eHealth & ICT Capital Plan 2024

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Introduction

The HSE annual eHealth & ICT Capital Plan is prepared by the eHealth function in conjunction with the Services taking account of contractual commitments, investment priorities and funding available. The eHealth and ICT Capital plan for 2024 is aligned to the (draft) **Digital Health Strategic Implementation Plan** ("DHSIP"). The plan will be presented through the perspective of the single vision, 6 principles & 48 initiatives of the DHSIP.

The public health service is underpinned by a vast technology landscape, which is the largest ICT operating environment in the State. This requires ongoing and significant investment to stay current, to ensure security and protection, and to provide an ongoing basis for further development and innovation.

In 2024, capital investment in eHealth & ICT is **€155m**, this represents an increase of **€15m** (10.7%) on 2023 capital funding. The additional non-core Cyber funding of **€55m** has a proportion assigned to address foundational technology investment that pose a cyber risk.

The eHealth & ICT Capital Plan 2024 will continue to support the delivery and enablement of other key initiatives consistent with universal healthcare. There are several mature programmes that will deliver major change and new capability in the next 12 months, and which are at the peak of their investment lifecycle, including:

- **Children's Hospital** will invest **€34.5m** in digital in 2024 under our plan.
- **Single Financial system** for Health will invest **€11.5m**
- **Digital Imaging Diagnostics** will invest **€10.8m**
- **Medical Laboratories** will see an investment of **€11.3m**

Alongside these major planned investments are many programmes which, while requiring a lower relative investment, are significant priorities for both HSE and Department of Health. The focus within the first-time horizon of the DHSIP is on commencing initiatives that underpin empowering patients, establishing the foundations to enable the transformation, and leveraging the potential of EHRs. This initial focus will lay the groundwork for a patient-centred care ecosystem that prioritises the patient.

- **Health Digital 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. The app will enable patients to start accessing their own health information, will enable the health service to demonstrate the value of services provided under the medical card scheme and act as a catalyst for the development of electronic summary and shared health care records.
- **Virtual Ward model of care** will help increase access to care and supports the drive to reduce waiting lists and average length of stay for patients in hospital.
- **EPrescribing** will greatly enhance the safety of prescribing and allow access to medication history for both patient and care giver alike
- **Cyber resilience** investment will continue to ensure our defences against attack are aligned to best practice
- **Enterprise Wireless/WIFI** access across many Community, Acute and corporate settings will empower patients and their families, whilst also crucially enabling staff mobility across all six of our Health Regions.

The Digital Health Strategic Implementation Plan is being finalised and is aligned with the Department of Health Digital Framework (currently also in draft). Both the Framework and the Implementation Plan are organised into 6 principles as follows:

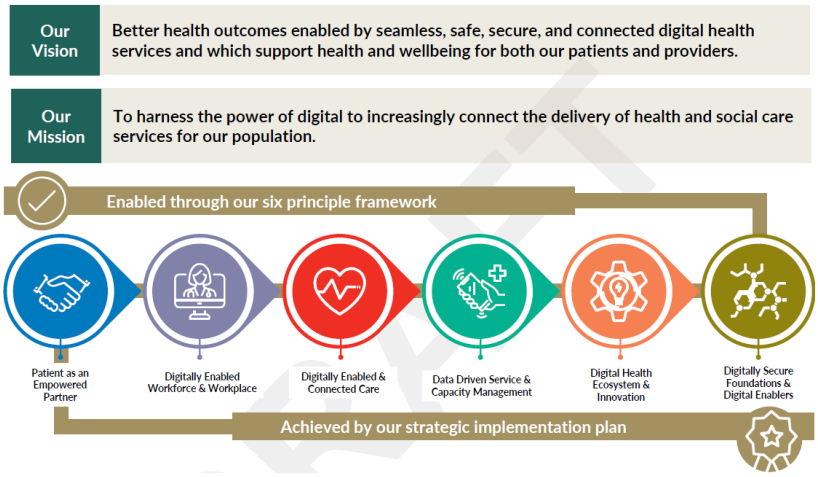

Figure 1. ***Department of Health Digital Framework - Principles Overview*** *(excerpt from DoH Digital Framework Draft)*

The DHSIP has prioritised the delivery technology platforms to enable the healthcare system to keep people well at home whist also providing pathways to access care when needed. Its six principles are underpinned by multiple initiatives (see *Appendix 2 – 2024 Capital Plan Initiatives* for the breakdown) with associated deliverables (also referred to as Programmes).

To achieve our objectives in the DHSIP, it's clear that some key enablers must include technology & eHealth, data & information, and infrastructure and equipment. Each of these enablers is significantly advanced by programmes funded within our plan. The alignment of our eHealth programmes with those objectives is detailed in the table at *Appendix 3 – 2024 Capital Plan Programmes Detail, Deliverables & Risks*.

Figure 2. ***The Principles, Initiatives & Programmes being progressed in 2024 due to capital funding***

Table 1 Table 1. ***Department of Health Digital Framework Principles –*** *2024 Capital Budget*

below, shows the percentage of the capital budget that is being allocated to each principle being progressed during 2024. Many of the initiatives are multiyear programmes and will be delivered over multiple years:

Principle	2024 Final Capital Cost	% to Total
1. Patient as an Empowered Partner	5,200,000	3.4%
2. Digitally Enabled Workforce and Workplace	15,940,120	10.3%
3. Digitally Enabled and Connected Care	65,959,502	42.6%
4. Data Driven Service and Capacity Management	7,806,799	5.0%
5. Digital Health Ecosystem and Innovation	1,597,656	1.0%
6. Digitally Secure Foundations and Digital Enablers	58,495,923	37.7%
Grand Total	**€155,000,000**	**100.0%**

Table 1. ***Department of Health Digital Framework Principles –*** *2024 Capital Budget*

All 6 principles from the DoH Framework are progressing in 2024, specifically, 28 of the 48 initiatives will progress in 2024 due to capital funding. Each initiative has one or more programmes to deliver the specific capability. This eHealth & ICT Capital Plan 2024 – a one-year plan of a multi annual strategy – is aligned with the delivery of these programmes.

This document focuses on the Principles, Initiatives and associated Programmes that are financed in 2024 by the Capital Budget. To give a more holistic view of all the full set of Principles, Initiatives and Programmes of the DHSIP, Table 19 in *Appendix 4 – 2024 Programmes by Funding Source* outlines all the programmes being advanced in 2024 across ICT Capital, Cyber and Core eHealth revenue funding sources.

The Principles – The priorities for 2024

The vision and direction of eHealth for the coming years has been determined and agreed with an increased focus on eHealth initiatives and digital solutions and health information systems capability that enable better management and use of health information and access to that information by clinicians and patients, in line with government policy.

The following 6 chapters, 1 for each Principle, outline the Initiatives and Programmes that are being progressed during 2024 with the associated capital budget as shown in tables. The numbering of Initiatives corresponds to that in the DHSIP therefore programmes not funded by the capital budget do not appear in chapters 1 – 6.

The tables showing the Initiatives and Programmes only include capital funded programmes for 2024. Note that gaps in the numbering are a result of exclusion non-capital funded Programmes. The full list of Initiatives and Programmes is included in *Appendix 4 – 2024 Programmes by Funding Source*.

1. Patient as an Empowered Partner

The focus for Principle 1 is on **implementing the digital infrastructure** required to **keep the Patient informed** and, in a position, **to make the necessary decisions about their own healthcare**. The budget breakdown by Initiative and associated programme is shown below in *Table 2*. All the Initiatives and programmes listed below are a Department of Health priority for 2024.

Initiative	Programme	2024 Capital
1.2 Patient App	1.2.1 Health App	3,000,000
1.5 Remote Care/Monitoring/Digital Therapeutics	1.5.1 Virtual Ward Model of Care	1,000,000
1.7 Benefits & Schemes	1.7.1 National Nursing Homes Support Scheme Replacement	200,000
1.9 Public Website Content Management	1.9.1 Public Website Content Management	500,000
1.11 Contact Care Platform	1.11.1 Care Connect Platform	500,000
Subtotal		**€5,200,000**

*Table 2. **Principle 1 Patient as an Empowered Partner** – 2024 Capital Budget*

1.2 Patient App

The **health service App** (a mobile application) will empower patients by providing a single app for **managing their digital health identity, personal health information, healthcare coordination, and access to health services**. It seamlessly combines various aspects of the healthcare system into one user-friendly and secure application.

1.2.1 Health App

The Health App will bring together multiple information components into a single mobile interface for the patient, as a result it is a multiyear endeavour. The focus for 2024 is to select a preferred vendor and deliver release 1 of the health app.

For 2024, the key deliverables are:

- Private app betas released:
  1. End-to-end Maternity journey
  2. Diabetic Care journey
  3. Screening Services (bowel, breast, diabetic retinopathy)
  4. Cancer Care
- Public app beta released (target population 5,000-10,000)
- Release 1 of Health App (general population, open access)

1.5 Remote Care Monitoring & Digital Therapeutics

Remote Monitoring refers to the capacity to **use digital tools, allowing patient monitoring outside of conventional clinical settings, such as in the home or in a remote area**. It facilitates care of patients by allowing clinicians to track vital signs, physical symptoms, chronic conditions, etc., allowing early detection of disease, and early intervention; thereby reducing emergency department visits, hospitalisations, and the duration of hospital stays. Remote Care Monitoring and Digital Therapeutics offer transformative potential for the healthcare system in Ireland, spanning the entire health system including mental health support, disability services, and community health.

1.5.1 Virtual Ward Model of Care

The longer-term goals for the Develop virtual Ward Model of Care programme is to provide access to an alternative to traditional hospital care. A Virtual Ward is defined as a safe and efficient alternative to bedded care that is enabled by technology. Virtual Wards support patients who would otherwise be in hospital to receive acute care, monitoring, and treatment in their own home, thus preventing avoidable hospital admissions, or supporting early discharge. As a natural consequence it will also facilitate the help address waiting lists as it's an additional way to access healthcare for some.

For 2024, the key deliverables are:

- Procurement and deployment of managed solution(s) (comprehensive suite encompassing the provision and support of web-based application(s) and clinical measurement equipment) to facilitate clinical care in a Virtual Ward delivered remotely by a multidisciplinary team (MDT) as clinically appropriate.
- Delivery of two 25-bed Virtual Wards

1.7 Benefits & Schemes

Benefits & Schemes Access will improve the patient experience in applying for and accessing healthcare-related benefits. This **online platform will simplify the process of obtaining medical cards, benefits schemes, mobility devices, care supports, and home improvement grants for care and accessibility**. It will be integrated with HSE.ie and be accessible through the Patient Portal and Patient App.

1.7.1 Nursing Homes & Home Support (NHSS/SHSS)

The NHSS/SHSS solution will replace the existing Nursing Home Support System (NHSS) IT system, which is over 10 years in operation, with a new state-of-the-art integrated platform for the administration of the Fair Deal Scheme (NHSS) and to cater for the administration of the new statutory Home Support Scheme.

For 2024, the key deliverables are:

- Stage 1 Competitive Dialogue procurement
- Stage 2 Competitive Dialogue procurement substantially complete
- Commence contracting and implementation

1.9 Public Website Content Management

This is a digital front door to the health service, providing health, wellbeing and services information and access to all our digital health services. **It offers a seamless digital health service experience across HSE.ie, Patient Portal and Health App.**

1.9.1 Public Website Content Management

The HSE public website will bring together multiple components into a single interface for the patient, as a result it is a multiyear endeavour. The focus for 2024 is to develop the Content APIs (application programming interface) to update the content for the public website and health App.

For 2024, the key deliverables are:

- Content APIs for use in Health App, Health Portal, and other consumers of health content
- Integration guidance for use of content APIs and development of content

1.11 Contact Care Platform

This is a **patient engagement platform that will improve how health services engage and communicate with patients**. The platform will streamline interactions between patients and the healthcare workforce, while enhancing patient satisfaction and outcomes e.g., respiratory patients getting personalized messages about the flu vaccine annually.

1.11.1 Care Connect Platform

The Contact Care Platform will bring together multiple components into a single platform to enable patient engagement, therefore it is a multiyear endeavour. The focus for 2024 is to procure a Care connect platform, to configure the basic case flows and to prepare the case management component for use in the Health App and other patient interfaces.

For 2024, the key deliverables are:

- Care Connect platform procured and in place (including case management, analytics, omni-channel communications)
- Health App basic Case flows configured and teams ready to support
- Case management component ready for extended use for Health App, Telehealth, and other Healthcare scenarios

2. Digitally Enabled Workforce and Workplace

Principle 2 seeks to **equip the workforce with digital tools and connectivity for efficient, collaborative, and timely care**. Increasing investment in staffing and infrastructure will boost healthcare capacity, expanding community services. Enhanced digital tools will improve patient outcomes and access to healthcare.

Initiative	Programme	2024 Capital
2.1 Reliable Secure Connectivity	2.1.1 Network & Communications	2,367,000
2.3 Digital Finance and HR	2.3.1 Integrated Financial Management System	11,335,250
	2.3.2 National Integrated Staff Records and Payroll	1,800,000
2.4 Improve Employee Experience	2.4.3 National Estates Information System	437,870
Subtotal		**€15,940,120**

*Table 3. **Principle 2 Digitally Enabled Workforce & Workplace** – 2024 Capital Budget*

2.1 Reliable Secure Connectivity

This initiative will build upon existing programs to **deliver secure, resilient, and extensive connectivity in all settings, including primary and community care locations**. It aims to provide robust enterprise Wireless Network/Wi-Fi/5G and satellite technology everywhere care is offered. Integrated networking services will support various use cases, including emerging technologies like 5G and eSIM, ensuring reliability and adaptability during crises.

2.1.1 Enterprise Wireless Network

This is the Implementation of Enterprise Wireless network across Acute, Community and Corporate services, enabling mobility & connectivity. An enterprise grade wireless network is a foundation capability that facilitates subsequent programmes to be delivered.

For 2024, the key deliverables are:

- Phase 1: Rollout commences - 12 Community & 2 Corporate sites completed
- Phase 2: Hospital site implementation commences; site completions – 24 Community, 2 Acute, all Corporate
- Phase 3: 24 Community and 6 Acute sites completed
- Phase 4: All 2024 planned sites completed

2.3 Digital Finance and HR

Digital Finance and HR will **complete the introduction of modern financial and procurement management systems for the entire health sector**. The **Integrated Financial Management System (IFMS) programme** is well underway, as is the **National Integrated Staff Records and Payroll (NISRP) system**.

2.3.1 Integrated Financial Management System

The **IFMS project will provide the HSE and associated agencies with standard finance and procurement processes**, and a new operating model based on shared services. This will give better and more timely financial reporting and forecasting leading to improved financial management, governance compliance and transparency. The system will lead to better overall financial control environment and create many benefits for the health sector.

The first rollout group went live in July 2023. The focus for 2024 is to continue the delivery of IFMS to subsequent groups.

For 2024, the key deliverables are:

- Implementation Group 2 (HSE West, 1 S38, 1 S39) go-live complete
- Implementation Group 3 (HSE South/Southwest) commenced

2.3.2 National Integrated Staff Records and Payroll

NiSRP will implement national Staff Records and Payroll systems across the HSE. These systems will be fully integrated and will support the needs of a modern health system employer, enhancing available workforce information for managers

The Programme will modernise the way the HSE connects with staff, improving access for them to their staff record and pay details via online employee and manager self-service.

The NiSRP programme will continue its phased rollout of SAP HR and Payroll by region.

