The Shrewsbury and Telford Hospital NHS
NHS Trust

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Shrewsbury and Telford Hospitals NHS Trust
IM&T Strategy 2012 - 2017
Executive Overview

14th August 2012

Channel 3 Ref: RSX-942-47

Client Ref: STHSTSREV

Version 1.01 Final

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Change History				
Version	**Status**	**Date**	**Author / Editor**	**Details of Change**
0.1-0.5	Draft	9/8/12	David Richardson	Drafts for comment
0.6-0.8	Final Draft	14/8/12	David Richardson	QA amendments
1.0	Final	14/8/12	John Damman	Post QA report
1.01	Final	21/8/12	John Damman	Client requested change

Contents

1. Executive Summary

Following a widespread consultation programme with key stakeholders, the high level information needs of clinicians, managers, patients and public have been identified and an analysis performed to highlight how the innovative use of IM&T will support the Trust's clinical strategy for the development of health services.

This report examines the strategic ambitions of the Trust both as a provider of patient care and as a business. A future vision is outlined, which, if approved by the Trust Board, will provide the target for work plans in information management and technology at Shrewsbury and Telford Hospital NHS Trust over a five year period commencing September 2012.

1.1. The Vision for IM&T

The vision statement describes how the Trust will create a 'Digital Hospital Environment', that will use technology to support agile working, eliminate paper, provide a secure clinical environment and empower patients to support their own healthcare. The key components of this vision are:

- ***IM&T Infrastructure –*** Achieving a solid foundation for clinical and business systems.
- ***Electronic Care Record*** – The existing set of clinical applications will be integrated together, using a connect-all strategy, to deliver a single, unified clinical system that supports agile ways of working. This in turn will deliver a paper-free environment, enterprise-wide scheduling that minimises patient time in the trust, and maximises clinician usage, and will build an environment that delivers the right information, to the right person, at the right time.
- ***Knowledge Management –*** There is a need to make better use of information, both about the patients under care, and also about how the organisation itself is operating. This information is a valuable asset that is not currently being fully utilised. The information team, led by a Chief Information Officer, will develop the knowledge to allow the trust to know itself, and to drive the right processes to deliver benefits.
- ***Process Improvement –*** The Trust faces complex healthcare, funding and legislative processes that require careful management to ensure that systems, (both technical and personal), behave exactly as expected. These processes must be understood and managed to deliver the right solution to identified problems.

The Trust is experiencing significant drivers for change, and IM&T will be an essential enabler to support extensive integration of clinical and corporate services and the achievement of associated qualitative and productivity-based performance improvement across the organisation.

1.2. Next Steps

The Board is asked to approve this strategy and endorse the following actions as early priorities:

- Review the options for infrastructure delivery, as there is potential for savings in excess of £1m per year, (based on the Channel 3 predictive model). These savings will be verified by the production of a Strategic Outline Case for infrastructure sourcing options;
- Commission an OBC for the next stage of Electronic Care Record delivery;

The Finance Director is currently planning the appointment of a Chief Information Officer to lead the 'knowledge management' initiative. There are some 'quick wins' that may be delivered early including delivery of correspondence services and VitalPAC integration. These quick wins should be considered as part of the OBC for the next stage of the ECR development.

2. Introduction

The Shrewsbury and Telford Hospital NHS Trust was formed in October 2003 following the merger of two previous Trusts (Princess Royal Hospital NHS Trust and Royal Shrewsbury Hospitals NHS Trust).

We are the main provider of acute hospital care for almost 500,000 people from Shropshire, Telford & Wrekin and mid Wales. Patients come to us from Telford, Shrewsbury, Ludlow, Oswestry, Bridgnorth, Whitchurch, Newtown and Welshpool in Powys.

The Trust manages two hospital sites:

- Royal Shrewsbury Hospital (RSH).
- Princess Royal Hospital (PRH).

The Trust is currently preparing to apply for Foundation Trust status and has recently re-configured the organisation into eleven autonomous clinical centres, as shown below:

Through a series of interviews with key senior managers and clinicians, together with reference to a number of Trust strategic reports and plans, the high level strategic information needs of clinicians, managers, patients and public have been identified and this has enabled a future vision to be presented in which excellent healthcare provision is supported and enabled through the innovative use of IM&T.

3. Strategic Context

The Trust's stated vision is expressed as follows:

'We will embody in our hospitals all the principles, values and the sense of service that created the NHS by providing consistently good safe care in a friendly, listening and informative way, as and when people need and want it and always with dignity and respect.'

Analysis of the situation suggests a challenging future environment dominated by global recession, an increasingly ageing population and rising healthcare demand.

On the positive side there are opportunities provided by the new technologies that can help us do more with less. The national ICT Strategy makes clear that government departments should 'do more with less' and deliver 'whole systems change through collaborative innovation'.

The national vision places the patient at the centre. Patients are generally interested in their healthcare. New remote monitoring facilities, connected by improved networks, can help them contribute to the efficient use of healthcare staff and facilities at a time and place that is efficient for all concerned.

The Department of Health has now officially dismantled the National Programme for IT (NPfIT). Also the supplementary procurement route known as the Additional Supply Capability and Capacity (ASCC) will shortly close. No central funding for IT is on the horizon. Under the localism agenda, Trusts are expected to make their own way and fall back on their own funding resources.

Equity & Excellence: Liberating the NHS (June 2010) sets out reforms that will free NHS organisations from direct Government control, coupled with an increased responsibility to be locally accountable for the quality of services provided and the efficient use of public money.

