



University Hospitals  
Coventry and Warwickshire  
NHS Trust

# Digital and Data Strategy

2025-2030

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**Digital technology is a significant part of our every day lives, improving the way we socialise, shop and work. It also has great potential to improve how the NHS delivers its services in a new, modern way; providing faster, safer and more convenient care.**

Our new Digital and Data Strategy will play a vital role in the delivery of our Organisational Strategy and the Government's 10-year health plan, as well as being a key enabler in helping us to achieve our vision of being a national and international leader in healthcare.

The strategy provides a clear and actionable road map for our digital and data future. It reinforces our commitment to placing our staff at the heart of everything we do, providing them with the tools they need so they can continue to deliver outstanding care to those we serve.

We are proud of the major progress we have made over recent years, including the roll out and ongoing optimisation of our Electronic Patient Record (EPR), our ground-breaking use of artificial intelligence (AI) and the introduction of our Patient Portal, offering our patients access to letters, appointments scheduled and selected results.

Better never stops and we want to build on momentum created, to be at the forefront of innovation and realise the potential of digitalisation to deliver effective and efficient service provision. Digitally enabled pathways informed by data offer exciting opportunities to create a more connected, responsive and patient-centred healthcare system.

Linked to our corporate priorities, our Digital and Data Strategy has six key themes:

- Patient-led care
- Streamlined and efficient workflows fuelled by automation
- Connected systems within UHCW and with healthcare partners
- Insight to support decision making
- A resilient, reliable and safe digital estate
- Colleagues have the tools, confidence and space to innovate

Looking at other industries we see the power of digital and data to enhance and revolutionise the way organisations run. Healthcare is no different. Harnessing their potential improves our efficiency and service delivery – enabling us to deliver the best possible patient experience.

We recognise that this strategy needs to be kept under regular review given the changing face of technology. As a result, we will ensure our approach continuously evolves to allow for flexibility in the direction of travel we take and agility in the underpinning delivery plan.

Our commitment is to be open to opportunities, to learn from others, to encourage curiosity to find innovative solutions and to work in partnership with others to advance our journey to become a digitally enabled and data rich organisation.

Thank you for taking time to read and share this strategy, created following extensive engagement. We are looking forward to working with you to make this exciting vision a reality and offer more choice to patients in how and where they receive their care.

**Professor Andy Hardy**  
Chief Executive Officer



**Natasha Chare**  
Chief Digital and Data Officer



02

## Why focus on digital and data?



# Why focus on digital and data?

*A look at the wider context for our commitment to a Digital and Data Strategy for UHCW*

## National context:

- The government is developing a **10-year plan** for health. The plan focuses on three key shifts in focus. Two of these areas are 1) hospital to community and 2) sickness to prevention – both focus on keeping patients away from hospital either through treatment in a more suitable environment or through earlier intervention. Technology and data underpin being able to do this effectively – by ensuring we have the right insight and tools. This is why the third area of the 10-year plan is analogue to digital, recognising the importance digital and data play in its success.
- The **Reforming Elective Care Plan**, published in January 2025, sets ambitions for the next four years to improve elective waits across the NHS. Digital and data underpin this ambition and it particularly references the need to empower our patients and share data across providers.

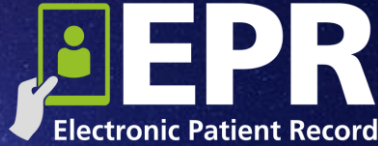
Digital technology and insight from data enables patients to receive the excellent care they deserve by giving them more autonomy, and by giving our colleagues the tools they need to do their job most effectively.

