**Setting the ‘North Star’**

**Our shared direction for digital services**

**April 2021**

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## Executive Summary

* Our system overall and digitally is at a low level of maturity. We are working towards establishing system level services and capabilities.
* Our ICS Leadership have a strong vision for the ICS and the role that digital and data should play but this is not yet well known across the system.
* This digital strategy is led by the MSE ICS vision. Digital and data are critical to transform resident outcomes and to make MSE an attractive place to work.
* We need to invest significant time and money to build digital foundations of people, technology and practice.
* A new Chief Digital and Information Officer (CDIO) and digital team will work closely with the new MSE Partners team and governance to ensure that digital enables new services and that needs of these new services feed into digital requirements.
* We will strengthen Clinical Leadership for digital and information, including providing dedicated time and appropriate support.
* We will improve our existing partnership working including better collaboration across organisations, functions, places and our wider region.
* Digital teams in individual organisations will work to system-wide digital principles and operating model.
* ICS integrated governance, engagement and communications will be key.
* MSE leaders must be the champions for change, creating and role modelling a collaborative culture, service line and end user focus which is data and digitally enabled.

MSE has recently been designated as an “Integrated Care System” or “ICS”. However, we are aware that this term will mean different things at different points in time as we evolve from a health and care partnership to a statutory entity. For the purposes of this document, all references should be considered in the broadest sense, including both those organisations who will become part of the any new statutory body and partner organisations such as the local authorities.

This Digital Strategy will lay the foundations that will enable MSE to develop an integrated ICS strategy and enable service line delivery. It has been developed in advance of some other areas of work and we will need to revisit it regularly to ensure it aligns with evolving developments across the wider ICS.

# Setting the ‘North Star’ for Digital

This strategy outlines the direction for digital services for our ICS and is intended to act as the ‘north star’ for all partners. It describes our shared vision and acts as a system-wide digital roadmap.

## Introduction

As an ICS we are committed to taking a ‘digital-first’ approach and to realising the benefits that data and digital technology can deliver for our residents. Over the last year, Covid-19 has accelerated this change, adding a momentum to the adoption of digital services in order to minimise interactions.

We are determined to build on these changes, consolidating and strengthening what has already been introduced as well as addressing gaps identified and developing new services. However, we are also aware that our system work is at an early stage and that any digital strategy must complement and fit the overarching developments in the ICS more broadly. Several of the key organisations within the ICS – particularly the Acute Trust and Clinical Commissioning Groups – are also currently in the process of significant change.

This strategy is, therefore, intended to be a ‘live’ document which will respond to this evolving situation. It is designed to support our journey to becoming a digitally mature system.

Those engaged in the development of the strategy have agreed it is important to first develop the core foundations – that we walk before we can run. The objectives of this strategy take this into account whilst also reflecting some of our bigger ambitions and the national direction of travel.

## Our Area

The Mid and South Essex Health and Care Partnership is a partnership of health and care organisations in the mid and south Essex area. Our area covers 1.2 million people in the boroughs and districts of Basildon, Braintree, Brentwood, Castle Point, City of Chelmsford, Maldon, Rochford, Southend-on-Sea and Thurrock.

We have recently been designated as an Integrated Care System (ICS) but we are still in the process of developing our shared systems and processes as well as introducing new ways of working.

This Digital Strategy has been developed in advance of some other areas of work and we will need to revisit it regularly to ensure it aligns with evolving developments across the wider ICS.

## Who this digital strategy is for:

* Our ICS leadership team:
	+ To set direction and alignment of how digital will enable our ambitions as an ICS
	+ To set out requirements for central resourcing and roles
	+ To give confidence in the approach being taken
	+ To seek support and build champions for the work required to take this forward
* Individual organisations in our partnership, including voluntary and community services, to set out how we are going to work together and seek support
* Digital leaders and their teams in our ICS, to set direction and how we are going to deliver our digital strategy
* Regional and national partners to show how we will work them and seek their support
* This digital strategy will be iterated over time and linked to the overall ICS Strategy as it develops. Further engagement will take place as part of wider MSE strategy engagement with residents and staff.

## Our ICS and Digital Vision

**Our MSE ICS Vision is to deliver better outcomes for residents and create an attractive place to work for staff.**

To achieve this overarching vision for MSE, the ICS will:

* Prioritise prevention and wellbeing
* Focus on service pathways
* Elevate and prioritise clinical and professional leadership
* Let residents, patients, services users and staff lead, to achieve better outcomes
* Be resident-centric in our approach, at system, Alliance and neighbourhood level
* Develop standards, define outcomes and set common clinical and professional policies
to guide our work and deliver safe, high quality, and responsive services

A clinical lead and supporting team will be identified for each service line. They will focus on the health and care pathway from a resident/patient perspective and target resources to ensure that money follows activity.

These service line teams will help us shift our focus to prevention and early intervention so that we address residents needs before they escalate. This will include tackling the wider determinants of health. This will require a strong population health management approach and we must improve our data and intelligence capability and capacity to accelerate this work.

Over time the aim is to track the efficiencies gained from this way of working and enable savings and efficiencies to be ploughed back into service lines.

This Digital Strategy is led by this MSE ICS Vision

**Our Digital Vision is to provide digital and data solutions that drive insight led decisions, support our workforce and enable better outcomes for our residents**

## How digital will enable our ICS vision

Our Digital Vision is to provide digital and data solutions that drive insight led decisions, support our workforce and enable better outcomes for residents

### Digitise

* Digital services and infrastructure
* Digital capabilities and capacity
* Innovation and work with third parties

### Connect

* Access to data where and when it’s needed
	+ Accurate, trustworthy and real time
* Analytics (PHM - population health management - and direct care)
	+ Insight for clinicians and professionals
	+ Informed decision making
	+ Performance dashboards
* Service design and development
	+ Safe secure testing environment
	+ Digitally supported reporting, able to evaluate services in real time, to feed dynamic adjustments
	+ Support stewardship (MSE Partners) with fully, quality, timely datasets and to enable new services
	+ Enabling testing and scaling of innovation

### Transform

* Services
	+ Designed for care pathways, not setting or organisationally specific
	+ User (resident and staff) focused
	+ Data updates in real time
	+ Automated processes for admin and triage
	+ Provide preventative interventions that are data generated (e.g. through AI)

All of this is underpinned by effective leadership, governance and partnership working.

### Delivering this will:

Improve resident healthcare experience & outcomes

* Accessible digital services, easy to use
* Simplifying access to, and administration of, health and care services
* Empowered to manage own health and care with read/write access to record and care plans
* Confident in security of data

Make MSE an attractive place to work for staff

* Home working
* Access from any site
* Easy to use systems and teamworking tools
* Well informed with high quality data
* Reduced time spent on administration and login
* Supported to work in cross-functional and cross-organisational teams

## How digital will enable our ICS vision

We are committed to using digital and data systems and new technology to support the delivery of our overarching vision to improve health outcomes for our residents and ensure Mid and South Essex is an attractive place to work for our staff.

### We have ambitious plans to achieve this by adopting a far-reaching ‘digital first’ approach.

However, we also recognise that it will take us time to move from our current position as largely disparate collection of individual organisations with varying capabilities to an empowered system able to make maximum use of the digital opportunities. Much as we would like to do more, we recognise that we must walk before we can run.

We have considered how digital can enable our ICS vision and support our system priorities – see the diagram on the previous slide. We have prioritised the work needed and identified four core elements to ensure we put in place the essential foundations:

* Effective Leadership, strong Digital Governance and improved Partnership Working
* Digital Capabilities and Capacity
* Digital Services and Infrastructure
* Innovation and work with Third Parties

These foundations are key to digitise our system. We need to create capabilities from our infrastructure, people and practice. We can then make them effective through strong governance, with leadership from digital champions and our system leaders​. This will enable data – the blood of our integrated care system – to flow between care settings, staff, and residents. Robust and reliable data will inform both analytics and services, enable smart service development and transform delivery.​ It will also allow us to leverage innovation and capabilities from third parties to address our priorities​, and empower system insight and oversight.