For 2024, the key deliverables are:

- The NiSRP programme will deploy SAP HR/Payroll to the HSE West and to the HSE North-East

2.4 Improve Employee Experience

This will offer a range of **digital applications and tools aimed at enhancing the work environment for healthcare workers**, regardless of their location or situation. This suite of services will include a Healthcare Worker App to support seamless working experiences in various settings such as office, connected hub, remote working, hybrid, and emergency situations.

2.4.3 National Estates Information System

The **NEIS Programme will deliver a modern, consolidated Information System enabling HSE Estates to strategically manage its asset portfolio** in line with international best practice. The programme has completed the first 3 phases of its deployment covering Portfolio and Capital Projects, Operations and Maintenance, Property Management and Environment and Sustainability modules.

For 2024, the key deliverables are:

- Deployment of a new Climate Action module.
- Deployment to Childrens Hospital Ireland (CHI) cover under CHI capital funding.

3. Digitally Enabled and Connected Care

Digitally enabled and connected care involves **securely sharing timely information to enhance patient outcomes**, improve access to care, and create a more patient-centred healthcare experience. This includes incorporating telehealth services, medication management tools.

Initiative	Programme	2024 Capital
3. Digitally Enabled and Connected Care	3.1 Shared Care Record	2,063,288
	3.2 Population Health Management	900,000
	3.4 Medication Management	2,918,840
	3.5 Diagnostics	21,206,606
	3.6 Order Comms & Care Delivery	472,800
	3.7 Patient Safety & Quality of Care	1,633,997
	3.8 EHR Procurement & Delivery	22,888,752
	3.9 Digitisation of Health Care Records	400,000
	3.10 National Clinical Information Systems	13,475,819
Subtotal		**€65,959,502**

*Table 4. **Principle 3 Digitally Enabled & Connected Care** – 2024 Capital Budget*

The Telehealth Programme has contributed to connected care through remote consultations, chronic condition monitoring, online health support, and home-based care. It improves service accessibility, workforce efficiency, workflow streamlining, patient safety, infection control, and reduced overcrowding. These services empower patients with self-care tools and various communication platforms, enabling secure data sharing, better care coordination, and informed decision-making.

3.1 Shared Care Record

A **shared care record allows healthcare providers** across different settings, including primary care, community care, and hospitals, **to access patient records for direct patient care**. It **consolidates data from various systems into a unified platform** that care professionals can use to enhance care delivery. It provides visibility into patient health information but does not grant the ability to create or modify this information.

Initiative	Programme	2024 Capital
3.1 Shared Care Record	3.1.1 National Shared Care Record (NSCR)	500,000
	3.1.2 Primary Care Integration to support NSCR	1,563,288
Subtotal		€2,063,288

*Table 5. **Initiative 3.1 Shared Care Record** - Budget breakdown by Programme*

3.1.1 National Shared Care Record (NSCR)

The NSCR is a key component to accurately present a patient's key health information, it will take information from multiple sources, consistency and accuracy will be essential focus areas for successful delivery. The NSCR is a multiyear endeavour as it consolidates information from multiple sources which aren't yet in place. The focus for 2024 is to select a preferred vendor and put in place the contract for the NSCR.

For 2024, the key deliverables are:

- Invitation to Submit Final Tender (ISFT)
- Preferred vendor selected
- Contract signed

3.1.2 Primary Care Integration to support NSCR, Including GP practice integration

The goal for Primary Care Integration is to Implement foundational changes to the 4 accredited GP Practice Management Systems that will build additional capabilities to facilitate, enable and support other HSE driven ICT developments and initiatives.

For 2024, the key deliverables are:

- NSCR/GPs Phase 1 solution defined & agreed
- NSCR/GPs 'Build to Learn' project(s) completed
- NSCR/GPs Phase 2 solution defined and agreed
- PCRS/GPs Capture client's signature to verify Covid & flu vaccinations administered to them

3.2 Population Health Management

This is a **suite of digital tools aimed at bolstering public health programs and enhancing community well-being**. These tools encompass **screening services, contact tracing, health surveillance, disease registry, clinical audit, immunisation and vaccination, outbreak management, and advanced population health analytics**. By implementing data analytics and population health management strategies, it becomes possible to identify high-risk populations, prioritize preventive measures, and allocate resources effectively to enhance community health.

Initiative	Programme	2024 Capital
3.2 Population Health Management	3.2.1 Vaccination & Immunisation	150,000
	3.2.2 Outbreak Management	500,000
	3.2.3 Surveillance	250,000
Subtotal		**€900,000**

*Table 6. **Initiative 3.2 Population Health Management** - Budget breakdown by Programme*

3.2.1 Vaccination & Immunisation

The goal for the Vaccination & Immunisation programme is to procure, implement and roll out of a National Immunisation Information System (NIIS).

For 2024, the key deliverables are:

- Complete approvals stage for progression
- NIIS progression to Procurement Phase
- Commence Implementation Phase
- Agree data migration plans for all legacy systems

3.2.2 Outbreak Management

The goal for the Outbreak Management programme is to enable prompt identification, containment, and response to infectious disease outbreaks.

For 2024, the key deliverables are:

- Procurement Complete
- Phase 1 Implementation Commences; to Include High Priority Diseases

3.2.3 Surveillance

The goal for the Comprehensive health surveillance programme is to deliver a system which will replace the existing Computerised Infectious Disease Reporting system (CIDR) to monitor and detect trends in population health, including the identification of at-risk populations and early warning signs of emerging health threats.

For 2024, the key deliverables are:

- Design of Requirements for Surveillance system
- Assessment of options presented in OCIMS contract award for suitability to satisfy surveillance requirements.

3.4 Medication Management

Medication Management covers the entire medication use process, consisting of **five stages: prescribing, transcribing, dispensing, administration, and monitoring**. Digitizing this process with interoperable electronic tools ensures easy access to comprehensive medication care information, including records for prescribing, dispensing, and administration, as well as closed-loop medication management and inventory control.

Initiative	Programme	2024 Capital
3.4 Medication Management	3.4.1 Hospital Medicines Mgmt. System (HMMS)	1,323,840
	3.4.2 ePrescribing/eDispensing	750,000

Initiative	Programme	2024 Capital
	3.4.3 National Medicinal Product Catalogue	845,000
Subtotal		€2,918,840

*Table 7. **Initiative 3.4 Medication Management** - Budget breakdown by Programme*

3.4.1 Hospital Medicines Management System (HMMS)

The **Hospital Medicines Management System (HMMS) programme will replace obsolete pharmacy software with a modern, national standardised pharmacy system**. It will be implemented in both Acute and Community sites and will form the platform to support electronic prescribing and electronic medicines administration

For 2024, the key deliverables are:

- Compete implementation of Phase 1 (6 sites)
- Progress Phase 2 (27 nominated sites)
- ePrescribing and Medicines Administration Project Scoping

3.4.2 ePrescribing/eDispensing

The **purpose of the ePrescribing project is to implement a national solution to accept, store and transmit ePrescriptions and eDispensations**.

For 2024, the key deliverables are:

- Procurement and contracting of an ePrescribing Solution components to include:
  - ePrescribing Service (Integration Service, Clinical Data Repository, Citizen App)
  - GP Practice Management System Application Enhancements & Integration
  - Community Retail Pharmacy Dispensing System Application Enhancements & Integration

3.4.3 National Medicinal Product Catalogue

The goal of this programme is to deliver the **National Medicinal Product Catalogue (NMPC) which will be the single national catalogue of medicines**, each with a unique identifier, for use across the Irish healthcare system. It aims to improve patient safety through the provision of system-wide accurate and consistent identification of medicines and ancillary medicines information. The NMPC will be available for use in prescribing, dispensing and medicines administration systems as well as for secondary data uses.

For 2024, the key deliverables are:

- Complete Procurement and contract signed
- Commence configuration and implementation of NMPC Data Management Solution

3.5 Diagnostics

Diagnostics comprises a suite of digital applications designed to enhance essential diagnostic capabilities for patient care, **including radiology, endoscopy, laboratory investigations, and electronic vital signs**. It encompasses ongoing enhancements to NIMIS (National Integrated Medical Imaging System), upgrades and integration of laboratory information systems, and the development of electronic observations integrated with vital signs monitoring devices.

Initiative	Programme	2024 Capital
3.5 Diagnostics	3.5.1 Imaging Diagnostics	10,800,385
	3.5.2 Medical Laboratories	10,405,621
Subtotal		€21,206,606

*Table 8. **Initiative 3.5 Diagnostics** - Budget breakdown by Programme*

3.5.1 Imaging Diagnostics

The goal of the Imaging Diagnostics programme is to continue the rollout and optimisation of NIMIS and the integration of the Individual Health Identifier (IHI), to ensure accurate patient identification and secure management of imaging data across healthcare organisations.

For 2024, the key deliverables are:

- NIMIS 2.0 Upgrade: 14.2 Update completed
- NIMIS 2.0 CRIS Go lives completed
  - 1st Group site (UHLG Group)

- 2nd Group sites
- COVID-19 NIMIS BEAM: CUH Go live completed
- NIMIS Device Refresh: all NIMIS EOL workstations > 7 yrs old refreshed
- NIMIS Additional Image Storage: implementation complete
- NIMIS Implementation St. Vincent's & St. Michael's Hospitals Go Live Completed
- NIMIS1.0 hardware decommissioning: completed
- NIMIS IHI Implementation: Commenced across NIMIS sites in parallel with CRIS deployment
- NIMIS3.0 Procurement commenced

3.5.2 Medical Laboratories

The development and implementation of modern, integrated laboratory information systems including digital pathology, that streamline laboratory workflows, facilitate efficient data exchange with other healthcare systems, and support accurate and timely diagnostic results.

For 2024, the key deliverables are:

- MedLIS go-live: Beaumont
- GP eOrdering: 4 pilot labs live OLHN, GUH, UHW, Beaumont
- Lab Stabilisation live Waterford, SVUH & Limerick

3.6 Order Comms & Care Delivery

These are a set of **robust tactical tools and solutions** intended for implementation **in regions where the EHR deployment is planned last**.

Initiative	Programme	2024 Capital
3.6 Order Comms & Care Delivery	3.6.1 Order Comms	472,800
Subtotal		€472,800

*Table 9. **Initiative 3.6 Order Comms & Care Delivery** - Budget breakdown by Programme*

3.6.1 Order Comms

These applications enable digital entry of diagnostic and therapeutic patient care orders and the viewing of results. They offer standards-based clinical documentation and assessment features, incorporating AI-enabled technologies to support clinical workflows. Additionally, they provide effective tools for individual care planning and case management.

For 2024, the key deliverables are:

- Preferred vendor selected from procurement process.
- Contract signed for Beaumont
- Implementation commences in Beaumont

3.7 Patient Safety & Quality of Care

These **tools prioritize safety, quality**, and evidence-based practices in healthcare delivery. They **encompass various aspects of the healthcare journey**, including **patient identification, care verification, infection prevention and control, and clinical guidance**, aiming to maintain the highest standards.

Initiative	Programme	2024 Capital
3.7 Patient Safety & Quality of Care	3.7.1 National Electronic Blood Track	1,633,997
Subtotal		€1,633,997

*Table 10. **Initiative 3.7 Patient Safety & Quality of Care** - Budget breakdown by Programme*

3.7.1 National Electronic Blood Track

Implementation, maintenance and upgrading of the BloodTrack system to enable all hospitals that have blood banks to fully comply with the EU Blood Directive 2002/98/EC on Quality and Safety Standards for human blood and blood components.

For 2024, the key deliverables are:

- Complete the BloodTrack upgrade to V4.14 (Manager & Tx)
- Rollout new BloodTrack functionality including Batch product tracking, Designated Emergency Unit (DEU) and Inventory Dashboard.

- Replacement of older BloodTrack hardware.

3.8 EHR Procurement & Delivery

The **procurement and delivery of an EHR** are essential for the seamless provision of healthcare services across Ireland. This initiative will begin by developing a strategy, standards, and procurement criteria. Subsequently, it will advance the EHR initiative through the procurement process and, finally, coordinate its implementation across the six Health Regions.

Initiative	Programme	2024 Capital
3.8 EHR Procurement & Delivery	3.8.1 Maternity & Newborn EHR	4,423,752
	3.8.2 CHI EHR	15,000,000
	3.8.3 National Rehabilitation Hospital CMS	215,000
	3.8.4 Palliative Care CMS (SCS-SMS)	2,500,000
	3.8.5 EHR Business Case	250,000
	3.8.6 Integrated Community Case Management System	500,000
Subtotal		**€22,888,752**

*Table 11. **Initiative 3.8 EHR Procurement & Delivery** - Budget breakdown by Programme*

3.8.1 Maternity & Newborn EHR

Phase II rollout of MN-CMS over 2024/2025 to ULHG (UMHL) and CWIUH to extend rollout to the standalone maternity hospitals, thus covering 70% of births nationally and 60.5% of Neonatal Intensive Care Activity and in compliance with Sláintecare Strategic Action 10; extending the transformation of healthcare delivery and the realisation of the quantitative and qualitative benefits of the MN-CMS EHR.

Continued implementation, maintenance, and upgrade enhancements of the MN-CMS EHR throughout 2024 including operationally identified and prioritised change requests.

Phase III MN-CMS continued preliminary engagement.

For 2024, the key deliverables are:

- Irish SNOMED CT edition deployed to MN-CMS
- MN-CMS bedside Device Integration delivered
- Shared care messaging to GP enabled
- MN-CMS bedside & Fetalink Integration upgrade completed
- Data Centre Flip, Code Upgrade, and extension to 2 sites (Coombe and Limerick)
- Legacy Solution at HSE Data Centres decommissioned

3.8.2 CHI EHR

Deploy enterprise EHR and all related Clinical Applications required to support opening of new hospital.

For 2024, the key deliverables are:

- Complete EHR Design and Configuration phase
- Complete EHR Functional Testing phase
- Complete EHR Integration Testing Phase
- Initiate End User training for hospital opening

3.8.3 National Rehabilitation Hospital CMS

Implementation of a Specialised Care Services Clinical Management system (CMS) for National Rehabilitation Hospital (NRH).

For 2024, the key deliverables are:

- Full deployment completed and verified

3.8.4 Palliative Care CMS (SCS-SMS)

Implementation of a Clinical Management System (CMS) for Specialised Palliative Care Services. A single national instance of CMS will be implemented with an initial deployment to two hospices - Our Lady's Hospice & Milford Care Centre. It is intended to rollout the solution to all existing (14) and planned (3) Specialist Palliative Care sites in the future.

For 2024, the key deliverables are:

- DGOU project sanction
- Scope agreement on functionality/modules/reports and discovery complete and solution proposal sign off
- Delivery approach & timelines agreed
- Contract negotiations and contract signed
- Commence implementation across both sites

3.8.5 EHR Business Case

This programme focuses on the development of the business case, requirements, procurement, and deployment model for EHR, which includes the following:

- Architecture
- Market Soundings
- Futures Scanning
- International & Domestic Analysis

For 2024, the key deliverables are:

- Submission of Business Case for National EHR
- EHR Governance Models for EHR procurement established

3.8.6 Integrated Community Case Management System

ICCMS is the implementation of a 'Communication and Information Case Management System', which will support the delivery of clinical care using standardised care pathways and integrated person-centred care across Community Healthcare settings and the wider Health economy.

For 2024, the key deliverables are:

- Preferred Vendor Selected
- Contract signed

3.9 Digitisation of Health Care Records

This will be an all-encompassing, **standardised data capture and digitisation platform**.

Initiative	Programme	2024 Capital
3.9 Digitisation of Health Care Records	3.9.1 Digitisation of Health Care Records	400,000
Subtotal		**€400,000**

*Table 12. **Initiative 3.9 Digitisation of Health Care Records** - Budget breakdown by Programme*

3.9.1 Digitisation of Health Care Records

This programme will quickly deliver value, speed up digitisation within the healthcare system, and prepare essential groundwork for the introduction of EHRs. The platform will include an eForms solution developed in collaboration with Office of the Government Chief Information Officer (OGCIO).

