


# The Integrated Digital Care Fund

Achieving  
integrated health  
and care records



WORLD CLASS  
**CUSTOMER  
SERVICE:**

INFORMATION,  
TRANSPARENCY  
AND  
PARTICIPATION



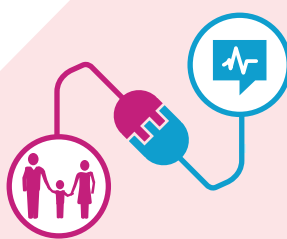
CLINICAL  
AND  
PROFESSIONAL  
LEADERSHIP



PEOPLE  
ACCESSING  
**THEIR**  
DATA



RIGHT DATA,  
RIGHT PLACE, RIGHT TIME



INTEGRATING HEALTH  
AND SOCIAL CARE



COLLABORATION –  
PARTNERSHIP WORKING

*High quality care for all, now and in the future*

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# 1. Introduction

*“Achieving an Integrated Digital Care Record”* published in July last year highlighted the benefits to the NHS of investing in the creation and routine use of integrated digital care records. It confirmed NHS England’s role in making safe digital record-keeping commonplace across the NHS. Supporting local health and care economies to establish an infrastructure that enables the flow of high quality, comprehensive and up to date information between healthcare professionals, to and from patients remains an urgent priority.

However, the creation and adoption of integrated digital care records is not an end in itself. It is the backbone upon which increased transparency and participation in our health and care system depends. Having access to the right information at the right time enables excellence. It helps professionals document handovers accurately and makes it easier to share information quickly across multi-disciplinary teams and with other providers.

It is also key to the introduction of new workflows and process improvements that increase clinical staff productivity, reduce delay and eliminate duplication. Transforming the management of long-term conditions, securing the delivery of seven day NHS services and ensuring we retain world class emergency services for the future all require the best quality information and insight to be available at the point of care. This is critical

to providers of care seeking to optimise outcomes and commissioners holding them to account and investing for service transformation.

*The creation and adoption of integrated digital care records is not an end in itself. It is the backbone upon which increased transparency and participation in our health and care system depends.*

Liberating and integrating the data that is held by different organisations, the patient and those who care for them allows us to deliver safer and more efficient care in partnership with patients who can better manage their own care. As more patient insight and patient-generated data emerges, models of care, and the information systems upon which they depend, must flex and adapt to incorporate this rich resource. Putting patients at the centre of care challenges us to harness patient value in new and unprecedented ways.

As people live longer with complex multiple co-morbidities it is critical that whole-person care models emerge with services integrated around the needs of the individual in their community. Those living with complex mental health problems expect high quality personalised care co-ordinated around their individual circumstances. Capturing and reflecting user preferences is instrumental to ensuring parity of esteem.

Reflecting our ambition to promote better integration across health and social care settings the Safer Hospitals, Safer Wards Technology Fund has been renamed the Integrated Digital Care Fund. Eligibility in this second wave has been extended to include local authorities. Working in partnership with NHS organisations, they can apply for funding to implement digital solutions that support the flow of information across organisational boundaries within defined national standards and frameworks. The creation of integrated records between health and care is a new, emerging area and we are keen that this second tranche of funding supports these innovative projects.

Digital performance information, captured at source, lets care providers know when they are reaching the clinical quality marks and outcome goals they set and when they are falling short. It tells us when they are optimising care and when co-ordination and participation are lacking. It is the lifeblood

of strategic planning for population health and the bedrock upon which the next generation of innovation using predictive analysis depends.

We are making steady headway towards the vision of a fully integrated digital care record across all care settings. We have already seen a huge level of commitment to this agenda from staff across all disciplines, clinical, managerial, finance/commercial and the IT leadership community. A multi-disciplinary approach is critical to the successful implementation of digital information systems. It inspires new ways of working to optimise the benefits available.

This continues to be how, together, we will deliver high quality care for all, now and for future generations.

**Tim Kelsey**

National Director for Patients and Information, NHS England

### The NHS Outcomes Framework

- Securing additional years of life for people with treatable mental and physical health conditions
- Improving the health related quality of life for 15 million + people with one or more long-term condition, including mental health conditions
- Reducing the amount of time people spend avoidably in hospital through better and more integrated care in the community outside hospital
- Increasing the proportion of older people living independently at home following discharge from hospital
- Increasing the number of people having a positive experience of hospital care
- Increasing the number of people with mental and physical health conditions having a positive experience of care outside hospital in general practice and the community
- Making significant progress towards eliminating avoidable deaths in our hospitals caused by problems in care

## 1. Introduction

### Adult Social Care Outcomes Framework

- Enhancing the quality of life for people with care and support needs and carers who provide care and support
- Working to delay and reduce the need for care and support by reducing permanent admissions to residential and nursing care homes
- Ensuring care and support are received in the most appropriate setting and enable people who develop carer and support needs to regain their independence
- Ensuring people have a positive experience of care and support and are satisfied with the services they receive
- Making sure carers feel respected as equal partners throughout the care process, including those involved in making decisions about social care and supporting choice with the correct information
- Safeguarding adults whose circumstances make them vulnerable, protecting them from avoidable harm and ensuring people who receive social care services feel safe



## 2. Executive Summary

This document builds on the “*Achieving an Integrated Digital Care Record*” guidance published at the beginning of July last year and formally launches the second tranche of the Technology Fund – “The Integrated Digital Care Fund”. Eligible organisations are invited to submit applications to the fund by 14 July 2014.

The focus of the fund is on projects that **capture and link clinical and care information** in digital care records within NHS Trusts and Foundation Trusts, and between NHS Trusts/Foundation Trusts and local authorities. As with the first tranche of funding, it also promotes further investment in e-Prescribing solutions, particularly focusing on paediatric care.

The value of the capital fund is £240m in total with £160m available in 2014/15 and £80m in 2015/16. Successful applicants will be required to match-fund any award with their own investment (capital or revenue) on a 1:1 basis. Assets created by the investment from this fund must be capitalised and remain the property of either the NHS Trust or Foundation Trust or local authority.

Proposals will be eligible only where the applicants can evidence a value for money return within a broader benefits realisation framework of greater than 1:1

for e-Prescribing solutions and greater than 1.5:1 for all other digital care record or integrated digital care record solutions. Overall the fund is required to deliver a total return greater than 2.4:1 in line with HM Treasury guidelines.

Applicants should develop proposals that coherently reflect their local strategy for moving from paper to paper-light to paperless digital care record keeping. Infrastructural investments and proposals that do not demonstrate a clear contribution to improving care pathways and transforming clinical/professional workflows are not eligible for awards from the Integrated Digital Care Fund.

All eligible applications will be assessed against a common evaluation framework. The framework will identify projects where there is high confidence of successful delivery and that the full range of intended benefits will be delivered. Projects must, therefore, demonstrate a clear understanding of the need for clinical and professional leadership from the boardroom to the frontline, workflow and service redesign capability, robust project management, a credible sourcing and supplier management approach, effective governance and access to relevant information technology expertise.

## 2. Executive Summary

Reflecting NHS England's commitment to promoting innovative solutions that reduce costs across the NHS, applications from organisations intending to deploy Open Source solutions are particularly welcome. Trusts that were unsuccessful in the first round of applications, or lack basic clinical digital capabilities, are also actively encouraged to apply for this second tranche of funding.

## 3. Investment Priorities

### 3.1 Digital Care Records

#### Overview

Access to accurate, timely and comprehensive information can transform the quality and efficiency of healthcare through improved clinical workflows, increased care optimisation and greater patient involvement. It is increasingly the hallmark of a modern, high quality healthcare system.

Digital care records provide the ability to capture and synthesise insights about a patient's health status produced, for example, by observation, vital signs monitoring and diagnostic testing. Activities undertaken by different professionals, deploying different expertise at different points in time produce new information. Interpreting

that information and combining it with the patient's insight produces real benefits for clinical workflows and service design.

#### Implications for applicants to the Integrated Digital Care Fund

We will continue to support NHS Trusts and Foundation Trusts who are investing in the underpinning capability required to capture and integrate key clinical information. The focus of successful applications to the fund should be those solutions that enable the applicant to become increasingly more digitally mature by adding clinical capabilities that they do not currently possess. More importantly, solutions should enable clinicians to integrate information that currently remains housed in unconnected silos across the organisation.

#### Case Study One:

University Hospital Southampton has, over many years, developed the concept of a digital care record that is now used by all staff. It has become a core part of their everyday routine and usage is standardised across the organisation; there are no separate disconnected ward-level systems. Integration within South West Hampshire means that shared case notes are used across the whole locality. This gives clinicians access to a complete view of patients' information as and when they need it, helping to reduce unnecessary delays and improve decision-making. They also have single click-through context sensitive access to the wider Hampshire Health Record.

### 3. Investment Priorities

Local NHS Trusts and Foundation Trusts are still best placed to know what next steps they should take on the path from paper to paper-light to paperless clinical business processes. Boards should routinely be making plans to replace and renew clinical information systems that are fundamental to delivering high quality, effective and efficient care. Therefore applications to the fund will be particularly welcome from those delivering next generation integrated capabilities.

#### Key Points

- Digital care records make clinical information available to the right people at the right time
- This improves the quality of care, streamlines clinical processes and leads to a better patient experience
- Removing the need for paper entry, duplication and storage also reduces costs in the long-term

## 3.2 Integrated Digital Care Records

### Overview

The future is about increased joint working across health and social care, with services wrapped around the user. The public who depend on them no longer expect these services to be delivered separately.

Better co-ordinated services underpinned by enabling information technology help ensure service users only tell their story once. Professionals caring for the individual can be better informed, especially through critical handover points, leading to more effective and improved care.

Investing in technology and creating information systems that help professionals and individuals share information more easily also drives innovation and continuous improvement in care delivery. It enables completely different delivery models and creates new opportunities for cross-sector research.

### Case Study Two:

The 'Co-ordinate My Care' scheme lets terminally ill patients in London define how and where their care is delivered. A single digital care record integrated across health and social care gives GPs, ambulance service, NHS 111, the local authority and social services access to these wishes as and when they need them. It has led to a sharp increase in the number of people ending their life in a place of their choosing, boosted patient satisfaction and reduced costs. Plans are underway to extend the scheme to other parts of the country and long-term conditions such as diabetes and mental illness.

### Case Study Three:

Mary describes herself as a fan of “practising safe medicine” and believes that if she can read what happened in her consultation she can remind herself what she is supposed to do. “I think the percentage of information retained by patients during a consultation is startlingly low,” she reflects. In turn it’s only via access to letters from consultants that she can check for mistakes. “How can the GP know whether the record is accurate or if there is an error as they were not present at consultant appointments?” She may also take a cardiologist letter to a respiratory appointment or vice versa. Where the consultants don’t send each other letters they have no mechanism for alerting each other to the fact that they have initiated treatment which may have an impact on other areas of her health. Mary currently has consultants variously contributing to her care. Before Christmas, Mary was due to have a penicillin challenge. All was well until the practice got a fax from immunology saying that they had just realised that she was on medication that should have stopped five days before the challenge. As there were only four days to go, the challenge had to be cancelled and an eye operation put on hold. Mary had to manage with deteriorating vision.