While our priority is to put these foundations in place, we have identified a number of actions where we don’t need to wait to make a difference to our residents. These are included in our fifth priority area:

* Empowering Residents

### Part of a wider Transformation Agenda

Organisational digital teams will work with a new ICS level digital team to establish these foundations. However, this digital work cannot be viewed in isolation. Instead, it must be seen as part of the wider ICS transformation work. Digital must work with MSE Partners to deliver system transformation including developments such as population health management (PHM).​ Only when we do this, will we be able to ensure digital and technology is an enabler – rather than a barrier – to transforming health and care services in our area.

# Background and Context

## How we developed this Strategy

### Our Approach

* Our current Digital Board developed the principles that underpin this strategy
* The draft strategy was then developed by a small team from Seymour John Solution Delivery working with a multi-agency Strategy Working Group. This involved:
	+ Information gathering, including a review of key MSE documents and a series of interviews with stakeholders from across the ICS
	+ Considering the regional and national context, including the NHS Long Term Plan, White Paper on Integration and Innovation, What Good Looks Like (WGLL) Framework
	+ Analysis of the gaps between the current state and the ICS ambition
	+ Working sessions to review information, to shape actions, and agree priorities

Information on the documents reviewed, and the interviews undertaken are included in the Appendices.

### Interdependencies with wider developments within the ICS

The developments outlined in this Digital Strategy are designed to support the delivery of the overarching ICS vision. It will, therefore, need to adapt and evolve as the ICS matures and develops as a system. In particular:

* The digital governance outlined in slides 18-22 will need to knit into the broader ICS governance structure and teams
* Communication and engagement around the Digital Strategy will need to form part of overall ICS activity
* The MSE service line vision is ambitious and will take some time to establish
* Capabilities will be developed as the approach to service lines is developed
* We will work with the new MS Partners team to integrate digital into priority programmes

### Recognising cross-boundary challenges

Several of the key partners within the ICS serve populations beyond MSE boundaries, meaning they need to balance expectations from multiple systems. Our work needs to address the requirements of these wider areas as well those of MSE to ensure we can work together effectively to deliver the best outcomes for our residents.

## What do we mean by digital?

The term ‘digital’ is used to mean different things depending on the individual and/or organisation. As an ICS we have agreed a shared definition to ensure we are all talking about the same thing.

We have adopted a deliberately broad approach that goes beyond the technology being utilised and incorporates the transformative ways of working that are required to improve outcomes for our residents.

Our digital scope, therefore, has six key elements.

* Empowered Residents - to us digital means placing residents at the centre of our planning, designing system-wide tools to empower residents to manage their own health and wellbeing. We recognise that we may need to provide support to use these tools and to offer alternatives to ensure inclusion.
* Strong Foundations - to us digital means having a shared infrastructure and the data capabilities to support the delivery of high-quality care and effective collaborative working across the system.
* Shared Standards - to us digital means ensuring that our use of technology is of a high quality and compliant with legal and security requirements. It means having clear standards across the ICS that all members follow.
* Transformed Pathways and Innovative Care - to us digital means using data to support modelling and managing care pathways. It means using digital and data as an enabler to enhance the clinical and patient experience across these pathways.
* Supported Staff - to us digital means having staff with the confidence and skills to utilise technology and data in their roles. We recognise this will require training and support to embrace new ways of working.
* Leadership - to us digital starts at the top with clear strategic leadership and governance.

## Our MSE Digital Principles:

Before starting work on this digital strategy, we agreed eight principles that would guide all our work.

* Be system wide, HCP and ICS first, but considerate of local plans and cross STP boundary working
* Be patient and resident focused, ensuring digital inclusion, equity of access and cultural awareness
* Be based on a foundation of partnership working between clinical, operational and technical teams, with mutual respect for knowledge and expertise
* Focus on driving clinical and operational value (quality/efficiency)
* Equally consider health and social care needs and priorities taking in to account the potential for differential impact on individual organisations
* Be underpinned by explicit deliverable outcomes with clear measurable outputs
* Use data at the heart of all plans to support and inform decisions
* Balance innovation and new developments with existing technology and processes to meet short and long term need, optimising existing technology whilst looking for new when appropriate.

**This strategy builds on these principles**

## Why do we need a digital strategy?

As an ICS we recognise that data and digital technology have a vital role in helping local partners in health and social care work together to deliver high quality care.

Despite some good practice within individual partner organisations, we also know that digital maturity and data quality is variable across our system and too often work takes place in silos.

We began our strategy work by undertaking an honest review of our current situation.

### This identified the following challenges:

* **Governance and leadership** – we lack dedicated digital leadership at the ICS level. We need shared standards and central co-ordination of digital initiatives. Too often our digital initiatives are reactive to short-term funding rather than strategically planned. We also need to build a common language across our partner organisations.
* **Connected systems and data** – we have multiple clinical and care systems and limited understanding of what is available across the ICS. The lack of interoperability between these clinical systems leads to unnecessary duplication in assessments and decisions made in isolation. Our staff are unable to access data when it is needed. We don’t currently have a system view of costs and licenses. We need common systems for data processing and exchange.
* **Intelligence and Analytical Functions** – we lack system-wide near-real time actionable intelligence for effective performance management. Information about our residents is often collected for different geographies and time periods, making it difficult to undertake meaningful analysis of local population health needs.
* **Resident-facing services** – digital services (including online information, Apps, remote monitoring and remote consultation) are being actively used by many partners in MSE. These are currently added in a piecemeal way without a shared vision. As we introduce more and more digital services, we have already begun to consider digital inclusion but know we need to do much more.
* **Digital and data literacy amongst our staff** – to provide the best care, our staff need to be confident and competent using digital solutions. We know this is not always the case across everyone working for the ICS. We know our staff need access to accurate patient information, at the right time, using systems that are easy to use in order to deliver good patient care.
* **Innovation and transformation** – as an ICS we are committed to transforming the way we work together and joining up the delivery of services. Too often, however, digital projects and pathway redesign take place separately. We need to bring these together. We also need processes that encourage and facilitate innovation whilst simultaneously preventing any unnecessary proliferation of digital solutions.
* **Working Together** – we know that we don’t always work together as well as we could. Bringing teams and capabilities together will enable us to work more efficiently and achieve more for our patients. Joined up and simplified ways of working will also make MSE a more attractive place to work for our staff.

This digital strategy will address these challenges. It includes a phased plan to allow us to take the steps necessary to ensure the ICS is able to fully utilise digital solutions to drive collaborative working and improve outcomes for our population.

# Effective Leadership, strong Digital Governance and improved Partnership Working

To us, digital starts at the top with clear strategic leadership and governance. We are introducing new governance structures to strengthen our leadership and to foster positive collaboration.

## Digital Governance and Leadership

This document outlines our strategic direction of travel regarding data and digital as well as the practical next steps that we need to take to achieve our overarching vision. Our success in delivering our vision will, however, rely on effective digital leadership, strong digital governance and improved partnership working. Our refreshed digital governance and new leadership roles will enable us to deliver our strategy and work together at a system level.

