

# Salisbury NHS Foundation Trust

## Digital Strategy

### 2019-2023

## Table of Contents

Executive summary.....	3
National policy context.....	4
Local System Context.....	5
Alignment with the Trust clinical strategy.....	6
Current Trust digital maturity .....	7
Overview of the digital strategy .....	8
What will the strategy mean for staff and patients? .....	9
Journey to a shared care record.....	11
Wider systems for improving efficiency.....	12
Intelligent use of information.....	13
A digitally informed population.....	14
Enabling platforms.....	15
Emerging digital opportunities .....	16
Delivering the digital strategy – culture .....	17
Delivering the digital strategy – resource.....	18
Delivering the digital strategy – governance .....	19
Strategic risks.....	19
Appendix 1: Digital Maturity Index 2016 and 2017.....	21

## Executive summary

With the complexity of challenges facing Salisbury NHS Trust (SFT) in the coming years, including an increasing demand for clinical services, it is more important than ever that we look to improve the safety, quality of care, efficiency and responsiveness of the services we provide. In a technological age where adoption and interaction with technology is ever present in the lives of many people, the NHS cannot afford to stand still and must continue to ensure patients are at the heart of any digitally enabled service transformation.

The SFT digital strategy will see us take a clinically led 'digital by default' approach and a journey to working paperless, through implementing key enabling technologies and automation of processes, digitising patient interactions where appropriate and providing high quality information at the point of care. Additionally, we will aim to deliver self-service business intelligence (BI), ultimately maximising the use of high quality information to inform and improve service delivery including reducing variation and increasing standardisation of practice.

Working with STP partners to collaborate and interoperate is critical in facilitating a platform in which clinicians can have access to real-time information, regardless of the setting. We will also look to provide patients with access to their digital health care record, enabling them to drive and take co-ownership of their care, making informed decisions with clinical interactions using technology as appropriate.

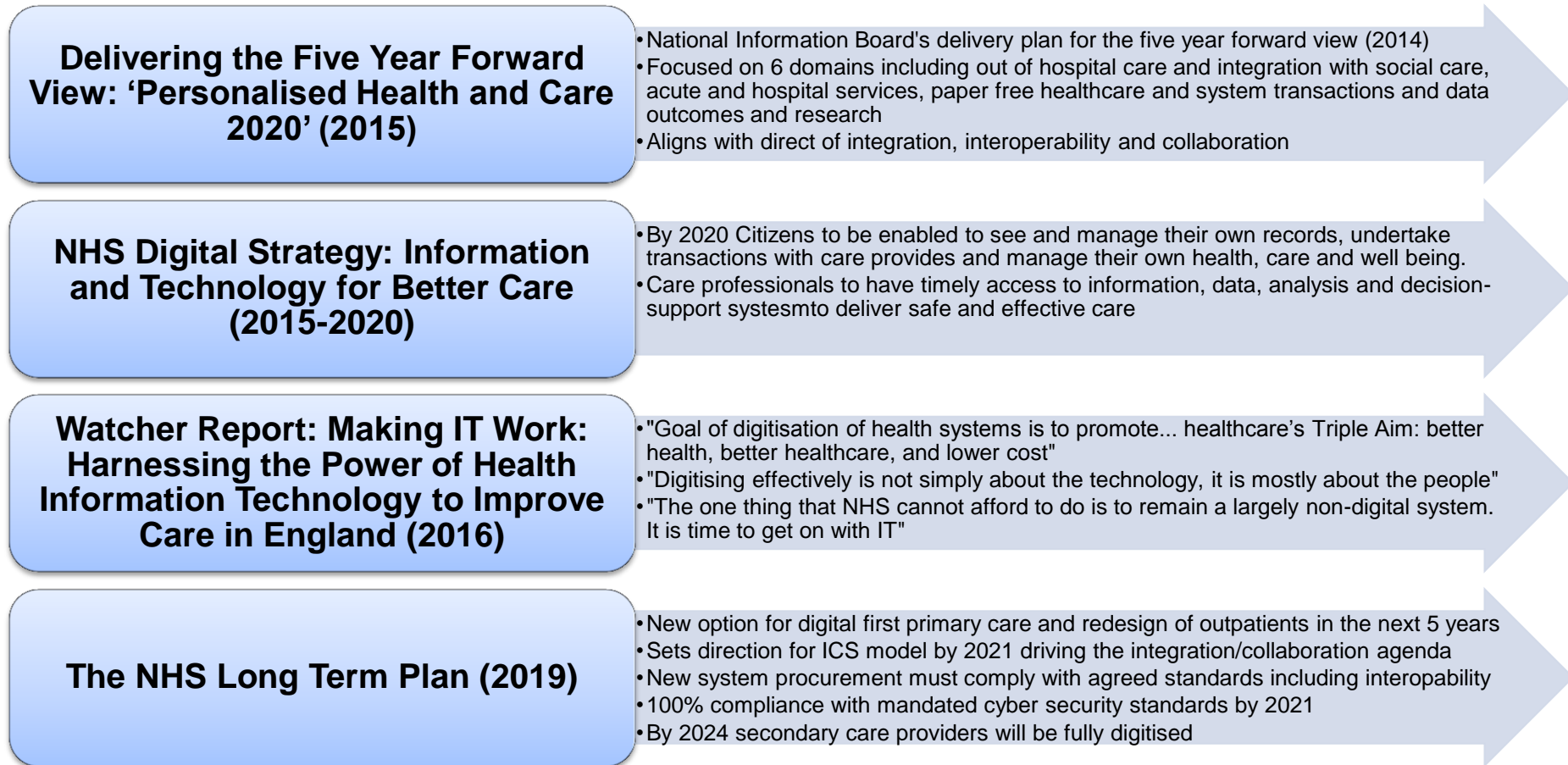
We recognise that our digital strategy relies heavily on two key areas. The first is a strong digital culture among our staff; we will look to establish strong clinical engagement alongside other technology users in our decision making and governance structures, supporting them to challenge the use of technology in conjunction with business change and training. Secondly, the Trust must have a robust underlying technical infrastructure, compliant with national best practice, including cyber security. This includes the availability of improved mobile and remote working technology, Wi-Fi and a resilient platform.

