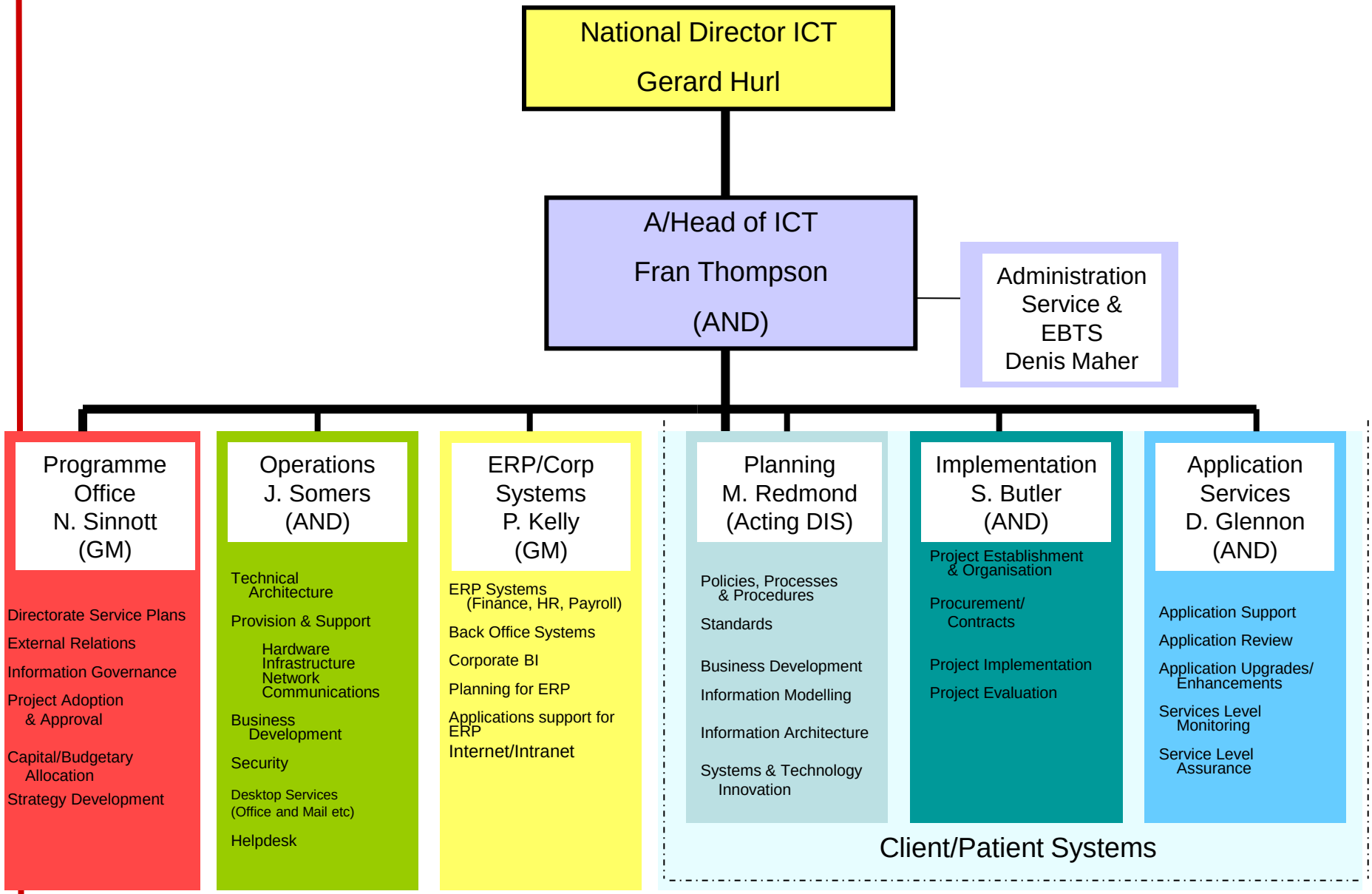
ICT Directorate
Ireland

“A lot of what we "know" about other nations' approach to health care is simply myth.
T.R. Reid

ICT in Healthcare

- Fundamental to ensure in high performing, best practice health systems
- Embedded in the delivery of patient diagnosis, treatment and care
- Prime driver of significant and continuous improvements in efficiency effectiveness and quality / safety of patient services
- Pervasive in the diagnosis, treatment and care of patients
- Fundamental for business support and assurance requirements at corporate functions level (Finance, HR etc.)
- Essential support to performance management of the healthcare system
- Central to strategic, management & operational development, planning and control.
- Critical & differentiating enabler of organisational transformation and development
- Critical to production of population health and associated data - policy formulation at national level

