

FRIMLEY HEALTH NHS FOUNDATION TRUST

DIGITAL STRATEGY REFRESH

& 3 YEAR PLAN

2018 - 2021



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GLOSSARY

ACS	Accountable Care System (now ICS)
BYOD	Bring Your Own Device
DA	Data Analytics
DMA	Digital Maturity Assessment
eMR	Electronic Medical Record
eMeds	Electronic Medication Management
ED	Emergency Department
FF	Fast Follow of a Global Digital Exemplar Site
GDE	Global Digital Exemplar
HCM	Human Capital Management
HIE	Health Information Exchange
HR	Human Resources
ICT	Information and Communication Technology
ICU	Intensive Care Unit
ICS	Integrated Care System (Formerly ACS)
LDR	Local Digital Road Map
PHN	Primary Health Networks
PACS	Picture Archiving and Communications Systems
RIS	Radiology Information System
ROI	Return on Investment
SMS	Short Message Service
STP	Sustainability & Transformation Partnerships
TCO	Total Cost of Ownership
WAN	Wide Area Network

EXECUTIVE SUMMARY

The digital strategy 2018-2021 is a refresh from the original 2015-2020 strategy. Included is an update on what has been achieved since 2015 and in particular establishes the direction for digital investment over the next 3 years. The focus is to harness the current investment, fill in the gaps with innovative solutions for integrated clinical care, patient engagement, cost-effective delivery of digital solutions and a modern infrastructure to meet the growing demands. We have made steady progress with our digital maturity assessment over the last two years and the recommendations included in this report would fill in the major gaps (eObservations, structure documentation, ePrescribing, integrated workflows).

The strategy not only addresses the internal needs at Frimley Health NHS Foundation Trust but also establishes the flexibility and foundation to support external needs evolving as part of the Integrated Care System (ICS). The solutions presented will continue to support new approaches for care providers and patient engagement. The strategy has eight objectives that came out of three engagements and environmental scan sessions held across the organization. The overarching theme is ["Make Life Easier"](#).

Strategic objectives:

1. Information at the point of care
2. Analytics and joined up data
3. Interoperability
4. Patient access where appropriate
5. Improve patient care
6. Easy to use
7. Reduce back office Administration
8. Better value for money

There are eleven elements highlighted that would create the best conditions for success for our digital journey. The digital vision for FHFT is- *"Digital Services at Frimley Health is one in which patients, citizens, employees and care providers can access the right information at the right time, in the right place and with the most appropriate medium to achieve their daily work, education, research, and health and wellness goals."*

Transformation is at the heart of any digital strategy. This document takes into account the growth in new digital technology and information systems across the Trust and the linkages that must be incorporated with the evolving Integrated Care System and the Connected Care Record. In addition it notes that digital services must work side by side with the business and develop a collaborative and shared working digital culture.

The financial details do not show significant savings as the focus is on investment to stabilize the infrastructure and provide modern systems for functioning in healthcare today. The priorities presented would improve efficiency; increase capacity (meaning more activity can be done without increasing Pay costs). It is difficult to quantify improved safety; less deaths; ability to meet increasing demands without hiring more staff; and impact on system with the use of modern technology. Currently about 60% of the hospital budget is allocated to pay. If the technology and transformation being presented enabled the pay cost to reduce by 5% (£18 M) and deferred further increases to the workforce by 2% (£7.2M) that would mean a financial benefit of £25.2 M to the Trust. The investment costs in IM&T are high in the short term and the cumulative savings and benefits come generally after the 5 year mark. In this CIO's experience often what

is achieved is just stabilizing and avoiding increasing costs while the patient activity and acuity increases. This reality is supported by the Wachter Review.

While it is natural to seek a short-term financial return on investment from health IT, experience has shown that the short-term ROI is more likely to come in the form of improvements in safety and quality than in raw financial terms. In fact, cost savings may take 10 years or more to emerge (the so-called 'productivity paradox' of IT), since the keys to these gains are improvements in the technology, reconfiguration of the workforce, local adaptation to digital technologies, and a reimagining of the work."

To ensure FHFT delivers a digital service that will enable business transformation this strategy presents 5 recommendations:

Recommendations:

1. IT restructuring will reduce management layers and rebrand the IM&T as Digital Services moving the focus away from IT commodities and toward digital integration and solutions.
2. Focus on protecting the enterprise by securing a modern datacentre that is a cloud based infrastructure and managed service (IaaS). A Modern datacentre that can flex as needed and provide consistent reliable service with improved capacity at less cost.
3. At this time the Trust is not in favour of a complete shift to one major EPR provider. It is recommended that the Trust tender to acquire a Digital EPR Partner that will connect the workflows, integrated care plans, eObservations, scheduling, one PAS/MPI, create one FHFT joined up patient record across the Trust and complete the requirements for a full EPR. This partner will fill in the gaps and enable the Trust to have a manageable system with core suppliers while not losing the benefits of previous investments that are working well. It is a best of cluster approach or "Hybrid".
4. The Governance must ensure there is a sustainability and transformation lead for the projects, so that the digital enabling work is prioritized and tracked in alignment with operational changes and that incorporate flexibility to respond to the ICS work as well as the FHFT initiatives.
5. The Management and coordination of Digital Services must be centralized. The complexity of the integration requires the ability to manage how the systems are configured, implemented and monitored when operational performance is impacted. This not only protects the current enterprise, it reduces single points of failure and overall reduces the cost of running the IM&T services.

INTRODUCTION

Frimley Health Foundation Trust has been recognized for its outstanding care. To continue to sustain that level of performance innovative use of technology to enable transformation is required.

The local population in the FHFT catchment area is aging, medical costs continue to rise, budgets are reducing, and the burden of chronic disease is increasing all at a time when consumer expectations are on the rise. This creates an environment where there is constant pressure to meet these new demands while delivering high-quality,

integrated and accessible healthcare services. Technology already impacts all aspects of life and our health is no exception. Rapid innovation in collection of information, communication and other new technologies is transforming how we engage with the community in the delivery of health services. A well-developed digital strategy that enables health services to meet these demands can have a significant impact on cost management, improve lives through virtual visits; manage care closer to home, improve end of life care, keep people out of hospitals, and empower citizens to be partners in achieving health and wellness.

This strategy builds on the existing strategy and focuses on clinical and business transformation as key requirements to achieve the benefits technology can enable. The strategy encompasses a diverse range of approaches and technologies including integrated software, digital networking, improved mobile connectivity, modernized cloud infrastructure, digital literacy, and suggests that data analytics should be designed in a way where providers can generate the reports they need to support decision making for the delivery and improvements in health and clinical care. The potential of the digital strategy to improve service delivery for patients ranges from smarter, more cost-effective models of care, remote monitoring, improved access and rapid data analysis which is helping shift the traditional treatment paradigm of 'illness' to a collaborative, proactive management of 'wellness'.

It is emphasized that at FHFT our focus must be to stabilize the infrastructure and then to turn our energy to leveraging applications that enable the necessary clinical and business transformation projects to succeed. In addition, as audits and experience has shown, it is the people that really make the transformation happen and we must support the workforce to so that the transformation will be a reality.

THE 2015-2020 STRATEGY: SETTING THE CONTEXT

The vision and current strategic plan was written at a point when Frimley Hospital was in the process of acquiring Wexham & Heatherwood Hospitals. The focus was more inward to improve Trust legacy issues regarding IM&T. It required the following issues to be addressed:

- Investing in IM&T Department – reorganization of the organization structure and staff roles
- Increasing the number of IM&T employees
- Investment in the IM&T Programme
- Securing Integration funding to build an integrated IT Infrastructure to support Trust wide delivery of digital services
- Seek opportunities to standardize systems (ie., one Radiology system)
- Rationalization of systems (bring contracts together, reduce duplication from systems)
- Facilitating new ways of working

The Vision in the 2015-2020 Strategic Plan is to deliver to the Trust an integrated set of IM&T applications that support and enhance the day to day working of all staff. These applications must run on a modern and robust IT Infrastructure that provides fast, safe, mobile and effective solutions for access to information in the right place on demand.

In summary the objective of the IM&T service and the 2015-2020 strategy was to provide the knowledge, skills, technology and tools that enable information to be collected, managed, used and shared to deliver excellence in healthcare.

The strategic plan listed thirteen risks and challenges and highlighted that progress was dependent on the basic IT Integration being achieved which was estimated to take approximately two years and finishing around the end of calendar year 2017. Also noted was the risk of achieving anticipated synergies if there is a lack of effective and agreed transformation change deliverables (e.g. switching off paper, consolidating processes across the trust) and lack of governance and decision making relating to efficiencies and prioritization of projects.

The strategy also described the very different cultures between the two organisations and that the processes could be enhanced and changed through IM&T systems and associated operational changes which could provide a more standardised approach. It is not the role or responsibility of IM&T to lead this however IM&T does have a key role in identifying enabling solutions, delivering technology and applications and then supporting and educating on possible changes to process. To deliver savings in this area requires joined up working with the Trust transformation agenda and governance on how this will be achieved.

The following core themes are presented in the 2015-20 IM&T strategy:

- A modern integrated and highly functional and resilient IT Infrastructure that supports unified data management and electronic communications.
- Clinical systems to deliver an EPR based on a best of breed approach which maximises clinical efficiency and minimises the use of paper. The impact of the integration on this area will involve a high degree of standardisation, and over time, rationalisation of systems.
- To support corporate services through standardisation of systems and provision of solutions to provide more effective ways of working by improving process. This does require service units to compromise and processes need to be transformed to align with the new ways of working to enable the Trust to get the most benefit from digital deployments.
- To facilitate new ways of working in both clinical and corporate services in order to maximise efficiency. For example: to allow staff to have more immediate access to information in an electronic format wherever they are located; that the information is complete and up to date; reduce duplication in re-requesting information; and to enable the sharing of information which means all staff are working with the same most up to date information.

The plan divides integration into a two phase approach with emphasis on integration of IT and application systems. The priorities and phasing were mapped out so that each phase consists of a handful of key projects delivered over a 9-12 month period. The aim where possible is to continue the integration work alongside the existing work on EPR development and once the integration work is completed the focus would then be on joint projects that deliver the EPR. The current status of the project tracking list (what has been achieved and what is in flight) since 2015 is included as [Appendix A](#).

These four themes are still relevant however the refreshed strategy recommends a best of cluster approach and includes the flexibility to evolve with the ICS. The increase in our digital maturity score is evidence of the increased breadth of the digital environment over the last year and shown in [Appendix K](#). The bar graph shows how FHFT compares nationally against eleven factors. Completing the implementation of

ePrescribing, e-Observations/alerts, and continued development of structured reporting will substantially increase the score.

The strategy emphasizes leadership and transformational change as being critical to the delivery of the IM&T strategy. Good implementation and integration of technology relies on exceptional leadership from both within IM&T and perhaps most importantly across the organisation. The role of the organisation in owning and leading the change cannot be under stated. It is very important that non IM&T individuals are heavily involved in the development and integration of the IM&T projects. In healthcare this is often consultants, nurses and other allied health professionals.

This does give rise to challenges as service areas are pushed to deliver and keep the day to day flow and patient treatment happening with ever increasing patient demand. Lessons learned from previous projects is that a way to improve success and adoption is that digital enabling project business cases include more thought on the costs associated with backfilling frontline employees as well as the transformational costs required to lead business process change.

Transformational change means making changes in operational practice. In an organizational context, transformation is a process of profound and radical change that orients an organization in a new direction and takes it to an entirely different level of effectiveness. It is doing new things in new ways. Business Process Optimization is the act of taking your old business processes and optimizing them for efficiency. Dawson and Jones identified 75% of all organisational change programs fail, predominantly due to employees feeling left out of the process, and lacking the motivation, skills and knowledge to adopt new systems and procedures.¹ The Trust can implement the best systems on the market but if it the change management is not addressed alongside the system implementation the benefits that are possible will not be achieved.

“Historically, the adoption and management of health care IT has been left to an organization’s chief information officer and other technical personnel. This is a mistake. A number of organizations—including Boston Medical Center, Geisinger Health System in Pennsylvania, Intermountain, Mayo Clinic, and New York University (NYU) Langone Health—have shown that health care IT is effective only when all members of an organization work to unlock its potential”²

It is the general practise that the Digital Enabling Strategy is a subset of the Business Transformation plan that has concrete deliverables prioritized with a clear understanding of how the enterprise will meet those performance goals. In the absence of a final operational/transformational plan with agreed priorities, the digital strategy presented is structured to provide the flexibility and agility to adjust to those evolving business needs. In this model, to be successful the organization must still articulate it's

¹ Dawson, MJ & Jones ML. *Human Change Management: Herding Cats*. <http://www.integral-leadership.com/myfiles/documents/Human-Change-Management-Herding-Cats.pdf>

² Sahini, Huckman, Chikrupati, & Cutler. “The IT Transformation Health Care Needs”. *Harvard Business Review*. Nov-Dec. 2017

business priorities so everyone in the organization – from the Board on down - are working on a collective game plan. The plan must be realistic and include prioritized projects that can be delivered successfully within agreed timelines and available financial resources. To formulate this strategic refresh the FHFT Quality Improvement

Strategy (April 2017) and Transformation Update (Oct. 2017) and current Clinical Services plan and STP/ICS plan were consulted.

The Changing Landscape

The National Health System is under significant pressure in the face of rising costs and rapid change. At Frimley Health the demand for service is growing and budgets are becoming stretched beyond capacity. The increasing health care needs of an ageing population; expensive new health care technologies; increasing shifts toward community based care; the need for improved accountability; efficiency; access; and quality; as well as the desire of patients and families to be more directly involved in decisions about their health care all represent significant challenges.

Health information plays a key role in determining how these challenges are met. Advancements in technology and the increasing value of integrated health data, as well as the management of that data, are of vital importance.

In the current climate of limited finances and skilled people in the public sector, refreshing the plan is about providing decision-makers with accurate information so that they can make informed decisions. It is about modernizing the infrastructure to have a reliable and scalable foundation for digital services to support the demands. Most important, it is about increasing value for all users of the health care system. In the final analysis, the test of this plan is how well it supports the delivery of health care to individuals wherever they receive services.

How are we adapting so that information is interoperable, and we are engaging patients so they are partners in managing their health and wellness? Critical will be our ability to provide timely, integrated information to support evidenced-based clinical and administrative decisions at all levels. This renewal of the IM&T Strategy is to provide a focused approach for the Trust over the next three years. The outcome will be an environment that allows many systems to exchange data in real time within a digital framework that ensures data reliability and supports views tailored to the individual (patient, clinician, and administrator). It will improve quality of care delivery and support care providers and support services with information to make informed decisions. The journey may be like “Edwards’s story” in [Appendix E](#). It empowers the patient and care providers. The future approach must not only meet the Frimley Trust needs but be in alignment with the evolving Integrated Care System (ICS) and Local Digital Roadmap. We believe this requires an open platform with an integrated system that provides access to information for those working in the system and for those patients and families who require support when they are at their most vulnerable. The next section provides an overview of the ICS work and highlights some of the opportunities for FHFT to collaborate.

The Local Digital Roadmap and Sustainability and Transformation Plan

(This section has been created by incorporating elements from various ICS/STP documents)

At the time of writing the 2015-2020 strategy the Local Digital Road Maps (LDR) and Sustainability & Transformation Plan (STP) were not yet developed. The LDR that was developed does follow from the strategy and now there is a CIO LDR Board in place that meets regularly to further refine the digital strategy for the wider system. A summary of the key priorities identified to support a wide range of transformational priorities at the ICS and organisation level are included as [Appendix F](#).

The four areas in the Master Plan will be prioritized and monitored as a standing item at the Frimley LDR Board meetings and are aligned with the strategic direction that has been set forth for Connected Care over the past two years. The four areas are:

1. Shared Care Record
2. Patient Facing Technology –Patient Portal
3. Whole System Analytics – BI; Population Health Analytics
4. Collaborative Infrastructure – Apps & Wearables

The Frimley ICS has identified information sharing as a key priority. An effective information exchange between health and social care professionals will support care decision making by ensuring relevant information is available at the point of care. Across the Integrated Care System there has been agreement to use Connected Care as the platform to support information sharing. The programme to deliver Connected Care is well established, with the LDR board monitoring that information feeds go live in a reasonable timescale and the alignment with the wider ICS programmes. The Shared Care Record ICS work stream will identify opportunities to develop the Connected Care portal and will highlight where there are gaps in the information that care professionals require access to. In addition to the core record that will provide a historic view of the patient record, a key priority will be to develop future plans for individuals. This will ensure health and social care professionals know about plans that are in place for a resident and will support collaborative working between multi-disciplinary teams.

The goal is to develop the Connected Care record so that it becomes the secondary clinical/social care system of choice. The product will need to iteratively improve in line with the expectations of health and care professionals. Care planning will be incorporated into the portal to ensure care professionals are aware when plans are in place for an individual. In addition future systems will be procured with a view to connect to the interoperability, to ensure the shared care record delivers maximum value. A benefit of the ICS and the way that the Connected Care Record is being structured is that Frimley Trust does not need to build its own Patient Portal. The high level plan for populating the Connected Care Record is included [Appendix G](#).

Healthcare technology in the consumer sector is growing exponentially and we are at risk of missing a huge opportunity to support individuals so they can take greater ownership of their health. There are already multiple examples of organisations investing in technology to support people with managing their conditions, particularly in social care. There is a significant opportunity to align these initiatives so that information captured as part of a social care initiative, can benefit healthcare staff as an example.

One of the key deliverables (summarized in the table1 below) from the Connected Care programme is to deliver a platform that will enable individuals across the Frimley ICS to log in to a single system to access health and social care systems. This will greatly simplify self-care for individuals and prevents people having a log in for their primary care elements of care, mental health, social care etc. The high level Patient Portal plan is included as [Appendix H](#).

Table 1

Patients	NHS/Social Care
<ul style="list-style-type: none"> • Use best of breed technology for patient facing tools • Enable individuals to aggregate and own their data and send to health and social care professionals • Keep it simple- capture “what are the 3 most important things about me” • Allow patients to use technology they want to use (as long as it adheres to some core standards) • Patients at the heart of design and prioritisation • Empower individuals to take greater ownership of their health 	<p>One approach for health and social care organisations across ACS</p> <p>Create/redesign as little as possible</p> <p>Care professionals go to one place (within their source system e.g. Emis) to interact with patients</p> <p>Empower services to procure patient facing technology that align to digital ecosystem</p> <p>Use best of breed patient facing technology in an open, vendor neutral environment</p>

The third area but perhaps most critical is the whole system analytics. Using data to get greater levels of insight is a key priority for the ICS. Providing the right analytics infrastructure is critical to achieving the ICS objective of driving improvements in our populations' health and wellbeing, care and quality, finance, and efficiency through supporting all decisions with robust and accurate evidence. By using existing tools and aligning with best of breed opportunities, the ICS will be able to garner insight from data to support more transformational analytics. This could include outputs being more forward looking, rather than just retrospective transactional reports. This would support modelling and transformation programmes that are looking for insight to inform the quality of decision making. An area that requires further exploration is how much Frimley Trust should invest in building a data warehouse and its business intelligence tools or are there efficiencies to be made by building within the ICS infrastructure. The ICS data analytics approach is shown in [Appendix I](#).

