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1. Strategic Context

Information Management, Governance and Technology (IM&T) plays a pivotal role in supporting the achievement of strategic change in the way health and social care services are delivered. It is essential that informatics investments are driven by service plans in order that information and technology is successfully exploited.

This document outlines the IM&T Strategy for North Tees and Hartlepool NHS Foundation Trust (the Trust) 2012 – 2015. It provides an overview of the Trust’s position with a local and national focus, highlighting the organisations IM&T work programme which will facilitate delivery against national and local targets. The strategy describes the range and complexity of the Trust’s IM&T work agenda for the next three years and beyond.

The Trust is committed to harnessing information and new technologies to achieve higher quality care and improve outcomes for patients and service users alike. This IM&T strategy has been developed in response to local and national policy initiatives and is fully aligned with the Trust Corporate Strategy. It has been set in the context of the Department of Health Information Strategy (2012), derived from feedback into its consultation paper Liberating the NHS: An Information Revolution (DoH, 2010). The resulting guidance detailed in the Power of Information: Putting all of us in control of the health and care information provides a ten-year framework and a route map to support a transformation in the way information is collected and used.

The Trust is making notable progress in regard to its Momentum Pathways to Healthcare plans. Within this scope of work primary; secondary; emergency; tertiary and community care will become more closely integrated leading to benefit to patients and those involved in providing care. The successful opening of a new minor injuries unit in Hartlepool in 2011 is testament to what can and has been achieved when working collaboratively across sectors. This strategy supports a number of significant work streams including:

- The implementation of new and improved informatics solutions across community which is a direct response to Transforming Community Care (DoH, 2008)
- Advanced planning in respect of secondary care
- Patient Administration System replacement
- The planning of the new hospital
- Gaining efficiencies through the efficient and effective use of new technologies

In all areas, the need to improve the quality and availability of information for our patients and the complete range of care professionals who support the delivery of safe, high quality, person centred care is fully recognised as is the importance of supporting a culture of openness, transparency and comparability of information.

This strategy focuses on the delivery of optimum services within our hospital and community setting and as such recognises the important role that IM&T will play in driving greater efficiency from back office functions (NHS Confederation, 2010).

IM&T will be used extensively to enable, support and sustain change relevant to the delivery of the above ambition. This strategy reflects that position.
Introduction

The Trust is committed to the development of robust and sustainable IM&T to support the delivery of the best possible care for patients. Our IM&T Vision has been developed in conjunction with the delivery of the NHS Operating Framework process and the Trust’s corporate strategy development. It marries together former Trust and Community Services Strategies in order to provide a cohesive and integrated approach to the delivery of the strategy across the breadth of the unified organisation. It is focused upon addressing key local and wider objectives of the NHS, encompassing regional elements in the form of the local health community and GP consortia.

The overarching Trust IM&T vision is to have secure, timely, resilient and accurate information at the point of patient care; this will be deployed through a robust and cost effective information infrastructure. The strategic intent is to develop systems and services that ‘add value’ to the patient and are consistent with the Trust’s LEAN approach to healthcare. The vision supports the notion of a collaborative health community with shared knowledge and user self-sufficiency. Also by aligning and integrating clinical and business information systems, we will enable informed organisational decisions to be made.

2.1 Corporate Context

North Tees and Hartlepool NHS Foundation Trust is a high performing Trust which has firmly set its sights on becoming the clear hospital of choice for the local district, extending wider afield where this is practical. The Trust is fully committed to developing its services to meet the needs of a growing population with the aim of providing high quality services as close to home as possible, Our Health, Our care, Our Say (DoH, 2006).

Whilst applying DoH guidance around Transforming Community Services: Enabling new patterns of provision (DoH, 2009), the Trust has begun to demonstrate a successful union of Acute and Community services under a combined management model covering Hartlepool, Stockton, Sedgefield and Easington.

The Trust has aspirations to replace its two out dated hospitals with a brand new purpose-built facility designed and commissioned according to a 21st century exemplary standard. The new hospital is an essential part of the Momentum Pathways to Healthcare programme. This will transform the lives of 400,000 people in an area which has one of the UK’s highest health inequalities.

As the current SHA and PCT stakeholder bodies will no longer exist beyond March 2013, the Trust is repositioning itself to develop new productive external stakeholder relationships with the newly established NHS commissioning board and local CCGs driven by a GP consortium. The Trust is also actively transferring ICT support for Community Services in-house.
2.2 Strategic Goals

The strategic goals of the Trust are neatly captured on the following illustration [fig 1a].

- **Putting Patients First** - enabling a patient centred organisational culture, by engaging and aligning all staff to add value to the patient experience, implemented through patient safety, service quality and LEAN delivery.

- **Momentum** – ensuring pathways to healthcare; delivery of a new healthcare system for the people of Easington, Hartlepool, Sedgefield and Stockton. IM&T will provide crucial support to all service redesign aspects, in line with any future configuration arrangements, including a new hospital.

- **Community Integration** - providing “healthcare services” to our communities in the right locations.

- **Manage our relationships** - ensuring all relevant stakeholders are fully engaged in our service developments and plans through appropriate communications, engagement and partnership working.

- **Service development** – improving and developing healthcare services that meet the needs of patients, commissioners and the Trust.

- **Maintain compliance and performance** – ensuring strategic and operational effectiveness and scrutiny, with appropriate governance of all elements of our business, strive to achieve a level of excellence, ensuring compliance with core standards for Annual Health Check.
2.3 Strategy Objectives

This strategy supports the long-term goal of developing and implementing Integrated Care Pathways and informatics enabled decision support. Acknowledging that this is best approached incrementally, the medium and short-term goals are to improve information systems functionality along with the underlying infrastructure access, performance and reliability. Fundamental to the success of this strategy is maximum participation by our staff to overcome any barriers that might prevent us from using technology to the full. The strategy will help to establish a modern performance focused environment keeping the Trust at the forefront of the provision of clinical care, education and training.

Our overall IM&T enabled Healthcare vision encompasses:

a. Radically improved informatics solutions to support clinicians and clinical practice including the procurement of a new Patient Administration System and further rollout of SystmOne
b. Provision of a reporting solution to enable real time, cost and activity analysis across a wide spectrum
c. Paper-light working across acute and community settings with wide scale electronic access to personal records
d. Improved access to diagnostic care with protocol based referrals for complex tests
e. Seamless patient care supported by exchange of electronic patient centred information between NTHFT and other providers across the health sector as a whole
f. Improved handover arrangements for medical and nursing staff
g. Effective knowledge management
h. High quality Information Governance owned by the staff operating within the Trust

This will take a timescale beyond the life of this strategy to achieve however the steps taken in this strategy will move the Trust significantly nearer this state.