### Our Digital Vision

To empower patients  
and staff to securely  
access information  
anytime and anyplace  
through digital  
integration and  
collaboration

## National policy context

The digital strategy has set the ambition to adhere to national policy and priorities whilst recognising the focus must be the local population we serve and what is right for them. The Long Term Plan outlines the proposal for Integrated Care Systems (ICSs) to replace STPs from 2021 supporting the need to focus on collaboration and the journey towards providing information digitally at the point of need to both patients and clinicians. The key national strategies are:



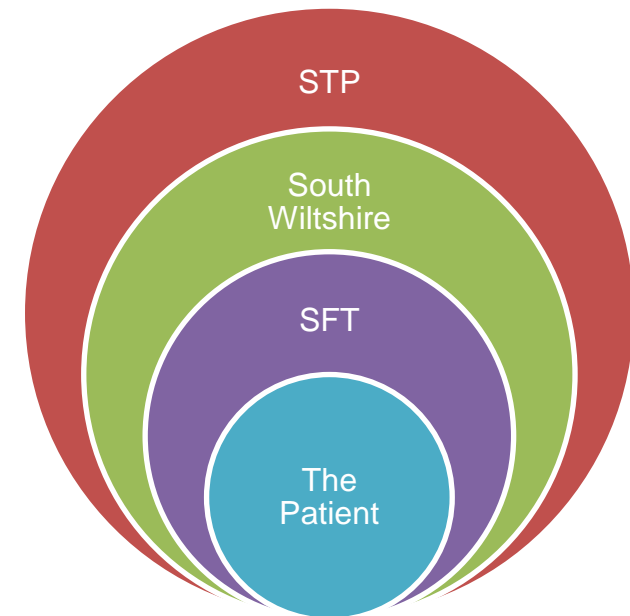
## Local System Context

The Bath & North East Somerset, Swindon and Wiltshire (BSW) STP has been established as a vehicle for accelerating progress at the level that delivers the best outcomes and experience for its citizens. The STP has determined that it will focus on 5 key priorities for change:

- The development of locality-based integrated teams supporting primary care
- Shifting the focus of care from treatment to prevention and proactive care
- Redefining the ways we work together to deliver better and more efficient patient care
- Establishing a flexible and collaborative approach to workforce
- Further enabling acute collaboration and sustainability through the use of digital technologies

The STP digital strategy is currently being developed to support delivering against the ambitions. The central principle remains ensuring that the patient/client is at the heart of all programmes. The STP Digital Strategy will seek to:

- Improve collective digital maturity
- Reduce system demand by putting in place solutions that are responsive, proactive and promote self-care, supported by data
- Promote and actively drive opportunities for collaboration across the footprint, whether locally in South Wiltshire or across a wider STP footprint,



The Trust is part of an Acute Alliance (a group combining the three acute providers in the STP) driving collaboration to enable these priorities. Currently the Trust's digital strategy will need to support the below key workstreams, which is underpinned by the principles of common standards, procurement at scale and evidence based redesign:



## Alignment with the Trust clinical strategy

The digital strategy has been developed as a key enabler to the Trust strategy signed off in January 2018, the emerging clinical strategy and the priorities within the communications strategy and people's strategy. The six key themes within the clinical strategy are supported by:

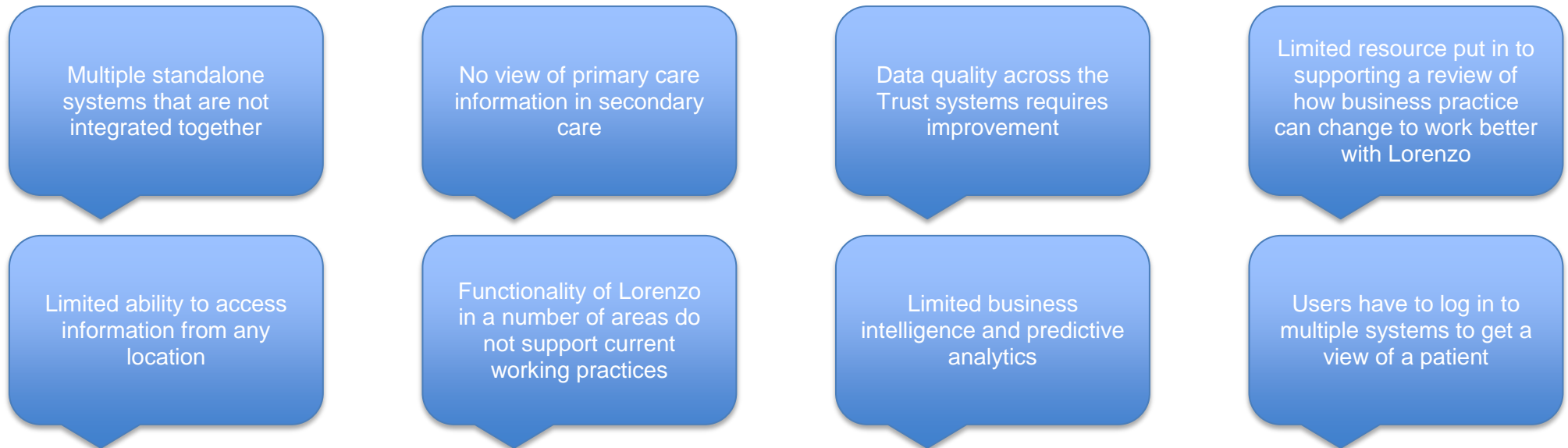
Clinical strategy theme	The digital strategy responds through:
<b>Easy access for patients and GPs</b>	The development of an integrated record both within the hospital, and with our health and social care partners, will support easy access to information for GPs and ultimately patients.
<b>Face to face only when necessary</b>	Providing access to information at the point of need for clinicians will enable and facilitate the ability for interaction with patients in a way that suits them, rather than always having face to face appointments.
<b>A hospital without walls</b>	Full integration with our partners will remove the organisational boundaries and will support placing the focus of service delivery with the patient. Sharing information across our partners, combined with increased accessibility to care online, enabling services to be accessed at point of need, for example patients access their information through a portal, sharing of information beyond the boundaries of acute care.
<b>Short length of stay – enhanced recovery is normal recovery</b>	The implementation of a robust single sign on system, will support increased time for patient care, and support the ability to reduce length of stay. The delivery of an integrated electronic patient record will increase the ability to provide right care for the patients' health needs through access to all their information from a single source.
<b>Consistency of delivery</b>	Partner collaboration provides the opportunity to review how we use systems and technology differently to deliver consistent care. Providing intuitive information on service variation through self-service business intelligence will enable clinicians to challenge inconsistent practice and improve standardisation.
<b>Left shift and step down care</b>	Sharing patient information digitally across hospital boundaries into other support areas will increase the ability to provide more care in the community setting. Increased knowledge of the 'whole patient' story within a shorter timescale (than paper transfer can currently offer), will support local general practices to shift care to self-care, pharmacy or allied health services.