* Central capacity and capability:
	+ CDIO and ICS digital team including PMO
* Strong leadership:
	+ Digital board of leaders empowered to make decisions, supported by SLEG
	+ Effective Clinical Leadership roles
* Effective cross-ICS governance:
	+ Portfolio management function and processes
	+ Oversight of digital programme delivery
	+ Shared functions and sub-groups
	+ Community of digital, clinical and professional leads across the ICS
* Improved Partnership Working
* Collaboration with the East Accord

### Enabling:

* Following ICS agreed strategy
* Implementing the strategy roadmap
* Clear accountabilities
* Central reporting for leadership team
* Resolve issues and manage risks
* Participation in the wider region and cross-border activities
* Collaborative approaches to cross-system priorities
* Engagement and collaboration

## Functions of our new Digital Governance

We have identified six key functions for our new digital governance:

### Managing this Strategy and Roadmap

* Regularly reviewing this strategy so that it remains a live document that is responsive to both new national requirements and developments within the ICS
* Managing the timelines of programmes to deliver this strategy, identifying both links to non-digital ICS programmes and functions (including service lines, population health management) and interdependencies with the digital roadmaps of partner organisations

### Portfolio Management

* Prioritisation and control of programmes and projects in line with this strategy and the capacity to deliver, balancing implementation of change and business as usual while optimising return on investment
* Addressing the tension between innovation and need to manage technology developments in an aligned way, making the most of investments across the ICS
* Creating processes to submit proposals for change that can address identified business needs
* Investment accountability and business case approvals
* Effective change controls processes that are easy for people to work with
* Tracking and oversight, to ensure progress is made in priority projects and programmes, with a route to identify, unblock and escalate risks as appropriate

### Delivery of digital programmes:

* Enabling programmes for the ICS that are wholly/primarily of a digital nature. This includes systems, data architecture, technical architecture, resident facing digital service architecture and specific projects such as the Shared Care Record, Data Lake, and Business Intelligence.

### Participation in cross-ICS programmes

* Digital is key to enabling cross-ICS programmes. Our governance will be connected to cross-ICS programme governance, integrated with the approach of MSE Partners

### Performance management of cross-system services

* Reporting on digital services serving our residents, workforce and organisations
* Ensuring effective business as usual

### Engagement and Collaboration to improve partnership working

* Ensuring all partners understand the role of digital in enabling the ICS ambitions
* Promoting the need to work collaboratively and the requirements of the underlying foundations for a sustainable journey towards our vision
* Establishing digital champions among system leaders
* Engagement with clinicians, professionals, service users and residents

## How will we deliver this Digital Governance?

### Digital Board with system leadership representation

* Senior organisation leaders, trusted by and accountable to SLEG to set strategy, monitor progress, take decisions, and manage risks
* Representatives of system functions including finance, strategy, clinical, professional (e.g., social worker), operations and transformation
* Not necessarily including a representative of each constituent organisation but trusted by individual organisations to act on behalf of the system
* Able to self-serve information e.g., through central document store, live access to roadmap and reporting
* Role modelling collaborative working and culture to drive transformation
* Reporting into SLEG and working in partnership with other ICS level boards
* Supported by CDIO team, producing reporting and implementing actions

### Digitally literate SLEG and key system leaders

* Understand the role of digital in delivering the ICS objectives, programmes and functions
* Actively driving collaboration between organisational digital teams and programmes across the ICS and with the ICS digital team

### Collaborative ways of working

* Digital tools and knowledge management that enable effective working of the ICS digital team with colleagues across the system:
* Including access to information and online collaboration
* Potential early win to set this up
* Test and learn to set a model for other areas to follow

### Shared functions and sub-groups

* Established and supported by the ICS digital team with leads assigned for each
* Consisting of relevant leads from across the ICS constituent organisations
* Including business intelligence, technical design, data standard and quality board, information governance, analytics group, clinical and professional reference group and service user reference group

### Clarity of roles and accountabilities of the central ICS digital team and of organisation digital teams

* Agreed respective roles for strategy, delivery, individual programmes and reporting
* Endorsed by SLEG and supported by leaders
* Opportunities for digital team members from individual organisations to lead system level change

### An engaged community of digital and clinical leads across the ICS

* Supported by the ICS digital team communications and engagement resources
* The appointment of Chief Clinical Information Officer (CCIO), to provide digital clinical leadership and drive engagement and alignment with clinicians
* Strengthened clinical digital leadership within all ICS organisations (see slide 26)

### Operating model for digital agreed by SLEG and signed up by constituent organisations

* Acceptance of implications for standards, procurement, change control etc.
* Clear processes for input to, and approval of, transformation and innovation programmes with digital dependencies

### Agreed ways of working with the East Accord.

# Digital Capabilities and Capacity

To realise the benefits of data and digital technology across the ICS, we need to build dedicated capacity at the centre. We also need to ensure our workforce have the necessary digital capabilities.

## Current Capacity and Capability

When considering the priorities for developing our digital work, members of our Digital Strategy Working Group frequently identified current capacity and workforce capabilities as areas for focus.

### Lack of Central Capacity

* The ICS does not currently have any dedicated staff leading and co-ordinating digital activities. This is the main barrier to progressing work at a system level and to ensuring a consistent approach at place and neighbourhood level.

### Capacity limits Clinical Input

Our clinical leadership is stretched. A lack of clinical and professional input into the design of new services has resulted in low adoption of some digital solutions, with poorer utility.​

### Workforce Capabilities

* The last year has seen a rise of staff using digital tools when interacting with each other and when delivering health and care services to residents. This move from face to face to a blended approach utilising digital options has resulted in some increased efficiency in delivering care. There are many examples of successful initiatives across the ICS area where staff have worked flexibly and efficiently in response to Covid-19.  However, although remote working has enhanced digital literacy, there are gaps in the digital skills. This needs to be addressed to enable MSE to fully utilise digital tools and services.
* The informatics workforce – those who work in data, digital, technology and knowledge – is expanding in organisations across MSE. As we move forward, we need to identify what new informatics expertise is required and how these roles should be managed at an organisational and ICS level. Being able to attract the right people with the right skills is key for the success of technology use across MSE.

## Central Capacity

If we are to going to deliver the benefits of digitally-driven, resident-centred care across the whole ICS, it is crucial that we build capacity and capability at the centre. We will, therefore, appoint a Chief Digital and Information Officer and central digital team to enable our digital governance and drive internal and external engagement.

* CDIO, in future working with the (to be established) CCIO, CNIO and Chief Social Worker
* Central team consisting of:
	+ Directors/leads for key central functions including business intelligence and data, technology and programme office
	+ Flexible digital resources to support digital projects for the ICS
	+ Leads for architecture, information governance and integration to coordinate counterparts across the ICS and run design authorities
	+ Resource to develop and deliver governance processes
	+ Communications and engagement leads
* The team will ensure essential cross-system engagement and communication:
	+ Fostering cross-MSE communities of digital professionals, clinicians and professionals
	+ Maintaining a who's who of experts and leads across our constituent organisations, to connect and drive effective working
	+ Represent the ICS in the East Accord and feedback to individual organisations

## Strengthening Clinical Input into Digital

### Clinical Digital Resource principles:

* Digital transformation must be supported through our clinical and professional workforce.
* Clinicians must have protected paid time to enable them to effectively support the digital agenda.
* It’s vitally important to have a spectrum of practice from social care, mental health, AHP, primary, Acute (doctors and nurses).
* It is important that there is clinical leadership both at the system and local organisational level and that this leadership has a voice to board/CEO level.
* There is a balance between local organisation clinical leadership and that at an ICS level.

### Our Approach to Clinical Digital Resource:

* A hub and spoke model for clinical digital leadership.
* ICS Clinical Digital Lead – could be an expansion of a clinical lead from one of our partners.
* Each partner organisation should provide their confirmed clinical leadership network (current and intended).
* Each Partner organisation to have a clinical digital lead who represents their spectrum of practice as part of the ICS clinical digital leadership group.
* A governance framework to provide clinical digital leaders grip and teeth with the agenda. (MSEFT had CODAG in place as a clinical council to support this).

### System Clinical Leadership:

* Primary Care CCIO
	+ Deputy CCIO (place)
	+ PCN digital Leads
* MH CPIO
	+ TBC (Service/Site)
* Acute CCIO /CNIO
	+ Site CCIO
	+ Site CNIO
	+ Service Digital Champions
* Community (Clinical Lead)
	+ TBC
* LA / Social Care
	+ TBC
* Care Home (Digital Champions)

## Workforce Capability

As well as building capacity at the centre, there is a lot we can do to develop digital capabilities across our entire workforce. We need to create a culture that puts digital at the centre while also ensuring our staff have the confidence and skills to make effective use of digital tools.