This strategy commits to supporting the Trust, its staff and patients by:

• Developing and maintaining solid, robust and reliable systems infrastructure
• Placing greater emphasis on information systems improving patient care and supporting clinical processes
• Facilitating the introduction of an electronic patient record, via the Care Records Service
• Providing clinicians with on-line and mobile access to patient records and results, online booking, ordering and administrative services
• Enhancing management information to facilitate the most effective use of NHS resources
• Aligning and integrating clinical and business information systems to enable informed organisational decisions to be made
• Migrating the Trust towards an electronic communications environment to reduce reliance on paper records and documents
• Ensuring that there is a robust workforce plan which addresses any potential skill mix issues ensuring IM&T staff resources are fit for purpose.
• Establishing operational and security policies enabling staff to work effectively and confidently with person identifiable data including anonymisation and Pseudonymisation
• Providing customer focused service for all aspects of IM&T

Technology changes and expands at a significant rate, resources, over and above those committed at present will be required to deliver this strategy.
Collaborative IM&T – Rich Picture - According to specific drivers and themes a rich picture has been developed to illustrate a future model of Information provision within the Trust. This attempts to encapsulate all elements of the longer term objectives of knowledge and collaboration requirements supporting the overall organisational goals.
2.4 The Power of Information

Following the Information Revolution consultations, the Department of Health published its Information Strategy, ‘The Power of Information’. The strategy does not reinvent large-scale information systems or set down detailed mechanisms for delivery. The main ambitions of the ‘Power of Information’ are to realise the enormous potential benefits of information to improve care and health outcomes:

**Power of Information themes:**

- Information used to drive integrated care across the entire health and social care sector, both within and between organisations.
- Information regarded as a health and care service in its own right – with appropriate support in using information available for those who need it, so that information benefits everyone and helps reduce inequalities
- A change in culture and mindset, in which our health and care professionals, organisations and systems recognise that information in care records is fundamentally about the patient so it becomes normal for patients to access their own records easily.
- Information recorded once, at the patient’s first contact with professional staff, and shared securely between those providing care – supported by consistent use of information standards that enable data to flow (interoperability) between systems whilst keeping our confidential information safe and secure.
- Electronic care records progressively become the source for core information used to improve care, improve services and to inform research, etc – reducing bureaucratic data collections and enabling us to measure quality
- A culture of transparency, where access to high quality, evidence based information about services and the quality of care held by Government and health and care services is openly and easily available to all.
- The widespread use of modern technology to make health and care services more convenient, accessible and efficient.
- An information system built on innovative and integrated solutions and local decision-making, within a framework of national standards that ensure information can move freely, safely, and securely around the system.

2.5 Supporting the QIPP Agenda

The NHS is expected to deliver its objectives whilst managing the economic cutbacks affecting all public services. Quality, Innovation, Productivity and Prevention have been identified by the DoH as the primary measures for creating an environment that fosters a culture of sustained improvements and innovation. In turn, more efficient and productive services that enhance the quality and safety of the patient experience must result. Analysing and modifying existing processes to maximise operational efficiency will deliver net Quality and Productivity gains. IM&T will play a key role within this challenging but ultimately beneficial area, with an outcome wider than its direct province that serves the organisation as a whole.
QIPP Initiatives and focus will include:

• Use of best practise project and programme management methodologies and discipline coupled with experience that will deliver projects on time, in full and within budget (PRINCE2 & MSP, see sections 3.1 and section 3.2)

• A clear benefits management approach supporting positive qualitative and quantitative outcomes

• Service reviews leading to re-issue or cessation of third party supplier contracts in order to ensure maximum advantage

• Improved collaborative working with LHC Informatics partners, exploiting synergies where available, removal of all none value added elements

It is essential that initiatives identified to drive QIPP are monitored, the Trust will work with the whole health economy to record and demonstrate the benefits realisation from the QIPP agenda.

3. Governance

3.1 IM&T Steering Group

The IM&T Steering Group (IM&TSG) is a strategic body that reports through the Audit Committee to the Trust Board. Supported by a series of Operational Groups its prime remit is to determine the strategic use of Information Management & Technology to underpin the annual Trust business plan. The IM&TSG has broad Executive and Non-Executive membership and is chaired by the Medical Director.

As per the traditional definition of Information Management and Technology (IM&T), Trust IM&T is comprised of three core components, namely Information Communications and Technology (ICT), Information Management (IM) and Information Governance (IG). These areas are further augmented by the addition of the Clinicians working group. The introduction of this fourth function gives clear indication that the Trust is placing senior clinical leadership at the heart of driving forward technology. Ownership of information and data quality across the Trust is essential for the successful delivery of this strategy.

Please see below, [fig 2a], for an illustration of the IM&TSG framework.

![fig 2a]
3.2 IM&T Project Management

The procurement and implementation of computerised informatics systems and technology is often complex involving not just the resolution of technical matters but also fundamental changes to business processes and working practises in the departments concerned.

It is essential that such projects are properly controlled and that roles and responsibilities within them are appropriately defined in order that implementation is effective and that the expected benefits are achieved.

Managing Successful Programmes (MSP), the Office of Government Commerce (OGC) standard for managing programmes of work has been adopted by the Trust for the management of its extensive portfolio of IM&T projects. Key features of MSP include:

- A planned response to strategic initiatives bridging the gap between strategies and projects
- Effective change management through integrated planning and implementation
- A focus on the business change objectives rather than system implementation, with a clear path to move from current to future business operations
- Effective method of controlling a complex range of activities by clearly defining roles and responsibilities for managing the project portfolio and realising the benefits expected from the programme
- Achievement of business benefits through a formal process of benefit identification, management, realisation and measurement

The ICT Projects Group is empowered by the IM&TSG to validate proposals and sanction those within approved financial limits. This serves to streamline the process and release the IM&TSG during bi-monthly formal meetings to review progress on Strategy and provide direction for projects out of tolerance including the approval of exception plans and/or closure of projects.

All significant IM&T projects must be managed on a formal basis using the PRINCE 2 project management methodology. Before a project can be started a project proposal must be submitted to the Information Communications and Technology (ICT) Projects Group for review. Projects are only considered if they have clear senior stakeholder ownership and are able to demonstrate both criticality and viability as part of a project Eligibility and Prioritisation assessment [see Appendix B].

The IM&TSG maintains a specialist roadmap (or blueprint) in order to polarise its vision and to ensure all project activity is fully congruent. (See sample roadmap in Appendix A).