Across the Frimley system there are a number of significant infrastructure changes planned or in flight that will support wider transformation programmes. As the ICS develops, it is important that there is either collaboration or alignment to ensure that we are making the best use of resources across partners, and to ensure that there will be an opportunity to converge digital services where appropriate. It is also important to make steps in supporting better collaborative working between health and care professionals and administrators. Examples of infrastructure projects include unified telecoms, video conferencing, single sign-on, hosted infrastructure and collaboration tools. The Frimley Trust plans have been structured to enable the flexibility to link into the evolving ICS.

To manage the complexity of this information moving across the system, an IG group has been established to support Connected Care and is made up from IG representatives of ICS partners. This group will support IG challenges related to information sharing and across the wider ICS work streams.

Finally, in order to best support ICS work streams, it is recognized that we need to promote a simple, consistent approach to taking on new work at a system level. This is important as it ensures digital teams and other enabling teams like procurement and IG are not brought in at the end of a selection process, and that investments are aligned. The ICS/LDR alignment matrix to be used to monitor the alignment of digital projects is shown in [Appendix J](#). Linking with the ICS is well underway and critical for developing a connected system. Working in this larger context is where we would see that FHFT would work on new opportunities of wearable devices, how technology can help manage chronic illness, and where artificial intelligence and newer solutions could be leveraged.

A Revitalized Vision for Frimley Health

There has been a level of dissatisfaction with the speed at which technology implementation has occurred at the Trust. The complexity of the merging organizations' technology platforms has been underestimated. Prior to 2015, there was historically a lack of investment in technology and in 2015 the Trust provided £40M capital over 5 years. This was provided at the same time that CIPS were being asked by every service. The ability to drive fast change requires a different type of investment. It requires a higher capital investment in the short term that can deliver the enabling technology to then realize transformational change and reduce the need to increase future service delivery costs. In addition we need to rethink our funding of digital services as the market place is changing to a managed service approach. The Trust will need to consider how it funds the operation in a primarily revenue rather than a capital model. These initiatives must be balanced with the level of change the organization can withstand while continuing to deliver care under immense pressure.

This renewed digital strategy does not replace the current 2015-20 strategy, but it describes at a high level what needs to be done differently and how it will be achieved. It outlines a digital strategy and plan of work with a focus on the next three years. As noted in an audit completed in May 2017 findings indicated that the current strategy was still applicable however a stronger alignment with operational change and transformation was required. A subsequent audit on ICT Governance completed in October 2017 noted that the lack of attendance at IM&T decision making committees by business and clinical representatives should be reviewed and actions taken to improve the participation.

Engagement sessions were held with consultants, nurses and HEB in October and November 2017 with the feedback provided forming the basis of this renewed strategy. It was acknowledged by all participants that being agile, working to create opportunities for collaboration must be employed. The delivery of Skype for business in March 2018 should help improve people's ability to participate and work across the system. In addition the IM&T Board is now changed to the Transformation Board so that the operational deliverables are the focus with digital services as the enabler. This change will help ensure prioritization of projects has been vetted and decided by those that are affected most. This further drives home that technology (Digital innovation) is an enabler for change however the accountability for the employee performance; operational process change; digital adoption and benefits realization rest within operational units. Those operational units must co-lead the consolidation of processes and change across the Trust. Working alongside each other, operations and digital teams can collectively deliver a sustainable service that meets the desired results. The environmental scan and summary of comments from the engagement sessions are included in [Appendix M](#).

The role described for Frimley Health Digital Services is to enable transformation and business improvements through effective use of information and technology. It must accomplish this while meeting the requirements from NHS England, NHS Digital, and NHS Improvement. As the IM&T sector advances the focus is more on business improvement and a more appropriate term to reflect this current environment would be **Digital Services**.

The vision for Digital Services at Frimley Health is one in which patients; citizens; employees and care providers can access the right information at the right time; in the right place and with the most appropriate medium to achieve their daily work; education; research; and health and wellness goals.

It is a vision of connecting people and information for the sake of health, preventing illness, healing when appropriate, learning and research. It is about a community of health and social care with an enhanced objective of supporting care in an Integrated Care System. It is a system where clinical and corporate information follows the patient through their journey of health and wellness. At the heart of this strategy is that we [make people's lives easier](#).

It is a given that the infrastructure umbrella must be safe and secure with continuous cyber security monitoring. *Figure 1* shows the eight objectives that came out of the engagement workshops and what was described to realize the aspiration of making life easier.

Figure 2 is a schematic that shows the digital requirements and processes that will enable and support the corporate and clinical strategies.

How will we know we are going to be successful? *Figure 3* provides eleven descriptors of what needs to be demonstrated- when we have one patient one record in place; when we have data that goes direct from structured documents to the connected care record and data warehouse; when we can demonstrate agile change management; when we show the value for our investments - we will as a team reached the level of a highly digital organization.

Vision for Digital Services



Figure 1

Strategic Objectives

The eight objectives to be followed in the Frimley Health Digital Information & Transformation Strategic Plan that will deliver “Making Life Easy” are:

1. **Information at point of care** – Health care providers within the STP/ICS have the information and tools they need (where and when needed) to assist them in providing optimal health education, care and services to our citizens and their families in a timely, effective manner. This requires using the NHS Patient Identifier as the standard way we capture patient information. Secure and appropriate use of health information protecting patient's rights and in accordance with privacy legislation (GDPR) and other best practice standards. Meeting Cyber Certification guidelines so all system users are confident the system is protecting information.
2. **Analytics and Joined up data** – Information management processes and tools are integrated to complement and build on the data and provide a comprehensive picture of the patient experience to support delivery of quality of care. The analytics are linked to one PAS. Decisions are made to support a systems approach to information management now and in the future. People in the system can create their reports and customize their dashboard with the business intelligence in the data warehouse; this will lead to improvements in their efficiency and effectiveness to undertake their role.
3. **Interoperability** -implementing a comprehensive harmonization strategy for clinical and corporate administrative software to ensure long-term interoperability and secure information sharing with integrated business processes. The interoperability approach will use open source platforms so the Trust has control over how it uses its data and will have the ability to be flexible with the systems/organizations it wants to share information. It will deliver a seamless way to provide structured data to the ICS to improve population health monitoring.
4. **Patient access where appropriate** – citizens have access to information and services that assist them in managing their own health. The Trust can support improvements in patient empowerment by supporting the Connected Care work with the ICS and also expanding the use of current applications such as Dr.Doctor, as well as wearables that can provide information to a care provider without the patient having to come to the site. Citizens can have more control over who accesses their information.
5. **Improves patient care** - systems deployed improve patient care and are monitored and tracked for tangible and measurable benefits for the patient. Applications such as e-Observations that will help reduce serious incidents will be a priority. Scheduling and booking to empower patients to select times that meet their busy schedules will also help reduce the demands on hospital staff and improve the efficient use of clinical capacity.
6. **Easy to use** – while implementing technology requires change, the systems should be intuitive and easy to use. They need to just work.

7. **Reduce back office administration** – the trust can reduce manual processes and will explore utilizing automated robotic technology and integrating back office systems to reduce manual input and duplication of processes. (ie; HR systems that upload all vacation, sick time, on hire; invoice reconciliations; payroll). Maximizing the use of technology can reduce back office administration and provide better value for money. The efficient use of administrative and clinical resources to improve efficiency and eliminate duplication of efforts across the ICS will be leveraged.
8. **Better Value for Money** - recognize that cheaper isn't better, however projects should be brought forward that show how services can be delivered in a way that defers increasing cost, may increase capacity with current resources, and provide options to getting better value for service delivery.

Corporate, Clinical & Digital Strategy Linkages

Corporate				
Stay outstanding for safety and quality of care	Lead ICS for Frimley	Have an impact on population health and wellbeing	Financial sustainability Live within our means	Be a good place to work
Clinical				
Reduce Clinical Variation & Health Inequalities Reduce serious incidents Focus on well-being, prevention and self-care.	Redesign Urgent & Emergency Care	Improve Access to GP Services	Focus on Cancer Care and Mental Health	
Digital Requirements				
<ul style="list-style-type: none">• Telecommunication• Patient apps• Patient access to medical records• Patient wearable• Internet• Social media	<ul style="list-style-type: none">• One patient one record• Secure system but open access for GPs, staff, patients, commissioners• Community integration• Support NHS programmes	<ul style="list-style-type: none">• Modern data centre. Stable and reliable• Use any device at any time• Workflow that makes jobs easier• Information rich culture• Realtime access to clinical and admin information	<ul style="list-style-type: none">• Systems that are easy to use (intuitive)• Efficient and effective processes ↓duplication• Value for money• Reduce lifetime system costs	
Key Digital and Information Systems and Process Deliverables				
<ul style="list-style-type: none">✓ Digital Service desk support that is timely and meets agreed SLA's✓ Clinical, Administration and Digital services working collaboratively✓ Accurate and timely data customized for the viewer✓ Automated workflows across clinical pathways and business processes in the Trust✓ Single intuitive view and integrated system use for clinicians and staff (one patient one record)✓ Applications that are standardised across the Trust and updated to meet security needs and reduce exposure✓ Interoperability of data (and systems) outside the Trust (ACS, Connected Care)✓ Governance, assurance, oversight				

Figure 2

How do we know we will be successful?

<p>What success would look like:</p>	 <p>One Patient One Record Patient Centred Approach</p> <p>Ensuring that investments in technology support an integrated health system to deliver patient centred health experiences</p>	 <p>Clinical Engagement</p> <p>Supporting the creation of ICT systems that are fit for purpose and align to clinical processes. Allow clinicians to take a more active role in achieving outcomes and operational efficiencies</p>	 <p>Governance & Investment Management</p> <p>Benefits realisation tracked to business cases as approved and Enterprise planning for greatest benefit</p>
 <p>Financial Sustainability</p> <p>Services must be delivered with a balance of cost and quality of service. Both are equally important and compromises may need to be made for sustainable service</p>	 <p>Delivery Through Partnerships</p> <p>Seeking partnerships to improve services; manage efficiency. Committed involvement Team Working both internally & externally.</p>	 <p>Usable Systems</p> <p>Centralized digital Services Standard operating practises Cloud based reliable infrastructure</p>	 <p>Open Platform, Accessible Data</p> <p>Open platform enables Frimley Health to manage how it chooses to integrates data with other systems; keep options open for interoperability & data sharing.</p>
 <p>Safeguarding Security & Privacy</p> <p>Protecting information as we shift from paper-based systems to "paper-lite" digital systems- Cyber Accreditation</p>	 <p>Effective Change Management</p> <p>Enabling the sustainable and seamless transition of digital programs to business as usual, including embedding digital literacy</p>	 <p>Fostering Innovation</p> <p>Proactively anticipating stakeholder needs to better predict and meet future expectations and trends. Collaborating to achieve solutions.</p>	 <p>Connected Care</p> <p>Workflow mapping to support care pathways Patient standard Identification (NHS number) for patient flow across local ICS</p>

Figure 3

The Role of Digital Services in Transformation

Throughout Frimley Health, Digital Services should be recognized as an enabler to achieving the health care integration and transformation as set out in the STP and Frimley Trust Transformation plan. Digital Services must support key business planning strategies such as models of care, outpatient care, primary care and community health initiatives. Digital Services are critical to supporting the underlying systemic shift occurring in health care, transforming from that of the organization's view of the patient's health to the patient's ownership of his or her health and supporting information. The Digital enabling strategy to date has focused on implementing best-of-breed (multi-vendor) solutions, including: lab, pharmacy and diagnostic imaging systems; a document scanning and archiving system; financial; materials management; human resources systems; and many departmental based clinical and administrative systems that are either not connected, challenging to integrate, do not meet security requirements, nor linked to enable enterprise flow.

To realize an integrated EPR additional work is needed to advance several foundational components, including a single trust wide PAS/Master Patient Index, digital care plans, online structured documentation, trust wide scheduling, improved communication for transfers of care, inpatient digital observations and alerts that run on a modernized underlying IT infrastructure. This strategy recommends a shift away from the best of breed model to implementing a "Best of Cluster" (Hybrid) model. After much dialogue within the organization it is not the recommendation that the trust move to one major EPR provider and lose the gains made to date with systems that staff are comfortable using and provide the desired functionality. A Hybrid model built on an open platform would provide applications that integrate the patient pathways and provide workflow alerts with automated data collection and business intelligence solutions to provide information to enable more informed decision-making for the effective operation of the Trust and more importantly delivery of the ICS operating plan. Moving forward into the future the Trust digital plans must support the success of the ICS. *Figure 5* shows the patient journey and the gaps that must be filled in to achieve the integration requested by the clinicians and operational leaders.

In addition, corporate systems and processes need to be supported as upgrades to systems that are more integrated are brought on board. These included integrated purchasing and procurement, estates and link to finance, automated invoice processing, human resource systems that integrate and link the employee activity with improved reporting, and the requirements as the ICS develops shared business support centres. [Appendix O](#) includes an overview of corporate system digital roadmaps available when this document was written. The HR Systems Roadmap/Assessment (dated November 2017) provides a high level assessment of various functionality / aspects of the key systems/service areas, suggested recommendations and projects. The aspirational items timescales are still being updated however the overall goals remain.

Planned / in progress:

- Medical Locum Bookings System (complete May 2018) - replacement of TempRE (further development expecting in October 2018 to automate interface to PwC with Allocate)
- eExpenses roll-out (complete approx. August 2018)
- eRostering roll-out (all staff except medics - to complete in 2018)
- SafeCare (July 2018 - approx. May 2019)

- Medical workforce systems (job planning, rota management, rostering, appraisal & revalidation) - replacement of existing systems into integrated solution, developing outline business case and procurement strategy now (likely Feb - Aug 2019)
- Agency self-billing 'interface' (semi-automate Allocate to eFinancials process, remove manual invoice processing - within 2018)
- Extend ContactPortal telephone system to additional areas of HR (currently only Temporary Staffing; possibly to coincide with Greenwood Offices move)
- Procurement Inventory Management System
- Finance implementing automated invoicing and recently procured a costing system
- Estates hybrid mail delivery
- Informatics and Performance are currently working on Data Warehouse renewal

Aspirational:

- Document management / service management platform / e-forms / knowledgebase / case management (ideally unified solution; 2018/19 - TBC)
- Active Directory interface to ESR (live updates of new starters, changes, leavers - ESR outbound interface) - work towards Integrated Identity & Access Management
- NHSmail interface to ESR (import NHSmail email address into ESR - ESR inbound interface)
- ESR Manager & Employee (Full) Self Service (2019/20 and beyond - approx. 18m-2yr project)
- Procure an integrated purchasing and procurement system (currently purchasing is done in EROS and finance on eFIN). This is dependent on ICS developments and shift to shared business support units

A dependency for any of the applications to perform well is a robust IT infrastructure that serves as the foundation so things just work (includes modern datacentre, WiFi, network, SSO, VDI, devices, telecommunications). Another dependency that requires more focus is the digital literacy of the workforce. Digital literacies are the capabilities which fit someone for living, learning, working, participating and thriving in a digital society.

One of the key enablers to the success of the Digital Services Strategy is having a workforce that has the necessary Digital Literacy capabilities to work in the highly digital environment that this strategy will produce; therefore the trust is fully committed to the building of a Digital Ready Workforce Programme of the National Information Board and is being delivered with Health Education England. The trust will form a programme of work to identify ways that we can support staff to develop Digital Literacy Skills to improve the uptake of this Digital Services Strategy. *Figure 4* shows the model and core components that form the digital literacy programme.



Figure 4

This work will look at what we are already doing across the organisation as well as looking at what is available for staff to undertake both within and outside of the organisation. We will also explore the possibility of how we can collaborate with partners across the STP\ICS to deliver this work together to ensure that we are enabling the whole system, including patients, so they can be empowered to be engaged with the technology that is being offered and which front-line clinicians will need to feel comfortable supporting.

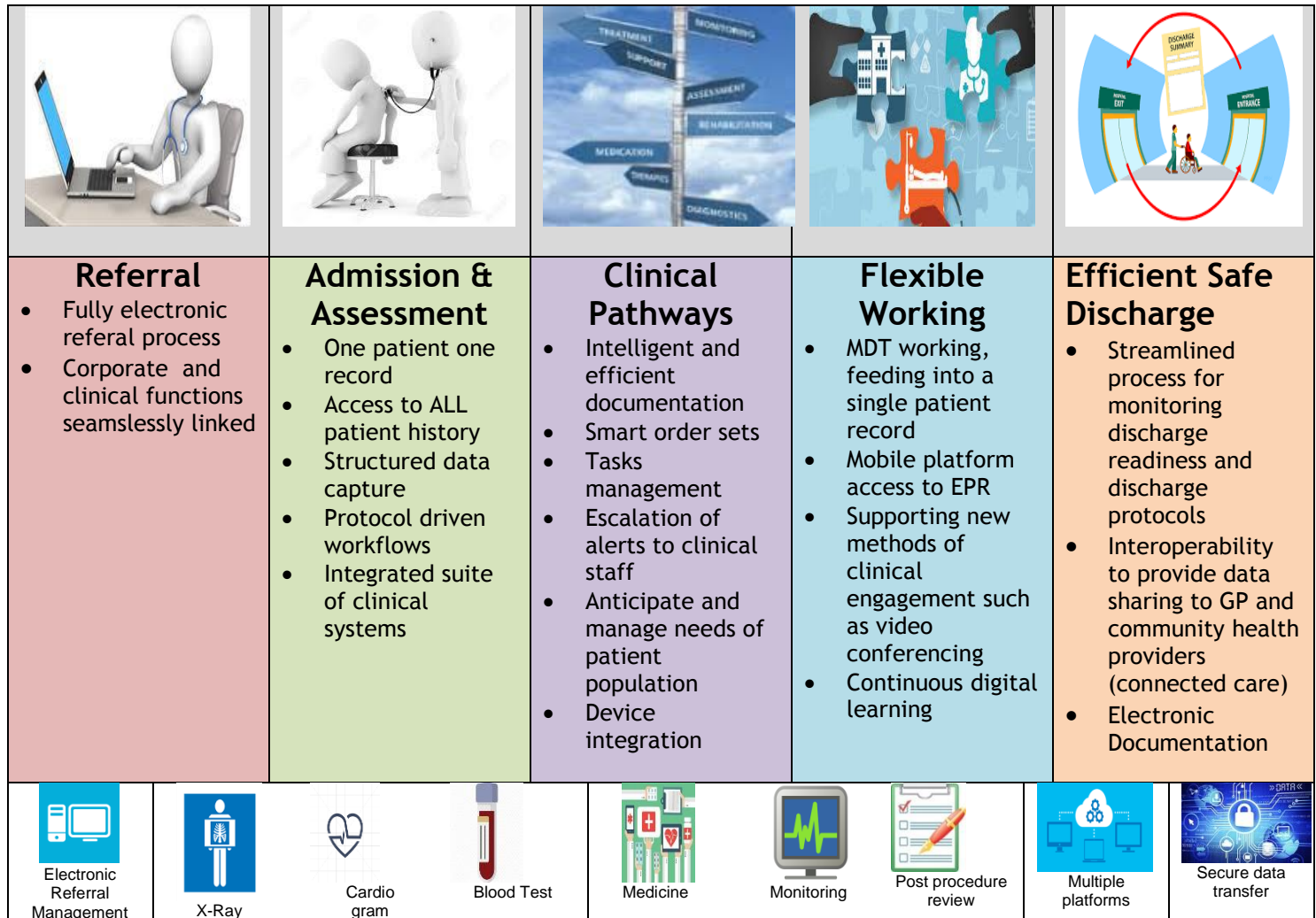
We will also be focusing on providing training and support for those involved in projects so that they have the necessary skills and knowledge to understand the tools, techniques and language used during projects so they feel more inclusive to the process and they have the necessary ownership and buy-in.