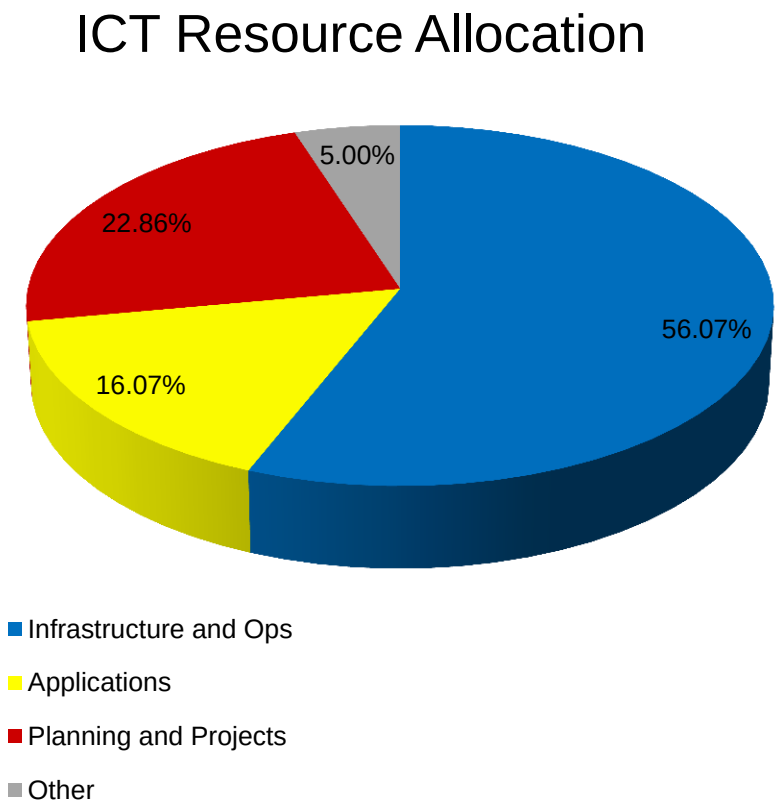
ICT Senior Management Assignments



Current Status - Overview

- The Information Communications and Technology (ICT) Directorate has responsibility for the delivery of ICT services, projects and support across the HSE.
- ICT within the HSE accounts for 0.085% of total expenditure.
- 2012 Total projected ICT expenditure is €116 million
  - Revenue €93.3m
  - Salaries €22.50m
  - Capital €20.00m
- Staffing 280 (+120 Voluntaries)
- 293 Capital projets/initiatives items
- Supporting 95,000 Staff, 50,000 devices, 1750+ Systems

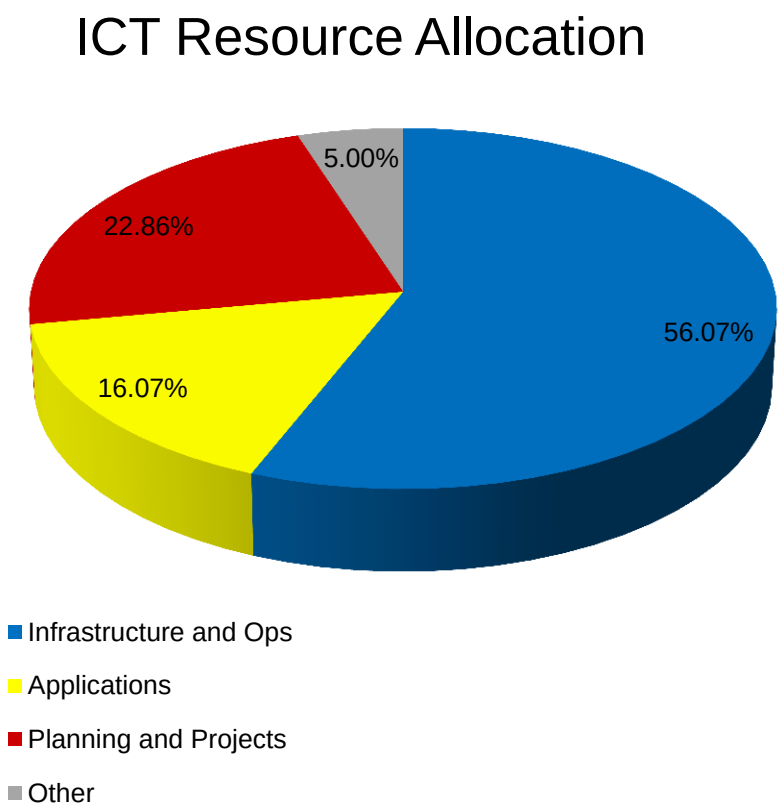
Applications and Infrastructure



- **Infrastructure (157 WTE)**
  - 45,000 devices supported
  - 1 National Data Centre
  - 7 Regional Data Centres
  - Help Desk – First and Second level Network 2400+ locations
  - Phone PABX and Mobile support
  - 374 Applications
  - Infrastructure projects (Data Centre, Ambulance, Telecoms, PCT Infrastructure)

- **Application Support (45 WTE)**
  - 727 HSE Applications (20 HSE Red risk 23 Vol's Red Risk)
  - 8 Regional support Centres
  - Upgrades and Support
  - Vendor Management
  - Consolidation of Applications
  - Data Mining

Capital Projects 2012 Work Plan



- **Planning and Projects (64 WTE)**
  - 293 in total
    - 89 Major Projects
    - 204 Minor Projects
  - Major Projects Include:- NIMIS, IPMS, Endoscopy, RIMD Track and Trace, Blood Track, Kidney Disease Clinical Patient Management, Ambulance CAD, MedLIS, NCCIS, New Born and Maternal, EHIS, SAT, GP Referrals
  - Minor Projects – (Infrastructure)
- **Peer Review Projects**
  Blood Track, NCCIS, MedLis, New Born

Sanction of ICT expenditure is biased Towards Acute Sector

Quality of Life

ICT Spend Category	Total	% of Total
Acute	28,522,828.47	72%
Ambulance	2,821,301.13	7%
Corp	857,034.00	2%
Infra	2,879,961.49	7%
Primary	4,573,173.03	12%
Grand Total	39,654,298.12	100%

Health and Wellbeing | Home Care | Residential Care | Acute Care

Cost of Care

ICT Strategy and E-Health Strategy

- ICT Strategy developed to support and enable the provision of optimum quality healthcare
  - Approved by HSE Management Team Oct 2011
  - Approved by HSE Board Dec 2011
  - Currently under consideration by DOH
  - Requires an Implementation plan
  - Pursuing the key components in the interim
    - Isoft PAS, NIMIS, MedLIS, Endoscopy, Cost Reductions PABX, Infrastructure PCT's

- **E-Health Strategy** development in conjunction with DOH in preparation for the EU Presidency 2013.

Key Messages ICT Strategy

- Delivery the core systems in Acute Hospitals as foundation for the Electronic Health Record
- Invest in Primary Care and non acute care in order to improve integration across the Health Services
- Support the delivery of the clinical programmes through the enabling technologies
- Delivery of national corporate support systems
- Support regional and local initiatives where appropriate
- Rationalise Infrastructure and reduce the number of applications where opportunities arise