## Local context:

- In UHCW's **More than a Hospital** Strategy, digital technology and insight from data is recognised as being critical to delivering the strategy. It recognises the potential digital and data have in improving colleague and patient experience. While the strategy begins to articulate the vision for digital and data, with a focus on electronic patient record and improving data flows, the following Digital and Data Strategy will help further articulate what this really means for UHCW over the next few years.
- In the 2024 **digital maturity assessment**, UHCW is within the national average but within a region that is below the national average. Given UHCW's ambition to be a national and international leader in healthcare, we must strive for better.
- The **Coventry and Warwickshire Integrated Care System (ICS) Digital Transformation Strategy** outlines how, as an ICS, we will use digital and data to reimagine how care is delivered, make health and care services more sustainable and address rising demand. Our local UHCW strategy will compliment the delivery of our wider ICS strategy.



*UHCW is not moving from a standing start; we have been taking great strides to support our digital and data ambition*



In June 2024, we successfully deployed the largest scope of Oracle Cerner Electrotonic Patient Record (EPR) in a single Oracle Cerner go live across all acute services. This included EPMA (electronic prescribing and medicine management), order comms, theatres, critical care, maternity, research and medical device integration. The EPR will provide our clinicians with easier access to patient information to enhance safety and quality of care, while improving the data and insight we collect and act upon.

We implemented a chat bot within our booking centre to give patients another way to communicate with us and ask questions. This has reduced calls with our booking centre and sped up replies for patients.

We are the first healthcare organisation in Europe to utilise process mining to review elective productivity. This work enabled us to see opportunities to improve our outpatient process including how and when we remind patients of their appointments – altering this halved our do not attend rates. We have won several Health Service Journal (HSJ) awards for this work.



In December 2024, we launched our patient portal, myhealth Coventry and Warwickshire, giving our patients access to letters, appointments scheduled and selected blood test results – making them more informed about their care.



In 2024 we also implemented the shared care record across integrated health system. This gives clinicians access to wider patient information, helping give them a more instant view of medical history as well as reducing frustration from patients caused by repeating themselves in every clinical interaction.

# Our digital and data vision

*Digital and data must support the delivery of our organisation's vision and therefore the digital and data vision will seamlessly complement*



## The vision of our More than a Hospital Strategy is:

To be a national and international leader in healthcare, rooted in our communities.

## Digital and data can enable this and therefore our vision must align:

To be a national and international leader in healthcare, rooted in our communities, *enabled through digital and data.*

## Our six key themes

*Six themes will form major change programmes with clear deliverables and actions*

