

Right from the Start: What should Integrated Care Systems prioritise to make digital, data and technology work for them and their populations?

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Foreword



Digital Health Networks, the leadership community of local NHS CIOs, CCIOs, CNIOs and other digital leaders, welcomes the publication of techUK's timely report suggesting digital and data priorities for the 42 new Integrated Care Systems.

The most significant change in NHS organisation in ten years creates the opportunity to rethink how collaboration, partnership across local place-based systems takes place; between national and local; between patients and health professionals; and with industry partners.

The shift to ICSs marks a unique opportunity to re-set how health and social care has been planned and delivered and ensure that care is joined-up and designed around the needs of the patient.

The prize is to address the huge inequalities that exist in health and care, including questions of equity, access and quality. Digital and data have a huge contribution to make in areas like population health management and digital services and therapies, but also have the potential to exacerbate inequalities or create new divides.

In addition, digital offers tools to enable ICSs to narrow inequalities between physical and mental health. Crucially, ICSs also have the potential to use digital to accelerate the shift in where care is delivered, from expensive, in-patient care to nearby, community-based care - with the rise of remote care/virtual wards as a key enabler.

Personal health records meanwhile offer the promise of democratising care, beginning to place citizens in greater control of their own data and provide them with tools to manage their health.

ICS digital leaders should work collaboratively with patients to seek out opportunities where digital and data can have the maximum impact, such as complex pathways touching large numbers of different providers within a particular area. An open learning approach, in which lessons are shared and actively sought out, will also be needed.

To achieve these aims will require in-depth multidisciplinary digital leadership levels at the ICS-level, leaders who focus on coordination, collaboration and co-production, rather than the more familiar challenges of provider digitisation. It will take time to find, develop and appoint the many new leaders and teams. As yet it is unclear where they will come from, creating significant delivery risks.

There are of course significant risks beyond the workforce questions. The system remains under huge pressures and financial strain as it struggles to recover from the backlog built-up during Covid. Historically, it has proved incredibly difficult to shift the loci of service delivery from large acute providers into the home or community.

Fortunately, we are not starting from a blank sheet, much good work has already been on integrated care. Much of the challenge ahead is to share and spread pioneering work already being carried out in fields such as population health management.

A key strength of the new techUK report is in its recommendations to work with existing structures in vital enabling areas such as procurement, innovation, interoperability and partnership with industry.

The leaders of Digital Health Networks look forward to working with techUK, ICSs and other partners to help achieve the potential of digital and data in the brave new world of ICSs.

Leaders of Digital Health Networks

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Introduction

Every day, new products and services are created and updated by the technology industry, playing a crucial role in supporting citizens, patients and staff across our health and social care sectors. The industry demonstrated its potential most recently during the COVID-19 pandemic, continuing to do so as we tackle the fallout and focus on recovery efforts, including the growing backlog and waiting times.

Technology and innovation can help address long-standing challenges faced by the NHS and social care, from widening health inequalities to the need to deliver urgent service improvements, and so much more. Digital transformation must continue to be a top priority for the Department for Health and Social Care, and we are delighted to see this acknowledged in the government's plan for digital health and social care, published in June this year.

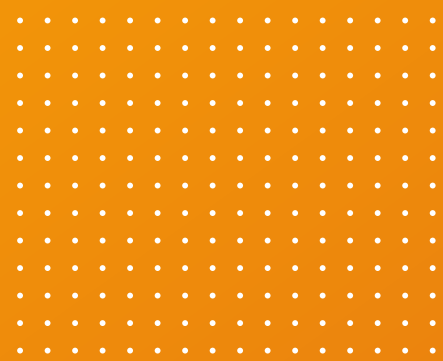
So far, we have only scratched the surface of what digital, data and technology can achieve in healthcare. There are pockets of excellence, but also many areas in which we can do better, and we cannot ignore the important challenges posed by the digital divide. Following years of development and the passing of the Health and Care Act 2022, the move to put Integrated Care Systems (ICSs) onto statutory footing provides new opportunities to accelerate the digital transformation of health and care, ensuring that we use the best products and services possible to deliver better outcomes for citizens and improve staff experience.

In this new techUK paper, produced in collaboration with our Health and Social Care Council, the wider vendor community, and informed by our engagement with organisations across the public sector, including NHS England, NHS Digital, ICSs, NHS trusts, local authorities & others, we highlight the key areas in which ICSs can make a significant impact in driving progress towards the vision set out in [A plan for digital health and social care](#). This follows the publication of our flagship report back in February 2021, the [Ten Point Plan for Healthtech](#).

In her speech at the NHS ConfedExpo conference this year, Amanda Pritchard, Chief Executive of NHS England, highlighted that ever-deeper collaboration would be central to reform, naming ICSs as the most obvious expression. She outlined that ICSs are not “ends in themselves, but they are important means, and are going to be the primary drivers of delivery of better health and services for every community”.¹ Crucially, she also stated that making the most of the opportunities offered by data and technology would be vital to ensuring their success.

The digital health and technology industry stands ready to work with ICSs and the wider health and social care community to ensure the benefits of collaboration, investment, and innovation are felt by citizens and NHS staff across the country. At a time when the centre of government is experiencing volatility, ICS leaders and industry must continue to drive forward reform and implement innovation, ensuring that the opportunity presented by the legislative changes of the past year are capitalised upon.

We would like to thank everyone that contributed to this paper.



Putting the who before the how: helping citizens take control of their health and care

“Our ambition is to enable individuals in communities with particular health challenges to improve their own health, access lifesaving treatments and recover from the pandemic. It will reduce pressure on the NHS by empowering individuals everywhere to change their behaviour (...) so that everyone can lead long, healthy and productive lives.”

Build Back Better: Our Plan for
Health and Social Care

Over the past 18 months, several government white papers, bills, and strategies have highlighted the importance of helping citizens to feel empowered when it comes to their health. [The Joining up care for people, places and populations](#) white paper outlined that people should “have the tools to stay healthy and independent and drive their own care when they need it”, as well as the ability to “navigate the system and make the decisions that are best for them.”