Short - Medium Term Objectives

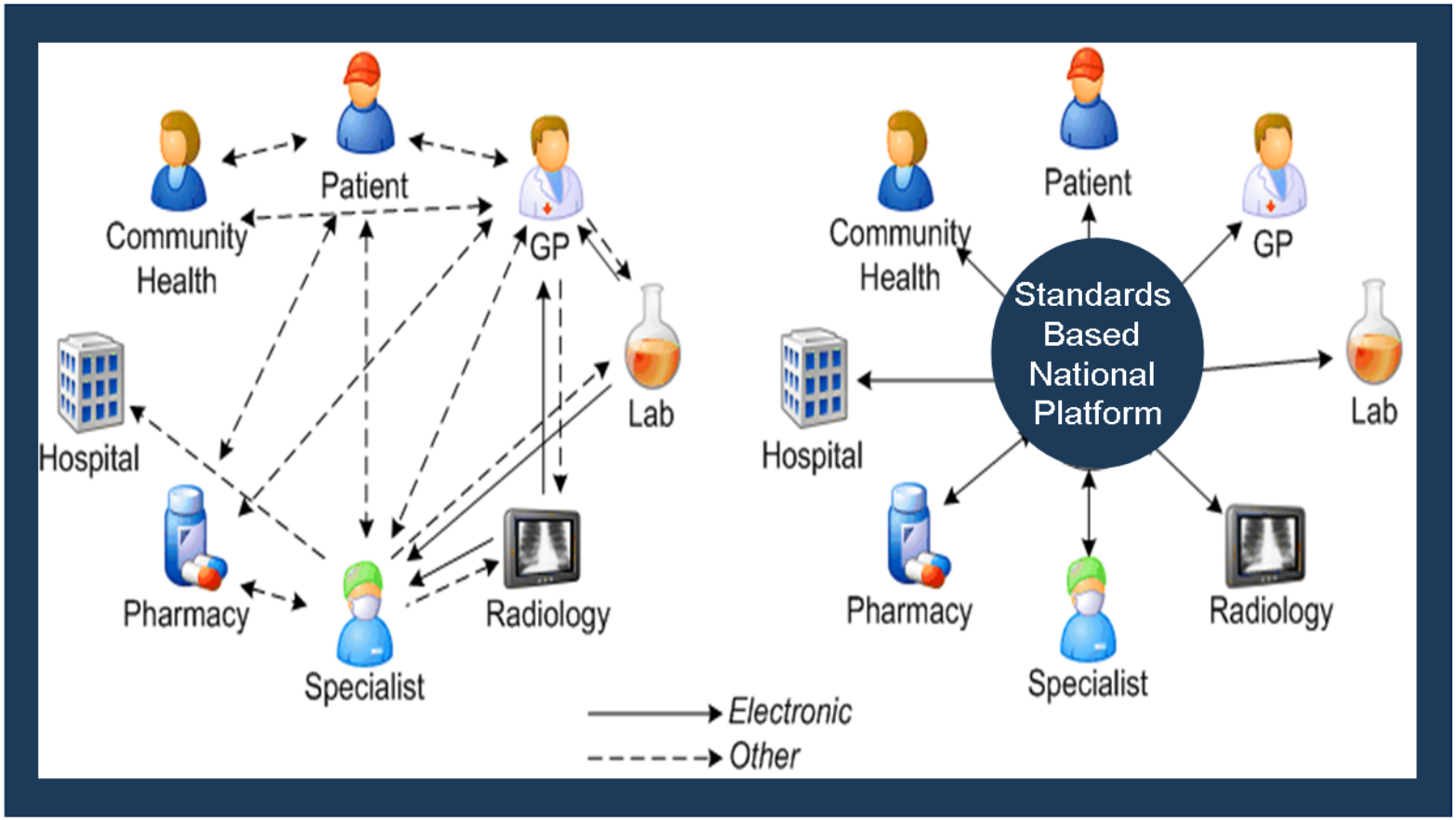
- Systems Initiatives/ Applications
  - Major business development programmes
  - Development and support of regional /local initiatives
- Infrastructure

  Definition, specification and implementation
  - Systems, information, technology and communications architecture model
  - Networking, data management and communications infrastructure
- Capacity

  Develop the capacity, skills and resources
  - Maximise the potential of ICT in the provision of optimum patient care, developing and supporting strategic, organisational and service delivery objectives
- Service Orientation

  Deliver a business led, service driven approach to the provision of ICT services.