### A Digital Strand in our Workforce Strategy

Working with colleagues across the ICS, we will develop a digital strand of our workforce strategy that will:

* **Improve digital literacy** – this will include actions to ensure the health and social care workforce become fully competent and confident in the use of digital tools. This is likely to include training and education as well as considering opportunities for addressing needs at scale through ‘train the trainer’, mentoring, networking and coaching. We will also encourage cross organisational learning (for example, through rotations and secondments).
* **Empower staff to drive the digital change** – we will create the conditions to ensure staff can put their digital skills and knowledge to best use. We will use cross-organisational clinical and professional networks to encourage co-creation of digital tools, ensuring these are joined up and co-ordinated through our refreshed digital governance.
* **Join up informatics expertise** – we will ensure we have the right specialist informatics expertise across the ICS and ensure they are joined up to allow a consistent approach.

Communication with our workforce will be crucial to our success. We need to reach beyond those already involved in digital work to ensure that the entire workforce understands – and is able to make use of – the opportunities offered by digital tools.

## Workforce Requirements

Improving digital literacy and staff training to use digital tools will not fulfil the vision for the future workforce of MSE alone. It will only work if staff also have access to accurate data at any time, any place, across MSE. These are summarised in the table and covered in the next section.

### When I’m providing care I want to:

* To be able to access care pathway information, make enquiries and refer digitally through one system.
* Access details across health and social care and contact organisations through a single system to provide joined up care.
* Have access to appropriate tools to support my decision-making.
* Help me provide safer care by automating processes.

### How to make this possible

* Templates that can operate across clinical systems.
* Shared health and social care records.
* Tools for diagnostics.
* Electronic prescribing, electronic display boards, clinical decision support.

### What is required to make this possible

* Link pathways to electronic referrals; Interface with NHS national applications.
* Secure common system for data processing and exchange of shared information using integration engines; use of technical and data standards.
* Clinical input from digital champions and informatics workforce.
* Interface with NHS national applications.

### Outcomes

* Data can be accessed easily; collaboration across organisations will be seamless.
* There is a step improvement in the quality, consistency and structure of health and care records that allows information to be accurately and effectively exchanged with partner organisations, external care providers, residents and carers.
* Digital literacy is promoted, include training and assessment to establish and maintain core technology skills, which will encourage higher uptake of new technical solutions and support maximum exploitation of new and existing functionality.
* Integration of processes to enable seamless delivery of health and care.

# Digital Services and Infrastructure

As an ICS we will move to a shared infrastructure with the data capabilities to support the delivery of high-quality care and effective collaborative working across the system.

## Our infrastructure is currently distributed and fragmented

We currently have multiple clinical and care systems and limited understanding of what is available across the ICS.

The lack of interoperability between these clinical systems leads to unnecessary duplication in assessments and decisions made in isolation. Our staff are unable to access data when it is needed.

This fragmentation means we lack a “single version of the truth” to guide our work.

We also don’t currently have a system view of costs and licenses.

To establish strong infrastructure and meaningful shared data we have identified that we need:

* Integrated information systems across MSE
* Reliable and safe systems that are trusted by those who use them
* Agreed protocols, including data capture, coding and reporting
* Connected systems adaptable to incorporate new innovations to meet future needs:
	+ New ways of working
	+ New clinical and care delivery models
	+ Estates and organisation reconfiguration and optimisation
	+ Increasing use of virtual consultations and remote medicine
	+ Leveraging analytics and AI to augment clinical practice
	+ Contribution to clinical research
	+ Links to national services and reporting via APIs
* We will do this by:
	+ Agreeing and implementing our overarching ICS Information Framework
	+ Building our Target Operating Model
	+ Delivering priority applications and infrastructure

## We need to move towards integrated systems to drive effective data sharing

### Loose Affiliation of Providers - We are here now

Key stakeholders adopt their own applications and technology and are not integrated with each other (e.g. manual,  paper-based interactions)

* Each organisation has the independence to decide its technology landscape, enabling them to flex and change
* Communication among stakeholders is paper based/unstructured electronic and any collaboration is manual
* Applications do not integrate and hence cannot communicate with each other; limited information exchange via MESH/email/SMS

### Standards Based Integration - Minimum to work effectively as a system

Common technology standards and an interoperability framework are adopted for communication across stakeholders

* Communication between stakeholders is facilitated as common standards and communication frameworks are adopted
* Data sharing is still cumbersome and in some cases, requires manual interventions
* Organisations may not have an accurate and common view of the patient data
* No Master Patient Index across ICS

### Shared Care Network (SCN) - Overall direction, tailored to meet ICS strategy needs

Technology (e.g. applications, infrastructure) is shared by all organisations making integration and data sharing seamless

* Applications are integrated facilitating seamless data sharing
* All organisations have an accurate and common view of patient data
* Referrals and scheduling are automated
* Organisations have reduced flexibility to decide on their technology landscape

## Developing our ICS Information Framework

We are developing our ICS Information Framework that will help partners align resources on cross-organisational projects in a structured manner. This will:

* Achieve strategic goals that depend on digital resources
* Build a shared language that everyone can use
* Improve business performance by maximizing systems efficiency
* Give total visibility of multiple IT networks, systems, applications, services, and databases across the entire enterprise
* Share information between lines of business
* Reduce duplicative IT resources across the enterprise
* Meet regulatory requirements to ensure compliance and protect our data and IT assets
* Maximize the effective use of limited budgets, demonstrating return on investment

We will ensure we are consistent with NHS principles:

* Design services around the users’ needs
* Reuse before Buy/Build
* Deliver more integrated and sustainable services
* Put tools in modern browsers, supporting a move to a “mobile-first” approach
* Adopt “internet-first” standards to ensure services are available over the public internet
* Use a “Public Cloud first” approach to reduce deployment time and emissions
* Build a data layer with registers and APIs to reduce costs for data replication and allow one version of the truth
* Adopt appropriate cyber security standards so we maintain public trust in how we hold, share and use data
* Seek interoperability with open data and technology standards

## Our Information Framework Principles

### Be resident/staff-centric​

Services will be resident/staff-centric, enabling connected user journeys/experiences and putting the needs of our residents/staff at the heart of our strategic choices, including standards selection.​

### Deliver solutions strategically​

We will optimise Digital & IT investments by focussing on activity that moves us toward our strategic goals and reduces unnecessary spend. Alignment to MSE’s strategic roadmaps is key to delivering this principle.

### Build in the best interests of MSE as a whole​

We will own design decisions for each of our end-to-end services, which will be capability-driven and thus designed to enable a vision of a coherent integrated MSE ICS and not specific organisations, functions or localities. ​

### Build to change, be flexible​

End-to-end service lines will be designed to be flexible – being portable, extensible, scalable and accessible anywhere. Ultimately, we must be able to react quickly and be flexible enough to change direction regarding our technical decisions, in line with service line demands. ​

### Be efficient and effective​

End-to-end services lines will be designed for optimum efficiency, affordability and effectiveness, making solutions both manageable and supportable while lowering the cost of service delivery.​

### Be proportionately secure & resilient​

End-to-end services will be designed to be secure and appropriately resistant to failure.​

### Be compliant​

We will comply with national, regional and ICS specific standards, laws and regulatory frameworks.​

## How we will apply these Principles

### Applications and Systems

* All systems
	+ Ensure that the delivery of systems includes staff training to help underpin the delivery  of care
	+ Optimise the use of current systems and consider how they complement each other
	+ Build systems around the development of new service lines
	+ Ensure there is clinical ownership of systems and they are driven by clinical needs
	+ Build solutions that support the “single version of the truth” philosophy
* Support the delivery of direct care
	+ Collaborate across organisational boundaries and ensure applications are shared by multiple health and care teams and appropriate information is visible for all those who need it.
	+ Capture and share accurate patient data to support direct care, including data added by the patient
	+ Empower residents to take greater control of their own well-being
* Remote Monitoring
	+ Integrate Remote Monitoring filtered information into clinical systems
	+ Provide capacity to ensure patients understand the role of digital and technology
* Analyse data from multiple sources
	+ Gain services and plan future demand including new services

