



HSE Board Briefing Template

Subject: Digital Health Strategic Implementation Roadmap

Submitted for meeting on: 28th June 2024

Name & title of author: John Ward, on behalf of the Office of the CTTO

Why is this information being brought to the Boards attention?

The Department of Health under Derek Tierney began work in 2023 on developing a new national Digital Health Strategic Framework aligned with Government's "Harnessing Digital - The Digital Ireland Framework".

Under the office of the CTTO we supported the development of this framework and developed the HSE's Digital Health Strategic Implementation Roadmap (DHSIR). Our roadmap has been developed in collaboration with the Department of Health and outlines how the Department's vision and principles can be delivered with 48 initiatives over a now-next-future time continuum.

Collectively, these documents describe the ambition and establish targets for Digital Health, guide the necessary policy choices, and inform funding decisions for consideration by Government, that reflect our national ambitions to leverage digital in delivering health services, improve the state of Digital Health in Ireland, and fulfil upcoming EU obligations.

On the 6th of February 2024, the DHSIR was approved at the HSE Steering which governed its development and was jointly chaired by CTTO and COO, reflecting Digital and Service commitment. On the 6th of March the DHSIR was brought to EMT and SLT for approval, and on the 20th of March it was brought to T&T.

It was mandated that prior to submitting to the HSE board that the Department's document must have ministerial approval.

A memo was brought to cabinet on 21st May 2024 week, and their document has been approved and published, thus allowing us to bring forth the DHSIR for HSE Board approval.

We have included both the Department's framework document and the HSE's Roadmap for consideration and approval of the board.

Is there an action by the Board required, if so please provide detail?:

We are seeking approval from the Board for the HSE's Digital Health Strategic Implementation Roadmap.

Please indicate which of the Boards objectives this relates to ;

- The development and implementing of an effective Corporate Governance Framework, incorporating clinical governance and a performance management and accountability system;



<ul style="list-style-type: none"> ▪ Developing a plan for building public trust and confidence in the HSE and the wider health service; <input checked="" type="checkbox"/> ▪ Ensuring the HSE's full support for and implementation of the Government's programme of health reform as set out in the Sláintecare Implementation Strategy; <input checked="" type="checkbox"/> ▪ Exercising effective budgetary management, including improving the value achieved with existing resources and securing target saving, with the objective of delivering the National Service Plan within Budget. <input type="checkbox"/> 	
<p>Brief summary of link to Board objectives.</p> <p>Objective - Developing a plan for building public trust and confidence in the HSE and the wider health service:</p> <ul style="list-style-type: none"> - Digital Transformational is required across the Health Service for the provision of health services. This Roadmap sets down a clear path for the integration of digital technologies in our healthcare system and marks a crucial step in our journey towards a patient-centred, digitally enabled health and social care environment. It signals our commitment to leverage digital technology in healthcare to provide people with an improved healthcare experience and will help enhance services provided by the HSE and will assist in building public trust and confidence in the HSE. <p>Objective - Ensuring the HSE's full support for and implementation of the Government's programme of health reform as set out in the Sláintecare Implementation Strategy:</p> <ul style="list-style-type: none"> - The Sláintecare report from 2017 stated e-health strategy should be strongly supported, going so far as to state "The Committee believes that eHealth is the critical enabler to implement the change required to deliver an integrated, universal, high quality health system" and that "Within the suite of eHealth developments embedding the Electronic Health Record (EHR) system into service provision is paramount". - Ireland's digital maturity is currently some way behind peers, but we have developed a comprehensive Roadmap that builds upon and aligns with the Department of Health (DoH) Digital for Care – A Digital Health Framework for Ireland and (the Framework), the Sláintecare action plan, and the Department of the Taoiseach's Digital Ireland Framework. - Combined, the Framework and the Roadmap outline Ireland's ambitions, Principles, and the future Roadmap for digital health from year 1 to year 7. Key drivers and enablers for the Roadmap's success include alignment with national and international objectives, such as the DoH Framework, The Health Information Bill (in development), Sláintecare, the European Health Data Space (EHDS), and the World Health Organization's Global Strategy on Digital Health. 	
<p>Background - provide context in order to ensure that the Board fully understand the issue.</p> <p>"Harnessing Digital - The Digital Ireland Framework" was published by Government in February 2022.</p> <p>The Department started in (Jan 2023) to develop a national Digital Health Strategic Framework to fulfil its commitment outlined in "Harnessing Digital - The Digital Ireland Framework" that places a focus on eHealth.</p> <p>The framework aligns with Government's National Digital Strategy "Harnessing Digital" and sets the roadmap for digital health in Ireland for the next decade. This aim of this framework is to inform, guide, and enable the HSE to develop a corresponding Digital Health Strategic Implementation Roadmap.</p> <p>The HSE's Roadmap has outlined the 48 initiatives required to realise the ambitions in the framework. While all important in their own right these have also been prioritised to ensure focus on the key strategic priorities.</p> <p>We have been working with the Department since Jan 2023, and both the Department and the HSE's documents have been completed with significant stakeholder input and are being brought through respective governance for approval.</p> <p>The release of the Department's document on the 21st of May was a significant milestone. This was published after the Minister for Health brought their document to cabinet.</p>	