1



Patient-led care

2



Streamlined  
and efficient  
workflows  
fuelled by  
automation

3



Connected  
systems within  
UHCW and with  
healthcare  
partners

4



Insight to  
support  
decision  
making

5



A resilient,  
reliable and  
safe digital  
estate

6



Colleagues have  
the tools,  
confidence and  
space to innovate

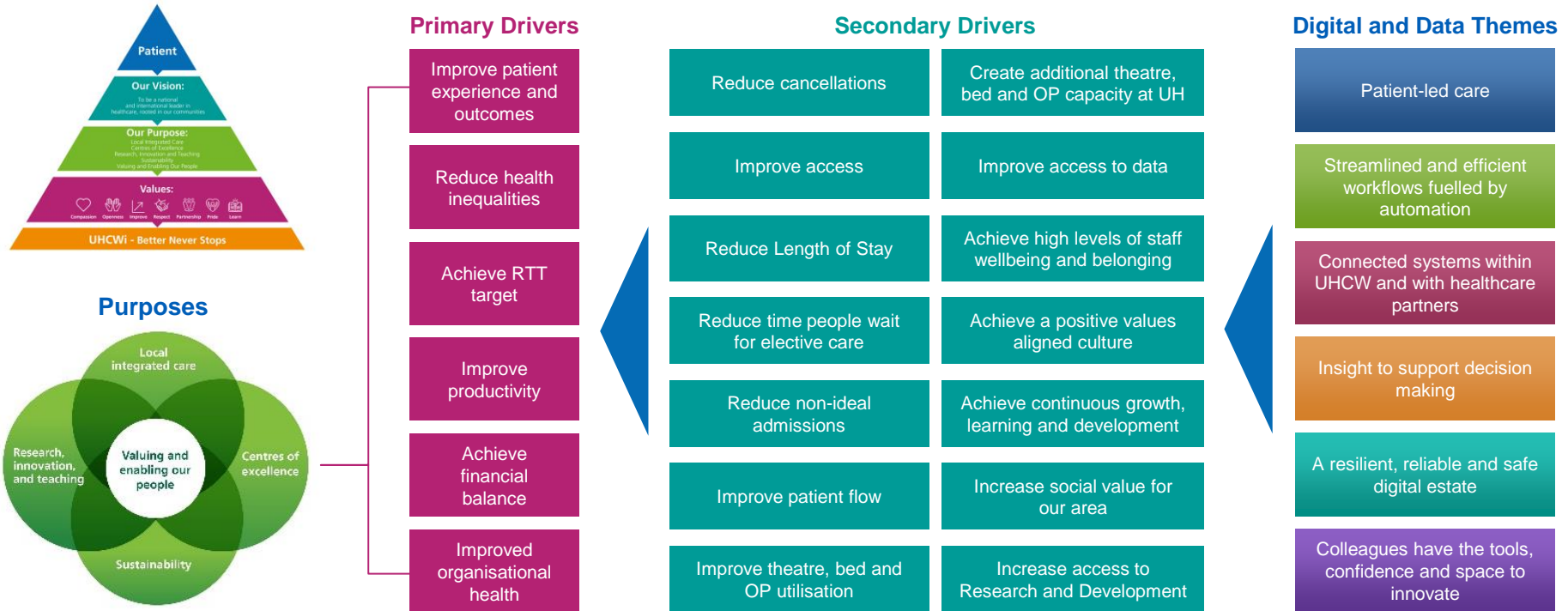


*We are building a better future, together*  
*We are more than a hospital*

# Digital and data as part of our More than a Hospital Strategy

The digital and data agenda must help support the achievement of UHCW's strategy – the digital and data themes can be tracked to show they enable the delivery of the organisation's strategy drivers

## More than a Hospital Driver Diagram





NEUROPHYSIOLOGY

USE THIS REPORTING  
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Surgical Spirit

*Six themes will form major change programmes with clear deliverables and actions*

*Each of the six themes will show examples of what the programme of work will entail for now (within one year); next (2026/2027); later (2027 onwards)*

## Theme one: Patient-led care

**What this will mean:** Patients are increasingly in control of their care, increasing the value of any interaction.

**What we will do:**

**Now:**

- Patient portal roll out (via NHS app) includes ability for patients to book appointments and e-signature improving do not attend rates
- Support patients to receive communication in method they prefer
- Remote monitoring implemented across prioritised pathways to promote out of hospital care, reducing admission rates and length of stay
- PIFU (patient initiated follow ups) through electronic patient record system to reduce unnecessary appointments and do not attend rates
- Patient initiated waitlist validation to reduce unnecessary appointments and do not attend rates
- Capture patient experience data to support continuous improvement

**Next:**

- Support implementation of wider accessibility options across communication platforms to improve equity of access and increasing consistency of front door experience for patients
- Patients utilise technology (e.g. wayfinding) to support on-site navigation

**Later:**

- Wearable technology used across pathways to support out of hospital patient care
- Clinicians able to make decisions based on a plethora of intelligent device inputs (e.g. sensors, wearable tech)
- Piloted personalised medicine technology supporting improved patient outcomes

## Theme two: Streamlined and efficient workflows fuelled by automation

**What this will mean:** Technology is utilised to remove non-value add activity from our processes and therefore increase the time our colleagues are focused on value-add activity.