The Trust recognises that significant benefits realisation and monitoring will continue well after the project would seem to conclude. Therefore, benefits management needs to be owned by the business, not by the time-limited project or programme.

The IM&TSG framework will ensure business areas are committed to realising their defined benefits with ownership and responsibility.
3.3 Project delivery
IM&T staff employed by the Trust are all appropriately qualified; capable and experienced in a range of multi disciplines. Within the department there is a high contingent of PRINCE2 accredited project managers who can take on project management duties with complete competence and confidence. This said, an over subscription of projects compared with resource availability and an underlying necessity for stakeholder engagement leads to ICT based project management typically becoming more advisory than hands on.

3.4 Resource Utilisation

1. The Trust identifies in its annual planning the resources required both in establishment and pay and non-pay costs to run and maintain an effective IM&T service, these resources include technical service staff, specialist information and support staff and individuals to drive forward the Information Governance requirement of the Trust.

2. The Trust operates a proactive equipment maintenance and replacement regime. An annual budget is awarded to purchase replacement kit, currently set at £300K p.a. This budget does not meet the cost of replacing all fully depreciated assets within manufacturer recommended cycles however the thin client approach can extend equipment asset life overall, also the introduction of virtualized server technologies has made it possible to apply higher load to existing platforms and occasionally release capacity for re-configuration and deployment elsewhere as reconditioned stock.

3. The Trusts IM&T capital allocation is available for significant new projects as approved by the IM&TSG framework, where clear definition of qualitative and/or quantitative benefits are shown.

4. The Trust also engages third party suppliers for maintenance, support and advice in relation to the complex clinical and administrative systems it runs. Value for money is achieved by evaluation the most cost effective method of maintaining individual systems either in-house or externally.

It is essential that the Trust has confidence that these services are fit for the future delivery of this strategy. It is being proposed as part of this strategy to review the resources in light of the road map identified in Appendix 1 to give assurance that the expertise and quantum of resource is sufficient to deliver the strategic direction of IM&T in the Trust.

4. Priority Areas

4.1 Community IM&T Provision
For many years the IM&T provision has been supported within Community by established Service Level agreements (SLAs) through Tees PCT. Given now a local drive for efficiency improvements coupled with the disbanding of the PCT, a significant piece of work is underway which places complete IM&T support responsibility with the Trust. The disparate nature of technical and information systems across multiple community premises together with the break in tacit knowledge in this area presents both challenge and risk for the Trust and is being tackled in two ways.
Firstly, in order to maintain existing systems we are working through a migration plan to transfer support to the Trust. The SLAs for Information Management and Information Governance have already crossed over entirely to the Trust however the impact of the Information Governance has not yet been fully assessed because Registration Authority and smartcard support is provided under the banner of the ICT SLA. The Trust and Tees PCT have jointly targeted completion of this work for the end of March 2012.

Secondly, the DoH Power of Information aspirations have served to strengthen an existing imperative to enable electronic community dataset collection. Working in conjunction with community service leads Trust IM&T is dedicating significant project management and implementation resource in support of the continued SystmOne implementation and rollout plan (Appendix C shows the extent of work done and requiring completion).

4.2 PAS Replacement

North Tees and Hartlepool NHS Foundation Trust utilises a wide and increasing range of computerised information systems and related technologies in the delivery of patient centric healthcare. At the very heart of the Trust Information systems is the Patient Administration System (PAS) which is key to almost all patient activity that takes place. The current PAS is now a very mature product having first been introduced to the Trust in 1988. In 2010 system supplier announced that the PAS solution has now reached end of life status, consequently the current product will not be supported beyond 31st March 2015. Although during the intervening years it has undergone considerable development it is now showing its age and no longer satisfies the longer term requirements for the Trust. Given the degree of change that the Trust is currently involved in around Momentum Pathways to Healthcare and QIPP, it is essential that new Informatics solutions are implemented which both support and enable this focus. A new PAS will offer greater functionality, improved ease of use and greater efficiency.

The PAS comprises five main modules these being, the Master Patient Index, Inpatients Module, Outpatient, Clinical Coding Module, and the Waiting List Module, given the age of the current PAS, the technology upon which it operates and the end of life status the Trust is unable to continue to use the PAS beyond March 2015. On that basis there is now a requirement to procure a new PAS solution that meets the demands for healthcare information, is fit for use in the New Hospital and can support Trust clinical service delivery over the next 10-15 years.

In sourcing a replacement PAS solution, the Trust approach is to step outside of the former National Programme for IT contract in order to conduct a thorough assessment of the wider options available on the open market and find the best solution available. During this process an early milestone which will be completed during Q3 2012/13 is the completion of a robust functional definition of our requirement in the form of an Output Based Specification (OBS). Senior specialist clinical and other senior stakeholder input will contribute towards the production of this.

Current Local Service providers would not be prevented from submitting a bid however their offerings would then be measured against the same functional criteria that applies generally in order to ensure that the Trust functional requirements are met. The Trust will follow a formal procurement path to award contract Q1 2013/14 or potentially sooner if following this process it becomes apparent that the best option can be sourced from the National contract. Project approval has been received from Trust Board and the assignment of key personnel to a formal project board chaired by the Trust Director of Finance, Information and Technology is underway. Work relating to the business process redesign and data transfer will run in parallel to the procurement process in order to maximise the implementation window with an additional 12-18 months available from award of contract before the existing PAS contract comes to an end.
Secondary care clinical stakeholders consulted for the Department of Health’s Informatics Review (July 2008) identified a minimum specification of functionality that would make a system acceptable to them. The purpose was to identify the essential functionality that would create demand amongst clinicians according to what they would see as useful and valuable when conducting day-to-day business thereby creating a ‘tipping point’ in terms of the acceptability and demand for the strategic IT systems. Collectively the key elements applicable to secondary care environments are referred to as the ‘Clinical 5’ within DoH Informatics Planning Guidance (2011), whilst this does not exclusively define the solution scope it represents a solid foundation including:

- A Patient Administration System with integration with other systems and sophisticated reporting
- Order Communications and Diagnostics Reporting (including all pathology and radiology tests and tests ordered in primary care)
- Letters with coding (discharge summaries, clinic and Accident and Emergency letters)
- Scheduling (for beds, tests, theatres, etc)
- e-Prescribing (including ‘To Take Out’ medicines)

### 4.3 PACS and Vendor Neutral Archive

PACS is a business critical component in image diagnostics and the current contract, which was part of the national Programme for IT ends on 30 June 2013. The Trust needs to ensure that there is a replacement contract by 7 July 2013 and is currently exploring options for the implementation of a new PACS.

