



Digital Health
& Care Scotland

SCOTLAND'S DIGITAL HEALTH & CARE STRATEGY

ENABLING, CONNECTING & EMPOWERING



The people of Scotland expect technology and information systems to be part of how health and care services are delivered, and for that to be a seamless and almost invisible part of the process. They are enthused and excited about how the sector could embrace the opportunity to make people's experience and use of services more straightforward and interactive, in the same way as banking, shopping and travel. They talk about the potential for digital technology to change the way that services are delivered for the better. However, when we ask about real-life experiences of technology and information systems in health and care people tell us stories. And those stories are often not good stories. They are stories about how information about a person being treated in Kilmarnock is not available because their records are in Fife. Or that a person with multiple complex problems often has to repeat the same information again and again to different people, as every organisation and professional works with a different system, and a different record. Front-line staff also tell us they have to log on to multiple systems to do their job, and that they feel as though they are there to support the information system and not the other way around. People are frustrated, confused and disappointed and we need to do better. We know that digital technology should be one of the key enablers, rather than a barrier, to delivering excellent care.

The issue is not whether digital technology has a role to play in addressing the challenges we face in health and care, and in improving health and wellbeing: the issue is that it must be central, integral and underpin the necessary transformational change in services in order to improve outcomes for citizens. Over the next decade digital services will become not only the first point of contact with health and care services for many people, but also how they will choose to engage with health and care services on an on-going basis.

This strategy is therefore about how care for people in Scotland can be enhanced and transformed through the use of digital technology. It is not specific to individual specialisms, groups or organisations: it encompasses the whole range of health, social care and wellbeing services commissioned and provided by Health Boards, by Integration Authorities and by Local Authorities and their third and independent sector partners. Importantly, it extends as well to informal care, self-care, prevention and public health.

This strategy also recognises that there is a real opportunity for researchers and businesses in Scotland to be at the forefront of what is one of the fastest growing fields in global healthcare delivery, and places innovation at the heart of how we will work.

We are grateful to the many individuals, groups and organisations that have engaged in the process that has been undertaken to delivery this strategy, and who have told us about what they think of digital technology and its use in health and care services. We have benefited significantly from the advice of an External Expert Panel and welcome the Health and Sport Committee's thorough and insightful report.

This strategy is bold, ambitious and enterprising and presents a once in a life time opportunity to create a digital and interoperable health and social care system, supporting improvement in the safety, effectiveness, efficiency and citizen-centred nature of the services we offer.



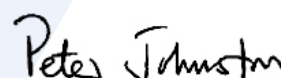
Shona Robison

Cabinet Secretary for Health and Sport



Cllr Peter Johnston

COSLA Spokesperson
for Health and Social Care



Technology is fundamentally changing the way we live our lives. The internet has opened up access to information and services 24/7 – changing the way we bank, the way we shop, the way we travel, the way we communicate, the way we are entertained, the way we pay for things – and provided us with greater choice and control than ever before. Advances in technology too – from basic mobiles to smart phones and tablets, sensor and imaging technologies, the Internet of Things, wearables, cloud computing, robotics, and artificial intelligence to name but a few – are increasingly changing how we interact with services and manage our lives.

‘Digital technology has the potential to change the face of health and social care delivery.’

– Scottish Parliament Health and Sport Committee report on technology and innovation in health and social care

Both the Scottish Government and Local Government recognise the absolute necessity of digital as part of public service reform. [Realising Scotland’s full potential in a digital world: A Digital strategy for Scotland](#)¹ sets out to enable Scotland’s people and services to fully maximise the potential of digital, by ensuring that we put digital at the heart of everything we do. It is undeniable that digital is now a core – and critical – component of all aspects of our lives and lies at the heart of modern, efficient organisations and business practices.



‘Digital technology is key to transforming health and social care services so that care can become more person-centred.’