Running alongside the Integrated Digital Care Fund, the Better Care Fund announced by the Department of Health and Department for Communities and Local Government in June 2013 further supports this objective.

Aimed at improving data sharing across health and social care, it specifically requires Clinical Commissioning Groups (CCGs) and local authorities to put in place plans to adopt the use of the NHS Number and to actively pursue the use of open application programming interfaces (APIs)<sup>1</sup> to support information sharing.

### Implications for applicants to the Integrated Digital Care Fund

Applicants to the Integrated Digital Care Fund should be investing in the capability to ensure a greater movement of digital information, improving access to health and

social care professionals, service users and carers. Local authorities who wish to bid for funding with health partners to deliver these objectives are encouraged to apply.

### Key Points

- Tranche Two promotes closer integration across health and social care settings
- This will help to ensure that relevant information is available quickly and easily wherever needed
- Having accurate, complete information at the point of need improves patient outcomes and puts them at the heart of the care system

<sup>1</sup> Open APIs are those APIs that have been exposed to enable other systems to interact with that system, and those APIs that have been sufficiently documented that the available functionality is discoverable, fit for purpose and re-usable. This is further described in section 4.2.

### 3. Investment Priorities

## 3.3 e-Prescribing

### Overview

E-Prescribing can be defined as utilising electronic systems to facilitate and enhance the communication of a prescription or medicines order, aiding the choice, administration and supply of a medicine through knowledge and decision-support. It also provides a robust audit trail for the entire medicines use process.

The implementation of e-Prescribing systems must take account of local priorities; there is no single route or sequence that should be followed. First steps may introduce systems that have relatively simple or baseline functionality that can be built upon over time. The benefits around improvements in the quality and efficiency of care, reduced opportunity for error and improved communication are likely to be most evident in the medium to longer term.

In addition to general capability, this second tranche of funding specifically welcomes applications from Trusts planning to deploy e-Prescribing in paediatric care. The incidence of error in paediatric prescribing has been reported at upwards of 13% with an administration error rate of 19%.<sup>2</sup> Digital systems can and will have an important role to play in reducing this.

The increased volume and complexity of dose calculations, the need to utilise child's weight, age and potentially maturity and the consequent need to associate (the selected dose) with (a measurable amount of) medication formulation, all create additional risk of manual error in paediatric care. E-Prescribing helps minimise this by automating more of the process and incorporating decision-support. Where systems have been introduced that include growth tracking, which is then used to underpin dose calculation, the benefits are evident.

### Case Study Four:

Norfolk and Suffolk NHS Foundation Trust (mental health) implemented electronic prescribing in June 2013. Working in conjunction with the system provider, their goal was a comprehensive system covering all stages of the medicines management, administration and dispensing process. They now have a fully integrated, paper-free prescribing, clinical checking and dispensing capability working on two medium secure wards, with another three due to go live in May 2014. Transcription errors are a thing of the past, prescriptions can be directed more efficiently and supply levels managed more effectively. In time the system will be deployed to outpatients and then the acute wards at Hellesdon Hospital.

<sup>2</sup> Ghaleb MA, Bates DW, Franklin BD et al. The incidence of prescribing and medication administration errors in paediatric inpatients. Arch Dis Child 2010;95:113-18

### Case Study Five:

Dorset County NHS Hospital is deploying e-Prescribing to all inpatient and outpatient locations, closing the loop between medicines management, inpatient prescribing and discharge. To further improve patient safety, the application includes positive patient identification using the bedside iPod devices that all wards currently use for vital signs monitoring and single sign-on for clinicians. They are moving to pod lockers throughout the hospital with small, agile workstations on wheels (WOWs) for prescribers and medicines administration. Pilot wards are expected to be live by the end of April 2014, with the roll-out of inpatient and outpatient e-Prescribing completed by the end of March 2015.

### Implications for applicants to the Integrated Digital Care Fund

*"Achieving an Integrated Digital Care Record"* identified e-Prescribing as a priority for the NHS. The second round of the Integrated Digital Care Fund retains this focus and extends it specifically towards paediatric prescribing.

## 3.4 Open Source Solutions

### Overview

We want to encourage the development of software available under Open Source licensing arrangements to meet the needs of NHS organisations implementing integrated digital care records. Our aim is to encourage the creation of a community of developers, implementers and users supported by a

### Case Study Six:

Taunton and Somerset NHS Foundation Trust recently selected IMS MAXIMS for their digital care record replacement programme. The Trust plans to standardise clinical pathways with the MAXIMS functionality, supporting improvements in clinical outcomes as well as delivering cost savings. A further benefit is the recent announcement that the software is to be made available under the GNU Lesser General Public Licence, allowing it to be further developed and supported by a wide range of developers in the future. To support this, the Trust is looking to bring an Open Source agreement into its contract with IMS.

Viewing this as a service improvement rather than an IT programme, the Trust is keen to see that key skills are transferred from IMS in order that the Trust can take full ownership of the solution and evolve it as required to meet future needs. A considerable number of the EPR Programme Team will be made up of existing clinical and operational staff to drive and champion new ways of working and help enable continued service improvement necessary, to keep pace with the changing healthcare needs of patients.

### 3. Investment Priorities

vibrant market of commercial organisations using Open Source methods.

The intention is plain; by taking an Open Source approach it will be possible to gain better engagement from clinicians and other frontline users across multiple NHS organisations. This community will collaborate in the on-going development and improvement of solutions.

An Open Source approach also helps eliminate the supplier 'lock-in' associated with proprietary offers and delivers benefit to NHS organisations as a whole. It helps providers stay with trusted software in the long-term knowing that alternate suppliers can be brought in to support and innovate as necessary. It represents a conscious switch to 'product lock-in' without 'vendor lock-in'.

#### Implications for applicants to the Integrated Digital Care Fund

There are already a number of established Open Source projects in the NHS, related international work and proprietary vendors who have indicated a willingness to make their products Open Source, see Annex 1 for details. In the application process for the second round of the Integrated Digital Care Fund, NHS England wishes to encourage NHS organisations and local authority partners to bid for support to deploy products from this "catalogue" or any other credible Open Source solutions that can deliver benefits to patients, clinicians and other frontline staff.

A broader programme of activity in which organisations moving forward with Open Source solutions are expected to engage will:

- identify social and commercial entrepreneurs to provide Open Source solutions
- identify and support Trusts in the deployment of Open Source solutions and in the procurement of services to support such deployments
- create a community of interest around Open Source and appropriate custodian arrangements for NHS Open Source solutions developed within the community.

#### Case Study Seven:

Several NHS Trusts have approached the OpenEyes team to explore the possibility of using OpenEyes as the ophthalmic electronic medical system within their department. One of the first was Salisbury NHS Foundation Trust (SFT) who wanted a system that offers structured and standardised clinical data capture (OpenEyes uses the RCO Clinical Data Sets) displayed in a single portal. Other solutions were considered, but an open source solution proved most advantageous for the Trust.

The OpenEyes team worked closely with SFT to determine what their business and clinical requirements were. OpenEyes then worked with Salisbury to define a delivery plan that took the Trust through a scoping phase providing an in-depth plan, followed by the necessary integration work to their PAS, training, and roll out.



For further information and support on Open Source Solutions, please contact the Open Source Programme Team at [england.opensource@nhs.net](mailto:england.opensource@nhs.net) or visit and register on our Community of Practice site <http://www.technologystrategy.england.nhs.uk/pg/groups/99205/>

## 3.5 Raising Digital Maturity Across England

### Overview

NHS England recognises that NHS organisations are at different stages of digital maturity. Raising their capability wholesale will not, therefore, happen overnight.

Some Trusts are at an advanced stage with digital records embedded in routine clinical practice. In contrast others continue to have a significant dependency on paper records. These can be inefficient and pose a potential risk to patient safety as timely accurate and comprehensive information is not shared or available at the point of care.

The Integrated Digital Care Fund will, where necessary, take steps to ensure funding reaches organisations lacking basic components of clinical digital capability, thereby raising digital maturity across England. Adopting this approach will ensure

### Case Study Eight:

The first step Dudley Group NHS Foundation Trust (DGH) took on the path to integrated digital care records was to build an appetite for using information technology to enhance patient care, safety and involvement. They built momentum amongst clinical, managerial and public leadership communities by focussing on three main problem areas associated with paper records:

- **Clinical Issues:** paper documents are often filed incorrectly or not at all; records are sometimes lost or misplaced; the existence of multiple records makes it hard to build a complete picture; and it takes too long to find and retrieve information when it's needed quickly
- **Security Concerns:** audit processes are ineffective or non-existent; it is difficult to control access; and records are sometimes lost in the process of being moved from place to place
- **Paper Limitations:** filing and retrieving paper records is time consuming and takes a great deal of effort; policies for retention and disposal are difficult to enforce effectively; paper records can only be in one place at a time; the cost of physical storage and transport is high.

### 3. Investment Priorities

we reduce the current capability gap rather than widen it.

The Maturity Index describes the progressive steps organisations need to take to raise their digital maturity. It will benchmark progress along a spectrum that begins with the presence of systems and then moving forward confirms “meaningful use” of that capability. It will be enhanced and extended to track the deployment of enterprise-wide solutions integrated within clinical workflows. Ultimately the purpose is to provide evidence of how deploying information technology positively impacts upon clinical outcomes.

The key aim of the Maturity Index is to support all organisations moving up the maturity levels no matter what their starting point. It will do this by ensuring the knowledge built up by organisations that have already taken small or large steps on this journey is shared and best practice promoted at scale at pace.

#### Defining the Maturity Index

Digital maturity is a multidimensional concept and the detail of the Maturity Index will continue to be developed in consultation with the NHS and local authorities in the coming months.

Key areas it will consider are:

- infrastructure
- current level of clinical digital capability
- current level of clinical digital usage
- current use of key information standards – including use of NHS Number as primary identifier
- level of interoperability within and external to an organisation
- business change capability
- leadership and buy-in – clinical, professional and managerial.

Going forward we expect to measure and audit organisations and systems to ensure that they can demonstrate a progressively

#### Case Study Nine:

King’s College Hospital Foundation Trust began deploying their first EPR system in the late 1990’s. Having already implemented stand-alone radiology and pathology systems, the EPR project was initiated building on lessons learnt from these implementations – in particular the perils of double entry across multiple systems. Integration of all systems with the PAS was a fundamental principle.