The Three year Strategic Recommendations

- IT restructuring will reduce management layers and rebrand the IM&T as Digital Services
- Continued focus on protecting the enterprise by securing a modern datacentre that is a cloud based managed service Infrastructure as a service (IaaS). A Modern datacentre that can flex as needed and provide consistent reliable service with improved capacity at less cost
- Tender to acquire a Digital EPR Partner that will connect the workflow, care plans, and complete the requirements for an integrated EPR. This partner will fill in the gaps and would enable the Trust to have a manageable system with core suppliers while not losing the benefits of previous investments that are working well. It will deliver one MPI to achieve one patient one record

- Governance – there must be a sustainability & transformation lead for the projects, so that the digital enabling work is tracked in alignment with operational changes that must also incorporate flexibility to respond to the ACS work
- Central Digital Services – the digital services support and management must be centralized. This not only protects the current enterprise; it reduces single points of failure and overall reduces the cost of running the IM&T services

Digital Hospital: The solutions to enable a seamless patient journey



Paperless + Efficient + Safe = Better Patient Outcomes

Figure 5

Recommended 3 year Priority Projects

2018/19

- Data Centre Consolidation/WIFI Upgrade
- Single Sign On/1 Active Directory
- ePrescribing
- A&E Optimisation
- Tender-EPR integration partner
- Single PAS/ MPI
- Continue Connected Care/ICS work

2019/20

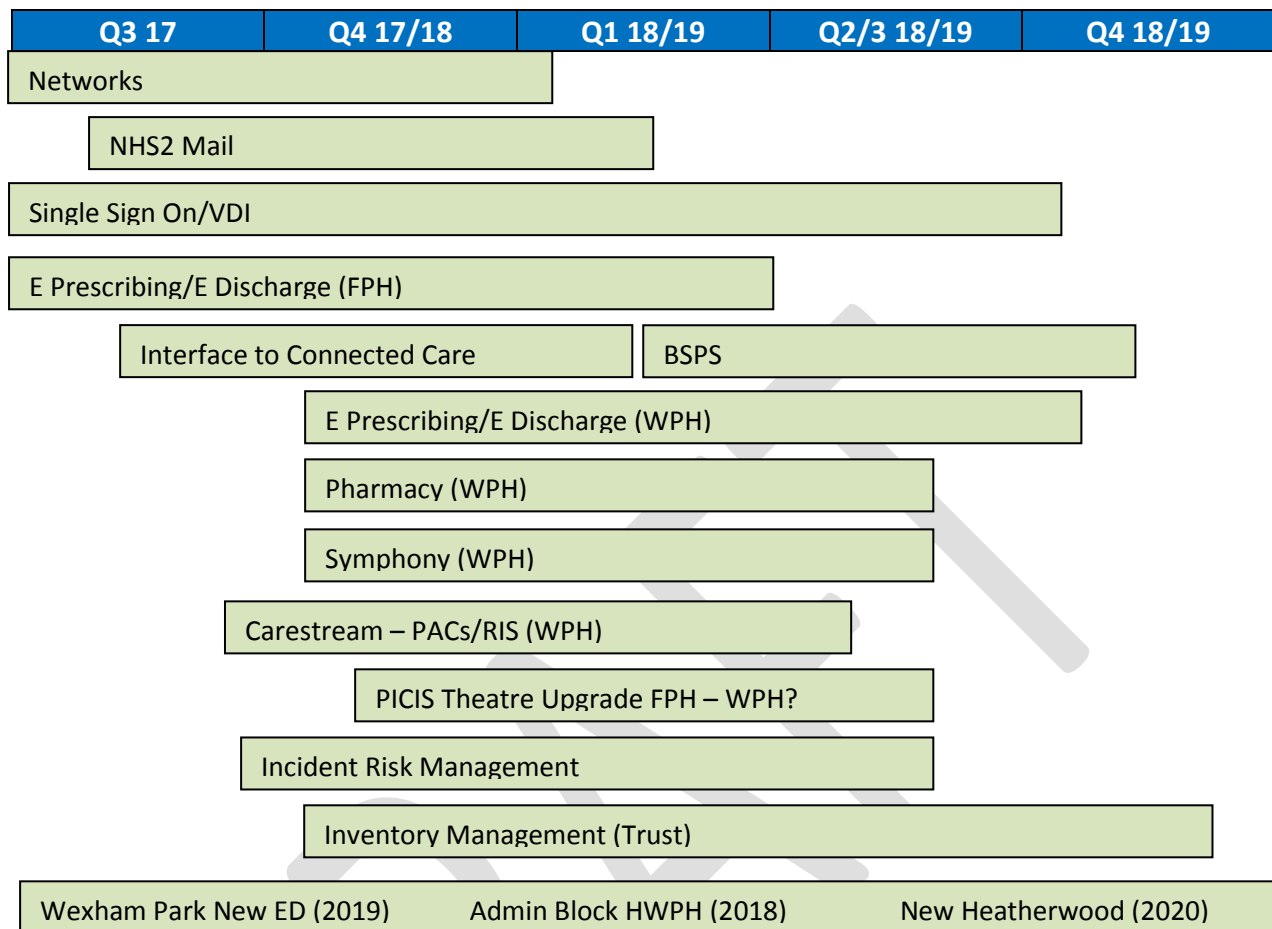
- Theatre standardization
- Workflow Optimisation (patient pathways)
- Enterprise Scheduling
- eObservations/Alerts
- VNA & ECM
- Continue Connected Care/ICS work

2020/21

- Healthcare unified Telecoms
- Mobile Apps for core providers and patients
- Patient access to record/information
- Continue Connected Care/ICS work

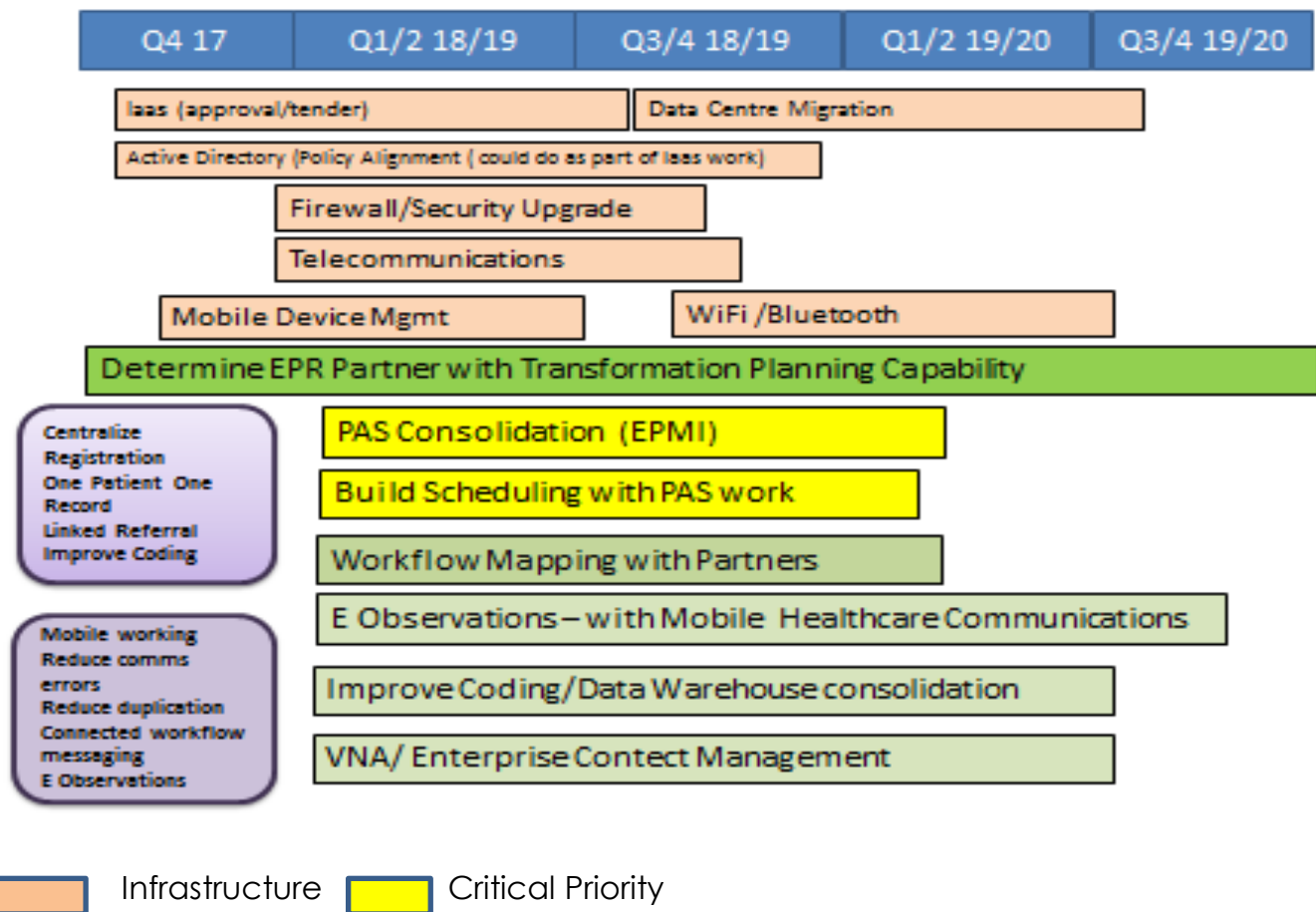
Looking ahead to 2018 -2021

Projects Currently in Flight



The diagram above shows current inflight projects. These projects we would continue and providing no unplanned deviations, the target completion would be 4th quarter of fiscal 18/19.

Recommended Priorities for new Projects



The diagram above shows proposed new projects.

Expected Benefits to be delivered for the Trust

- ✓ No avoidable deaths from failure to escalate within 2 years of enterprise deployment
- ✓ Improved compliance of Sepsis and AKI Care Bundles by 50% within 1 year of enterprise wide deployment
- ✓ Reduction of SAMR (Seasonal Adjusted Mortality Ratio) by 0.5% within 2 years of enterprise deployment
- ✓ Reduction in unexpected ITU admission by 50% within 2 years of enterprise deployment
- ✓ 15 minutes saving per doctor per day with the use of Task Management, Escalation and Hand-over functionality within the EPR.
- ✓ 15 minutes saving per trained nurse and trained AHP per day with the use of Task Management, Referrals and Hand-over functionality within the EPR.
- ✓ Improved employee productivity & capacity with Single Sign on and consolidated active directory
- ✓ Improved Data quality and reporting

- ✓ Enable patient empowerment
- ✓ ePrescribing and eDischarge will increase the % of letters received by GPs within 24 hours of discharge which improves our Contract requirement
- ✓ Increase in the % of discharge letter received by Pharmacy before 11 am and 3 pm meet SAFER discharge contract requirement
- ✓ ePrescribing and eDischarge was implement, It is expected that there will be a reduction in discharge errors on TTOs
- ✓ ePrescribing and eDischarge we expect improved safety with discharges occurring without accompanying written letters - currently patients sent home and asked to come back later however these incidents are rarely reported on Datix
- ✓ Reduce duplication of effort by adopting enterprise based systems/process change

Re-imagine Digital Services

The current organization structure for IM&T was developed in 2014/15 with a structure that was mirrored at each site. This was done due to the separate and different datacentre configurations at each site, separate patient administration systems; as well as the different applications deployed at each site. The consultation for this current structure ran from late 2015 to June 2016 and delayed the ability for the department to deploy projects at a time when a number of contracts for applications and infrastructure had been procured, yet employees were not in place to deliver. The department had been using a number of agency staff and it proved challenging to have a consistent talent pool with transient agency staff and normal turnover only made this more challenging. It is a competitive field for skilled IT workers and the NHS salaries are not keeping pace with private technology sector. To ensure the healthcare organization can transform and move into the future requires a different approach to how digital services are resourced. This includes how contracts are negotiated for support and maintenance; and how on-call services can be provided to ensure seamless delivery of service. In some cases it is more reliable to have a contract with a managed service provider that can be called upon as and when needed. Using a managed service not only requires the service to deliver as outlined in the contract; the organization can sometimes reclaim VAT; and staff benefit from learning from companies that are working in other hospitals and have economy of scale to bring that learning to the Trust.

Digital Services is being restructured to enable the Trust to support the next era of technology innovation where consumers will take more control of how they engage and manage their health and where care providers must deliver with increasing demands and little assurance of increased funding. This will require:

1. Cloud first approach to digital services. This includes datacentres and application services. Infrastructure will ensure constructive relationship with the datacentre provider and manage the planning and communication to support on-going service delivery in the Trust (ie. new projects processing and storage needs are met; network security is maintained; troubleshoot on behalf of the Trust).
2. A core in house digital team that will be partners with the front face of the business and be agile and flexible to bring solutions forward that support on-going business improvement and enhance the patient experience.

3. In house team will be working with clinical departments to ensure requirements and business needs are understood, communicated so new solutions deliver value for the Trust and maximize investment.
4. Digital services will, over time, move away from in-house management of the IT hardware (services, devices) and migrate away from on premise datacentres.
5. The organization will need to have more risk tolerance to enable innovation to happen and to move the transformation forward
6. The digital service employee must work outside the department and be partners and innovators with the business.
7. Demonstrate the quality of digital services and articulate the value for money in business terms for an effective service with benchmarks; industry comparisons; and transparency of service management.
8. The department will be centralized and moved to Heatherwood with some field staff going to the various sites to engage and ensure service providers are able to use the systems.
9. Application support must be centralized across the Trust. This ensures there are standard protocols being applied to how applications are deployed; cyber security standards can be tracked and maintained; depth of support –no single point of failure for system support. This will require an assessment of what system administrators and staff are doing in the departments; and the SLA's for application management must be written and agreed as to how the organization will create a secure and cost effective service that is enterprise focused. This is critical to running a cost effective and reliable technology service especially given the complexities of integration, cyber security, and assessing when there are system interruptions.
10. There must be a review of the costs of “shadow IT” across the Trust.
11. Telecommunications will move from Estates to Digital Services June, 2018.

Building a Reliable, Robust, Cost Effective Infrastructure

The deployment of the new Kainos Evolve electronic document management system (EDMS) was completed in 2017. The paper chart was scanned prior to the patient visit and smart indexing was used to locate the prior information. The visits after the go live were scanned and indexed into day forward sections in the electronic chart. This external scanning contract is due to expire in 2021. The current plan destroys the paper document notes, once scanned within 60 days of scanning.

As the Trust continues to build and rely on the digital service to function, it is critical that that infrastructure is secure and has 24/7/365 day reliability. This is fundamental to the hospital being able to care for patients.

Currently the Trust has 4 server rooms: 2 at Wexham Park and 2 at Frimley. The real estate is in poor repair and is imperative that in order to support the Trust going forward into the future one consolidated Datacentre (DC) is in place that is agile and meets cyber security standards. The current real estate at the Trust; even with the new Heatherwood Block 40 changes, will not be able to sustain the type of DC support required at an affordable cost. This issue is often discussed at NHS Digital and various CIO and Digital Conferences that the current datacentre approach in many hospitals is not sustainable for the NHS. A cloud service DC is the way of the future. This approach would also enable the DC to grow and expand to include other services within the ICS. It is critical for a value for money equation that DC deliver more for less cost. The economy of scale can only be provided by a Cloud Managed Service. The goal of Digital Services in

healthcare is to support patient care and as the IT environment has evolved and improved, hospitals need to focus on the provision of services not on the management of IT hardware. Even large Trusts will struggle to continue to manage their own DC. The model is changing as most application providers now only offer Cloud hosted services so this changes the way DC on premise are structured and as Trusts migrate processing to these suppliers, managing the smaller footprint is not cost sustainable.

As a result of a strategy paper ratified by the Board in April 2017 the Trust's agreed strategy for compute and storage is "off premise, cloud first" where ever possible. This means that IM&T does not plan to have computer infrastructure on site other than where security, functionality or performance dictates it must do so. The objective is to have a cloud based managed data centre with improved cost efficiencies and Trust applications hosted in the cloud. This needs to be achieved by 2021.

Clinical and Business Solutions

Currently FHFT has many applications that are out dated and impact our ability to meet cyber security requirements. Also there are different vendors and systems doing the same function across the sites (booking appointments, running reports). Many of these require complex interfaces and integration management which has a high dependency on individuals with manual and time consuming processes. In the fast paced environment we are in, with recruitment challenges and senior staff retiring the Trust must simplify this applications environment. The current Best of Breed, where each service buys their own solution cannot continue with the current funding and resource allocations. To deliver a VFM service where possible the solutions must be standardized across the Trust, suppliers & number of contracts need to be reduced to a manageable number.