Further to this, the [People at the Heart of Care](#) white paper presented the government’s ambition to use the full potential of technology to support people’s lives and aspirations, setting out a 10-year vision for what a digitally-enabled social care system would look like. This vision included making it as easy as possible for people to use the technology that would best support their goals.

techUK’s [Ten Point Plan for Healthtech](#) called on the health and care system to prioritise improving the public’s access to their own data, thereby empowering citizens and enabling them to become “co-creators of their own health”.² [A plan for digital health and social care](#) has since reiterated a short-term commitment to focus on helping people use digital means to manage their health, including by accessing health records, managing appointments, communicating with health professionals and others.

“Digital services give people more control over their lives. They allow people to decide when and where they connect with their health and social care providers. They also give people access to resources for managing more of their own health and care when and where they choose” – [A plan for digital health and social care, June 2022](#)

Looking beyond this, the placing of ICSs on statutory footing presents an opportunity for a refreshed approach to empowering citizens, helping individuals navigate local systems and gain a comprehensive understanding of available digital health technologies in their area. We recognise there are key challenges facing the health and social care sectors that present barriers to helping citizens navigate digital opportunities within their ICS. Among the most pressing is the need to address digital inclusion and widening health inequalities, as digital solutions often are not accessed by those on lower household incomes, with lower levels of formal education, and in poor housing.³

As set out in [A plan for digital health and social care](#), empowering individuals through “hyperlocal connections and approaches that use community assets” should ensure that they are able to use digital technology to improve their health.⁴ The Plan states that reducing the risk of digital exclusion is one of the key priorities that NHS England has requested ICSs address to tackle health inequalities. Furthermore, by May 2023, NHS England is set to create a framework for NHS action on digital inclusion, with further resources to support ICSs. Industry stands ready to help support the NHS in these efforts.

In addition, the absence of a culture conducive to clinical teams and social care professionals adopting digital innovation act as significant blockers to improving citizen access to available technologies. Challenges also extend back further in the pipeline, as seen in the lack of clear pathways for reimbursement for proven digital health technologies and in access to the system.

It is encouraging to see that NICE will pilot a new Early Value Assessment (EVA) through the

summer and autumn of 2022, streamlining the evaluation of evidence for the clinical- and cost-effectiveness of products that address NHS priorities. NICE will conditionally recommend that promising products be available to the NHS, making these accessible for local procurement through a single national framework. There is also the possibility that products which pass the full assessment stage may be approved for wider use in the NHS.⁵

Recommendation

techUK recommends that ICSs engage with industry, NGOs, and patient groups aligned with their specific organisation, and look to develop a mechanism to highlight digital tools available at a local level to citizens, tailoring and communicating this to key demographics within their neighbourhood.

To ensure this works on the ground, such a system would need to provide clear breakdowns and categorisations of available tools, helping citizens to distinguish between digital therapeutics, wellness tools, and other products and services.

We welcome the engagement from NHS England on the Digital Technology Assessment Criteria (DTAC) and the openness to working closely with industry to help create an environment that supports responsible innovation. To provide the best possible range of digital health technologies to citizens, we further recommend that NHS England assesses the feasibility of creating a passporting element for DTAC assessments that considers the iterative nature of digital technology.

This would help to:

- a. ensure consistency is maintained in the application of the DTAC while reducing the burden on suppliers, particularly SMEs with already stretched resources; and
- b. reduce the burden on ICSs given the technical nature of the DTAC assessment and need for skills that are not always readily available at a local level.

Furthermore, we welcome the push to provide clarity to suppliers regarding how the DTAC sits alongside the programme of reforms recently announced by the Medicines and Healthcare Products Regulatory Agency (MHRA) following the UK's departure from the European Union, and the NICE clinical efficacy and value assessments. Innovators often cite the complexity of the digital health and care space in the UK as one of the main challenges to scaling their products and services.



Integrating Digital Therapeutics into Existing Services at National Scale

In September 2021, the Scottish Government partnered with Big Health, a British digital therapeutics company, to commission nationwide access to two clinically proven digital treatments: Sleepio (for insomnia) and Daylight (for anxiety).

Sleepio and Daylight were integrated into Scotland's computerised Cognitive Behavioural Therapy (cCBT) programme. National and local teams collaborated with Big Health to embed the treatments at place-level, across multiple clinical and non-clinical settings. Training was delivered to multidisciplinary teams to avoid siloes and ensure coordinated, joined-up provision, with direct-to-patient promotional activity used to raise awareness outside the clinical sphere, thereby increasing citizen-access.

Given Sleepio and Daylight are fully automated and instantly accessible via laptop or mobile device, this created a truly seamless, destigmatised service. People can now access safe & effective non-pharmacological treatment for insomnia and anxiety wherever and whenever they need it, putting people firmly at the heart of care. Between September and December 2021, Sleepio and Daylight were accessed by over 4,000 people. Patient-reported data and outcome measures are shared with the Scottish Government to demonstrate impact and identify opportunities for further integration. The partnership continues to expand into 2022 and beyond.

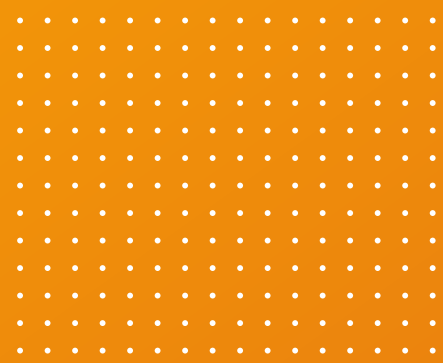


Propelling Forward Digital Innovators

One of ORCHA's key aims is to support digital health developers and innovators to develop quality-assured and safe digital health technologies which adhere to standards. ORCHA worked with the Yorkshire and Humber AHSN to develop a specific masterclass for the digital innovators on the Propel@YH programmes to provide information and guidance on selling into the NHS, an introduction to governance, and digital health technology assurance, including DTAC. The AHSN wanted to "demystify" the path of providing technology into the NHS, offering a clear package of support covering key themes.