The current PACS will be refreshed and upgraded in 2012 to Agfa’s global release of PACS which will enable the implementation of the latest PACS viewing solution (Xero). Xero will allow true mobile working (community staff), images embedded into other Trust systems (ICE, EPR, EDM or Patient Portal) ideal for implementing single sign-on for images and results which would benefit clinicians ‘filing’ results while having access to the image.

The Trust will need to explore the possible options to purchase a long term archiving solution for PACS as the current situation for the long term storage of images via tape medium is clinically not desirable. The Trust is currently exploring options around procurement of a solution.

### 4.4 Electronic Document Management

The scheme will revolutionise access to patient notes by providing an electronic version of the original paper documents leading to significant efficiency savings in terms of time and cost. EDM will ultimately benefit patients and service and ensure that resources are applied optimally. With the reduction of physical storage valuable real estate is released for more useful purposes and the security aspects will be more easily managed. Of the existing 100 million documents that already exist in paper form throughout the Trust, those considered ‘active’ will be transferred onto the electronic platform as part of a back scanning process. Development work supporting Electronic Document Management (EDM) is now complete. Maternity has been piloted and final stage implementation of rollout to all other areas is to commence in late September 2012. During the pilot stage the Trust scanned over 1 million documents.
4.5 New Hospital

The Trust has identified key clinical and operational drivers for the ICT provision at the new hospital which have been incorporated into the design.

These are:

- The introduction of a paperless hospital in support of integrated care pathways through electronic document and management (EDM) solutions.
- The introduction of an electronic patient record (EPR) system to provide a portal to all patient records.
- Secure access to patient and clinical information to enable clinician access within the local NHS community
- Single IP based infrastructure to provide a future-proof, flexible and lower cost platform for:
  - Telephony
  - Computer applications and services
  - Video based learning and teaching and communications
  - Building management systems
  - Building access control and CCTV
  - Integrated mobile paging, communications and information systems for clinicians, porters and security staff.
  - Interactive electronic signage
  - Patient and asset tagging systems for enhanced security and asset management
  - Lone worker monitoring
  - Remote monitoring of patient condition from nursing station and other clinical areas.
  - Bedside access to information for clinicians. Access to EPR’s, other clinical systems and information, electronic prescribing etc.
  - Bedside services (telephone, Internet and TV) for patients.
5. Review of the Current Position

5.1 Information Communications & Technology

5.1.1 Capacity

The Trusts capability and capacity to support and develop the ICT products and services is significantly derived from the existing workforce. Whilst the ICT Team is relatively small, those within it are highly committed, skilled and knowledgeable. The Trust makes minimal use of third party supplier contracts, applying them only to the most critical systems and almost entirely managing the Hardware and Disaster Recovery aspects in house. This approach is both efficient and effective. A further factor in accomplishing a very compact permanent workforce, which equates to just 26.3 whole time equivalent staff excluding switchboard, is our economical approach to total cost of ownership. The Trust has invested significantly in thin client technologies and server based computing, this aids deployment, support and management both in high volume and quality. Where increased resource capacity is required to achieve more timely product delivery than would otherwise be achievable the Trust expertly applies short term fixed resource and tailored contracts to maximum effect.

5.1.2 Systems Interface approach

The Trusts Patient Administration System (PAS) forms the central demographics hub for all key clinical applications. In order to maintain single record instance and prevent the need for duplicate data entry, new and modified patient transactions are mastered at the PAS level and replicated using a specialist middleware product known as Microsoft BizTalk. This harnesses industry standard message transfer protocols based around a structure known as HL7. By taking this approach we have effectively future proofed these interfaces, which means that when PAS is eventually replaced then the levels of interface re-engineering and associated impact will be much less. Less development time results in less impact, risk and cost. Going forward the Trust will focus on inter operability of systems as described in the Power of Information strategy (DoH, 2012), along with the adoption of ITK standards.

5.1.3 Networks

Considerable investment has been made in both Local and Wide Area Network technology over the past five years. At the core of the wired local area network (LAN) the Trust has high speed chassis technology that has recently been upgraded to enable real-time fail over between units and so fully support continuous operation. At the edge of the network the Trust has a mixture of legacy and new network switches. As part of a planned programme of work all legacy units are now being replaced and power provision is being addressed.

Alongside the wired network the Trust has a wireless network that provides secure data coverage to around 50% of all clinical areas across the Trust. The technology deployed is now legacy and ideally should be replaced.
Whilst the obvious solution would be to propose a campus wide wireless network, the strategy is cognisant of the plans to centralize on a single site and ideally a new hospital. In light of this the Trust will continue to deploy autonomous wireless access points in the short term whilst monitoring the progress of plans for the new build. The wireless network component of the strategy will be reviewed annually.

5.1.4 Infrastructure Servers

Over the past five years many of the legacy servers deployed by the Trust have been replaced. There has also been an increase in the use of a technology known as virtualisation which maximizes server real estate and ensures optimal use of available capacity. As part of the replacement strategy the Trust is moving away from local server storage towards a greater use of storage area network (SAN) technology. This development is driven in part by a recent review of Trust data centres which has highlighted the levels of power consumption and the range of computing demands that arise over a typical 24 hour period. As a result the Trust is planning a project to review options for computing ‘on demand’ and further details of this are contained in section 6.1.2.

5.1.5 Infrastructure Desktop Computing

As part of the previous strategy the Trust widely adopted a thin client approach to desktop computing using Citrix technology. This approach has reduced the cost of desktop computing per seat, increased the speed at which the ICT can deploy software as well as reducing the time taken to resolve user problems. The Trust has standardised on using Microsoft Windows XP combined with Microsoft Office 2003. Although we already support power users whose requirement is for the current generation products we are now actively working towards a route to Windows7 and Office 2010. This will be achieved within the lifetime of this strategy.

5.2 Information Management

5.2.1 Capacity

The Information Management service encompasses Information and Clinical Coding departments. The Head of Information Management (1wte) is overall the service manager. The coding team is led by a Coding Manager (1wte) who manages 17.1 wte coding staff based at both the Hartlepool and North Tees sites. This team includes a Clinical Coding trainer who is Connecting for Health approved and runs coding courses for both internal and external organisations.