Simplifying the application architecture and consolidating our current applications to create a best of cluster (or Hybrid approach) and selecting solutions that are more generic will enable us to work with a reduced number of partners. It is not recommended that the current investment is replaced but that we tender for a digital integration partner that can connect our current enterprise applications and integrate workflow processes that supports patient care and improves decision making for care providers. This approach would be less costly to the Trust and would provide a stable environment for our clinical teams. What is required is that some bespoke; smaller systems be decommissioned to enable the digital partner to provide the core clinical integration links. As older contracts expire, the Trust would migrate to offerings by the digital partner (PAS/MPI, eObservations, enterprise scheduling as examples).

The approach recommended for Frimley Trust is a "Best of Cluster" where we maximize the use of current core systems that have had significant investment, and we acquire a digital partner that can work with an open platform environment. It is not recommended that we lose the investments made to date for some core systems; but keep the best of the cluster and tender for a partner to fill in the gaps such as e-Observations; Master Patient Index/PAS; improved referral processes; enterprise scheduling system; maternity system; possible theatre system in future. At the time of the writing of this document, it was not the opinion of those in the Trust that moving to one large monolith EPR provider (ie. Cerner, EPIC, Allscript) is the right approach at this time unless they can work with some of the current core systems we wish to retain and provide an open platform/API model. The Trust is still implementing the EDMS system and this is a 10 year contract that we would not end at this early stage. The requirement to work with open platform systems will also help the Trust maintain flexibility

for future work and data use. The digital arena is constantly changing and is very competitive. With that in mind a fair and open procurement will be conducted and submissions will be reviewed to ensure the Trust obtains the best partner. The Trust will seek a partner who can work with the core systems in place in the short term. In addition the partner must have the right “DNA” and approach that will complement the current culture, while moving it through digital transformation. Ideally that partner would bring not only the digital expertise but transformational change expertise to the table. This approach enables the Trust to have more time to complete the merger of processes and have more success with transformation projects that consolidate the enterprise.

FINANCIAL INVESTMENT

The IM&T Department has delivered its cost improvement program (CIP) initiatives over the last 3 years and the budget allocations are included in [Appendix B](#).

Not all the synergies that were outlined by EY in 2014/15 have proved to be achievable. Background data that was used to state the synergy figure was not available and could not be shown to be reliable. A revised estimate of transformational investment is included in [Appendix C](#). It has been the experience of this CIO that in healthcare, most technology projects are deferring future costs. Meaning the projects are increasing capacity to manage increasing demands; while not increasing pay costs; they improve quality of care and safety thereby reducing the costs of re-admissions; and possible reduction in legal costs; and improve work-life balance for employees that are under increasing pressure. The financial details do not show significant savings as the focus is on investment to stabilize the infrastructure and provide modern systems for functioning in healthcare today. The priorities presented would improve efficiency; increase capacity (meaning more activity can be done without increasing Pay costs). It is difficult to quantify improved safety; less deaths; decrease in serious incidents; ability to meet increasing demands without hiring more staff; and impact on system with the use of modern technology. Currently about 60% of the hospital budget is allocated to pay. If the technology and transformation being presented enabled the pay cost to reduce by 5% (£18 M) and deferred further increases to the workforce by 2% (£7.2M) that would mean a financial benefit of £25.2 M to the Trust. The investment costs in IM&T are high in the short term and the cumulative savings and benefits come generally after the 5 year mark and more toward the 10 year period. In this CIO's experience often what is achieved is stabilizing and avoiding increasing costs while the patient activity and acuity increases. This reality is supported by the Wachter Review.

While it is natural to seek a short-term financial return on investment from health IT, experience has shown that the short-term ROI is more likely to come in the form of improvements in safety and quality than in raw financial terms. In fact, cost savings may take 10 years or more to emerge (the so-called ‘productivity paradox’ of IT), since the keys to these gains are improvements in the technology, reconfiguration of the workforce, local adaptation to digital technologies, and a reimagining of the work.”³

³Wachter, Robert M. (Chair, National Advisory Group). *Making IT Work: Harnessing the Power of Health Information Technology to Improve Care in England*, August 2016.

This strategy presents the investments that must be made to enable the Trust to deliver care under the changing circumstances. While the projects do show revenue savings, the cost of running the organization with a modern datacentre and current applications offsets many of those gains. Not making these investments will likely result in demands for more pay costs and the organization would not be able to adjust to meet increasing serious incidents and reduced safety and quality of clinical care.

There will be financial improvements, and these can be tracked by trending over time the activity level; staffing costs; reduction in paper/copying costs as some examples. In addition the business process transformation should be tracked – what and how do we work differently as a result of the implementation of new technology.

The decisions moving forward must be pragmatic and take into account that the IM&T pay budget has steadily reduced over the past two years. The department, while trying to consolidate, is still running two hospitals. Until the Trust fully consolidates to one PAS/MPI it will continue to run two systems. This is not sustainable while reducing the operational budget nor is it acceptable given the cost pressures for the Trust. We must have a concerted effort to consolidate and merge the Trust. The expectations will need to be managed in terms of what we can deliver with the resources available. Patient pathways, administrative processes could be standardized across the geography.

To successfully deliver the projects outlined in this report will require increased investment in the short term to deliver the projected efficiencies and savings. Increasing the investment of the digital programme in the short term will deliver the savings in the longer term. In a transformation and change management model, the sooner you execute the sooner the organization will realize the savings and avoid eroding those savings by lengthy implementations. The capital plan suggested in [Appendix C](#) is based on best intelligence available and figures will be finalized once the procurement is completed for some systems. Other numbers were taken from business cases already approved.

GOVERNANCE

The current governance structure includes the IOG and IM&T Board. While this structure would appear to be effective it needs to evolve to better enable participation and reduce duplication. Currently many of the same people sit at IOG/IM&T Board/ Project Implementation groups and project Boards (ie., EDMS Board). As noted in the October 2017 ICT Governance Audit by ITAA; it might be more effective to have one Trust Transformation and Strategy Board. The Board would hold accountability for the delivery of transformation targets, and ensure that the digital plan priorities are effectively being supported and projects are delivered as per project plans. The Board would also review and validate delivery of any benefits/savings as noted in business cases. The change is currently underway. What is clear from previous audits is that the attendance and participation must be seen as a priority to ensure the best chance of achieving goals. The implementation of Skype for business in Q4 of 17/18 should enable improved engagement.

MAKING THINGS HAPPEN

Sustainability & Infrastructure Foundations

- ✓ Procurement to migrate to cloud based infrastructure and reduce operating costs (DataCentre in Cloud -IaaS)
- ✓ Procurement of an EPR Digital partner to fill in current gaps
- ✓ Rationalize non-mission critical systems, stop expansion & work on non-critical systems. Stop duplicating functions – ie., one scheduling system; not many

Clinical Services –Best of Cluster

- ✓ One Master Patient Index (MPI) and one PAS
- ✓ One Integration Engine
- ✓ Standardize Applications and processes across the Trust within a Hybrid model (core EPR partner working with current core suppliers EMIS; PICIS; Carestream; Clinisys.

Corporate Services

- ✓ Work with corporate services to ensure systems align with mandatory technical requirements for the digital environment at the Trust
- ✓ Ensure corporate systems are leveraging integration opportunities
- ✓ Support any changes to shared business support centres
- ✓ Prioritize administration applications that will have Trust wide positive impact (ie., enterprise content management).

System

- ✓ Continue to connect to Graphnet for connected care record information exchange
- ✓ Projects jointly lead by central PMO with IT under Transformation & STP Governance
- ✓ Centralize all Digital Services so digital environment -application and Infrastructure is centrally managed
- ✓ Reduce Shadow IT spending
- ✓ Ensure the digital plans and Implementation schedule for Renovations (ED expansion, Heatherwood Block 40, other capital projects are factored into and aligned with the priority projects)
- ✓ Establish a transformation and organizational road map that tracks projects and maps convergence and issues of overlap; lack of alignment.

CONCLUSION

As shown in this document Frimley Trust has made significant achievements since 2015 with its journey to be digital by 2021. The merger and addition of other services; growth in the digital footprint and increasing complexity of running a large enterprise requires a different approach to how digital services are managed and structured. More clarity must be collectively agreed regarding where the accountabilities for digital management rest within the trust. Services not under the accountability of the central IM&T service are listed in [Appendix N](#).

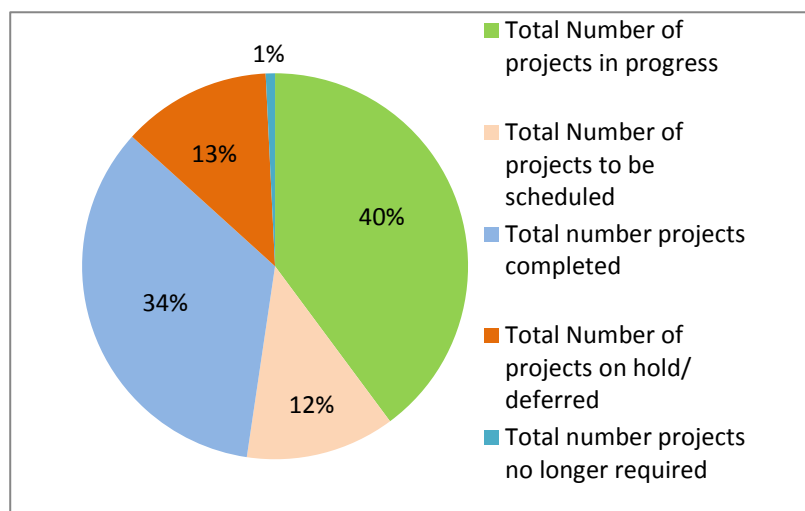
Moving forward the Trust must adopt an enterprise and centralized management of digital services. In order to manage linkages and integration internally and within the ICS there must be standards and controls put in place to ensure reliable digital service can be provided. In addition the Governance structure must ensure that the digital

projects are aligned with the transformation and business unit priorities, can be delivered within the resources available and provide the stated benefits.

Working together The Trust is on the right path and has the ability to meet industry benchmarks such as HIMSS EMRAN stage 7 and be seen as exemplar digital NHS Trust. It requires a focused and disciplined approach with a high level of collaboration and teamwork.

APPENDIX A – IM&T PROJECT STATUS 2015/16

Total Number of Projects	128
Total number projects completed	44
Total Number of projects in progress	51
Total Number of projects to be scheduled	16
Total Number of projects on hold/ deferred	16
Total number projects no longer required	1



Completed Projects	% Complete	Status Comments as of Jan 2018
Acute Medical Take List P2	100%	
Adastra	100%	
Capital Project Works - Accounts Payable	100%	
Capital Project Works - L&D & Procurement	100%	
Capital Project Works - Lithotripsy	100%	
Capital Project Works - Med Recs	100%	
Centralised UPS	100%	
CMiS Maternity Pathology Interface	100%	
Compucare- Phase 1	100%	
Data Warehouse	100%	
Decommissioning iCM	100%	
Easy IT	100%	
E-Chemo	100%	
ED Mobile Phlebotomy	100%	
EDMS	100%	
EDMS	100%	
Endoscopy Scheduler	100%	
GP Comms	100%	
GP Data Viewer	100%	
ICNet	100%	
IT Helpdesk Consolidation	100%	
MDT Video Conferencing Upgrade	100%	
Mobile Device roll out of 100 COWs	100%	

MPS FPH	100%	
MPS HWPB	100%	
Netcall Liberty Migration	100%	
Network Cabinet Upgrades	100%	
New Bed Store	100%	
Nexus (CSSD)	100%	
OpenWard PMI	100%	
Order Comms	100%	
PACS/RIS (Carestream)	100%	
Pathology LabCentre & Instrument Manager DR	100%	
Patient Prescription Tracking	100%	
Physical to Virtual Server Migrations	100%	
RealTime Implementation	100%	
RealTime Upgrade	100%	
RFID Pilot	100%	
SCAS ED Interface	100%	
Self Service Check in Phase 1 & 2	100%	
Somerset Upgrade	100%	
SQL/Windows 2003 Server Upgrades	100%	
SSCI Kiosk Deployment	100%	
Twinkle Paediatric Diabetic System Interface HWPB	100%	
Windows 7 Upgrade	100%	

Uncompleted Projects	% Complete	Status/Comments as of Jan 2018
ED Phase 2 WPH	95%	Legacy HWPB project. Issues outstanding with supplier
MenuMark	85%	BAU support for Hotel Services Strategy to align with FPH
XP Upgrades	85%	Problematic areas - application compatibility issues in Pharmacy and Pathology
Back Ups	80%	Migration across HWPB to a supported application
Building Management System	80%	New Hardware. Migration and Consolidation
Capital Project Works - Women's Services	80%	New build, complete rebuild and reconfiguration of existing service buildings
Network Refresh	80%	In Progress
eForms	75%	In Progress. 2 x Change Facilitators in post (1 yr. FTC)
e-Prescribing (EPMA) Phase 1 (FPH)	75%	Early Adopter Live
Networked Paediatric Chemotherapy	75%	In Progress
EDMS Remote Working	70%	Non Trust device access from non-Trust Sites
Capital Project Works - Dieticians	50%	Office relocation

Uncompleted Projects	% Complete	Status/Comments as of Jan 2018
Datix Upgrade	50%	Infrastructure & Applications BAU teams supporting the consolidation
SLAM	50%	Finance - consolidated platform across FHFT
Active Directory	46%	Project to be reinitiated
NHSMail2 Email Migration	42%	In Progress
DR (Blades)	40%	Expansion of DR capabilities across the WPH data centres
VM Production Environment (Blades)	40%	Expansion of VMWare production environment
Capital Project Works - Corridor Refurbs	30%	Relocating of staff to accommodate corridor refurb
Capital Project Works - ED	30%	New build, extended ED service and AMU, SAU, Office space
Patient Experience System	30%	Procurement in Progress
Centralised UPS DR Frame Room	25%	Replacement
PACS/RIS	25%	Contract to be finalised before Project Initiation
Remaining IE8 Upgrades	25%	Problematic areas - application compatibility issues
Risk/Incident Management	23%	Procurement in progress
Capital Project Works - Block 40	20%	Refurb to house corporate departments, CCG services
N3 Replacement: WAN (HSCN)	20%	Managed through Infrastructure BAU and Surrey COIN Team
Network Monitoring	20%	New Hardware. Migration and Consolidation of FHFT network monitoring - single view for FHFT
BSPS Consolidation	10%	Infrastructure & Applications BAU teams supporting the consolidation
GI Unit (PILLCAM)	10%	Hardware deployment and storage for images
Medicode	10%	Hardware upgrade to be completed - support clinical coding
Payroll HR Scanning	10%	Under review
Power Management	10%	Power Management for PCs - working with Head of Sustainability
e-Discharge	6%	CCN completed. In development
Capital Project Works - Apollo Ward	5%	Awaiting requirements for refurb
Improving User Experience (IUE) - SSO / VDI	5%	Procurement completed. Project started in March
Inventory Management System	5%	Procurement in progress
Pharmacy System WPH	5%	Procurement completed. Project started
Single Trust Working / Same desktop	5%	Managed through Infrastructure BAU
Video Conferencing	75%	In Progress
Enterprise Patient Master Index (EPMI) / Joint PAS	2%	Requirements scoping started
Data Centre Consolidation	0%	Strategy approved, BC to IOG Jan18
ED System HWPB	0%	Infrastructure & Applications BAU teams supporting
e-discharge WPH	0%	Part integration partner work
Enterprise Wide Scheduling (EWS)	0%	Part of integration partner work
e-Observations/ Alerts	0%	Part of integration partner work
e-Prescribing (EPMA) Phase 2 (WPH)	0%	Part of current contract/CCN negotiation

Uncompleted Projects	% Complete	Status/Comments as of Jan 2018
Firewall and Security	5%	Procurement in progress
Hybrid Mail	0%	Infrastructure & Applications BAU teams supporting
Mobile Device Management (MDM)	2%	Policy Approved
Symphony Upgrade & Expansion to PAU/SAU/MAU	0%	Managed through Applications BAU
Unified Communication (instant messaging, VOIP etc.)	10%	Approved by CDIC March 19th
Clinical Portal FPH	0%	Issues identified through user acceptance testing
Child Protection Information Sharing	0%	Project deferred due to lack of National and Local Authority engagement
CompuCare Phase 2 (Interfaces)	0%	On hold as dependant on a number of system changes planned in 2018
CompuCare Phase 3 (Trust Wide)	0%	On hold as dependant on ePMI
DictateIT Upgrade	0%	IOG Nov 16 agreed to place on hold until a trust wide solution agreed
Digital Dictation/Speech Recognition Trust Wide	0%	In discussion with Operations
DrDoctor	0%	In discussion with FPH Operations
eObservations	0%	Part of Integration Partner plan
Mobile Phlebotomy	0%	In planning - Lab
Omnicell	0%	In planning - Pharmacy
Single Cancer System	0%	On hold as dependant on ePMI/Digital integration partner
Single Cardiology System	0%	On hold as dependant on ePMI/Digital integration partner
Single Maternity System	0%	On hold as dependant on ePMI/Digital integration partner
Single Pharmacy system	0%	On hold as dependant on ePMI/Digital integration partner
Single Theatre System	0%	On hold as dependant on ePMI/Digital integration partner
Tiara HWPB	0%	No further work to be done
24/7 IM&T working	0%	IM&T board Sept 16 agreed that 24-7 first line support was no longer a requirement as password resets changes being addressed. To have further review
Facilities Management	0%	Managed through BAU/external to IM&T (PlanetFM)
Interoperability (Connected Care)	30%	Participating in planning meetings. Data transfer underway
New Hospital Planning	10%	Participating in planning meetings. Waiting on development approval
Thames Valley Cancer Record (STP)	20%	FHFT Applications team part of the committee. BAU project
Theatre System (WPH)	0%	Initial analysis discussions in progress. FPH to be stabilised first
TIE- Single Interface Engine	50%	Managed through Applications BAU. Business case being developed
Wi-Fi Upgrade	0%	Managed through Infrastructure BAU
BSPS eMPI	SPS	Infrastructure & Applications BAU teams supporting the consolidation
BSPS Infrastructure Stabilisation	SPS	Infrastructure & Applications BAU teams supporting the consolidation

Uncompleted Projects	% Complete	Status/Comments as of Jan 2018
BSPS Private Hospital (Hatfield)	SPS	Infrastructure & Applications BAU teams supporting the consolidation
ICE Published Service (BSPS)	SPS	Infrastructure & Applications BAU teams supporting the consolidation
Lab Centre -Royal Berks (BSPS)	SPS	Infrastructure & Applications BAU teams supporting the consolidation
Winpath Enterprise (BSPS)	SPS	Infrastructure & Applications BAU teams supporting the consolidation

APPENDIX B – FINANCIAL STATUS

IM&T REVENUE BUDGET

	Annual Budget £'000		
	15/16	16/17	17/18
Pay	5,577	4,541	4,213
Non Pay	4,011	3,928	3,746
Total	9,588	8,469	7,959

IM&T has 53% of budget allocated to PAY.

