



Camden and Islington
NHS Foundation Trust

DIGITAL STRATEGY

2020 – 2023

**IMPROVING OUR SERVICE USERS' HEALTH, SAFETY, WELLBEING AND EXPERIENCE OF CARE
THROUGH THE USE OF DATA AND DIGITAL TECHNOLOGIES**

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Executive Summary

Our vision is to deliver high quality, safe patient care enabled by a strong digital infrastructure and capability. This digital strategy aims to build efficient and effective information technology, safe use of new digital opportunities, good governance securing information and technology advances and an infrastructure that is reliable and efficient for clinicians enabling more time released to care.

Our goals are based on addressing the key issues that concern our staff and service users and on meeting the key priorities nationally for digital excellence in the NHS.

Our key Trust issues are:-

- Clinicians experience high frustration and demands on their time with current digital infrastructure and systems. Accessing and updating patient records is time consuming and complicated, networks are unreliable and hardware is outdated. The lack of connection or interoperability between different health and social care providers leads to duplication.
- Our systems do not support new technologies that would enable safer care for service users and staff.
- We do not consistently have easy access to clinical and service information to drive service improvement.
- Our corporate services do not capitalise on technology to improve efficiency.
- Our basics are not in place with cyber security, hardware and systems requiring updating and with staff training and governance structures embedded.

Our digital strategy sets out our key digital priorities over the next three years, how we will achieve those objectives and the critical milestones. This is in line with our organisational objectives and cultural pillars (see appendix 2). Our Strategy is based around a quality framework connected to the following digital principles:

- 1. Getting our basic infrastructure and digital capability in place to release clinical time, and reduce staff frustration.**
- 2. Keeping our staff and service users safe by utilising new technology and enabling good information access.**
- 3. Ensuring simple access to information that can drive service improvement, quality improvement and research.**
- 4. Ensuring corporate services capitalise on technology to improve efficiency and user experience.**
- 5. People, culture and inclusion. Ensuring that our digital services always put people first – that the culture is one of respect, inclusion and responsiveness.**
- 6. Building digital skills across the workforce and embedding digital working.**

We are aware that such a wide range of changes will present challenges. As a public sector health organisation, we are mindful of our responsibility to work within tight financial and other resource constraints.

We will work through our three year strategy by focusing on:

- Getting the basics right.
- Smarter working, thereby releasing clinical time.

- Supporting the St Pancras transformation programme. This requires digital capability to establish agile working alongside integrated care and digitally enabled self-care.

Introduction and strategic context

Our vision is to deliver excellent service user care underpinned by a strong digital infrastructure that enables us to maximise our capability with access to high quality integrated information. We want our digitally capable staff to understand this capability, and to work in a quality improvement framework towards better quality and safety outcomes for our patients. Our digital strategy aligns with our cultural pillars and will play a key part in keeping things simpler and connecting different parts of the pathway and other services in a cyber-safe secure framework.

In addition the Trust is embarking on a key transformation of its services enabled by the St Pancras programme. This large and complex programme will see our services reorganised in a new purpose estate and will incorporate new ways of delivering care, based on a more therapeutic environment that maximises new technology.

Our transformation programmes sit alongside major national changes as outlined in the recently published Long Term Plan (NHS England, 2019). Key to these changes are the development of integrated and place based services and the development of more out of hospital care to support people in the community. We are progressing these changes as part of our clinical strategy and our St Pancras programme will deliver some key elements of these changes. In addition we are working within the North Central London system to deliver the Long Term Plan and specifically we have committed to a formal alliance with Barnet, Haringey and Enfield NHS Trust to enable collective approaches to services and supporting infrastructure where we can achieve more in a larger partnership. Our digital strategy is therefore set on national foundations and aligned with our local context and will support the programmes of change in place.