Fifteen years on, after some failures but many more successes, the EPR now includes Prescribing and Meds Admin, Discharge Notification and Summaries to GPs, Clinical Correspondence, PACS image viewing, Internal Referrals, Vital Signs Observations, In-patient Continuation Notes and the capture of structured clinical data in Forms. Staff benefit from only having to enter information once instead of many times across multiple systems, whilst patients now move more quickly and accurately along their care pathway.

The close involvement of clinicians with the development team has been vital to the project’s success in ensuring high uptake of the system. Equally important has been the investment over the same period in supporting infrastructure – in particular a robust wireless network and a variety of fixed and mobile devices.

increasing level of 'meaningful use' of an Integrated Digital Care Record and wider digital technologies in the delivery of care.

The current Maturity Index does not cover local authorities, but we are currently looking at how we can expand it to cover interoperability between health and care. Evidence from this second tranche of funding, the Better Care Fund, and our on-going work with the Health & Care Pioneers will inform this going forward.

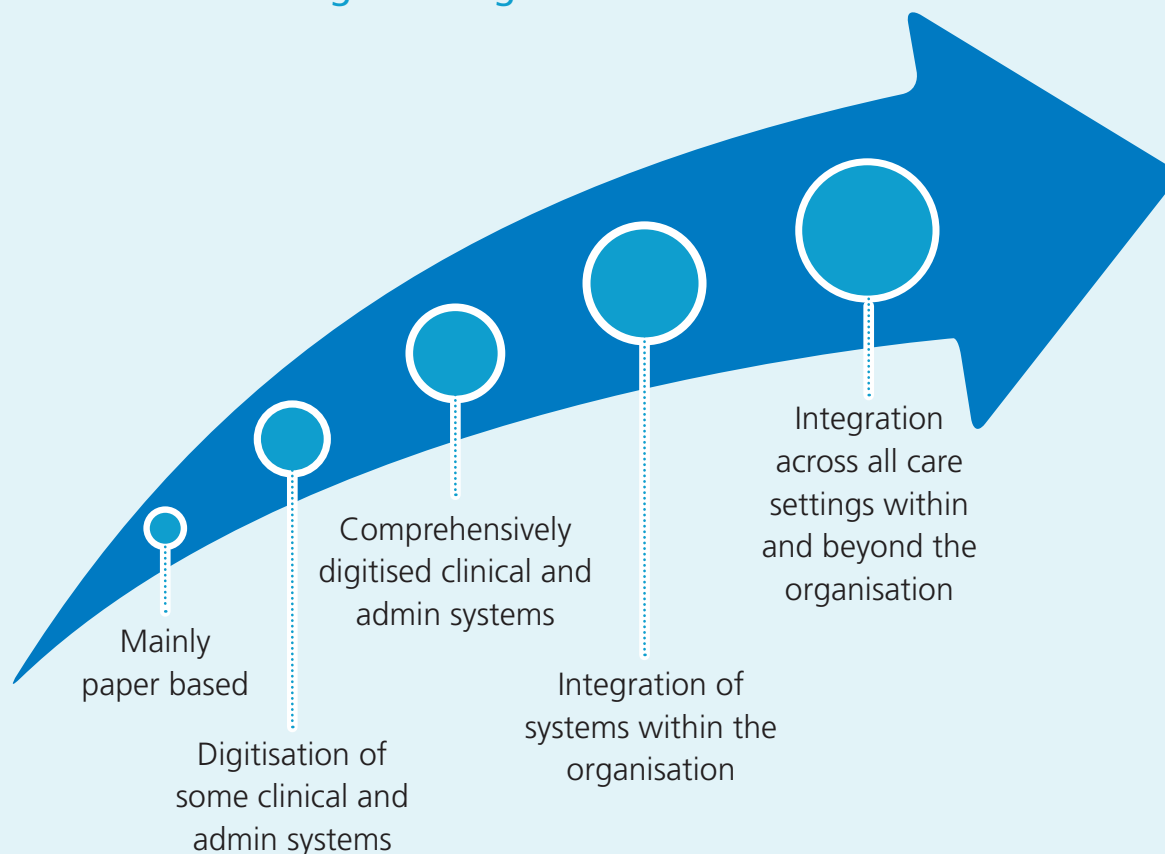
NHS Trusts and Foundation Trusts that provide acute services can access the latest version of the Maturity Index (the CDMI) provided by NHS England in conjunction with EHI Intelligence at <http://www.england.nhs.uk/ourwork/tsd/sst/cdmi/>

A Mental Health CDMI is currently under development and will be published in Autumn 2014.

### Implications for applicants to the Integrated Digital Care Fund

In the event that the fund is heavily oversubscribed, priority will be given to organisations with relatively low levels of digital maturity and those unsuccessful in applying to the first round of the Technology Fund. All applicants are, however, expected to satisfy the minimum criteria regarding 'Project Readiness' and 'Delivery Capability'. See section 6.4 for further detail. Funds will not be awarded without these pre-requisites being met, regardless of individual circumstances.

### The Path to Integrated Digital Care Records



## 4. Technology, Architecture & Standards

### Introduction

*"Achieving an Integrated Digital Care Record"* outlined the main architecture considerations and standards underpinning effective digital healthcare systems. These still apply; this section further elaborates the key concepts of the NHS Number, Open APIs and use of existing technology standards.

These are not superfluous 'nice-to-haves' relevant only to technologists; they are fundamental to ensuring technology supports the delivery of high quality care through the deployment and use of the most appropriate systems. The principles focus on allowing vital patient information to flow quickly and effectively across organisations' internal and external boundaries, and can help reduce costs in the long-term.

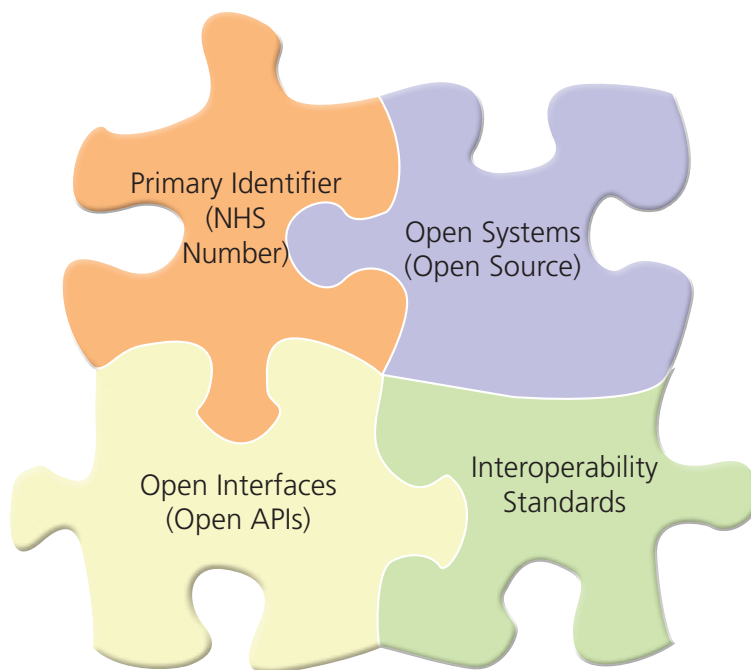
This section additionally provides detail on information governance and standards, and an update on the Summary Care Record.

Effective information governance is essential to balancing the competing demands of sharing information whilst also addressing key security and privacy concerns. The Summary Care Record is a good example of how a standardised approach benefits patients by getting vital, accurate information to health professionals as and when they need it.

*The NHS Number, Open APIs and Technology Standards are not superfluous 'nice-to-haves' relevant only to technologists; they are fundamental to ensuring technology supports the delivery of high quality care.*

The combination of a primary identifier, open interfaces and standards together form the technical foundation for interoperability. It is this foundation coupled with the potential to move to open source solutions that forms the architectural basis of the interoperability approach (the Interoperability Architecture Jigsaw) as illustrated opposite.

## The Interoperability Jigsaw



### 4.1 NHS Number

The patient must be at the heart of our models of care and therefore central to our architectural principles. As a patient moves through their journey in the health and social care system, the right information must be available in the right place at the right time; professionals from any discipline cannot make fully-informed decisions without it. Using the NHS number doesn't make this happen on its own, but it is a fundamental part of it making it possible.

Effective record sharing isn't possible, or is at best difficult and expensive, if individual organisations across primary and secondary health settings, local authorities and social care use different ways to identify the same person. Adopting a single mechanism, the NHS number, is the most straightforward way of ensuring providers can share patient information easily and reliably.

We also recognise the importance that patients and their carers place on the ability of organisations to identify them and communicate with them with continuity, reducing duplication of identification and data capture processes. The statutory sector "failing to remember me" is a cause of confusion and frustration to service users, and often in turn leads to lower data quality and poorer care.

The cost of getting this wrong has been well documented and published, for example in the Caldicott Review. <https://www.gov.uk/government/publications/the-information-governance-review>.

Whilst use of the NHS Number has been "good" practice to date, it must now move to "core" practice to achieve our vision of building effective integrated digital care records across settings. Reflecting this, use of the NHS Number as the primary identifier is also a mandatory requirement stipulated

## 4. Technology, Architecture & Standards

by the Better Care Fund, announced to local authorities and CCGs in June 2013, and also within the Standard Contract 2014/15 for providers

<http://www.england.nhs.uk/wp-content/uploads/2013/12/sec-b-cond-1415.pdf>

This focus of the NHS Number as primary identifier means that organisations must now ensure they have the right processes, technology and infrastructure to achieve the following:

1. Use of the NHS Number as the primary identifier for clinical correspondence
2. Use of the NHS Number as early as possible within the care process

This covers both paper and electronic processes and there is a clear expectation that bids to the Integrated Digital Care Fund will demonstrate how they are fulfilling this expectation. Whilst we recognise this presents additional challenges in social care settings, we expect applicants to provide details of their approach to overcoming these in their application and during the assessment interview.

### Key Points

- The NHS Number is a cornerstone of integrated systems that allow effective information sharing across multiple care settings; it should be the primary (main) identifier in all clinical correspondence
- It needs to be used as early in the care pathway as possible to minimise error and improve patient safety and outcomes
- Applications to the Integrated Digital Care Fund must provide details of how they support use of the NHS Number as the primary patient identifier

## 4.2 Open APIs

Our vision of a people-powered health and care system enabled by the Integrated Digital Care Record requires an ecosystem of applications, data and processes working seamlessly to make the right information available to the right user at the right time. The systems underpinning this must also be affordable and sustainable. Open Application Programming Interfaces (APIs) have an important part to play in achieving this by:

- **making application functionality easily available** – this helps organisations ensure their systems are ‘interoperable’, i.e. that important functionality and information held in one system or department is readily available to another without significant and expensive development effort.
- **allowing the best system for the job to be chosen** – having key functionality openly available through an API ensures organisations can integrate systems and deliver the best systems to suit the needs

of their different clinical and business functions. Some organisations may already have systems providing 'end to end' functionality that do not require additional integration work. This is a perfectly acceptable approach. However, it constrains an organisation's options and flexibility moving forward. Ensuring systems have open API's ensures you have the greatest flexibility and control, both technically and commercially.