IM&T COST IMPROVEMENT PLAN

	Target	Status
2015/16	90,000	Delivered
2016/17	240,000	Delivered
2017/18	600,000	Delivered
2018/19	600,000	183,212 (as of 04/01/17)

APPENDIX C – IM&T CAPITAL PROGRAMME SUMMARY

Capital Expenditure	14/15	15/16	16/17	17/18 (YTD)	18/19	19/20	Total
Infrastructure & Devices	3.4	2.2	6.4	1.9			14.0
Clinical Applications	2.4	0.3	2.6	2.0			7.2
IM&T Resource	-	0.3	0.7	0.3			1.3
IM&T Capital Expenditure	5.8	2.8	9.7	4.1	-	-	22.4
IM&T Capital Programme	11.1	10.9	8.5	5.8	3.0	3.0	
variance in year	5.2	8.1	- 1.2	1.7	3.0	3.0	19.8
variance cumulative	5.2	13.3	12.1	13.8			

APPENDIX D – PROJECTED CAPITAL PLAN

	17/18	18/19	19/20	20/21	22/23	23/24	24/25	25/26	Total
	Yr0	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	
Capital Costs									
DataCentre	180,000	180,000	0						360,000
Firewall & Security	649,805	0	0	0	0	0	0		649,805
VoIP	753,000	0	0	0	0	0	0		753,000
Active Directory	15,000	0	0	0	0	0	0		15,000
Wifi upgrade	1,500,000	0	0	0	0	0	0		1,500,000
Mobile Device Management	0	0	0	0	0	0	0		0
EPR Integration	3,180,000	0	0	0	0	0	0		3,180,000
Single Sign on	3,135,800	0	0	0	0	0	0		3,135,800
ePrescribing (FPH)	751,000	0	0	0	0	0	0		751,000
ePrescribing (WPH) Estimated/TBC	751,000	0	0	0	0	0	0		751,000
Symphony (WPH)	396,000	0	0	0	0	0	0		396,000
Inventory Management	443,965	0	0	0	0	0	0		443,965
Pharmacy (WPH)	100,000	0	0	0	0	0	0		100,000
Carestream (WPH)	0	0	0	0	0	0	0		0
Data Warehouse Consolidation									0
Contract Consolidation after PAS	0	0	0	0	0	0	0		0
eDischarge	82,500								82,500
Sub-total capital costs	11,938,070	180,000	0	0	0	0	0	0	12,118,070
Revenue Costs									
DataCentre	183,150	808,025	1,663,490	1,798,158	1,849,694	1,901,229			8,203,746
Firewall & Security	16,372	159,768	155,219	153,171	146,122	141,573			772,224
VoIP	19,178	329,661	324,390	322,119	313,848	311,577			1,620,771
Active Directory		3,000	3,000	3,000	3,000	3,000			15,000
Wifi upgrade		210,000	210,000	210,000	210,000	210,000			1,050,000
Mobile Device Management		48,000	48,000	48,000	48,000	48,000			240,000
EPR Integration		706,400	1,184,400	1,184,400	1,184,400	1,184,400			5,444,000
Single Sign on	90,377	1,116,678	1,105,703	1,094,728	1,083,752	1,072,777			5,564,015
ePrescribing (FPH)		299,664	299,664	299,664	299,664	299,664			1,498,320
ePrescribing (WPH) Estimated/TBC		299,664	299,664	299,664	299,664	299,664			1,498,320
Symphony (WPH)		144,200	144,200	144,200	144,200	144,200			721,000
Inventory Management	46,269	360,793	357,685	354,578	351,470	348,362			1,819,157
Pharmacy (WPH)		45,000	45,000	45,000	45,000	45,000			225,000
Carestream (WPH)	0	722,452	677,452	677,452	677,452	722,452			3,477,260
Data Warehouse Consolidation									0
Contract Consolidation after PAS	0	0	0	0	0	0			0
eDischarge	7,000	53,000	53,000	53,000	53,000	53,000			272,000
Sub-total revenue costs	362,345	5,306,305	6,570,867	6,687,132	6,709,266	6,784,899	0	0	32,420,814
Revenue Savings (cash-releasing)									
DataCentre	0	(680,320)	(1,360,639)	(1,360,639)	(1,360,639)	(1,360,639)			(6,122,876)
Firewall & Security	0	(176,125)	(176,125)	(176,125)	(176,125)	(176,125)			(880,623)
VoIP	0	(333,000)	(388,121)	(388,121)	(388,121)	(388,121)			(1,885,484)
Active Directory	0	0	0	0	0	0			0
Wifi upgrade	0	0	0	0	0	0			0
Mobile Device Management	0	0	0	0	0	0			0
EPR Integration	0	(500,000)	(1,500,000)	(2,500,000)	(2,500,000)	(2,500,000)			(9,500,000)
Single Sign on	0	(773,377)	(773,377)	(773,377)	(773,377)	(773,377)			(3,866,887)
ePrescribing (FPH)	0	0	(136,750)	(547,000)	(547,000)	(547,000)			(1,777,750)
ePrescribing (WPH) Estimated/TBC	0	0	(136,750)	(547,000)	(547,000)	(547,000)			(1,777,750)
Symphony (WPH)	0	0	0	0	0	0			0
Inventory Management	0	(931,464)	(1,102,205)	(912,034)	(683,239)	(517,003)			(4,145,944)
Pharmacy (WPH)	0	(40,000)	(40,000)	(40,000)	0	0			(120,000)
Carestream (WPH)	0	(724,663)	(724,663)	(724,663)	(724,663)	(724,663)			(3,623,315)
Data Warehouse Consolidation									0
Contract Consolidation after PAS		(300,000)	(300,000)	(300,000)	(300,000)	(300,000)			(1,500,000)
eDischarge		(2,120)	(2,120)	(2,120)	(2,120)	(2,120)			(10,600)
Sub-total revenue savings	0	(4,461,068)	(6,640,750)	(8,271,079)	(8,002,284)	(7,836,048)	0	0	(35,211,229)
Net revenue impact	362,345	845,237	(69,883)	(1,583,946)	(1,293,018)	(1,051,150)	0	0	(2,790,415)
Net cash flow	(12,300,415)	580,797	1,711,917	3,225,980	2,935,052	2,693,184	0	0	(1,153,485)
Discount Factor	1.0000	0.9662	0.9335	0.9019	0.8714	0.8420	0.8135	0.7860	
Discount Value	(12,300,415)	561,166	1,598,074	2,909,512	2,557,605	2,267,661	0	0	
Net Present Value	(2,406,398)								

APPENDIX D (continued)

Note 1:									
Depreciation charges (incl. in revenue costs)	Yr0	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Total
DataCentre	0	36,000	72,000	72,000	72,000	72,000			324,000
Firewall & Security	0	129,961	129,961	129,961	129,961	129,961			649,805
VoIP	0	150,600	150,600	150,600	150,600	150,600			753,000
Active Directory	0	3,000	3,000	3,000	3,000	3,000			15,000
Wifi upgrade	0	150,000	150,000	150,000	150,000	150,000			750,000
Mobile Device Management	0	0	0	0	0	0			0
EPR Integration		318,000	318,000	318,000	318,000	318,000			1,590,000
Single Sign on	0	313,580	313,580	313,580	313,580	313,580			1,567,900
ePrescribing (FPH)	0	150,200	150,200	150,200	150,200	150,200			751,000
ePrescribing (WPH) Estimated/TBC	0	150,200	150,200	150,200	150,200	150,200			751,000
Symphony (WPH)	0	79,200	79,200	79,200	79,200	79,200			396,000
Inventory Management	0	88,793	88,793	88,793	88,793	88,793			443,965
Pharmacy (WPH)	0	20,000	20,000	20,000	20,000	20,000			100,000
Carestream (WPH)	0	0	0	0	0	0			0
Data Warehouse Consolidation									0
Contract Consolidation after PAS	0	0	0	0	0	0			0
eDischarge	0	16,500	16,500	16,500	16,500	16,500			82,500
Sub-total depreciation	0	1,606,034	1,642,034	1,642,034	1,642,034	1,642,034	0	0	8,174,170

* These numbers were drafted at time of writing this document in December 2017. They are indicative numbers only and will change as final procurements are determined.

APPENDIX E - EDWARDS STORY: A JOURNEY THROUGH A DIGITAL FHFT IN 2021

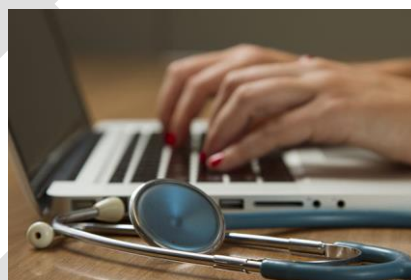
Edward is a 58 year old gentleman who has started to experiencing worsening pain in his knee. Edward also suffers from High blood pressure and type 2 diabetes; this is managed by his GP with oral medication and has regular check-ups with his GP. His last inpatient admission was over 20 years ago when he had an appendectomy; Edward enjoys playing tennis and has recently become a grandfather and is looking forward to spending time with the grandchildren when he retires in a couple of years. He is currently an IT Manager working in the banking sector.

Edward decides that he wants to do something about his knee and therefore goes onto the NHS.UK web site and puts his symptoms into the symptom tool which suggests he may have damaged to the structure of his knee and that he should see his GP. The website takes him through the process of booking his GP appointment including putting the appointment into his calendar on his smart phone.

Edward is seen by his GP where he is examined and they make the decision that he needs to have an X-ray; Edwards GP completes the request from within the GP system; he also prescribes some analgesics as the current over the counter medication is not sufficient. He is also prescribed some exercises that may improve the pain; these are sent to Edward through an e-mail so that he can refer back to them whenever he wants.

Edward attends the pharmacy where the prescription is waiting for him as the GP has sent it through electronically to the patients chosen Pharmacy; Edward also receives a text message to attend an x-ray department from a list and is able to book an appointment so he can attend during his lunch hour.

Edward attends his X-Ray and heads back to the office to continue his work when he receives a phone call from his GP who says that the X-Ray confirms what he suspected that there is significant degeneration in the knee and says that he needs to be seen by a specialist and would like to refer him; he consents and asks to be referred to Frimley Health NHS Foundation Trust.

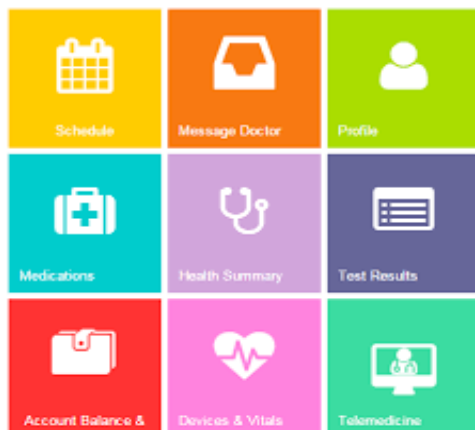


Edwards GP completes the referrals including all the information relating to Edwards medical history, what the GP has done for his knee problem so far.

Edward receives an e-mail with a unique code that allows him to log into eRS (electronic referral system); on this system he is able to see the progress of his referral and book his appointment; on the system he sees an option to have an electronic consultation with a consultant. He knows he is going away the next week for an IT conference and so opts for this option. Once the appointment is made he is sent a confirmation of the appointment along with a calendar file so it goes into his diary with all the details.

On the morning of his e-Consultation he gets a text message to confirm his appointment. Edward logs on for his consultation on his laptop and can see how many patients are before him and the expected time till he is due to be seen; he is also presented with a questionnaire to help the clinician further understand his problem.

In the consultation Edward and his orthopaedic consultant discuss the options agree the best course of action is to have an arthroscopy and debridement to his knee; the orthopaedic consultant would also like to have an MRI to allow him to further grade the degeneration and plan the procedure.



Edward is e-mailed an invitation to log into the trusts patient portal that gives him access to information about himself as well as custom information related the procedure, commonly asked questions including videos and necessary records that need to be completed prior to the activities; he can either book or contact the appointments centre where they have a list of all the activities that need booking at the trust and who are able to make his appointments for his MRI, pre-operative assessment, pre-operative blood tests and his operation. He has an option of booking into any of these at any of the trusts sites and they can be arranged to all take place on the same day.

Edwards' theatre slot is also scheduled at this time as a progressive new Theatre system has been implemented which has aligned theatres processes and improved utilisation so Edward only has a short wait for his surgery and the chances of having his operation cancelled are virtually nil. He is given the date of his post-operative follow-up appointment and physiotherapy

assessment. This allows Edward to be able to schedule his work commitments around his treatment, minimising the disruption to his daily life.

When Edward arrives for his activities he is able to book himself in from the patient app on his smartphone and is able to get way-finding directing him to where he needs to go. If any of these areas are running late he is able to see this straight away in the app which alerts him the best time to leave to get to clinic meaning he can spend time in the trusts cafe's, restaurants or book shop as well taking advantage of the public access Wi-Fi so he can continue to do work or enjoy leisure activities online.

When Edward then sees the nurse for his pre-operative assessment all the information from the GP, questionnaires that Edward has completed along with the tests that have been carried out; this is all consolidated and pulled into the trusts electronic patient record; the nurse carries out additional tests and observations that are pulled directly from the medical equipment into the form and this allows her to either type or use speech recognition to populate data into the record. Edwards' medication history is pulled down from the patients GP system along with any allergies that are then checked against what is recorded. The medication is then put into a work queue to be prescribed for Edward for when he arrives for surgery. Any additional tests and investigations that may need to be carried out are booked and sent through to Edwards' Patient Portal as well as diary invites. Edward also completes the consent electronically with a signature pad on the nurse's desk that once completed files a copy in the patient's notes; an e-mailed copy is done as well a copy sent to the patient portal for Edward to refer back to in the future. The nurse is then able to see what materials he has accessed through the patient portal and if any life style issues

have changed that will inform the necessary education. Follow up is arranged and this care pathway is also communicated back to the shared care record.

The day before the surgery Edward received an alert by text message along with reminding him of any specific advice and guidance that he may need.

On the morning of surgery Edward arrives at the hospital where he checks in through the app that then directs him to the ward and bed that has been allocated for him; the nurse that has been allocated to look after Edward through his journey is alerted via her handheld device that he is on his way. Edwards' nurse or another member of the care team are waiting for Edward when he arrives on the ward and direct him to his bed. The nurse confirms that Edward has arrived and he is admitted into his bed with the press of a button. The remainder of the medical team (Surgeon, Anaesthetist, and Physiotherapist) are notified on their hand held devices that Edward has arrived.



The nurse then goes to Edward with their mobile device and check through all the information held and updates any further details that needs added. The nurse takes electronic observations on a connected spot testing machine that automatically uploads the information to the patient record.

The discharge summary is initiated and is then visited by the Anaesthetist that

receives Edwards' information on the electronic record before electronically getting Edwards' consent and the final consent form is sent to his patient portal and e-mail.

The physiotherapist visits Edward and provides the assistive equipment needed which is electronically allocated to him through the electronic patient record and recorded in the inventory management system so they can be tracked back as well in case of a recall on the equipment or for costing purposes. The surgeon visits and re-consents Edward for his arthroscopy and answers any questions he may have.

Moments later the theatre makes the decision to call Edward to Theatre; Edward and the Nursing staff receive the notification their mobile devices; the porter then arrives to take Edward to Theatre. The nurse escorts Edward to the airlock and hands over the patient to the theatre staff. As Edward enters the airlock his details to date are authenticated by the Nurse and uploaded onto the record. The information required for the procedure is now available on the terminals in the theatre and Anaesthetic room and any forms required to be completed are already loaded for use during the procedure on the screens and sterile mobile devices so the surgeon and scrub nurse can enter information during the procedure as well as interact with the equipment and imaging.

The surgeon is able to take video and photos of the procedure from the arthroscopy equipment which is automatically uploaded to Edwards's record; the surgeon will use these later on when he is in clinic to talk through the procedure that has been carried out. Now that the information has been automatically transferred to the electronic patient record with integrated workflow, there is a notice that shows this patient is now in theatre

with the bed on the ward reserved for him when he comes back to the ward.

During the operation all the data from the Anaesthetic equipment and devices has been uploaded straight into the patient's record for review later on including any free text comments and alerts for any future operations that Edward may undergo. The patient journey has been automated with direct entry to the EPR and the old days of managing reams of paper have vanished.

While the Anaesthetist is waking Edward up from his Anaesthetic Edwards surgeon is able to complete his discharge letter with any specific instructions for the ward so that he can be managed under the nurse led discharge protocol.

Discharge medications are automatically sent to the pharmacy stock control system and cabinets so that the medication needed available to be dispensed for the patient when they are ready to be discharged; any medication that is not available is automatically requested from the pharmacy and the pharmacy robot dispenses the medication that is then checked and the ward is alerted that the medication is ready to be picked up from pharmacy.



Edward is transferred to recovery and his location is updated automatically on the electronic patient record and Edwards Nurse is alerted where he is; they are able to log into the EPR and

see in real-time his progress and the record being updated in real time from a variety of devices such as desktop to hand held. There is visibility of all the patients on the patient status screens in the ward and this enables the ward staff to better plan the tasks to be done on their shift.

When Edward is well enough to be transferred back to the ward an electronic notification is sent to the porter and the ward so they can organize for his arrival including getting equipment ready such as the spot testing machine.

When Edward is returned to the ward his location is automatically updates the electronic patient record and the recovery nurse uses the handheld device to hand Edward back to the ward with the ability to flag any special instructions from the surgeon for discharge.

Edward then has observations performed on the spot testing device that automatically sends the observations to the handheld device that the health-care assistant is using; the care assistant is alerted and given the intervals that Edward requires observations to be taken. On the third round of observations the patient has a NEWS score of 5; the handheld device alerts the healthcare assistant that Edward needs to be seen by a registered nurse and prompts the assistant to escalate. This is done through the system and the nurse in charge is alerted and called to the patient where she acknowledges the call and attends to Edward. Upon re-assessment she decides to alert the on-call team that the system has advised as it is now out of hours and Edwards' team have gone off duty. The on-call surgical SHO is alerted regarding Edward; they are able to see what parameters that Edward's NEWS is based; as this is part of the EPR they can also view the other information regarding Edward. This is

really important as they acknowledge the call and prioritise to see Edward; Edwards' nurse receives this information as well and is able to summon help while at Edwards' bedside which has meant that she has been able to both continually monitor and start treatment for the hypoxia through giving Edward oxygen. The nurse documents electronically to ensure she keeps continuous comprehensive records of the treatment and care.