### Data Platforms

* Ensure data platforms exploit Public Cloud services (e.g., Azure, AWS) but maintain an independence from them
* Ensure the storage of data is separated from the computing to take advantage of scalable cloud performance
* Use open-source solutions wherever possible and minimise supplier lock-in whilst recognising that long-term partnerships may be advantageous
* Build partnerships and exploit current outsourced services (e.g. CSU)

### Infrastructure and Cyber Security

* Ensure data and information is secure in transit and uses NHS recommended encryption standards
* Ensure all services meet the DSP requirements and that Cyber+ is engaged and all systems are kept updated
* Comply with NHS principles and move data to the cloud
* Ensure all networks – WAN, LAN WiFi and mobile services - are fit for purpose
* Ensure that all devices support all operational application systems
* Support seamless secure remote working – mobile, remote connectivity
* Enable remote monitoring in resident’s own homes
* Provide technology capabilities to support:
	+ Unified communications – voice, video, messaging
	+ Collaborative working – Microsoft Teams and other collaborative tools such as Mural, Pando
	+ Remote patient consultations
* Exploit advanced technologies – voice recognition, translation, MS Azure AI clinical analysis

### Information Exchange and Integration

* Ensure that APIs conform to NHS interoperability standards
* Ensure interface with current NHS national systems (e.g., ErS, PDS, spine mini services etc.) and ready for future (API-ready)
* Align all current exchange products (ACP, HIE) with the MVS1 national standard requirements
* Deliver shared care records across a wide variety of care settings and provide data to other shared care records

## Our outline Target Operating Model (TOM)

### Integrated Care: Digital Components

### Policies, Procedures, Standards, Governance, Strategy

* Sets/monitors policies, standards and direction etc. to ensure interoperability, performance, and security of digital systems for health and care delivery, e.g., interoperability, data quality, information governance etc.

### Applications and Systems

* ICS Level Applications and Organisation Applications:
	+ ICS Applications are shared applications used by multiple health and care organisations or are applications managed at ICS level for strategic reasons, e.g., Unified shared health and care record, Population Health Management, Business Intelligence, Shared Care Planning etc.
	+ Organisation Applications are applications specific to the health care providers, e.g., primary care, NHS Trusts, Social Care, voluntary sector etc.
	+ Resident Empowerment​: Personal Care Records​, Online consultations​, Digital first strategy​, supports resident contributed information etc.

### Operations and Technical Support

* Provides support to Digital systems users, including:
	+ 1st line support (basic)
	+ 2nd/ 3rd line support (advanced)
	+ 4th line support (escalate to system vendor)

### Cyber Security

* Prevents malicious attacks on the health and care digital systems
* Ensures data and information is secure at rest and in transit, security compliance of suppliers hosting or exchanging data

### Data Platforms and Registries

* Enables secure and efficient storage, retrieval, and processing of health and care system data, e.g., storage of resident health and care record and care plan data etc.

### Information Exchange and Integration Engines

* Provides a secure, common system for the data processing and exchange of shared information
* Interfacing with NHS National applications, e.g., ERS, EPS, SCR, CP-IS, PDS, Spine Mini Service etc.
* Supports resident care for out of area treatment providers and wider East Accord ICSs

### Infrastructure

* Provides necessary network (e.g., LAN, WAN, WIFI, mobile access), user devices (e.g., workstations, laptops), input (e.g., sensors, medical devices), output (e.g., screens, portals), includes on premise and cloud based solutions

## Applying the TOM in our area and beyond

* The ICS Digital TOM recognises the link between place-based health and care delivery and the needs of the wider system
* The ICS’s suite of digital applications and systems will support cross organisational working and, over time, will work with partner organisations and the East Accord to:
	+ Improve continuity of care for those with ongoing conditions
	+ Enable more coordinated care for those with the most complex needs
* Where providers deliver services exclusively for the benefit of MSE residents, this provides an opportunity to develop highly a integrated shared care planning and delivery model
* Where providers are commissioned by multiple CCGs/ICSs, partnership working will be used, where appropriate, to minimise impact on these organisations while ensuring the needs of MSE population
* The ICS will support regional services to develop their digital capabilities to deliver integrated and seamless services, capture information at the point of activity, securely and appropriately share information with everyone involved in resident’s care, benefitting the whole region

The full Target Operating Model (TOM) is included in the Appendices, along with a high level implementation plan and list of the activities required to implement it.

## Priority ICS Applications and Infrastructure

### Unified Shared Care Records

* Purpose in y1
	+ Deliver MVS1\* to give view access to the resident health record at the point of care (\*MVS1: minimum viable solution specified by NHSE/I)
* Longer run purpose
	+ Deliver MVS2 to widen reach and functionality of access including local authorities
* Where we are now
	+ Capability to do some record sharing including read-only via HIE but with data quality and coding inconsistencies
	+ High degree of fragmented approaches - no single complete patient shared record across the ICS
* What we need to do in the next year
	+ Onboard partners and demonstrate the benefits
	+ Establish ICS wide data governance agreement
* Priority in the next 6 months
	+ Agree expectations of shared care record
	+ Identify what can be used in the existing ICS estate
	+ Plan the partner onboarding

### Data Platform(s)

* Purpose in y1
	+ Readiness capability for the business to inform service redesign
* Longer run purpose
	+ Foundational element of pathway services and wider analytics inc. BI and population health management
* Where we are now
	+ Conducted initial work considering technology solutions
	+ complementing existing infrastructure
* What we need to do in the next year
	+ Determine the architecture for our data platforms
* Priority in the next 6 months
	+ Go to market with a PIM to identify options to address our requirements

### ICS wide approach to remote monitoring

* Purpose in y1
	+ Consolidate remote monitoring activities to drive efficiencies, best practice and integrated data flows
* Longer run purpose
	+ Build remote monitoring as a strong capability to support innovation and enable development of transformative services
* Where we are now
	+ Several remote monitoring services running across the ICS
* What we need to do in the next year
	+ Consolidate reporting and performance management
	+ Ensure fit of third parties with architecture principles and TOM
* Priority in the next 6 months
	+ ICS appointed lead to gain oversight of remote monitoring activities at ICS level, identify priorities for consolidation and delivery plan

We will work with system-wide transformation service programmes to ensure that systems meet overall needs, including population health management, outpatient transformation and remote monitoring.

## We will work together to establish architecture principles, target operating model and infrastructure

As enablers of integrated care services, with shared technology platforms, it is essential to work together to ensure consistency of data recording and coding, minimising conflicts and increasing resident safety.

Improved partnership working, co-design and co-production will be used to oversee and support:

* Development and testing of integrated care and collaborative working across the local health and care economy
* Development of standardised coding and clinical data entry practices to improve clinical safety, data quality and record keeping
* Development and testing of systems and content to ensure consistency of data recording, minimising conflicts, potentially increasing resident safety and improving outcomes
* Collaborative working and integration with health and care providers in developing their systems and workflow processes to integrate more closely across the ICS
* Diverse care teams can codesign efficient systems and process to support integrated care and collaborative working across the local health and care economy

This will require dedicated time and resource from all our organisations, central capacity and governance and effective change management to ensure consistency of approach.

# Innovation and work with Third Parties

Our digital governance, operating model and functions need to enable innovation to address MSE health and care priorities. We need to be able to work effectively with third parties to design, test and scale.

## Innovation across MSE is currently happening in parallel to broader digital developments

### Current state

* Some good examples of innovation to address resident and workforce needs across the ICS, e.g., maternity, remote monitoring
* The innovation working group and sporadic central (NHSE) funding is prompting innovations and pilots in pockets across MSE, and is not currently linked into the digital board or digital leads from individual organisations
* The lack of digital ICS level governance, capacity, roadmap and portfolio management is resulting in some innovation development taking place without a requirement for review and assurance of fit
* Lack of central integrated governance and oversight risks creating technical debt, and missing an opportunity to connect to other digital developments and change programmes. Potentially also wasting investment as developments may need to be unpicked and reconnected at later stages
* Lack of a central view of digital services prevents individual organisations and service lines from being able to use what has been created or commissioned elsewhere, risking duplicative commissioning or reinventing the wheel
* Fear from digital leads that innovative developments don’t meet minimum standards for data management and/or interoperability standards, resulting in lack of compliance and ability to flow data
* Digital and technology leads and governance are often perceived as blockers rather than enablers.