## Current Trust digital maturity

Appendix 1 shows national self-scoring of digital maturity for the latest submissions (2016 and 2017). Whilst the Trust has made progress in improving its' digital maturity over this time, the Trust is behind local peers in medicines optimisation, asset and resource optimisation and decision support., The key weakness in our digital maturity is the lack of an electronic prescribing and medicines administration system (ePMA), however a wider theme is the need to improve the clinical workflow through greater integration of systems. There are also a number of solutions that, due to their age, do not support modern working practice or require upgrades to enable this.

The introduction of DXC Lorenzo electronic patient record (EPR) sought to bridge some of these weaker areas however progress has been slower than planned. Currently Lorenzo is used for the Trust's core Patient Administration System, in the emergency department and there are two clinical services who have gone paperlight with Lorenzo clinical documentation.

It is important to listen to the users of technology across the Trust to ensure the digital strategy challenges how we can develop solutions or different approaches, maximising our current systems wherever possible. Themed feedback from staff can be seen below:



## Overview of the digital strategy

By embracing the strategy and making digital technology a key component of all organisational transformation, we will ensure it is part of every clinical pathway and contributes to the care given to, and safety of, our patients. Digital transformation will blend into our culture to become a foundation of change that leads to improved patient care and safety. The digital strategy is underpinned by five key themes:

### Journey to a shared care record

- Delivering an integrated EPR with a focus on STP collaboration and aiming to deliver an STP shared care record

### Wider systems for improving efficiency

- Enabling staff to transform patient care and improve efficiency including technology supporting outpatient transformation, genomics and corporate systems

### Intelligent use of information

- Improving the use of high quality information to improve patient care including self-service business intelligence

### A digitally informed population

- Empowering patients to actively manage their health and care in partnership with clinicians

