in advance of him arriving for his appointment.

On the day of his first donation, Malik gets an automated reminder text message to his wearable watch device before his appointment which contains a personal thank you message from one of the people who has received blood – this reminds Malik why he is donating.

Malik arrives at the donation venue, checks in digitally and waits for his appointment. The donation is at a local sports club, and he can use the free public Wi-Fi that we have worked in partnership with the local community to provide. The Wi-Fi has enabled the sports club to allow local children to use it as a community facility in normal hours, and has transformed the opportunities for some of the local children who didn't have Wi-Fi access at home.

Malik donates his first pint of blood and is thanked by our staff before returning home. He receives an email from us offering him the opportunity to 'follow his blood's' journey – showing him how it's processed and where it's going.

In two months, Malik receives his automated reminder that he is now able to book his next appointment. When he arrives he tells our staff that he's been using our platform to access information about healthier lifestyles, has joined the local yoga class and volunteers with a local charity in his spare time; all because of the signposting available on our platform.

Measuring Our Success

Ensuring our Foundations

- % user satisfaction with Digital Service Desk
- % of critical IT system service availability/uptime against agreed targets
- % of incidents responded to within agreed targets
- % of Service Requests completed within agreed targets
- % of critical IT systems that support single sign-on (SSO)

Digital Inclusion

- % of patients/donors who believe health and well-being improved due to online services
- % of patients/donors seeking health/service information online
- % of patients using applications to monitoring their health digitally
- % of consultations performed virtually
- % of donors booking online
- % of patients/donors notified via their communication preference of choice (SMS, email, other approved comms channels)
- mobile 'app' usage/interactions
- % of buildings with free public wi-fi

Insight Driven

- Accuracy and timeliness of quality data
- % of staff using local business analysis tools and standard reports
- % of data validation/corrections performed

Safe and Secure Services

- % of compliance against NCSC '10 Steps to Cyber Security' standards
- Number of incidents reportable under NIS Directive
- Number of IT business continuity incidents
- % compliance with cyber security statutory and mandatory training
- % staff clicking on phishing campaigns/awareness

A Digital Organisation

- % of Trust expenditure (revenue & capital) invested in digital
- Hours/pounds saved through digitisation/automation of paper-based manual processes
- Number of 'Digital Champions' within the Trust
- % of staff who are 'digitally confident' (measured via accredited audits)
- % of clinical/nursing/clinical sessions identified for digital leadership/development
- % of staff with formal digital qualification e.g. BCS, degree, MSc
- % of staff with a mobile device
- Number of Digital Apprenticeships

Working in Partnership

- Participation in national/regional groups e.g. AOS
- Nonumber of academic establishments with whom we actively collaborate (e.g. visiting PhD students, university placements)

One of the core themes of the Centre for Digital Public Services (CDPS) Digital Service Standards for Wales is to 'work in the open'. In keeping with this, and current best practices, you can find more information about this Strategy and our digital roadmap via our Twitter feed and monthly 'DIGIT@LK' blog. We also share regular news about the digital transformation work going on within Velindre University NHS Trust.

• **Twitter:** www.twitter.com/VUNHST_Digital • **'DIGIT@LK' blog:** www.vunhst.wales/digitalk



Velindre University NHS Trust

Destination 2033