The digital agenda nationally in support of the Long term Plan is set out in a number of key documents all aimed at accelerating the digital capability of the NHS (see references). The key priorities within those national strategies are:-

- Intra-operability and the ability for clinical systems to be able to talk to each other across organisational boundaries.
- To enable us to make better use of clinical information for decision making purposes.
- We will design our systems with compassion. We will strive to understand and respect people's emotional, physical and technical needs – and put them at the heart of everything we do.
- Our systems will be safe, secure and protect individual privacy, whilst allowing service users the ability to have their records shared between clinical teams.
- Our services are for everyone. We will ensure our systems can be used by people with different physical, mental health, social and cultural needs. **We will always put people before technology.**

Learning from Exemplar Organisations

Our local mental health Global Digital Exemplar (GDE) trust is South London and the Maudsley NHS Foundation Trust (SLaM). We will continue to assimilate best practice from SLaM and adapt it locally.

We have the ambition to learn from the Healthcare Information Management Systems Society (HIMSS). This is a global, not-for-profit organisation focused on better health through information and technology. HIMSS leads efforts to optimise health engagements and care outcomes using information technology.

Our strategy will address some key elements for the next three years of transformation, specifically focusing on:

- What are our current digital limitations impacting on safe service delivery and staff wellbeing
- How are we going to address these limitations?
- What the barriers to implementation are?

Our Strategy - What do we want to achieve?

We have made some investments in technology over the last two years (as seen in appendix one) but we remain well below the standard of digital performance that we need. We know that our staff experience high levels of frustration about technology and information systems. Hardware is often antiquated, and running on software that should be considered obsolete. Clinical staff currently use systems for service user records that are slow, complicated to use and often “lose” their work as networks are unreliable. They feel disconnected from Information and communications technology (ICT) support and can feel deeply frustrated when systems break down without clear communication about resolution they lose critical clinical time trying to access service user information or input key records. For this, and other reasons, we are not fully able to realise the efficiency, productivity and clinical safety gains that we should expect.

A key strategic priority for Camden and Islington is to keep staff and service users safe. We know from our staff survey and our incident reporting systems that we have significant levels of violence and aggression and we are utilising our Quality Improvement (QI) methodology to reduce this. Technology could help with this and we currently do not have the digital capability to be at the front of this exciting potential.

In terms of safety we are also highly sensitive to the risks in cyber security both for service users, staff and corporate actions. We want to ensure that as we develop and transform our use of information and our use of technology we are protecting staff and service users from any risks and we know that at present our cyber security needs strengthening.

In addition to clinical services our operational and corporate areas are not fully able to utilise the rich data and information pools that exist to really make informed decisions. They are still operating manually many of the repetitive tasks that could, and should, be done digitally. Mission critical areas such as recruitment processes are slow and frustrating for current staff and new joiners and we are not using robotics and Artificial Intelligence (AI) which we know could streamline and increase efficiency. Our finance teams are not using the automated robotic processes that would enhance efficiency and our estates transformation will require highly efficient booking systems to ensure staff working in a more mobile or flexible way find it easy to access the working space they need at the right time.

Our delivery of the Long Term Plan with the focus on integration, our St Pancras programme, and our work with Barnet, Enfield and Haringey (BEH) in the alliance requires the very best of technology and digital capability. This will enable us to ensure we are operating efficiently and reducing the huge frustrations that staff currently experience. This will increase staff satisfaction and time to care.

Our Strategy – How are we going to make it happen?

Our strategy commits us to achieving our 6 digital principles. This section will outline how we are going to do this alongside prioritised action lists.

1. Getting our basic infrastructure and digital capability in place to release clinical time, and reduce staff frustration. Getting our basic infrastructure and digital capability

This digital principle will address the installation of a new modern data network which will provide greater speeds, connections with built in resilience to all C&I sites. Building on this infrastructure we will now upgrade our telephony system to enable better communications methods to support agile working and to find / contact people. To facilitate agile working we will be developing how our staff will operate with this new technology such as which IT devices are appropriate in order to support and to consider different ways of working. All of this new technology will be based around Cloud based services such as Microsoft 365 – this will allow / enable our staff to access systems, receive information and work with each other from any location. Security is paramount and all our infrastructure and systems will be based around IT Cyber Security protocols thereby ensuring our clinical data is fully protect.