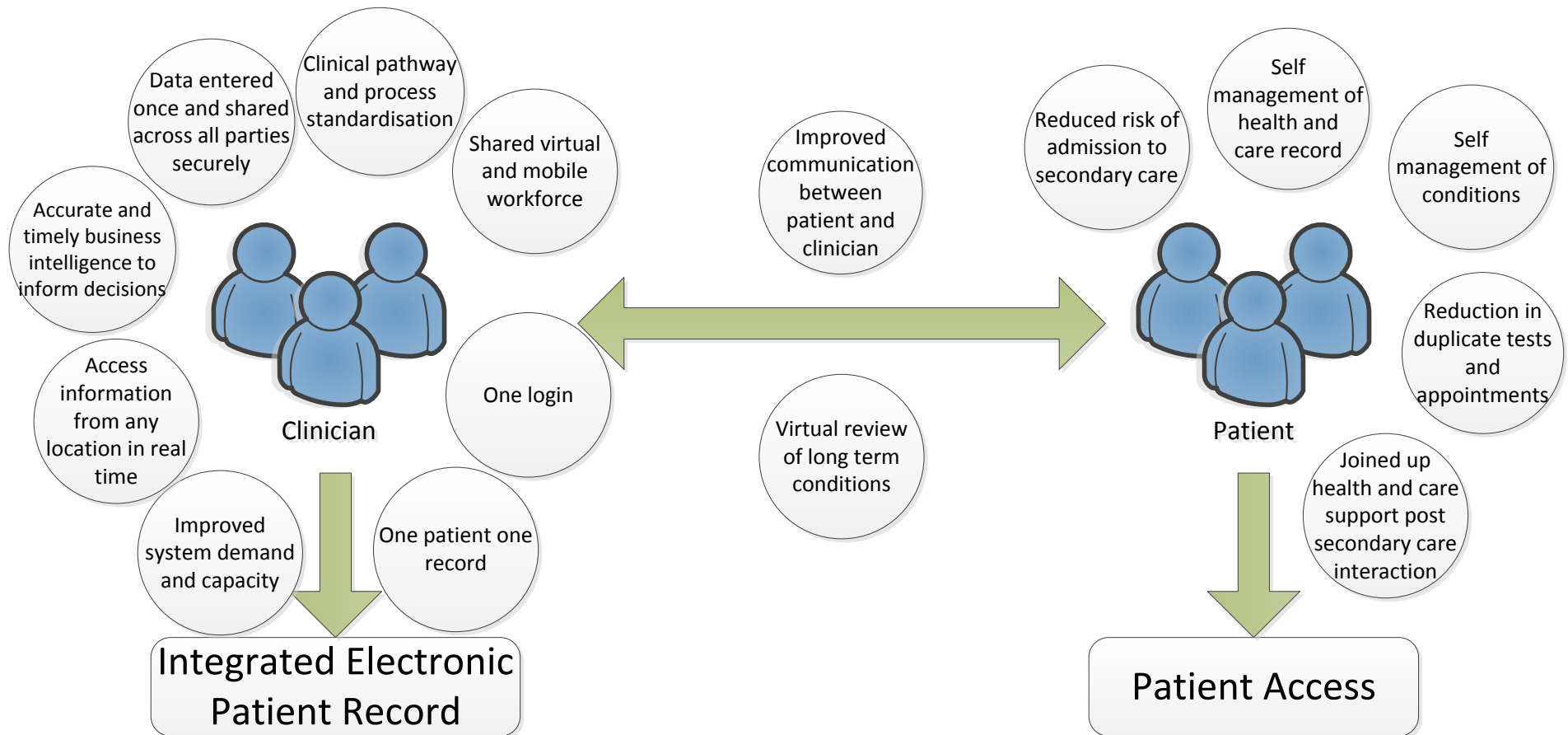
### Enabling platforms

- To support staff to maximise the use of technology (e.g. mobile working and one login) and improve the core infrastructure (e.g. Wi-Fi and core networks)



## What will the strategy mean for staff and patients?

The diagram below outlines at a high level what we hope to enable through the life of this digital strategy. This aligns with the STP digital strategy, having each workstream contributing towards this.



## Digital Strategy: underlying principles

To help realise these benefits and outcomes, we will look to adhere to a series of core underlying principles. This is both during the development and implementation of technical solutions but more importantly through the accompanying business change.

### Scan4Safety

Encouraging technology enabled transformation to adhere to Scan4Safety principles including global barcoding standards (GS1) and common ways of working (PEPPOL)

### GDPR compliance

Improving knowledge around what GDPR means for the organisation, our staff and our patients, including individual ownership and maintaining legislative compliance

### System rationalisation

Maximising the potential of systems we currently have with the aim of reducing the overall number of systems in use

### High data quality

Maintain compliance with national data definitions and set consistent local definitions where appropriate. Ownership of data quality compliance by the clinical teams

### Do once share once securely

Reducing duplicate data entry and where possible enable this information to be shared between systems securely

### Interoperability

Adherence to the national expectations around interoperability, ensuring procurement and contracts support this agenda

### Collaboration

Wherever possible consider opportunities for collaboration to ensure solutions work locally and regionally and at scale where possible

## Journey to a shared care record

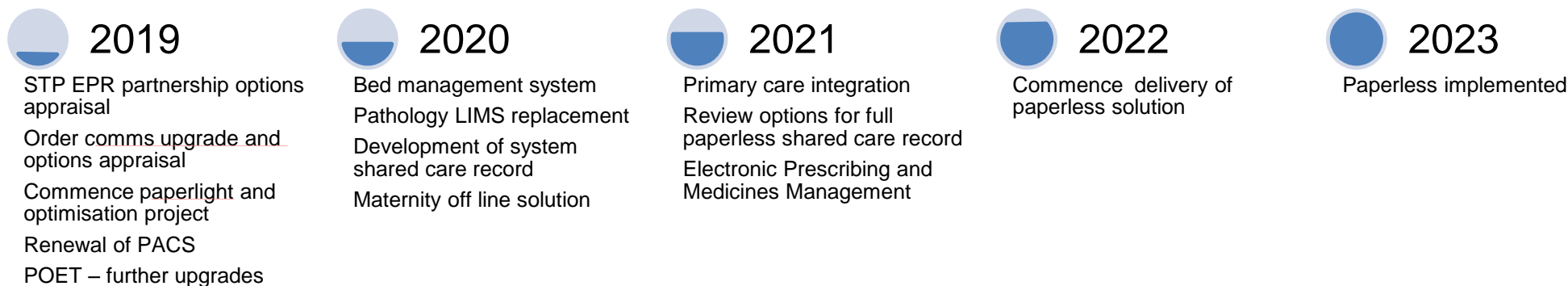
With all partners committed to delivering the STP priorities outlined, the digital strategy will look to enable this in two ways.

**Firstly** in 2019 we will review the options available to the acute providers in the system with the aim of delivering an STP EPR partnership. The appraisal will consider the best approach to deliver the expected clinical benefits following the technical principles outlined in the NHS Long Term Plan especially interoperability.

It is important that we do not stand still regardless of the outcome of this review. Therefore we will:

- Undertake an appraisal of systems for which we have bought Lorenzo modules (theatres, maternity, ePMA and Results and Review) will take plan in 2019 to confirm our direction for the short to medium term. Any resultant work will be scheduled in accordingly
- Look to start our journey to going paperlight in Lorenzo, learning from those organisations who have already achieved this
- Look to replace our Pathology laboratory information management system (LIMS) as part of the wider regional pathology review
- Upgrade and continue to develop POET – the Trust’s patient observation and escalation tool
- Where possible look to improve clinical workflow through integration of key systems
- Expand the use of digital imaging
- Consider how best we maintain and improve the standard of our paper record whilst we are on the journey to paperless by 2023/24

**Secondly**, we will be looking at how we better sharing information with both the local health and care system but also the wider geography (STP or wider), aligned with STP programmes of work. This will include integrating with primary care systems and supporting the development of shared care records



## Wider systems for improving efficiency

Outside of the clinical systems highlighted in the “journey to a shared care record”, there are a number of other digital solutions that will play a role in transforming how we care for our patients and can help improve our efficiency.