When the on-call SHO arrives they are able to track the time that they have started to see Edward; this is visible to the other member of the team as well as the senior duty nurse; this will prevent them being un-necessarily interrupted and so they can focus on Edward. The on-call orthopaedic registrar has completed all his tasks and looks at the EPR and is able to see that the SHO is dealing with a sick patient and that there are outstanding tasks and so decides to take some of these off the SHO.



The SHO decides that he wants to order a portable chest x-ray and repeat bloods and orders these from their mobile device at Edwards' bed side. The nurse draws the blood and prints out the labels to send the specimens to the. They have been marked as urgent and because the order entry system is linked to the lab system they are aware they are coming and can prioritise them. The SHO decides to do an arterial blood gas on Edward and gives this to the healthcare assistant who takes it to the Intensive Care Unit to run the test on the point of care testing machine. As these machines are linked to the laboratory

system the results are on the system and the EPR shows that the SHO is treating Edward they get an alert when the results are ready and view and interpret them before the healthcare assistant comes back from ICU. The radiographer attends with a mobile Digital X-ray that they are able to select the correct exam from the RIS; as it is a digital x-ray the radiographer is able to upload the x-ray at the patient's bedside and is available on the SHO's mobile device to review without leaving the patients bed side.

Once the SHO reviews all the test results together and makes a diagnosis that Edward has the start of a chest infection he plans to prescribe some antibiotics. The electronic prescribing and administration system links the SHO to the microbiology guide. The SHO doesn't realise the Edward is allergic to penicillin but when the SHO starts prescribing it alerts him and recommends an alternative that fits with the trust protocol.

The nurse is then alerted that medication has been prescribed and can then prepare them for Edward. The SHO checks the nurse is in agreement with the plan and sets a task to come back and review Edward in 2 hours. The nurse takes the tablet to Edward with the antibiotics and records the administration on the mobile device. The care assistant continues to do observations during the night in accordance with the protocol within the EPR system.

When the SHO is able to catch up with his registrar he is able to review Edwards record along with looking through what has happened to the observations since he left; the registrar says he would like to review Edward and therefore the SHO reallocates the task and the registrar accepts the job; the nurse on the ward is notified that the owner of the task has been changed to the registrar in case they need to discuss Edward with a doctor. The registrar gets alerted and

goes and reviews on Edward and updates the task and closes it while also adding an entry to the record on his mobile device; this is then sent to the patient consultant team to action when they come on duty the next day. Edward has an uneventful night and the nursing team are able to update the care plan delivery within the EPR.

The day nursing team come onto shift and log themselves on to the wards and the patients; the day and night team perform handover at the patient's bedside reviewing the EPR on their mobile devices; they are able to review and update the information and assign tasks directly at the bedside during the handover. They are able to see Edwards's observation and overlay the interventions that were carried to give the information meaning. Edward is able to be an active participant in the handover. This new way of working has greatly improved quality, safety and patients' are feeling more a part of the care team and are more engaged regarding their care and recovery.

The consultants team log on and are alerted to what happened over night and are able to review Edward immediately and prioritise him; Edward is reviewed on the consultant ward round and is feeling much better and the decision is made to discharge Edward on oral antibiotics; the medications are updated on the ward round and the additional antibiotics are available as a pre-pack on the ward from the secure automated drug cabinets; this is added to the list that were completed in theatre; as the discharge solution is integrated with the clinical noting on the EPR there is no need for the junior doctor to enter any more information for the GP. All Edwards' discharged details and care information is available electronically to his GP and he is advised that this is also available for him to see via the patient portal.

Edward is feeling good about his procedure and he phones his daughter for pick up while the nurse collects the medication helps transfer him to the discharge lounge on the EPR. An alert is put through to the housekeeping staff to clean the bed space along with a pre-alert to the site team of when the bed will be available. The Housekeepers acknowledge the request and cleaning begins. The site team have allocated the bed to an elderly gentleman with a fractured humerus in the Emergency Department; the nurse in charge is alerted to this and is able to start looking at the gentleman's ED record. Once the bed is cleaned it is marked as available. This sends a message to the nurse in charge and the nurse in the emergency department who then request that the patient is sent to the ward.

Meanwhile, Edward is picked up by his daughter and leaves the Hospital reassured and impressed with the excellent care he received which he can see has been made possible by the innovative use of technology.

The data was entered into structured formats and the data is extracted automatically into the data warehouse where algorithms are set up to provide analytics on population health; and can automatically generate the reports required for monitoring KPI's. Coding is up to date as the data input and quality is standardized and the structured data sets enable the coding to be done with very little intervention. Data from the inventory management, patient costing finance system and clinical data can be used to predict future patterns of care, cost per patient analysis, cost per procedure by physician, and other details to support informed decision making.

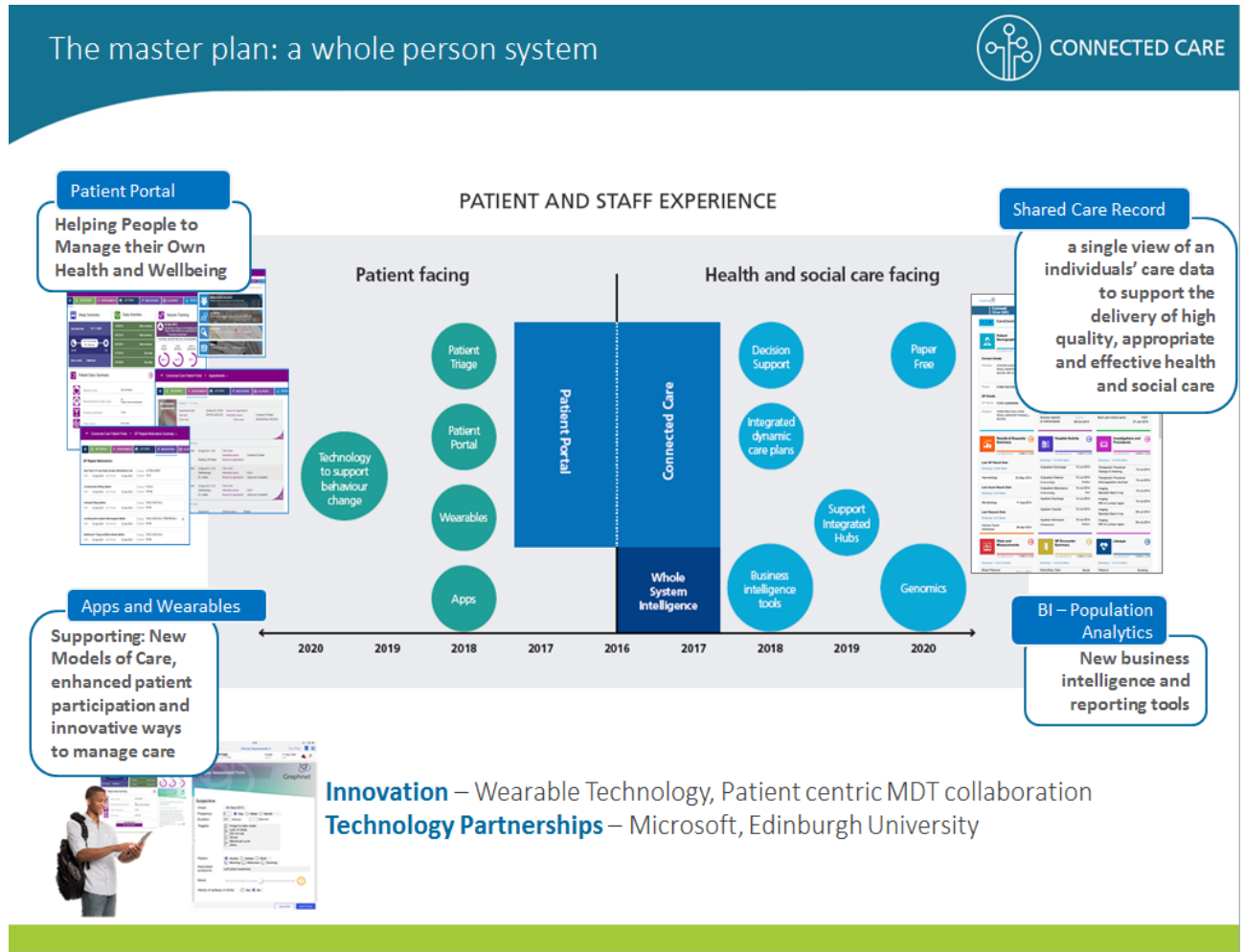
The integration of information in the electronic systems has reduced serious incidents, increased capacity for care delivery due to elimination of duplication; and has provided much

more accurate information for operations leaders to make decisions. The continued improvement in digital use has supported Frimley Trust to

maintain its outstanding rating. Frimley is well on its way to be a digital exemplar care provider

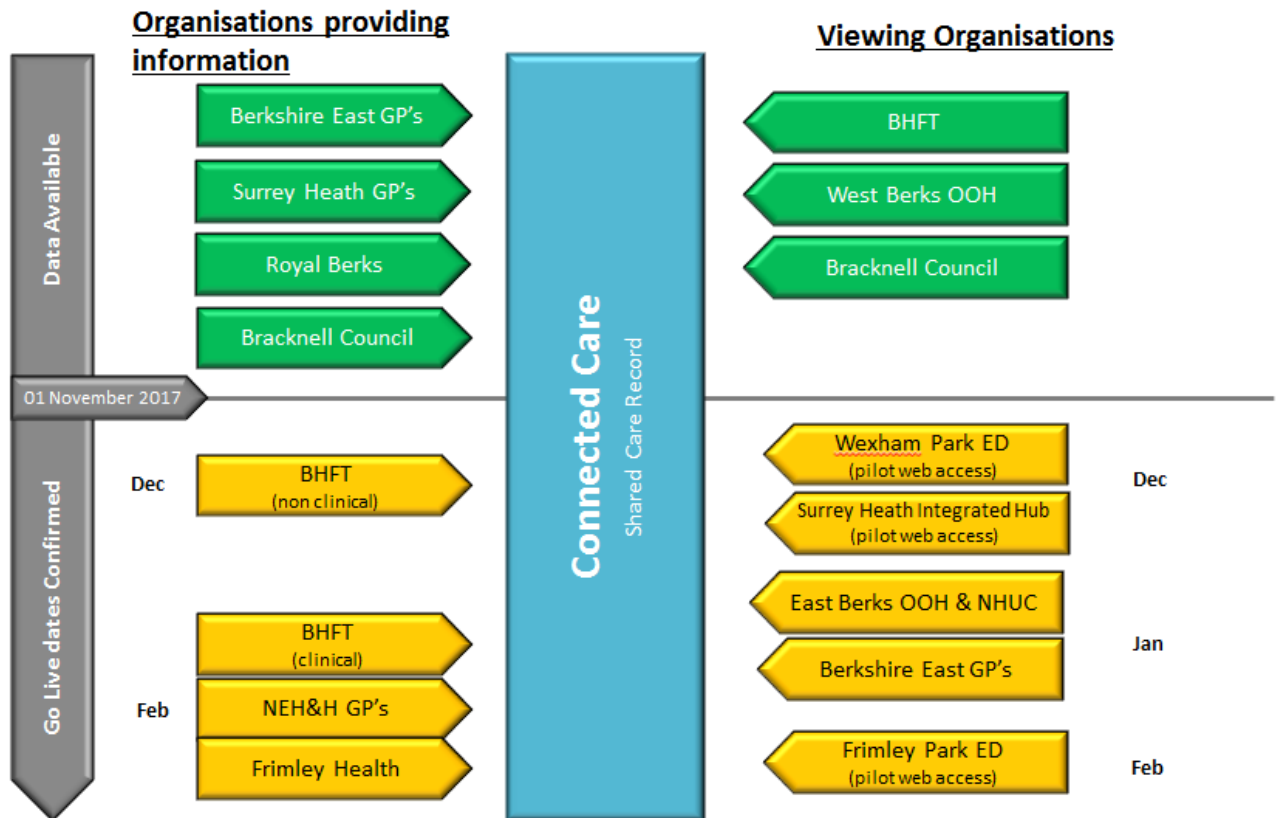


APPENDIX F – A VIEW OF THE ACS MASTER PLAN: HOLISTIC CARE

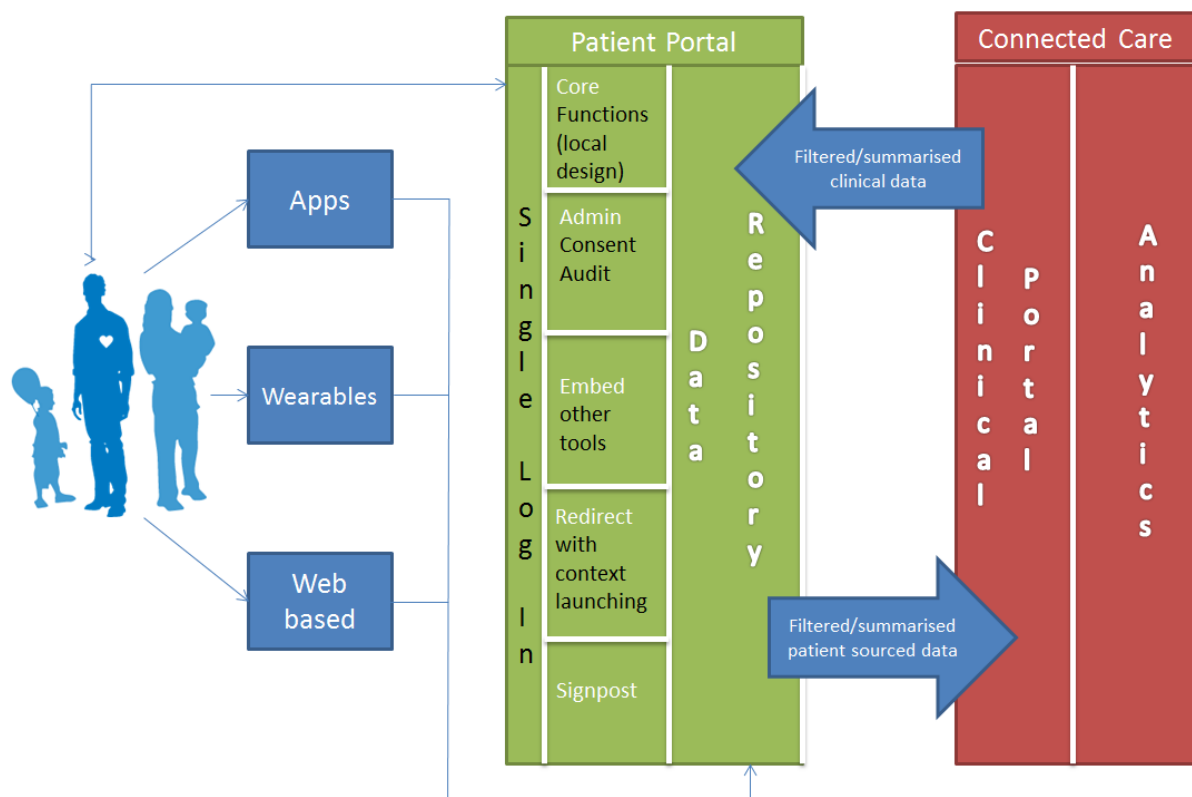


APPENDIX G – BUILDING THE CONNECTED CARE RECORD

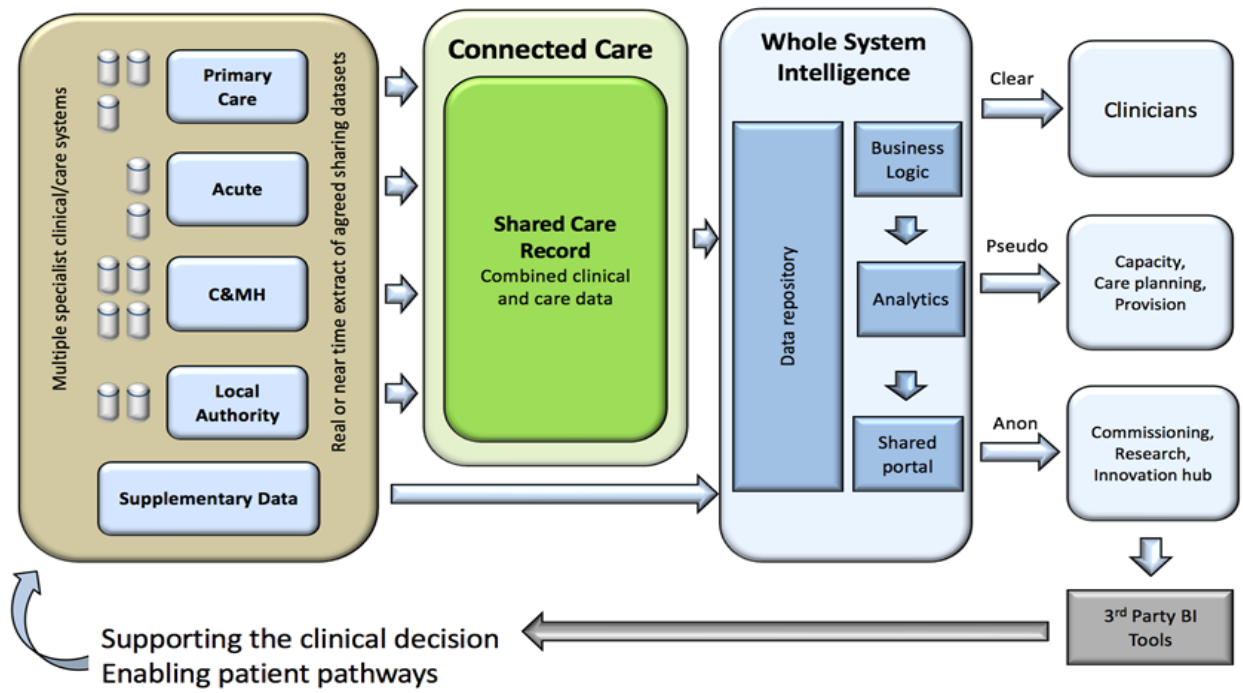
Supporting this winter



APPENDIX H- ACS PATIENT PORTAL



APPENDIX I – ACS DATA ANALYTICS MODEL



APPENDIX J – ACS WORSTREAM ALIGNMENT: AN EVOLVING MAP

ACS/LDR Workstream Alignment

Frimley Health/Slough, Windsor, Ascot & Maidenhead; Bracknell & Ascot; Surrey Heath and North-East Hampshire and Farnham CCGs