What we will do:

- Invest in our networks, telephony, WiFi and hardware.
- Install Windows 10 across the Trust.
- Install Office 365 apps and services to support agile working.
- Move to Cloud first.
- Establish single sign on across the Trust.
- **Cyber security:** by March 2020 we will have achieved Cyber Essentials Plus (CE+). This will help us to guard against the most common cyber threats and will demonstrate our commitment to cyber security.

2. Keeping patients and staff safe by utilising new technology and enabling good information access

It is our priority to protect our service users and staff so that they are free from any forms of violence and aggression. We are committed to leveraging new technologies to help us identify and mitigate clinical risks. We know that health information is uniquely sensitive and our cyber security protocols will ensure that our data is protected and information risks minimised.

What we will do:

- Invest in new technologies such as body cameras and digital care assistants. Recognise that these technologies are only as good as the clinical workflows into which they are embedded.
- Recruit a Clinical Safety Officer and a Clinical Nursing Information Officer to assess safety pre implementation and conduct post implementation evaluations.
- Build on our existing Information Governance team.
- Develop an Innovations Pathway to enable clinical and academic staff to realise their clinical ideas, building on our existing digital connections forum.
- Raise the profile of the Digital Programme Board.
- Ensure all parts of the organisation have Business Continuity Plans that they have tested.
- Review Datix system.

- Encourage the reporting of Datix events related to digital services delivery, and review these at the Digital Programme Board.
- **Cyber security:**
 - Procurement protocols will be in line with the digital strategy.
 - A new “unsupported systems group” (see Appendix 3) has been established within our governance structure.

3. Ensuring simple access to information that can drive service improvement, quality improvement and research

Better use of our data will help us to manage our services more effectively, commission better services as part of integrated care arrangements, understand population health trends in more detail and use research to develop new service models. We will effectively manage all our data assets and ensure that data held in third party supplier systems is maintained under the appropriate safeguards.

What we will do:

Clinical systems:

- Continuous improvement to Carenotes, IAPTUS, EMIS
- Support Health Information Exchange (HIE) platform across the Sustainability and Transformation Partnership (STP)
- Introduce EPMA (electronic prescribing)
- Ensure timely access to pathology results
- Steamline interface with non Trust systems (eg Camden Council and our local acute hospital trust systems)
- Support Clinical Record Interactive Search (CRIS) and other significant research collaborations

Analytics:

- Implement clinical coding (Snomed)
- Implement systematic PREM and PROM reporting
- Widen use of dashboards across the organisation
- Eliminate processes that have led to maintenance of spread sheets and other databases that are not acknowledged as the digital health record for the organisation
- Work with STP around HealthIntent
- Introduce a new Data Quality Group with the Trust reporting to IG steering group
- Establishing close working and training arrangements with STP/CSU/LA BI & Performance analysts.
- Establish an Information plan to manage our data warehousing and information flows
- **Cyber security:** training for IAOs and SIAOs.

4. Ensure corporate services capitalise on technology to improve efficiency and user experience

Like most public sector organisations, C&I is looking to make significant efficiency improvements within our corporate departments. Using digital technology, we will be able to simplify a number of processes across Workforce, Finance, Estates, Board Secretariat and Information Communications and Technology, whilst also up skilling our teams to work in a more productive way. One key area that will benefit the organisation is the use of Robotic Process Automation, which will enhance our approach to data migration, ESR management and invoice processing.

What we will do:

- Explore use of artificial intelligence to help our staff in our finance and human resources departments.
- Introduce an electronic room booking system
- Trust secretariat to trail blaze use of Office 365
- Participate in STP/Regional level BI Networks to enable better knowledge exchange

5. Ensure that our digital services always put people first – that the culture is one of respect, inclusion and responsiveness

Technology has transformed the way people collaborate and work together. Our digital strategy enhances activities that support the development and implementation of a culture of collaborative working and learning, and accelerate organisational innovation.