Liberating the NHS: An Information Revolution (November 2010) supports this and describes an environment in which people have the information they need to stay healthy, to take decisions about and exercise more control of their care; and to make the right choices for themselves and their families. There will be greater openness, transparency and comparability of information and a focus on data collected real time, with the patient, as a bi-product of patient care, not as an administrative 'add-on'.

The NHS Outcomes Framework 2012/13 describes the changes made since the first edition of the framework was published in December 2010. The initial framework set out the outcomes that the NHS Commissioning Board will be held to account for delivering, with corresponding indicators. It formed part of the drive to move the NHS away from centrally driven process targets. The framework is updated annually, to provide a national overview of what the NHS will aim for when improving patient outcomes. The updated framework renews the focus on improving patient results. The NHS will be measured against a number of areas including whether a patient's treatment was successful, whether they were looked after well by NHS staff and whether they recovered quickly after treatment.

Government IM&T Policy is clear. Public Service Infrastructure and technology services will be moved to shared/commercial and Cloud provision. The savings from consolidation of Data Centres alone will deliver £300m per annum. There is an overarching target of £3.2bn operational efficiency from the Governments £16bn per annum expenditure on IM&T.

4. Stakeholder Requirements

This section summarises feedback received from stakeholders about the future use of information and IT to support the delivery of excellent healthcare and improved efficiency. The information requirements of each stakeholder group are identified and a brief analysis of the current situation is presented alongside opportunities for the future.

4.1. Patient and the Public Want:

- Access to their health record and help in understanding it.
- A window on what the hospital has planned for them and their condition.
- An opportunity to comment on their health record and contribute to its accuracy
- Easy access to information about the hospital services and evidence of capability to deal with the conditions that trouble them in a way that suits them.
- Confidence that the hospital will treat them and information about them with due care.

4.2. Clinicians Want:

- Smarter access to what they know is in their clinical systems (including summary access to patient histories; easier login)
- Small changes to improve their efficiency (clinical alerts and notices in the right place; “top 10” work lists)
- Guidance and help with the introduction of scheduling and monitoring capability that exists (SemaHelix bed management and VitalPAC)
- Device availability with options and without queues as well as immediate response to fix times.
- To communicate clinical decisions to all relevant parties inside and outside the hospital and to understand what other providers know about their patients.
- To influence the demand for their time in a way that is sensitive to patients needs using targeted advice and guidance systems.

4.3. Managers/Decision Makers Want:

- Guidance and help in understanding what data is collected, what it means and how it can help to manage the patient process.
- Time to understand systems and promote wider, more consistent take up across the business.
- Flexibility and availability of informatics to solve their next problem, now.
- More timely and accurate ways to predict and monitor spend.
- More timely and accurate ways to predict, monitor and influence levels of patient activity.
- Clinicians to collect sufficient quality outcome data to support quality and outcome based commissioning.

5. IM&T Vision

The vision for Shrewbury & Telford NHS Trust is of a digital healthcare environment that will extend beyond the boundaries of our hospitals and enable accurate and timely information in support of decision-making for excellent patient care and a productive, streamlined support infrastructure.

5.1. The Patient Experience

The patient experience will be enhanced by patient-centred systems with sophisticated enterprise-wide scheduling such that the patient's visit to the hospital will be as short as possible. To achieve this, appointments for consultations, interventions and tests must be scheduled together, with prerequisite activities undertaken first, time given for the patient to move between different parts of the hospital or wider health system and avoiding conflicts. Choice will be given to patients so they can select convenient times and locations for them. This will include being supported, monitored and treated at home where clinically appropriate.

Patients will have easy access to hospital information including their own health care records to enable them to check and correct the information held and view information about their condition and treatment. This will include access to a summary health record, to enable them to interact with those caring for them including requesting changes to their bookings and receiving appointment reminders by SMS, voice mail, or email. Options for providing this service may include online access via a secure Internet portal, access via Digital TV and patient-held smart cards.

General information about the Trust's clinical performance will also be easily available to patients, in order to give confidence and evidence of the Trust's capability.

5.2. The Trust Perspective

From the Trust's perspective, efficient scheduling of resources such as beds, clinics, rooms, theatres, equipment and staff will ensure that expensive resources are utilised in the most efficient way. Tracking systems, utilising RFID technology and making use of the hospital-wide wireless network, will ensure that progress through the patient journey can be monitored and delays minimised.

The patient's record will be held electronically, with the majority of it made up from information collected through the clinical process in dedicated clinical systems and brought together in the Trust-wide Electronic Clinical Record (ECR) system. This will enable all relevant clinical data to be viewed in multiple locations simultaneously if required, including non-hospital locations.

5.3. Paperless working

The Trust wishes to create a virtually paper-free hospital environment. To achieve this, in the interim, existing legacy paper records will be scanned "on demand" as they are requested from off-site storage and added to the ECR. Archived records may be scanned and held electronically or stored in off-site libraries depending on the business case. The generation of new paper records will be discouraged, but can be scanned and added to the record where necessary.

5.4. Communications with Stakeholders

Communication with GPs will be electronic as far as possible including referral letters, discharge summaries, requests and results, giving improved accuracy of information and greatly improved timeliness of information.

Clinicians will be supported by holistic patient information provided at the point of care to enable timely and clinically safe decision-making. This will include patient history, results and investigations

including PACS images and clinical correspondence presented in a single look and feel solution or portal. Video conferencing facilities will be used for teaching, and to bring together multi-disciplinary teams across the entire district.