The strategy highlights the main projects which are expected over the next five years however there are likely to be additional projects, particularly as clinical pathway transformation increases and we further understand what technology is required to support pathway across the local South Wiltshire system, across the STP and beyond. These additions will be reviewed with support from the Digital Clinical Reference Group to help provide expert clinical advice and guidance.

The known projects include:

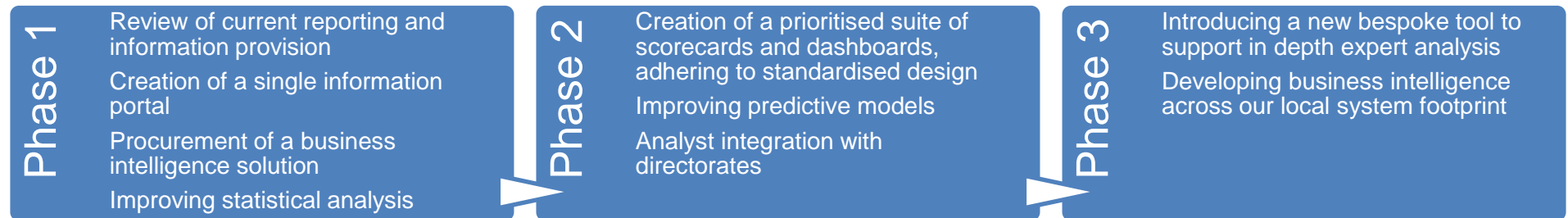
- Improving key corporate systems, including replacing the finance ledger plus expanding and optimising our eRostering system and our electronic staff record
- Reviewing our current Hospital Application Login (HAL) systems and developing a phase 5 refresh programme to ensure they continue to be fit for purpose for the end user
- Reviewing how we can make use of robotic technology to automate repetitive processes and streamline clinical and non-clinical practices
- Upgrading our electronic document management system and use it for electronic non-clinical forms wherever possible Providing technology to support the drive to transform outpatients, improving patient experience and removing non-essential appointments

Working with the Wessex and West Midlands Genomic Laboratory Hub to identify technology to enable delivery of the Genomics programme



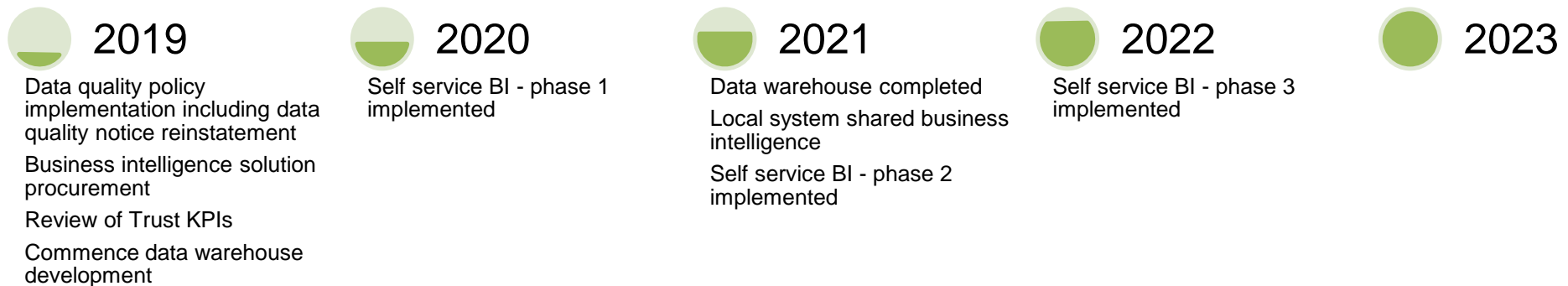
## Intelligent use of information

The cornerstone of this strategy is the embedding of a self-service analytics solution across the organisation. This will encourage self-sufficiency alongside expertise from the Business Intelligence team integrated within Directorates, increasing the knowledge base of users. We will help staff find existing reports and information from a single location through creation of an easy to use portal. The Business Intelligence team will be responsible for ensuring that our information provision meets the highest professional standards and has a consistent look and feel. This will be delivered in a number of phases:



Two strands of work sit alongside this; firstly the replacement of our existing legacy data warehouse to create a modern resilient repository of data. Secondly there will be a reinvigorated approach to improving data quality across the Trust including adherence to the Trust data quality policy, embedding ownership for data quality in everyone's daily work life and providing clarity on the definitions we use in our reporting and key performance indicators.

We will maintain our high quality clinical coding service, improving the availability of accurate and timely information so that our clinical coding provides a comprehensive understanding of a patient's interaction with our services.