– Scottish Government, Health and Social Care Delivery Plan²

That this extends to health and social care is recognised in the [Health and Social Care Delivery Plan](#)³, which provides the framework and the principal strategic objectives for this strategy across the triple aim of better care, better health and better value. The Delivery Plan goes on to identify digital technology as key to transforming health and social care services so that care can become more citizen-centred.

Digital technology is the area of greatest change in society, and of potential transformation for health and social care.

Of course there has been substantial progress through previous strategies and programmes. eHealth has enabled the successful delivery of many core IT systems required to support service delivery and management processes at a local level. Technology Enabled Care has made important strides to empower individuals to live more independently and manage their own care at home, as well as helping us to develop evidence-based approaches to scaling up as part of service design.

The Scottish Government’s Digital Directorate has created challenging standards for digital services underpinned by a robust process of assurance, and is working with partners to identify, develop and promote shared platforms and service components across organisational boundaries.

¹ <http://www.gov.scot/Publications/2017/03/7843>

² <https://beta.gov.scot/publications/health-social-care-delivery-plan/>

³ <http://www.gov.scot/Publications/2016/12/4275/downloads>

The Digital Office for Scottish Local Government has established a comprehensive programme of work that includes digital health and social care, and is supporting digital excellence across Local Government.

In the housing, third and independent care sectors, a small number of providers have embraced some truly innovative approaches to using digital to support greater independent living.

There is, however, significant further opportunity for digital to support the way that services are delivered, and to empower people to more actively engage with and manage their own health and wellbeing. That is why this strategy has been developed jointly by the Scottish Government, COSLA and NHSScotland following extensive engagement and independent advice from a panel of UK and international experts, chaired by Professor David Bates – signalling our intent for collaboration and a willingness to learn from elsewhere. It sets out the actions that we will focus on with our delivery partners in order to ensure that the right building blocks are in place for our vision to be realised.

In order to be successful, we all need to change our culture to embrace this new way of working, and we must also embrace the business transformation needed around it.

Digital strategy for Scotland

Scotland's overall **digital strategy**⁴ provides the lead for:

- supporting digital transformation by delivering public services that meet the needs of the public
- effective use of data
- developing standards and assurances
- improving and extending our broadband and mobile networks
- increasing digital participation
- making sure Scotland is a world leader in cyber resilience.



⁴ <https://beta.gov.scot/publications/realising-scotlands-full-potential-digital-world-digital-strategy-scotland/>

The strategic aim for Health and Social Care is that Scotland offers high quality services, with a focus on prevention, early intervention, supported self-management, day surgery as the norm, and – when hospital stays are required – for people to be discharged as swiftly as it is safe to do so.

This strategy focuses on how digital can support this aim whereby, as a citizen of Scotland:

‘I have access to the digital information, tools and services I need to help maintain and improve my health and wellbeing.

I expect my health and social care information to be captured electronically, integrated and shared securely to assist service staff and carers that need to see it..

...and that digital technology and data will be used appropriately and innovatively:

- to help plan and improve health and care services
- enable research and economic development
- and ultimately improve outcomes for everyone.’



We gathered views from [people who use our health and care services](#)⁵, through the Our Voice Citizens' Panel, health and care professionals, third sector organisations, technology professionals and managers, representatives of industry and innovators, academia, managers and planners of health and care policy and services. We established an [External Expert Panel](#)⁶ for us to gain a broader perspective and look at developments outwith Scotland, which enabled us to draw upon world-leading experts with a wealth of knowledge and extensive experience to advise us on Scotland's approach. We benefitted too from the evidence generated by the Scottish Parliament's Health and Sport Committee inquiry into [Technology & Innovation in Health & Social Care](#)⁷.

Across this engagement a number of themes are prominent, including the need for better interoperability and integration across different sectors and systems, better user experience, better processes and decision making around data sharing and access to records, stronger national leadership that promotes and enables a cultural shift in the use of digital, improved access to technology and infrastructure such as connectivity, an accelerated approach to scaling up, and doing things once nationally or regionally rather than multiple times locally. People want improved access, they want convenience, personalised services, the ability to self-manage and they want trust in the system as to how their data is used.