The Propel programme aimed to support a portfolio of early-stage healthtech SMEs with their journey into the NHS. As often highlighted by techUK, this is a complex landscape to navigate, resulting in many SMEs wasting valuable resources. From the ICS perspective, the adoption of high value technology brings great benefit to their system through cost and time savings, redefining ways of working to benefit users and patients.

As part of the programme, innovators were able to receive delivered content through a virtual masterclass, and then ask the ORCHA facilitators questions to deepen their understanding of the regulatory landscape, and what they may need to consider in terms of their own product development pathway. The programme provided a clear framework for SMEs to work towards with growing and spreading their technology into ICSs. This standard approach is communicated with stakeholders within the ICS and updated based on feedback. This is an iterative process which the AHSN now aims to adopt in partnership with local ICS stakeholders.



Putting the why before the what: embedding demand-signalling within each ICS

“[People, families, and unpaid carers] will know their needs, goals and preferences are shaping the design and delivery of digital transformation in health and care.”

People at the Heart of Care: Adult Social Care Reform White Paper

Demand-signalling is defined by the Accelerated Access Collaborative (AAC) as the process of identifying, prioritising, and articulating the most important research questions and innovation challenges that need to be addressed to deliver against the ambitions set out in the NHS Long Term Plan.⁶

Much work is already being done in this area, and industry has seen NHS and social care efforts to improve demand-signalling increase significantly over the last five years. Indeed, [A plan for digital health and social care](#) acknowledges that there is more we can do to foster industry – public sector collaboration. The Plan pledges to provide NHS organisations with guidance on the types of expertise and resources required to become effective at scaling new technology, and the funding to pilot and build an evidence base for different types.⁷

Demand-signalling is particularly central to the work of the AAC, which aims to get more proven innovations into the hands of clinicians and patients faster, making the NHS a great place to innovate. The digital health and technology industry welcomes the ambition of the AAC to convey “what the NHS really needs to meet its challenges”.⁸ Industry engagement is key to making this happen. Academic Health Science Networks (AHSNs) also play a critical role in providing demand-signalling at a regional level, offering local insights into the strategic priorities of a system, and acting as a path between system leaders’ priorities and industry. They provide valuable window into on-the-ground demand.

The advent of ICSs presents an opportunity to look at how these systems can work with organisations like the AAC and the AHSNs to best communicate local demand to innovators in a consistent way. There is an opportunity to provide further clarity on the role of AHSNs and how they currently work with the AAC and health and care organisations to ensure a coordinated approach to helping industry understand local markets. This function could well sit within the ICS Procurement Collaborative.

More joint working, greater clarity regarding processes, and increased consistency across the regions when it comes to demand-signalling would help ensure that the digital health and technology industry is bringing the innovation to market that the UK needs to best deliver precision population health and tackle health disparities, as set out in [A plan for digital health and social care](#).⁹ Currently, there seems to be significant variation in activity. For example, some AHSNs directly fund and acquire digital health technologies, while others do not. In addition, some AHSNs support innovators that do not have a physical base in their region, while others do not require this.

Further to this, [A plan for digital health and social care](#) sets out that with access to granular information on the populations they serve, ICSs can better meet people’s needs. Making findings about population health available to innovators ensures that the technology industry is also better prepared to produce the solutions most needed.



ICSs present an opportunity to use population health data and the coordinated sharing of best-practice between regions to improve demand-signalling, making sure innovation is delivered to citizens faster by improving industry's ability to bring the right solutions to market.

Integrated Care Boards (ICBs), CIOs and digital transformation leads across the 42 ICSs should look to set out how they intend to work with the AAC and AHSNs to ensure demand-signalling is tailored to local populations and the needs of these systems.

Recommendation

techUK recommends that ICSs prioritise clear demand-signalling at a local level, seizing the opportunity to ensure efforts around population health are coordinated both regionally, via the work of their local AHSN, as well as centrally, via the AAC. This would enable industry to innovate proactively in the areas of greatest urgency to populations. Making priorities clear to industry will help suppliers build a greater variety of products and services that work on the ground and deliver benefits to patients, staff, and the wider system.

We also recommend that ICS leaders work with AHSNs to ascertain 'What Good Looks Like' for joint working, setting out desired outcomes and decision-making processes, supported by NHS England and as highlighted in [A plan for digital health and social care](#). Above all, this document should be detailed and process-orientated, providing a map for innovators that sets out who they should talk to, where the buyer is situated, and at what stage they should look to engage with various bodies within the health and care ecosystem.

The refresh of the NHS Long Term Plan, expected later this year, could look to provide guidance on how ICSs can best draw up plans to shift demand-signalling in this manner, allowing innovators to meet the needs of local populations.

The [Health and Care Act](#) states that Integrated Care Boards will have the flexibility to determine governance arrangements in their area – including the ability to create committees and delegate functions to them. We advocate local systems use this to create local digital committees that coordinate digital transformation.



Population Health Insights for Frimley ICS

Frimley Health and Care ICS is using advanced data analytics to 'wrap its arms' around over-stretched GP practices by identifying patient behaviours driving increased demand. Insights have been delivered by EMIS-X Analytics – an advanced data analytics platform from primary care software provider EMIS – using data drawn from the local shared care record and population health tools.

Among the trends identified by the ICS, responsible for 800,000 patients, are:

- > A 17% annual rise in demand for primary care services, with demand increasing across all patient groups, not just the elderly or those with acute conditions;
- > A specific trend among 18-35-year-olds classed as 'generally well' to bypass primary care and instead present directly to Accident & Emergency services.