Initiatives		Ensure people have the skills, confidence and support to take responsibility for their own health and wellbeing	Develop integrated decision making hubs to provide single points of access to services such as rapid response and reablement, phased by 2018	Lay foundations for a new model of general practice provided at scale , including development of GP federations to improve resilience and capacity	Design a support workforce that is fit for purpose across the system	Transform the social care support market including a comprehensive capacity and demand analysis and market management	Reduce clinical variation to improve outcomes and maximise value for individuals across the population	Implement a shared care record that is accessible to professionals across the STP footprint	Urgent Care	Cancer	Mental Health
LDR Capabilities	Record, Assessments & Plans 		CC Record Sharing	CC Shared Care Record Workstream Extended Appointment Hours		CC Record Sharing Daily Life		Shared Care Record Workstream	Shared Care Record Workstream	Shared Care Record Workstream	Shared Care Record Workstream
		Online Consultations									
								Connected Care	Connected Care	Connected Care	Connected Care
	Transfers of Care 		CC CareFlow	Care Planning Workstream				Electronic Referral Workstream			
	Orders & Results Management 										
	Medicines management & Optimisation 	EPS Workstream		EPS Workstream							
	Decision Support 	Self Care Apps	Electronic Frailty Index				Whole Systems Intelligence Workstream				
			Whole Systems Intelligence Workstream		Innovations		DXS Clinical Support Tool				
			DXS Clinical Support Tool								
	Remote & Assistive Technology 	Wearable Tech Pilot		GPV Strategy Framework	GPV Strategy Framework			CC Patient Portal			
		CC Patient Portal	Patient Portal	CC Patient Portal	CC Patient Portal						
		GPV Strategy Framework		Single Domain	Single Domain						
	Asset & Resource Optimisation 	Patient Wi-Fi		GP WiFi	GP WiFi						
		MyGP resident digital services	IG Framework	Infrastructure Workstream	Infrastructure Workstream						
		Patient Online									
		Organisational websites									

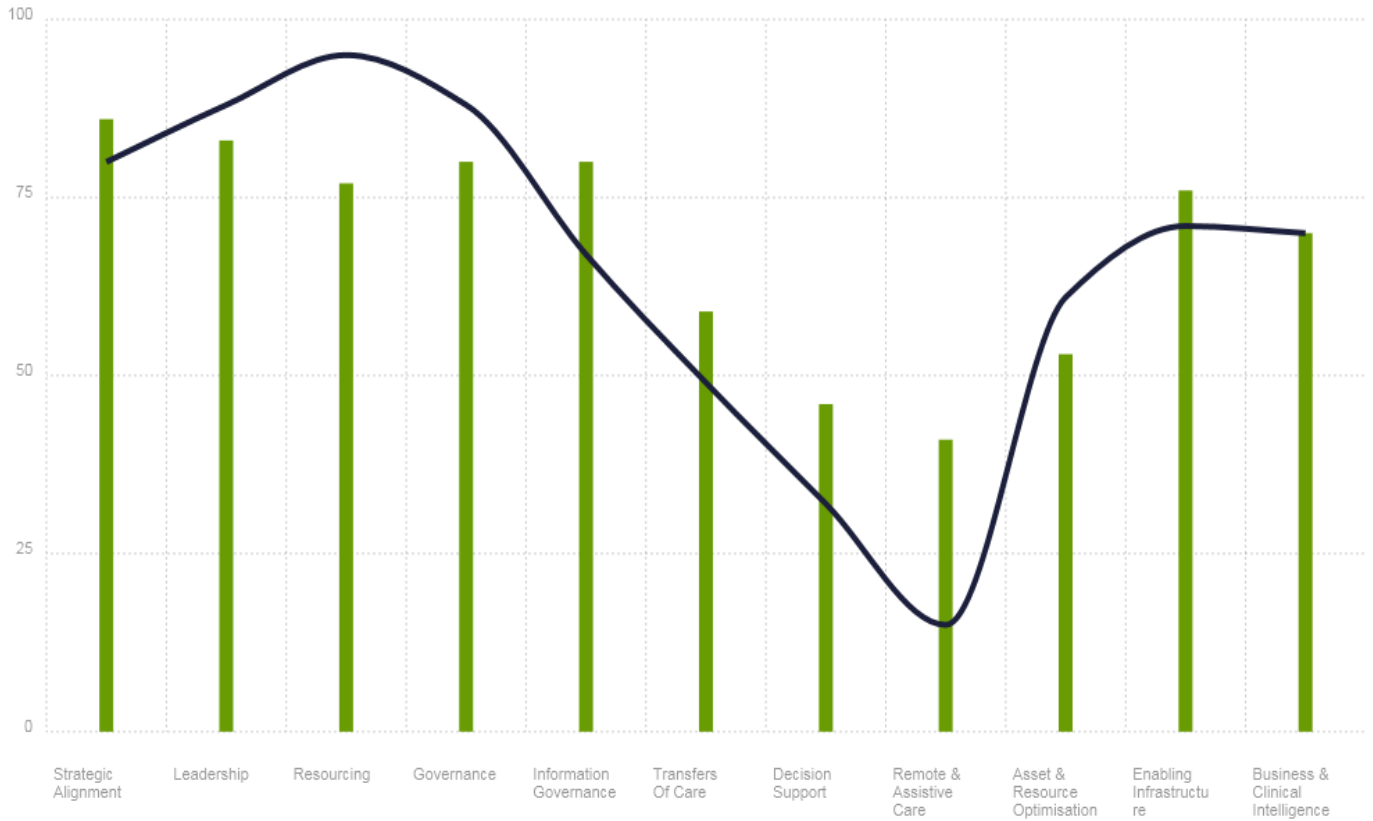
APPENDIX K – DIGITAL MATURITY ASSESSMENT SCORE

Digital Maturity Assessment Results by Section

Showing results by section for the 2017 NHSE DMA.

Regions: London, South of England, North of England and Midlands and East of England;

Sections: Strategic Alignment; Leadership; Resourcing; Governance; Information Governance; Transfers Of Care; Decision Support; Remote & Assistive Care; Asset & Resource Optimisation; Enabling Infrastructure; Business & Clinical Intelligence;



Frimley Health NHS Foundation Trust 2017

■ 2017 National Average by Section

— Frimley Health NHS Foundation Trust 2017

Digital Maturity Assessment Scoring

N-#	Section	National Average Score - 2017	Frimley Health NHS Foundation Trust - 2017	Frimley Health NHS Foundation Trust 2016	
1	Asset & Resource Optimisation	53	61	80	
2	Business & Clinical Intelligence	70	70		New Q
3	Decision Support	46	32	17	Completed by Q&P
4	Enabling Infrastructure	76	71		New Q
5	Governance	80	88	90	
6	Information Governance	80	67	58	Completed by IG
7	Leadership	83	88	85	
8	Medicines Optimisation	38	5	3	
9	Orders & Results Management	61	86	81	
10	Records, Assessments & Plans	56	45	30	
11	Remote & Assistive Care	41	15	17	
12	Resourcing	77	95	70	
13	Standards	56	54		New
14	Strategic Alignment	86	80	80	
15	Transfers Of Care	59	49	36	
	Overall avg calculation:	64.13	60.40	53.92	
	Change in total score	962	906	647	

If the 3 new categories are removed for pure comparison:

59.25

5.33 Our Avg increased by 5.3 points

The 2017 totals show an improvement:

711

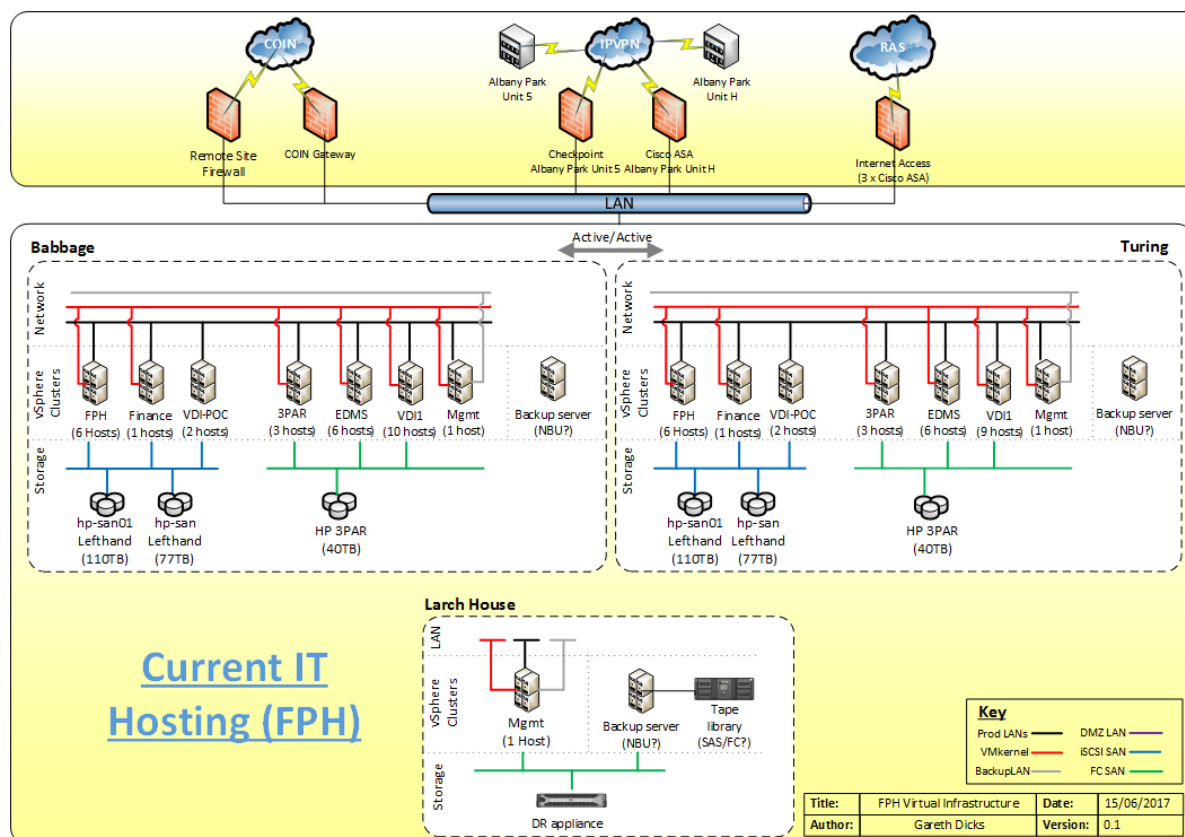
64 point increase over last yr. (647)

Frimley Difference in score to

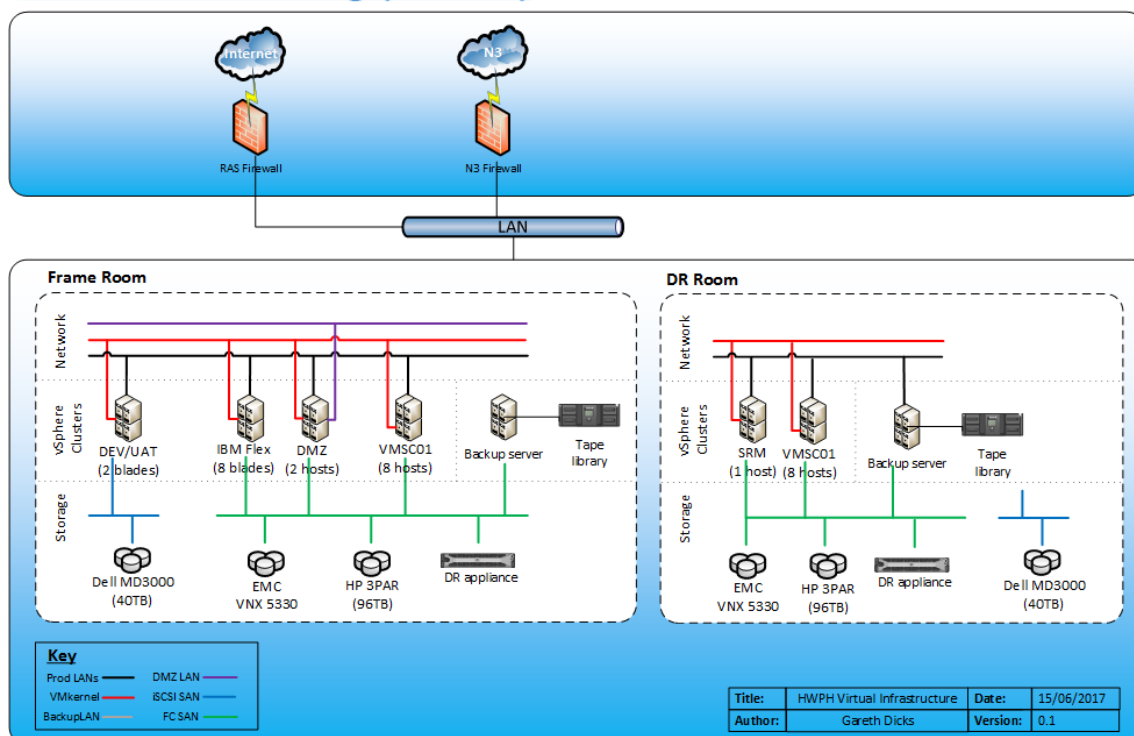
National Avg:

56

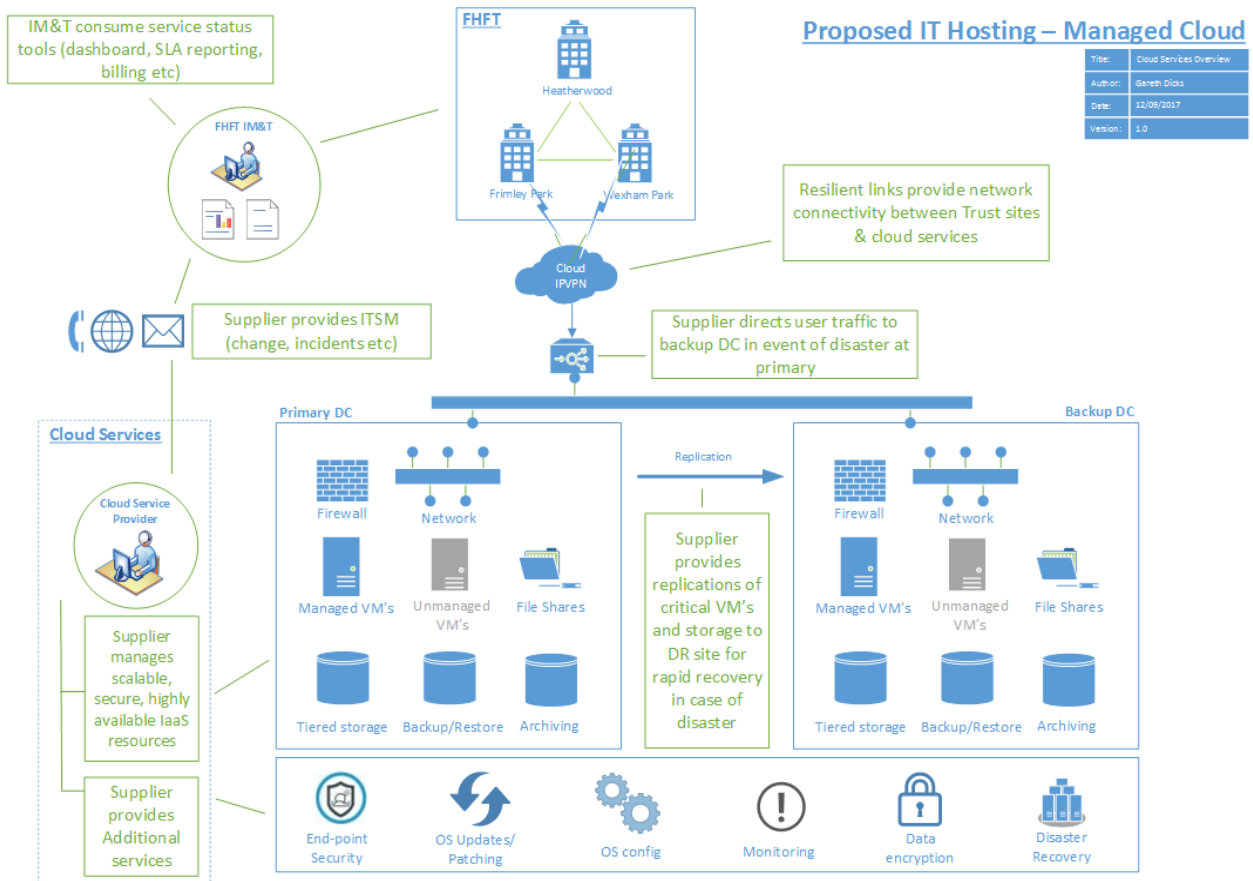
APPENDIX L – INFRASTRUCTURE SCHEMATICS (Current & possible cloud)



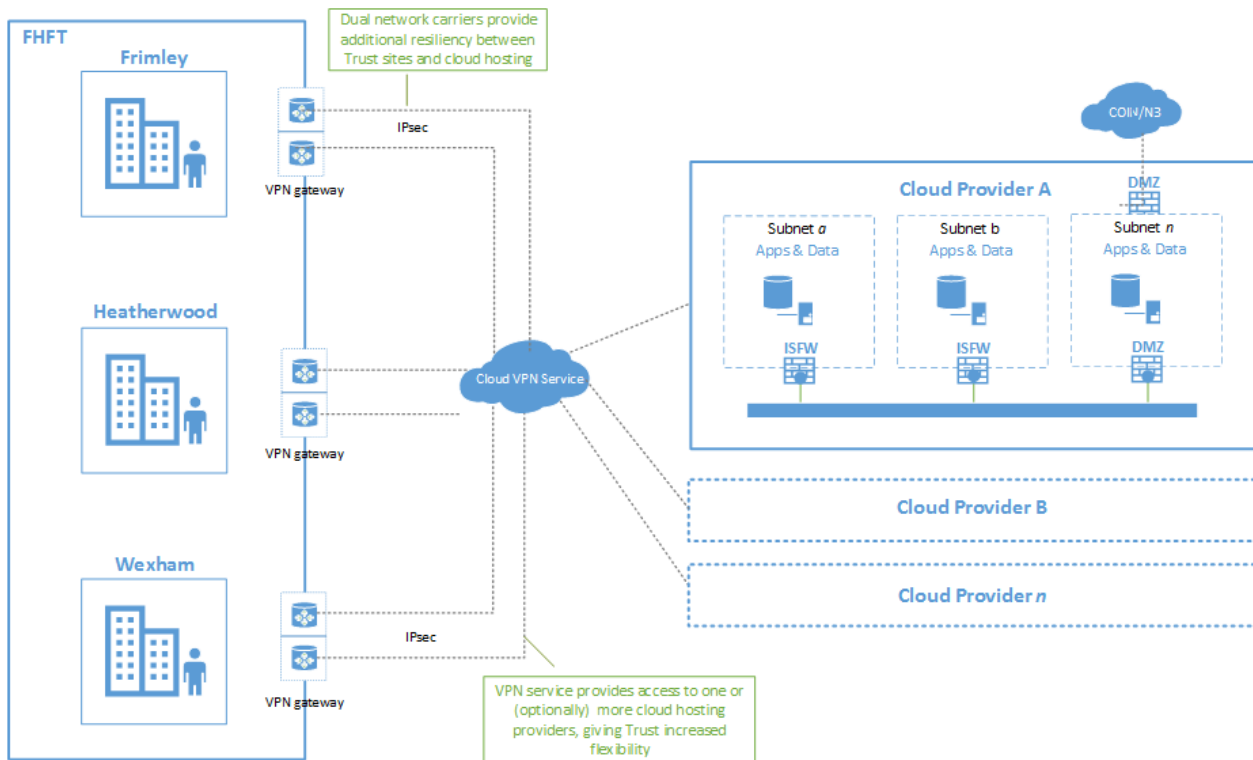
Current IT Hosting (HWPB)