Over time, the concept of shared clinical systems will be explored to support the delivery of seamless clinical care between primary and secondary care.

5.5. Decision Support

Decision-support will be implemented within Order Communications systems to encourage clinicians to make requests which are cost-effective, avoid duplication and are in line with clinical best practice. Rules will also ensure that results are viewed and acknowledged within agreed timescales, with a built-in escalation route.

5.6. Prescribing

Full electronic prescribing is a medium term ambition for the Trust. In the interim, the existing prescribing solution (eScripts) will be fully utilised to provide benefits to clinical staff

5.7. Mobile / Remote Technology

All locations from which services are delivered will have equal access to hospital systems. Mobile technology will be deployed where this improves timeliness, patient safety and efficiency. This may include handheld devices to allow doctors to view results and nurses to input patient observations, for example, and computers mounted on trolleys to facilitate ward rounds with PACS image viewing and point of care order communications and prescribing. In addition, it is the intention of the trust to allow users to use their own devices on the trust network to access clinical information (BYOD).

In the medium term, the Trust may choose to introduce more near-patient testing and these devices, along with VitalPac and other modern medical equipment, will be able to interface directly into the patient's electronic record. Telemetry systems will allow nurses and doctors to monitor patients remotely and react to alerts. Other devices, such as pressure pads and motion sensors in beds and rooms, can be used to alert healthcare professionals to movements of vulnerable patients so they can assist them and hence avoid falls.

The Trust's investment in wireless networking facilitates the use of RFID technologies, allowing the tracking of patients through the hospital. With additional investment, this technology can be used to update systems to improve data quality in areas such as A&E and Theatres where tracking of locations and timings is essential to ensure waiting time targets are met and scarce resources are used efficiently. RFID tags can also be used to assist positive patient identification with screens automatically updated with patient details in theatre for example, or screen displays tailored to an appropriate view as a clinician wearing a tag steps forward for example.

Telehealth will allow patients greater choice and flexibility in how and where they engage with the trust, as well as enabling the collection of more, and better, clinical information to inform clinical care.

5.8. Back Office

The Trust's back office processes will be as streamlined as much as possible and will minimise the use of paper. This will be achieved through the use of document workflow, passing forms electronically around the Trust for authorisation, and systems such as e-rostering and e-requisitioning. Stock control will be managed electronically and enhanced by the use of bar-coding and/or RFID tracking.

5.9. Correspondence

The rollout of electronic correspondence services, which can send all external correspondence electronically will improve the efficiency, quality and timeliness of all correspondence. This will also provide market value in making the Trust a preferred partner of local primary care clinicians.

5.10. Management Information and Reporting

Management information will be produced as a by-product of clinical and operational processes. It will be supported through a centralised data warehouse, fed from operational systems with information presented to users in the form of standard reports and dashboards through a self-service portal. Analysis will include forecasts predicted from past trends of historic data. Operations centres will be supported through real-time tracking information and predictive information displayed on large screens. Information will be considered as an asset of the trust, and managed appropriately, with information asset owners responsible for guiding the trust in the best possible use of the organisation's information.

5.11. In Summary

There are clearly a number of implications resulting from the above narrative which will impact the Trust in a several areas. Key amongst these are:

- A sound IM&T infrastructure platform will be needed to support the enhanced use of technology for clinical and business decision-making;
- new ways of working will need to be adopted to optimise use of the new technology. This in turn requires an appropriate level of investment, in both time and money.

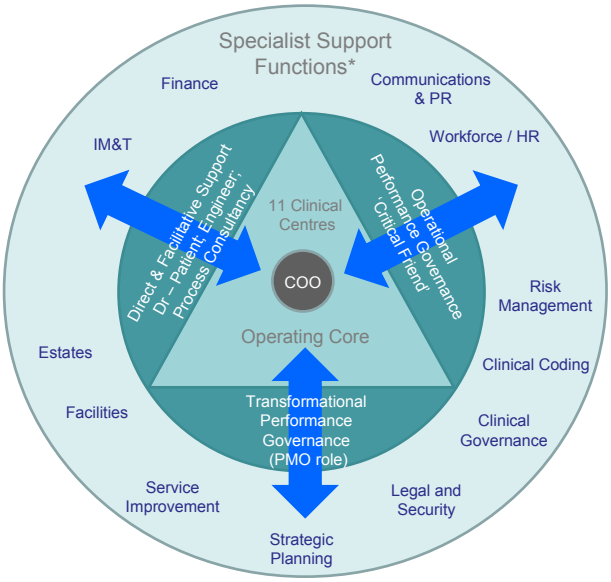
Some tactical decisions that have already been taken must be reviewed in light of strategic decisions outlined in this report. Future tactical requests for IM&T developments will need to be judged on the basis of whether they are consistent with the aims of this strategy. Other Trust-wide, strategic choices will need to recognise the impact that these vision statements will create – e.g. PAS and EPR related decisions and the need to ensure full integration with systems supporting these statements.

6. Current Status of IM&T

6.1. Organisation and Management

IM&T is currently managed as a specialist support function and it will engage with the Clinical Centres in three key operating models, as illustrated in the diagram below:

- direct, facilitative e.g. support according to Service Level Agreement
- advice, guidance, challenge e.g. business case or risk assessment support
- transformational, innovative and enabling *e.g. new system development.*



* Examples only shown

Although there is an information management team within the IT group, this is an area that is recognised as needing further focus to deliver benefits to the business. In particular, the current Foundation Trust application process identified the lack of an information department.