These are themes that are not particular to Scotland. We know that our approach to date – similar to almost every other healthcare system in the world – has resulted in an over-reliance on a small number of technology suppliers and an abundance of 'closed disparate systems'. Vital information needed for high quality care is either entirely restricted to individual systems, or is difficult to share. All evidence now suggests that we need a new model that involves a more open and flexible approach that better enables the delivery of citizen-centred services, health and social care integration and self-directed support.

The need for change has also been highlighted by the Health and Sport Committee, whose findings were echoed in our own engagement, and the new approach has been informed by the External Expert Panel based on their extensive learning from elsewhere.

Our engagement does not stop with the development of this strategy. Learning from other areas is a continuous process, as is seeking out formal partnerships with other UK and European regions in order to develop new approaches to delivering services through specific UK and European collaboration and funding opportunities such as the UK Government's Industrial strategy Challenge Fund (ICSF) and EU Horizon 2020 Programme. Indeed, a number of specific strands of work have been shaped by European and UK funded programmes, for example in relation to home and mobile health monitoring and mental health.

⁵ https://www.ourvoice.scot/news/news_feed/our-voice-citizens-panel-3rd-survey-report

⁶ <https://www.gov.scot/externalpanelreport>

⁷ <https://digitalpublications.parliament.scot/Committees/Report/HS/2018/2/1/Technology-and-innovation-in-health-and-social-care#Introduction>

The focus of this strategy is two-fold, both of which will support our principal aim of fundamentally improving outcomes through better coordination and delivery of care:

1. We wish to empower citizens to better manage their health and wellbeing, support independent living and gain access to services through digital means. We know this is leading to a shift in the balance of care by using the tools and technologies that we are already increasingly using for all other aspects of our lives, and
2. In order to achieve this at scale, we need to put in place the underpinning architectural and information governance building blocks for the effective flow of information across the whole care system that will enable the transformational ambitions of the Health and Social Care Delivery Plan, including public health and social care reform priorities.

‘We believe the new strategy provides an opportunity for the Scottish Government to lead the way and radically develop the way technology is used in the NHS and social care.’

– Scottish Parliament Health and Sport Committee report on technology and innovation in health and social care

There are a number of key national delivery partners, including the Local Government Digital Office, NHS 24, NHS National Services Scotland, NHS Education for Scotland, the Scottish Social Service Council, the Digital Health & Care Institute, the Scottish Government’s Digital Directorate which includes the CivTech® operation, and the Health & Social Care Alliance. At a local level, within individual territorial boards, local authorities and Integration Authorities, there are key individuals such as the eHealth Leads, clinical champions and TEC leads. But the scale of what we are proposing, indicates the need for a new delivery and leadership model that clearly supports national, regional and local implementation as well as transformation across all aspects of digital health and care. This will need to be a partnership with citizens that brings together the collective talent and expertise of our statutory organisations, delivery partners, industry and academia across Scotland.

In response to [Christie⁸](#), four ‘pillars’ of [public service reform⁹](#) have been identified: *prevention, performance, people and partnership*. A key principle to this is co-production; the most powerful force for change we have are our citizens and our staff. If we are to truly transform how we deliver health and care, our citizens and front-line staff need to be involved from the very beginning for any service redesign.

An essential component of making digital health and care successful is therefore in involving citizens in the design of tools and technologies to support them. Our experience to date of using technology within our health and care system in Scotland is that those that have been designed with users are more likely to be successfully adopted.