- **promoting and accelerating innovation** – opening up data within different systems helps to promote and support a culture of innovation. With appropriate controls in place, it makes it easier for technical or clinical staff to use this information to improve patient outcomes or safety. It also allows for the creation of add-on products and services that don't necessarily need to be built by the vendor of the primary system. This can often be done quicker and at lower cost.

Our ambition is to move to a position where significant business functionality available within systems is exposed through interfaces where the definition is open. Systems being developed or procured with support from the Integrated Digital Care Fund are expected to:

- provide interfaces that are accessible to those that need to use them
- enable all significant business functionality provided by the host system to be available via an API
- clearly publish and document their provided interfaces
- provide the ability to test against the API openly.

Please review the Open API Policy for further information, see <http://www.england.nhs.uk/ourwork/tsd/sst/> for details. The specific policy statements provided in Annex 3 form a set of expectations on system suppliers that organisations can refer to as part of their local procurements.

### Key Points

- All major functionality should be openly available through an API
- This gives organisations the greatest flexibility and control over their systems, both technically and commercially

## 4.3 Interoperability Standards

Using the NHS Number as the primary identifier and deploying open APIs can still result in bespoke one off applications and interfaces. The critical remaining building block to achieving interoperability, minimising complexity and reducing costs is the re-use of existing standards for information sharing and transfer.

Historically, individual application vendors have developed bespoke interfaces or variations of standard interfaces. The NHS is, as a result, faced with a situation where attempting to integrate applications is overly complex and as the number of systems grows, so in turn do the number of potential bespoke interfaces which becomes exponentially expensive.



## 4. Technology, Architecture & Standards

The Interoperability Toolkit (ITK) provides a set of national standards, frameworks and implementation guides to support interoperability within local organisations and across local health communities. It seeks to remove unnecessary complexity and cost by introducing a single set of specifications used across the NHS in England, but also aligns with international standards including HL7 and 'Integrating the Healthcare Enterprise' (IHE). See <http://systems.hscic.gov.uk/interop/background/itk> for further details.

Where bids to the Integrated Digital Care Fund include local information flows that are already covered by published interoperability toolkit specifications, then local organisations should use these specifications. As part of the application process, see section 6.2 below, applicants will produce a diagram that outlines their key information flows and, where relevant, a mapping to existing ITK specifications. The list of accredited ITK suppliers can be found at <http://systems.hscic.gov.uk/interop/background/accred/catalogue>.

In addition, where new flows of information are required that are common, organisations will be expected to work collaboratively in the development of new interoperability specifications to avoid new bespoke one-off interfaces.

### The case for adopting standards for the clinical structure and content of patient records

In July 2013 the Academy of Medical Royal Colleges and the Health and Social Care Information Centre published "*Standards for the clinical structure and content of patient records*", <http://www.rcplondon.ac.uk/projects/healthcare-record-standards>

As the introduction to the document notes, a modern efficient healthcare system "require(s) a much more efficient and transparent means of recording, transmitting and accessing reliable clinical information... and use of electronic health records in which data are recorded consistently across all contexts". Forthcoming Ambulance Standards further support this approach. Applicants to the Integrated Digital Care Fund are encouraged to develop and introduce solutions that incorporate these standards and proliferate their use by clinical professions.

Applicants should also be aware of and adhere to the clinical safety standards relating to the development and deployment of health IT systems, which include: <http://www.isb.nhs.uk/library/standard/163> and <http://www.isb.nhs.uk/library/standard/162>.

### Key Points

- Using existing standards helps avoid 're-inventing the wheel' and reduces complexity
- This improves capability and reduces integration costs across health and social care
- Applications are expected to comply with the standards defined in the Interoperability Toolkit (ITK) and work together in developing new interoperability standards



## 4.4 Information Governance

The move to digital records makes it easier to share information with those who need it. By giving people the right information and choice about the use of their healthcare data we can also ensure appropriate controls are in place to meet these expectations. Doing so supports the principles of Caldicott 2 “Information: to share or not to share?” in terms of confidentiality, and also Principle 7 of the Data Protection Act – duty to share.

Information governance is a key consideration in this digital journey, but it needs to be an enabler rather than a barrier in the move to integrated digital care records. The use of patient information for different purposes always needs an appropriate lawful basis. Patients must be assured that the data they share with clinicians is managed in line with their expectations in order to safeguard an open relationship with the teams caring for them.

Data breaches present financial and reputational risks to the organisation carrying out the project, including those arising from failures to ensure processing of personal data is lawful. However, if projects consider communication with patients, choice, and necessary controls in the design stage they can make information governance a key component in reassuring the patient about the use and protection of their information. For example, where a lawful basis for access

to patient data for a specified purpose exists, a risk-based assessment methodology at an organisational, system and user level ensures the necessary controls are in place to maintain privacy.

Projects with higher risk levels are those which are more intrusive and likely to have a higher impact on privacy as well as confidentiality. These issues are captured through a privacy impact assessment undertaken at the start of a project and updated as decisions are made. This privacy impact assessment will give the project confidence that it has identified relevant risks and has appropriate mitigation in place as it develops.

Other key features of deployments that support effective information governance, and in particular privacy of the subject include:

- role-based access control functionality that supports differential staff access according to role and organisational context – in particular where data are recorded by organisations operating within different legal frameworks (e.g., health and social care)
- the ability to lawfully integrate and share information between organisations or units
- ensuring access privileges that reflect legitimate relationships between health professionals and patients or service users
- the attribution of all system access and data authorship to individuals
- active access monitoring and audit trails.

## 4. Technology, Architecture & Standards

Organisations should look to use existing standards and guidance in defining their Information Governance approach ensuring they meet the requirements of the Data Protection Act 1998, the common law duty of confidence, and the Human Rights Act 1998. These include:

- the Health & Social Care Information Centre Information Governance Toolkit, which is closely aligned to the Information Standards Board Information Governance Standards Framework. For more information see <http://www.igt.hscic.gov.uk/>
- the Information Commissioner's Office (ICO) Statutory Data Sharing Code of Practice and associated guidance
- guidance on Privacy by Design and Privacy Impact Assessment
- the NHS Confidentiality Code of Practice
- the NHS Records Management Code of Practice.

Further details on Information Governance can be found at:

<http://www.england.nhs.uk/ourwork/tsd/ig/>  
<http://systems.hscic.gov.uk/infogov>

### Key Points

- Effective information governance balances the tension between sharing and protecting sensitive data
- Ensures information is available to appropriate professionals at the point of need whilst minimising information risk
- Getting the balance wrong poses risks to patient safety as well as confidentiality

## 4.5 The Summary Care Record

The Summary Care Record (SCR) is a good example of how making vital information available as and when it is needed most has a positive effect on patient outcomes. It contains the details of a patient's medications, allergies and adverse reactions. Patients can also, with their explicit consent, add other key information that would help clinicians make effective, safe decisions quickly without access to their complete medical history. Work is progressing well to make it easier for that additional information to be added within the next 12 months.

The SCR is being used increasingly across the Unplanned and Emergency care settings in the NHS. Over 36m citizens across England now have a record created and many areas have 100% patient upload. With a requirement to upload in the 2014/15 GP contract, it is expected that by the end of 2014/15, more than 80% of the population will have an SCR in place.

An SCR is being viewed every 40 seconds somewhere in England to better inform healthcare decisions and improve patient care and safety where otherwise no data would have been available. Based on the NHS Number and using a single standard across the country, it is a simple, proven and effective way of sharing data across England.

It provides a solution in its own right but also works well alongside local detailed record sharing solutions and is a highly effective, secure, low cost way of ensuring healthcare professionals have detail about any patient from anywhere at any time in any care setting. We strongly advise that all organisations implement SCR into their business processes as part of our strategy to improve data sharing across the NHS to drive up patient safety.

### Key Points

- The Summary Care Record ensures healthcare professionals have access to vital patient information where and when it is needed most
- This supports better informed healthcare decisions and improves patient safety where otherwise no data would have been available
- It uses the NHS Number as the primary patient identifier and records across the country confirm with a common standard, making them readily accessible and accurate at the point of need

## 5. Eligibility Requirements

### 5.1 Eligible Organisations

All NHS Trusts and Foundation Trusts in England are eligible to apply to the Integrated Digital Care Fund for capital funding. This includes acute, community, mental health and ambulance trusts. Local authorities working with an NHS organisation to deliver integrated records across health and social care settings can also apply to the scheme directly to receive grant funding.

Awards will be made on a matched-funding basis to maximise the total investment made in these capabilities across England. Recipients must, therefore, be able to commit an equivalent amount of capital or revenue (or a combination of both) to their proposed project.

#### Exclusions:

Social enterprises, charities and commercial companies cannot apply to the fund in their own right. They can, however, be listed as partners on a joint bid where the lead applicant is an NHS Trust or Foundation Trust or local authority. In these circumstances all assets created by the project must be capitalised and remain the property of either the NHS Trust or Foundation Trust or local authority.

### 5.2 Eligible Projects

Eligible projects will deliver Digital Care Records, Integrated Digital Care Records or e-Prescribing solutions in England. Applications can be at any stage of the project lifecycle; no additional weight will be given to those already in progress.

There is no minimum or maximum value of award available to applicants to the Integrated Digital Care Fund. In the event that the scheme is heavily over-subscribed, however, we may seek to part-fund larger applications.

Eligible applications must also demonstrate a projected Value for Money (VfM) ratio from the proposed investment of more than 1:1 for e-Prescribing and greater than 1.5:1 for digital care record initiatives. Overall the fund will be expected to deliver a total return greater than 2.4:1 in line with HM Treasury guidelines. See Annex 2 for further detail and guidance on calculating the VfM ratio and recording wider non-financial benefits.

Trusts in the North, Midlands and East LSP contract area that are considering adopting the CSC Lorenzo product can use an application to the Integrated Digital Care Fund to signal this intent. CSC and HSCIC will continue to work with the applicants to develop and evaluate their

Lorenzo proposal. A Trust may also make an application to the Integrated Digital Care Fund to further support the wider delivery of the Trust vision for a digital care record or integrated digital care record. Routing an application via this approach will make best use of existing contractual arrangements and ensure a consistent approach to monitoring the progression of digital maturity going forward. Applicants to the Integrated Digital Care Fund will have to demonstrate, at interview stage, that they can manage the scale of change required to successfully deliver multiple projects simultaneously and ultimately provide defined benefits.