"The population demand we've identified is not isolated to deprived areas, from patients who have acute health concerns or those who are elderly, it's an increase across the board. When you combine this with a reducing workforce and teams that have worked flat out during the pandemic, it's perhaps not surprising that our GP practices are struggling. We want to wrap our arms around GP practices and use data to help." – **Mark Sellman, CIO at Frimley ICS**

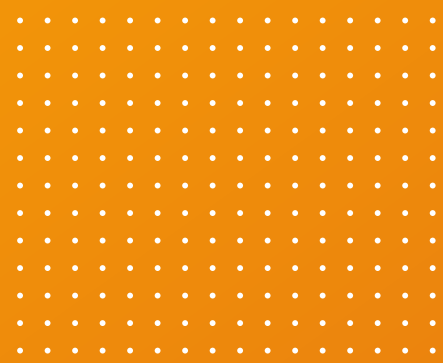
faculty

COVID-19 Early Warning System

During the COVID-19 pandemic, Faculty built the first of its kind COVID-19 Early Warning System (EWS) to forecast hospital admissions and life-saving equipment up to three weeks in advance. The groundbreaking tool helped frontline workers at the NHS save lives, servicing over 1000 hospitals and 1.4 million employees.

The EWS predictions can be viewed on a national, regional, system or trust level and are updated daily. For the first time, people working at all levels of the NHS have access to timely insights about the potential impact of the virus on patient demand for frontline services. This enables organisations to plan and put mitigations in place at both a national and local level. The EWS is now part of daily workflows for hundreds of analysts and senior decision makers across the NHS.

"By using this leading technology developed with Faculty, we are helping to support frontline staff in their ongoing mission to save as many lives as they can by equipping them with the most accurate information. This tool is incredibly important for helping local teams plan to bring back on services for other patients safely, while at the same time flexing capacity locally to support COVID-19 care." – **Ming Tang, Chief Data & Analytics Officer, NHS England**



Putting outcomes before processes: fostering innovation through procurement

Procurement processes play a crucial role in bringing innovation into the public sector. With public procurement constituting a third of all yearly public expenditure, at nearly £300bn¹⁰, creating an environment that encourages early engagement with industry is key to maximising value for money for the taxpayer. This is even more important in the digital and technology space, which continues to experience exponential growth.

In December 2020, the Cabinet Office outlined proposals to overhaul public procurement legislation with the publication of the [Transforming Public Procurement](#) Green Paper. The aim was to simplify processes and put value for money, as well as social value, at the heart of procurement, supporting small businesses to innovate and in turn the public sector to improve the services it delivers to citizens. techUK's response to the Green Paper placed emphasis on the importance of early market engagement to drive better outcomes. We have long advocated for better, more meaningful and more consistent early market engagement across the public sector, including in the most recent [Local Public Services Innovation: Creating a catalyst for change](#) report, published in May 2022.

Following the government's response and once legislation passes through the Houses of Parliament, the new procurement regime will go live in 2023. In March this year, the Cabinet Office also published the [Digital, Data and Technology Sourcing Playbook](#), which outlines best practice guidance for how digital projects and programmes are assessed, procured and delivered in central government departments, arms-length bodies and the wider public sector. The Cabinet Office collaborated closely with

suppliers and DDaT professionals across government to create a playbook that works for all parties involved in procurement, and we commend them for this exemplary engagement.

Best Practice Example: Digital maturity assessments early market engagement

In April this year, techUK supported NHS England in setting up an early market engagement event with suppliers in the digital maturity assessment space to inform their commercial approach for a new project. Following the publication of the What Good Looks Like framework in 2021, the aim of the programme is to identify a partner to support the delivery of digital maturity assessments for NHS trusts and ICSs, after a similar exercise completed in England by the NHS in 2016/17. The session, which brought together over 60 suppliers, saw the team share early requirements and gain feedback from industry to set out their approach.

David Parker, Strategic Commercial Lead, and Ash Sharma, Programme Lead for the Digital Maturity team at NHS England, praised the benefits of engaging early with industry, stating:

“Early market engagement has proved really useful in helping us to understand where we needed to improve on our draft specification, the options available to us in terms of how we buy the intended services, and the eventual routes that we may take. We had fantastic feedback from the session held with techUK and via the questionnaire we set out. We are now more informed than we would have been had we not undertaken early market engagement.”

The techUK [Ten Point Plan for Healthtech](#) report set out several recommendations to transform procurement of technology across health and care. Over the past 16 months, we have seen progress on these issues at a national level, in addition to the wider changes to public procurement that are set to be introduced. techUK has been working closely with the Transformation Directorate, formerly the NHSX commercial team, to provide feedback from suppliers on procurement practices and the work of the NHSE Central Commercial Function (CCF) (formerly the Procurement Target Operating Model (PTOM) programme).

We strongly encourage NHS England to continue engaging with industry at an early stage to create an environment that allows for increasingly innovative procurement, helping to bring the best technology tools and services into the public sector.

We welcome the commitments highlighted in [A plan for digital health and social care](#) to build on the guidance issued by the CCF Digital and

Technology Commercial Category to simplify procurement processes and reduce burden on suppliers. Furthermore, the ICS developments provide ample opportunity to further improve the UK procurement landscape. While we recognise factors that may complicate ICS efforts to achieve early engagement with the sector, including the need to acquire expertise regarding the procurement of digital technologies and IT, there is much that can be done in collaboration with industry to improve the current system.

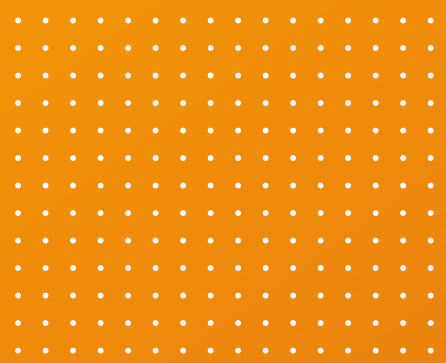
By decoupling procurement from finance, and taking a more strategic approach, ICSs can foster the UK's digital health and technology marketplace, in turn boosting local economies. The consistent application of industry perspectives and simplification of lines of communication between teams within an ICS could also give suppliers a clear view of the tasks and requirements and enable ICSs to utilise a greater proportion of the supplier market and, therefore, access greater innovation which is often provided by SMEs.