⁸ <http://www.gov.scot/Publications/2011/06/27154527/0>

⁹ <http://www.gov.scot/Topics/Government/PublicServiceReform>

We believe that in order to deliver on our ambitions, we need to formally adopt the [Digital First Service Standard¹⁰](#) as the minimum standard that all digital services developed nationally in Scotland should meet. The standard, which is a set of 22 criteria across three themes, aims to make sure that services in Scotland are continually improving and that users are always the focus, with co-production built in.

The above principles cover how you build digital systems and approaches, but there are many technologies already in existence - both ones in use in our healthcare system today, and those in the much broader 'consumer' space which we need to spread and scale. We will ensure that we reuse where possible, and utilise familiar and inclusive technology for staff and citizens that is as flexible and personalised as it can be. There are also 'low tech' options that can be better utilised by our services, such as text messaging and telephone to ensure an equitable approach.

We expect all future developments, whether nationally, regionally or locally developed and delivered, to follow these principles. In doing so, it is anticipated that we can also deliver a better experience of care for both professionals and citizens.

Enabling this requires us all to work collaboratively across six key areas, or domains:

- National Direction and Leadership
- Information Governance, Assurance and Cyber Security
- Service Transformation
- Workforce Capability
- National Digital Platform
- Transition Process.



¹⁰ <http://scottishgovernment.github.io/standards/digital-first/>

This is a joint strategy for Scotland across national government, local government and the NHS. Similarly, delivery of the strategy needs to be a partnership endeavour, where we harness not only the collective skills, talents and capacity that exists within our public services, but also those of industry, academia, the third and independent care sectors and the wider public.

‘We believe there are a number of services which could be delivered from the centre more efficiently, balancing cost and quality, on a ‘once for Scotland’ basis.’

– Scottish Parliament Health and Sport Committee report on technology and innovation in health and social care

By July 2018, we will establish a national decision making Board made up of Executive representatives of the Scottish Government, Local Government and the NHS, with additional support and advice from industry, academia and the third sector.

This Board will drive forward this agenda by:

- Making key national decisions, including on areas such as the standards required to deliver interoperability and information sharing across health and care.
- Agreeing the financial framework for implementation.
- Identifying priorities for development and improvement.
- Overseeing and coordinating developments to ensure coherence, address risk of duplication, and maximise synergies and efficiencies.
- Reviewing and streamlining existing groups, networks and committees.
- Monitoring and reporting on delivery of this strategy at periodic intervals.
- Overseeing the development of a measurement framework and support for benefits realisation and evaluation.
- Establishing appropriate structures to manage individual programmes of work.
- Overseeing adherence to standards, compliance, transition etc.
- Sharing best practice and identifying opportunities for collaborative working and embedding new ways of working through appropriate fora.

National and other organisations with responsibility for implementing elements of this strategy will report regularly to the Board on progress.

Information Governance, Assurance and Cyber Security

Domain B

People expect their health and care information to be available to them, and to those responsible for helping them, when and where they need it. At the same time they want assurance that their personal information is being handled appropriately, safely, securely, and in an approved and controlled way.

We heard consistently that there needs to be a national approach to information governance in order to address, amongst other issues, inconsistencies in decision making about appropriate sharing of information, and misunderstandings and myths around existing legislation – which can impede the effective delivery of care, but also the timely introduction of new models of care, research and innovation. The Health and Sport Committee, as well as a significant number of other stakeholders, strongly emphasised the need to review how information governance could be considered at a national level, find more efficient ways to appropriately share information, and ensure there is a greater understanding of the law.

We recognise that people should have appropriate choices around how they can access and manage their health and care information, and we need to maintain trust that their information is used in a manner consistent with the law and with their expectations. A more transparent and informative picture is needed so people understand the importance of the use of information in areas of wider public or societal benefit such as research into new treatments or to develop learning and knowledge to improve public health.

By 2020, we will have in place clear arrangements to deliver a simplified and consistent national approach for Information Assurance which will take into account the different needs of users and citizens, and provide clarity around information sharing across health and care.