Cloud Options (may have some changes depending on provider)



Proposed Connectivity - FHFT to Cloud Hosting



APPENDIX M – STRATEGIC PLAN ENGAGEMENT



FEEDBACK FROM DIGITAL STRATEGY WORKSHOP 28TH NOVEMBER 2017

PRIORITIES

- PAS
- Integrating existing systems Trust wide e.g. ED/Theatres
- New systems e.g. Alert/e-obs
- Improve Theatre utilisation
- Better discharge planning
- Medication safety
- Improve alerts for deteriorating patients
- Improve clinical outcomes
- Improve clinical interface – use of current systems takes up too much clinical time and exceeds time taken for manual process
- Infrastructure is overloaded (8 minutes to log on?)
- Helpdesk volumes/efficiency
- TTO in 5 minutes
- Need some quick wins
- User involvement

GOVERNANCE

- Transformation
- Clinically led
- Better engagement with IM&T groups/committees
 - Senior doctor/nurse/manager to support each development
 - These people involved/lead the development, implementation and running of these systems
- Improved engagement with all staff affected by system
- Super users and champions
- In designing strategy, how do we best present problems to IM&T? IM&T offer opportunities/solutions
- Transformation and IM&T linked

APPENDIX N - CENTRALISED/UNCENTRALISED SERVICES

Services Provided by Central IM&T

Wexham Applications:

- PatientFirst ED
- Bedford Pharmacy
- LabCentre Pathology
- ICE Ordercoms
- HSS RIS/ AGFA PACS
- McKesson Cardiology
- CMIS Maternity
- Somerset Cancer Registry
- RealTime Bed management
- IQutopia Theatres
- MetaVision Critical Care
- Unisoft Endoscopy
- PAS (iPM)
- ICNet Infection Control
- Docman Hub
- Evolve EDMS
- Planet Facilities management

Frimley Applications:

- Realtime Bed Management
- Unisoft Endoscopy
- Somerset Cancer Registry
- PatientCentre PAS
- Docman Hub
- Evolve EDMS

At Frimley the infrastructure team often is called upon to help the infrastructure issues of BSPS.

Services Not Under Central IM&T

Printers – managed print service

Data Warehouse/Analytics

Applications at Frimley:

- Symphony ED
- JAC Pharmacy
- EMIS ePrescribing
- Winpath
- ICE Ordercoms
- Carestream Radiology PACS/RIS
- PRISM Cardiology
- Euroking Maternity
- PICIS Theatres and Critical Care
- ICNet Infection control
- Facilities management

Finance

HR

Procurement

Pathology services

APPENDIX O – CORPORATE SERVICES ROADMAPS

Finance Roadmap

- Automated Invoicing
- Costing System

Procurement Roadmap

- Inventory Management System

Estates Roadmap

- Hybrid Mail

Informatics Roadmap

- Data Warehouse Upgrade

Corporate System for all Administration document Management

- Enterprise Content Management

HR Systems Roadmap

November 2017

Overview of Current Usage

HR Service Delivery

System / Functionality	Rating	Comments
HR Portal / Knowledgebase		<ul style="list-style-type: none"> • No current system
Case Management		<ul style="list-style-type: none"> • No current system
Process Automation / eForms		<ul style="list-style-type: none"> • No current system
Document Management		<ul style="list-style-type: none"> • No current system
Unified Communications		<ul style="list-style-type: none"> • No current system

Electronic Staff Record (ESR)

System / Functionality	Rating	Comments
Employee Self Service (ESS)		<ul style="list-style-type: none"> • ESS Limited Access enabled for all staff • Full ESS not rolled out (requires MSS)
Manager Self Service (MSS)		<ul style="list-style-type: none"> • Not yet rolled out to organisation
BI Reporting		<ul style="list-style-type: none"> • Limited use, not yet fully utilised
Establishment Control		<ul style="list-style-type: none"> • Inconsistent process in place with finance
Email Addresses / Active Directory		<ul style="list-style-type: none"> • Manual process in place with IT
NHS Spine (CIS)		<ul style="list-style-type: none"> • Inconsistent process in place within HR • PBAC mapping not fully complete

Employee Relations		<ul style="list-style-type: none"> Not currently used consistently
Oracle Learning Management (OLM)		<ul style="list-style-type: none"> Fully deployed across the Trust
Course Self-Service Enrolment		<ul style="list-style-type: none"> Not currently used
Competence Management		<ul style="list-style-type: none"> Not currently supported by L&OD (using MAST)
eLearning via ESR		<ul style="list-style-type: none"> Not currently supported by L&OD (using MAST)
Appraisals		<ul style="list-style-type: none"> Appraisal records are recorded in ESR Not using Self-Service for appraisal processes

Pay & Expenses

System / Functionality	Rating	Comments
Online Payslips		<ul style="list-style-type: none"> Fully deployed across all staff
eExpenses		<ul style="list-style-type: none"> Pilot complete Roll-out plan in progress for all staff groups

Recruitment

System / Functionality	Rating	Comments
TRAC		<ul style="list-style-type: none"> Fully deployed across all staff
NHS Jobs		<ul style="list-style-type: none"> Fully deployed across all staff

Electronic Rostering

System / Functionality	Rating	Comments
HealthRoster (Nursing)		<ul style="list-style-type: none"> Fully deployed
HealthRoster (Other)		<ul style="list-style-type: none"> Roll-out plan in progress for all staff groups
Employee Online (EOL)		<ul style="list-style-type: none"> Fully deployed to live units
SafeCare (Allocate)		<ul style="list-style-type: none"> Not yet rolled out to organisation Requires implementation resources & clinical lead
ESR Interface (ESRGO)		<ul style="list-style-type: none"> Pilot stage - manual processes currently in place
Timeclocks		<ul style="list-style-type: none"> Not currently used

Temporary Staffing

System / Functionality	Rating	Comments
BankStaff (Nursing)		<ul style="list-style-type: none"> Fully deployed
BankStaff (Other)		<ul style="list-style-type: none"> Roll-out plan in progress for all staff groups
Agency Invoicing		<ul style="list-style-type: none"> Manual process currently in place (paper) Pending agreement for interface with finance
Electronic Timesheets		<ul style="list-style-type: none"> Paper timesheets currently in use (bank & agency)
Collaborative Bank		<ul style="list-style-type: none"> No system in place

Medics Systems

System / Functionality	Rating	Comments
CRMS Job Planning		<ul style="list-style-type: none"> System in place No integration with other systems
DRS Rota Planning		<ul style="list-style-type: none"> System in place No integration with other systems
MediRota eRostering		<ul style="list-style-type: none"> System in place Not deployed to all staff No integration with other systems
Equiniti 360 & Revalidation		<ul style="list-style-type: none"> System in place No integration with other systems
TempRE DE, Agency & Bank		<ul style="list-style-type: none"> System in place No integration with other systems
Intrepid (Deanery Doctors)		<ul style="list-style-type: none"> Bi-directional interface not utilised Limited information currently transferred

Recommendations

Quick Wins

Functionality	Summary of Benefits
Review of Core & System Admin URP access	<ul style="list-style-type: none"> Ensures safety and security of information within ESR and satisfies audit requirements. ESR users only have the access required to perform their roles.
ESRBI Reporting	<ul style="list-style-type: none"> Switching to ESRBI from Disco allows the use of modern reporting functionality and faster report generation with less manipulation. Ability for integration with external data sources, making it easier to create integrated workforce management reports.
Establishment Control process	<ul style="list-style-type: none"> Improves workforce planning capabilities by enabling the organisation to track establishment against Staff in Post. Gives finance a better overview of the workforce position and budgets and improves data validity between ESR and the GL.
Employee Relations cases recorded in ESR	<ul style="list-style-type: none"> Provides tracking and recording, although not full case management, allowing the HR team to keep track of the status of cases. Reports can easily be run on type of case, time to resolve etc.
NHS Spine (CIS) interface	<ul style="list-style-type: none"> Full PBAC mapping will reduce volume of queries and manual intervention to assign required access levels. Improvements in new starter processes would remove need for employees to visit HR for photos, to provide ID documents etc.
Active Directory / Email Address manual process	<ul style="list-style-type: none"> Existing manual process can be refined to improve data quality of information being shared between HR and IT. Improved manual process will support project to implement interfaces to automate IT account and email address creation and changes.

Development Potential

Timescale

Short – achievable within 0-3 months

Medium – achievable within 3-6 months

Long – requires 6 months or more

significant investment

Resource

Low – achievable within existing resource / minimal investment

Medium – may require some dedicated resource / intermediate investment

High – requires dedicated resource for project duration /

Functionality	Summary of Benefits	Time	Resource
Direct Engagement through PwC	<ul style="list-style-type: none"> Covered as part of existing contract, therefore no restriction for transitioning. Provides 60% cost saving against current direct engagement charges 	Short	Low

Locum management using Allocate Locum OnDuty	<ul style="list-style-type: none"> • Leverages existing systems used across other staff groups. • Interfaces with PwC direct engagement (currently in development). • Allows for onward integration as part of overall medics system aspirations. • Provides significant cost reduction against current Liaison transaction-based pricing. 	Short	Medium
Agency Invoicing Interface to Accounts Payable	<ul style="list-style-type: none"> • Removes individual paper invoice per shift process currently in place. • Reduces administrative requirement for invoice processing and validation. • Allows self-billing based on agreed agency rates, reduces instances of invoice queries. 	Medium	Low
SafeCare implementation	<ul style="list-style-type: none"> • HealthRoster integration provides real-time updates to rosters, improving accuracy. • Facilitates redeployment of staff to reduce under and over staffing across wards. • Provides greater assurance on safe staffing levels, linked to patient acuity/dependency. 	Long	High
HR Portal / Workflow / Case Management system	<ul style="list-style-type: none"> • Reduces time spent by HR, managers and employees on transactional activities • Provides full visibility of HR operational activities and ability to report on KPIs. • Supports a Shared Service capability and enhances the customer service approach. • Enables greater resolution of queries using self-service functionality and automation. • Supports onward move to ESR Self-Service. 	Long	High
Active Directory / NHSmail interface with ESR	<ul style="list-style-type: none"> • Reduces manual processes between HR and IT for IT user account creation and uploading email addresses into ESR. • Enables IT to automate user account creation and access based on role, department etc. • Ability to utilise interface to feed into other systems and functions (i.e. car parking, clinical systems etc.) to remove manual reporting and notification of starters, changes and leavers. 	Medium	Medium
Manager Self Service (MSS)	<ul style="list-style-type: none"> • Improves accountability and audit capabilities, with greater control and understanding of their own staff records. • Streamlined business processes by allowing direct entry of changes into ESR. • Reduction in administrative burden on transactional HR teams. 	Long	High
Employee Self Service (ESS) - full	<ul style="list-style-type: none"> • Gives staff greater access and ownership of their own data and allows a number of manager-approved actions to be completed. • Reduced manual transactions being completed centrally by HR. • Allows greater self-control over training, performance management and compliance. 	Long	High

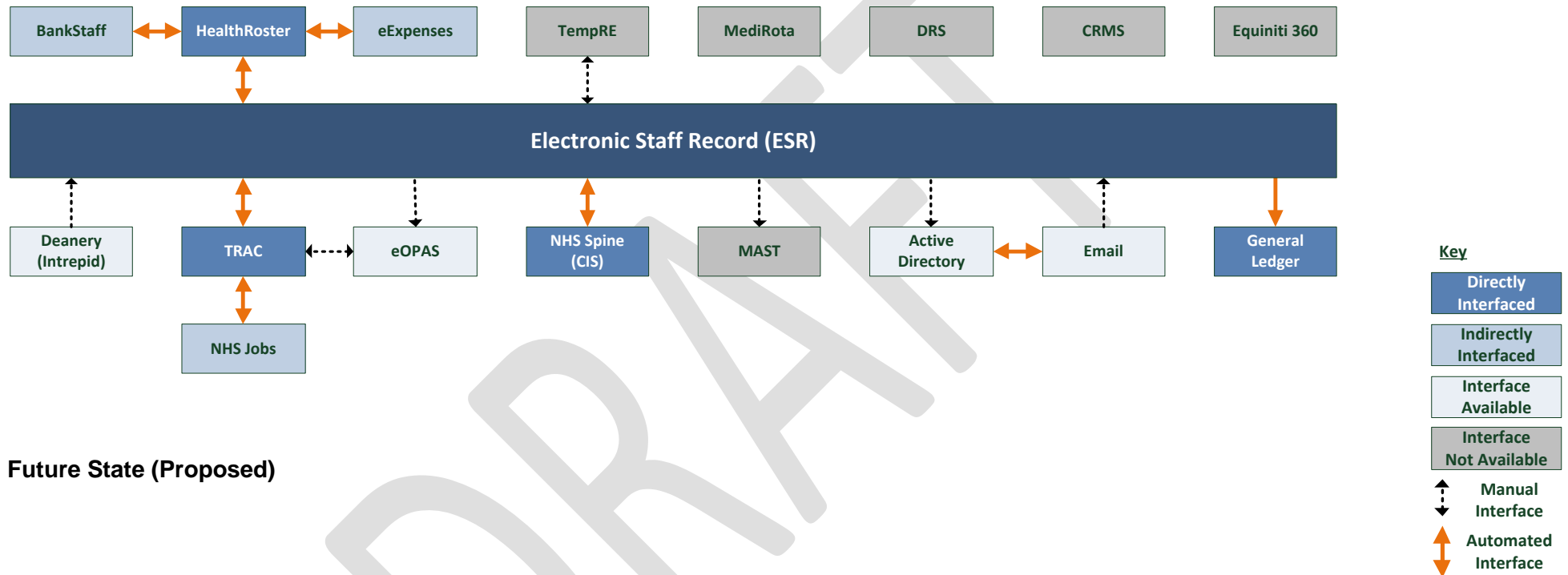
Planned Projects

Subject to approval/confirmation of timescales:

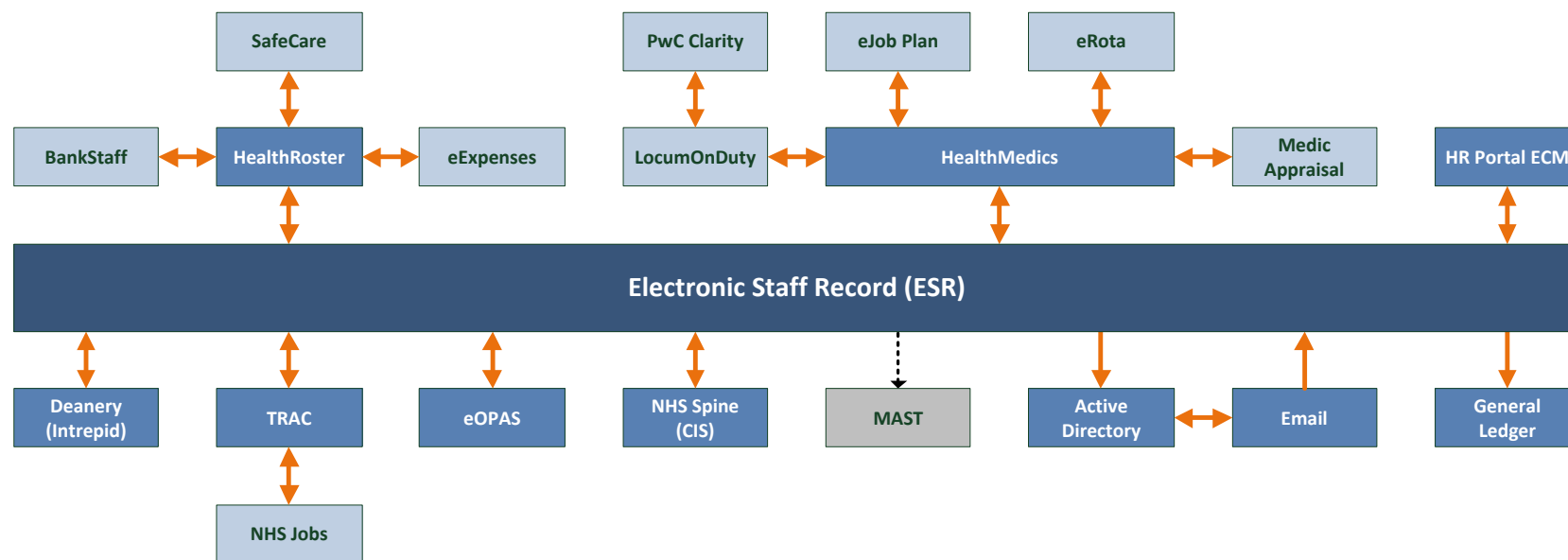
Project	Implementation Requirements	Timescales
HR Scanning	<ul style="list-style-type: none"> • Approval from Top Team • 2 month pilot with sample files • IT set-up of software and storage 	<ul style="list-style-type: none"> • Jan to Jun 2018
SafeCare	<ul style="list-style-type: none"> • Business case/approval from Top Team • £22k Allocate implementation cost • Clinical Lead (leadership & engagement) • eRostering administration resource (TBC) • Tablet devices 	<ul style="list-style-type: none"> • Start Q4 2017/18 • 12 weeks pilot • ~9 month roll-out
PwC Direct Engagement	<ul style="list-style-type: none"> • Approx. 4 week set-up time • Training of end users and temporary staffing • Transfer of data from TempRE 	<ul style="list-style-type: none"> • March 2018
Locum OnDuty	<ul style="list-style-type: none"> • Approx. 4 week set-up time • Training of end users and temporary staffing • Transfer of data from TempRE 	<ul style="list-style-type: none"> • March 2018

ESR Interface Map

Current State



Future State (Proposed)



HR Systems Roadmap (Proposed)