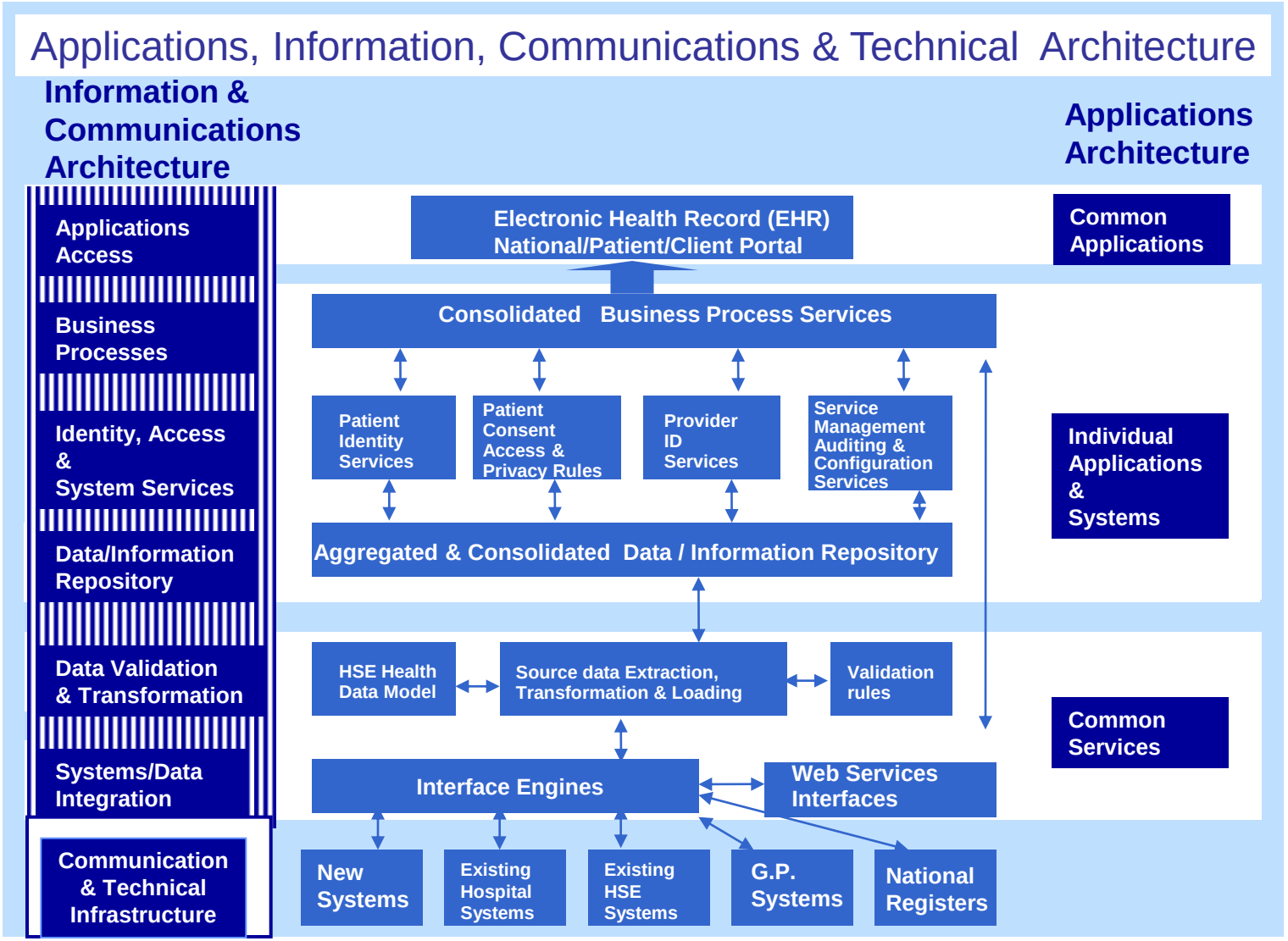
The Challenges in realising the Vision



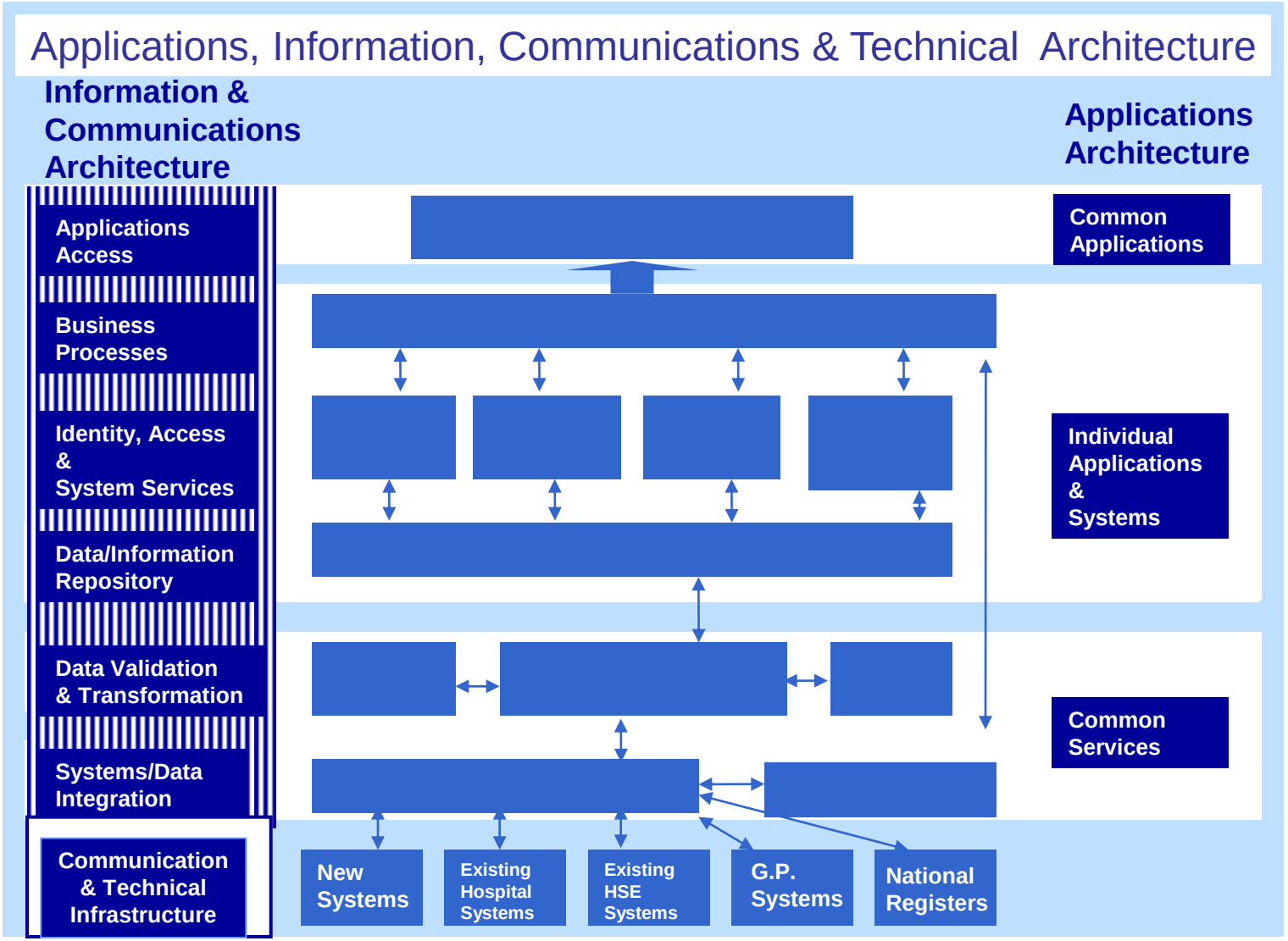
"Data rich & often information poor fragmented systems …"

Acute Core

Integrated Services Framework Components



Status of ISF Components Developed



ISF for Technical, Information & Application Architectures

- Standards based single framework for the public health system which will encompass:-
  - A Technical Architecture
  - An Applications Architecture
  - An Information Model and Architecture
  - An Communications / Network Architecture
- A Single Information systems Framework to provide for integration and sharing of data and information
- Deliver the ICT Strategy work streams
  - Strategic National Business Initiatives
  - Develop, implement & support local & regional initiatives
  - Develop the EHR Information Framework
  - Develop & improve ICT Infrastructure
- Foundation for the Electronic Health Record (EHR), Personal Health Record (PHR) and a National Health Professional/ Patient/Client Portal