For this to be achieved, we will:

- Establish, through public involvement and professional advice, a clear national approach, consistent with the law, including the General Data Protection Regulation (GDPR), which provides clarity around the required information assurances needed for different uses of health and care information, and appropriate choices for citizens about how their information will be used.
- Review information governance boards and groups currently in place with a view to streamlining the landscape, reducing unnecessary complexity and developing a national approach to assurance and cyber security.
- Work with health and care organisations to continually improve the security of how they handle information and ensure that this reflects specific standards e.g., cyber essentials and appropriate ISO 27001 standards.
- Agree and publish clear information for the public, front-line professionals, carers, the research, development and innovation communities about the use of information and the basis on which information may or should be shared.
- Work with public sector initiatives, e.g., the Identity Assurance Programme, to ensure that we encompass a consistent approach across public services in the use of information.

Spread and adoption at scale of proven digital technologies within services across Scotland is critical to the success of this strategy. Most of what we are setting out to achieve requires local service change and redesign as part of pathways of care, supported by national approaches and models. Despite good progress in some aspects of using digital as a core part of service delivery, we need to go further.

‘By collaborating with people and professionals, we can fully exploit the potential for digital to transform our health and care services and to support people in their self-management.’

– Ian Welsh OBE, Chief Executive, Health and Social Care Alliance Scotland (the ALLIANCE).

‘Digital technology now needs to transform the way in which health, housing and social care services are provided, empowering people to self-manage and live more independently.’

– External Expert Panel report on digital technology in health and social care

The Health and Sport Committee agree that spread should be accelerated as a priority, and the Expert Panel called for broader implementation at scale across Scotland. Both reports set out a number of recommendations including the opportunity for co-designed person centred approaches, the need for a national ‘once for Scotland’ approach, requirement to support adoption of evidence-based technologies and rapid national scale-up, and a need to address cultural barriers to encourage widespread acceptance and uptake of technology and innovation. This, in turn, requires health and care organisations that put digital at the heart of their ways of working. We recognise that significant effort will also be required here: too often, digital initiatives fail to be adopted at scale due to insufficient focus on designing and implementing new ‘ways of working’ and the culture change that accompanies it.

Change happens at all levels – national, regional, and local, within an organisation and within individual services. Recognising the benefits of a structured, focused approach to delivery, the eight National Health Boards’ new collaborative approach to offering improvement and transformational change support will – working with the Scottish Government, COSLA, the Local Government Digital Office, the Scottish Social Services Council and the Care Inspectorate – be key to delivering on our ambitions. Collectively we will design a consistent approach to supporting transformational change which brings together expertise and knowledge, incorporates technology as integral to all change programmes, and embraces and delivers significantly greater opportunities for self-management. We will also build on cross-sectoral work being taken forward by organisations such as the Scottish Federation of Housing Associations, Alzheimer Scotland, Coalition of Care and Support Providers and the Scottish Fire & Rescue Service, which is driving the uptake of digital in the delivery of care across different sectors.

We know that this can be accelerated with the right access to learning and knowledge mobilisation approaches via a combination of formal and informal networks, resources and toolkits.

‘The housing sector can play its part in the digital revolution, developing and creating new services fit for the digital age.’

– Martin Polhammer, Chief Executive,
East Lothian Housing Association

By end 2018, we will have in place a clear national approach to supporting local co-designed service transformation with clearly identified leads.

This will allow us to:

- Build the knowledge and skills within the system to support and deliver key digital transformation capabilities.
- Deliver remote monitoring of long term conditions by scaling-up our work on home and mobile health and care monitoring nationally to support prevention and supported self-care within priority care pathways.
- Support greater independent living and healthy ageing by delivering a step-change in how technology is used as a cost-effective support, including maximising the service redesign opportunities presented by the shift from analogue to digital telecare services, and embracing smart sensor technology and consumer devices.
- Expect all organisations involved in the delivery of care to sign up to the [Digital Participation Charter](#)¹¹ to ensure that they are working towards everyone having basic skills.
- Embed the Scottish approach to Service Design, with citizen engagement that enables the co-design of products and services that meet their needs and delivers sustainable, fit for purpose service models.
- Spread the use of video consultations direct from people’s homes (including care homes) and mobile devices to allow greater and more convenient access to both routine care and specialist support from anywhere in the country and support resilient services.
- Facilitate the development and application of innovative approaches working with the Digital Health and Care Institute (DHI) and other innovation centres, and continue to actively engage with Europe and more widely to collaborate and gain new funding opportunities.