As part of the development of the DHSIR significant work was completed on estimating the cost of each of the initiatives. These estimates were benchmarked against international experiences and these estimates are contained in the pre-publication DHSIR document. The Department have requested that these estimates are removed from the DHSIR document prior to its publication, which we agreed with. These estimates are contained within a separate planning and estimates companion document for **internal** planning purposes.

The following outlines some of our key dates in the approval of this document:

- The DHSIR was approved at its steering on the 6th of February 2024
- CEO briefing on the 22nd of February 2024 where it was agreed that the prior to bringing this to the HSE Board, that the Department's framework must be approved
- The DHSIR was approved in EMT/SLT on the 6th of March 2024
- The DHSIR was approved by T&T Committee on the 20th of March 2024
- A memo was brought to cabinet on Digital Health on Tuesday the 21st of May
- The Minister for Health publishes 'Digital for Care: A Digital Health Framework for Ireland 2024-2030' on Tuesday 21st of May
- Confirmation from EMT on Tuesday 28th May that the Framework and Roadmap should be tabled to go before the HSE Board in June 2024

Additional papers have been included as annexes as follows:

Name	Description
CTTO - A03 - Digital for Care A Digital Health Framework for Ireland 2024-2030	The Department's framework document in full.
CTTO - A04 - Digital Health Strategic Implementation Roadmap Final Draft Pre Publication v0.4	The HSE's Digital Health Strategic Implementation Roadmap in full.

Please note The Digital Health Strategic Implementation Roadmap Overview is enclosed at the end of this briefing note, which gives the Board a strategic picture of the roadmap.

Highlight any implications that the Board should be made aware of in its consideration such as;

Current status

- The establishment of Digital Transformation governance and mobilisation is underway under the office of the CTTO.
- The ICT Capital Plan for 2024 is aligned with the framework and principles
- The policy for EHR has been set out in the framework and mobilisation is underway for regional implementation of EHR's

Budget

- Digital funding has grown in recent years in capital funding and additional digital resources.
- Each of the initiatives outlined will require business cases in line with the DPER Public Spending code.
- The Department acknowledge that digitally mature healthcare systems now spend between 4% and 6% of their overall budget on digital health, and that the delivery of the Framework and Roadmap will require incremental additional funding through 2030 for the majority of projects, plus additional funding (capital and revenue).

Impact to delivery of services

- Delivery of the Roadmap will improve our ability to deliver integrated care through the delivery of Patient Electronic Health Records to aid in the provision of critical services.

Slaintecare

- The Sláintecare report from 2017 stated e-health strategy should be strongly supported and highlights eHealth as a critical enabler of the vision.

Technological factors

- The Digital Health Strategic Implementation Roadmap will put Digital at the centre of our Health Service driving improved Healthcare delivery to our patients in the HSE and wider Health ecosystem.
- Investment in infrastructure and security is a key priority, particularly when you consider our context following the cyber attack and continued threats.