For 2024, the key deliverables are:

- eForms Platform
- Data Structure Standardisation
- Data Dictionary Support
- Terminology Server
- Reference Data Standardisation
- Clinical Knowledge Modelling

3.10 National Clinical Information Systems

To establish a comprehensive longitudinal health record for all patients, a national strategy involving standardised digital records with a national configuration, like the approach taken with NIMIS, will be employed. The implementation of these systems will be carried out at the local and regional levels.

Initiative	Programme	2024 Capital
3.10 National Clinical Information Systems	3.10.1 Unscheduled and Emergency Care	3,790,244
	3.10.2 Critical Care ICT	1,291,576
	3.10.3 Cancer Care	731,362
	3.10.4 PAS iPMS	2,543,664
	3.10.5 Endoscopy	918,973
	3.10.7 Home Support Services Case Management & eRostering	200,000
	3.10.8 Enhanced Community Care	200,000
	3.10.9 interRAI Assessment Tool	400,000
	3.10.10 National Dental Patient Record & Info System	1,200,000
	3.10.11 Adult Safeguarding	200,000
	3.10.12 CAMHS System	1,000,000
	3.10.13 Children's Disabilities Network Teams IMS (CDNTIMS)	1,000,000
Subtotal		€13,475,819

*Table 13. **Initiative 3.10 National Clinical Information Systems** - Budget breakdown by Programme*

3.10.1 Unscheduled and Emergency Care

This programme focuses on the delivery of systems to support Unscheduled & Emergency Care, it includes:

- Acute Floor Information System (AFIS)
- Community First Responders (CFR)
- NAS (National Ambulance Service) Proposals

For 2024, the key deliverables are:

- Acute Floor Information System (AFIS) go-live in the CUH Group, including provision of mobile devices to staff
- AFIS ready for go-live in Beaumont in early 2025
- Completion of Symphony upgrades and DR (disaster recovery) solution
- National register of AEDs (defibrillators) and CFR (Community First Responder) mobile app

3.10.2 Critical Care ICT

The Critical Care Information System (CCiS) will provide a continuous, integrated electronic patient record which will support the information needs of the critical care environment and can be used by members of the multidisciplinary team caring for the critically ill patient. The CCiS is locally configurable and interoperable with key hospital and patient information systems and bedside medical devices. The Project(s) will implement a CCiS in 16 model 3 and 4 hospitals across 5 hospital groups (Saolta underway).

The CCiS interfaces with the National ICU Bed Information System, ICUBIS (28 sites) and the National ICU Clinical Audit System, ICUCAS-Infoflex (25 Sites). The Critical Care eHealth Programme supports the delivery of ICUBIS and Infoflex in collaboration with the National Office for Clinical Audit (NOCA). Support is also provided to deliver the Irish National Orthopaedic Register (INOR).

For 2024, the key deliverables are:

- Critical Care Information System (CCIS): implement in 3 sites Letterkenny (Saolta project closed), Connolly & Cavan (TBC).
- ICU Bed Information System: Major Incident Development, integration with Mobile Intensive Care Ambulance Service (MICAS) and Paediatric development
- ICUCAS-Infoflex: go live in 4 remaining phase 1, 2 and 3 sites. Project Close.
- Nat Orthopaedic Register: Migrate to new National Audit Platform (NAP) and INORv2. Go live NAP and INORv2. MUH implementation.

3.10.3 Cancer Care

NCIS includes electronic prescribing of chemotherapy within hospitals, preparation lists for aseptic compounding units, worksheets and labelling associated with manufactured therapy, list management and outcome recording for cancer multi-disciplinary team meetings within or across hospitals and recording of tumour specific information.

Ultimately Implementation includes 9 designated cancer centres and 17 other hospitals.

For 2024, the key deliverables are:

- IPM renumbering for LUH within NCIS (MPI and application components)
- NCIS Go-lives at 6 hospitals (Sligo, UHL, WUH, UHW, PUH, TUH)
- Training and configuration for 3 hospitals (Naas, CUH and MMUH).
- Note: Site installation projects vary depending on hospital readiness.
- Activation of interfaces from respective PAS to NCIS.
- Augmentation of Citrix servers

3.10.4 PAS iPMS

- Ongoing implementations of iPMS patient administration solution, including:
  - LUH migration to Saolta instance of iPM
  - RVEEH & Loughlinstown under IEHG instance
  - Naas under TUH instance
  - Beaumont Hospital – stand-alone instance
- Rollout of iPMS V8 across 10 instances
- SMS 2-way texting rollout
- eReferral rollout

For 2024, the key deliverables are:

- LUH onto Saolta iPM instance
- RVEEH & Loughlinstown go live on iPM
- Naas go live on iPM
- Beaumont go-live on new standalone instance of iPM
- Deliver V8 of iPM across 10 instances on iPM starting
- Rollout 2-way texting to further instances of iPM
- Implement eReferrals across 10 instances of iPM

3.10.5 Endoscopy

Procure and replace Endoscopy Electronic Reporting Systems (ERS) in 29 hospitals

For 2024, the key deliverables are:

- Design, build and test for ERS
- Implement in first site
- Complete 3 site migrations for Unisoft sites

3.10.7 Home Support Services Case Management & eRostering

A case management and eRostering system for Home Support Services that enables day to day assignment and delivery of home help services through management of referral, assessments, care plans, staff rostering, audit and reporting.

For 2024, the key deliverables are:

- Complete stage 1 Competitive Dialogue procurement
- Progress stage 2 Competitive Dialogue procurement
- Acquire project approval to commence contracting and implementation
- Complete rollout of Smartphones to HCAs

3.10.8 Enhanced Community Care

Interim ICT solution(s) to support the Enhanced Community Care Programme, including Community Health Networks, Integrated Care Programme for Older Persons and Integrated Care Programme for Chronic Disease Management.

For 2024, the key deliverables are:

- To be determined

3.10.9 interRAI Assessment Tool

The InterRAI Assessment Tool is to facilitate assessment of care needs for clients availing of care services from the HSE. It will enable a standardised care needs assessment process, initially focussing on those with more complex needs.

For 2024, the key deliverables are:

- Complete go-live of last remaining Phase I CHO - CHO3

- Complete Phase III of the InterRAI rollout. Phase III scope is IHI integration, configuration, and testing of the interRAI Palliative care assessment, Check-up assessment, Acute care assessment and the Resource Utilisation Group (RUG) drilldown

3.10.10 National Dental Patient Record & Info System

The National Dental Patient Record and Information System will replace the existing National Dental System which will be unsupported by the vendor end of Q1 2024.

For 2024, the key deliverables are:

- Complete contracting for new solution
- Commence Configuration and Roll Out

3.10.11 Adult Safeguarding

The National Safeguarding Office (NSO) commissioned a Case Management and Concern Logging system to support the Safeguarding Protection Teams (SPT) in their work of providing a person-centred service for the adults at risk of abuse.

For 2024, the key deliverables are:

- UAT Complete
- Data migration complete
- Training and system go-live across CHOs
- Plan rollout to external agencies

3.10.12 CAMHS System

Implement an interim National Child and Adolescent Mental Health Service (CAMHS) system to provide a more efficient, effective service for children and young people receiving mental health services. The enhanced reporting capability will also improve the monitoring of KPIs and contribute to overall service improvement.

For 2024, the key deliverables are:

- Complete contract negotiations and contract signed
- System configured and implementation commenced

3.10.13 Children's Disabilities Network Teams IMS (CDNTIMS)

To provide a single, national, uniform information system for the administration of disability services to children with disabilities by 91 Children Disability Network Teams (CDNTs) made up of over 2,200 HSE and Section 38/39 staff. The solution will include functionality to replace the existing Assessment of Need (AoN) and National Day Services (NDS) systems.

For 2024, the key deliverables are:

- CDNT data migration and go-live Complete
- AoN system go-live
- NDS system go-live

4. Data Driven Service and Capacity Management

Data and information play a crucial role in healthcare, **enabling the delivery of high-quality, effective health and social care**. Patients expect their health information to be readily available to them and their caregivers, while also **ensuring the proper, secure, and approved handling of their personal data**. The healthcare organisation itself relies on data and insights to **make informed decisions, manage capacity** throughout the healthcare system, **and provide value-based care to patients**.

Initiative	Programme	2024 Capital
4.1 Patient Journey Analytics	4.1.1 Patient Flow System	1,980,451
4.2 Healthcare Data Analytics	4.2.1 Health Performance Visualisation Platform (HPVP) Phase 2	2,920,000
4.3 Integrated Referral Management	4.3.1 Electronic Referrals-A2I Integration	1,009,332
4.4 Scheduling, Rostering & Resource Management	4.4.1 Safe Nurse Staffing & Skill Mix	897,016
	4.4.2 Scheduling & Rostering of Healthcare Staff	1,000,000
Subtotal		**€7,806,799**

*Table 14. **Principle 4 Data Driven Service & Capacity Management** – 2024 Capital Budget*

4.1 Patient Journey Analytics

Pathway Journey Analytics encompasses a **suite of data tools designed to provide insights and visualisations** related to healthcare transformation, **digital care pathways, patient journey experiences, and resource utilisation**. These tools empower healthcare organisations to gain a deeper understanding of their services, facilitating improvements that can lead to enhanced patient outcomes and more efficient healthcare delivery.

4.1.1 Patient Flow System

A digital system that provides a visualisation of the patient journey will allow the SSWHG & TUH to manage patient flow in real time, assist staff information and communication processes, and standardise data capture.

For 2024, the key deliverables are:

- SSWHG to complete tender process and signed contract
- Implementation in CUH, Bantry, Mallow
- Implementation in TUH

4.2 Healthcare Data Analytics

This initiative will leverage advanced technologies and methodologies to **analyse healthcare data and support decision-making** across healthcare settings. It **encompasses data visualisation, performance management, predictive modelling, and machine learning to uncover patterns, trends, and insights that can drive improved healthcare outcomes and efficient resource allocation**. This includes identifying factors contributing to frequent patient re-admissions and making necessary adjustments.

In addition to the technological aspects, this initiative requires the development of a data analytics service with the appropriate skills, including data science and data analytics. It involves the integration of Clinical Informatics Teams within Primary, Secondary, and Tertiary Care to ensure the transformation of quality data into valuable information and knowledge. Collaboration between healthcare, education, and industry is crucial to building future Healthcare Clinical Informatics Teams that can maximize the benefits of Digital Health Architecture.

4.2.1 Health Performance Visualisation Platform (HPVP) Phase 2

Health Performance and Visualisation Platform (HPVP): a single software approach to the provision of information relating to sustainable improvement in access performance across health and social systems.

For 2024, the key deliverables are:

- HPVP Tender complete
- Further implementation of HPVP across acute hospitals
- Support the hospitals to maximise the benefit of the platform

4.3 Integrated Referral Management

This will provide a comprehensive **healthcare referral platform that will streamline coordination of care between primary care, community care, acute care, and other services**. By providing specialty-specific healthcare referrals, the platform aims to improve communication, efficiency, and patient outcomes across the referral process.

4.3.1 Electronic Referrals-A2I Integration

Programme to enable electronic referrals via HealthLink for Primary Care Clinicians to Acute, Community, Public Health and Screening Services to support integrated and scheduled care for patients by modernising the existing General and Specialists Referrals and delivering new specialist referrals as prioritised by the COO, CCO and Scheduled Care.

For 2024, the key deliverables are:

- National High Risk Non-Melanoma Skin Cancer Specialist eReferral
- NCCP Prostate Cancer Changes
- Specialist eReferrals x5
- NCCP Lung Cancer Specialist Referral
- Community eReferrals National Rollout
- GP eReferrals to TUH (Radiology, OPD letters, Triaging)

4.4 Scheduling, Rostering & Resource Management

A healthcare scheduling and resource management platform **to improve the allocation and utilisation of the workforce, facilities, and equipment** within healthcare organisations.

4.4.1 Safe Nurse Staffing & Skill Mix

The Framework for Safe Nurse Staffing and Skill Mix requires that patient acuity and dependency are modelled on Nursing Hours per Patient Day (NHpPD) Patients, with a higher level of acuity or dependency require a higher level of NHpPD.

TrendCare is a P2V9atient Acuity and Dependency System which is currently deployed to 5 Model 4 hospitals Beaumont, St. James's, UHG, UHL and UHW. The system is also deployed across the initial pilot sites in OLOL and St. Colmcille's.

For 2024, the key deliverables are:

- Finalise implementation, training, and deployment in St. Vincent's and Cork University Hospital
- Deployment in Tallaght University Hospital and MMUH

4.4.2 Scheduling & Rostering of Healthcare Staff

An eRostering system to provide an efficient, safe, and effective digital roster platform to meet workplace scheduling demands.

For 2024, the key deliverables are:

- A series of tenders against an existing HSE eRostering DPS
- Progress the deployment of eRostering across the six Health Regions

5. Digital Health Ecosystem and Innovation

Innovation and research within healthcare will advance healthcare delivery, introducing novel digital tools and solutions that can revolutionize the way we work. **The development and accessibility of safe, high-quality health applications and technologies** can expand choices for both patients and clinicians, ultimately leading to improved healthcare service options.

Initiative	Programme	2024 Capital
5.2 Healthcare Research	5.2.1 National Electronic Research Management System (NERMS)	232,470
5.4 Open Innovation & Ecosystem	5.4.2 Small Solutions	1,365,186
Subtotal		**€1,597,656**

*Table 15. **Principle 5 Digital Health Ecosystem and Innovation** – 2024 Capital Budget*

5.2 Healthcare Research

Healthcare Research will create a research-friendly environment within the healthcare sector. This initiative focuses on **facilitating the use of healthcare data, in a safe and secure way for secondary research purposes**, ensuring researchers have access to the necessary resources, infrastructure, and guidance to conduct their studies.

5.2.1 National Electronic Research Management System (NERMS)

The focus of this programme is to deliver the NERMS platform that will create a research-friendly access to the necessary resources, infrastructure, and guidance to conduct their studies.

For 2024, the key deliverables are:

- Implementation of a digital research solution with modular core functionalities to enable the implementation of the HSE National Framework for the Governance, Management and Support of Health Research (RGMS Framework).

5.4 Open Innovation & Ecosystem

Aimed at speeding up the pace of innovation and the development of new digital health products and services within the health system. This will create the **environment where people or groups** (internally and externally) come together to **create ideas and solutions around specific healthcare challenge themes**.

5.4.2 Small Solutions

This focus of this programme is to deliver the following systems:

- **Acute Track & Trace - Surgical Instruments:** This project will upgrade server infrastructure and the application for all Track & Trace acute sites and support a PoC in two sites to assess the suitability of the application to track class 3 implants in line with recent legislation. The application currently tracks usage of surgical instruments through Theatre and CSSD in 52 acute sites.
- **NACMS – rollout in Acute sites:** This project will complete the rollout of clinical management system for audiology services in Ireland across Acute and Community Audiology services and will be utilised by both community care and acute care staff. At its core it will be a complete audiology patient clinical record which is fully integrated with an administration system covering all aspects of service delivery. Currently live in 9 CHOs, this stage of the project will now continue to rollout in the Acute setting
- **Dental Imaging:** a centralised National Dental Imaging solution providing a stable environment which will support the migration of images from the 100+ separate site databases.
- **Quit Manager:** Implementation of a National Behavioural Support Management System for all HSE Smoking Cessation Support Services to facilitate patient tracking, KPI reporting of inputs and outcomes, electronic referrals, and the facilitation of National Standard Treatment Programmes for Smoking cessation support.
- **Workstation On Wheels (WOWs) & Medical Carts:** Equipment required to support the adoption and use of the new SCS-CMS system in NRH & NFMHS. The equipment will allow real time access & updates to patient data at the point of care in an infection prevention and controlled manner.