What we will do:

- Regular workforce surveys
- Consider the impact every digital project may have on those with protected characteristics to ensure we enhance quality of life and provide suitable alternatives to digital where necessary
- Digital services continue to actively participate in the Trust-wide Culture Collaborative
- Build on the work of our recently appointed Digital Communications Officer
- Review processes between ICT and Clinical Information with a view to strengthening

6. Building digital skills across the workforce and embedding digital working

“Within 20 years, 90% of all jobs in the NHS will require some element of digital skills. Staff will need to be able to navigate a data rich healthcare environment. All staff will need digital and genomics literacy.” The Topal Review, 2019.

At C&I, we believe that digital technologies will be an enabler, however it is critical that we have a workforce that understands the productivity and change that this new way of working will bring.

What we will do:

- We will develop a range of “digital personas” across the organisation enabling us to deliver to the technology needs of different staff groups.
- We will develop a digital induction programme for new and returning staff.

- We will offer digital coaching sessions to up-skill our staff.
- We will encourage front line staff to access the digital connections forum. This is a joint forum in which we work with our Quality Improvement team to help front line staff realise their ideas for improvement.
- We will fund a series of Hackathon events.
- Within our Digital Services department we will ensure that there is no human single point of failure.
- When Standard Operating Processes are being developed across the organisation we will ensure that digital workflows are captured and addressed.
- We will provide resources to help our front line clinical staff help service users access useful digital tool like the NHS app.

Our Strategy – What are the barriers to implementation?

We are aware that such a wide range of changes will present challenges. As a public sector health organisation, we are mindful of our responsibility to work within tight financial and other resource constraints. However, inaction is not an option. The key challenges we face and the mitigating actions we have developed are:

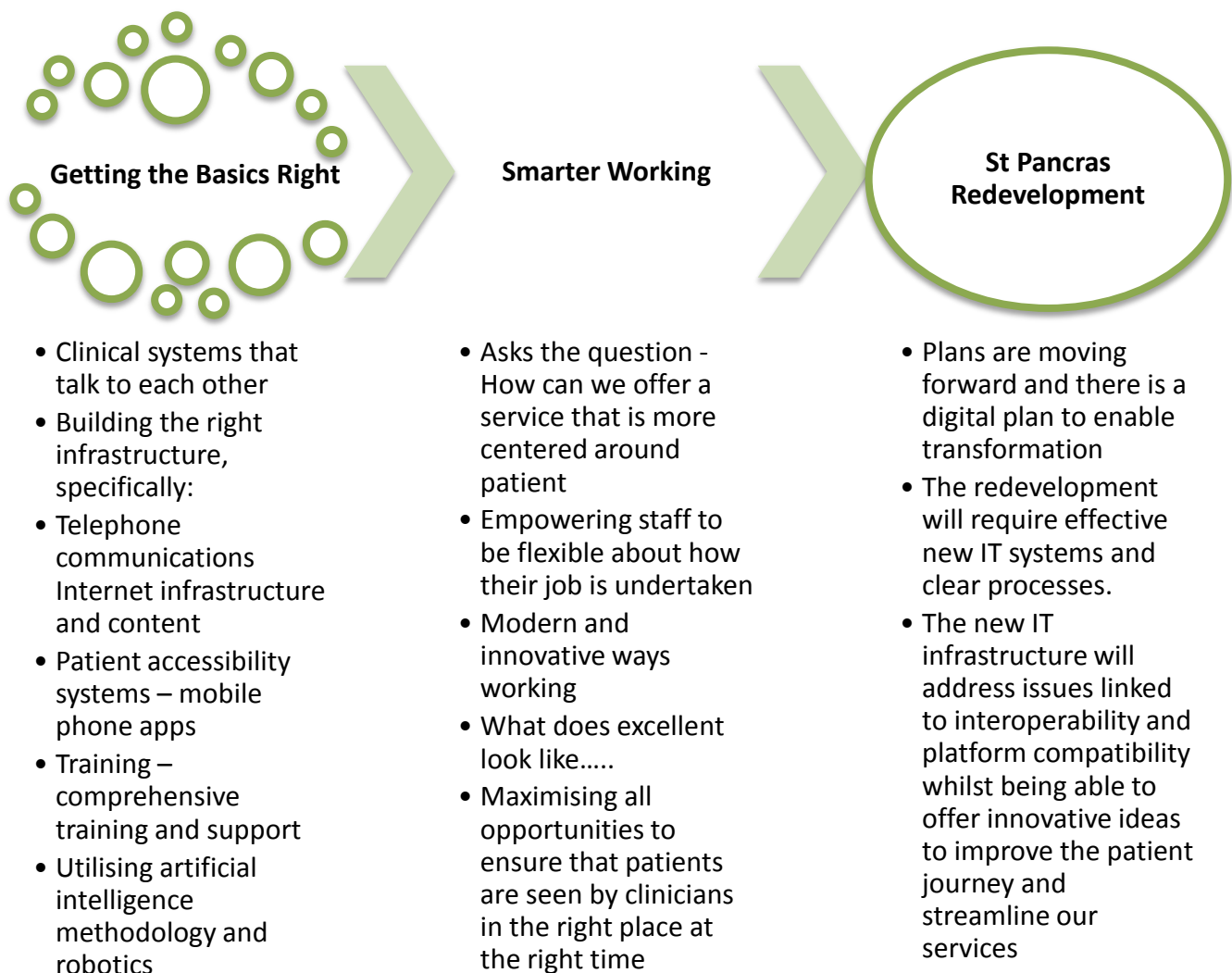
Challenges	Mitigation
Engagement of staff in the ownership of the digital agenda	<ul style="list-style-type: none"> • Using digital champions in the organisation • Creation of forums and other networks • Better access to meaningful data and insights, training • Access to central IT support for local digital projects
Funding limitations	<ul style="list-style-type: none"> • Accessing central government funds and STP wide project funds for digital projects
Technical system barriers	<ul style="list-style-type: none"> • Agile system design for future interoperability assurance • In-house IT function to provide expertise on technical systems • In-house ability to develop IT systems for specific needs or for trials to minimise the reliance on external IT providers and their IT support • Adhering to standardised use of external IT systems to minimise customisations that have a high degree of support reliance • Alignment with STP wide system development
Skills and human resource limitations	<ul style="list-style-type: none"> • Accessing the wider public sector and higher education sector to learn from others or to use external skills that work not for profit • Holding low cost ‘hack days’ to develop own bespoke solutions with external specialist expertise • Foster partnership working with other analytical teams in the STP

Our Strategic Journey

In developing this strategy we listened to service users and engaged with our health and care professionals, our corporate support staff, technology professionals, operational managers, commissioners and our board members. The St Pancras Transformation public consultation surfaced a range of views regarding how services could be accessed. We also reviewed what is already being used by other healthcare providers and what their experiences are.

Our journey towards digital transformation will be complemented by a programme to embed agile ways of working into the core business of the Trust. This will be enhanced by the development of new, modern facilities, in both the inpatient user and community settings. Before the new hospital sites open, we have a three year window of opportunity to ensure staff are provided with the skills, technology and facilities they need.

The diagram below shows the three phases of our strategy that will achieve digital transformation.



The oversight of progress made against the digital strategy's will happen on various levels to ensure operational and strategic scrutiny and assurance but ultimately will be presented to our Board and scrutinised by the Resources Committee. Please see appendix 3 which shows our governance structure.

Funding priority timeline

✳ Denotes funding agreed

Financial Years Themes	2020/21 – Year 1	2021/22 – Year 2	2022/23 – Year 3
Getting the basics right	Achieve Cyber Essentials Plus ✳	EPR Development	Apps for preventative / self care
	Embed Microsoft Office 365 ✳	Wi-Fi Development ✳	Harnessing artificial intelligence
	New Data Network Replacement ✳	Cloud Based Business Intelligence Suite	
	Embed HIE & HealthIntent ✳	CRIS and support for academia	
	Electronic prescribing implemented ✳		
Smarter Working	New C&I Intra & Internet Sites	Corporate Communications	Embedded agile working
	New BT/Mitel telephony system ✳	Clinical Video Consultations	
		Room Booking Pilot	
Redeveloped hospital sites			Operational control centres
			Telemedicine TBA