Challenges of Current Environment

- **Size and Complexity** of the organization
- **Resources**
  - **ICT Staffing – 280 Staff**
  - **Business Resources**
  - **Financial Resources – less than 1% of expenditure**
- **Idea to Project Start Timeframe**
  - Small projects with Frameworks 2 Months
  - Small Projects without Frameworks 8 – 10 Months
  - Large Projects > €5M 2 Years
- **Government Policies & Procedures**
  - As a public body we must procure services and goods via the public procurement process

Return

Challenges of Current Environment

- **Lack of a National ICT Steering Group**
  - *Determining and agreeing strategic objectives*
  - *Business and relevant stakeholder input and ownership*
  - *Project prioritisation*
- Multiple ICT teams engaging with the Business (SDU, Special Projects, HSE ICT)
- No ICT presence at the HSE Management Team table.
- Lack of central budgetary control aligned with the structure.
- Lack of multi-annual capital investment programme process

Return

Breaking the logjam

- **Resources**
  - Develop ICT into a shared service organisation Health Sector wide
  - Seek approval to allow ICT capital and General Capital to back fill the release of Business Resources for fixed time periods.
  - HSE have got approval from CMOD to create an framework for ICT Resources
  - Strategically outsource lower level ICT functions to allow staff deliver higher value projects. (Helpdesk, Print Management etc)
  - Integrate all HSE ICT resources within one ICT Directorate
  - Integrate all SDU, SDU special projects resources within one ICT Directorate

- **Idea to Project Start Timeframe**
  - Implemented an ICT planning section to support the service in preparing ICT projects
  - Created an ICT Industry and Academia Group to support an eco-system approach
  - Improved the CMOD relationship and process to speed up sanction process
  - Creation of Business Relationship team and ICT Planning team to support business users with ICT Projects

Return

Breaking the logjam

- **Procurement**
  - Bottleneck is now procurement timeframes
  - Utilisation of frameworks for infrastructure, agreed systems, development and external resources
  - Utilise pre-Commercial tendering where possible
  - Developed standard ICT contracts and SLA's
- **ICT Infrastructure**
  - Continue to deliver a national modern ICT infrastructure, "infrastructure As A Service"
- **ICT Strategy**
  - Agree on what existing products sets will be implemented Agree national strategy for product sets
  - Agree a prioritised and costed implementation plan with the HSE Management Team within

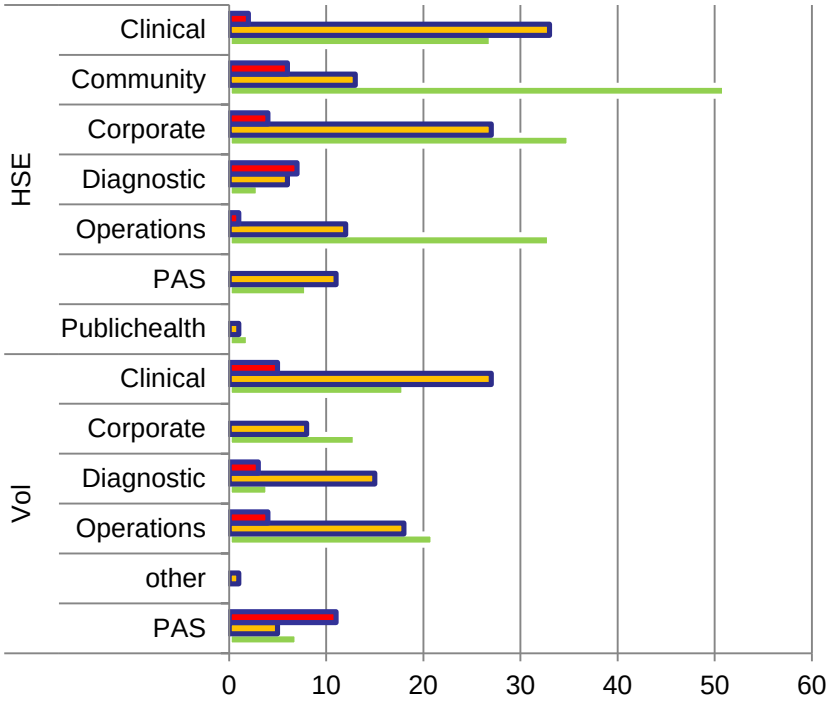
Questions

Current Status Revenue

Replacements/Enhancements	Proposed Expenditure	HSE	Voluntary
Replacements			
Hardware	€8,574,586	6,514,927	2,059,658.58
Software	€2,131,165	1,284,776	846,389.59
Enhancements/Upgrades			
Hardware	€1,439,240	640,765	798,474.72
Software	€1,780,090	958,099	821,991.57
Total:	€13,925,082	9,398,567	4,526,514.45
Telecommunications			
Fixed voice	€17,208,211	15,268,057	1,940,153.77
Mobile	€6,037,984	5,658,950	379,034.42
Data	€6,821,537	6,363,027	458,510.28
Total:	€30,067,732	27,290,034	2,777,698.47
IT-Related Training (not under projects)	€247,805	108,769	139,036.47
Total:	€247,805	108,769	139,036.47
Maintenance			
Hardware	€7,872,028	4,865,012	3,007,015.56
Software	€27,281,821	20,425,920	6,855,901.50
Telecommunications	€3,849,947	2,661,640	1,188,307.07
Total:	€39,003,796	27,952,572	11,051,224.12
		0	0.00
Hosting	€2,844,121	2,572,541	271,580.00
Total:	€2,844,121	2,572,541	271,580.00
Consultancy	€391,177	215,177	176,000.00
Total:	€391,177	215,177	176,000.00
Contractors	€452,369	191,558	260,810.52
Total:	€452,369	191,558	260,810.52
		0	0.00
External Service Providers	€6,416,739	6,212,039	204,700.00
Total:	€6,416,739	6,212,039	204,700.00
Non-Project Expenditure Overall Total:	€93,348,820	73,941,256	19,407,564.04

Return

Existing Systems Risk Assessment
Existing Systems (excluding no risk)