**What we will do:**

**Now:**

- Optimisation of current clinical systems to improve efficiency and working practice – promotion of co-design to make this happen
- Improving digital customer service experience for our colleagues including proactive problem management
- Begin to implement automation/decision making technology (e.g. artificial intelligence) to support productivity across teams
- Optimisation of clinical systems within community services to improve efficiency and working practice

**Next:**

- Intelligent, automated scheduling of appointments including identifying patients appropriate for patient initiated follow ups
- Widespread decision making enhanced through technology (e.g. ambient AI) across clinical and corporate teams
- Widespread removal of repetitive tasks done through human intervention to increase productivity
- System optimisation activities are incorporated into UHCWi methodology

**Later:**

- Decision making across the Integrated Care System is supported by deep learning technology
- Inventory, stock and ordering management is automated helping to optimise stock and minimise waste
- Smart hospital technology supporting optimum space usage

*Six themes will form major change programmes with clear deliverables and actions*

*Each of the six themes will show examples of what the programme of work will entail for now (within one year); next (2026/2027); later (2027 onwards)*

## Theme three: Connected systems within UHCW and with healthcare partners

**What this means:** Technology and systems are more joined up across the healthcare neighbourhood to give greater visibility of patient data to support clinical interaction.

### What we will do:

#### Now:

- Implement electronic patient record across our community services to increase availability of structured data
- Work with acute partners in preparation for joint electronic patient record programme
- Upgrade LIMS (lab systems) to ensure it is in support and reduces resiliency risk
- Single sign on adopted across all clinical systems, improving efficiency of log in process for colleagues

#### Next:

- Seamless access to patient information across acute partners in the county following implementation of electronic patient record system
- Closed loop medication management decreasing manual intervention and medication errors
- Implementation of specialist EPRs including centre of reproductive medicine to increase availability and timeliness of patient information to support clinical decision making
- Implement West Midlands Diagnostic imaging solution to support enhanced capability across network

#### Later:

- More seamless access to healthcare information beyond acute and community setting, including incorporating information from other healthcare partners (e.g. social care, local authority) to inform population health

## Theme four: Insight to support decision making

**What this means:** Colleagues have the insight to inform strategic, operational and clinical decision making.

### What we will do:

#### Now:

- Review ward to board insight, including performance framework, to ensure colleagues are getting the information they need
- Roll out visualisation tool to support streamlined and self serve insight
- Implement federated data platform which will bring together data across organisation to support operational management across inpatients, theatres, outpatients and cancer services
- Data quality programme underway to improve depth of data within our clinical systems
- Our health data is fed into community-wide shared population health tool ready for analysis

#### Next:

- Population health management tool implemented and actively used to help us understand, reduce health inequalities, planning our future services and pathways
- Population health insight to drive transformation across care collaborative for our most frequent service users – reducing avoidable admissions
- Predictive modelling in use across operational teams to support today's decision making for the benefit of tomorrow
- Digital twin for key process flows through process mining to highlight opportunities for improvement

#### Later:

- Widespread automation/machine learning supporting decision making
- Smart building technology to support net zero target adherence

*Six themes will form major change programmes with clear deliverables and actions*

*Each of the six themes will show examples of what the programme of work will entail for now (within one year); next (2026/2027); later (2027 onwards)*

## Theme five: A resilient, reliable and safe digital estate

**What this means:** The underpinning digital infrastructure enables colleagues to work safely with reliable digital service.

### What we will do:

#### Now:

- Upgrade network to improve network availability to 99%
- Digital clinical safety policy supporting assurance on digital safety
- Data centre and security upgrade programme to support resiliency
- Roll out Windows 11 to improve security and interface
- Clinical systems are in support and include up to date functionality
- Telephony system upgrade to improve colleague and patient experience of using it
- Bleep system replacement – complaint with security standards
- Cyber response programme including maintaining ISO27001

#### Next:

- Commitment to a refresh cycle of hardware with no devices over seven years old
- Cloud migration underway to remove reliance on on-premise
- Cyber programme enhanced to evolve to changing external threats and keeping our data safe – cyber essential plus achieved and 24/7 cyber threat monitoring and proactive prevention
- Improve mobile network access across organisation – complimenting the Wi-Fi network
- UHCW centric Trusted Research Environment supporting research and development by increasing data accessibility for industry

#### Later:

- Data warehouse moved to cloud-hosted solution to improve functionality and resiliency

## Theme six: Colleagues have the tools, confidence and space to innovate

**What this means:** Colleagues are supported to build their digital and data knowledge, skills and confidence and have the tools required to support colleagues to continuously improve and complete their role.