Appendices

Appendix one – C&I Key Achievements

As an organisation we have always invested in digital technology and in addition to the traditional delivery of hardware (e.g. PCs, laptops) and software (e.g. electronic service user records, email). Here are some examples of what we have done so far:

Data Centre migration. We now have two Data Centres running with two resilient lines between them (primary and secondary) the new Back Up solution is now in place with a monitoring web portal which will enable us to see data consumption, server utilisation and receive retention and fault warnings. The new exchange email platform / Load Balancers has now been built and implemented and the solution will now undergo the testing stage. The new Exchange load balancer implementation will add resilience and minimise email outages. In addition, we now have PRTG monitoring software in place which will enable us to monitor our entire network, collect statistics and receive fault warnings so that we can proactively address and minimise downtime.

Wi-Fi Development. As part of the Wi-Fi deployment, we have now successfully implemented Wi-Fi at Daleham Gardens, SMS Islington (Seven Sisters and King Henry's Walk) and the Highgate hospital including wards and offices and all St Pancras wards. In addition we are now planning the next site for Wi-Fi deployment which is Kingston)

SMS Islington. The SMS Islington Better Lives was a major project for the Trust which has delivered new clinical facilities in Seven Sisters 99 & 101 and 28B King Henry's Walk. We provided the new data line between the SMS Sites and our trust Data Centre and we deployed all ICT equipment to enable the functioning of this service. This included, PCs, Docking stations, Printers, Telephones, TV Screens and Wi-Fi.

Single Point of Failure. This project has now been completed with the key Trust sites covered on the data network infrastructure. We have addressed the existing known 13 points of failure in the data network making the trust Network more robust and resilient.

Appendix two – Organisational Objectives and Cultural Pillars

Early and Effective Intervention – Innovation in areas such as Artificial Intelligence and Robotics will ensure that we are able to contribute to the delivery of a service that ensures that we work towards the key concept of ‘prevention rather than cure’

Helping People to Live well – Digital advances will mean that we are able to work to an outcome that will enable service users to manage their own care under specific circumstances and take responsibility for their own management of their illnesses, this will mean that they are treated in the right environment to give them a better standard of living. The potential inclusion of virtual consultation and mobile phone apps will allow service users to manage their care in a more proactive manner.

Research and Innovation – Digitalisation means that we are able to further possibilities and opportunities with regard to research and innovation this will mean that the service user journey can be facilitated so that the service user can be treated in the most effective manner.

Keeping our Service users, carers and staff safe – the application of the latest technology and innovation available to us will allow us to run a safer service, use digital technology for areas linked to information and data management will mean that we will have more accurate data, better reporting and quicker responses based on the availability of the data available to us.