The Director of Finance is currently finalising the case for appointing a Chief Information Officer to ensure that, not only the information needs of the Trust continue to be met, but the quality, timeliness and overall integrity of information improves, in accordance with the IM&T strategic vision.

There are numerous processes in place to manage IM&T projects, however these need revisiting to ensure that they adequately capture requirements, and deliver the expected benefits, in the wake of the restructuring to clinical centres.

6.2. Service Management

Services are managed through two helpdesks, one for each hospital site. The support function is supported equally by the clinical centres, proportional to the size of the clinical centre. Currently, the service management function is not using the ITIL industry standard process. This contributes to the observation that the trust is excellent at introducing innovative solutions, but finds it difficult to maintain these into business as usual.

6.3. Clinical Systems

There are six key clinical systems which form the core components of the ECR :

- PAS (Patient Administration System)
- Radiology (RIS) & Picture Archiving & Communication System (PACS)
- Pathology
- Pharmacy
- Order Communications (pathology only)
- VitalPac bedside monitoring

There are also approximately 130 other clinical systems that are utilised around the trust for a variety of clinical and administrative needs. Systems have been procured based on a 'best-of-breed' approach, where systems are generally single-purpose, and focussed to a particular discipline or task. There is limited connectivity between systems (for example, results reporting from Pathology) which must be improved to deliver the benefits of the ECR.

Short-term improvements that have already been identified include integrating radiology results reporting into more clinical applications, and the production of electronic discharge summaries.

6.4. Infrastructure

Servers, networking equipment, storage, desk-top and mobile device hardware are largely dependable. However; the stock is ageing and requires an increasing, (and increasingly scarce), capital provision to replenish it, or an appraisal of alternative sourcing options to decrease the capital provision, in order to deliver the benefits of mobile working, and increase the usage of the clinical systems.

Computer rooms are inadequate in terms of space, air-cooling, fire and power protection. There are key issues here not least of which is the location of the existing rooms which make fire protection a non-trivial task.

The hospital computer network is 'patchy' in its coverage. Some areas are well serviced whilst, expansion of applications into other areas is compromised. Our plan is to increase coverage, accommodate voice traffic, introduce a management system (automation), increase the bandwidth (number of devices able to use it concurrently) and allow for asset tracking.

6.5. Summary of Key Gaps

- Information management is perceived by senior management to be weak;
- Processes for capturing user requirements (and for managing projects) need to be reviewed following the clinical service restructure;
- IM&T Service management needs to be strengthened;
- There is limited connectivity between systems;
- Infrastructure stock is aging and in need of further investment;
- Computer rooms have inadequate cooling, fire and power protection;
- The communications network coverage is patchy

7. IM&T Work Programme

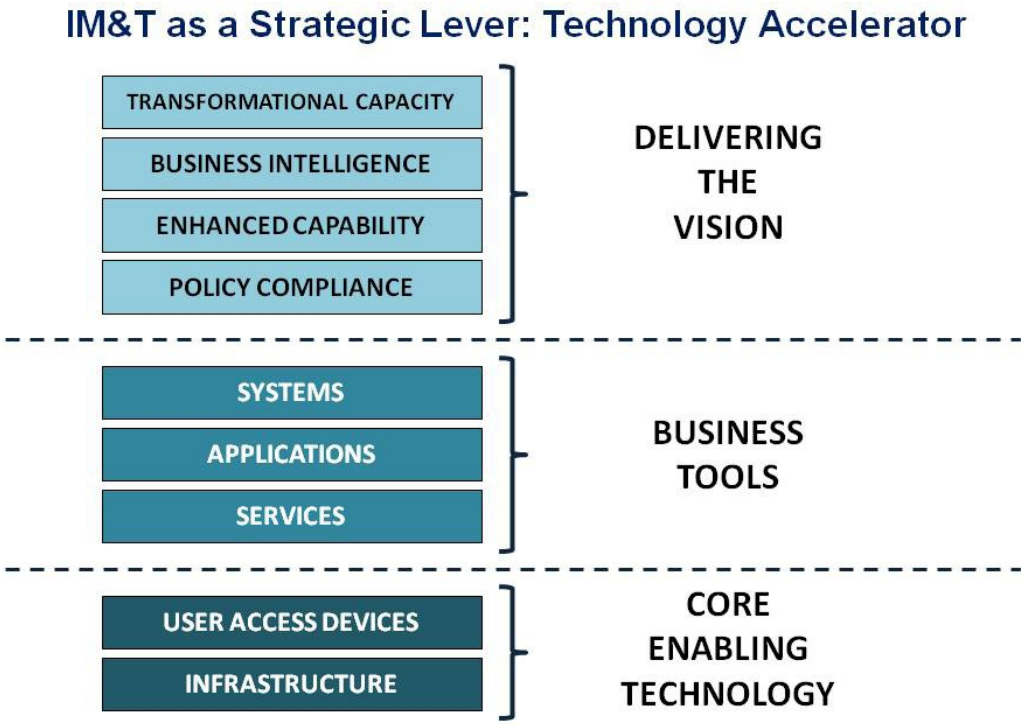
A flexible, forward-thinking but achievable IM&T work programme will be a key enabler for the Trust's ambition to attain Foundation Trust status and realise its strategic direction.