### Exclusions:

Projects that received funding in the first tranche of the Integrated Digital Care Fund cannot apply for additional monies for the same purpose under this second tranche of funding. Trusts successful in Round One can submit applications for a different internal (digital care record or e-Prescribing) or joint (integrated digital care record) capability if they are confident of being able to deliver all proposals successfully.

Similarly, organisations already benefitting from specific support to introduce Digital Care Records, Integrated Digital Care Records or e-Prescribing as part of the LSP solution delivery or the South Local Clinical Systems Programmes cannot request additional funding for the same project through the Integrated Digital Care Fund. This also applies where Trusts are receiving funding as part of the managed exit from the LSP contract.

Further examples of projects which are not eligible for awards from the Integrated Digital Care Fund include:

- patient administration systems
- proposals that introduce systems to support the delivery of exclusively management information and not frontline care, e.g. data warehouse, business intelligence and dashboard solutions
- IT infrastructure only projects without an associated capability that directly supports better, safer care, e.g. a network upgrade only
- ICT outsourcing projects.

### Key Points

- The Integrated Digital Care Fund is open to applications from NHS organisations and local authorities in England
- Projects must deliver Digital Care, Integrated Digital Care or e-Prescribing capability
- Successful applicants have to match any award with their own investment and the project must meet the minimum Value for Money threshold

## 6. Application & Assessment Process

### 6.1 Overview

The process for evaluating applications to the Integrated Digital Care Fund will be based on that used in the original Safer Hospitals, Safer Wards Technology Fund assessments. We have refreshed the process on the basis of feedback from applicants and those who supported the evaluation stage first time round.

An important difference to the first tranche of funding is that applicants can now move through the full application and award process as and when they are ready; we will not wait for the final deadline of each stage before letting applicants progress to the next one.

Applications will be checked against the eligibility criteria as soon as they are received and Assessment Interviews will start as early as possible. Those applying early and achieving the top assessment rating ('A – Ready to Proceed') will move straight to the award stage, subject to a maximum of 50% of the fund's value being allocated before the closing date for applications (14 July 2014).

The overall application and evaluation process comprises four main stages as illustrated below:

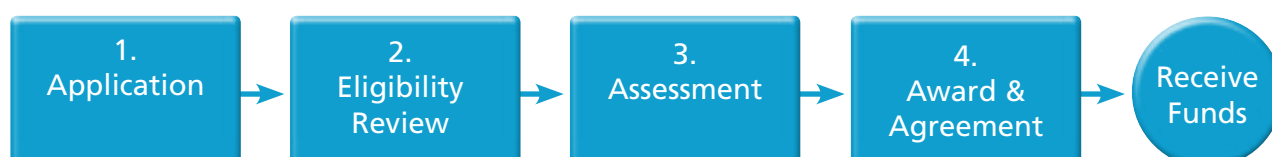
#### Application and Assessment Process



Deadline for Applications:  
17.00 on 14 July 2014



Successful Applicants  
Confirmed



## 6.2 Application

Applications to the fund are made through the online Application Form available at <http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying>. The deadline for receipt of completed forms is 17:00 on 14 July 2014 and late submissions will not be accepted.

### Supporting Documents

As well as completing each section of the application form, valid applications must also attach:

- Value for Money (VfM) analysis showing the predicted economic return on investment and non-financial benefits
- Financial Planning analysis demonstrating the expected spend profile and matched-funding
- Governance overview chart for the project
- Information Flow diagram describing the information systems and associated information flows described in the application
- Letter(s) of commitment from key partners.

Additional guidance, completed examples and templates are available at <http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying>. All documents must be received by the closing date.

### Application Limit

Eligible organisations are limited to:

- one application for projects delivering internal digital care record or e-Prescribing capability

plus

- one additional application in partnership to assist in the creation of an integrated digital care record.

These joint bids should be submitted on a single application form by the lead organisation.

Applicants should note that joint bids are only intended for applications designed to make patient/service user records available across care settings. They are not a valid route for groups of organisations seeking to collectively procure similar systems together.

Although collaborations to achieve greater value for money are encouraged, separate applications should be submitted to enable each organisation's readiness and capability to be assessed individually. NHS England will then support, where appropriate, the development of joint commercial arrangements to maximise potential economies of scale.

### Scoping an Application

As we are limiting organisations to a single application for developing internal capability, we will be scrutinising applications closely to ensure that projects are appropriately bounded and deliverable within the timeframe of 2014/15 and 2015/16. We would discourage organisations from taking an unrealistically ambitious approach to their application as "delivery capability" within the relevant timeframe will be a significant contributor to the overall assessment/scoring methodology.



## 6. Application & Assessment Process

### Submitting the Application

Applicants will receive an email within 48 hours confirming receipt and advising of their unique application reference number. If you have submitted an application but do not receive this confirmation email please contact [england.nhstechfund@nhs.net](mailto:england.nhstechfund@nhs.net).

Any technical problems experienced in completing the online application form resulting in the applicant being unable to complete their submission to the fund before the closing date must be reported to [england.nhstechfund@nhs.net](mailto:england.nhstechfund@nhs.net) before 14 July 2014.

### Developing a Strong Application

When completing your Application Form please give concise answers as word limits apply.

If you are unsure about the specific information required in a section of the Application Form then please submit an enquiry to [england.nhstechfund@nhs.net](mailto:england.nhstechfund@nhs.net).

Applicants should note that whilst we aim to respond to these enquiries quickly, a specific response time cannot be guaranteed especially if the volume of enquiries is particularly high immediately prior to the closing date.

We will regularly update the list of published "Frequently Asked Questions" on the NHS England website where we see a wider benefit in the answers we have provided to individual Trusts. These are available at <http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying>

**There are a number of areas of particular focus that will be scored by the assessment panel when they first consider a completed application form and reviewed through the course of the formal interview.**

Successful applicants to the first round of the Technology Fund provided strong evidence in the following key areas:

Assessment Criteria	Characteristics Of Successful Applications:
<b>Extent of change</b>	Clearly demonstrated an understanding of the extent of organisational (and clinical) change required to deliver the desired outcomes and benefits from their project. They highlighted where other major change programmes were also underway or planned and could explain how their approach mitigated/managed any shared critical dependencies.
<b>Strategic alignment and benefits realisation</b>	Clearly demonstrated how their project advanced the Trust along its path towards paperless working and aligned with the Clinical Service Change Strategy and enabling Information Technology Strategy. Expected benefits (financial and non-financial) were well understood and Trusts explained how and when they expected to achieve them.



Assessment Criteria	Characteristics Of Successful Applications:
<b>Stakeholder buy-in and clinical/ clinical informatics leadership</b>	<p>Demonstrated that clinical buy-in had been secured for this project and additionally that there was demonstrable support from other key stakeholder groups (frontline clinical users, information technology professionals, board and senior management, commissioners and partners).</p> <p>Successful applicants were able to describe an on-going approach to engage clinicians in developing a clinical informatics culture.</p>
<b>Organisational capability (including resourcing)</b>	<p>Able to describe an overarching programme management approach, and confirm that sufficient resources had been allocated to critical areas to assure successful delivery of the project – e.g. project management, change management, sourcing and supplier relations, technical development.</p> <p>IT leadership and informatics skills/expertise required for delivery was in place and understood. The resourcing plan was appropriate for the complexity of the project proposed.</p>
<b>Sourcing strategy (including suppliers)</b>	<p>Able to describe in some detail their procurement and commercial approach, demonstrating an understanding of the market and identifying potential limitations. The approach was clear and realistic, and appropriate to project scope. Understanding of risks associated with using stated suppliers and a robust contract management approach to ensure delivery in partnership.</p>
<b>Financial level and viability</b>	<p>The investment was detailed in terms of scope and allocation to all relevant areas. The project spend was appropriate and project costs appeared reasonable. Confidence in viability of the project within budget was high.</p>
<b>Governance</b>	<p>Able to describe comprehensive, clear and participative governance arrangements to ensure delivery of this project particularly when the proposal involved multiple partners working together. Exceptional applicants had clearly articulated clinical and managerial governance arrangements in place.</p>
<b>e-Prescribing</b>	<p>In addition to the above, high-quality applicants described how they intended to address the particular implementation challenges that arise when introducing e-Prescribing within an organisation – e.g. professional culture, working practices, supplier and solution capability.</p>

## 6. Application & Assessment Process

### Collaborations and Letters of Commitment from Key Partners

An application from an NHS Trust or Foundation Trust for a digital care record or e-Prescribing solution must be supported by the Trust Board and the relevant local commissioning organisation(s). An application from multiple organisations for an Integrated Digital Care Record solution must be supported additionally by the local Health and Wellbeing Board reflecting their leadership role in the system to improve the health and wellbeing of their local population and reduce health inequalities.

In order to be confident of successful delivery of the project, the assessors will be particularly keen to ensure that the relevant governance and programme management arrangements are in place to support delivery of a multi-stakeholder solution.

#### Key Points

- The deadline for applications is 14 July 2014
- Valid applications must attach a VfM calculation, Financial Planning Analysis, Information Flow diagram, Project Governance Overview and letter(s) of support
- Early submission is encouraged

## 6.3 Eligibility Review

A small specialist panel will review all applications to ensure they meet the criteria described in section 5 and that all required information has been submitted. This will start as soon as an application is received, and be completed for all applications by the end of July 2014. All eligible applications will progress to the interview stage; there is no limit on the number that will proceed.

Applications must demonstrate that both the project and organisation are eligible for awards from the Integrated Digital Care Fund. Any applications not meeting the criteria will be rejected at this stage. The applicant will be notified via email if we require further information and may be given short notice to submit this. If additional information is not provided within the timescales specified this will result in an application being considered ineligible and rejected from the process.

Applications will also be checked to ensure they satisfy matched-funding and Value for Money (VfM) requirements. Those which fall below the VfM threshold or fail to demonstrate how the Trust will match the funding requested from the Integrated Digital Care Fund will be rejected. Eligible applications which have completed the application correctly, demonstrated matched-funding and met the VfM criteria will proceed to the Assessment Interview. A copy of the checklist assessors will use to confirm applicant's eligibility is included in Annex 4 for reference.

### Key Points

- Applications must satisfy the initial eligibility criteria as described in section 5
- Valid applications must also attach completed versions of all supporting documents detailed in section 6.2

## 6.4 Assessment Interview

Eligible applications will be invited to discuss their project in greater detail at an Assessment Interview. These will last one hour and most will be conducted face-to-face in either Leeds or London. Lower cost, lower-risk applications may be assessed by telephone interview.

The assessment panel will comprise three interviewers drawn from a variety of professional backgrounds. This will include

clinical, financial, commercial, senior general and informatics staff from NHS Trusts, the Department of Health, NHS England, the Health and Social Care Information Centre, Clinical Commissioning Groups, provider organisations, academic institutions and industry. Further details about the format and structure of the interview will be provided with the invitation to applicants.