### What we will do:

#### Now:

- Our teams all have devices/tools they need to do their job effectively – teams are aware of device standards/hardware strategy
- Wider showcase of Midlands digital skills network to give greater access to digital and data training
- Refresh of digital champion network to help build digital experts within teams
- System training/adoption support approach is understood
- Digital learning management solution implemented to support colleagues with e-learning

#### Next:

- Digital and data competency programme improves digital confidence across new and emerging technologies and compliments UHCWi methodology
- Role of digital and data teams within UHCWi and innovation methodologies is clearly understood and followed

#### Later:

- Immersive learning techniques (e.g. virtual reality) used to train and for research/innovation
- National workforce system introduced (ESR) which will more seamlessly support managers and colleagues

## Now

## Next

## Later

### Patient

E-signature functionality through patient portal

Remote monitoring across prioritised pathways to support out of hospital care

Improved used of NHS app

Patients have access to their health record

Patient initiated follow ups and wait list validation to reduce unnecessary appointments

Patients able to schedule, reschedule appointments – increasingly putting them in control

Patient experience data capture supporting improvement

Optimisation of community EPR

Technology being piloted to support productivity

Digital customer service – proactive problem management

### Streamline workflows

Optimisation of clinical systems to improve efficiency and return on investment

EPR implementation across community services – giving clinicians greater access to patient information, supporting care delivery and data collected to inform decision making

Joint EPR preparation programme underway

Consistent front-door digital experience for patients

Accessibility standards implemented consistently across communication platforms

Piloted personalised medicine technology supporting improved patient outcomes

Clinicians make decisions on patient care informed by range of intelligent device inputs

Wearable technology used across pathways to support out of hospital patient care

Patients given choice in method they receive communication

Technology utilised to support on-site navigation

Automated stock management processes reducing waste

Deep learning to support integrated care system decisions

Intelligent appointment scheduling

Automation removes repetitive tasks improving productivity

Decision making enhanced (e.g. through artificial intelligence) across clinical and corporate teams

Access to information across secondary and community teams

Access to information beyond acute and community – incorporating social care for broader view

## Digital and data enabling More than a Hospital

Immersive learning training techniques (e.g. virtual reality) and for research/innovation

Digital competency programme improves digital confidence across new and emerging technologies

Role of digital and data teams within UHCWi and innovation methodologies is understood

Colleagues have devices they need

Refresh digital champion network

System adoption/training support is understood

Specialist EPRs implemented to improve access to patient information

Closed-loop medication management improving error-rate

West Midlands diagnostic system implemented

Automation supporting operational and clinical decision making across organisation

Cloud-hosted data warehouse to improve resilience

### Connected systems

### Insight

### Estate

### Colleagues

EPR convergence across ICS

Refreshed performance framework in place across organisation, including clinical system data

Refreshed performance framework in place across organisation, including clinical system data

Refreshed performance framework in place across organisation, including clinical system data

Cyber Essentials plus accredited

24/7 cyber threat monitoring and proactive prevention

Expansion of single sign on

Predictive modelling informing operational decision making

Population health tool – actively used to support decision making

Improve mobile network access

Cloud migration programme underway

Data quality programme to support depth of data

Digital twin across key processes

Support ICB Cyber Security Information Officer

All systems upgraded and in support with rolling upgrade programme

All systems upgraded and in support with rolling upgrade programme

Bring together data in federated data platform

Telephony system upgrade

Bleep system upgrade improving functionality and risk

Upgrade LIMs to improve resiliency

Upgrade LIMs to improve resiliency

Roll out power BI to support streamlined insight

Windows 11 roll out

Upgrade programme of clinical systems

Essential infrastructure upgrades to improve resiliency of systems (ongoing programme)