For 2024, the key deliverables are:

- **Acute Track & Trace:** Surgical Instruments: Upgrade and Implementation completed in 52 sites.
- **NACMS** rollout in Acute sites**:**
  - Patient identify solution clarified and developed by vendor.
  - Alignment of audiology services across acute and community services and result of CHO9 audiology pilot available.
- **Dental Imaging:** Migration of the 100+ sites to the new stable environment 75% complete
- **Quit Manager**:
  - Integration with Quit.ie, NM-CMS and HealthLink
  - Reporting from the Quit Manager System
- **Workstation On Wheels (WOWs) & Medical Carts**:
  - Establish a Dynamic Purchasing System (DPS) for WOWs & Medical Carts and finalise drawdown for NRH & NFMHS
  - Equipment installed in the 2 sites

6. Digitally Secure Foundations & Digital Enablers

The initiatives outlined in Principle 6 serve as the cornerstone of this entire transformation and are fundamental to the success of this Plan. A successful transformation hinges on **key foundations, including effective leadership and governance, a secure and dependable infrastructure, innovative and enabling technology platforms, fostering the right organisational culture, providing change management support, and implementing security measures by design** and by default.

Initiative	Programme	2024 Capital
6.2 Patient Identity Management	6.2.1 Rollout Patient Identifiers & Master Patient Index	1,425,753
	6.2.3 Consent and Audit services	81,000
6.3 Healthcare Worker Identity & Access Management	6.3.1 National Single Sign-on Rollout	1,973,810
6.5 Culture, Change and Agile Delivery	6.5.1 Establish Transformation Management Office	300,000
6.7 Integration, Interoperability and Data Engineering	6.7.4 EU Open NCP	500,000
6.10 Foundational Infrastructure	6.10.1 Network & Communications	9,311,000
	6.10.2 Refresh Current Technology & Devices	14,451,760
	6.10.3 Voluntary Network & Technology Sustainment	754,000
	6.10.5 Technology Security Control & Governance	8,298,600
	6.10.6 CHI ICT	21,400,000
Subtotal		**€58,495,923**

*Table 16. **Principle 6 Digitally Secure Foundations & Digital Enablers** – 2024 Capital Budget*

6.2 Patient Identity Management

This initiative will offer a comprehensive solution to facilitate the secure identification of patients and service users in both physical and digital environments. It simplifies the patient identification process at the onset of a healthcare encounter, leading to enhanced efficiency, data accuracy, and safeguarding of privacy and confidentiality.

6.2.1 Rollout Patient Identifiers & Master Patient Index

This programme will facilitate the Integration of several strategically prioritised 'consumer' eHealth systems. It will maintain and manage the integrity of the IHI by introducing trusted sources of Patient Demographics and gathering multiple Object Identifiers (OIDS).

For 2024, the key deliverables are:

- Consent register in the first instance will be delivered for Organ Donation Transplant Ireland in the provision of and an online Opt-Out Register.
- Enable ODTI office to facilitate opt out registrations received by phone or in paper format and to provide a facility for ODTI to record such registrations electronically
- Provide ODTI-designated users with a facility to search the information on the register to determine if a potential donor's family may be approached to discuss organ donation.

6.2.3 Consent and Audit services

The Consent and audit service programme will ensure all interactions and explicit management of consent are captured and audited. This also supports delegated consent scenarios, including acting on behalf of a patient or service user as a carer or guardian.

For 2024, the key deliverables are:

- Implementation of a digital research solution with modular core functionalities to enable the implementation of the HSE National Framework for the Governance, Management and Support of Health Research (RGMS Framework).

6.3 Healthcare Worker Identity & Access Management

This initiative will establish identity and access management for healthcare workers in the HSE using their HealthIRL identity. The platform will facilitate healthcare system-wide federated identity, access management, and trust among healthcare organisations, allowing authenticated and authorized individuals open access to systems. Access management will extend to

national building management access. Efforts will be undertaken to facilitate seamless movement and access for healthcare professionals working across public and private providers and voluntary organisations.

6.3.1 National Single Sign-on Rollout

Single Sign On (SSOn) is the ability for a system user to authenticate once to a single authentication authority and then access other protected resources without reauthenticating. SSOn is described as a software that authenticates a set of user security credentials and subsequently passes these credentials onto the applications on the device removing the need to re authenticate. SSOn has reduced the number of keystrokes and clicks required to perform tasks and eliminated the need for complex passwords which have become an anathema to clinicians.

For 2024, the key deliverables are:

- Deployment in 7 sites, phase 1 go live - Beaumont, CUMH, Galway, NMH, Rotunda, NFMHS, NRH.
- Procurement process for Phase 2 mini competition to commence. SSOn Centre of Excellence established, Cork, Sligo, LUH, Cavan, Tralee, St. James's, St. Vincent's, The Coombe

6.5 Culture, Change and Agile Delivery

The Culture and Change initiative will concentrate on evaluating the existing culture's strengths and weaknesses while enhancing the healthcare system's change management capabilities. This effort aims to cultivate a more resilient and adaptable culture necessary to support change and transformation driven by digitisation. The goal is to foster the values and behaviours necessary for achieving a high-performing, adaptable, transparent, and accountable culture.

6.5.1 Establish Transformation Management Office

Formation of a Digital Health Transformation Office (TMO), reporting to the CTTO, to manage delivery of the transformation activities of the 2024-2030 Digital Health Strategic Implementation Plan

For 2024, the key deliverables are:

- Assessment of current capabilities
- Establish Transitional Operating Model for CTTO/eHealth orgs
- Agile Delivery - 'Change the way we Change'
- Creation of a Transformation Change Oversight Office
- Appropriate tools in place to support scale of programs for delivery

6.7 Integration, Interoperability and Data Engineering

Integration, Interoperability, and Data Engineering is aimed at creating a cohesive and well-coordinated healthcare data infrastructure promoting seamless communication and data exchange. This will be achieved by a national approach to core standards and configuration using a hub and spoke model with the regions, while supporting localisation through a regional approach to implementation.

6.7.4 EU Open NCP

The purpose is to enable seamless cross-border care and secure exchange of patient information in the form of ePrescriptions and Patient Summaries between participating Member States in accordance with the Cross-Border Directive 2011/24/EU.

For 2024, the key deliverables are:

- Exchanging Country B Patient Summary
- Exchanging Country B eDispensations
- Complete DG Sante Audit - independent assessment of HSE capabilities for EHDS

6.10 Foundational Infrastructure

This initiative will provide the essential technologies needed to empower and assist the workforce in achieving the transformation outlined in the Plan. It will encompass a wide array of changes in current technologies and devices, spanning from technology security, control, and governance to network, communications, data centres, and cloud services. The scope of change also includes voluntary network and technology sustainment initiatives.

6.10.1 Network & Communications

This programme includes the following objectives:

- Annual network refresh required to enhance security, enable priority services, and deliver new services

- Implement network management tools to deliver Security & Performance Management, enable threat/issue detection & resolution
- Progress Cloud Direct Network connectivity (Microsoft Azure and Amazon Web Services)
- Enable Cloud Applications performance & security (HPVP, Covid-19 Reporting, Call Centre Applications)
- Internet Infrastructure 3.0 - capacity and capability build
- Refresh legacy telephony equipment
- Enable Sláintecare mobility in the Community
- Community enablement

For 2024, the key deliverables are:

- Additional network and telephony infrastructure to meet new business requirements for delivery of programmes and increased BAU.
- Address cyber security requirements through implementation of Network management platform, to enhance asset management and network monitoring.
- Enhance Internet Infrastructure to deliver digital organisation, through increased capacity and modern hardware.

6.10.2 Refresh Current Technology & Devices

This programme includes the following objectives:

- Device refresh – Community, BAU, Peripherals
- Modernise and standardise HSE device pool by upgrading all devices with SSD and 8GB RAM for blended working models and improved cybersecurity

For 2024, the key deliverables are:

- Ongoing device refresh BAU and Community enablement
- Upgrade and replace devices & peripherals for continued service delivery and security requirements. Provide devices at pace to support the replacement of out of warranty (>5yr+) units and provide devices & Peripherals to support Primary Care and Mental Health units
- 2,725 Devices EOL [60% Desk-tops / 40% Laptops]
- 2,600 Desktops to support Primary Care and Mental Health units
- 6k devices for new starters and services
- 5k SSD +/- RAM upgrades

6.10.3 Voluntary Network & Technology Sustainment

- St Luke's infrastructure refresh

For 2024, the key deliverables are:

- Complete refresh of legacy technology at St Luke's Hospital

6.10.5 Technology Security Control & Governance

- Technology Security Control & Governance for Mobile, Network and Server technologies

For 2024, the key deliverables are:

- Additional End Point Protection for Servers
- Implementation of SIEM for Servers
- Data Management Controls (backup, recovery) - Phase 2 of Cyber Vault implementation.
- Out of Band Communications – provide service continuity
- Email Controls – additional protection added and continuity functionality

6.10.6 CHI ICT

This programme encompasses both the NCH ICT infrastructure workstream of multiple projects to enable opening of the NCH and the ICT corporate systems workstream rollout for CHI.

For 2024, the key deliverables are:

- Core Infrastructure & Network deployed in new NCH building.
- All Client ICT systems deployed for commissioning.

Risks to the delivery of the plan

Our plan is dependent upon the **recruitment of additional technology and change expertise**, and recruitment against our agreed and funded workforce plan will continue throughout 2024. The successful delivery of this technology transformation relies on the correct mix of technical and transformation expertise being available, i.e., we need to be able to deliver the technology solutions and our people delivering the service need to be able to accommodate the technical solutions while delivering the service. Completion of this recruitment plan is critical to the delivery of the eHealth & ICT Capital plan 2024 and is therefore a risk to the delivery of the plan.

Risks which were realised in recent years, such as the Cyber-attack remains present for organisations worldwide, and repeat attacks are common. Increased investment in our ability to protect our environment reduces the risk of such an event, nonetheless the impact of such a repeat event would present a serious risk to delivery of our plan, and we must remain prepared and vigilant against this threat.

Other unforeseen priorities may displace elements of this plan throughout 2024. Decision to re-prioritise any investment will be subject to governance arrangements and will be bound by the terms of DPER Circular 14/2021

Programme risks are summarised in *Appendix 3 – 2024 Capital Plan Programmes Detail, Deliverables & Risks*, on a line-by-line basis.

Conclusion

The strategic digital priorities for healthcare are set out in the draft documents Department of Health Digital Framework 2024 – 2030 & the HSE's Digital Strategic Implementation plan 2024-2030 that are in the process of being finalised.

Fully aligned to these, eHealth & ICT Capital plan for 2024 will deliver significant additional digital capability to our service users, our healthcare professionals, and associated disciplines, as well as providing a seamless experience for all healthcare staff in working within, across and between the new Health Regions. Having the framework and multi-year implementation plan enables us to focus on the immediate deliverables for 2024 while also providing a clear destination for the forthcoming years.

The mature programmes, **Children's Hospital, Single Financial system, Digital Imaging Diagnostics and Medical Laboratories** will deliver major change and new capability in the next 12 months.

Alongside these major planned investments are many programmes which, while requiring a lower relative investment, are significant priorities for both HSE and Department of Health, including the **Health App, the Virtual Wards, ePrescribing and Cyber resilience**. **Virtual Wards** is technological innovation that will facilitate greater access for patients and the HSE's drive to address waiting lists. The **Health App** gives patients direct access to their own care; reduce administration time identifying patients; ability to cancel / re-schedule appointments.

Known demand continues to put pressure on our ability to meet this need on the current levels of ICT Capital funding. It should be acknowledged however that the increased funding prioritised for operational eHealth in recent years has greatly enhanced our capacity to deliver on this change agenda.

The underlying technology stack of the HSE is enormous, and critical to the successful delivery of all our services. This plan invests significant sums in the modernisation and expansion of this estates, in conjunction with the Cyber Transformation plan.

Over a period of years, the HSE has embarked upon a range of ambitious reforms underpinned by eHealth programmes and projects. Many of these are enterprise-wide change programmes which, by design require a multi-annual, multi-site approach. Some of these programmes have now reached the reached the point of implementation where required investment is highest, and therefore the call on our ICT Capital envelope is greatest.

Newer transformation ICT enabled projects are critical to the success of the health service reform agenda, Sláintecare and other strategic priorities. These newer and emerging priorities must be driven now, so that they deliver real and meaningful value in the coming months and years.

All the projects and programmes within the plan are critical enablers to the provision of Health Care and have been supported by the relevant service or business National Director, with intensive engagement with services.

Appendix 1 - Analysis of Investment

The chart below shows the distribution of the €155 ICT Capital investment by Principle:

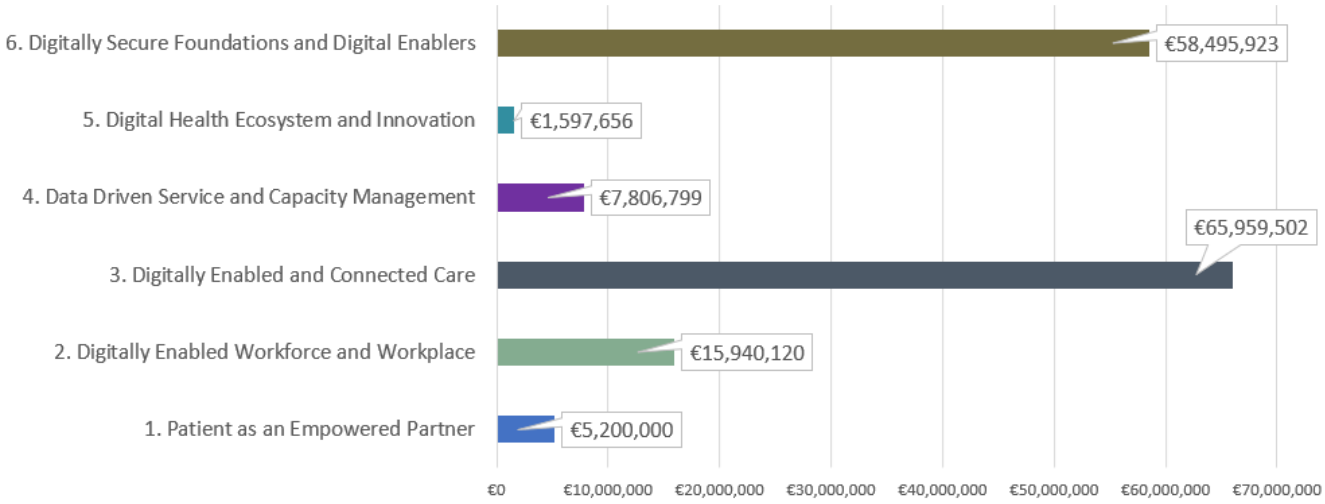

Figure 3. ***2024 Capital Budget by Principle***

The chart below shows the distribution of the €155 ICT Capital investment by portfolio:

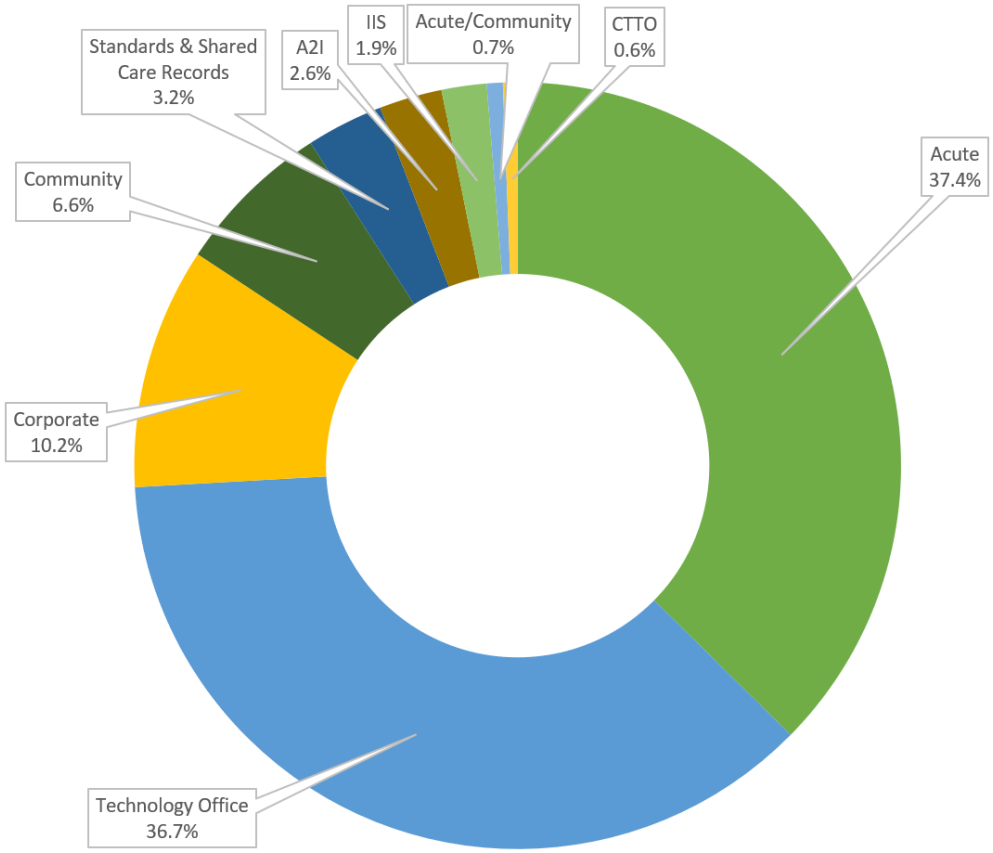

Figure 4. ***2024 Capital Budget by Portfolio***

Appendix 2 – 2024 Capital Plan Initiatives

Table 17. **2024 Capital Budget by Principles & Initiative** below shows the 2024 capital budget split by Principle and associated Initiative.

Principle	Initiative	2024 Capital
1. Patient as an Empowered Partner	1.2 Patient App	**3,000,000**
	1.5 Remote Care/Monitoring/Digital Therapeutics	**1,000,000**
	1.7 Benefits & Schemes	**200,000**
	1.9 Public Website Content Management	**500,000**
	1.11 Contact Care Platform	**500,000**
2. Digitally Enabled Workforce and Workplace	2.1 Enterprise Wireless Network	**2,367,000**
	2.3 Digital Finance and HR	**13,135,250**
	2.4 Improve Employee Experience	**437,870**
3. Digitally Enabled and Connected Care	3.1 Shared Care Record	**2,063,288**
	3.2 Population Health Management	**900,000**
	3.4 Medication Management	**2,918,840**
	3.5 Diagnostics	**21,206,606**
	3.6 Order Comms & Care Delivery	**472,800**
	3.7 Patient Safety & Quality of Care	**1,633,997**
	3.8 EHR Procurement & Delivery	**22,888,752**
	3.9 Digitisation of Health Care Records	**400,000**
	3.10 National Clinical Information Systems	**13,475,819**
4. Data Driven Service and Capacity Management	4.1 Patient Journey Analytics	**1,980,451**
	4.2 Healthcare Data Analytics	**2,920,000**
	4.3 Integrated Referral Management	**1,009,332**
	4.4 Scheduling, Rostering & Resource Management	**1,897,016**
5. Digital Health Ecosystem and Innovation	5.2 Healthcare Research	**232,470**
	5.4 Open Innovation & Ecosystem	**1,365,186**
6. Digitally Secure Foundations & Digital Enablers	6.2 Patient Identity Management	**1,506,753**
	6.3 Healthcare Worker Identity & Access Management	**1,973,810**
	6.5 Culture, Change and Agile Delivery	**300,000**
	6.7 Integration, Interoperability and Data	**500,000**
	6.10 Foundational Infrastructure	**54,215,360**
Total		**155,000,000**

*Table 17. **2024 Capital Budget by Principles & Initiative***

Appendix 3 – 2024 Capital Plan Programmes Detail, Deliverables & Risks

Table 18 shows the programmes that are progressing in 2024, providing a definition of the programme, the associated eHealth portfolio, the deliverables for 2024 and the associated risks.

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
1. Patient as an Empowered Partner	1.2 Patient App	1.2.1 Health App	• A single health service mobile app that will enable patients to manage their digital health identity, personal health information, care coordination, and access to health services. • It seamlessly combines various aspects of the healthcare system into one user-friendly and secure application.	CIO	• Private app betas released: 1. End-to-end Maternity journey • Public app beta released (target population 5,000-10,000) • Diabetic Care journey • Screening Services (bowel, breast, diabetic retinopathy) • Cancer Care • Release 1 of Health App (general population, open access)	**R1**: Health App team recruitment: time and recruitment limits affect the ability to recruit and onboard a team to support the ongoing development of the Health App R2: Dependence on Care Connect Platform being in place **R3**: GP systems integration: uncertainty around timelines for implementation of GP system integration leading to Health App missing this major data source. **R4**: GP Systems: uncertainty around the quality of data in GP systems and its suitability for use in the Health App **R5**: HSE data availability: uncertainty around the availability of HSE data from key data sources in time to support the development of the Health App **R6**: Health Information Bill timeline and commencement; in advance of the HIB, only HSE data sources can be mandated **R7** Dependence on 6.2.2 Consent policy and model
	1.5 Remote Care Monitoring & Digital Therapeutics	1.5.1 Virtual Ward Model of Care	• A Virtual Ward is defined as a safe and efficient alternative to bedded care that is enabled by technology. Virtual Wards support patients who would otherwise be in hospital to receive acute care, monitoring, and treatment in their own home, thus preventing avoidable hospital admissions, or supporting early discharge.	Community	• Delivery of two 25-bed Virtual Wards in 2024. • Procurement and deployment of managed solution(s) (comprehensive suite encompassing the provision and support of web-based application(s) and clinical measurement equipment) to facilitate clinical care in a Virtual Ward delivered remotely by a multidisciplinary team (MDT) as clinically appropriate.	**R1**: High dependency on the resource capacity from a range of interdependent business areas to deliver the project. **R2**: High dependency on securing sufficient and sustained local clinical resource allocation to support project delivery. **R3**: Resourcing pressures within Procurement to support establishment and completion of Dynamic Purchasing System procedure for required technology. **R4**: Virtual Wards require the patient to manually operate supporting measurement peripherals and have access to high-speed internet connection. **R5**: Local physical infrastructure and operational challenges within acute settings.
	1.7 Benefits & Schemes	1.7.1 Nursing Homes & Home Support (NHSS/SHSS)	• The NHSS/SHSS solution will replace the existing Nursing Home Support System (NHSS) IT system, which is over 10 years in operation, with a new state-of-the-art integrated platform for the administration of the Fair Deal Scheme (NHSS) and to cater for the administration of the new statutory Home Support Scheme.	Community	• Complete stage 1 Competitive Dialogue procurement. • Progress stage 2 Competitive Dialogue procurement • Acquire project approval to commence contracting and implementation.	**R1**: Key staffing resources are freed up to progress procurement. **R2**: Procurement timelines may take longer than anticipated. **R3**: Full sanction approval may not be received.
	1.9 Public Website Content Management	1.9.1 Public Website Content Management	• This is a digital front door to the health service, providing health, wellbeing and services information and access to all our digital health services. It offers a seamless digital health service experience across HSE.ie, Patient Portal and Health App.	HSE Comms[1]	• Development of Content APIs for use in Health App, Health Portal, and other consumers of health content. • Development of integration guidance for use of content APIs and development of content.	None
	1.11 Contact Care Platform	1.11.1 Care Connect Platform	• This is a patient engagement platform that will improve how health services engage and communicate with patients. • The platform will streamline interactions between patients and the healthcare workforce, while enhancing patient satisfaction and outcomes e.g., respiratory patients getting personalised messages about the flu vaccine annually	HSE Comms[1]	• Care Connect platform procured and in place (including case management, analytics, omni-channel communications) • Health App basic Case flows configured and teams ready to support (ongoing thru end of 2024) • Case management component ready for extended use for Health App, Telehealth, and other Healthcare scenarios.	**R1**: Salesforce architecture and platform governance for use in HSE as a platform that can be used in different contexts (e.g., COVAX versus Care Connect Platform). The current model is a single Salesforce organisation; decision pending on target architecture limits progressing this component.

[1] HSE Comms is outside of the eHealth organisation

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
2. Digitally Enabled Workforce and Workplace	2.1 Reliable Secure Connectivity	2.1.1 Enterprise Wireless Network	• Implementation of Enterprise Wireless network across Acute, Community and Corporate services, enabling mobility & connectivity	Technology Office	• Phase 1: Rollout commences- 12 Community & 2 Corporate sites completed • Phase 2: Hospital site implementation commences; site completions-12 Community, 2, all Corporate • Phase 3: 24 Community and 6 Acute sites completed • Phase 4: All 2024 planned sites completed	**R1**: Primary risk to roll out will be the ability get any new cabling works completed in a timely manner especially in the hospital sites.
	2.3 Digital Finance and HR	2.3.1 Integrated Financial Management System	• IFMS is a project within the Finance Reform Programme to introduce a modern integrated financial management and procurement system for the health sector • This project will provide modern technology, standard finance and procurement processes, and a new operating model based on shared services • The first rollout group went live in July 2023	Corporate	• Implementation Group 2 (HSE West, 1 S38, 1 S39) go-live complete • Implementation Group 3 (HSE South/Southwest) commenced	**R1:** The level of eHealth, SAP CoE resources required to support the rollout of this Programme and provide post go live support will not be in place in sufficient time. **R2**: Scale and complexity of necessary change. The IFMS programme is a very significant and long-term financial transformation effort that will ultimately involve 25,000-30,000 users across over 50 legal entities. Making the change from the current disparate local processes to a set of nationally standardised best practice processes operated in a consistent way is a major part of the challenge that the health service must overcome if it wants to achieve the benefits of improved financial information and stronger control environment. **R3**: Voluntary Organisation Adoption. The voluntary sector is recognised as a key stakeholder in the Finance Reform Programme and is represented across all levels of project governance and delivery. The HSE recognises that the deployment of IFMS will involve significant change for voluntary organisations and has been engaged with the voluntary sector. **R4**: Dependencies on other systems. IFMS project has significant dependencies on the development and continued rollout of other systems, most importantly SAP HR and Payroll, other Non-Pay input systems such as National Estates Information System and the Hospital Pharmacy System. **R5**: The programme requires continuous engagement and participation from a wide stakeholder group to ensure timelines are met.
		2.3.2 National Integrated Staff Records and Payroll	• NiSRP will implement national Staff Records and Payroll systems across the HSE. These systems will be fully integrated and will support the needs of a modern health system employer, enhancing available workforce information for managers • The Programme will modernise the way the HSE connects with staff, improving access for them to their staff record and pay details via online employee and manager self-service. • The NiSRP programme will continue its phased rollout of SAP HR and Payroll by region.	Corporate	• The NiSRP programme will continue its phased rollout of SAP HR and Payroll by region. • The NiSRP programme will deploy SAP HR/Payroll to HSE West and HSE North-East.	**R1**: There is an on-going risk of not being able to recruit and retain the required resources to support and keep the Programme progressing to plan. **R2**: The programme requires continuous engagement and participation from a wide stakeholder group to ensure timelines are met. **R3**: The programme requires continuous engagement and participation from a wide stakeholder group to ensure timelines are met
	2.4 Improve Employee Experience	2.4.3 National Estates Information System	• The NEIS Programme will deliver a modern, consolidated Information System enabling HSE Estates to strategically manage its asset portfolio in line with international best practice. The programme has completed the first 3 phases of its deployment covering Portfolio and Capital Projects, Operations and Maintenance, Property Management and Environment and Sustainability modules.	Corporate	• The programme is extending to include the deployment of a new Climate Action module during 2024. • The NEIS programme will also extend its deployment to Childrens Hospital Ireland (CHI) cover under CHI capital funding.	**R1**: There is a risk of having insufficient resource dedicated to the ongoing management of the solution to ensure it continues to deliver to the user base. Resourcing requirements under continuous review. **R2**: Rollout and adoption across the HSE may take more resources than are currently available to engage on the rollout thus impacting on expected timelines for benefits realisation. Focus on adoption of deployed modules across the HSE.

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
3. Digitally Enabled and Connected Care	3.1 Shared Care Record	3.1.1 National Shared Care Record (NSCR)	• A shared care record enables healthcare providers in different settings (such as, primary and community care and hospitals) to view patient records for direct patient care. It brings together information from various systems into a single place for care professionals to use to support the delivery of care. It enables visibility of patient health information, but not an ability to create or update the information.	CIO	• Invitation to Submit Final Tender (ISFT) • Preferred vendor selected • Contract signed	**R1**: The lack of defined Business ownership and service side project resources poses a threat to implementation timelines and management of clinician expectations. **R2**: Technical project resourcing availability within HSE poses a threat that the resources required to partner with a vendor to design, build and maintain project technical artefacts will not be available. **R3**: There is uncertainty around the technical availability and quality of data from key HSE data sources deemed valuable to clinicians and patients that are required to populate the NSCR **R4**: There is uncertainty around data quality in GP systems and timelines for implementation of GP system integration. **R5**: There is a dependency on Health Information Bill commencement; in advance of the HIB, only HSE data sources can be mandated. **R6**: There is a risk of duplication of effort and overlap with other similar national projects such as tendering, procurement and deployment of a clinical portal, patient portal, integration platform and CDR.
		3.1.2 Primary Care Integration to support NSCR	• Implement foundational changes to the 4 accredited GP Practice Management Systems that will build additional capabilities to facilitate, enable and support other HSE driven ICT developments and initiatives.	A2I	• NSCR/GPs Phase 1 solution defined & agreed • NSCR/GPs 'Build to Learn' project(s) completed • NSCR/GPs Phase 2 solution defined and agreed • PCRS/GPs Capture client's signature to verify Covid & flu vaccinations administered to them	**R1**: There is a dependency on Health Information Bill commencement. **R2**: There is dependency on the procurement and deployment of a National Shared Care Record (NSCR) solution. **R3**: There is uncertainty around data quality in GP systems and timelines for resolving identified issues.
	3.2 Population Health Management	3.2.1 Vaccination & Immunisation	• Procurement, implementation and roll out of a National Immunisation Information System (NIIS)	Public Health	• Complete approvals stage for progression • NIIS progression to Procurement Phase (approach dependent on R1) • Commence Implementation Phase • Agree data migration plans for all legacy systems	**R1**: Dependence on Option adopted as NIIS approach **R2**: There is a risk that current myriad of legacy systems will have reached end of life or exit support before a new solution is in place **R3**: Risk that data migration from the current myriad legacy systems cannot be progressed **R4**: Availability of service resources may impact progression of each stage of the programme
		3.2.2 Outbreak Management	• Outbreak Management System to enable prompt identification, containment, and response to infectious disease outbreaks.	Public Health	• Procurement Complete • Phase 1 Implementation Commences; to Include High Priority Diseases	**R1**: Availability of service resources may impact progression of each stage of the programme **R2**: Risk of Challenges etc during procurement process **R3**: Risk that service reluctance to accept MVP approach will create change management challenges **R4**: Stakeholder capacity to progress 3.2.2 and 3.2.3 in parallel
		3.2.3 Surveillance	• Comprehensive health surveillance system to monitor and detect trends in population health, including the identification of at-risk populations and early warning signs of emerging health threats.	Public Health	• Design of Requirements for Surveillance system • Assessment of options presented in OCIMS contract award for suitability to satisfy surveillance requirements.	**R1**: Dependence on Outbreak Management Tender to identify suitable solution to satisfy requirements **R2**: Availability of service resources may impact progression of each stage of the programme **R3**: CIDR will have reached sun set phase before new surveillance solution has been implemented **R4**: Riak that service will not accept 'Options' approach from OCIMS tender and will seek to mandate new tender process thus causing delays in replacement of fatigued system **R4**: Stakeholder capacity to progress 3.2.2 and 3.2.3 in parallel