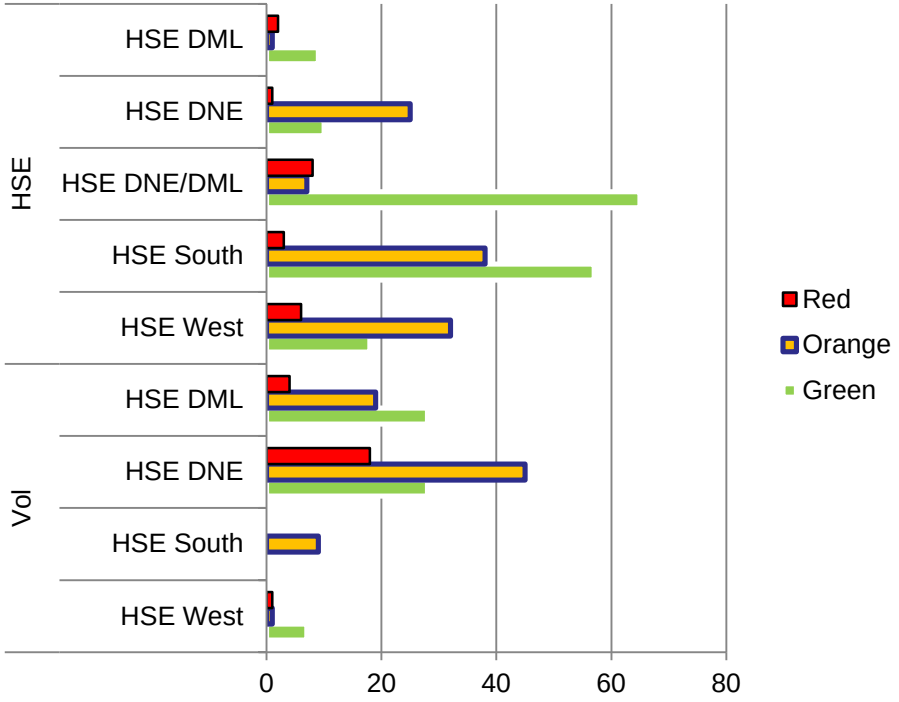


HSE Vol	System Category	Green	Amber	Red	Grand Total
HSE	Clinical	27	33	2	62
	Community	51	13	6	70
	Corporate	35	27	4	66
	Diagnostic	3	6	7	16
	Operations	33	12	1	46
	PAS	8	11		19
	Public Health	2	1		3
HSE Total		159	103	20	282
Vol	Clinical	18	27	5	50
	Corporate	13	8		21
	Diagnostic	4	15	3	22
	Operations	21	18	4	43
	other		1		1
	PAS	7	5	11	23
Vol Total		63	74	23	160
Grand Total		222	177	43	442

Additional

Return

Existing Systems Risk Assessment
Existing Systems (excluding no risk)



Count of RAG Status		RAG Status				
HSE Vol	HSE Area	Green	No Risk	Amber	Red	Grand Total
HSE	HSE DML	9	65	2	1	77
	HSE DNE	10	269	25	1	305
	HSE DNE/DML	65	62	7	8	142
	HSE South	57	81	39	3	180
	HSE West	18	309	33	5	365
HSE Total		**159**	**786**	**106**	**18**	**1069**
Vol	HSE DML	29	257	19	3	308
	HSE DNE	28	144	45	18	235
	HSE South		61	9		70
	HSE West	7	20	1	1	29
Vol Total		**64**	**482**	**74**	**22**	**642**
Grand Total		**223**	**1268**	**180**	**40**	**1711**

Return

Capital Work Plan 2012

- **All projects supported by:**
- **Infrastructure programme**
  - IAAS Programme
  - SAN's Programme
  - NHN1 and NHN 2 Programme (Networks and IP)
  - AD project
- **Applications Support**
- **Planning**

Return

ICT Capital Project Approval Summary

New Projects	Sub Area	Number of Projects	Total
	Acute	75	13,047,786.00
	Ambulance	1	36,000.00
	Corp	8	335,034.00
	Infra	19	2,499,126.00
	Primary	40	1,830,166.00
New Total		143	17,748,112.00
Multi Annual Projects	Acute	74	15,475,042.47
	Ambulance	7	2,785,301.13
	Corp	8	522,000.00
	Infra	12	380,835.49
	Primary	49	2,743,007.03
Multi Annual Total		150	21,906,186.12
Grand Total		293	39,654,298.12

Return

ICT Capital Project Approval Summary

Sub Area	Minor/Major	Number	Total
Acute	Minor	86	3,720,208.40
	Major	64	24,815,518.07
Acute Total		150	28,535,726.47
Ambulance	Minor	2	73,251.00
	Major	6	2,748,050.13
Ambulance Total		8	2,821,301.13
Corp	Minor	11	432,084.00
	Major	5	424,950.00
Corp Total		16	857,034.00
Infra	Minor	29	1,245,275.49
	Major	2	1,634,686.00
Infra Total		31	2,879,961.49
Primary	Minor	76	2,166,995.26
	Major	12	2,393,279.77
Primary Total		88	4,560,275.03
Grand Total		293	39,654,298.12

Return

ICT Capital Project Approval Summary

ICT Spend	Number of Projects	Total	% of Total
Acute	149	28,522,828.47	72%
Ambulance	8	2,821,301.13	7%
Corp	16	857,034.00	2%
Infra	31	2,879,961.49	7%
Primary	89	4,573,173.03	12%
Grand Total	293	39,654,298.12	100%

Return

ICT Capital Project Approval Summary

HSE or Voluntary	Sub Area	Number of Projects	Total
HSE	Acute	106	16,275,371.49
	Ambulance	8	2,821,301.13
	Corp	16	857,034.00
	Infra	30	2,864,961.49
	Primary	83	3,965,438.03
HSE Total		243	26,784,106.14
Voluntary	Acute	43	12,247,456.98
	Infra	1	15,000.00
	Primary	6	607,735.00
Voluntary Total		50	12,870,191.98
Grand Total		293	39,654,298.12