## Digitally enabled innovation is key to driving services fit for the future and to scaling sustainably

### What needs to happen:

* To make a step change for the future, MSE health and care priorities will be addressed through innovative services, focused on users and pathways and leveraging data and analytics from across the system
* Digital and technology needs to support the development and scaling of innovation, and not be seen as a blocker
* ICS enterprise data platforms will need to serve and be served by new applications, often developed by third parties – setting expectations for future data systems, architecture and governance
* The move to service line funding and development will help to drive and align innovation but will take some time to establish – we need ways to manage innovation in the meantime
* Governance
	+ Build common understanding through portfolio management and transparency of services in development
	+ Connect digital governance to transformation governance, to drive assurance and aligned strategic plans
* Operating model
	+ Ensure that all third party services fit with the architecture principles and standards set by the ICS
	+ Agree ways to test through proofs of concept and pilots, e.g. creating development sandpits and providing digital resources to support
* Collaborative working
	+ Work with transformation to create a mechanism to flow ideas and opportunities from the frontline
	+ Work in partnership through cross functional teams, to develop new services – ensure capacity of digital teams at centre and local to support this
	+ Establish and use collaborative working tools to facilitate cross functional working

## Case Study: Outpatients Transformation

* The outpatients’ transformation programme has been developed by the acute trust over the last 3 years to meet national expectations and local needs.
* The lack of central ICS governance and need for trust governance to release the acute controlled funds has concentrated review and assurance within the acute trust.
* Engagement activities have been held with different parts of the ICS and primary care, but there has been no single channel to do this, so there is mixed understanding and awareness of the programme.
* There has been no defined route to check technology fit and change implications.

In future, a programme like this would be enabled through digital governance and TOM as follows:

* Clear architecture and technology principles and standards which services must meet – informing the service design, third party requirements and in turn procurement specifications.
* Mechanisms to check at key stages of development of the programme.
* Forums to socialise and get feedback on initial ideation, service development, connectivity and dependency on other systems and services.
* Integration into change and communications planning for workforce and residents.

## Enabling staff: innovation case study,  identifying beneficial services and scaling

### Pando App: Case Study

* Functionality and benefits: Pando is a clinical communications platform that enables secure instant messaging and data sharing between clinical professionals to enable fast and easy access to real-time and accurate patient data. Patient records can be shared alongside images, test results and seeking advice from specialists. The App reduces reliance on pagers and landline phones.
* Assured: Listed in the NHS Apps Library in 2020 therefore is compliant with NHSE and D guidelines, and listed on the NHSX Clinical Communications Procurement Framework to enable NHS organisations to procure communication services.
* Current status: Some staff can communicate with it within MSE Foundation Trust, as well as between primary and secondary care. MSE Strategic team publish broadcasts across the MSE region so staff are aware of information such as PHE notification, bed updates and stock availability.
* Use: Pando App is in use at Broomfield Hospital in obstetric anaesthesia, which allows safe transfer of patient information between the Obstetric Anaesthetists so they are instantly aware of potential difficult issues/patients, and can share possible management strategies. Viewing and retrieving the information is easy, fast and clear.
* Opportunity: Identify fit with staff needs for information access and communication, and system benefits. Working closely with clinicians, develop plan to scale effectively for use across the system.

# Empowering Residents

As an ICS we are committed to placing residents at the centre of our planning and to designing system-wide tools to empower residents to manage their own health and wellbeing.

## What Residents Want

We haven’t undertaken specific research for this digital strategy about what residents want. We have, however, been able to build a picture of their views by drawing together existing engagement activity including views expressed by members of our Citizen’s Panel and feedback gathered by Healthwatch around the NHS Long Term Plan. We also talked to colleagues from the community and voluntary sector. This suggests that residents in MSE want:

* Greater choice in how to manage their health.
* Better access to health care professionals for advice and treatment, including via telephone and video.
* Improved communications and advice on both diagnosed conditions and how they can help themselves.
* Support to manage their condition at home. (The location of services was frequently cited as a barrier to access).
* Easy access to information about the support available.
* Confidence that professions are communicating with each other about an individual’s care. (In engagement activities many respondents cited frustrations that this doesn’t appear to happen. Concerns were rarely expressed about data sharing or the security of data).

A clear majority of respondents to a MSE survey on the impact of coronavirus on health care services (71%) said they would use virtual appointments again, though 15% said they would not. Comments suggested that people’s perception of virtual appointments depended on the presenting issue. These comments suggested virtual appointments were challenging when seeking: support for mental health; support on behalf of a child or elderly relative with complex needs; reassurance from a face-to-face appointment; a diagnosis that required an examination.

While these views are shared by many of our residents, we know they are not universal. Some individuals may lack confidence using technology whilst other groups – such as those with hearing and sight impairments or learning disabilities – will have specific needs (see slide 51 on how we plan to tackle digital inclusion).

## Empowered Residents: Current Position

As an ICS we are committed to placing residents at the centre of our planning and to designing system-wide tools to empower residents to manage their own health and wellbeing.

### Our Current Position

There is a lot of good practice across our ICS around engaging with residents and using the information from this engagement to plan services with residents’ needs in mind. The last few years – accelerated by Covid-19 – has also seen the introduction of a range of digital services to empower individuals to be more pro-active in managing their care. This includes providing online advice and guidance on staying well, electronic ways for individuals to make/change appointments and access their own data, digital tools to manage long-term conditions such as remote monitoring, and telephone and online consultations.

These services have, however, developed in a piecemeal fashion and in organisational silos. This has led to a complex picture across the ICS and potential confusion amongst residents using these services. For example, there are several instances where the same App is used by multiple organisations but configured differently giving the App different functionality for the end user. This fragmentation and duplication also leads to increased costs.

## Empowered Residents: Ambition

### Our Ambition

As an ICS we would like to have an agreed set of digital channels for residents to access information and the tools to manage their care. We want residents to be able to use digital solutions to:

* Access information to help them make informed decisions
* Book, cancel or change their health and care appointments
* Take part in virtual consultations with primary, community and secondary care clinicians
* Seek advice and exchange messages with health and care professionals
* Undertake remote monitoring of their health conditions
* Obtain an initial diagnosis
* Receive test results
* Review their health and care records (ideally through a single contact point) with an opportunity to suggest changes/corrections
* View and input into self-direction assessment and review processes
* Utilise e-prescription services
* Provide formal consent

In order to do this the digital solutions may need to be able to undertake identity validation to enable secure access to personal data, to set permissions for access to data, and enable proxy and delegate access.

When streamlining and enhancing our resident-facing services, we will ensure that we agree how information on the uptake of services will be collected, analysed and used to guide how services are developed in the future.

## We will make services available and accessible, and we will drive awareness and usage

Key steps to drive uptake and adoption of digital services

* Availability:
	+ Ensuring that we provide services to residents to manage their health and care
	+ Agreed system-wide services, services specific to care pathways and (if relevant, and in transition to system-wide services), care setting or organisationally specific
* Accessibility:
	+ Ensure that all digital services meet public sector accessibility standards – at latest by December 2023
	+ Follow design guidance and commission/produce services that are intuitive and don't require training
* Awareness:
	+ Make it easy to find services- Signpost residents to relevant services through our staff and online presence
	+ Actively drive awareness
	+ Build a communications campaign and/or integrate with partner communications to drive awareness and trial
	+ e.g. Southend and Thurrock Council resident information
* Trial:
	+ Commit to meeting data security and other standards to give residents confidence about the services available to them – ensure that anything commissioned meets national standards as set out in [DTAC](https://www.nhsx.nhs.uk/key-tools-and-info/digital-technology-assessment-criteria-dtac/)
	+ Support residents in trying services out as needed – e.g., those with less confidence
	+ Run campaigns to push trial and usage, supported by staff endorsement
* Learn from our residents in design and uptake:
	+ Leverage existing and new routes to gaining input – e.g. The virtual citizens panel (1500 people from across the demographic)
	+ Codesign/coproduction for MSE built services and to tailor commissioned services
	+ Make it easy for people to feedback on services and for service owners to learn from feedback – e.g., through app reports, analytics etc.