Recommendation

techUK recommends that to improve transparency and clarity around the commercial activity of Integrated Care Systems, Integrated Care Boards look to:

- a. ensure that early market engagement with the digital and technology industry is a core part of all digital transformation projects;
- b. make visible ICS-level procurement pipelines for digital and IT, modelled on the procurement pipeline [introduced by NHS Digital in 2020](#) and mapped onto ICS-wide strategies to ensure that the requirements and solutions provided support ICSs accordingly.

We believe that transparency should be reciprocal and make a commitment to support the supplier community in working in a collaborative manner with ICSs to ultimately drive forward the digital transformation of health and care, as outlined in [A plan for digital health and social care](#).



Prioritising interoperability and data: driving long-term transformation

If we are to achieve the vision for a truly integrated health and care system, as set out in the [Joining up care for people, places and populations whitepaper](#), there are urgent and long-standing challenges around the lack of interoperability of systems across health and social care that must be addressed. Strong supplier engagement is paramount to doing so.

Throughout the years, techUK has often highlighted that interoperability is more of a cultural challenge, rather than a technical one. With the merger of NHSX into NHS England, and, there is a clear need to ensure that interoperability sits at the core of all digital transformation projects, both nationally and at ICS level. We must see joint working between internal teams, collaborating on interoperability requirements. This will play a key role in ensuring

that we are working towards our goal of achieving wide-ranging interoperability of systems in and across health and care, and not against it, as highlighted in our response to the draft [Standards and Interoperability](#) strategy from April this year.

techUK has been working closely with the public sector to support the delivery of this work on the ground for many years, including through the publication and refresh of the Interoperability Charter, our backing of INTEROPen, our work with the Professional Record Standards Body (PRSB), and the launch of our Interoperability Working Group. This is in addition to the recommendations made in the [Ten Point Plan for Healthtech](#) around the creation of a standards registry and roadmap, where we also called on national bodies to take an international, open standards first approach to developing national assets and infrastructure.

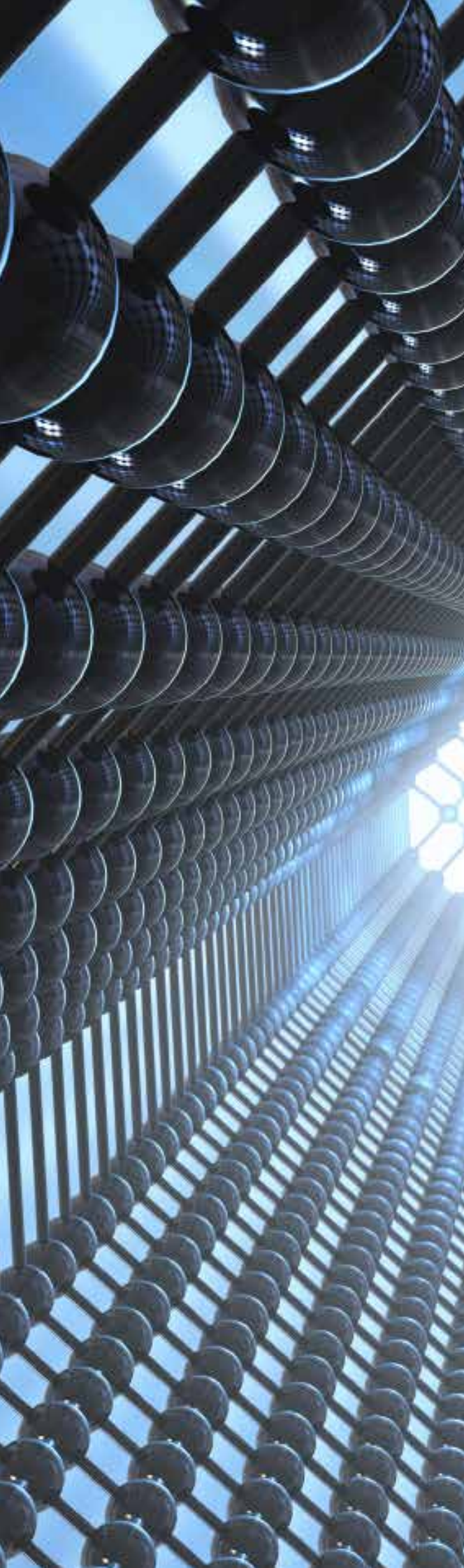
Ten Point Plan for Healthtech recommendations on interoperability

Applying an international, open standards first approach

techUK encourages NHS Digital and NHS England to take an international, open standards first approach as it develops national assets and infrastructure. Further education of NHS staff about what interoperability means in practice will help to reinforce the importance of this approach.

Centrally mandating, assessing and enforcing the use of interoperability standards

The Department of Health and Social Care should centrally mandate, assess and enforce the use of interoperability standards through NHS England and NHS Digital. Standards should be locally implemented and co-developed with both industry and the service itself. These should then be collated into a single, searchable interoperability standards registry. This standards registry should be transparent and accessible by end users so they understand what they should adhere to.