Risk Assessment - Highlight identified risks with measures to mitigate risks

Investment and Staffing

- To achieve the transformation outlined in the Roadmap, a balanced investment is crucial, not only in terms of capital but also in the allocation of Whole Time Equivalent (WTE) and non-pay revenue. This investment must be distributed across Services and Digital both nationally and regionally.
- The Roadmap's success through to 2030 hinges on the commitment to yearly increases in both capital and revenue funding, accompanied by a corresponding increase in staffing levels. The workforce, data, and operational infrastructure are foundational to the Initiatives' success, and as such, they are a primary focus of the investment strategy.
- A working group has already been established with DoH to agree a new resourcing model, with particular focus on release of service resources to drive implementation of programmes. This is impacting on the delivery of existing projects and will affect the pace of delivery.
- An annual digital health budget of between 4% and 6% of the overall healthcare expenditure, which is inclusive of current funding, will be required over time to deliver the Initiatives outlined in the Roadmap. The timing of the implementation of the Initiatives in the Roadmap are dependent on the funding being secured through the annual funding mechanisms. Essentially, this Roadmap serves as the business case for acquiring such funding.
- To maintain credibility with funders there will need to be very tight control on spending and benefits delivery, which is planned through a transformation office.

Governance

- A vision for multi-agency strategic governance is outlined in the DoH Framework for the collective digital transformation strategy. The multi-agency model champions a coordinated approach, involving various stakeholders contributing unique expertise and collaboration to oversee transformation objectives and outcomes. The multi-agency governance will ensure an integrated approach, supporting the strategic direction of digital health Initiatives and providing the necessary oversight and adaptability for successful implementation.

Operating Model

- Operational governance for this Roadmap needs to fully align with operational governance of the health service including any new governance arrangements emerging from the HSE centre/regional reform design. Delivery of digital health Initiatives will be incorporated into the overall governance of the HSE.
- The CTTO has commenced a piece of work to develop a digital operating model that will enable delivery of the roadmap at both national and regional level.

Conclusion

The Digital Health Strategic Implementation Roadmap has been carefully developed with our partners in the Department of Health with significant stakeholder engagement. Our Roadmap outlines how the Department's vision and principles can be delivered with 48 initiatives over a now-next-future time continuum.

There are critical strategic enablers that need to be put in place to ensure successful delivery. These are set out in the overview of the roadmap.

This Roadmap describes our ambition and targets for Digital Health, it provides us a clear direction for Digital Health that has been agreed with the Department of Health giving us a concrete foundation for the Digital transformation of our Health Service.

Recommendation

We recommend approval of the Digital Health Strategic Implementation Roadmap.

I would also like to acknowledge the work of the Technology and Transformation committee of the board for their advice and support in developing the roadmap.



Health Service Executive

Digital Health Strategic Implementation Roadmap
2024-2030

It's a Journey.....



June 2024



Contents

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- 2. Stakeholder Engagement and Socialisation**
- 3. Implementation Roadmap**
- 4. Next Steps and Discussion**