¹¹ <https://digitalparticipation.scot/>

Workforce development in digital skills and capabilities across the whole health and care sector underpin the successful uptake and use of digital technologies. Strong leadership is required at all levels to drive forward the transformation of services, support innovation and champion the use of information and knowledge to improve decision making and service delivery.

Chief Digital Officers, Chief Data Officers, Chief Technology Officers, Chief Clinical Information Officers and other similar roles at an executive/board level grade are increasingly becoming the norm in organisations of all shapes and sizes. Whilst there are a number of individual leaders and experts overseeing aspects of the system, the Health and Sport Committee heard of the lack of strong, firm leadership needed to drive forward digital transformation. The Expert Panel emphasised that countries and regions which have made major progress in this area generally have dedicated senior leadership, as well as ensuring that training in digital skills is available for staff at all levels.

This requires us to build knowledge and skills within the system to support and deliver key digital transformation capabilities. Embedding such planning for digital, and the changes it will bring, into all workforce planning, professional development/competency frameworks and change programmes will be essential going forward. Similarly, we need to ensure our workforce is fully digitally connected wherever they are, suitably skilled to use the technology and sufficiently flexible to adapt to new ways of working.

‘Digital has transformed not only the way staff work and communicate with each other, it has also transformed the data that we collect and report, resulting in a consistent approach across services. Above all it has enhanced patient care.’

- Nicola Henderson, Dietician, NHS Forth Valley



By September 2018, NHS Education for Scotland, the Local Government Digital Office (working with COSLA and Health and Social Care Partnerships) and the Scottish Social Services Council will have in place a clear approach to developing the modern workforce and the necessary leadership to drive change.

This approach will enable us to:

- Establish the leadership roles, skills and experience required to drive the agenda for Digital Health and Care in Scotland.
- Develop frameworks and learning pathways of digital and data skills, capabilities, competencies and career paths across the health and social care workforce.
- Create a 'standard' that sets a clear direction of the roles and responsibilities for employers and employees in relation to digital skills, enabled by national learning resources and programmes.
- Partner with the Scottish Government's Digital Skills Academy to improve access to high quality digital skills training.
- Work with our universities and colleges to ensure that digital skills are an integral part of education and training for our future workforce.
- Build capacity and capability across specialist digital, IT and data professions.
- Support a cohort of leaders to participate in the NHS Digital Academy programme, the Nurses, Midwives and Allied Health Professionals (NMAHP) Leadership Programme, the [Digital Champions Development Programme](https://beta.gov.scot/groups/digital-champions/)¹², and MSc studentships in Digital Health and Care, as a result continuing to grow a network of digital champions to lead and inform digital developments and practice across health and social care.

- Promote existing and new solutions that enable more mobile and flexible working.
- Identify solutions that bring the most modern of technologies to our business and administrative requirements, freeing up staff to focus on frontline services.
- Provide productivity and collaboration services and tools, such as shared calendars, email, video and instant messaging, to support effective, efficient and secure ways for working across organisational boundaries.
- Tap into wider knowledge exchange from UK, European and International partnerships and networks.

'We have a long term commitment to developing resources that support social service workers to use and embrace digital technology. The new strategy will make sure that they can make wider use of the opportunities digital provides to improve outcomes and create a better working environment.'