The Information Management (IM) team consists an Information team leader (0.7 wte) who manages 7.0 wte analysts this includes a dedicated community resource of 0.6 wte. The community dedicated staff will increase to 2.6 wte following recruitment to support the production of community data sets from SystmOne and those services that collect data on paper and support data quality. The acute team work primarily with PAS data but also with other systems such as Accident and Emergency and Maternity. In addition to the IM team there is a Development Information Analyst (0.8wte) who, as part of their role, re-designs and automates processes within Information Management to make the day to day work less onerous so the teams can be more productive.
5.2.2 Reporting

The information department has continued to develop systems to generate reports for national and local returns. In house solutions have been developed to meet internal and external requirements The hospital PAS system is not compatible with all Information Standard Notification (ISN) requirements and work rounds have been developed with the use of other software packages e.g. Medifusion for Referral To Treatment (RTT). Currently we are developing an in-house Data Warehouse to enable the amalgamation of data from disparate areas and act as a platform for delivering good quality, timely and relevant information to managers and clinicians and support the delivery of pseudonymisation.

With the rollout of SystmOne within the community setting, data reporting and data quality processes are being developed to meet both local and national requirements e.g. Community Information Dataset (CIDS).

There are ongoing national requirements with regard to the various datasets that the Information department are working in collaboration with relevant areas:-

- Community Information Dataset
- Cancer Outcomes and Services
- End of life
- Maternity
- Child Health
- Radiology
- Chlamydia
- Children & Young People

This is expected to be extended as more electronic systems become available to capture data.

5.2.3. Data Quality

The Trust is committed to collecting and processing data according to nationally and locally defined standards. Where national standards are not broken down sufficiently to give quality data for the Trust, local standards will be implemented. Standards are essential to ensure that: data collection is consistent throughout the Trust; is accurate and up to date; and data outputs can be compared across the organisation and with other organisations.

Data quality is the responsibility of all staff and defined in job descriptions for all relevant roles within the Trust such that staff recognise their responsibilities as an integral part of their role/profession. The Trust will adopt a targeted training programme to include all staff involved in data collection and management of patient care. The training programme will include all new staff including temporary and locum staff together with refresher courses for existing staff.

The data entered into the Trust source systems is used for external reporting and is being used more regularly for comparative purposes to highlight variances between health organisations on quality and outcomes for patients care. Entering information into the systems at source by the relevant individual is essential to avoid errors and duplications.

The Trust uses NHS numbers on all patient communication where available and makes extensive batch and online use of the Person Demographics Service (PDS) given that it is the true and most reliable National authoritative source of a patient’s demographics. The Trust has upwards of 98% NHS number validation for active records submitted.
The Trust will continue to review the quality of its data by using audit review and national benchmarking tools.

## 5.3 Information Governance

### 5.3.1 Capacity

The current provision for Information Governance Services to the Trust is undertaken by the Information Governance Lead (1.0 WTE). This includes ensuring compliance with the information governance toolkit standards and Registration Authority Management. The Trust has also set up a Registration Authority to manage and maintain smartcards and this function is also carried out by information governance - this is supported by two Registration Authority Agents (2.0 WTE)

### 5.3.2 Information Governance Agenda

The Information Governance agenda currently encompasses the following areas within the Information Governance Toolkit.

- Information Governance Management
- Confidentiality and Data Protection Assurance
- Information Security Assurance
- Secondary Uses Assurance
- Clinical Information Assurance
- Corporate Information Assurance

Toolkit submissions are complete by the end of the year with baseline and half yearly reporting. Connecting for Health (CfH) undertakes a validation process with this validation being sent to a number of external bodies including the Care Quality Commission (CQC), Audit Commission, Monitor and the National Information Governance Board (NIGB).

The NHS Operating Framework requires organisations to achieve level 2 performance against all requirements identified in the Information Governance Toolkit. The Trust has signed the Information Governance Statement of Compliance (IGSoC) to provide assurance that we are meeting the requirements and must have robust plans in place to address any shortfalls.

Ultimate responsibility for IG within the Trust lies with the Trust Board. There is a clearly defined board level responsibility, including performance monitoring for IG with clear lines of accountability leading to the board.

The Trust has a Board Level Caldicott Guardian, who plays a key role in ensuring that the organisation satisfies the highest practical standards for handling patient identifiable information.

The Trust also has a Board Level Senior Information Risk Officer as required by the Connecting for Health Information Governance Toolkit. The SIRO acts as advocate for information risk on the Board and provides written advice to the accounting officer on the content of their Statement of Internal Control in regard to information risk.

The SIRO is responsible for developing and encouraging good information handling practice amongst all members of the Trust.
5.3.3 Information Governance Framework

It is essential that staff are aware of the framework within which Information Governance operates. The Information Governance component of the Strategy could not be viewed in isolation as information plays a key part in corporate governance, strategic risk, clinical governance, service planning, informatics, performance and business management. Similarly this IM&T Strategy is closely linked with other strategies to ensure integration with all aspects of North Tees and Hartlepool NHS Foundation Trust business activities.

Information Governance should be viewed in the overall context of Governance within the Trust as a vital component of planning and healthcare. The Strategy ensures compliance with all aspects of Information Governance, communication, security, consent, confidentiality, communication with patients etc and those who use the services of the Trust.

6. Future Initiatives

6.1 Information Communication & Technology Initiatives

This section of the strategy does not list open and active projects, it sets out some broad themes which Information Communication and Technology is enabling for the benefit of the Trust.

6.1.1 Systems Infrastructure & Green ICT

As part of the Momentum planning already underway, the single site hospital will be designed to offer significant efficiencies in regard to power consumption and management of heat output from computers. Meanwhile all opportunities to make some headway on the existing campus will be actively pursued. In addition to rationalising ICT infrastructure overall the Trust is also committed to sourcing new equipment and disposing of end of life equipment ethically. The Trust is actively planning ahead in regard to meeting the government approved carbon management directives; this is not only socially responsible; it is also good for business.

A number of key initiatives that the Trust will give attention to during the lifetime of this strategy appear below:

• General server consolidation with fewer units providing equivalent capacity overall
• Redeployment of good kit that has been removed during the consolidation phase
• Automated inactivity shut downs coupled with real time re-introduction of standby kit when user demand increases.
• Agreement of minimum standards applying to the purchase of all new kit in future.
• Assessment of carbon rating of existing kit (servers, PCs, peripherals) and programme of work to phase out kit not achieving the standard or of highest pro rata heat output
• Assessment of air flows and layout of specialist computer rooms to verify efficiency of thermal management from air conditioning systems. Remedial housekeeping and re-positioning of kit to maximise environment, planning and investment to support longer term improvements.
• Virtualisation within the server domain
• Virtualisation at the desktop
• Multi-function device (print, copy, fax, scan) solutions

### 6.1.2 On Demand computing

With the cost of power for server and client computing being an ever more precious resource, it is important to get more from the current footprint and ideally reduce power consumption overall. Within the lifetime of this strategy we will move to on demand solutions whereby the availability of certain servers currently operating in 365/24/7 are safely reduced to match the actual working hours and volumes of end users.