Cultural Pillars

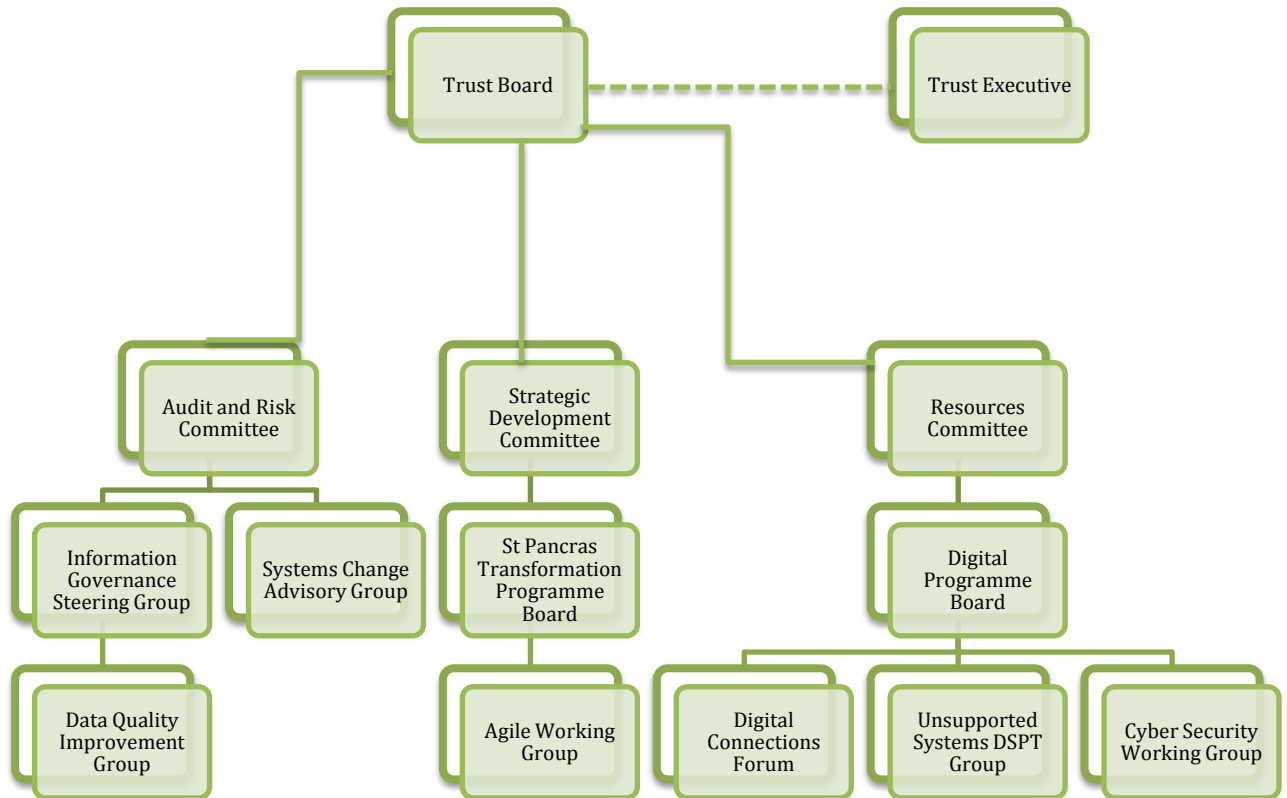
We value each other – The implementation of new systems will allow staff to work smarter in a more ‘agile’ way this gives the opportunity to spend more time with service users and other staff members, meaning staff can work more of the clinical outcomes rather than administration based activities.

We are empowered – New technology will allow service user to take responsibility more for their treatment and also give staff the opportunity to make decisions quicker therefore developing a more efficient service.

We keep things simple – IT innovations will allow us to simplify some of the ways things are done, over time processes will be streamlined and meaning a better and more effective service to the patient.

We are connected – Use of mobile phone applications and other innovative methods will allow for us to ensure that we are always available to meet user needs and not just a ‘9-5’ service.

Appendix three - Our Governance Structure



Appendix four - Glossary of Terms

Below is a list of the terms used within the document

Acronym	Meaning
C&I	Camden and Islington NHS Foundation Trust
ICT	Information, Communications and Technology
GDE	Global Digital Exemplar
SLAM	South London and Maudsley NHS Foundation Trust
HIMSS	Health Information Management Systems
ICS	Integrated Care Systems
STP	Sustainability Transformation Plan
BEH	Barnet, Enfield and Haringey NHS Trust
EPR	Electronic Patient Records
SNOMED	Structured clinical vocabulary for use in an electronic health record
IAPTUS	Patient Management Software
IT	Information Technology
CSU	Clinical Support Unit
BI	Business Intelligence
IAO	Information Asset Owner
SIAO	Senior Information Asset Owner
PREM	Patient Reported Experience Measure
PROM	Patient Report Outcome Measure
EPMA	Electronic Prescribing Medicines Administration
EMIS	Eton Medical Information Systems
HIE	Health Information Exchange
CRIS	Clinical Record Interactive Search

Appendix five – Referenced documents

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