- Lorraine Gray, interim Chief Executive, Scottish Social Services Council

¹² <https://beta.gov.scot/groups/digital-champions/>

Our engagement highlighted the need for easy access to information at the point of care in a timely fashion. The Expert Panel highlighted the importance of being able to access and use information at the point of care, and went further in emphasising the need for this also to help drive and develop learning and knowledge.

We will begin work now to deliver a Scottish health and care ‘national digital platform’ through which relevant real-time data and information from health and care records, and the tools and services they use, is available to those who need it, when they need, wherever they are, in a secure and safe way.

We will develop at a national level a digital platform that enables the appropriate creation and use of information at source and facilitates the interoperability of existing and new health and care technologies. This will be delivered through the development of a new architecture, the use of secure cloud-based services and the use of common shared international standards.

‘All healthcare providers would have a fuller picture of your health and social care needs’

– Respondent, Our Voice Citizen Panel

‘We agree the best way forward for data sharing is through a single platform, or spine, for data that other systems connect into.’

– Scottish Parliament Health and Sport Committee report on technology and innovation in health and social care

The platform will allow for:

- 1.** Information capture and access at point of contact – providing up-to-date high quality and timely role based, secure access to multiple specialist health and care information and knowledge sources, which is essential and fundamental to enabling excellent care, supporting staff, empowering citizens and enabling self-care.
- 2.** Research and innovation to produce new products that can be made available through the platform – encouraging and opening up a broader ecosystem of development and suppliers, in particular from small and medium-size enterprises, which will support service improvement, service change and emerging consumer demand.
- 3.** More appropriate use of information – putting in place the infrastructure and supporting improved processes for appropriate use of information for wider purposes, to ensure that health and care systems in Scotland are continuously learning. This is fundamental to supporting effective care, performance management, population health improvement, research and innovation, as well as the effectiveness of the new Public Health Body.

Each of these three elements is individually important, but also relies on each of the others for success. Only by creating and deploying information at the point of care can we improve interventions at the point of care or at a population level, and generate the knowledge, research and learning that will have the greatest impact. The platform will bring these together and make them possible.

‘A more joined up approach, and to prevent having to repeat my story again and again if there are staff changes.’

– Respondent, Our Voice Citizen Panel

‘Digital technology will transform healthcare delivery and outcomes with as much impact as the development of new therapeutics and diagnostics. It will enable the integration of health and social care in a way that will both improve peoples’ health and accelerate economic growth.’

– Graeme Boyle, BioDundee Steering Group Member

1. To support excellent care at point of contact we will:

- Deliver the digital capability for citizens to access and update information about their health and wellbeing, including their records and from personal monitoring, and to interact with services. This will build on work that is already starting to be taken forward on a Health and Social Care Services Portal and through developments such as NHS Inform.
- Deliver the digital capability for health and social care professionals involved in the direct delivery of care – from clinicians to care workers – to be able to safely and securely access, update and share relevant information about the individual being cared for, wherever they are.
- Adopt the Scottish approach to Service Design to ensure that the digital platform is co-designed with service users.
- Expand the use of knowledge mobilisation and decision support tools and services to support frontline practice, self-management and shared decision making.
- Establish and implement the standards required to deliver interoperability and information sharing across different health and care systems.
- Develop the use of the Community Health Index to link health and social care information at a national level.
- Develop the capability to use online triage (digital tools that direct people to the most appropriate service depending on their needs, including self service).

2. To support innovation and new products we will:

- Review the current landscape of innovation policies and initiatives to identify areas of similarity, ensure alignment with priorities and suitability for targeting for scale and spread.
- Establish a clear implementation model for the transition of innovative solutions into mainstream 'business as usual' services.
- Support the development of innovation, simulation and developer environments with open APIs and agreed standards.
- Use and contribute to the development of a 'national digital ecosystem' of common service components that can be used across the Scottish public sector.
- Adopt the Scottish Government's Digital First Standards.
- Establish a horizon scanning function, in conjunction with the Scottish Government's Digital Directorate, to develop our approach and preparedness around the role and adoption of emerging and future technologies e.g. automation, Artificial Intelligence, robotics, and 5G.