7.1. Guiding Principles

The guiding principles of the work programme follow these key steps:

- Create a sound infrastructure base on which to run high quality clinical applications
- Deliver the Electronic Clinical Record
- Improve the knowledge management and business management processes

In order to deliver the vision, all of these areas must be delivered. In some areas, these high-level end-points have further requirements that are needed first.



The process of delivering the vision can be seen as an incremental one. The foundation to delivery is the necessary improvements to the core technology – both the server and network infrastructure, and also the end-user devices that clinicians, patients and managers will use to access the system and the information within the system.

Building on the foundation of the infrastructure is the development of the tools used by the business. These tools are both clinical, leading to the development of the ECR, and also managerial, supporting the production and usage of information.

Once the technology and tools are in place, the processes and people are developed to make the best possible use of the tools and the technology to deliver the benefits to the business. This will require developing processes to inform how projects and programmes are delivered, as well as

ensuring that the information about the business is collected, shared, and acted upon in the best possible manner.

Each of these areas, infrastructure, systems and processes, must be developed with an aligned vision, to build towards a programme of work, which can deliver the vision of a flexible, secure and knowledgeable IM&T function that is able to support the Trust vision.

7.2. Programme of Work

Covering a period of five years, we have split the work required into manageable components, which can be delivered, and will move the organisation forwards. Firstly, focussing on what we need to deliver today, and then getting ready for tomorrow's challenges, before delivering the components that will move the organisation to delivery of the vision.

7.2.1. Stabilisation

- ***Evaluate options for delivery of infrastructure***

  Multiple options are available for the delivery of technology to the organisation. These must be evaluated to ensure that the trust are choosing the best possible option for delivery to the business:

  - The resilience solution for the trust servers should be considered;
  - network wireless delivery across the estate should be assessed and surveyed;
  - the current approach to refreshing end-user devices should be re-visited, and there needs to be re-evaluation of the strategy for what devices are the most appropriate for the multiple different users of trust IT services

- ***Implement electronic correspondence services***

  Delivering paper correspondence electronically is a key first step to a paperless clinical record, with added benefits for cost saving, improved perception of the trust to external partners, and timely delivery of information that forms part of national targets

- ***Begin work on Electronic Care Record delivery***

  The first step on the path to a connected, best-of-breed ECR will be to integrate the six core clinical applications, to begin delivering the benefits of the ECR, and to engage clinical stakeholders though the delivery of those benefits

7.2.2. Improvement

- ***Continue delivery of the Electronic care Record***

  Integrate all clinical systems ('Connect-All') to build on the work of the previous package to further deliver the clinical benefits of the ECR. In addition, all components of the ECR will have a single sign-on, which will mean that users only log in to the system once. A system for electronic scanning of paper notes will be implemented as part of the ECR to reduce the use of paper within the trust

- ***Develop a personal device policy***

  Ensure that users can bring in their own devices to use the trust services. This will save the Trust money; build clinical and patient engagement with IT, and also with the clinical record.

- ***Enhance the network infrastructure***

  Build on the network deliveries in the previous phase to allow secure use of the network by patients and other non-trust personnel

- ***Improve Management Reporting***

  Knowledge management capability will be developed to create information asset owners who will be able to build a view of how the trust is operating, and report this as necessary. This management reporting will form a key part of the programme management and delivery cycle, ensuring that knowledge management is a key part of system delivery and change

- ***Back-office improvements***

  The back-office administrative function will target automation of common and repetitive tasks, and improved processes to ensure that access to systems is a core part of the HR and administrative function. In addition, targeted data cleansing will improve the information available for management reporting

7.2.3. Enhancement

- ***Deliver the full ECR***

  The final stage of the ECR will be delivered through a clinical portal which allows access to all of the components of the ECR. This will also be able to be published to patients, who can contribute to their health record directly, and through the implementation of telehealth monitoring. An electronic prescribing system will also be integrated into the ECR, to fulfil the clinical needs of the system

- ***Management reporting KPIs***

  Management reporting will deliver a dashboard that will report on all necessary key performance indicators. This will enable managers, clinicians and patients to have access to all necessary information to deliver at their best, as well as enabling processes to minimise key national targets, such as patient re-admission

- ***Improve the enterprise view of scheduling***

  The enterprise will be able to gain a unified view of the scheduling requirements of the patient, and how these fit into the organisation, to minimise both the patient's time in the process, and maximise the organisation's ability to work with as many patients as possible