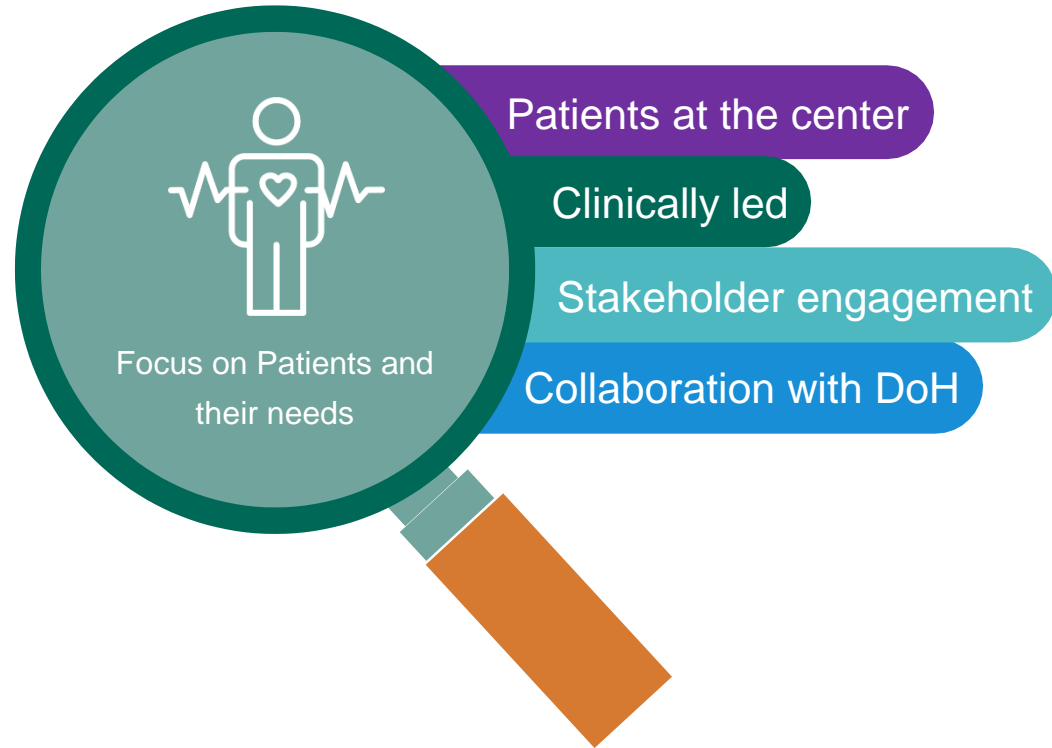
5. Introduction & Context



• Introduction - Shared Vision



Better Health Outcomes
enabled by **Seamless, Safe,**
Secure, and connected Digital
Health Services which support
Health and Wellbeing for both
our **Patients and Providers.**





1. Introduction - Our Collective Ambition

- The **eHealth Strategy** is 11 years old (2013), and the **Knowledge and Information Plan** is 9 years old (2015)
- We have worked in close collaboration with the Department of Health in their development of the “**Digital for Care: A Digital Health Framework for Ireland 2024-2030**” which was published on 21st May 2024.
- The Department have worked in close collaboration with us in the HSE in the development of our **Digital Health Strategic Implementation Roadmap**
- We both recognise that the **Digital Maturity** of patients and healthcare workers has increased, and **their expectations**
- We have seen the power of Digital through **COVID-19**
- We have experienced significant impact through **Cyber**
- Our collective approach will allow us to establish a solid foundation for engagement with Government and our stakeholders to gain support to deliver on our ambition.



1. Introduction – Digital for Care – Digital Health Framework for Ireland

- The framework sets out how the future of healthcare will harnesses the power of data, digital technology, future technologies, and innovation, to widen access to health and social care services, provide improved, affordable, and equitable care, better patient safety and boost productivity.
- Investment will be targeted across a number of areas to support the health service in planning for the population's health needs, enabling integrated care models, supporting the delivery of universal healthcare and ensuring safety, quality and sustainability in the delivery of health services.
- This Framework also sets out a clear policy direction around the future deployment of enterprise electronic healthcare record (EHR) systems in Ireland.