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
3. Digitally Enabled and Connected Care	3.4 Medication Management	3.4.1 Hospital Medicines Management System (HMMS)	• The Hospital Medicines Management System (HMMS) project will replace obsolete pharmacy software with a modern, national standardised pharmacy system. It will be implemented in both Acute and Community sites and will form the platform to support electronic prescribing and electronic medicines administration	Community	• Compete implementation of Phase 1 (6 sites) • Progress Phase 2 (27 nominated sites) • ePrescribing and Medicines Administration Project Scoping	**R1**: Quality and availability of unique Patient Identification **R2**: Availability of site resources may impact site readiness for implementation. **R3**: Vendor Takeover – risk of knowledge & resources losses
		3.4.2 ePrescribing/ eDispensing	• The purpose of the ePrescribing project is to implement a national solution to accept, store and transmit ePrescriptions and eDispensations.	Community	• Procurement and contracting of an ePrescribing Solution components to include: o ePrescribing Service (Integration Service, Clinical Data Repository, Citizen App) o GP Practice Management System Application Enhancements & Integration o Community Retail Pharmacy Dispensing System Application Enhancements & Integration	**R1**: Quality and availability of unique Patient and Health Care Professional Identification **R2**: Risk that some critical data required for ePrescriptions or eDispensations may be missing or is not routinely recorded. **R3**: Vendor/3rd party Systems readiness and ability to integrate with the ePrescribing solution **R4**: Inability to Record/Manage Patient Consent **R5**: National Medicinal Product Catalogue not in consumer systems:
		3.4.3 National Medicinal Product Catalogue	• The National Medicinal Product Catalogue (NMPC) will be the single national catalogue of medicines, each with a unique identifier, for use across the Irish healthcare system. It aims to improve patient safety through the provision of system-wide accurate and consistent identification of medicines and ancillary medicines information. The NMPC will be available for use in prescribing, dispensing and medicines administration systems as well as for secondary data uses	Community	• Complete Procurement and contract signed • Commence configuration and implementation of NMPC Data Management Solution	**R1**: Frequency of SNOMED releases may affect NMPC file updating timeframes **R2**: Low stakeholder engagement on uptake of NMPC Outputs **R3**: Uptake by consumer systems and drug files:
	3.5 Diagnostics	3.5.1 Imaging Diagnostics	• The continued rollout and optimisation of NIMIS, including the integration of the Individual Health Identifier (IHI), to ensure accurate patient identification and secure management of imaging data across healthcare organisations.	Acute	• NIMIS 2.0 Upgrade: 14.2 Update completed • NIMIS 2.0 CRIS Go lives completed o 1st Group site (UHLG Group) o 2nd Group sites • COVID-19 NIMIS BEAM: CUH Go live completed • NIMIS Device Refresh: all NIMIS EOL workstations > 7 yrs old refreshed • NIMIS Additional Image Storage: implementation complete • NIMIS Implementation St. Vincent's & St. Michael's Hospitals Go Live Completed • NIMIS1.0 hardware decommissioning: completed • NIMIS IHI Implementation: Commenced across NIMIS sites in parallel with CRIS deployment • NIMIS3.0 Procurement commenced	**R1**: ICT Capital budget constraints **R2**: NIMIS Programme human resourcing constraints **R2**: NIMIS Programme Team human resourcing constraints - Team requires significant increment to resource CRIS Upgrade deployment and NIMIS implementation in St. Vincent's & St. Michaels Hospitals in 2024 - Additional resources will be required to progress a NIMIS3.0 Procurement **R3**: Site Implementation resource constraints - - NIMIS Sites require dedicated resources to be assigned for approx. 7 months for CRIS implementation. - St Vincent's & St. Michaels require dedicated resources to be assigned for 10-12 months to support their NIMIS implementation **R4**: NIMIS Vendor resourcing constraints - Some challenges forecasted re Integration/ interfacing & Subject Matter experts **R5**: NIMIS Workstream prioritisation contention - NIMIS Programme Board determines Programme prioritisation - 2 projects prioritised for progression when programme resourcing allows NIMIS Radiation Dose Collation solution, NIMIS GP E-Requesting **R6**: NIMIS site lack of project engagement - Current Forsa Industrial dispute will impact on CRIS project with near immediate effect - Site roll out plan can be tailored to minimise the impact of specific site engagement issues **R7**: Procurement support constraints- Procurement resources & expertise required to confirm options and direction for NIMIS3.0 Procurement and progress same.

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
3. Digitally Enabled and Connected Care		3.5.2 Medical Laboratories	• The development and implementation of modern, integrated laboratory information systems including digital pathology, that streamline laboratory workflows, facilitate efficient data exchange with other healthcare systems, and support accurate and timely diagnostic results.	Acute	• MedLIS go-live: Beaumont • GP eOrdering: 4 pilot labs live (OLHN, GUH, UHW, Beaumont) • Lab Stabilisation live Waterford, SVUH & Limerick	**R1**: Training and issuing logons for locums and agency: Currently how locum and agency staff are going to be trained and issued with logins and passwords for MedLIS had not been agreed at national level. **R2**: Availability of resources (across Site & NPT) to support required testing: Requirement for multiple strands of workstream testing to be undertaken concurrently. **R3**: Single points of failure (SMEs): Team members within the project who have unique skills and knowledge. Loss of these individuals would impact project delivery. **R4**: Delay in re-approval of standard MedLIS workflows may delay completion of clinical workflow impact assessment & transition planning for Beaumont. **R5**: Fórsa industrial action: Forsa action from 5th October, members may not engage with any Change Programmes or external private contractors. Potential impact for engagement with MedLIS project & external contractors e.g., Cerner, Stalis.
	3.6 Order Comms & Care Delivery	3.6.1 Order Comms	• This is a set of robust tactical tools and solutions implemented in regions where the EHR will be deployed last. Applications will be used to digitally enter diagnostic and therapeutic patient care order requests and to view results. These tools provide standards-based clinical documentation and assessment capabilities, utilising AI-enabled technologies to support clinical workflows, and offering effective individual care planning and case management tools.	Acute	• Preferred vendor selected from procurement process. • Contract signed for Beaumont • Implementation commences in Beaumont • Planned go live in 2025 as part of the BHIS project	**R1**: Resource constraints and availability **R2**: Reliant on MedLIS implementation completed in Beaumont
	3.7 Patient Safety & Quality of Care	3.7.1 National Electronic Blood Track	• Implementation, maintenance and upgrading of the BloodTrack system to enable all hospitals that have blood banks to fully comply with the EU Blood Directive 2002/98/EC on Quality and Safety Standards for human blood and blood components.	Acute	• Complete the BloodTrack upgrade to V4.14 (Manager & Tx) • Rollout new BloodTrack functionality including Batch product tracking, Designated Emergency Unit (DEU) and Inventory Dashboard. • Replacement of older BloodTrack hardware.	**R1:** Delays in the rollout schedule due to the loss /unavailability of resources both at hospital and vendor.
	-3.8 EHR Procurement & Delivery	3.8.1 Maternity & Newborn EHR	• Phase II rollout of MN-CMS over 2024/2025 to ULHG (UMHL) and CWIUH to extend rollout to the standalone maternity hospitals, thus covering 70% of births nationally and 60.5% of Neonatal Intensive Care Activity and in compliance with Sláintecare Strategic Action 10; extending the transformation of healthcare delivery and the realisation of the quantitative and qualitative benefits of the MN-CMS EHR. • Continued implementation, maintenance, and upgrade enhancements of the MN-CMS EHR throughout 2024 including operationally identified and prioritised change requests. • Phase III MN-CMS continued preliminary engagement.	Acute	• Irish SNOMED CT edition deployed to MN-CMS • MN-CMS bedside Device Integration delivered • Shared care messaging to GP enabled • MN-CMS bedside & Fetalink Integration upgrade completed • Data Centre Flip, Code Upgrade, and extension to 2 sites (Coombe and Limerick) • Legacy Solution at HSE Data Centres decommissioned	**R1**: ICT Capital budget constraints **R2**: Clinical Sites Implementation project team resource constraints **R3**: MN-CMS Vendor project team constraints
		3.8.2 CHI EHR	• Deploy enterprise EHR and all related Clinical Applications required to support opening of new hospital.	Acute	• Complete EHR Design and Configuration phase • Complete EHR Functional Testing phase • Complete EHR Integration Testing Phase • Initiate End User training for hospital opening	**R1**: Delays to construction schedule and hospital opening date **R2**: Delays in new equipment procurements, impacting on EHR design
		3.8.3 National Rehabilitation Hospital CMS	• Implementation of a Specialised Care Services Clinical Management system (CMS) for National Rehabilitation Hospital (NRH).	Community	• Full deployment completed and verified	None
		3.8.4 Palliative Care CMS (SCS-SMS)	• Implementation of a Clinical Management System (CMS) for Specialised Palliative Care Services. A single national instance	Community	• DGOU project sanction	**R1**: Project sanction and availability of funding **R2**: Availability of service resources

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
3. Digitally Enabled and Connected Care			of CMS will be implemented with an initial deployment to two hospices- Our Lady's Hospice & Milford Care Centre. It is intended to rollout the solution to all existing (14) and planned (3) Specialist Palliative Care sites in the future.		• Scope agreement on functionality/modules/reports and discovery complete and solution proposal sign off • Delivery approach & timelines • Contract negotiations and contract signed • Commence implementation across both sites	**R3**: Capacity to standardise processes and documentation across the sites
		3.8.5 EHR Business Case	• Development of Business Case, Requirements including procurement and Deployment Model for EHR, which includes the following: o Architecture o Market Soundings o Futures Scanning o International & Domestic Analysis • Governance Models for EHR procurement	CTTO	• Submission of Business Case for National EHR • EHR Governance Models for EHR procurement established	**R1**: eHealth Resources and funding required to develop business case not allocated via 2024 Service Planning **R2**: Scarce clinical & operational resources not available to support business case development
		3.8.6 Integrated Community Case Management System	• ICCMS is the implementation of a 'Communication and Information Case Management System', which will support the delivery of clinical care using standardised care pathways and integrated person-centred care across Community Healthcare settings and the wider Health economy.	Community	• Preferred Vendor Selected • Contract signed	**R1**: ICCMS Not Approved- There is a risk that ICCMS may not be approved at all governance levels. **R2**: Mandatory requirements cannot be delivered by any vendor- There is a risk that the mandatory requirements cannot be delivered by any vendor resulting in a failed procurement. **R3**: Lack of alignment to other Programmes- There is a risk of sub-optimal alignment of ICCMS with other programmes such as Residential Care, Home Support Services, Shared Care Record, etc. **R4**: Standardisation- There is a risk of contention on the standardised way of working, documentation, clinical and operational processes, due to divergent and embedded processes/ documents in place across community operations. This contention may pose challenges to design the new system and user adoption after go-live
	3.9 Digitisation of Health Care Records	3.9.1 Digitisation of Health Care Records	• This will be a comprehensive standardised data capture and digitisation platform, that will quickly deliver value, speed up digitisation within the healthcare system, and prepare essential groundwork for the introduction of EHRs. The platform will include an eForms solution developed in collaboration with Office of the Government Chief Information Officer (OGCIO).	CTTO	• eForms Platform • Data Structure Standardisation • Data Dictionary Support • Terminology Server • Reference Data Standardisation • Clinical Knowledge Modelling	**R1**: Resourcing (IT & Service) to support implementation of Clinical Terminology Server, Data Dictionary in advance of NSCR **R2**: Procurement timelines to procure components
	3.10 National Clinical Information Systems	3.10.1 Unscheduled and Emergency Care	Unscheduled & Emergency Care • Acute Floor Information System (AFIS) • Community First Responders (CFR) • NAS (National Ambulance Service) Proposals	Acute	• Acute Floor Information System (AFIS) go-live in the CUH Group, including provision of mobile devices to staff • AFIS ready for go-live in Beaumont in early 2025 • Completion of Symphony upgrades and DR (disaster recovery) solution • National register of AEDs (defibrillators) and CFR (Community First Responder) mobile app	**R1**: Significant challenges with access to the Emergency Dept and other acute hospital staff needed to progress AFIS. **R2**: Planning for the AED register, and CFR app has only commenced so 2024 delivery has yet to be confirmed as feasible. R2: Planning for the AED register, and CFR app has only commenced so 2024 delivery has yet to be confirmed as feasible. **R3**: Resource constraints
		3.10.2 Critical Care ICT	• The Critical Care Information System (CCiS) will provide a continuous, integrated electronic patient record which will support the information needs of the critical care environment and can be used by members of the multidisciplinary team caring for the critically ill patient. The CCiS is locally configurable and interoperable with key hospital and patient information systems and bedside medical devices. The	Acute	• Critical Care Information System (CCIS): implement in 3 sites Letterkenny (Saolta project closed), Connolly & Cavan (TBC). • ICU Bed Information System: Major Incident Development, integration with Mobile Intensive Care Ambulance Service (MICAS) and Paediatric development	**R1**: Recruiting and retaining required local, regional, and national resources. **R2**: Contention from other initiatives. **R3**: Delivery and Central Service (integrated care) restructuring **R4**: Supply chain issues