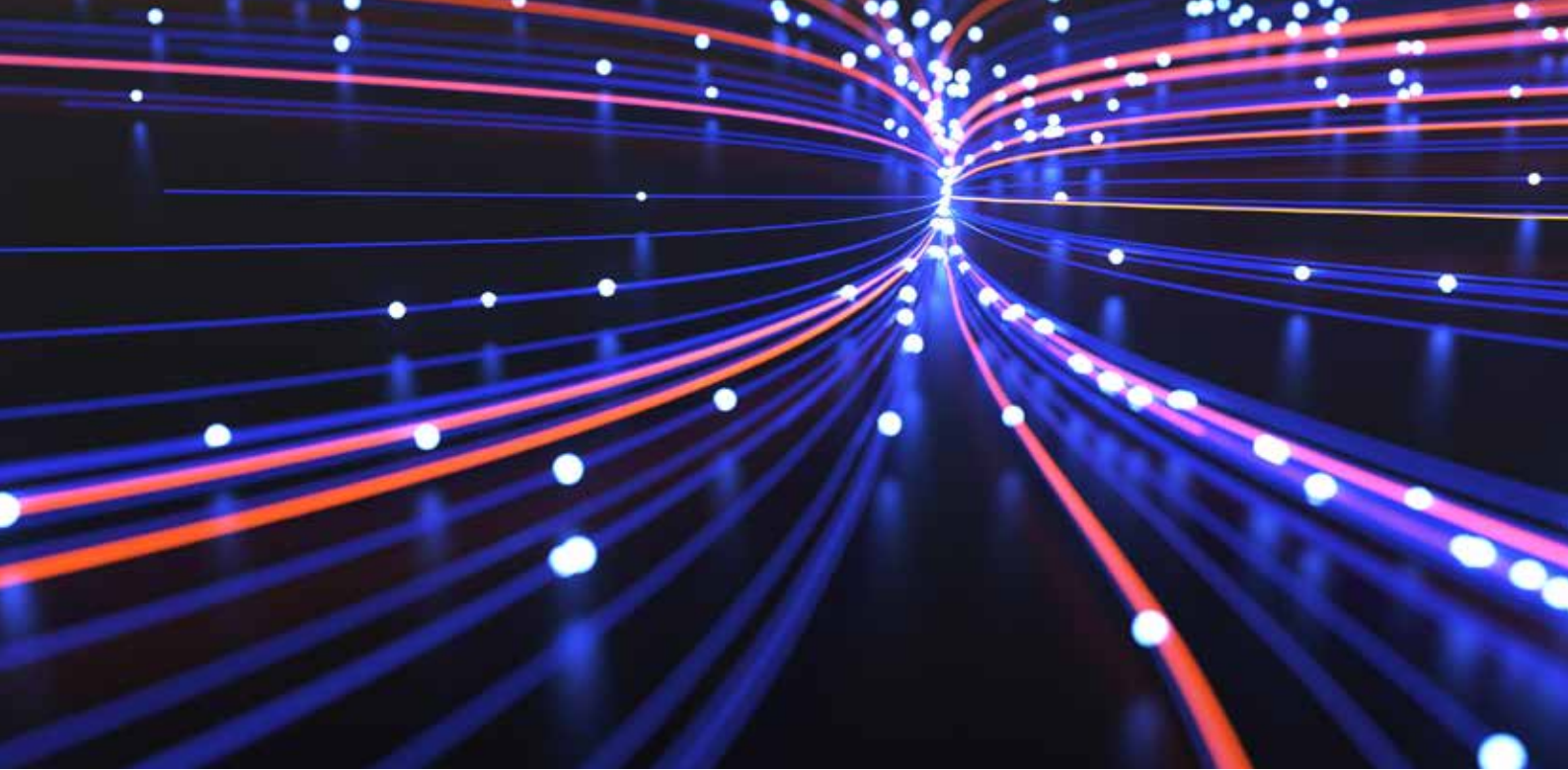
techUK's Interoperability Charter

techUK published its Interoperability Charter in 2015, after former NHS England CEO Simon Stevens released the [Next Steps on the Five Year Forward View](#) document, which proposed new models of integrated care to transform the traditional boundaries between primary, secondary, community, and social care. techUK members operating across health and social care welcomed these changes, and as a result developed the Interoperability Charter.

Led by the then techUK Health and Social Care Council, with input from the wider membership, the voluntary Charter took forward core principles outlined in techUK's paper [Our Vision for Interoperability](#), published in March 2015. This was later updated in 2017 and 2022, now through the work of our Interoperability Working Group.

Aiming to provide thought leadership, the Charter outlines a set of principles that companies commit to adhering to in order to help drive change and progress in the digital transformation of health and care. The focus is on raising awareness of the importance of interoperability and now working towards the vision set out in the draft [Standards and Interoperability](#) strategy:

[“A health and social care system that enables all relevant care information to be accessible by those who have a legitimate right to do so, at the point of need, no matter where it is held,” draft Standards and Interoperability strategy, NHS England, 2022](#)



We welcome the draft Standards and Interoperability strategy published by the Transformation Directorate, which we believe is a great step in the right direction towards setting out clear accountability on interoperability. To go even further, our response set out several areas where we believe there is significant progress to be made, including on:

- moving to a place where well-developed, strong use cases are used as the mechanism to deliver standards and drive adoption
- taking transparent action on driving a much-needed culture shift ensuring that interoperability is a key driving principle for all digital transformation efforts in healthcare.

The Transformation Directorate now has a clear opportunity to work with ICSs to ensure that there is alignment across the board in efforts undertaken accelerate deployment of tech across the system. With plans for running digital maturity assessments mapped to the What Good Looks Like framework underway, the NHS should also look to use this opportunity to understand where ICSs are in terms of facilitating interoperability. This would help to provide an understanding of what the centre should prioritise in order to drive the kind of progress set out in [A plan for digital health and social care](#), which highlights that “data flowing through the connected system will yield insights into population health disparities and dynamics, supporting targeted population health improvement”.¹¹

Recommendation

To make progress on interoperability, techUK recommends that Integrated Care Systems look to appoint dedicated teams to work closely with the Standards and Interoperability team at the Transformation Directorate to ensure ICS-level digital transformation projects fully account for interoperability requirements.

We now look forward to seeing the publication of the Standards and Interoperability strategy later this year, and how the feedback from industry and the service itself is being addressed.