## Driving Digital Inclusion

Many of our residents who could most benefit from digital services are the least likely to be online. Over 11 million people in the UK are still offline and they are likely to be older, in lower income groups and often in poorer health than the rest of the population1. Tackling digital inclusion is NHS priority. ​Uptake and usage of digital services has increased during COVID, but it has also illustrated the difficulty of accessing services for some of our residents.

#### Ways in which MSE ICS will drive digital inclusion or support other organisations to drive digital inclusion

* Accessibility
	+ Free public WIFI on NHS premises and across the whole of MSE
	+ We will work with organisations to enable the leasing of tablets through local libraries across MSE similar to the initiative planned for the Integrated Medical Centre (IMC) in Thurrock, and the Alco Care Technology initiative in Maldon where residents are given a tablet to use in their homes
* Availability
	+ We will use social prescribing to link residents up with organisations that provide digital inclusion support
* Awareness
	+ We want to understand who requires digital inclusion support and their barriers to accessing and using technology, so we will collect data on the characteristics of residents using various access methods4
	+ We will co-design digital health services with residents to reduce barriers to health and care as well as enabling them to use services that work for them
* Adoption
	+ We will provide residents with digital skills training through the Online Centres Network2, set up digital health hubs across MSE, and provide access to digital champions to help with the training
	+ The new Integrated Medical Centre (IMC) in Thurrock will provide drop-in sessions for residents to learn how to use a tablet3. This initiative will be scaled across MSE so all residents can benefit

#### What we do for those people who will not access digital:​

* Ensure that face-to-face services are always available4
* Build proxy and delegated access​ to services to enable benefits from digital for those who are unable or do not wish to use digital
* Continue to build trust and relationships with these residents (for support and mitigating barriers to digital health services)​

## Empowered Residents: Actions

### Our Roadmap

We know we are a long way from our ambition to empower residents. For example, when asked to rate our current position on a scale of 0-5 (0 being no services and 5 being a gold-standard joined up service), the members of our multi-agency Digital Strategy Working Group universally rated the partnership’s current position as 1 or 2.

Our initial focus is, therefore, on putting strong foundations in place:

* We will map our current resident-facing services so we can make maximum use of what we’ve already got. It will be particularly important to ensure current digital services and new opportunities form a key part of our work examining individual service lines. We recognise that it may be necessary for some programmes to be paused or reviewed while undertaking this review to avoid duplication or wasted investment.
* We will draw on existing consultation and engagement feedback to ensure that our planning is based on what residents want not our perception of what they want.
* We will then agree a coordinated ICS approach to resident-facing services and a mechanism for ensuring this is followed. When developing this approach, we will seek to utilise the national resources that are available to us including the NHS App, NHS Login, NHS111 online and API developer portal.
* We will ensure that digital services are accessible and meet national assurance standards
* We will ensure that services are available for those who are unable or do not wish to use digital

We will work together to develop a resident service and digital inclusion strategy, jointly reporting to MSE Partners and our new digital governance

# Implications and Roadmap

What are the implications for our central team, our individual organisations and how we work together, and what happens next?

## Developing our Roadmap

We have shared the priorities in this strategy with key stakeholders across the ICS. Members of our Strategy Working Group have also considered the implications for individual organisations and how we work together.

We have put together an indicative roadmap for both the implementation of the digital TOM and for the deliverables in this strategy.

We recognise that these are challenging but agree we need to be ambitious. The timelines and deliverables have been designed to provide a clear direction and to support the incoming central team, particularly the ICS CDIO, the central team, and new Digtial Clinical Leads.

The detail that will underpin these indicative timelines will be developed collaboratively with individual organisations and with MSE Partners. This will take into account the wider work of the ICS and the timelines of key workstreams, such as the implementation of our Business Intelligence strategy.

The proposed timelines and detailed tasks will also need to align with emerging organisational digital strategies (currently being developed) and with the changes in national policy. For example, we are anticipating the publication of a National Data Strategy in June.

As outlined at the beginning of this document, this Digital Strategy will lay the foundations that will enable MSE to develop an integrated ICS strategy and facilitate service line delivery. It has been developed in advance of some other areas of work and we will need to revisit it regularly to ensure it aligns with evolving developments across the wider ICS.

## Proposed Roadmap to integrate digital as enabler of ICS Strategy

### ICS System

* Feb – Apr
	+ ICS system level development
	+ MSE Partners planning
* May – Aug
	+ ICS operating model implementation and engagement
	+ MSE Partners Programme set up
	+ Initial service line approach established
	+ Agree ways of working and governance
	+ Joint planning
* Sept
	+ Proposed collaborative ICS programme prioritisation exercise
		- MSE partners
		- Service lines
		- Digital and other functions

### ICS Digital

* Feb – Apr
	+ ICS Digital Strategy
		- Development
		- Engagement
		- Creating digital community
* May – Aug
	+ Establish central digital team and initial operating model
	+ CDIO and team
		- PMO and roadmap
		- Governance and practice
		- System mapping
		- Boost infrastructure programmes
	+ Agree ways of working and governance
	+ Joint planning
* Sept - Dec
	+ Procure and deliver data platform and shared care record capabilities
	+ Resident service and digital inclusion strategy
	+ Operationalise cross-system collaborative working practice
		- With MSE Partners and individual organisations
		- Clinically led, user focused

### Organisations

* Feb – Apr
	+ Organisation digital strategy development
* May – Aug
	+ Refine organization digital strategies
	+ Roadmap organisation role in ICS digital strategy delivery
	+ Acute and primary care digital collaboration
		- Operating model
		- Systems
		- Outpatient transformation
		- Resident service mapping and needs analysis
* Sept – Dec
	+ Operationalise cross-system collaborative working practice
		- With MSE Partners and individual organisations
		- Clinically led, user focused

## Proposed Timelines for Strategy Delivery

### Digital services and infrastructure

* 3 months
	+ Plan to implement principle and operating model agreed
	+ Roadmap and resourcing for infrastructure and application delivery
	+ Mapped existing and planned services
* 1 year (as ICS statutory entity)
	+ MVS1 shared care record in place
	+ Data platform procured and development and implementation plan agreed
	+ Increased standards alignment
	+ Resident and staff service roadmap
* 3 years
	+ To be developed together with MSE Partners in September planning exercise

### Digital capabilities and capacity

* 3 months
	+ CDIO and central team initiated
	+ Digital communities and networks established
	+ Organisation specific digital, IT and data resource allocated to system priorities
* 1 year (as ICS statutory entity)
	+ Central digital function established and working effectively with other ICS system functions and organisations
	+ Priority skills and capacity gaps addressed in workforce plan
* 3 years
	+ To be developed together with MSE Partners in September planning exercise

### Innovation and work with third parties

* 3 months
	+ Agree how to work together with innovation activities across the ICS and how to incorporate into governance and operating model
	+ Identify priority innovations to scale using new ways of working
* 1 year (as ICS statutory entity)
	+ Scaled innovations with demonstrable benefits delivered through effective collaborative working with digital, change management and clinical, and fitting with our operating model
* 3 years
	+ To be developed together with MSE Partners in September planning exercise

### Effective leadership, strong governance and partnership working

* 3 months
	+ Digital strategy and implications endorsed by MSE leaders
	+ Integrate digital governance and operating model into wider system
* 1 year (as ICS statutory entity)
	+ Digital integrated into MS Partners programmes at all stages
	+ System wide change management and governance processes operational
* 3 years
	+ To be developed together with MSE Partners in September planning exercise