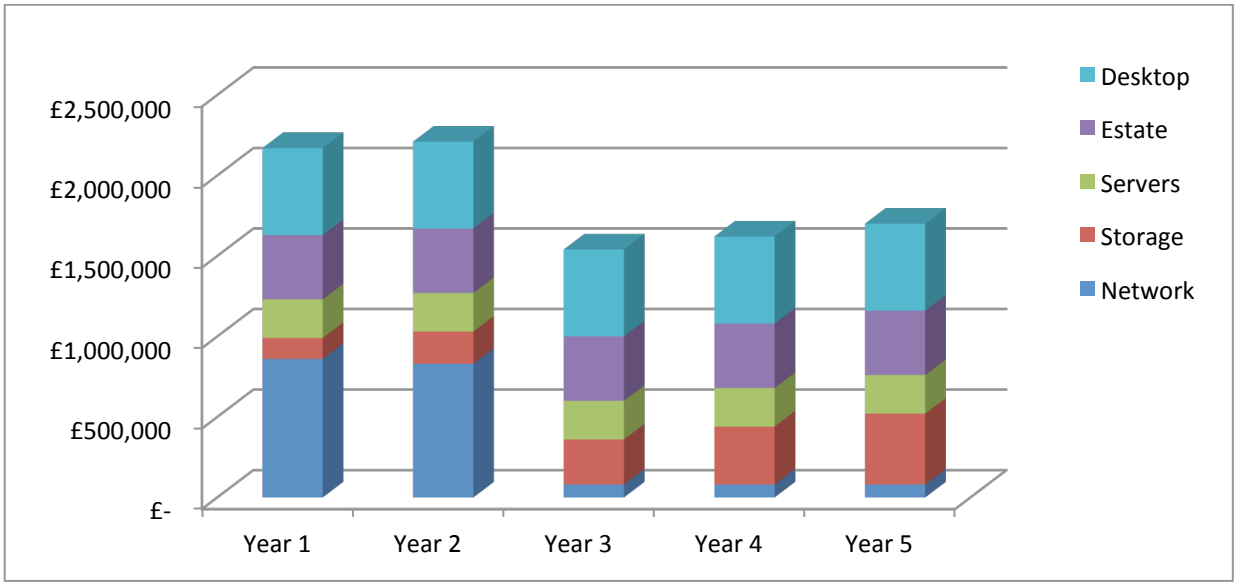
7.3. Delivery Plan & Timetable

The figures below for the delivery plan were supplied by the head of IT and have not been fully validated as part of this strategy, due to the time constraints of the process.

The delivery plan is presented in three parts, aligned to the guiding principles detailed in section 7.1. These are the infrastructure improvements, the delivery of the ECR and the process transformation to deliver knowledge management. A cost summary is included in Section 7.4.

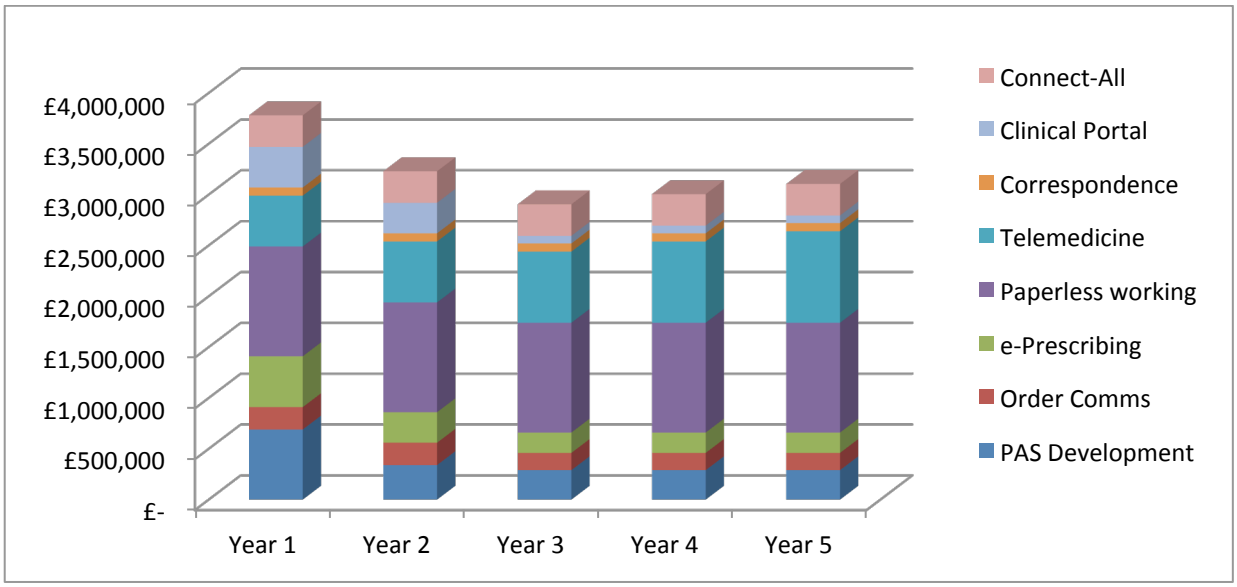
7.3.1. Infrastructure

The infrastructure elements include the improvements to the network, the physical estate used by the infrastructure, the servers and desktop hardware, and the storage solution.