Rialtas na hÉireann
Government of Ireland

Digital for Care – A Digital Health Framework for Ireland

2024-2030

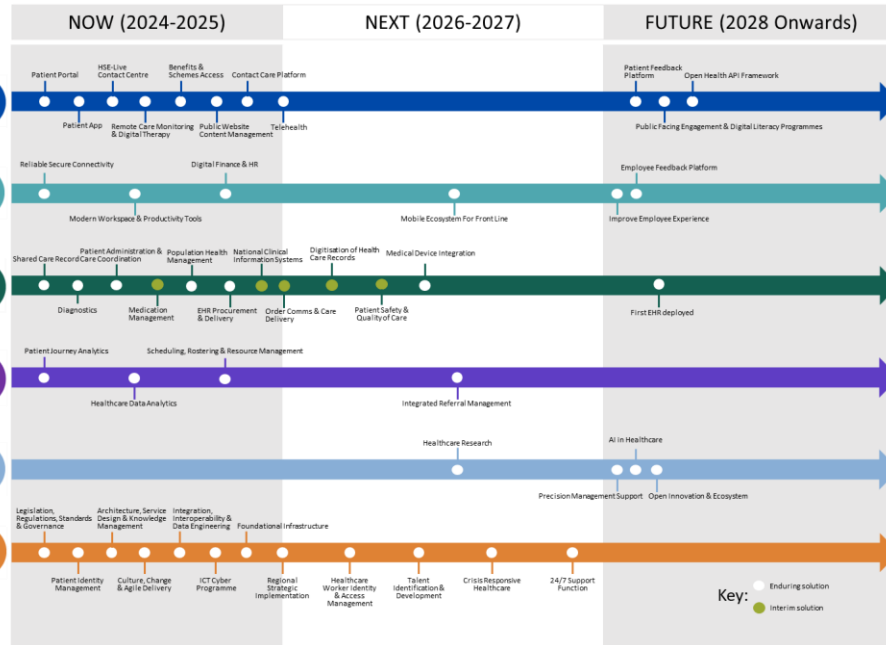




1. Introduction – Digital for Care – Digital Health Strategic Implementation roadmap



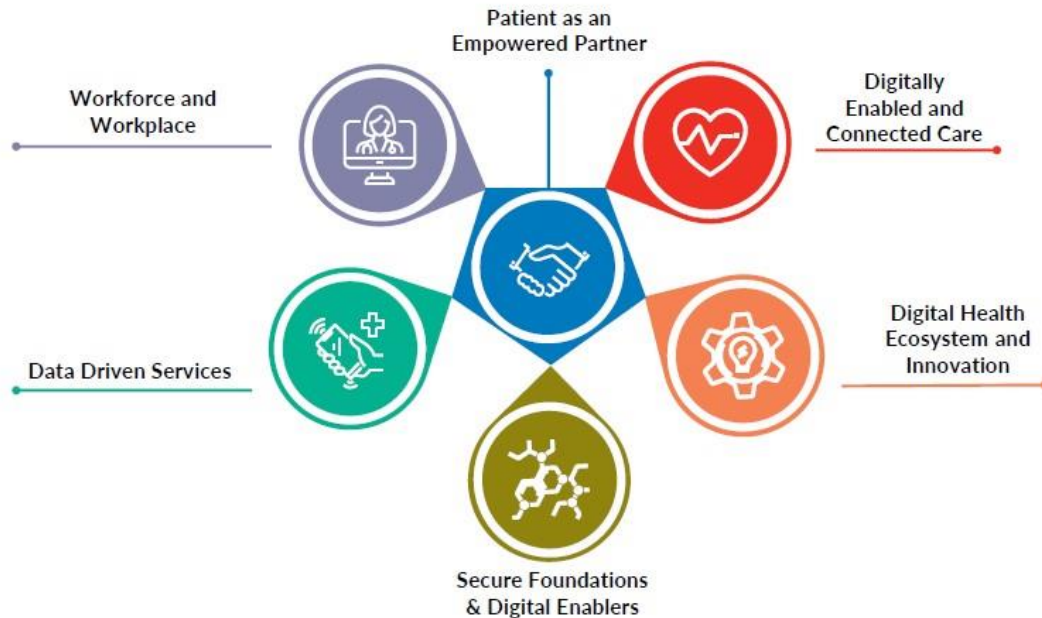
Digital Health Strategic Implementation Roadmap





Digital for Care: Digital Health Strategic Framework 2024-2030

One Vision - Six Strategic Guiding Principles



HSE Digital Health Strategic Implementation Roadmap will be presented through the perspective of the single vision, 6 principles & defined initiatives.

The focus of the Roadmap is to commence initiatives that underpin empowering patients, establishing the foundations to enable the transformation, and leveraging the potential of EHRs.

The initial focus will lay the groundwork for a patient-centred care ecosystem that prioritises the patient.



Digital Health Strategic Implementation Roadmap: 48 Initiatives

The initiatives which form the basis of the HSE Strategic Implementation Plan are aligned to the Department of Health Digital Health & Social Care Framework vision and principles.

1 Vision
6 Principles
48 Initiatives*

**This includes the current in-flight initiatives funded via the ICT Capital Funding*

Digital for Care - A Digital Health Framework for Ireland 2024-2030

Our Vision

'Better health outcomes enabled by seamless, safe, secure and connected digital health services and which support health and wellbeing for both our patients and providers.'



Patient as an Empowered Partner

10 Key Initiatives

- Patient Portal
- Patient App
- HSELive - Contact Centre
- Patient Feedback Platform
- Remote Care/Monitoring/Digital Therapeutics
- Benefits & Schemes Access
- Public Facing Engagement & Digital Literacy Development Programmes
- Public Website Content Management
- Open Health API Framework
- Contact Care Platform



Workforce & Workplace

5 Key Initiatives

- Reliable Secure Connectivity
- Modern Workspace & Productivity Tools
- Improve Employee Experience
- Mobile Ecosystem for Front Line
- Employee Feedback Platform



Digitally Enabled & Connected Care

12 Key Initiatives

- Shared Care Record
- Population Health Management
- Patient Administration & Care Coordination
- Medication Management
- Diagnostics
- Order Comms & Care Delivery
- Patient Safety & Quality of Care
- EHR Procurement & Delivery
- Digitisation of Health Care Records
- National Clinical Information Systems
- Medical Device Integration
- Telehealth