### 6.1.3 Systems Resilience, Availability and Performance

An essential balance needs to be maintained whereby efficiencies that are implemented above do not inadvertently lead to reduction of systems resilience, availability or performance. The Trust prides itself on availability of systems and fully appreciates the need to ensure fully protected host server environments. To this end the Trust is working to balance up applications across its two 3 tier accredited data centres and two other specialist computer rooms. ICT staff will routinely test and improve as necessary fail safe solutions including UPS power surge protection. Over the next six months the Trust is also in the process of implementing an enhanced disaster recovery product named Platespin forge which creates full server environment backups and facilitates the rapid restore of services greatly reducing the period that systems could conceivably be out of commission following a potential serious system failure or data centre issue.

### 6.1.4 NHS Infrastructure Maturity Model (NIMM)

The Strategy recognises the fundamental part played by infrastructure in underpinning all IM&T services and so has adopted the NHS Infrastructure Maturity Model (NIMM) designed by CfH. NIMM offers guidance, best practice and tools, it is designed to help NHS IT organisations benchmark their own infrastructure capability in order to create a road map for improvements. The model shows the steps that the Trust needs to take to deliver all of the benefits available from a mature, comprehensive and strategic infrastructure. The Trust is working towards the completion of a level 3 provision on or before transfer to the single site hospital (see Appendix D).

### 6.1.5 Community of Interest Network (COIN) and Voice Over IP (VOIP)

In terms of wide area network (WAN) strategy, the Trust has engaged with Informatics partners in the region to establish a Community Of Interest Network. The COIN as it is known forms a strategic asset which enables the secure sharing of data networks. This is a key enabler for Momentum work streams which allows the expansion of services into additional locations and supports the portability and/or transfer of staff and presents a great opportunity to facilitate further collaborative working and potential economies of scale. Now that the majority of local health community sites are connected to the COIN it has opened up the options for inter-organisation Video Conferencing and IP Telephonetics.
The Trust plans to pilot the use of a voice over IP (VoIP) telephone solution at a suitably sized smaller site, most likely the Hartlepool One Life centre. A controlled trial of this scale will assist in understanding the risks and the benefits of this solution whilst evaluating the cost both in terms of capital development and operating revenue. This experience will then be used to assist the design and deployment of a full VoIP solution at the new hospital once the build has been approved.

6.1.6 Inter operability and Single Sign On

The Trust is committed to the delivery of shared record environments both internally and with external stakeholder organisations. Changes in approach to systems architecture is bringing this steadily closer.

One of the biggest current collective frustrations for NHS Informatics users both in this Trust and elsewhere is the lack of a fully integrated seamless patient record environments, whereby access to separately stored records relating to the patient or person are context linked and therefore retrieved jointly. The current disparate systems require the user to re-input essentially the same unique key data; this leads to inefficiency and also introduces potential risk of error due to inconsistency. Coupled with this is the requirement to manage separate password and user name combinations for each native system resulting in clinicians losing confidence and value in the systems they use.

The problem has been partly solved by the development of interfaces which ship demographics between systems using point-to-point and/or middleware solutions. The Trust has already shifted to the latter solution using a product known as BizTalk which has allowed us to develop the majority of our major clinical interfaces in-house and maintain a level of supplier independence. Whilst these solutions broadly work the development of each one requires major systems knowledge, time and effort to produce. The existence of non-standard erroneous data or systems malfunction experienced as a result of this connectivity can cause serious problems and knock systems out of sync.

The Trust is timeline planning to adopt the emerging CfH inter operability standards which will in future oblige suppliers to adhere to standard message protocols in order to link systems in a more structured universal way with pre-defined transaction triggers controlling the timing of synchronised updates. The benefit of this approach is that as suppliers come to market they will start to ensure that they offer Spine and non-Spine accredited systems which work across a range of solutions. In order to protect the go forward position, the inter operability requirements for new systems will be in built into the product specifications.

This will work well with the Trust’s existing integration approach. The Trust will still be able to broker transactions using BizTalk however the resultant system will be altogether more robust and more modular, aiding future upgrades and protecting our investment. Most importantly it also then brings the possibility of shared record environments and single sign on far closer.

In all the broad initiatives in this area will help to facilitate:

- The assessment and possible development and implementation of specialist clinical portal products bringing the concept of a clinician desktop closer to reality
- The augmentation of data adding richness to supporting both clinical decision making and/or a range of administration tasks
- The review of interface requirements necessary for the emerging GP Consortium and Community Service
- The potential implementation of single sign-on products and streamlined solutions involving secure smartcards; Roles Based Access Controls, RBAC
6.1.7 Intelligent Software licensing

Application software, operating systems and on board proprietary data management solutions all tend to attract some form of vendor license costs. With typical pricing running anything from tens of pounds to thousands of pounds per instance the aggregate volumes by user/platform equate to significant value overall. It is imperative that this stock is managed carefully. Broadly categorising Trust Software licenses some remain active indefinitely whilst others are subject to annual renewal, some are restricted to named users or hardware whilst others are assigned ubiquitously/concurrently.

Although the recurring consequences of general license requirements have been factored into budgets, the non-renewal of the Microsoft Enterprise wide agreement May 2010 has led to concerns regarding the transfer of ownership for a significant number of active product licenses previously funded centrally by the DoH. As a consequence the Trust is reviewing its software licensing policy and will introduce heightened controls to ensure, without risk to using unlicensed software, that existing licenses are always used ahead of the purchase of additional ones. A number of complimentary measures will aid the rationalization of the Trust's software assets, these will include:

- Investigation of resource accounting feasibility for end users and departments which gives the opportunity to establish cost comparatives between areas
- Assessment of Apps store models from specialist third party application providers
- Purchase of software assurance type products which overall maintain the initial investment cost with manageable increments over the its life cycle
- Exploration of open source solutions
- Conduct a comprehensive audit of all licensed software deployments in order to redeploy any under utilised products and reduce the amount of overall support required
- Confirmation of DoH Microsoft license transfer and the creation of an action plan to address any deficit.

6.1.8 Voice Technologies

The availability of voice technologies to support clinical and corporate functions is improving in viability and quality. The Trust is continuing to investigate the following opportunities in conjunction with the Clinicians Working Group.