Return

On-Going Projects

- **NIMIS**
  - Continue rollout – go-live at 11 further sites
- **IPMS**
  - Continue PAS deployments in Dublin Mats & Paeds, South East (Midland, RVEEH, NRH)
  - Order Comms commencement to support NIMIS
- **Endoscopy**
  - Complete Phase 1, Contract for Phase 2 & commence deployments
- **RIMD Track & Trace**
  - Complete Phase 1, Contract for Phase 2 & commence deployments
- **MedLIS**
  - Procurement underway
- **Kidney Disease Clinical Patient Mgt**
  - Implement 5 remaining Phase 1 sites
  - Commence Dublin sites & contracted HD centres
- **Maternal & Newborn Clinical Mgt**
  - Place contract and commence deployments

Return

On-Going Projects

- **ICU CIS**
  - Complete the deployment in Sligo - Continue the deployment in CUH
- **Emergency Dept CIS**
  - Undertake procurement and commence deployment
- **National Environmental Health Information System**
  - Complete the rollout
- **Civil Registration Online Appointment Bookings**
  - Complete deployment
- **Counselling Service**
  - Complete the rollout
- **National Child Care Information System**
  - Complete procurement and commence deployment
- **National Dental System**
  - Complete the NW Upgrade - Continue rollout to other new sites
- **Ambulance Systems National Digital Radio, ICCS Service Computer-Aided Dispatch**

Return

Supports

On-Going Projects

- **GP Referrals**
  - Standard GP Referrals Messaging
- **Single Assessment Tool – (Initially for Elderly)**
  - Business Case completed
- **Health Insurance Claims Management**
  - Phase 1 now live, Phase 2 started
- **ICU Systems**
  - Framework in place (Beaumont, Mid West Regional, CUH)
- **NHN 1 and NHN 2**
  - National Rollout
- **Central infrastructure (Infrastructure as a Service)**
  - Server Virtualisation and implementation of SAN's
- Minor Infrastructure – 200+ Projects

Return

Supports

Acute Hospitals – Core Applications

HSE Area	HB Are	VOL HSE	Name	subcategory	Pas	OC	Lab	E-Meds	ED
DML	E	HSE	St. Columcille's Hospital	General/Acute	IMS Maxims (VMS)	No System	Isoft (Telepath)	No System	Ascribe
DML	E	HSE	Naas General Hospital	General/Acute	IMS Maxims (VMS)	No System	Isoft (Telepath)	No System	Ascribe
DML	E	Vol	St. Vincents University Hospital	General/Acute	Isoft (Clinicom)	No System	Isoft (iLab)	Ascribe Pharmacy	IMS Maxims (VMS)
DML	E	Vol	St. James's Hospital	General/Acute	Isoft (Clinicom)	Cerner	Isoft (Telepath)	No System	Isoft (Clinicom)
DML	E	Vol	St. Michaels Hospital	General/Acute	Isoft (Clinicom)	No System		No System	No System
DML	E	Vol	Adelaide & Meath Hospital Inc NCH	General/Acute	Isoft (IPMS)	Key OCS (self supported)	Clinisys (William Woodward)	No System	Ascribe
DML	M	HSE	Midland Regional Hospital - Mullingar	General/Acute	IMS Maxims (VMS)	No System	Isoft (iLab)	No System	No System
DML	M	HSE	Midland Regional Hospital - Portlaoise	General/Acute	IMS Maxims (VMS)	No System	Isoft (iLab)	No System	No System
DML	M	HSE	Midland Regional Hospital - Tullamore	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (iLab)	No System	PAS Isoft Module
DNE	E	HSE	Connolly Hospital	General/Acute	IMS Maxims (VMS)	No System	Isoft (Telepath)	No System	Ascribe
DNE	E	HSE	Mater Misericordiae Hospital	General/Acute	Isoft (Patient Centre)	Isoft (Patient Centre)	Isoft (Telepath)	No System	Isoft (Patient Centre)
DNE	E	HSE	Beaumont Hospital	General/Acute	Gerber Alley	Gerber Alley	Gerber Alley	No System	In House
DNE	NE	HSE	Cavan General Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Rutter	No System	PAS Isoft Module
DNE	NE	HSE	Louth County Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (iLab)	No System	PAS Isoft Module
DNE	NE	HSE	Monaghan General Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Rutter	No System	PAS Isoft Module
DNE	NE	HSE	Our Lady of Lourdes Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Clinisys (William Woodward)	No System	PAS Isoft Module
DNE	NE	HSE	Our Lady's General Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (iLab)	No System	PAS Isoft Module
S	S	HSE	Bantry General Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (iLab)	No System	PAS Isoft Module
S	S	HSE	Cork University Hospital	General/Acute	Isoft (IPMS)	Isoft (ICM)	Isoft (iLab)	No System	PAS Isoft Module
S	S	HSE	Mallow General Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (iLab)	No System	PAS Isoft Module
S	S	HSE	Mercy University Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (Torex)	No System	PAS Isoft Module
S	S	HSE	South Infirmary/Victoria Hsptl. Ltd.	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (iLab)	No System	Keogh Software
S	S	HSE	Tralee General Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	Isoft (iLab)	No System	PAS Isoft Module
S	SE	HSE	South Tipperary General Hospital	General/Acute	In House	No System	Isoft (iLab)	No System	In House
S	SE	HSE	St. Luke's General Hospital	General/Acute	In House	No System	Isoft (iLab)	No System	In House
S	SE	HSE	Waterford Regional Hospital	General/Acute	In House	No System	Isoft (iLab)	No System	In House
S	SE	HSE	Wexford General Hospital	General/Acute	In House	No System	Isoft (iLab)	No System	In House
W	MW	HSE	Midwestern Regional Hospital Ennis	General/Acute	IMS Maxims (VMS)	No System	Isoft (iLab)	No System	No System
W	MW	HSE	Mid Western Regional Hospital (Nenagh)	General/Acute	IMS Maxims (Oracle)	No System	Isoft (iLab)	No System	No System
W	MW	HSE	Mid-Western Regional Hospital	General/Acute	IMS Maxims (VMS)	No System	Isoft (iLab)	No System	IMS Maxims (VMS)
W	MW	HSE	St. John's Hospital,	General/Acute	In House	No System	Isoft (iLab)	No System	Keogh Software
W	NW	HSE	Letterkenny General Hospital	General/Acute	Isoft (IPMS)	Isoft (ICM)	SunQuest	No System	PAS Isoft Module
W	NW	HSE	Sligo Regional Hospital	General/Acute	Isoft (IPMS)	Not Deployed Isoft (ICM)	SunQuest	No System	PAS Isoft Module
W	W	HSE	Mayo General Hospital	General/Acute	Isoft (Clinicom)	No System	Isoft (iLab)	No System	Isoft (Clinicom)
W	W	HSE	Merlin Park Regional Hospital	General/Acute	Isoft (Clinicom)	No System	Isoft (iLab)	No System	Isoft (Clinicom)
W	W	HSE	Portiuncula Hospital, Ballinasloe (WHB)	General/Acute	Isoft (Clinicom)	No System		No System	Isoft (Clinicom)
W	W	HSE	Roscommon General Hospital	General/Acute	Isoft (Clinicom)	No System	Isoft (iLab)	No System	No System
W	W	HSE	University College Hospital, Galway	General/Acute	Isoft (Clinicom)	No System	Isoft (iLab)	No System	In House