Interviews will be scheduled as soon as individual applications have completed the Eligibility Check. The interview panel will allocate a score to the application based upon a combination of the Application Form information and the outcome of the interview process.

Our assessment methodology is described in further detail below. Applications assessed as “Ready to Proceed” will progress straight to the award stage, subject to a maximum of 50% of the fund’s total value being allocated before the application closing date (14 July 2014).

### Assessment Methodology

Our assessment methodology has been developed in partnership with the University of Leeds and is based on their “Infrastructure Routemap”.

The University of Leeds, in collaboration with Infrastructure UK and the National Audit Office have developed an “Infrastructure Routemap” to support organisations in optimising the delivery environment for projects and programmes. It does this by providing a structured approach to assessing and improving sponsor, client and supply chain capability and integration. It brings together a set of assessment tools in an integrated process aimed at improving the capability to plan, execute and operate major projects.

As the principles of “intelligent clienting” are cross-sectoral, the Routemap can assist all types of organisations with planning to increase the likelihood of success.

## 6. Application & Assessment Process

### Assessment Methodology

We have worked with the University of Leeds to develop a comprehensive assessment methodology based on two key factors, both of which are essential components of any successful change programme:

1. Project Readiness, and
2. Delivery Capability

In simple terms, projects achieving the highest score in each category will progress straight to the award stage. It is recommended that applicants pay close regard to the guidance on “Developing a Strong Application” described in section 6.2. These are important both to the Application Form and the Interview, and form the basis of the investment decision.

To be successful at the interview stage applicants must:

- demonstrate that they understand both the complexity of their project and their own ability to deliver it successfully
- communicate confidently and comprehensively on the viability of the project and also on the impact and benefits that the project will have on their overall strategy
- nominate their core project team for attendance, who will be able to answer questions confidently on the day
- demonstrate a clear vision for how the project will be implemented and its alignment to other strategic projects within the applicant's portfolio (particularly if the applicant has received funding from other sources and/or is delivering multiple initiatives concurrently).

Further detail on the categories “Project Readiness” and “Delivery Capability” is set out below.

### Project Readiness

Our assessors will be looking for evidence that the project has been well defined and has a strong chance of delivering a successful outcome within the specified timeframes. Specific areas of focus will include scope, project planning, objectives, benefits and risk management.

We will expect applicants to provide evidence that work completed to date, or planned, in each of these areas is appropriate to the scale and ambition of the project. For example, we encourage ambitious proposals that will deliver a step-change in access to records across care settings, but these will often be the most complex, highest risk projects. In such cases we would expect the applicant to understand and, where relevant, have effective mitigation plans in place for the inherent delivery risks these projects carry. In all cases successful applicants will demonstrate a solid understanding of the benefits their project will deliver and the business change/workflow redesign needed to achieve them.

The assessment panel will award projects a Red, Amber or Green status for Project Readiness. Characteristics that determine how an application is rated may include, but are not limited to:

<b>Red</b>	<ul style="list-style-type: none"> <li>• A complex project for which little or no risk identification/mitigation is in place</li> <li>• Lack of detailed, comprehensive project planning</li> <li>• No demonstrable understanding of the business change required to deliver key project benefits</li> </ul>
<b>Amber</b>	<ul style="list-style-type: none"> <li>• Risks are identified, but little evidence of planned mitigation activity</li> <li>• Some concerns relating to engagement and support from key project stakeholders</li> <li>• The scope of the project appears overly ambitious; it is likely to achieve some, but not all key objectives</li> </ul>
<b>Green</b>	<ul style="list-style-type: none"> <li>• The business change required to achieve expected benefits is well understood and planned</li> <li>• Clear evidence of support from senior stakeholders across clinical, informatics and finance leadership</li> <li>• Major risks are understood and effective mitigation plans are in place</li> </ul>

### Delivery Capability

The interviewers will be looking for applicants to demonstrate they have the capability and capacity to deliver the project successfully and achieve the expected benefits. They will want to see evidence that appropriate governance arrangements are, or will be, in place from the outset; that key roles are filled by suitably skilled and experienced professionals; and that the applying organisation can manage the scale of change required.

Delivery Capability will be rated as Vulnerable, Governed or Assured, the characteristics of which include, but are not limited to:

<b>Vulnerable</b>	<ul style="list-style-type: none"> <li>• Requires significant development or support to deliver the project successfully</li> <li>• Significant gaps in skills/experience within key roles</li> <li>• Little or no evidence of delivering similar change programmes successfully</li> </ul>
<b>Governed</b>	<ul style="list-style-type: none"> <li>• Basic project management procedures in place</li> <li>• Demonstrable experience in some but not all delivery roles</li> <li>• Some evidence of managing change and delivering benefits</li> </ul>
<b>Assured</b>	<ul style="list-style-type: none"> <li>• Gave high confidence of delivering the project and realising expected benefits</li> <li>• Highly-qualified and experienced professionals in all key roles</li> <li>• Numerous examples of managing successful change on a similar scale</li> </ul>

## 6. Application & Assessment Process

Projects achieving the highest rating in each category will be assessed as 'Ready to Proceed' and move straight to the award stage, subject to a maximum of 50% of the fund's value being allocated before the closing date for applications (14 July 2014).

### Key Points

- Assessment Interviews will start once applications have been received and eligibility checks confirmed
- Applications will be given an overall rating based on Project Readiness and Delivery Capability
- Those assessed as 'Ready to Proceed' will move straight to the Funding Award stage

## 6.5 Award & Agreement

Successful applicants will be required to sign an Award Agreement setting out a series of obligations on behalf of the receiving organisation in return for receiving funding from the Integrated Digital Care Fund. Applicants will be able to access funding once the agreement is signed and returned. Obligations will include:

- publication of a 'Commitment to Proceed' on the organisation's public website, based on a template provided by NHS England
- tracking and reporting on benefits arising from the project
- publication of project-related achievements on the organisation's public website

- identifying a board member or senior officer as local project sponsor and champion (if not already in place)
- regular project reporting and data collection
- providing details of what the capital investment was spent on and suppliers/procurement frameworks used (if applicable)
- participating in media activities if requested
- contributing to on-going activities to define and capture clinical digital maturity information about NHS organisations and care economies
- participating in the community of practice in order that lessons learnt, exemplar case studies and other development materials are produced to support the share and spread of digital care records
- complying with the Public Sector Equality Duty, see section 8.1 for further detail
- participating in on-going activities to quality assure suppliers.

Underlying these obligations is a commitment to sharing learning from the projects funded by the Integrated Digital Care Fund across NHS organisations, NHS England, local authorities, the Department of Health and other interested parties.

### Key Points

- Successful applicants must sign an Award Agreement to receive funds
- The agreement details the applicant's obligations regarding reporting, communications and benefits realisation

## 7. Project Delivery

### 7.1 Commercial Support

We have created a Commercial and Procurement “Toolkit” to support applicants to the Integrated Digital Care Fund in the delivery of IDCR projects. The ambition of this work is to improve quality and consistency through supporting the effective delivery of projects funded by the Integrated Digital Care Fund. We are also interested in assisting Trusts with efforts to aggregate sourcing activity and obtain better value for money from the supply market, and we will be exploring this with applicants through the assessment process.

In the longer term the Toolkit will:

- collate existing best practice commercial and procurement guidance and reference material, ensuring it is up to date and fit for purpose
- make useful information and documentation accessible and easy to use
- through “peer assist” tools and networks improve cross-working and information sharing
- identify gaps where new guidance is required, by consulting with Applicants to the Fund to create the necessary commercial resources required

#### Commercial Toolkit – Development Timelines

The Toolkit is being developed on a phased basis, to directly support the assessment process. We will continue adding guidance and documentation based upon the specific needs of those Trusts which apply to the Fund.

The following table sets out the timelines.



## 7. Project Delivery

<b>May 2014</b>	<p>A basic version of the Commercial Toolkit has been launched alongside this Prospectus. It includes material to support you in the Application Form process, in particular on the questions around procurement strategy and supplier sourcing.</p> <p>You can access it at <a href="http://www.technologystrategy.england.nhs.uk">http://www.technologystrategy.england.nhs.uk</a></p>
<b>June 2014</b>	<p>We will be updating the Commercial Toolkit to include more comprehensive content around supply marketplace, existing procurement options, contract management tools, potential synergies and cost savings between Trusts. The Toolkit will be expanded to include training modules and “how to” guides for best practice procurement activity.</p>
<b>October/ November 2014</b>	<p>The Commercial Toolkit will be updated to include targeted commercial support for those Trusts receiving awards from the Fund.</p> <p>It will give specific support around procurement activity, standard form commercial documents, contract management tools, and supplier management guidance.</p> <p>We also intend to launch a “peer assist” facility so successful Trusts can “buddy up” with other Trusts procuring similar systems or carrying out similar development activity.</p>
<b>2015</b>	<p>The Commercial Toolkit will be further updated throughout 2015 based upon feedback from successful Trusts and a deeper understanding of their requirements to support implementation of the projects.</p>

### How is the content of the Toolkit being developed?

We gathered information from the assessment process of Round One of the Technology Fund to identify areas where Trusts recognised they needed specific commercial and procurement support. In particular, Trusts asked for help with:

- generic procurement advice including simple templates and how to comply with OJEU rules
- standard form IT Contracts, and post contract management tools

- facilitated introductions to other Trusts buying similar technology or with the same supplier(s)
- information about existing procurement options, trusted suppliers, legal/consultancy support
- easy to use tools, training and guidance for specialist issues such as benchmarking, how to exit a contract, Key Performance Indicators and service levels, Intellectual Property Rights.

We are working with a number of Trusts who were unsuccessful in their Round



One applications to the Integrated Digital Care Fund, to more clearly understand their commercial and procurement support requirements and to develop and pilot the content of the Toolkit.

In addition, we are consulting with a number of Trusts who are successfully delivering projects funded through Round One to capture best practice procurement and commercial activity and bring it into the Toolkit for wider use.

### Contributing to the Commercial Toolkit

We would welcome involvement from any applicants who wish to be part of the working group to develop the Commercial Toolkit- please email us for more information at [england.nhstechfund@nhs.net](mailto:england.nhstechfund@nhs.net). You may also use this email address to provide us with feedback on the Toolkit or suggestions for content which you would find useful going forward.

## 7.2 Delivering Change as well as Technology

Ensuring that the introduction of digital care records and e-Prescribing systems are reflected in day to day clinical working requires strong change management as well as technical implementation skills. Building integrated digital care records capabilities across care settings will also need strong joint leadership from both local authorities and Trusts.

All clinical professions need to be engaged with the programme and mechanisms for multi-disciplinary collaboration established.

Named clinical professionals should be identified in leadership roles for informatics at several levels within organisations, particularly where departments are operating as quasi-autonomous business units. Healthcare professionals should also operate at all levels within projects. An increasing number of clinicians are familiar with mobile technologies and paperless working. Their potential to champion digitally enabled change should be harnessed at every opportunity.