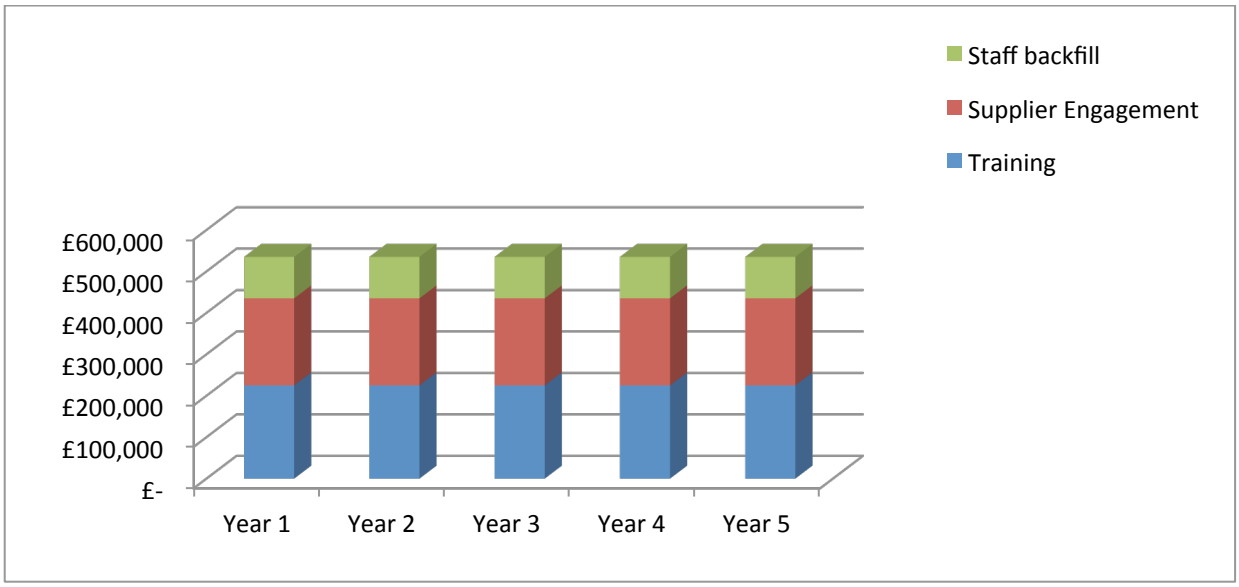
7.3.2. Electronic Care Record

The ECR elements include development of the SemaHelix PAS, such as national spine integration (PDS) and daycase planner; the integration of existing disparate systems to form the ECR, and portal to provide a single view; enhanced order communications and the development of telemedicine, e-Prescribing and electronic correspondence, as well as the move to a paperless hospital.



7.3.3. Change Management

Change management to support the improvements in knowledge management involves training of staff in the new process and procedure, supplier engagement in the new ways of working, and necessary staff backfill to allow the training to take place.



7.3.4. Cost Summary

It is important to note that the Board is not being asked to sanction all the spending referenced in this plan, merely to agree to the general strategic direction being proposed. Separate Outline Business Cases (OBC's) will be written for all the major areas of spend and agreement of these will be the triggers for committing the investment.

IM&T Work Programme 2012 - 2016

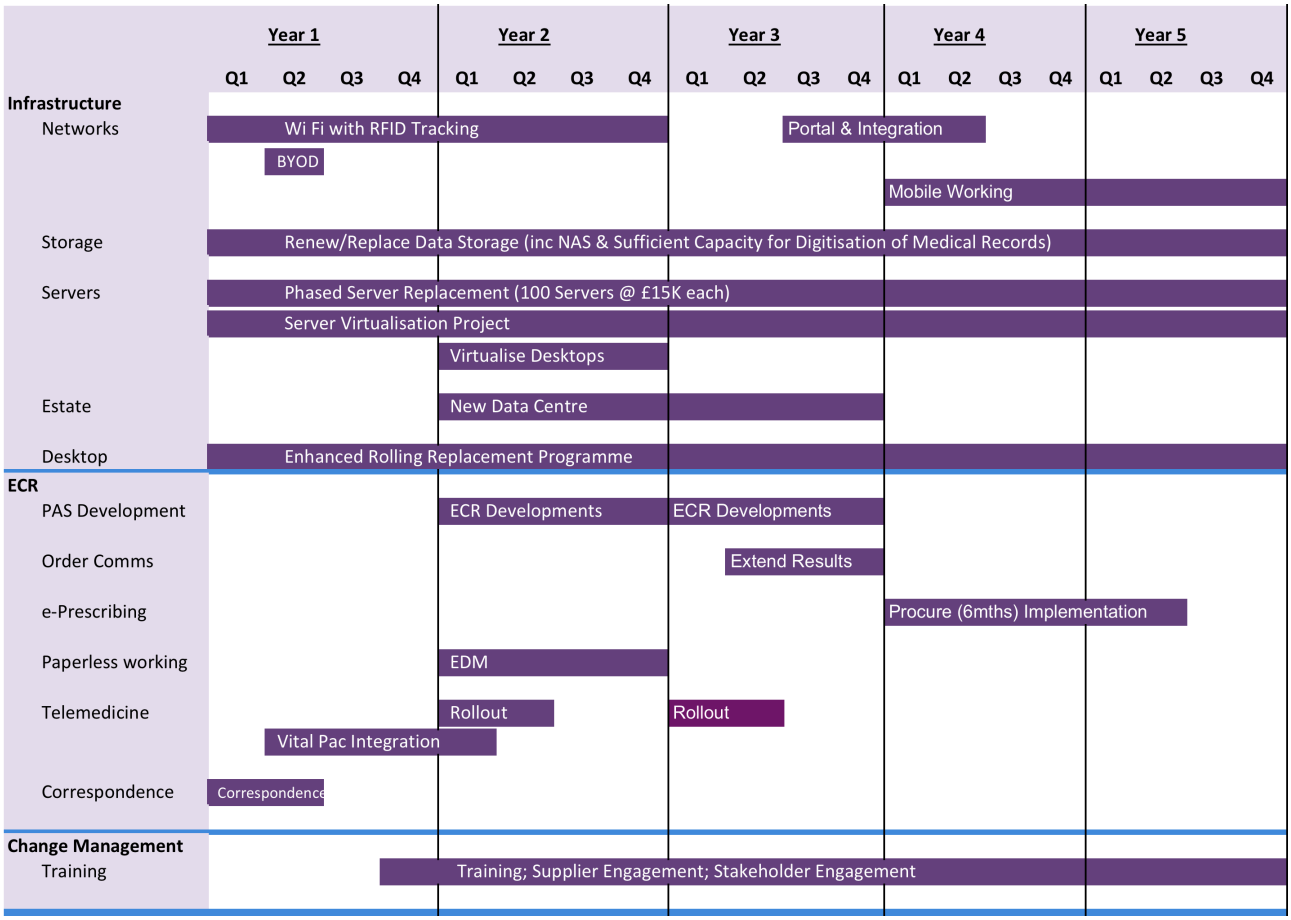
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Infrastructure						
Network	860,000	830,000	80,000	80,000	80,000	£ **1,930,000**
Storage	130,000	200,000	280,000	360,000	440,000	£ **1,410,000**
Servers	240,000	240,000	240,000	240,000	240,000	£ **1,200,000**
Estate	400,000	400,000	400,000	400,000	400,000	£ **2,000,000**
Desktop	540,000	540,000	540,000	540,000	540,000	£ **2,700,000**
Sub-Total	**2,170,000**	**2,210,000**	**1,540,000**	**1,620,000**	**1,700,000**	£ **9,240,000**
ECR						
PAS Development	690,000	340,000	290,000	290,000	290,000	£ **1,900,000**
Order Comms	220,000	220,000	170,000	170,000	170,000	£ **950,000**
e-Prescribing	500,000	300,000	200,000	200,000	200,000	£ **1,400,000**
Paperless working	1,080,000	1,080,000	1,080,000	1,080,000	1,080,000	£ **5,400,000**
Telemedicine	500,000	600,000	700,000	800,000	900,000	£ **3,500,000**
Correspondence	80,000	80,000	80,000	80,000	80,000	£ **400,000**
Clinical Portal	400,000	300,000	75,000	75,000	75,000	£ **925,000**
Connect-All	310,000	310,000	310,000	310,000	310,000	£ **1,550,000**
Sub-Total	**3,780,000**	**3,230,000**	**2,905,000**	**3,005,000**	**3,105,000**	£ **16,025,000**
Change Management						
Training	225,000	225,000	225,000	225,000	225,000	£ **1,125,000**
Supplier Engagement	210,000	210,000	210,000	210,000	210,000	£ **1,050,000**
Staff backfill	100,000	100,000	100,000	100,000	100,000	£ **500,000**
Sub-Total	**535,000**	**535,000**	**535,000**	**535,000**	**535,000**	**2,675,000**
Total	£ **6,485,000**	£ **5,975,000**	£ **4,980,000**	£ **5,160,000**	£ **5,340,000**	£ **27,940,000**