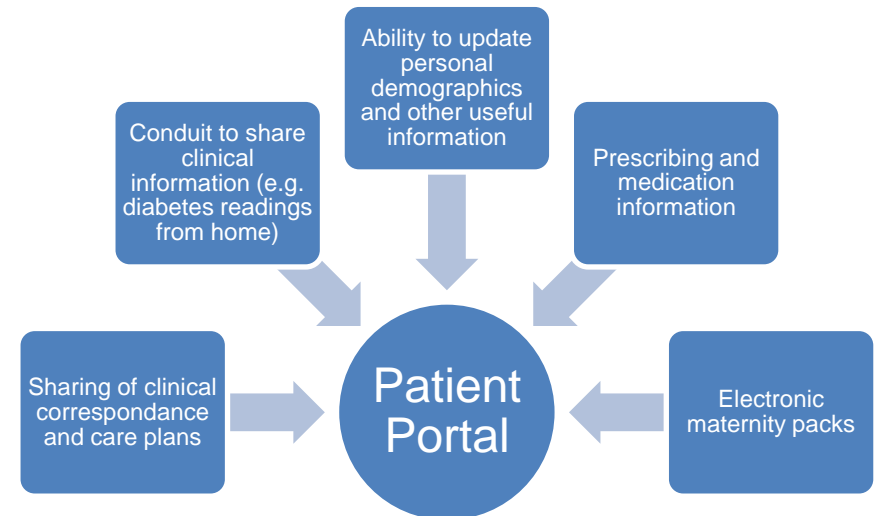


## A digitally informed population

As highlighted in the national, local system and Trust strategic contexts, providing the population with the skills and technology to manage their own care and interact with the clinicians is vital for future sustainability. Whilst every element outlined in this strategy will help to improve patient care and their experience with health and social care professionals, we need to ensure we provide both information to help educate and inform the population. Our focus will be to further developing our hospital app creating a single source of key information for patients and staff. This will work in conjunction with an updated Trust website and intranet with up to date and easy to understand content.

To enable patients to fully own their care, we will look to remove paper interactions through the introduction of a patient portal in conjunction with the emerging NHS App. We will explore one portal across our local system supporting the aim of ensuring patients have choice of provider and can sharing information once.

It will also provide a conduit for patients to own their information to include updating demographic information, having a digitised maternity record if pregnant, sharing of clinical readings when using remote technology at home.



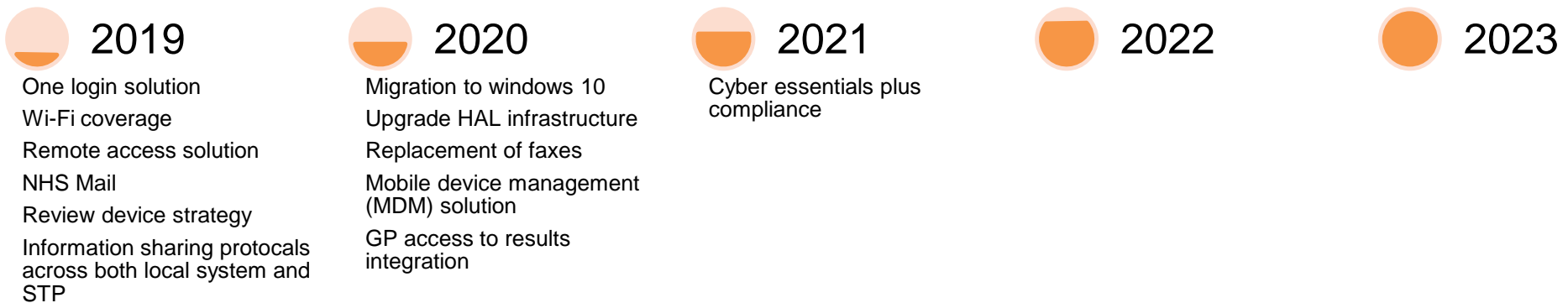
## Enabling platforms

The digital strategy will not be achievable without ensuring we have a robust core infrastructure to build from. The projects below excludes the daily delivery of operational IT, whether it be maintenance and refresh of servers, provision of laptops and PCs, compliance with licensing requirements or ensuring we are protected from cyber risks whilst maintain connectivity. This includes the direction of moving to cloud based working environment and ensuring we have the right infrastructure and skills to support this.

We also provide an IT training service on a number of specific clinical systems as well as basic IT skills. We will continue to routinely review the training needs of the organisation to ensure this service remains fit for purpose as we progress along the journey to being paperless.

Enabling platforms largely falls into three strands of work:

- 1) We must ensure that we are compliant with mandated deadlines and guidance for areas such as cyber security, email accreditation and the replacement of faxes.
- 2) We must ensure our in house developed systems including the Hospital Application Login (HAL) environment and intranet, extranet and website are constructed on modern platforms
- 3) We must provide infrastructure to deliver the “anytime anywhere” element of our vision including Wi-Fi, secure mobile access and appropriate integration with primary care.



## Emerging digital opportunities

This strategy focuses on ensuring we have a robust core infrastructure, a base set of systems and digital integration. However, we must not be complacent in considering further potential benefits that emerging technology can provide. Within our plans we are already looking at how to use areas such as robust process automation, telehealth and open source technology. Subject to funding, appetite and available resource we will look for potential products that can either bridge issues or help us jump from digitally immature to market leads where possible. The table below outlines some areas which we know are evolving but are not currently in our strategy to give a flavour of opportunities which we may look at on a case by case basis:

Clinical Solution	Opportunity	How evolved is the market? <sup>1</sup>	Benefits	Capital or Revenue
<b>Infrastructure</b>	Virtual Desktops	Mature	Less administrative overhead • Increased productivity • Cost savings	Capital & Revenue
	Shared Infrastructure / IT Outsourcing	Mature	Reduced and controlled operating costs • Internal resources focus on core business • Constant technological improvement and best practices	Capital & Revenue
<b>Data Availability</b>	Population Health	Growing	Leverage the wealth of data for clinical research • Identification of rising risk patients • Improved patient safety • Engaged patients that will have a reduced health cost burden	Capital & Revenue
<b>Clinical Solutions</b>	Secure Clinical Messaging	Growing	Significant time savings • Cessation of legacy bleep systems • Expedited communications enabling earlier discharge • GDPR compliance	Revenue
<b>Patient Engagement</b>	Remote Patient Monitoring	Growing	Improve quality of care • Timely interventions, reducing cost further down	Revenue
	Telehealth	Growing	Access to real time patient readings • Patients are not bound to NHS hours • Changes in treatment can happen sooner rather than later.	Revenue
<b>Other Areas</b>	Artificial Intelligence use in various services	Immature	Early detection of diseases such as cancer • Augments clinicians in their diagnosis process • Staff productivity	Capital & Revenue
	IoT Wearables	Growing	Accurate diagnoses at the point of care • More data collected for analytics purposes • Timely interventions	Revenue
	Mobile Applications	Growing	Empower patients to review their health status reports, schedule appointments, and track medications • Share relevant educational material	Revenue



## Delivering the digital strategy – culture

For this strategy to be successful and the benefits realised, the whole Trust must all be fully engaged and committed to a paperless journey and the “digital by default” ethos. Whilst we will use existing formal governance arrangements to engage, it is important that the digital agenda is owned by anyone using the technology with central technical teams supporting the delivery. We will encourage staff to:

- Take ownership for business change supported by technology
- Take responsibility for ensuring that information they enter into systems is timely and accurate
- Proactively be involved with working groups, the Digital Clinical Reference Group and other future formal and informal forums

Delivering the desired culture shift will not happen without focusing on improvements in a number of areas. The below take highlights some of the actions that will be required from the organisation and supported by wider strategies and plans:

System development and implementation to be owned by the users

- Business cases to include the required user time, clinical input and service commitment to deliver any business change

Improvement in project/change management across the Trust

- Proposed projects/changes consider the impact of users, technology requirements and areas such as GDPR at the outset and follow one consistent project methodology aligned with quality improvement strategy

Improvement in digital capability and literacy

- Working in conjunction with People and OD directorate to ensure digital capability, literacy and required education/training forms part of appraisals, development plans and recruitment linked to quality improvement strategy

All staff recognising their responsibilities in areas such as IG and data quality

- Education and training to help build knowledge. Where appropriate, performance reviews and performance management framework to reinforce responsibilities, highlighting the importance of working as one team

Championing the vision becomes the norm

- Digital champions to be identified for all staffing groups and empowered to be the voice of their peers, supported by line managers and ultimately the Executive team and the Board.

Challenge poor practice

- Staff to feel enabled to challenge poor practice where identified, supported by line managers and ultimately the Executive team and the Board.

## Delivering the digital strategy – resource

The Trust has over 100 systems used in the delivery of our clinical and non-clinical services. The Informatics directorate provides seven main functions listed right.

To deliver the digital strategy most effectively, greater oversight of the whole Trust digital environment is required. During 2019/20, all clinical and corporate systems not currently supported by Informatics will be reviewed to understand how it is managed. Each system will fall into two brackets, either:

- Informatics will take on direct responsibility; likely to be focused on core systems where practically possible without increasing the net headcount across the Trust.
- Informatics will take on direct oversight; this will be for any system where there will not be direct responsibility. For these we will create virtual teams so that disparate system administrators can receive guidance and support, ensuring they are managed in line with the digital strategy and policies.

From April 2019, all future digital projects or procurement will be managed through the revised digital governance on page 22. A standardised project management approach, aligned with the QI strategy, will be mandated for any project, ensuring staff have the right skills for success.

A request for change process will still be maintained through Informatics however wherever possible these will be aligned to the key projects within this strategy and prioritised as part of that project. There will be limited resource available to review and deliver small change projects above and beyond what is in this strategy. Prioritisation of these will follow the revised digital change management framework.

Recognising the risk of changing political and national priorities, where urgent projects are required to be supported a business case will be produced for additional resource above and beyond what is requested overleaf.

Projects will not be commenced without appropriate resource to deliver them successfully being approved as part of the business case. This is particularly the case for projects which require significant business change to deliver the benefits. In these scenarios, the business case is expected to clearly outline both technical and expert user resource requirements.