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
3. Digitally Enabled and Connected Care			Project(s) will implement a CCiS in 16 model 3 and 4 hospitals across 5 hospital groups (Saolta underway). • The CCiS interfaces with the National ICU Bed Information System, ICUBIS (28 sites) and the National ICU Clinical Audit System, ICUCAS-Infoflex (25 Sites). The Critical Care eHealth Programme supports the delivery of ICUBIS and Infoflex in collaboration with the National Office for Clinical Audit (NOCA). Support is also provided to deliver the Irish National Orthopaedic Register (INOR).		• ICUCAS-Infoflex: go live in 4 remaining phase 1, 2 and 3 sites. Project Close. • Nat Orthopaedic Register: Migrate to new National Audit Platform (NAP) and INORv2. Go live NAP and INORv2. MUH implementation.	**R5**: ICT Capital budget constraints; If planned contingent measures are not required, may have capacity to deliver above planned activity. **R6**: Access to clinical resources to complete required standardisation
		3.10.3 Cancer Care	• NCIS includes electronic prescribing of chemotherapy within hospitals, preparation lists for aseptic compounding units, worksheets and labelling associated with manufactured therapy, list management and outcome recording for cancer multi-disciplinary team meetings within or across hospitals and recording of tumour specific information. • Implementation includes 9 designated cancer centres and 17 other hospitals.	Acute	• IPM renumbering for LUH within NCIS (MPI and application components) • NCIS Go-lives at 6 hospitals (Sligo, UHL, WUH, UHW, PUH, TUH) • Training and configuration for 3 hospitals (Naas, CUH and MMUH). • Note: Site installation projects vary depending on hospital readiness. • Activation of interfaces from respective PAS to NCIS. • Augmentation of Citrix servers	**R1**: Availability of teams within hospitals **R2**: Speed of processing of matching has decreased as volume of messaging has increased. MPI changeover to improve speed **R3** Workflow transition from standalone BD Cato™ to NCIS BD Cato™ including gravimetric production
		3.10.4 PAS iPMS	• Ongoing implementations of iPMS patient administration solution, including: o LUH migration to Saolta instance of iPM o RVEEH & Loughlinstown under IEHG instance o Naas under TUH instance o Beaumont Hospital – stand-alone instance • Rollout of iPMS V8 across 10 instances • SMS 2-way texting rollout • eReferral rollout	Acute	• LUH onto Saolta iPM instance • RVEEH & Loughlinstown go live on iPM • Naas go live on iPM • Beaumont go-live on new standalone instance of iPM • Deliver V8 of iPM across 10 instances on iPM starting in mid-2024 • Rollout 2-way texting to further instances of iPM • Implement eReferrals across 10 instances of iPM	**R1**: Currently no risks to LUH project. **R2**: RVEEH- site have resources to start the project. Clear definition around the approach to the project in terms of migration, integration. Agreement as to what instance of iPM it goes onto. **R3**: Loughlinstown. Site have resources to start the project. Clear definition around the approach to the project in terms of migration, integration. Agreement as to what instance of iPM it goes onto. **R4**: Beaumont – have team in place. Dedalus have not fully managed a project like this for the HSE previously. **R5**: V8 go-live dependant on testing sign-off of newly delivered version. Pilot site identified and fully engaged. **R6**: Sites signing up to SMS and progressing the rollout themselves post pilot implementation on an iPM instance **R7**: Sites taking on eReferrals.
		3.10.5 Endoscopy	• Procure and replace Endoscopy Electronic Reporting Systems (ERS) in 29 hospitals	Acute	• Design, build and test for ERS • Implement in first site • Complete 3 site migrations for Unisoft sites	**R1**: Resource constraints **R2:** Reliant on-site engagement
		3.10.7 Home Support Case Management & eRostering	• A case management and eRostering system for Home Support Services that enables day to day assignment and delivery of home help services through management of referral, assessments, care plans, staff rostering, audit and reporting.	Community	• Complete stage 1 Competitive Dialogue procurement • Progress stage 2 Competitive Dialogue procurement • Acquire project approval to commence contracting and implementation • Complete rollout of Smartphones to HCAs	**R1**: Permission to tender and project approval may not be given. **R2**: Key staffing resources are freed up to progress procurement. **R3**: Procurement timelines may take longer than anticipated. **R4**: Resistance from Trade Unions may impact smartphone rollout.
		3.10.8 Enhanced Community Care	• Interim ICT solution(s) to support the Enhanced Community Care Programme, including Community Health Networks, Integrated Care Programme for Older Persons and Integrated Care Programme for Chronic Disease Management.	Community	• TBD	**R1**: TBD

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
3. Digitally Enabled and Connected Care		3.10.9 interRAI Assessment Tool	• The InterRAI Assessment Tool is to facilitate assessment of care needs for clients availing of care services from the HSE. It will enable a standardised care needs assessment process, initially focussing on those with more complex needs.	Community	• Complete go-live of last remaining Phase I CHO- CHO3 • Complete Phase III of the InterRAI rollout. Phase III scope is IHI integration, configuration, and testing of the interRAI Palliative care assessment, Check-up assessment, Acute care assessment and the Resource Utilisation Group (RUG) drilldown.	**R1**: Target delivery time for phase III towards the end of 2024 but may take longer depending on the outcome of testing.
		3.10.10 National Dental Patient Record & Information System	• The National Dental Patient Record and Information System will replace the existing National Dental System which will be unsupported by the vendor end of Q1 2024	Community	• Complete contracting for new solution • Commence Configuration and Roll Out	**R1**: Upgrade to existing vendor's new solution is not approved by procurement/legal and there is a requirement to undertake a procurement process which will significantly lengthen the timeline **R2**: Withdrawal of support on the existing system (March '24) if alternative vendor needs to be sought **R3**: Availability of service resources.
		3.10.11 Adult Safeguarding	• The National Safeguarding Office (NSO) commissioned a Case Management and Concern Logging system to support the Safeguarding Protection Teams (SPT) in their work of providing a person-centred service for the adults at risk of abuse.	Community	• UAT Complete • Data migration complete • Training and system go-live across CHOs • Plan rollout to external agencies	**R1**: Final decision on go-live approach needs to be agreed. Depending on what is agreed may impact on timelines. **R2**: Data migration may impact on go-live depending on data quality, completeness etc. **R3**: Data sharing requirement with external agencies is complex and needs to be addressed. This may have an impact on the rollout plan.
		3.10.12 CAMHS System	• Implement an interim National Child and Adolescent Mental Health Service (CAMHS) system to provide a more efficient, effective service for children and young people receiving mental health services. The enhanced reporting capability will also improve the monitoring of KPIs and contribute to overall service improvement.	Community	• Complete contract negotiations and contract signed • System configured and implementation commenced	**R1**: Mental health staffing resources: there are significant resourcing gaps in CAMHS teams nationally which may delay/hamper engagement with the project. **R2**: Service Appetite in the CHO's for an interim system
		3.10.13 Children's Disabilities Network Teams IMS (CDNTIMS)	• To provide a single, national, uniform information system for the administration of disability services to children with disabilities by 91 Children Disability Network Teams (CDNTs) made up of over 2,200 HSE and Section 38/39 staff. The solution will include functionality to replace the existing Assessment of Need (AoN) and National Day Services (NDS) systems.	Community	• CDNT data migration and go-live Complete • AoN system go-live • NDS system go-live	**R1**: Delay to DPA sign off between Section 38/39 Agencies and HSE may impact/delay data migration and CDNT go-live on CDNTIMS. **R2**: Industrial action in both HSE and Section 38/39 Agencies may impact/delay data migration and CDNT go-live on CDNTIMS. **R3**: Vendor may have insufficient resources available to meet timelines. Vendor will need to scale up resources required to maintain timelines. **R4**: CDNT resources available – there are significant resourcing gaps in Children Disability Network Teams nationally which may delay/hamper engagement with the CDNTIMS project. **R5**: Progressing Disability Services Program (PDS) processes are not embedded in all Children Disability Network Teams work processes. CDNTIMS functionality is developed based on PDS processes which may not align with some Children Disability Network Teams work processes leading to a lack of engagement or use of the system.

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
4. Data Driven Service and Capacity Management	4.1 Patient Journey Analytics	4.1.1 Patient Flow System	• A digital system that provides a visualisation of the patient journey will allow the SSWHG & TUH to manage patient flow in real time, assist staff information and communication processes, and standardise data capture.	Acute	• SSWHG to complete tender process and signed contract • Implementation in CUH, Bantry, Mallow, TUH	**R1**: Hosting solution to be agreed- Vendor or HSE **R2**: Resource constraints
	4.2 Healthcare Data Analytics	4.2.1 Health Performance Visualisation Platform (HPVP) Phase 2	• Health Performance and Visualisation Platform (HPVP): a single software approach to the provision of information relating to sustainable improvement in access performance across health and social systems	IIS	• HPVP Tender complete • Further implementation of HPVP across acute hospitals • Support the hospitals to maximise the benefit of the platform	**R1**: Lack of data and process standardisation within source systems. **R2**: The voluntary sector is recognised as a key stakeholder of the HPVP programme and any delays in on boarding these sites will significantly impact the programme. **R3**: Resource constraints within the programme and across the hospitals. **R4**: Reliance on third parties to provide required infrastructure and integrations.
	4.3 Integrated Referral Management	4.3.1 Electronic Referrals-A2I Integration	• Programme to enable electronic referrals via HealthLink for Primary Care Clinicians to Acute, Community, Public Health and Screening Services to support integrated and scheduled care for patients by modernising the existing General and Specialists Referrals and delivering new specialist referrals as prioritised by the COO, CCO and Scheduled Care.	A2I	• National High Risk Non-Melanoma Skin Cancer Specialist eReferral • NCCP Prostate Cancer Changes • Specialist eReferrals x5 • NCCP Lung Cancer Specialist Referral • Community eReferrals National Rollout • GP eReferrals to TUH (Radiology, OPD letters, Triaging)	**R1**: If the required skilled / experienced staff are not available, then fewer eReferral solutions will be delivered
	4.4 Scheduling, Rostering & Resource Management	4.4.1 Safe Nurse Staffing & Skill Mix	• The Framework for Safe Nurse Staffing and Skill Mix requires that patient acuity and dependency are modelled on Nursing Hours per Patient Day (NHpPD) Patients, with a higher level of acuity or dependency require a higher level of NHpPD. • TrendCare is a Patient Acuity and Dependency System which is currently deployed to 5 Model 4 hospitals Beaumont, St. James's, UHG, UHL, Mater, CUH, James's, UHG, UHL and UHW. The system is also deployed across the initial pilot sites in OLOL and St. Colmcille's.	Corporate	• Finalise implementation, training, and deployment in St. Vincents and Cork University Hospital • Deployment in Tallaght University Hospital and MMUH	**R1**: There will be on-going business support and engagement required to deploy to additional Model 4 hospitals. **R2**: The business needs to have the funding in place to meet the cost of the incremental support and maintenance charges. **R3**: The full business benefits might not be reached due to funding only being available to deploy to the remaining Model 4 hospitals, when the business wants to extend this rollout to Model 3s
		4.4.2 Scheduling & Rostering of Healthcare Staff	• An eRostering system to provide an efficient, safe and effective digital roster platform to meet workplace scheduling demands.	Corporate	• A series of tenders against an existing HSE eRostering DPS • Progress the deployment of eRostering across the six Health Regions	**R1**: There is a risk that hospitals may not be able to meet the recurring revenue costs that will come with an eRostering solution. **R2**: There is a risk that the hospitals will have insufficient resources to deploy and support the adoption of new eRostering solution.

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
5. Digital Health Ecosystem and Innovation	5.2 Healthcare Research	5.2.1 National Electronic Research Management System (NERMS)	• Healthcare Research will create a research-friendly environment within the healthcare sector. This initiative focuses on facilitating the use of healthcare data, in a safe and secure way for secondary research purposes, ensuring researchers have access to the necessary resources, infrastructure, and guidance to conduct their studies.	Corporate	• Implementation of a digital research solution with modular core functionalities to enable the implementation of the HSE National Framework for the Governance, Management and Support of Health Research (RGMS Framework).	**R1**: There is a risk of having insufficient resource dedicated to progress the solution.
	5.4 Open Innovation & Ecosystem	5.4.2 Small Solutions	• Acute Track & Trace- Surgical Instruments. This project will upgrade server infrastructure and the application for all Track & Trace acute sites and support a PoC in two sites to assess the suitability of the application to track class 3 implants in line with recent legislation. The application currently tracks usage of surgical instruments through Theatre and CSSD in 52 acute sites.	Acute	• Upgrade and Implementation completed in 52 sites.	**R1**: Limited resource availability in each site to engage and support project. **R2**: PoC may not satisfy MDR requirements. **R3**: All Hospitals may not be able to support cost of PoC solution **R4**: Competing priorities within sites may affect implementation.
			• NACMS – rollout in Acute sites. This project will complete the rollout of clinical management system for audiology services in Ireland across Acute and Community Audiology services and will be utilised by both community care and acute care staff. At its core it will be a complete audiology patient clinical record which is fully integrated with an administration system covering all aspects of service delivery. Currently live in 9 CHOs, this stage of the project will now continue to rollout in the Acute setting	Acute	• Patient identify solution clarified and developed by vendor. • Alignment of audiology services across acute and community services and result of CHO9 audiology pilot available.	**R1**: Limited audiology staff available to engage with project. **R2**: Cost of solution may be prohibitive for service. **R3**: Competing priorities may affect implementation.
			• Dental Imaging: a centralised National Dental Imaging solution providing a stable environment which will support the migration of images from the 100+ separate site databases.	Community	• Migration of the 100+ sites to the new stable environment 75% complete	**R1**: Capability of the service & vendor to support the migration from 100+ separate site image stores may impact on the timeframe leaving some less stable/secure standalone imaging databases in use for a longer period.
			• Quit Manager: Implementation of a National Behavioural Support Management System for all HSE Smoking Cessation Support Services to facilitate patient tracking, KPI reporting of inputs and outcomes, electronic referrals, and the facilitation of National Standard Treatment Programmes for Smoking cessation support.	Community	• Integration with Quit.ie, NM-CMS and HealthLink • Reporting from the Quit Manager System	**R1**: Ability of the vendor to fully deliver on integration for the Tobacco Free Ireland Campaign programme requirements. **R2**: Ability of the vendor to fully deliver on the integration for Stop Smoking campaign to expectant mothers who need the support
			• Workstation On Wheels (WOWs) & Medical Carts: Equipment required to support the adoption and use of the new SCS-CMS system in NRH & NFMHS. The equipment will allow real time access & updates to patient data at the point of care in an infection prevention and controlled manner.	Community	• Establish a Dynamic Purchasing System (DPS) for WOWs & Medical Carts and finalise drawdown for NRH & NFMHS • Equipment installed in the 2 sites	**R1**: Availability of funding in a timely manner to ensure ability of clinicians to enter real time patient data at point of care

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
6. Digitally Secure Foundations and Digital Enablers	6.2 Patient Identity Management	6.2.1 Rollout Patient Identifiers & Master Patient Index	• Integrate with several strategically prioritised 'consumer' eHealth systems. Maintain and manage the integrity of the IHI by introducing trusted sources of Patient Demographics and gathering multiple Object Identifiers (OIDS).	A2I	• IPMS: Downstream systems – inform and support • Non- IPMS Hospitals —Acute: o CHI dependent on hospital go live o Nass General hospital o St Columcille's o Beaumont Hospital o Royal Victoria Eye and Ear Hospital o St Vincent's University Hospital • Pharmacy system: o McLernons pharmacy system o Clanwilliam pharmacy system o Touchstore pharmacy system • ICCMS – dependent on system Go Live • National Safeguarding	**R1**: Lack of agreed governance structure **R2**: Lack of availability of resources with the expertise required to successfully deliver this project **R3:** Competing demand priorities
		6.2.3 Consent and Audit Services	• Consent and audit service ensures all interactions and explicit management of consent are captured and audited. This also supports delegated consent scenarios, including acting on behalf of a patient or service user as a carer or guardian.	A2I	• Consent register delivered for Organ Donation Transplant Ireland (ODTI) with an online Opt-Out Register. • Enable ODTI office to facilitate opt out registrations received by phone or in paper format and to provide a facility for ODTI to record such registrations electronically. • Facility to search ODTI information on the register to determine if a family may be approached to discuss organ donation.	**R1**: The project may fail to meet legislative requirements under the Human Tissue Bill (once enacted) **R2**: The project scope may increase as the project progress. **R3**: Lack of availability of resources with the expertise required to successfully deliver this project.
	6.3 Healthcare Worker Identity & Access Management	6.3.1 National Single Sign-on Rollout	• Single Sign On (SSOn) is the ability for a system user to authenticate once to a single authentication authority and then access other protected resources without reauthenticating. SSOn is described as a software that authenticates a set of user security credentials and subsequently passes these credentials onto the applications on the device removing the need to re authenticate. SSOn has reduced the number of keystrokes and clicks required to perform tasks and eliminated the need for complex passwords which have become an anathema to clinicians.	Acute	• Deployment in 7 sites, phase 1 go live- Beaumont, CUMH, Galway, NMH, Rotunda, NFMHS, NRH. • Procurement process for Phase 2 mini competition to commence. SSOn Centre of Excellence established, Cork, Sligo, LUH, Cavan, Tralee, St. James's, St. Vincent's, The Coombe	**R1**: Risk of the sponsor withdrawing all or part of project funding due to budget limitations. **R2:** Risk of ICT resources not made available from existing hospitals to support the SSOn project. **R3**: Risk of reliance on HSE/ 3rd party infrastructure integral to delivering the SSOn project. **R4:** Risk of competing priorities; a site may not be able to fully roll out SSO within the 12 months valid period for licenses due to licenses being paid for in advance of roll out.
	6.5 Culture, Change and Agile Delivery	6.5.1 Establish Transformation Management Office	• Formation of a Digital Health Transformation Office (TMO), reporting to the CTTO, to manage delivery of the transformation activities of the 2024-2030 Digital Health Strategic Implementation Plan	CTTO	• Assessment of current capabilities • Establish Transitional Operating Model for CTTO/eHealth orgs • Agile Delivery- 'Change the way we Change' • Creation of a Transformation Change Oversight Office • Appropriate tools in place to support scale of programs for delivery	**R1**: TMO resources not assigned via 2024 service planning process. **R2**: HSE Centre / Health Region Governance and Operating Models not yet defined.
	6.7 Integration, Interoperability and Data Engineering	6.7.3 EU Open NCP	• The purpose is to enable seamless cross-border care and secure exchange of patient information in the form of ePrescriptions and Patient Summaries between participating Member States in accordance with the Cross-Border Directive 2011/24/EU.	Standards & Shared Care Records	• Exchanging Country B Patient Summary • Exchanging Country B eDispensations • Complete DG Sante Audit- independent assessment of HSE capabilities for EHDS	**R1**: DG Sante Audit findings identifying areas of concern. **R2**: Lack of structured coded health data to exchange with EU **R3**: Poor vendor relationship