Many organisations will buy in generic IT technical ('back office') capacity from a local or commercial support service provider. In addition to IT technical roles (including increased help desk capacity) there will often be a need to source expertise in:

- system specification, procurement and contract and supplier management
- change management (including programme and project management) but also system, process and behaviour change expertise
- training and development
- communications.

There are key differences between the capabilities and skills required to undertake core technical tasks (network and server implementations/support and user device support) and those required to effectively harness the power of digital technology in clinical care such as process reengineering, ergonomics, user device selection and risk assessment. Suppliers are likely to provide elements of change management and training support but these should be based on agreed local/national standards of performance and quality and managed as an integral element of the programme.

## 7. Project Delivery

Learning from the experiences of others who have undertaken major procurements and implementations will provide guidance about the number and nature of IT staff needed for success.

Whether employed in-house or contracted in, employers will want to assure themselves that specialist staff are of the highest quality, fit to practise and up to date. The British Computer Society and UK Council for Health Informatics Professions along with other professional bodies are forming a new professional federation and organisations are encouraged to use this development to assure the quality of staff and contractors (see [www.ukchip.org.uk](http://www.ukchip.org.uk)). Building expectations about standards of professional practise should be included in job descriptions (person specifications) and procurement processes. Organisations will be expected to demonstrate commitment to professional development for their informatics specialist team(s) and in particular to supporting membership of/accreditation by an appropriate body. Organisations are encouraged to use this as an indicator of quality in their employees and contractors.

### 7.3 Communities of Practice

NHS England is committed to capturing, creating and disseminating a range of lessons learnt and best practice resources developed in conjunction with NHS organisations that have deployed information technology to transform models of care. The procurement toolkit is the first of these resources. A benefits realisation framework specifically for those introducing e-Prescribing will follow directly. A range of additional materials covering topics such as multi-stakeholder governance, benefits realisation from integrated digital care records, commercial and market development, will follow in the months ahead. NHS England is also keen to stimulate and resource a peer review and peer assist development model alongside enabling Trusts to access specialist expertise through procurement frameworks where necessary. For further information see [www.technologystrategy.england.nhs.uk](http://www.technologystrategy.england.nhs.uk)

#### Key Points

- Commercial and procurement support will be available through a 'Toolkit' that provides best practice advice, guidance and templates for applicants
- Help will also be available to facilitate 'aggregated' market sourcing to achieve the best value for money from Integrated Digital Care Fund investment
- Applicants need to ensure they have sufficient technical delivery and change management resources in place. The merging of the BCS, UKCHIP and other professional bodies will make it easier to assure the quality of staff and contractors
- The Communities of Practice will support peer-to-peer knowledge transfer and sharing of best practice

## 8. Further Considerations

### 8.1 Public Sector Equality Duty

The Public Sector Equality Duty applies to any decision made, any policy developed, any programme implemented and any practices driving activity. It also applies to functions and services provided by others on behalf of a public body. In order to be compliant, applicants will need to demonstrate how they have paid due regard to the three aims of the Duty which are to:

- eliminate unlawful discrimination, harassment and victimisation
- advance equality of opportunity between people who share a protected characteristic
- promote good relations between people who share a protected characteristic and those who do not.

The overall aim of the Duty is to make sure that public bodies take equality into account as part of their decision-making process. What this means in practice is that in decisions and activity there is a need to:

- remove or minimise disadvantages suffered by anyone with a protected characteristic
- take steps to meet the needs of people who share a protected characteristic where these are different from the needs of other people

- encourage people with a protected characteristic to participate in public life or other activities where their participation is low.

The Duty covers the following protected characteristics: age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; sexual orientation; marriage and civil partnership (in respect of the requirement to have due regard to the need to eliminate discrimination); and carers 'by association' with people sharing some of the characteristics.

In order to demonstrate compliance with equalities legislation and, specifically, the Public Sector Equality Duty, you will need to provide evidence that demonstrates the impact or potential impact your work may have on people sharing protected characteristics.

For further information on the Equality Duty please refer to Government Equalities Office at the link below: <http://www.homeoffice.gov.uk/publications/equalities/equality-act-publications/equality-act-guidance/equality-duty?view=Binary>

## 8. Further Considerations

### 8.2 Public Dividend Capital & Grant awards

The Department of Health capital funding for this initiative is only available to NHS Trusts and Foundation Trusts, and local authorities.

Funding will be made available to NHS Trusts and Foundation Trusts as Public Dividend Capital (PDC). Local authorities will receive funding as Grant Payments under section 31 of the Local Government Act 2003. Awards can only be spent on items that score as capital expenditure and recipients will be expected to confirm this condition has been complied with.

The PDC funding to successful Trusts will be issued in line with NHS Trust Development Authority Capital Regime and Investment Business Case Approvals Guidance for NHS Trusts (paragraphs 2.20 and 2.21): <http://www.ntda.nhs.uk/>. As funding for this initiative is strategic capital, the normal PDC rule that Trusts must exhaust their internal cash reserves prior to drawing PDC will be waived. Grants will be made in line with guidance provided in *"The Preparation of Specific Grant Determinations for Local Authorities"*.

It is vital in order to meet HM Treasury rules that payments are not drawn down in advance of need. As the funding for projects may run over two financial years it is important that the profile of funding is identified at an early stage in the capital planning process and updated as necessary through the year in capital plans.

Capital allocations are available in FY2014/15 and FY2015/16. Successful recipients will be responsible for the revenue implications of the capital applied for and must be able to cover the associated cost of capital, depreciation charges and any other revenue elements associated with the implementation of the project.

All central capital funding must be spent by March 2016. If the project slips, there is no guarantee that central capital funding will be made available in subsequent years.

Discrete elements of large capital projects are eligible to apply for funding from the Integrated Digital Care Fund. However, elements awarded capital from this fund must be operational by March 2016. Applicants should make it clear how the funding for the rest of the project is being secured. Examples of this type of project may include where a Trust is already implementing a Trust-wide enterprise level Integrated Digital Care Record system and is bidding to the Fund for a discrete element of this, such as the implementation of e-Prescribing within the Trust.

### 8.3 Capital Classification

For the purpose of the Integrated Digital Care Fund, capital is classified as work that generates a physical asset, with an expected life of more than one year. Capital resources may only be used to finance the delivery of what, under International Financial Reporting Standards (IFRS), are regarded as non-current assets tangible, intangible or investments.

A key requirement of non-current assets is that there is a reasonable probability that they will deliver future economic benefit (i.e. valuable service) over more than one year (in most cases many years). A non-current asset can be bought or enhanced with capital funds. Expenditure to maintain an asset at its current state is not normally regarded as capital expenditure and cannot be funded with Department of Health capital.

A threshold value of £5,000 per item inclusive of VAT must generally be reached before expenditure can be funded with capital. Exceptions may be allowed, where the assets form part of a group of assets that aggregates to more than £5,000.

To qualify as a group, the assets must meet all of the following criteria:

- functionally interdependent (e.g. an equipment network)
- acquired at the same date and likely to be disposed of at about the same date
- under single managerial control
- each component asset of the group must cost £250 or more.

Only costs that are directly attributable to bringing a non-current asset into being and into appropriate condition for their intended use can be capitalised and funded by the Integrated Digital Care Fund.

## Annex 1: Open Source Suppliers

Supplier	Solution	Description
<b>CiS</b>	Theriak Medicines Management	Theriak Medicines Management (TMM) is a closed-loop e-Prescribing & Medicines Management solution designed to integrate with 3rd parties such as Pharmacy & Laboratory without the need for a 'rip & replace' strategy of such systems. Its drug decision support tool offers a graphical display of patients' interactions without the need for reading lists of written text. It is deployed in a wide variety of hospitals throughout mainland Europe.
<b>General Dynamics Information Technology</b>	VistA EPR	VistA EPR is an integrated support tool that compiles patient records in one location for the benefit of clinicians, and simplifies the statistical tracking of various indicators through the use of a single database. OpenVista can be leveraged across acute, ambulatory and long-term care environments as well as in multi-facility, multi-specialty healthcare organisations.
<b>HP</b>	Healthcare Information System (HCIS)	HCIS is a Healthcare Information system that supports administrative and clinical processes. HCIS is a single EHR for a continuum of care, a single ordering system, a clinical and administrative workflow, including appointments, waiting lists, operating rooms management, referral management, e-prescribing, clinical pathways.

Supplier	Solution	Description
<b>IMS</b>	MAXIMS EPR	MAXIMS provides a PAS/EPR for an acute hospital. By using the full functionality of MAXIMS PAS/EPR, healthcare providers can create a single patient record that contains all the relevant information about every aspect of their care and generate the code for any diagnosis, procedure, allergy and comorbidity utilising any taxonomy adopted by the organisation. This includes historic notes, all correspondence, past and future appointments and care details.
<b>Moorfields Eye Hospital</b>	OpenEyes EPR	OpenEyes is a web-based Electronic Patient Records (EPR) system for ophthalmology which enables clinicians to access all the information they need about their patient in one place. OpenEyes is a collaborative, open source project which has been developed with contributions from a range of hospitals, institutions, academic departments, companies and individuals. With modules supporting the treatment of cataract, glaucoma, medical retina (AMD), medical retina (DRS) and Adnexal, and plans to expand to support all areas of ophthalmology.
<b>North Lincolnshire &amp; Goole NHS Trust</b>	WebV Clinical Portal	WebV is a Trust-designed clinical software product originally starting off as a results reporting/order comms system for Pathology and Radiology.
<b>OpenApp</b>	VistA EPR	OpenAp vxVistA is the most widely used Electronic Health Record (EHR) management software in the world. Commercial hospitals and health systems can now get the same benefits with vxVistA, a fully patient-centric, longitudinal EHR suite for the NHS.
<b>Open Health Care UK</b>	OPAL patients list	Open Health Care UK create clinician friendly digital healthcare solutions to support healthcare professionals and patient care. OPAL is an open source patient list and ward management software currently in use within the NHS.



## Annex 1: Open Source Suppliers

Supplier	Solution	Description
<b>Redhat/ AnswerConsulting</b>	Kings College Messaging Service	A middleware integration hub based on Red Hat JBoss Fuse. Currently deployed at King's University Hospital Foundation Trust, it allows over 50 hospital systems to exchange critical patient information quickly and reliably.
<b>Tactix4</b>	eObs & RenalLink	Tactix4 supply healthcare organisations with services and support for Open Source technology. Our expertise supports real-ward healthcare delivery: electronic observations in Acute Trusts, mobile apps for managing patients, service delivery benchmarking for CCGs and public health programmes.
<b>University Hospitals Birmingham</b>	Prescribing Information and Communications System (PICS)	PICS is a rules-based clinical decision support software system developed by UHB for use in Acute Care hospitals supporting a range of specialities in inpatient and outpatient care settings. PICS has been subject to multi-professional regular clinical feedback and has benefited from continued development and use over 10 years. PICS's clinical decision support framework incorporates e-Prescribing and medication administration capability with laboratory and radiology ordering, observation charting, assessments, results reporting, nursing assessments and discharge summaries.