Merging Devices with Data

DMI worked with industry partners to develop a holistic connectivity solution, enabling data to seamlessly integrate across third party apps, devices, and industry standard database management platforms.

The teams started by mapping out the full customer journey, verifying suggested solutions with stakeholders and users to ensure that every potential use case had been covered. The result was a cloud-hosted platform to build and integrate any number of third-party apps or devices as well as their own, while meeting all compliance standards. It was customized to deliver a series of mobile apps across multiple drugs and diseases such as Anaphylaxis, Asthma, Diabetes, and Human Growth Hormone (HGH) to showcase the potential of supporting the apps and devices in development.

The low-cost, rapidly deployable, and modular system allows for patients of all medical conditions to receive smart-enabled care, no matter where they are. It is an open solution that allows the market and customers to choose what best suits their business and patients' needs.



Integrated Patient-Controlled Medical Record

In a joint project with the Luton & Dunstable Hospital and Cambridgeshire Community Services, Patients Know Best (PKB) piloted a patient-controlled medical record for children living with epilepsy. Parents are empowered in their role as care coordinators, and primary care data is integrated.

This will ultimately provide a single health and care record around the patient for them to share with every health care provider they encounter and will run until 2023. PKB has had a significant impact on patients, carers, and family. For instance, when a child with epilepsy was admitted into St Mary's Hospital in London, the clinicians had access to the medication regime and medical history, and at discharge, the MRI scan and test results were all available in real time for clinicians in Luton to see.

A single point of access through SystemOne was a significant enabler in the onboarding of other settings including schools and community nurses who can also access and add to PKB. This provided a find a solution for the interoperability and governance issues frequently encountered and is not confined to a locality. Many stakeholders found that PKB is the first solution to have built in infrastructure to be scalable and interoperable, with the potential to go beyond epilepsy.

inhealthcare

Improving the Flow of Hospital Information to NHS Community Services

Inhealthcare, a leading provider of virtual healthcare services, is working with the NHS on a pioneering project in East Yorkshire to improve the flow of information between different parts of the healthcare system. The project aims to boost NHS productivity, increase the visibility and status of patients within the system and improve health outcomes. Inhealthcare is supplying Hull-based City Health Care Partnership, a provider of NHS services in community settings, with vital data about the admission, discharge and transfer (ADT) of patients within the region.

The company is the first organisation to use the ADT subscription service offered by the Yorkshire and Humber Care Record, part of the NHS Local Health Care Record Exemplar (LHCRE) programme to join up health and care data. Inhealthcare established the communication between its platform and the electronic care record infrastructure using Fast Healthcare Interoperability Resources (FHIR), the global industry standard for sharing health data developed by HL7. The data is presented to CHCP via an easy-to-read dashboard and integrated into community care records.

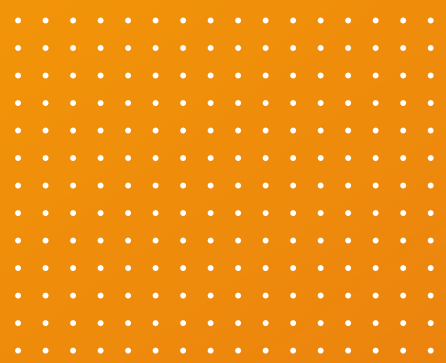
Liquidlogic

Data Sharing to Join Up Health & Social Care Services

Residents in the London Borough of Islington are benefiting from the first live information sharing project of its kind aimed at improving joined up working between NHS and social care services.

Islington Council and The Whittington Hospital have enabled professionals from across health and social care to share patient discharge information electronically for the benefit of patients. Improvements in the exchange of information about proposed discharge dates and a patient's particular needs can help to reduce delayed discharges from acute settings into the community.

In Islington, the Adapter Project allows the secure exchange of discharge notices between the Whittington's Medway patient administration system (PAS) from System C, and Islington Council's Liquidlogic social care case management system. Liquidlogic and System C are both part of the same IT group, System C Healthcare.



Working together: creating an open and transparent environment for collaboration

Although the challenges that health and care face in accelerating digital transformation are no small feat, for us, it's clear that they must be addressed through one important avenue: collaboration.

The UK's health and social care sectors have yet to solve the problem of sharing best practice on digital and technology. Working in isolation leads to duplication of effort and waste of scarce resources, while encouraging true partnerships with industry and collaboration within and across ICSs would help to ensure that we accelerate progress on a national level, as highlighted in [A plan for digital health and social care](#). This could also spur a move away from the current disparity between the pockets of excellence and the areas making slower progress, ultimately also helping to tackle health inequalities.

techUK has often argued that public sector buyers need to understand that there is a cost to not engaging with industry. The Transformation Directorate and ICSs should now work together to bring about a culture shift that further enables the uptake of technology and innovation. This includes acknowledging the importance that clinical, operational team buy-in and not only plays in the deployment of new tools and services.

Furthermore, industry, the NHS and social care working closely together would also mean that new solutions put users at the centre of the design process. Consistent involvement of staff, citizens and patients will ensure that products and services are more impactful and that they ultimately help to drive improvements in outcomes. As previously argued by NHS Providers, strong user-centred design plays a crucial role in supporting a digital strategy that works for health and care organisations.¹²

[A plan for digital health and social care](#) reiterated the commitment to systematising best practice where NHS trusts and primary care groups have developed strong processes for partnering with innovators, speeding up the spread of well-evidenced technologies across the NHS. The document also set out plans for NHS England to make it easier for public sector organisations to collaborate with industry on developing and mainstreaming innovations that improve health and care outcomes or reduce staff workload.¹³ We strongly welcome this push, which we believe will foster innovation and ensure that we're building a system that is fit for the future.

Recommendation

techUK recommends that the Transformation Directorate in NHS England works with ICSs to open up to industry in a consistent and transparent manner the community of practice which brings together ICS digital transformation representatives.