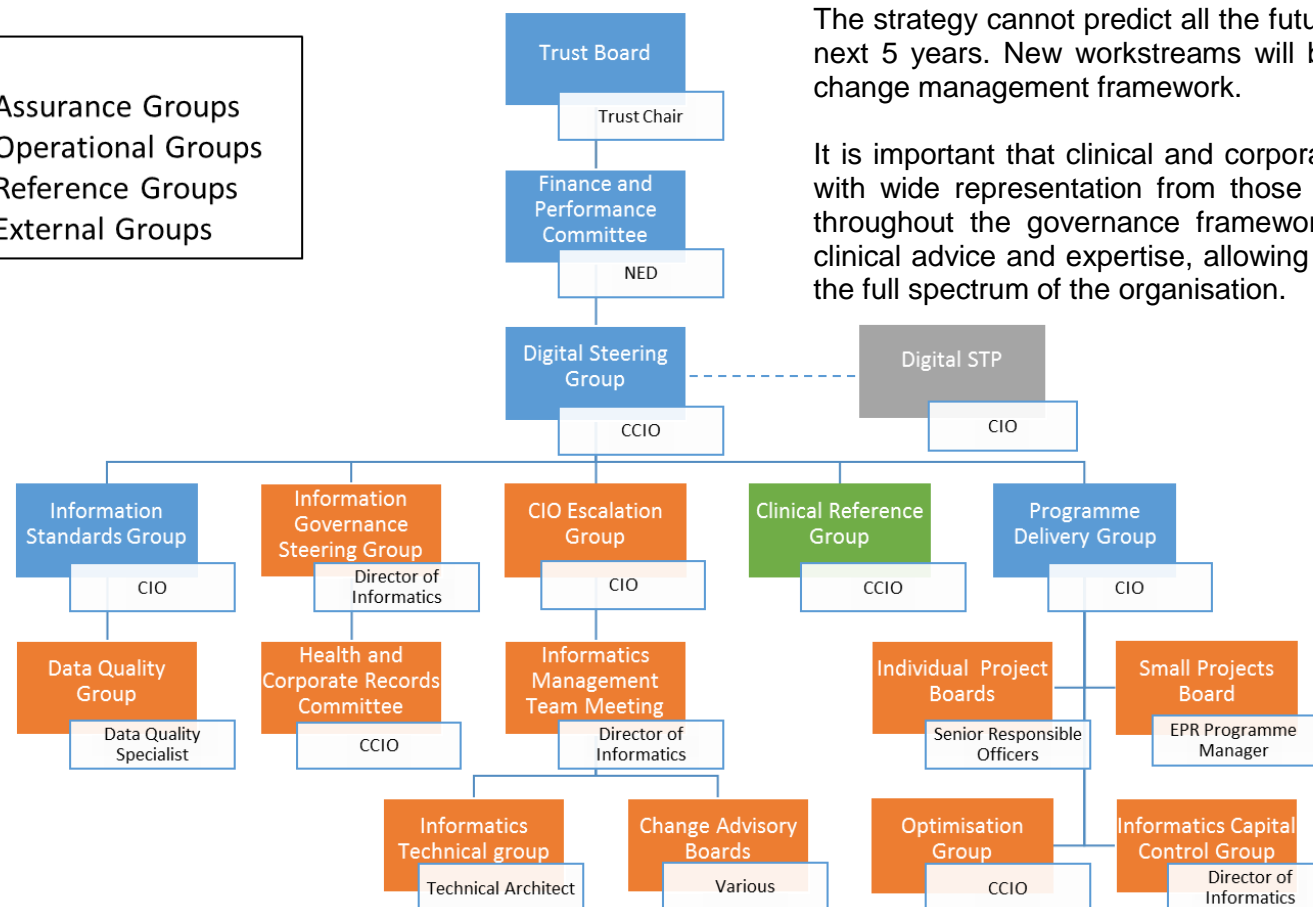
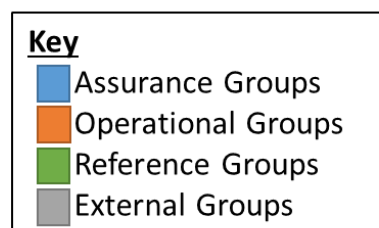


## Delivering the digital strategy – governance

We have reviewed the digital governance framework to provide stronger assurance on adherence to key national or contractual requirements, create a structure for oversight of current and future projects using Trust project methodology, ensuring they maintain alignment with this strategy and have oversight of operational delivery of the wider priorities within this strategy.

The strategy cannot predict all the future strategic workstreams that will emerge in the next 5 years. New workstreams will be proposed in adherence with the Informatics change management framework.

It is important that clinical and corporate staff are fully engaged in the digital agenda with wide representation from those that use the systems and Informatics support throughout the governance framework. The Clinical Reference Group will provide clinical advice and expertise, allowing us to create a culture of true ownership across the full spectrum of the organisation.



## Strategic risks

The following have been identified as potential risks to delivery of the strategy with proposed mitigating actions

Risk	Rating	Mitigating Actions to be taken
Insufficient commitment across the organisation to own the delivery of the digital agenda and associated benefits	High	Agreement from Board, executive team and senior management to champion the digital strategy and adhere to consistent message. Improved engagement with staff on digital agenda, CRG to help ensure benefits identified are owned
Insufficient commitment from STP partners to deliver collaboration across the digital agenda to deliver potential benefits	Medium	Engagement on digital through STP governance by executive and CIO. MOU to be signed by providers on STP EPR Partnership in March 19. Digital programmes to be aligned with clinical pathway transformation
Insufficient funding available to deliver Digital Strategy	High	Strategy structured to be as realistic as possible. Bids to be put in for any available external funding where appropriate. Consideration of further funding options should external funding not be available for large programmes (e.g. Pathology LIMS)
Increased revenue costs associated with movement to cloud based technology	High	Informatics team to gain further clarity on expected impact. National discussions on support for key projects underway (e.g. Office 365)
Microsoft licensing model changes could cause increased revenue costs	High	Engagement with NHS Digital and Microsoft to understand potential impact and any national support. To be included in future cost pressures
Skill set and capacity within Informatics insufficient to deliver programmes in the strategy	Medium	Review of Informatics structure to support strategy delivery in Q1 2019/20. Change management framework to be revised by March 19 to help focus existing capacity on projects. Where required, staff to be sent on training courses to maintain skills and collaborate with peer Informatics teams across the NHS.
Lack of detailed understanding around the requirements on digital of the STP key workstreams and SFT Finance Recovery Plan	Medium	Informatics reviewing current and future savings plans to understand impact on digital programme. CIO linking in with STP workstreams to seek clarity on digital ask and align with STP digital programme.
Trust unable to introduce emerging technology	Medium	Focus in year one to improve digital infrastructure. Review of external funding streams and potential opportunity of funding for piloting technology
Duplication of workload through dual running of BI tool implementation and data warehouse development	Medium	Ensure clear identification of scorecards/dashboards developed on BI tool that will require rewriting post data warehouse replacement. Where appropriate, create reports that will use same naming conventions in both old and new.

## Appendix 1: Digital Maturity Index 2016 and 2017