## Accountabilities for Strategy Delivery

### Digital services and infrastructure

* ICS at the centre
	+ Establish resource to lead design and delivery of ICS infrastructure and applications including shared care record and data platforms
	+ Agree collaborative approach
* Together across the ICS
	+ Agree a collaborative approach to delivering ICS infrastructure
	+ Agree the timelines for implementing architecture principles and TOM
	+ Identify how to support each other
* Individual organisations
	+ Specify timelines and requirements to implement architecture principles and TOM for organisation services

### Digital capabilities and capacity

* ICS at the centre
	+ Establish new CDIO and priority roles
	+ Set up new programme office
* Together across the ICS
	+ Agree priority programmes and how to resource and involve staff across organisations
	+ Identify priority digital skill gaps to address
* Individual organisations
	+ Identify resources for networks and digital professions
	+ Protect time of teams for ICS activity

### Innovation and work with third parties

* ICS at the centre
	+ Connect digital, innovation and transformation processes and governance
* Together across the ICS
	+ Deliver new insights into service redesign
	+ Identify and learn from innovations across the system
* Individual organisations
	+ Follow standards and ICS governance for innovative services

### Effective leadership, strong governance and partnership working

* ICS at the centre
	+ Articulate and publish the strategy and this roadmap in the context of broader ICS strategy, with leadership sponsorship
	+ Establish digital governance connected into wider ICS governance
* Together across the ICS
	+ Endorse the digital strategy and link to wider strategies
* Individual organisations
	+ Link internal governance processes and programmes in flight to centre as required

## Proposed Deliverables in the next 3 months

### In the next 3 months

* Establish the CDIO role (interim to enable fast start and momentum carried) and core team ASAP:
	+ Without this, there will be no central coordination and drive
	+ Owners and creators of the strategy delivery plan, accountable to the digital board
* Establish CCIOs/CNIOs/Chief social worker leads within each of the partnership organisations
* Revise existing digital board to ensure senior leadership representation and integration with new wider MSE ICS system structures and governance and steer for the new CIO and team
* Establish cross-MSE knowledge management and collaborative working tools to enable digital leads to work together effectively
* Build the central PMO programme and conduct initial programme prioritisation and opportunity identification exercise:
	+ Bring in temporary bulge resource to set up the programme office and build central view accessible to all
* Cross-ICS engagement for the critical foundations of data platform, shared care record and the transformational services of outpatient transformation and remote monitoring
* Conduct engagement to elicit feedback and buy-in (as part of broader MSE strategy engagement)
* Gain leadership endorsement and support for the significant investment and journey required to establish our core foundations and enable our ICS

## What it will take to deliver our Digital Strategy

* We have laid out the current state, vision and key steps on the roadmap to build digital foundations for MSE ICS integrated care delivery and service development
* We have identified what will be required from a central team, individual organisations and collaborative working to deliver the strategy
* We have outlined a high-level timeline for the overall delivery, and suggested where we should work together as a system to develop detailed plans
* We have set out information framework principles and a detailed target operating model (see appendix) with timelines for implementation – which we will iterate when the new central digital team is established
* We now need endorsement from our leadership for the investment, resource allocation and change required to drive delivery
* We need to integrate our plans with system development and delivery plans, governance and operating models
* Once the basics of our core capacity and operating model are established, we would like to conduct a collaborative ICS programme review exercise in September – this will enable us to establish how digital will be embedded in system wide programmes
* In the meantime, we will work together on population health management, outpatient transformation and remote monitoring, to work cross functionally, inform infrastructure and applications programmes and deliver priority service change

# Appendices

Target Operating Model

Documents Reviewed and List of Interviews

Glossary

## List of interviews and other stakeholder engagement

### Key:

(i) indicates stakeholder interview

\* indicates a member of the multi-agency Strategy Working Group

Note: some individuals have roles that span both their organisation and the ICS: they have only been listed once. The ICS Strategy also drew on the interviews for the Primary Strategy work.

* **East Accord**
	+ Kate Walker, Digital Programme Director *(i)*
	+ Malcolm Mundy, Enterprise Data Architect *(i)*
* **East of England Ambulance Service**
	+ Stephen Bromhall, Chief Information Officer *(i)*
	+ Alan Whitehead, Head of Operations *(i)*
* **Essex County Council**
	+ Faye Gatenby, Head of Sensory Services *(i)*
	+ Geoff Madge, Technology Services Business Partner *(i)\**
* **Essex Partnership University NHS Foundation Trust**
	+ Janette Leonard, Director of IT *(i)*
	+ Paul Scott, Chief Executive Officer *(i)*
	+ Adam Whiting, Acting Deputy Director of IT *(i)\**
* **Healthwatch and the** **Community and Voluntary Sector**
	+ Kristina Jackson, Community and Voluntary Sector *(i)*
	+ Lorraine Jarvis, Community and Voluntary Sector *(i)*
	+ Kim James, Healthwatch Thurrock *(i)*
* **Mid and South Essex Clinical Commissioning Groups**
	+ Michelle Angell, Associate Director of Assurance
	+ Rachel Hearn, Executive Director of Nursing and Quality *(i)*
	+ Ashley King, Programme Director *(i)*
	+ Peter King, Assistant Director of IT *(i)*\*
	+ Alex McCourt, Head of Digital Transformation \*
	+ Jane Marley, Head of Information Governance *(i)*
	+ Taz Sayed, GP Digital Lead *(i)\**
* **Mid and South Essex Foundation Trust**
	+ James Brown, Chief Clinical Information Officer *(i)\**
	+ Martin Callingham, Chief Information Officer *(i)\**
	+ Ruth Jackson, People Director *(i)*
	+ Iain MacConnachie, Programme Manager *(i)\**
	+ Felim McCarthy, Digital Programme Director \*
	+ Dawn Scrafield, Chief Finance Officer *(i)*
	+ Dona Shine, Programme Manager, IT *(i)\**
	+ Erica White, Head of Change Management *(i)\**
	+ Charlotte Williams, Director of Strategy *(i)*
* **MSE Health and Care Partnership (the ICS)**
* Jo Cripps, Programme Director *(i)*
	+ Claire Hankey, Director of Communications & Engagement *(i)*
	+ Anthony McKeever, Chief Executive *(i)*
	+ Ciara Moore, MSE Partners System Delivery Director *(i)*
	+ Ronan Fenton, Medical Director *(i)*
	+ Emma Sandford, Strategic Lead for Population Health Management
	+ Monica Scrobotovici, Senior Programme Manager *(i)*
	+ Mike Thorne, Chair *(i)*
* **NHSE&I**
	+ Barry Frostick, System Lead Director – Mid and South Essex, Regional Director of Digital *(i) \**
	+ Mary Hudson, Deputy Director for Digital First Primary Care *(i)*
* **North East London NHS Foundation Trust**
	+ Umesh Gadhvi, Director of Health Informatics *(i)*\*
* **Provide**
	+ Christopher Wright, Assistant Director of IT and Systems *(i)\**
* **Southend Council**
	+ Ian McLernon, IT Business Partner \*
* **Thurrock Council**
	+ Mandy Moore, Strategic Lead Business Intelligence *(i)\**
* **Other**
	+ Peter Hagan, Consultant at PWC (working on digital strategy for Mid and South Essex Foundation Trust) *(i)*

## Glossary of Abbreviations

AI – Artificial Intelligence

API – Application Programming Interface

BI – Business Intelligence

CCIO – Chief Clinical Information Officer

CCG – Clinical Commissioning Group

CDIO – Chief Digital and Information Officer

CODAG – Clinical Operational Digital Advisory Group

CSU – Commissioning Support Unit

DTAC – Digital Technology Assessment Criteria

DSP – Digital Signal Processors

HCP – Health and Care Partnership (terminology used by MSE ICS)

HIE – Health Information Education

ICS – Integrated Care System

MSE – Mid and South Essex

MVS – Minimum Viable Service

PHE – Public Health England

PHM – Population Health Management

PIM – Product Information Management

PMO – Project Management Office

TOM – Target Operating Model

SLEG – System Leadership Executive Group

STP – Sustainability and Transformation Partnership