The Health and Care Act 2022 sets out that ICBs will have the flexibility to determine governance arrangements in their area – including the ability to create committees and delegate functions.¹⁴ We recommend that ICBs that have not done so look into the possibility of establishing digital transformation committees, including representatives from social care and clinical teams. Innovations can be triaged via this committee, so that companies providing services and products across the wide spectrum of digital and technology know who they need to talk to and what the requirements are for deploying their innovations across the system, accounting for local priorities and requirements.



Case Study for Collaboration: techUK forums with the Transformation Directorate Adult Social Care team

techUK and NHS England's Digital Adult Social Care team recently announced greater collaboration that will see the organisations hold bi-monthly 'check-ins' for techUK members.

In these, members are invited to receive strategic and operational updates from the NHS on ongoing and future projects as well as details about opportunities for engagement or collaboration. In return, they will provide constructive feedback, useful evidence, relevant resources, and insights regarding future business priorities or challenges to NHS colleagues.

This should ensure that government policymaking is informed by the capabilities, priorities and needs of the sector.

The first meeting, which took place virtually on 7 June 2022 and was attended by teams from both the NHS Transformation Directorate and Local Government Association, explored the What Good Looks Like (WGLL) framework. WGLL draws on local learning and builds on established good practice to provide clear guidance for NHS and ICS health and care leaders to digitise, connect and transform services in a safe and secure manner.

Case Study for Collaboration: techUK Regional Roundtables

Over the past 10 months, techUK has brought together key public sector decision makers and industry leaders working in digital health and technology across several regions including the North West, West Midlands, South West, London, and West Yorkshire.

These roundtables provide a structured environment in which NHS, local public services, and third sector stakeholders can work closely with suppliers to support the delivery of better care and improved staff experience. This series was born from the desire to provide a space for local leaders to discuss plans, looking at the key role that digital, data and technology will play in helping to achieve the government's wide-ranging reforms to health and social care, particularly in light of the move to place ICSs on statutory footing.

Bringing together CIOs from multiple local ICSs, combined authorities, and city councils with technology companies that offer solutions that can help tackle specific issues, presented the opportunity to share best practice and ensure alignment of goals.



Enabling Collaboration Across Organisations in Greater Manchester

A collaboration between tech innovator Shaping Cloud, the NHS and Greater Manchester Combined Authority (GMCA), produced GM Identity. This took the best of the latest standards and development in Identity and Access Management and incorporated those concepts and protocols into a new digital product that enables seamless access and sharing of apps and data across organisational boundaries.

The organisations sought to rationalise resources, share assets, control authorisation and authentication and lessen the red tape when working with other public sector organisations and the public. Pain was felt due to a plethora of systems and associated login credentials, with precious time being wasted by frontline staff accessing them; account creation, the movement of staff between organisations and collaborative working was complex.

GM Identity creates a flexible and secure federated identity, authentication and authorisation service ideal for NHS and Gov organisations needing to collaborate more, and is now a core component of the GM Digital Platform. Information can be shared between the general public, health care professionals and local authority representatives, safe in the knowledge the data is secure and being accessed by appropriate parties.



Three-way Collaboration to Migrate NHSmail

Under the strain of exploding national demand during the COVID-19 crisis, NHS frontline healthcare workers urgently needed the updated digital messaging and email tools to work together even faster and more collaboratively—anywhere, any time.

Arming more than a million NHS employees with the latest digital collaboration innovations amidst the pressures of the pandemic was no small feat. The massive undertaking required moving 2.1 million NHS mailboxes to Microsoft's Exchange Online platform in record time.

To unlock the full potential of modern communication platforms like Microsoft Teams, the NHS prepared to lay the foundation for a flexible, responsive and future-ready digital solution. The mass-scale project was undertaken in partnership with NHS Digital, Avanade and Microsoft, resulting in a robust cloud-based framework that meets the collaboration challenge while helping the NHS more quickly and efficiently address the UK population's increasingly complex healthcare needs.

Conclusion

Since the publication of techUK's Ten Point Plan for Healthtech in February 2021, a plethora of policy and legislative documents, along with consultations of relevance to the adoption and transformation of digital, data and technology in England's health and social care system have been published. Among others, these include:

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| <p>1 Draft National Strategy for AI in Health and Social Care, September 2021</p> | <p>5 Draft Standards and Interoperability Strategy, April 2022</p> |
| <p>2 MHRA Consultation on the Future Regulation of Medical Devices in the United Kingdom, September 2021</p> | <p>6 Data saves lives: reshaping health and social care with data, June 2022</p> |
| <p>3 People at the Heart of Care: adult social care reform white paper, December 2021</p> | <p>7 Health and Care Act 2022, June 2022</p> |
| <p>4 Health and social care integration: joining up care for people, places and populations white paper, February 2022</p> | <p>8 A plan for digital health and social care, June 2022</p> |

ICSs are at the centre of the most substantial legislative changes that the health service has undergone in a decade. They have the potential to offer a once in a generation opportunity to rethink how we approach health and social care. The systems are designed to bring together different sectors and organisations in a locality that have an impact on the health of a population, incorporating not only charities and care providers, but any organisations or bodies that an ICS leader deems to fall within the scope of health and wellbeing.

This vision and ambition are fully supported by the technology industry. To ensure they become a reality, the service will need to carefully consider its approach to the areas examined in this report. Together with industry, techUK look forward to working closely with partners across the health and care sector to enable a sea change in the adoption of innovative products and services that will ultimately help us meet the demands of our ever-changing world.

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About techUK

techUK is a membership organisation that brings together people, companies and organisations to realise the positive outcomes of what digital technology can achieve. We collaborate across business, Government and stakeholders to fulfil the potential of technology to deliver a stronger society and more sustainable future. By providing expertise and insight, we support our members, partners and stakeholders as they prepare the UK for what comes next in a constantly changing world.



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