- Digital Dictation Clinical Consultation transcription capture - Two differing solutions in active use. Supports full document workflow management. Investigating transcription services including the possibility of voice recognition
- Radiology – Speech Recognition direct into HSS Radiology Information system
- Automated Switchboard Services – Internal redirect
- Patient Appointment Reminder – Voice and SMS contact portal
6.2 Information Management

The implementation of a Data Warehouse and the replacement of legacy systems is key to providing a platform for delivering good quality, timely and relevant information to managers and clinicians.

The Information Department’s activities fall into the following areas:

Clinical Information support

• Spending time with key information users both in understanding their businesses/clinical processes and information needs as well as developing information literacy in users where needed
• Work closely on data quality to ensure information is based on complete and accurate data
• Provide awareness sessions both internally and externally regarding clinical coding

Support for Co-ordination of Care

• Work with compliance and development team to provide information for performance monitoring and future planning
• Work with the training department to enable the development of packages to address data quality issues.
• Continue to work with clinicians to improve quality and timeliness of electronic discharge summaries from acute and community settings to support clinical coding and costing
• Continue to work toward 100% use of NHS number.

Access to Information

• Creation of a data warehouse
• Extraction of data from main Trust Acute and Community IT systems including PAS and SystmOne to produce monthly reports for internal and external purposes
• Redesign the way in which information is presented and available with the implementation of Qlikview to replace EPIC
• Give as much autonomy as practical to users for amending and publishing their own reports, this may be limited due to the restrictions of pseudonymisation
• Increase the availability of information on intranet/internet sites
• Continue to support the development of electronic patient information
• Provide Information support of service development and business case development;
• Provide information required for generating reference costs
• Support the Finance Department in developing Service Line Costing. This will enable the Trust to better understand the true costs of providing services
• Ensure coding is accurate and undertaken in a timely way to support PbR
• Enterprise wide reporting
6.2.1 Management of Information

- Inform Trust users on mandatory and other changes e.g. ISN changes, that will affect reports and manage the planning of implementing these changes.
- Work with clinical departments to improve the accuracy and timeliness of clinical coding.
- Provide clinical coding training packages in clinical coders both internally and externally of the Trust.
- Carry out regular audit of coding practice to ensure coding is consistent and accurate.
- Analyse data flows to ensure all requirements are in place for pseudonymisation.
- Develop data quality performance indicators to assure the board of the quality of Trust information.
- Work with internal and external users to develop information reports.
- Provide information for monitoring required by external bodies e.g. Monitor, CQUIN.
- Develop information reports to satisfy any new operating framework requirements on an annual basis.
- Work closely with the lead clinician for Information to ensure information is relevant and effectively supports the improvement of patient care.
- Provide information to support the planning and development of the new hospital build.
- Provision of information to support Transforming Community Services (TCS) and the Any Qualified Provider (AQP) process.
- Ensure Information Management meets all governance requirements.
- Move towards SNOMED CT with regard to clinical coding.

6.2.2 Sharing of Information

- The department will work towards automating as many standard requests as is practical with a published timetable for key reports.
- The department will collate and return the information requirements for statutory returns in particular the Commissioning Data Sets which are increasingly intended to encompass all the data that the Department of Health (DH) and PCT Commissioners will require.
- Support the information requirements for Payment By Results, Practice Based Commissioning and Service Agreements.
- Enable the sharing of clinical information across all sectors.
- Agree data to be shared to enable valid discussion around performance.

The Power of Information, published by the Department of Health, puts a great emphasis on sharing information with patients. In order for this to be meaningful the Trust needs to ensure that data is correct and up to date.
6.2.3 Data Capture and Reporting

There is a need to capture information that will inform pathways of care and help the NHS understand more about the care of a patient within each setting. It also provides costings for activity within the Trust and in the near future Community services.

To enable this capture there are several Commissioning Data Sets that are in production:—

• Inpatient/Outpatient/A&E dataset version 6.2
• Maternity
• End of Life
• Child Health
• Community Information

This list is not exhaustive as new datasets are continually being developed.

A Trust wide reporting solution, Qlikview, will be implemented over the next 12 months to help improve the reporting throughout the Trust. This will provide one place to view reports and consistency for users. It will also help to highlight data quality issues throughout the systems to enable quick resolutions.

From 2015 there is a directive to start to use SNOMED CT which is clinician driven. This will see the coders validating the coded data rather than actually coding the patients. This will require the department to continue to work closely with clinicians to ensure correct assignment of HRGs.

Transformation of Community Services has brought about a change in the way care will be delivered within the NHS - treating the patient closer to home. This will require all the care providers to work together and share information using computer systems that enable this without duplication for the patient or the clinician.

6.3 Sustaining Robust Information Governance (IG)

The Power of Information places increased emphasis on the security and confidentiality of information whilst sharing it across organisational boundaries. While good progress has been made in improving IG across the NHS, it is essential that public and patient confidence in the way that the NHS handles health information is sustained.

The Trust needs to continue to demonstrate compliance with the key IG standards through achievement of at least Level 2 performance in terms of the NHS IG Toolkit and plans should be in place to progress beyond this minimum where it has been achieved.

Action plans for achieving the minimum of Level 2 performance against any requirement scored below Level 2 must be implemented and monitored

Information Governance cannot be isolated – it must be an integral part of the Trust with appropriate leads in each directorate to support the whole information governance agenda.

With the integration of Community Services, the Trust is seeking to increase information governance provision.

All staff should receive annual basic IG training appropriate to their role through the online NHS IG Training Tool.
The Trust is required to ensure that all staff are in place to undertake the different roles in relation to IG and that IG is embedded across the organisation to ensure that ownership of the process is embedded and evidences.

Information Risk Management is overseen by the SIRO (Senior Information Risk Owner) whose role is to act as advocate for information risk on the Board and provides written advice to the accounting officer on the content of their Statement of Internal Control in regard to information risk including health records. The SIRO is responsible for developing and encouraging good information handling practice amongst all members of the Trust with support from Information Asset Owners (IAOs) and Information Asset Administrators (IAAs). The role of the IAO is to understand and address risks to the information assets they ‘own’ and to provide assurance to the SIRO on the security and use of those assets. IAAs ensure that policies and procedures are followed, recognise actual or potential security incidents, consult their IAO on incident management, and ensure that information asset registers are accurate and up to date.

NHS accounting officers must continue to report on the management of information risks in statements on internal controls and to include details of data loss and confidentiality breach incidents in annual reports. The information risk management structures will need to be further developed in line with any changes to toolkit requirements.