Data Driven Services

4 Key Initiatives

- Patient Journey Analytics
- Healthcare Data Analytics
- Integrated Referral Management
- Scheduling, Rostering & Resource Management



Digital Health Ecosystem & Innovation

5 Key Initiatives

- Digital Finance and HR
- Precision Medicine Support
- Healthcare Research
- AI in Healthcare
- Open Innovation & Ecosystem



Secure Foundations & Digital Enablers

12 Key Initiatives

- Legislation, Regulation, Standards, Governance & Guidelines
- Patient Identity Management
- Healthcare Worker Identity & Access Mgt
- Architecture, Service Design & Knowledge Mgt
- Culture, Change and Agile Delivery
- Talent Identification & Development
- Integration, Interoperability & Data Engineering
- Crisis-Responsive Healthcare
- ICT Cyber Programme
- Foundational Infrastructure
- Regional Strategic Implementation
- 24/7 Support Function



Digital Health Strategic Implementation Roadmap: 48 Initiatives



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2. Stakeholder Engagement and Socialisation

Our Stakeholder Network



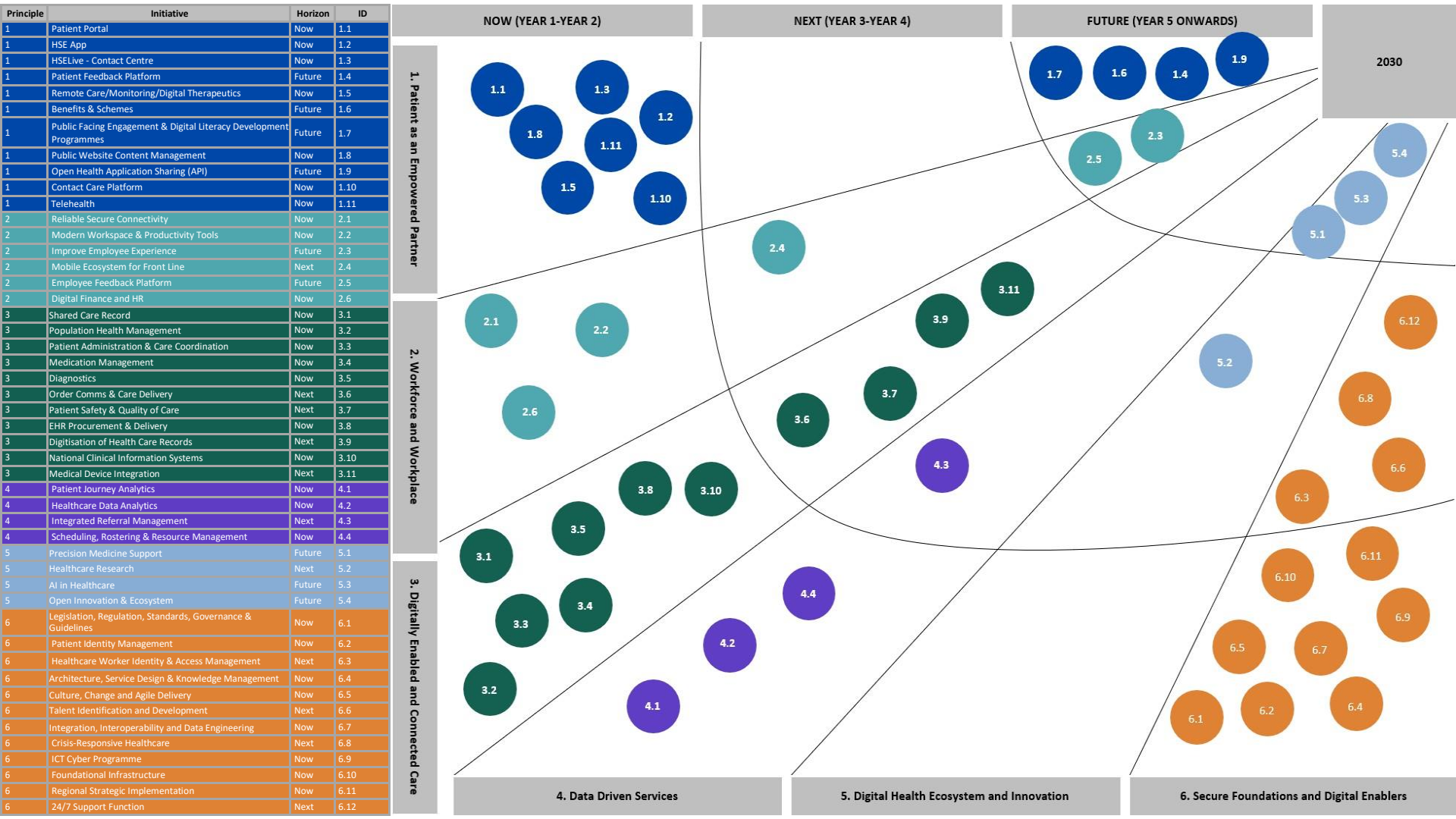
August 2023

October 2023

December 2023



3. Implementation Roadmap

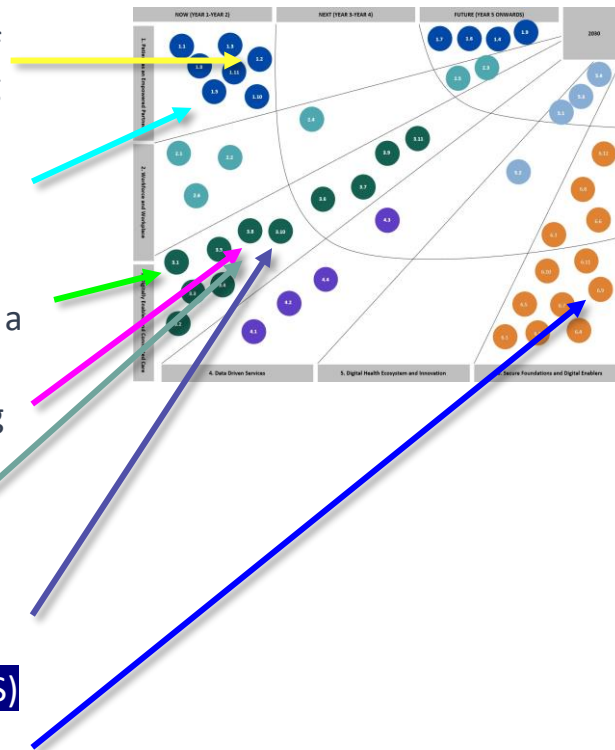


Strategic Priorities

- Patients are at the centre - our Health App will empower patients and citizens to access care, cancel or re-schedule appointments and securely identify themselves to care givers, thereby supporting the Urgent & Emergency care plan – this will be progressively enhanced on an ongoing basis.
- Virtual Model of Cares will help increase access to care and supports the drive to reduce waiting lists and average length of stay for patients in hospital.
- ePrescribing to greatly enhance the safety of prescribing and allow access to medication history for both patient and care giver alike
- New Digital Solutions to support older persons services including such as Nursing Home Support Scheme, new regulations and staff rostering.