Essential infrastructure upgrades to improve resiliency of systems (ongoing programme)

Review of ward to board insights to ensure colleagues are getting the information they need

Cyber programme – maintain ISO27001

Digital clinical safety policy and supporting governance

Launch of midlands digital health skills network



*Our colleagues and patients will feel the impact of the Digital and Data Strategy*

Our **colleagues** will say:

“

*“I have increased confidence in my organisation data.”*

*“Insight is more readily available to support me doing my job.”*

*“Technology is helping to quicken up my work and make me more productive.”*

*“I am aware of training opportunities to support my digital and data confidence.”*

*“As a clinician I am spending less time on administrative processes with systems.”*

*“There’s more information available at my fingertips – community and acute setting.”*

*“We focus on tomorrow as well as today and yesterday through the operational data we can see.”*

*“Clinical safety has been enhanced through technology implemented (e.g. close loop medication).”*

*“Clinical systems have been enhanced in line with feedback to support more optimal ways of working.”*”

”

“

*“Insight is supporting our preventative health agenda.”*

*“I am supported by technology to make decisions locally and with healthcare partners.”*

*“I feel thoroughly supported to do my role to its full potential with the technology and insights I have.”*”

”

Example measures our digital and data agenda will support:

- Increased throughput/utilisation of outpatient clinics
- Increased productivity of non-clinical teams
- A reduction in paper spend across the organisation
- Data quality improvement, shown through data quality maturity index (DQMI)
- Improved colleague feedback and experience
- A reduction in medication error rates
- An increased take up of training opportunities
- Predictive modelling as evidence of decision making

- A reduction in patients’ length of stay
- A reduction in non-ideal admissions

**In two years:**

**In five years:**

**External measures will also show we have achieved our ambition:**

- Within two years our digital maturity assessment scores will rise to an average of at least 3.5 and we will have been credited nationally for the strides we are making
- Within five years our digital maturity score will be in the top quartile of organisations and we will demonstrate international commendation for our success.

# Measuring success

*Our colleagues and patients will feel the impact of the Digital and Data Strategy*

Our **patients** will say:

“

*"I know my information is safe."*

*"I can make appointments through the app."*

*"I am more likely to attend my appointment."*

*"I have more choice in how and where my care takes place."*

*"I don't have to repeat as much information between healthcare providers in Coventry and Warwickshire."*

”

**In two years:**

“

*"My admissions to the acute setting have reduced."*

*"My medical care isn't just within the hospital setting – I am supported to receive care and support closer to home enabled through technology and insight."*

”

**In five years:**

Example measures our digital and data agenda will support:

- Improved patient feedback and experience
- A reduction in calls from patients
- A reduction in do not attend rates

- A reduction in re-admissions
- A reduction in patients' length of stay
- A reduction in the dependency on acute services for frequent service users

**External measures will also show we have achieved our ambition:**

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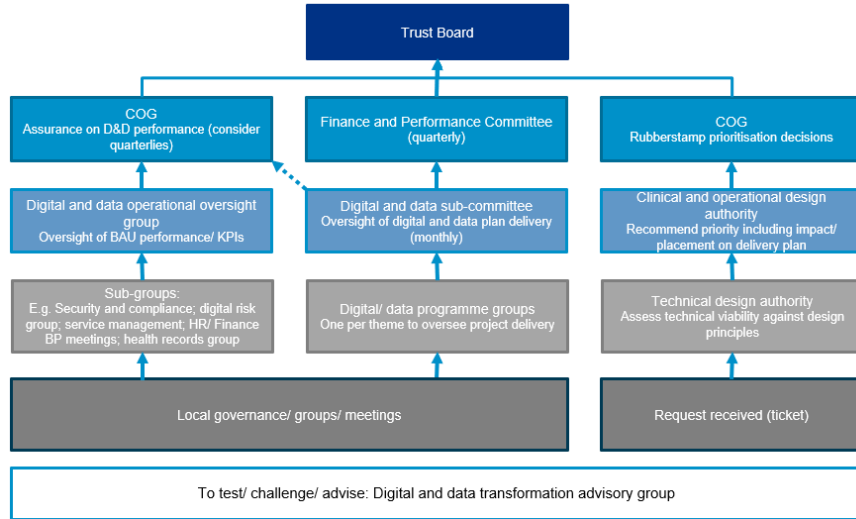
# 10 Ensuring the right foundations are in place