'Getting many of the desired long-term benefits will require that Scotland becomes a leader in digital innovation, and that it enables research on the data produced by clinical systems, where it has the opportunity to be one of the top nations in the world.'

- External Expert Panel report on digital technology in health and social care

3. To make better use of information, knowledge, research and innovation we will:

- Provide dynamic data capability, with machine learning where appropriate, that enables a forward looking predictive view that supports modelling and continuous improvement of future health and care services, finance and workforce.
- Support the development and implementation of common standards across the Scottish Public Sector.
- Harness the power of data to better understand the drivers of inequalities and poor public health outcomes, and use this to develop new digitally based services and interventions that can make a difference.
- Promote and facilitate appropriate, safe and secure access to clinical, biomedical, social care and other data about individuals for approved research in the public interest, including through managed collaborations between the public third and industry sectors, and academia.
- Work with the Digital Health & Care Institute, CivTech®, and other relevant organisations such as the other innovation centres and Health Data Research UK (HDR UK) in order to leverage opportunities for research, development and analytics, including those offered by the City Deals and Regional Inclusive Growth Deals as well as other UK and EU opportunities.

Previous eHealth strategies have successfully enabled the delivery of certain health services and certain health information to be shared or accessed on a regional and/or national basis. Some of these will be essential to the effective operation of the national digital platform in the future, and most are essential for the continued delivery of care today but may not be suited to the way we want care to be delivered in the future.

The transition from the current position will be challenging, will take time, and will require significant input from delivery partners. It will be important to take a bi-modal approach to ensure that existing services continue to operate effectively and that staff can continue to work and provide care without impact.

In Local Government too, work is required which is already underway via the Local Government Digital Office. This is to ensure that social care systems are fit for the future and appropriately linked with health, and is also to support the significant impact of the impending switch over of the UK's telephony system to a digital network and its impact on analogue telecare services.

We will work with eHealth and clinical leads, NHS NSS and Local Government Digital Office (COSLA/ Health and Social Care Partnerships) to plan and manage the transition process and, through our new governance, will review existing projects and investment to ensure best value and alignment to future direction.

We will:

- Develop and roll-out an assessment of digital maturity across health and social care services, identify areas for improvement and support, and establish a process for regular review and update.
- Ensure that all current and future services are secure, resilient and adhere to the specifications and standards set at a national level.
- Work with the Scottish Government's Digital Connectivity team [Digital Scotland](#)¹³ and build on the opportunities of R100, networks such as the [Scottish Wide Area Network \(SWAN\)](#)¹⁴ and the roll out of Wi-Fi to address connectivity and bandwidth challenges.
- Support the transition from analogue to digital telecare for health and care providers.
- Develop and oversee a technical transition plan to ensure that our current technical environment is securely and timeously transitioned to fit with the new National Digital Platform, where appropriate.



¹³ <https://www.scotlandsuperfast.com/>

¹⁴ <https://www.scottishwan.com/>

The opportunities presented by digital to truly empower people and put them in control of their own health and wellbeing are immense. So too are the opportunities to significantly reduce complexity, open up access to information, automate back end processes and support effective evidence-based decision making by front-line professionals. Scotland is in a strong position, due to our population size and comparatively small geography, to be one of the leading nations globally in being able to deliver a truly national digital health and care system that continually learns and improves. Through collaboration, hard work and appropriate investment we can deliver the change required to shift the balance of care, the balance of power and ultimately improve health and wellbeing outcomes.

‘The Digital Health and Care Strategy is a significant opportunity for digital to support the way people access services, become more actively engaged, and manage their own health and wellbeing.’

- Martyn Wallace, Chief Digital Officer of the Digital Office for Scottish Local Government





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