Principle	Initiative	Programme	Definition	eHealth Portfolio	2024 Deliverables	Risks
6. Digitally Secure Foundations and Digital Enablers	6.10 Foundational Infrastructure	6.10.1 Network & Communications	• Annual network refresh required to enhance security, enable priority services, and deliver new services • Implement network management tools to deliver Security & Performance Mgmt, enable threat/issue detection & resolution • Progress Cloud Direct Network connectivity (Microsoft Azure and Amazon Web Services) • Enable Cloud Applications performance & security (HPVP, Covid-19 Reporting, Call Centre Applications) • Internet Infrastructure 3.0 - capacity and capability build • Refresh legacy telephony equipment • Enable Sláintecare mobility in the Community • Community enablement	Technology Office	• Additional network and telephony infrastructure to meet new business requirements for delivery of programmes and increased BAU. • Address cyber security requirements through implementation of Network management platform, to enhance asset management and network monitoring. • Enhance Internet Infrastructure to deliver digital organisation, through increased capacity and modern hardware.	**R1**: Inability to deliver strategic programmes due to lack of capacity **R2**: Weakness in cyber security posture due to poor operational management framework. **R3**: Internet Connectivity not in line with business requirements, resulting in clinical risk and poor user experience

		6.10.2 Refresh Current Technology & Devices	• Device refresh – Community, BAU, Peripherals
			• Modernise and standardise HSE device pool by upgrading all devices with SSD and 8GB RAM for blended working models and improved cybersecurity
				Technology Office	• Ongoing device refresh BAU and Community enablement
					• Upgrade and replace devices & peripherals for continued service delivery and security requirements. Provide devices at pace to support the replacement of out of warranty (>5yr+) units and provide devices & Peripherals to support Primary Care and Mental Health units
					  ○ 2,725 Devices EOL [60% Desk-tops / 40% Laptops]
					  ○ 2,600 Desktops to support Primary Care and Mental Health units
					  ○ 6k devices for new starters and services
					• 5k SSD +/- RAM upgrades
						R1: Risk to reliability of the estate of End-of-Life devices
						R2: Risk to security of the estate of devices that can't patch

		6.10.3 Voluntary Network & Technology Sustainment	• St Luke's infrastructure refresh	Technology Office	• Complete refresh of legacy technology at St Luke's Hospital	**R1**: Risk to service availability and cyber security due to legacy technology.
		6.10.5 Technology Security Control & Governance	• Technology Security Control & Governance for Mobile, Network and Server technologies	Technology Office	• Additional End Point Protection for Servers • Implementation of SIEM for Servers • Data Management Controls (backup, recovery)- Phase 2 of Cyber Vault implementation. • Out of Band Communications – provide service continuity • Email Controls – additional protection added and continuity functionality	**R1**: Weaknesses in the security management of the estate resulting in cyber breach **R2**: Reduced continuity capability in the event of a major incident. R3: Recoverability capability not in line with business requirements.
		6.10.6 CHI ICT	• This programme encompasses both the NCH ICT infrastructure workstream of multiple projects to enable opening of the NCH and the ICT corporate systems workstream rollout for CHI.	Technology Office	• Core Infrastructure & Network deployed in new NCH building. • All Client ICT systems deployed for commissioning.	**R1**: Delays to construction schedule and hospital opening date. **R2**: Delays in Lab equipment, Clinical Engineering, and Clinical systems procurements impacting ICT infrastructure scope.

Table 18. ***2024 Capital Budget Programmes - Definitions, Deliverables & Risks***

Appendix 4 – 2024 Programmes by Funding Source

For reference the following table shows a more holistic view of programmes being progressed as part of the Digital Strategic Health Implementation Plan during 2024. Programmes in this table highlighted in colour are progressing in 2024, programmes with a clear background are being progressed in subsequent years. This information is provided for context, to show the broader picture, and is included in this document for your reference only.

Principle	Initiative	Programme[2]	eHealth Portfolio	2024 Funding
1. Patient as an Empowered Partner	1.1 Patient Portal	1.1.1 Patient Portal	A2I	Revenue Only
	1.2 Patient App	1.2.1 Health App	CIO	Capital & Revenue
	1.3 HSELive - Contact Centre	1.3.1 HSELive Contact Centre	Corporate (HSE Comms)	Revenue Only
	1.4 Patient Feedback Platform	1.4.1 Patient Feedback Platform	CIO	Revenue Only
	1.5 Remote Care Monitoring & Digital Therapeutics	1.5.1 Virtual Ward Model of Care	Community	Capital & Revenue
	1.6 Telehealth	1.6.1 Telehealth	Community	Revenue Only
	1.7 Benefits & Schemes	1.7.1 Nursing Homes & Home Support	Community	Capital & Revenue
	1.8 Public Facing Engagement & Digital Literacy Development Programmes	1.8.1 Public Facing Engagement & Digital Literacy Development Programmes	Community	None
	1.9 Public Website Content Management	1.9.1 Public Website Content Management	Corporate (HSE Comms)	Capital & Revenue
	1.10 Open Health API	1.10.1 Open Health API	CTTO	None
	1.11 Contact Care Platform	1.11.1 Care Connect Platform	Corporate (HSE Comms)	Capital & Revenue
2. Digitally Enabled Workforce and Workplace	2.1 Reliable Secure Connectivity	2.1.1 Enterprise Wireless Network	Technology Office	Capital & Revenue
	2.2 Modern Workspace & Productivity Tools	2.2.1 Office 365 Rollout	eHealth COO	Revenue Only
	2.3 Digital Finance and HR	2.3.1 Integrated Financial Management System	Corporate	Capital & Revenue
		2.3.2 National Integrated Staff Records and Payroll	Corporate	Capital & Revenue
	2.4 Improve Employee Experience	2.4.1 Healthcare Worker App	Corporate	Revenue Only
		2.4.2 Employee Experience Improvement	Corporate	None
		2.4.3 National Estates Information System	Corporate	Capital & Revenue
	2.5 Mobile Ecosystem for Front Line	2.5.1 Mobile Ecosystem for Front Line	Technology Office	None
	2.6 Employee Feedback Platform	2.6.1 Employee Feedback Platform	Corporate	None
3. Digitally Enabled and Connected Care	3.1 Shared Care Record	3.1.1 National Shared Care Record (NSCR)	CIO	Capital & Revenue
		3.1.2 Primary Care Integration to support NSCR	A2I	Capital & Revenue
	3.2 Population Health Management	3.2.1 Vaccination & Immunisation	Public Health	Capital & Revenue
		3.2.2 Outbreak Management	Public Health	Capital & Revenue
		3.2.3 Surveillance	Public Health	Capital & Revenue
	3.3 Care Coordination	3.3.1 Scheduling & Appointment Management	Acute/Community	Revenue Only
	3.4 Medication Management	3.4.1 Hospital Medicines Mgmt. System (HMMS)	Community	Capital & Revenue
		3.4.2 ePrescribing/eDispensing	Community	Capital & Revenue
		3.4.3 Medicinal Product Catalogue	Community	Capital & Revenue
	3.5 Diagnostics	3.5.1 Imaging Diagnostics	Acute	Capital & Revenue
		3.5.2 Medical Laboratories	Acute	Capital & Revenue
	3.6 Order Comms & Care Delivery	3.6.1 Order Comms	Acute	Capital & Revenue
	3.7 Patient Safety & Quality of Care	3.7.1 National Electronic Blood Track	Acute	Capital & Revenue
	3.8 EHR Procurement & Delivery	3.8.1 Maternity & Newborn EHR	Acute	Capital & Revenue

[2] Highlighted rows are capital-funded in 2024

Principle	Initiative	Programme[2]	eHealth Portfolio	2024 Funding
3. Digitally Enabled and Connected Care		3.8.2 CHI EHR	Acute	Capital & Revenue
		3.8.3 National Rehabilitation Hospital CMS	Community	Capital & Revenue
		3.8.4 Palliative Care CMS (SCS-SMS)	Community	Capital & Revenue
		3.8.5 EHR Business Case	CTTO	Capital & Revenue
		3.8.6 Integrated Community Case Mgmt System	Community	Capital & Revenue
	3.9 Digitisation of Health Care Records	3.9.1 Digitisation of Health Care Records	CTTO	Capital & Revenue
	3.10 National Clinical Information Systems	3.10.1 Unscheduled and Emergency Care	Acute	Capital & Revenue
		3.10.2 Critical Care ICT	Acute	Capital & Revenue
		3.10.3 Cancer Care	Acute	Capital & Revenue
		3.10.4 PAS iPMS	Acute	Capital & Revenue
		3.10.5 Endoscopy	Acute	Capital & Revenue
		3.10.6 External Project Implementation Services	eHealth COO	Revenue Only
		3.10.7 Home Support Services Case Management & eRostering	Community	Capital & Revenue
		3.10.8 Enhanced Community Care	Community	Capital & Revenue
		3.10.9 interRAI Assessment Tool	Community	Capital & Revenue
		3.10.10 National Dental Patient Record & Info System	Community	Capital & Revenue
		3.10.11 Adult Safeguarding	Community	Capital & Revenue
		3.10.12 CAMHS System	Community	Capital & Revenue
		3.10.13 Children's Disabilities Network Teams IMS (CDNTIMS)	Community	Capital & Revenue
	3.11 Medical Device Integration	3.11.1 Medical Device Integration	Acute/Community	None
4. Data Driven Service and Capacity Management	4.1 Patient Journey Analytics	4.1.1 Patient Flow System	Acute	Capital & Revenue
	4.2 Healthcare Data Analytics	4.2.1 Health Performance Visualisation Platform (HPVP) Phase 2	IIS	Capital & Revenue
		4.2.2 Health Data Analytics Dashboards	IIS	Revenue Only
	4.3 Integrated Referral Management	4.3.1 Electronic Referrals-A2I Integration	A2I	Capital & Revenue
	4.4 Scheduling, Rostering & Resource Management	4.4.1 Safe Nurse Staffing & Skill Mix	Corporate	Capital & Revenue
		4.4.2 Scheduling & Rostering of Healthcare Staff	Corporate	Capital & Revenue
5. Digital Health Ecosystem and Innovation	5.1 Precision Medicine Support	5.1.1 Precision Medicine Support	CTTO	None
	5.2 Healthcare Research	5.2.1 National Electronic Research Management System (NERMS)	Corporate	Capital & Revenue
	5.3 AI in Healthcare	5.3.1 AI in Healthcare	CTTO	None
	5.4 Open Innovation & Ecosystem	5.4.1 Open Innovation & Ecosystem	CTTO	Revenue Only
		5.4.2 Small Solutions	Acute/Community	Capital & Revenue

Principle	Initiative	Programme[2]	eHealth Portfolio	2024 Funding
6. Digitally Secure Foundations and Digital Enablers	6.1 Legislation, Regulation, Standards, Governance	6.1.1 Legislation, Regulation, Standards, Governance & Guidelines	CTTO	Revenue Only
	6.2 Patient Identity Management	6.2.1 Rollout Patient Identifiers & Master Patient Index	A2I	Capital & Revenue
		6.2.2 Consent & Audit Services - Policy & Guidance	CTTO	Revenue Only
		6.2.3 Consent and Audit Services	A2I	Capital & Revenue
	6.3 Healthcare Worker Identity & Access Management	6.3.1 National Single Sign-on Rollout	Acute	Capital & Revenue
		6.3.2 Identity Management – HealthIRL	Technology Office	Revenue Only
	6.4 Architecture, Service Design & Knowledge Mgmt	6.4.1 Transformational Architecture	CTTO	Revenue Only
	6.5 Culture, Change and Agile Delivery	6.5.1 Establish Transformation Management Office	CTTO	Capital & Revenue
	6.6 Talent Identification and Development	6.6.1 Talent Identification and Development	eHealth COO	Revenue Only
	6.7 Integration, Interoperability and Data Engineering	6.7.1 Data Strategy Roadmap	CTTO	Revenue Only
		6.7.2 Integration & Interoperability	A2I	Revenue Only
		6.7.3 EU Open NCP	Standards & Shared Care Records	Capital & Revenue
	6.8 Crisis-Ready Healthcare	6.8.1 Crisis-Ready Healthcare	eHealth COO	None
	6.9 ICT Cyber Programme	6.9.1 Foundational Technology Uplift - Voluntary	Technology Office	Revenue Only
		6.9.2 Foundational Technology Uplift - HSE	Technology Office	Revenue Only
		6.9.3 Threat & Vulnerability Management - Voluntary	CISO	Revenue Only
		6.9.4 Threat & Vulnerability Management - HSE	CISO	Revenue Only
		6.9.5 HSE Cyber Security Strategy	CISO	Revenue Only
		6.9.6 Prioritised & New Cyber Initiatives	CTTO	Revenue Only
	6.10 Foundational Infrastructure	6.10.1 Network & Communications	Technology Office	Capital & Revenue
		6.10.2 Refresh Current Technology & Devices	Technology Office	Capital & Revenue
		6.10.3 Voluntary Network & Technology Sustainment	Technology Office	Capital & Revenue
		6.10.4 Data Centre & Cloud Services	Technology Office	Revenue Only
		6.10.5 Technology Security Control & Governance	Technology Office	Capital & Revenue
		6.10.6 CHI ICT	Technology Office	Capital & Revenue
	6.11 Regional Strategic Implementation	6.11.1 Regional Strategy Implementation	CTTO	Revenue Only
	6.12 24/7 Support Function	6.12.1 24/7 Service Support	CSE	Revenue Only

Table 19. ***Initiatives and Programmes Progressing in 2024 by Funding Source***

Appendix 5 - Reference

Description	Link
Healthy Ireland Strategic Action Plan 2021 - 2025	https://assets.gov.ie/134507/057dfa34-491f-4086-b16a-912cf1e3ad06.pdf

Table 20. ***Public Document References***