# 10 Ensuring the right foundations are in place

*Our governance is vital in ensuring we have the mechanisms in place to monitor our delivery (and ensure other foundations are also in place)*

To monitor/assure on the delivery of this vision we will implement the following governance, ultimately giving assurance of strategy delivery to the Board:



*Left: Digital and data operational/business as usual performance monitoring*

*Middle: Digital and data transformation/strategy*

*Right: Digital and data prioritisation*

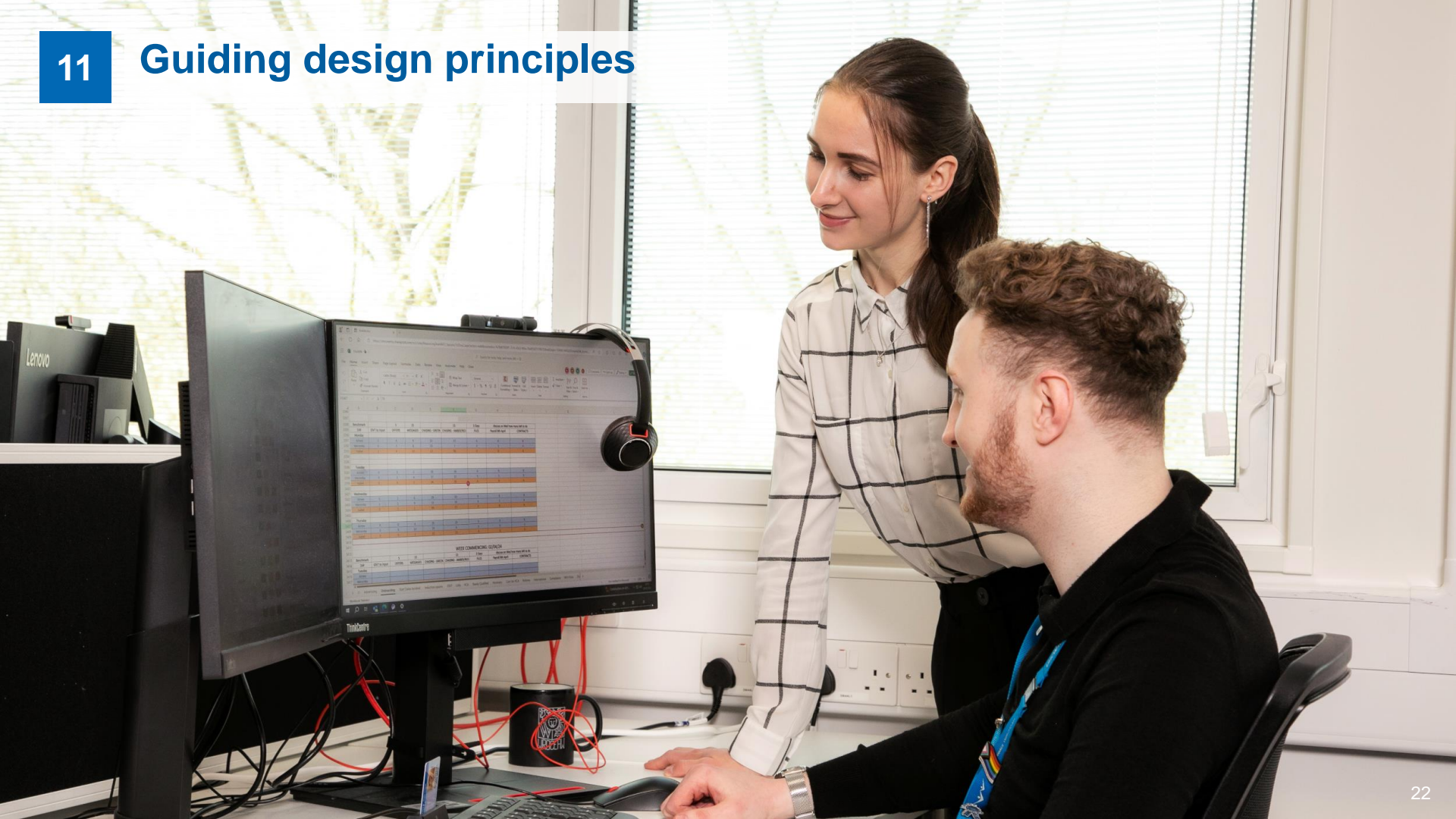
It is also worth mentioning some supporting sub-groups which will be integral:

- Clinical advisory groups (representing all clinical bodies) to inform and steer the agenda (complementing the clinical and operational design authority)
- Digital risk group will also incorporate digital clinical safety

In order for this strategy to become reality, we recognise we will need:

- The **resources** in place to support delivery (e.g. skills, capacity and funding)
- **Colleagues to be engaged, trained and supported** to thrive in a digital organisation (this links with theme six: *Colleagues have digital and data tools and confidence and space to innovate*)
- An understanding that the strategy will **evolve** – it will not be static and the delivery plan will need to **adapt** to any changing needs of the organisation and communities we serve
- Colleagues and patients to be kept **informed and engaged** (e.g. through focus groups, newsletters)
- **Partners and suppliers** who are supportive of our strategy. This will include strategic technology partners to pilot innovation with
- To **leverage our relationship with our university partners** to support research and innovative practice.

All of the above will be monitored through governance described on this page.



# Guiding design principles

*In an ever-evolving digital world, we have challenged ourselves to agree a set of principles that will help us to deliver our strategy*

## Our behaviour principles

How we will act; we will:

- **Put our people first:** we will listen and understand so we put the needs of our patients and colleagues first
- **Be open:** we will not only ensure our systems are open (interoperable), but we will also be open to learning and sharing with others
- **Be brave, be bold, be curious:** we will promote testing ideas in a safe way to support adoption of innovative ideas and practice
- **Be agile:** we will flex our delivery plan to support the needs of UHCW
- **Be inclusive:** we will design solutions with digital inclusion in mind, ensuring we continually consider how we reduce health inequalities – we will work with our community and wider care collaborative in consideration of integrating a digital inclusion plan. We will work together to determine how patient voice can be incorporated, ensuring we encapsulate the voice of digitally excluded communities.

## Our technical design principles

What we will consider before implementing a new product/technology:

- **Cyber safety:** we will review the cyber security and clinical safety of all systems before purchase – supporting reliability of our systems and security of our patient's data is key
- **Cloud-first:** promotes greater agility and resiliency across our systems while also supporting our sustainability agenda
- **Independent data layer:** data availability across platforms to reduce duplication
- **Adoptable and scalable:** solutions are intuitive and user-friendly and can be scaled up
- **Interoperable:** systems/technology talks to each other, supporting a seamless experience
- **Designing with data:** making sure we understand the problem we are trying to solve through data and then monitor this throughout project implementation
- **Digital standards:** incorporating consideration for digital ethics/standards into design – for instance, clinical risk and data stewardship
- **Optimise and consolidate:** we will promote reviewing our current systems first and optimising these before we look to purchase any new products. We will promote consolidation of systems where possible to streamline.