7.3.5. Outline Timetable

The following table shows a possible order of projects and timescales. This is dependent on the availability of finances to support the activities and may require short-term, additional external support.

The first section highlights developments needed in IM&T infrastructure. The Trust is advised to commission a Strategic Outline Case to assess infrastructure-sourcing options, as other forms of infrastructure management may be more cost-effective than the current, in-house approach, (see next Section 7.4).

IM&T Work Programme Timetable



7.4. Options Evaluation

The Head of IM&T has recommended the selected option for ECR architecture involving development of the SemaHelix patient management system, with best of breed systems interfaced for specialist departmental areas. Supporting options may involve a portal to bring together the enterprise architecture and integration which will ensure best of breed components are successfully integrated without creating a huge increase in IM&T management overhead.

For many of the programme items above, particularly those in the infrastructure workstream, there are multiple options for delivery which need to be evaluated. These range from delivery by the in-house IT team, to full outsourcing of the work package, and hybrid approaches. It is beyond the

scope of this strategy to perform a full options evaluation, but this should be considered as part of any business cases moving forward.

The case for assessing infrastructure service delivery is strong. Indeed, all NHS Trusts throughout the UK are considering infrastructure sourcing options. There is an opportunity to attain better quality services, at significantly reduced cost and in parallel, introduce innovation to support the strategic objectives of the Trust.

Guidance and direction from the Department of Health QIPP (Quality, Innovation, Productivity and Prevention) back-office work-stream and the NHS Confederation Trust Network Review group is clear. The Quality and Innovation available through the marketplace surpasses that which can be developed internally and savings of between 25% to 40%, recurring/cash releasing are projected nationally, (Audit Commission).

Locally, there is potential for savings in excess of £1m per year, (based on a Channel 3 predictive model, which has been derived from experience of conducting similar studies in similar NHS Trust). These savings will be verified by the production of a Strategic Outline Case for infrastructure sourcing options.

7.5. Conclusions & Recommendations

The Trust is already heavily dependent on its IM&T infrastructure, which is partly due to its geographical catchment and partly due to changes in the way the Trust wishes to interact with patients. The Trust's reliance on its infrastructure is being exacerbated by more initiatives to achieve a closer relationship with patients, and therefore a need exists to ensure that infrastructure is sourced appropriately. There is evidence (from other NHS organisations) that formal assessment of infrastructure sourcing options can be viewed as a QIPP initiative to transform the Trust, with a cost effective service that will simultaneously raise service quality.

The Board is asked to approve this strategy and proceed with the development of a business case for the work programme outlined. The following actions should be considered as early priorities:

1) ***Further explore infrastructure sourcing options*** through the development of a Strategic Outline Case (SOC) that will confirm the potential for cost savings; allow the case to be affirmed, (strategically, commercially, financially, managerially and economically) and ensure that the strategic direction is achievable;
2) ***Commission an OBC*** for the next stage of Electronic Care Record delivery.

Some 'quick wins' may be delivered early and these include delivery of correspondence services and VitalPAC integration. These quick wins should be considered as part of the OBC for the next stage of the ECR development.