An IG audit utilising the centrally provided audit methodology should be included within the work plans of each organisations auditors.

NHS Employment Check Standards; NHS organisations should develop Action Plans to utilise User Identify Manager (UIM) and Electronic Staff Record (ESR) Interface – to support compliance with the NHS Employment Check Standards and achieve the associated productivity gains.

Governance of patient data for secondary uses: it is NHS policy and a legal requirement that patient level data should not contain identifiers when they are used for purposes other than the direct care of patients, including local flows within or between organisations as well as data extracted from the Secondary Uses Service.

All NHS Commissioners and providers of NHS commissioned care should:

- Complete implementation of pseudonymisation and anonymisation of patient identifiable information when used for purposes other than direct patient care.
- Ensure that relevant staff are aware of and trained to be able to use anonymised or pseudonymised data;
- Ensure appropriate changes are made to processes, systems and security mechanisms in order to facilitate the use of de-identified data in place of patient identifiable data;
- Use the latest IG Toolkit to assist in implementation and assessment of compliance with policy and legal requirements.
7. IM&T Training for Trust Staff

To enable all Trust staff to fully utilise IT systems a range of training options is required from startup, roll out training on new systems to refresher training for existing users. The IT Training Team works within the Trust Education, Learning and Development Directorate but maintains close links with IM&T. The team will continue to offer a comprehensive range of courses to all staff including Trust specific systems training, as well as generic Microsoft Office Training.

The main priority for the team is to ensure that the workforce have the relevant knowledge and skills required to use existing and future clinical systems effectively. Training is considered integral to successful implementation and ongoing use of IT systems, it is therefore essential to involve the training team at an early stage for all new systems within the organisation.

The resources available for service delivery are limited and there will be many challenges in the future given new system deployments. It is important that the training delivered adds value to the organisation and that training priorities are driven by Trust strategy with close links to EL&D and IM&T objectives.

It is acknowledged that the ways in which we deliver training will also change. More modern methods of learning will be incorporated with particular emphasis on e-Learning. A blend of learning methods will make the service more flexible, customer focused and easier to deliver to a geographically widened population.

Currently the Trust is mainly reliant on classroom-based instructor led training which comes at a high cost in terms of administration, training charges, travel and associated costs and impacts on employee work time overall. E-learning is a vehicle that can both support and offer an alternative to classroom based training. The Trust has some existing experience and success in adopting E-Learning solutions, a small number of which have been developed in-house. Further investment in this area is worthwhile and will be actively pursued. Any subsequent requirements for infrastructure upgrades to end user workstations will be prioritised and built into the overall programme of work, this includes for example the targeted enablement of sound to key areas.

Clinical benefits of E-Learning:

- Convenience of availability of learning 24-hours a day, 7 days a week, 365 days per year
- Convenience of location
- Just-in-time training opportunities
- Reduced time away from job
- A mechanism to ensure staff are up-to-date with their training which ultimately will have a positive impact on patient safety
- Improves mandatory training compliance
Non clinical benefits:

• Enhanced cost savings (when compared to face to face training) when e-learning is used efficiently
• Centralised learner knowledge and skills management making demonstration of achievement for external assessment more practical
• Reduction in manual recording of training intervention

As an NHS organisation the Trust has access to the National Learning Management System (NLMS) at no cost. This is a module of Electronic Staff Record and can be used to host national and local e-Learning content. Training undertaken in this environment is automatically registered on the relevant staff record.

The NLMS system will support the upskilling of staff in line with the workforce strategy. The system will also support compliance, performance and service development. The use of the NLMS will help meet the requirements of our mandatory training agenda. All of which will ultimately benefit our patients.
8. Conclusion

The strategy concentrates on the need to deliver an effective IM&T service that meets the needs of the Trust.

The Trust regards IM&T as a key enabler of change, it should be exploited to deliver and perpetuate QIPP initiatives through re-investment of resources. This will serve both the immediate future and longer-term processes redesign required for the new hospital and changing health and social care models.

The uncertain future for the NHS National Programme for Information Technology has brought the Trust to a position where open market solutions need to be considered, this will have a bearing on both functionality and cost perspectives. Whilst the Trust works actively to highlight an appropriate solution set, it is essential to ensure that the existing solutions and infrastructures are as robust as they possibly can be in order to form a solid foundation on which to build.

Given the new hospital ambition and the proposed timelines. New systems must be implemented during the lifetime of this strategy. We will take an incremental approach towards implementing an Electronic Patient Record. Which will include the deployment of a modern PAS and digitised notes retrieval, system. The clinical systems interfacing will be re-engineered in order to make them more tightly coupled with seamless integration and the start of a clinical portal overlay. The Trust will become much more ‘paper light’ and the vast majority of clinical information will start to be available electronically.

The community service will have far superior access to informatics systems making for far greater service potential.

The delivery of these key systems and the improvements they will enable, are important factors in ensuring that the Trust is able to continuously improve the efficiency and quality of the services it delivers to patients and enhance the working environment for staff. It is especially important in supporting our new hospital and Momentum Pathways to Healthcare.
Appendix A Deployment Road map
Appendix B IM&T Project Eligibility & Prioritisation

Each project is notionally awarded one point for each of the Criticality and Viability metrics shown above. The multiplication of these scores provides a measure of that particular project's priority.

The Executive Directors have the ability and discretion to increase the default priority score to support key project approval requirements. In the absence of a Senior Responsible Officer/Project Executive the project will by default remain unapproved.
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<th>Task Description</th>
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**Notes:**
- The System One Rollout Tracker is designed to monitor the progress of the system rollout process.
- Each task is tracked with a status indicator: In Progress, Complete, Completed, Initiated, Ongoing.
Appendix D Infrastructure Maturity Model
Appendix E Systems Inventory

**Core Clinical Systems**
- Patient Administration Systems (PAS)
- Picture Archiving and Communications (Agfa PACS)
- Accident and Emergency (EDIS)
- Radiology Information Systems (HSS - RIS)
- Pathology - Omnilab
- Pharmacy - ASCribe
- Theatres - Theatreman
- Maternity – PROTOS Evolution
- Central Booking (Choose and Book)
- Somerset Cancercare
- SystmOne (Community)

**Infrastructure**
- Cross site link 1Gig
- TeesPath - Links
- COIN N3 connections *2
- Peterlee Link

**Corporate Systems**
- Finance – Oracle
- Procurement – Cardea
- Electronic Staff Records (ESR)
- Allocate Nurse / Medic / Location Roster & E-Expenses
- Sophos Antivirus & Encryption
- Email - Microsoft Outlook/Exchange
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