- Enterprise Wifi access across Community, Acute and corporate settings to empower patients and their families, whilst also crucially enabling staff mobility across all six of our Health Regions.
- A National Shared Care Record to accurately present a patient's key health information, it will take information from multiple sources, providing a holistic view of the patient across settings improving efficiency and patient safety
- The delivery foundational Digital solutions across Community to drive connected and integrated care.
- Delivery of Electronic Health Records (EHRs) across our regions; EHRs are the system of record around which a Digital Health System is delivered.

Key Initiatives for 2024 under the Roadmap

- The **HSE Health App** is being launched this year which will change the face of patient engagement with initial focus on signposting patients and supporting women who are receiving maternal care
- The launch of **Virtual Care** in SVUH, and UHL with two Virtual Care Acute Wards delivered this year, freeing up physical beds, and acute resources with initial focus on respiratory and cardiology patients
- The **National Shared Care Record** is in procurement with the goal of selecting a preferred supplier this year and the building commenced of the system
- Our **EHR programme** is being mobilised for regional deployment commencing in Dublin North East with national business case and tender commenced
- Commencement of a **community foundation system** while we implement the National EHR
- National Clinical Information Systems such as the **Palliative Care Clinical Management System**, **Children's Disabilities Network Teams IMS**, and **continued enhancement of our National Patient Administration System (iPMS)**
- In addition to the delivery of these programmes, we will continue to invest in our **ICT and Cyber Programme**