## Annex 2: Benefits and Value for Money

Trusts are required to calculate the expected value for money (VfM) of their investment using the template and full guidance provided at <http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying>.

An investment is VfM if the total benefits outweigh total costs. This involves profiling costs and benefits over a number of years to show the overall economic return of the project. Department of Health spending is expected to return a quantified economic benefit of at least 2.4 (i.e. for every £1 spent £2.4 worth of quantified benefit will be generated), which is the minimum return the investment from the Integrated Digital Care Fund as a whole must deliver.

The required threshold for individual applications to the Integrated Digital Care Fund is, however, 1.5:1 for digital care record initiatives and 1:1 for e-Prescribing. This reflects the wider patient, societal and other qualitative benefits investment in these capabilities delivers. Once deployed and being used effectively by staff, they help improve safety, clinical decision-making and the overall experience of using health and care services. Measuring the true impact of these in purely financial terms is not always possible or appropriate. Applicants should provide full details of any such non-quantified, non-financial benefits in section C of their completed VfM submission.

Whilst the expected VfM ratio is likely to be indicative at this stage and based on anticipated benefits, we expect Trust to provide clear evidence-based benefits as far as possible (please see guidance for more information). The VfM spreadsheet automatically applies economic discounting to quantified costs and benefits and calculates the VfM ratio.

We require this detailed projection of costs and benefits for a number of reasons:

- ensure the bid is VfM
- categorise VfM of bids of a similar nature
- assess the overall VfM case for the fund
- consider future benefits delivery
- generate evidence and case studies to inform similar future investment.

### Example VfM calculation

The following page contains an example of a fully-completed VfM calculation using the template provided at <http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying>. It contains details of costs (capital and revenue) and benefits (cash-saving and productivity) over a 10-year life.

## Annex 2: Benefits and Value for Money

Values exclude VAT, are discounted at the standard public sector rate (3.5% a year) and the overall benefit to cost ratio (VfM) is listed at the bottom of the table.

Details of each benefit are included alongside the table. These include a description, the type, value and assumptions used to calculate the value.

## 2. Worked Example for Spreadsheet

Proposal to invest a new IT system: this is estimated to cost £50,000 to buy and install initially. The maintenance refresh costs, and the other revenue costs of the new system are estimated to be the same as before and so no additional costs are recorded. Transition costs are assumed to be £5,000 for the first year. The new system will lead to a reduction in admin costs, which is estimated to save the Trust £10,000 a year. This is entered as a cost saving in the benefits section. The new system saves staff time and generates productivity savings. This has been estimated at £30,000 per year (please note that you will need to clearly explain your assumptions, evidence base (if applicable) and workings out in the boxes provided in the template below the costs and benefits table). The appraisal period has been set at five years because this is the length of the contract signed with the supplier.

**Table 2: Worked example – applying costs and benefits in the spreadsheet**

Financial Year	2014/15	2015/16	2016/17	2017/18	2018/19	TOTAL
Discount rate	1.00	0.97	0.93	0.90	0.87	
<b>Cost category</b>						
1. Initial Capital expenditure	£ 50,000					£ 50,000
2. Maintenance/refresh costs (ongoing capital expenditure)						£ -
3. Transition costs	£ 5,000					£ 5,000
4. Additional revenue costs associated with investment						
<b>TOTAL COSTS</b>	£ 55,000					£ 55,000
<b>Benefit category</b>						
5. Cost savings	£ 10,000					£ 50,000

Financial Year	2014/15	2015/16	2016/17	2017/18	2018/19	TOTAL
Discount rate	1.00	0.97	0.93	0.90	0.87	
6. Productivity	£ 30,000					£ 150,000
<b>TOTAL BENEFITS</b>	£ 40,000					£ 200,000
<b>UNDISCOUNTED TOTAL OF COSTS AND BENEFITS</b>	-£ 15,000					£ 145,000
<b>DISCOUNTED TOTAL OF COSTS AND BENEFITS</b>	-£ 15,000					£ 131,923

<b>DISCOUNTED COSTS</b>	£ 55,000					£ 55,000
<b>DISCOUNTED BENEFITS</b>	£ 40,000					£ 186,923

<b>Discounted Cost to benefit ratio</b>	<b>3.40</b>
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## Annex 3: Technology & Architecture

### API Standards – Policy Statements:

The term Application Programming Interface, or API, in this context is used broadly to refer to any mechanisms which allow a system or service to access data or functionality provided by another system or service.

Open APIs are those APIs that have been exposed to enable other systems to interact with that system, and those APIs have been sufficiently documented that the available functionality is discoverable, fit for purpose and re-usable.

This section outlines the specific policy statements and marks out a set of clear expectations for those providing and consuming Open APIs:

Ref	Policy Statement
Ref	Policy Statement
P.1	All significant business functionality provided by the host system should be available via an Open API.
P.2	Data held by the Data Processor on the host system on behalf of the Data Controller must be made available as instructed by the Data Controller.
P.3	The existence of each exposed API must be published on publicly available resources.
P.4	Each exposed API must have freely accessible documentation that has sufficient information that would enable a competent developer has to make use of the API without further information.
P.5	Each exposed API should be accessible free of charge to enable testing. Where access to the API is chargeable and/or identified, developers must have non chargeable access to test APIs.
P.6	Access to confidential data, including patient or clinical data, through any API must meet, as a minimum, the same requirements for information governance, authentication and authorisation, and auditing as the host system the API exposes.
P.7	All commercial agreements relating to the development and use of Open APIs must be fair and transparent.
P.8	Licences for usage of Open APIs by a Consumer with anonymous access must be royalty free, perpetual, non-exclusive and transferable.

### Annex 3: Technology & Architecture

To support this direction of travel on architectural policy we would expect open APIs to have the characteristics set out below.

The party responsible for providing these features is also defined in the following table:

Reference	Characteristic	Summary	Responsible
C.1	Scope	Definition of the provided API including, usage, context and the exposed functionality.	Producer
C.2	User	If the user of the API needs to be identified or is anonymous	Producer
C.3	Documentation	Clear documentation of the API to enable developers to use the API with accompanying sample code	Producer
C.4	Testing	Testing environment(s) that developers can use	Third party/hosting of live environment
C.6	Availability	The days and times the API will be available, and provision for planned downtime	Producer
C.7	Performance	Specify the response times for the API	Producer and Host
C.8	Usage	The number and type of requests the user should be able to make in a given time period	Host and Consumer
C.9	Quality and Accuracy	Quality criteria for the API	Producer
C.10	Access/Registration/ Accreditation/ Termination	The approach specifying how a user can access the API, including any requirements for accreditation	Data Owner/Data Custodian/Provider
C.11	Commercial/financial considerations	Stating whether there is any charge for using the API	Producer
C.12	Information Rights	Any terms and conditions regarding the use of the data acquired via the API including security, retention and destruction policies	Data Owner
C.13	Changes to the API (versioning)	How changes to the API should be managed, and permissions obtained.	Producer

## Interoperability specifications

Current Interoperability Toolkit (TK) specifications include:

Specification Name	Status*	Technology
Health and Social Care Integration for Adult Common Assessment Process	ISSUED	HL7v3 + CDA
Admission, Discharge, Transfer (ADT)	ISSUED	HL7v2
Clinical Documents – Discharge	ISSUED	CDA
Clinical Documents – A&E	ISSUED	CDA
Clinical Documents – Out of Hours	ISSUED	CDA
Clinical Documents – Ambulance	ISSUED	CDA
Clinical Documents – Outpatients	ISSUED	CDA
Clinical Documents – Discharge	ISSUED	CDA
Clinical Documents – Generic	ISSUED	CDA
Spine Mini Services	ISSUED	HL7v3
Urgent Care Clinical Dashboards	ISSUED	HL7v3
NHS 111 Messaging	ISSUED	HL7v3 + CDA
Telehealth	RC	CDA
Child Screening	RC	CDA
End of Life Domain Specification	DRAFT	CDA
Document Retrieval	DRAFT	HL7v3
Notifications	DRAFT	HL7v3
Health Protection Electronic Notification (HPEN)	DRAFT	CDA

**\*Status** **ISSUED** – indicates the specification has either been implemented or has been stable for some time without any issues raised against it.

**RC** – “Release Candidate” version that signifying that the specification is considered to be fit for implementation.

**DRAFT** – this is a version of the specification that has been released as a means to getting feedback from the implementation community.

## Annex 4: Eligibility Assessment

Name of Applicant:	
Name of Proposed Project:	
Date of Eligibility Assessment:	

**If the Application Form has an affirmative “Yes” response to all questions it shall proceed to Assessment Interview stage.**

Question	Yes	No
Application Form has been received prior to the deadline.		
Applicant has submitted only one application for delivering internal digital care record or e-Prescribing capability. <i>Note: plus <b>one</b> additional application is permitted, in partnership with another NHS Trust, Foundation Trust or local authority to assist in the creation of an integrated digital care record.</i>		
Applicant is an NHS Trust or Foundation Trust, or a local authority working with an NHS organisation to deliver integrated records across care settings.		
Confirmation that the project will be match-funded, e.g. applicant will commit an equivalent amount of capital or revenue (or a combination of both).		
Confirmation that the proposed project is deliverable within the timeframe of 2014/15 and 2015/16.		
Applicant has demonstrated a projected VfM ratio of more than 1:1 for e-Prescribing and greater than 1.5:1 for digital care record initiatives.		
If the Applicant was successful in Round One of the Integrated Digital Care Fund, confirmation that this was for a different project. <i>Note: Applicant can apply for funds in Round Two for a different project if confident of being able to deliver both projects concurrently.</i>		
Confirm that the scope of the project is to deliver digital care, integrated digital care or e-Prescribing capability.		
Applicant is not already receiving LSP funding for the proposed project.		
<b>Confirm that the following documents are attached:</b>		
VfM analysis showing the economic return on investment from the application.		



Question	Yes	No
Financial planning analysis demonstrating the expected spend profile and matched funding from the applicant.		
Governance Overview Chart for project (guidance at <b><a href="http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying">http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying</a></b> ).		
Technical architecture or information flow diagram (guidance at <b><a href="http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying">http://www.england.nhs.uk/ourwork/tsd/sst/tech-fund/applying</a></b> ).		
Collaboration letter provided by the Trust Board and the relevant local commissioning organisation(s). <i>Note: if the Applicant is from multiple organisations this must also be supported in writing by the local Health and Wellbeing Board.</i>		