Key Enablers

Investment and Staffing	Governance	Operating Model
<ul style="list-style-type: none">• The Roadmap's success through to 2030 hinges on the commitment to yearly increases in both capital and revenue funding and a balanced investment is crucial. The investment must be distributed across Services and Digital both nationally and regionally.• The workforce, data, and operational infrastructure are foundational to the Initiatives' success, and as such, they are a primary focus of the investment strategy.• A working group has already been established with DoH to agree a new resourcing model, with particular focus on release of service resources to drive.• An annual digital health budget of between 4% and 6% of the overall healthcare expenditure, which is inclusive of current funding, will be required over time to deliver the Initiatives outlined in the Roadmap.• Essentially, this Roadmap serves as the business case for acquiring such funding.• To maintain credibility with funders there will need to be very tight control on spending and benefits delivery, which is planned through a transformation office.	<ul style="list-style-type: none">• A vision for multi-agency strategic governance is outlined in the DoH Framework for the collective digital transformation strategy.• The multi-agency model champions a coordinated approach, involving various stakeholders contributing unique expertise and collaboration to oversee transformation objectives and outcomes. The multi-agency governance will ensure an integrated approach, supporting the strategic direction of digital health Initiatives and providing the necessary oversight and adaptability for successful implementation.	<ul style="list-style-type: none">• Operational governance for this Roadmap needs to fully align with operational governance of the health service including any new governance arrangements emerging from the HSE centre/regional reform design. Delivery of digital health Initiatives will be incorporated into the overall governance of the HSE.• The CTTO has commenced a piece of work to develop a digital operating model that will enable delivery of the roadmap at both national and regional level.

4. Next Steps and Discussion



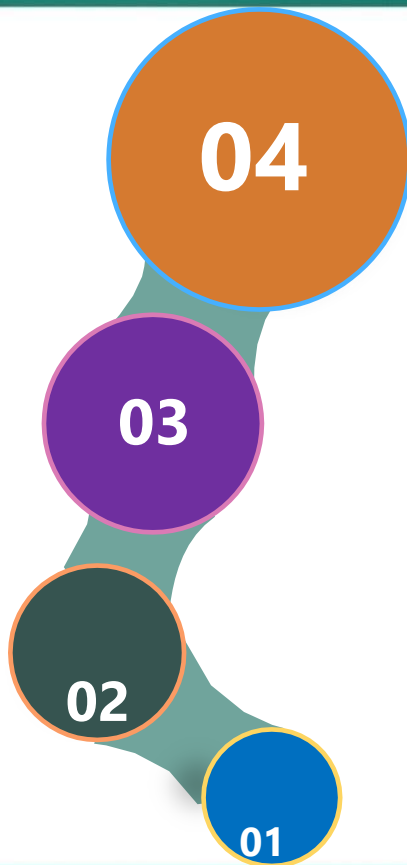
Approvals to Date

Technology & Transformation Committee

20th March 2024
Reviewed and Approved

HSE Senior Leadership Team

6th March 2024
Reviewed and Approved



DoH Framework

Published on
21st May 2024

Steering Committee

6th February 2024

Reviewed and Approved

Conclusion

- The last decade has seen significant technological progress, necessitating an updated strategy to integrate new digital health tools and platforms and the **COVID-19** pandemic highlighted the need for robust digital health infrastructure to manage public health crises effectively.
- Patients now expect more digital engagement options in their healthcare journey, such as telemedicine, online appointments, and digital consultations.
- Through our extensive stakeholder engagement there is strong consensus that our **1 Vision, 6 Principles, and 48 Initiatives** not only ambitiously capture but also positively address the feedback we've received.
- At present the HSE spends approximately 2% of its overall budget on Digital Health, insights from Gartner suggest that digitally mature healthcare systems now spend between 4% and 6% of their overall budget on Digital Health.
- Delivery of this Framework and Roadmap will require us to incrementally increase funding through 2030 for the majority of projects, plus additional funding (capital and revenue) and a new resourcing model to be agreed.
- The big strategic priorities will be **National EHR deployed regionally, National shared care record, Patient Engagement & Patient App, Community Services Foundation System, Electronic Prescribing, Telehealth and Virtual Care, Digital Identities.**
- It will also require improved security systems, infrastructure and better data standards to enable success
- There are key enablers that must be put in place to enable the roadmap to be delivered at pace
- Implementation will provide us with a solid foundation for engagement with Government and other stakeholders



Digital Health Strategic Implementation Roadmap 2024-2030

Digital Health Transformation Journey



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