Return

ICT Strategy and E-Health Strategy

To support and enable the provision of optimum quality healthcare

- Be patient/client centric
- Support clinical practice
- Support therapeutic and diagnostic processes and procedures
- Provide access to information when and where required
- Provide information that is meaningful, timely, accurate and relevant
- Support business objectives
- Support the decision making processes
- Support greater efficiency and effectiveness in the provision of healthcare
- Be consistent with the individual/organisational needs in the provision of optimum patient care
- Be based on information and technology standards
- Ensure the security of data and systems

Return

Achieving the Strategy Objectives

- Optimum utilisation of information and communication technology - aligned to service and operational processes
- Key to achieving the strategy objectives is the definition and agreement of the relationships between business objectives and specific ICT work programmes/projects
- Implementation of the strategy is focussed on three major areas
  - *Delivering the **business** objectives,*
  - *Defining and developing the underlying **infrastructure***
  - *Building the human and expertise **capacity***

The work associated with its delivery will be progressed in five major work-programmes

Return

ICT Strategy Work Streams

Implement Strategic National Business Initiatives	Major business initiatives requiring oversight and implementation nationally
Develop, implement & support local & regional initiatives	Local and regional services & business requirements
Develop the EHR Information Framework	Establish the framework to specify and implement data, information, functional and interoperability standards
Develop & improve ICT Infrastructure	Consolidate, improve, extend and strengthen technical, communications capacity Implement national security standards
Develop & Strengthen ICT Capacity	Enhance human resource capacity. Conduct skills audit. Implement informatics development program ICT & non ICT staff

Return

Systems Initiatives/Applications

- Drive the introduction and implementation of applications which:
  - Are patient focused and support the development of integrated health and social care
  - Provide and enable a safe and quality environment
  - Create and generate efficiencies and savings
  - Underpin the implementation of chronic disease management programmes
  - Support planning, activity monitoring and management
- Specific systems/applications to be targeted
  - Existing - NIMIS, LABs. Future - ePrescribing, Medication Management
  - Order communications/results reporting- needed to link community
  - Acute/community integrated information sharing and access *(the system needs to be integrated take advantages of those areas where this is taking place utilise full range of technologies*
  - Corporate support and management information *(different resource allocation model – dialogue with HR Finance)*
  - Performance management system *(information produced as a by product of process)*

Return

Infrastructure

The availability of an integrated networking, data management and communications infrastructure to provide secure and rapid access to systems and information and the provision of data and systems resilience is fundamental to the implementation of the strategy.

- Implement centrally managed network and communications infrastructure
- Develop directory services in order to increase operational efficiency, and strengthen security
- Consolidate application and infrastructure services, server and data centre infrastructure
- Standardise server and network device hardware
- Create and adopt national information security policies and procedures
- Rationalise fixed and mobile telephony
- Standard technology platforms and frameworks

Return

Capacity

To ensure that ICT can support strategy objectives there must be appropriate resources in terms of skills, expertise and numbers

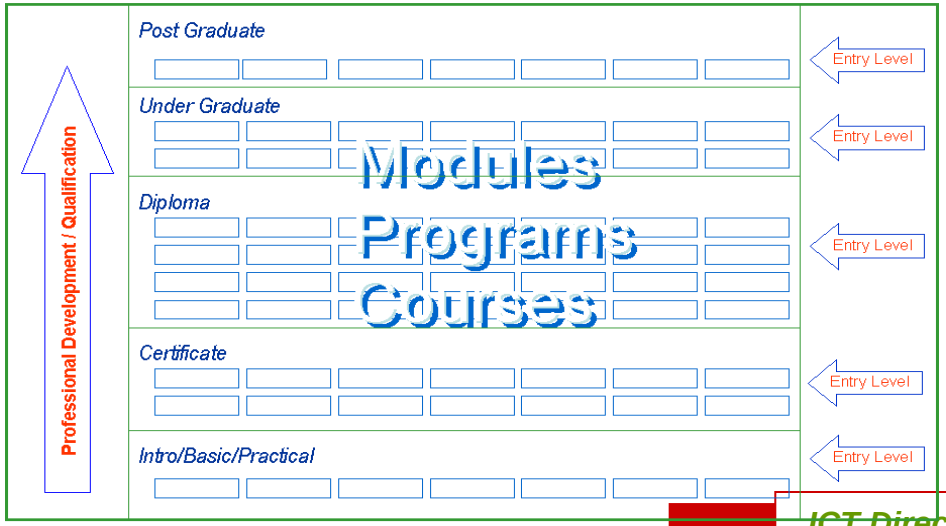
- ICT Staff represent 0.36% of Healthcare Staff complement
- Insufficient number of ICT staff with appropriate skills
- Requirement for external skills resource
- Identify and acquire the specific healthcare informatics skills and resources – utilise whole health system
- Establish a training and development scheme:
  - Develop and expand current skills of existing ICT Professionals
  - Support the development and utilisation of ICT skills
- Explore the potential to utilise staff re -organisation opportunities to up-skill and facilitate redeployment of other healthcare professionals to fulfil ICT roles
- Raise ICT competence of all Healthcare staff

Return

Develop Skills and Resource

Establish project to develop, manage and implement a 5 Year Professional Development Program utilising an Accredited Skills Curriculum Matrix to Address:

- Health ICT Resource Requirements
- Staff Development
- Provide for
  - Appropriate ICT skills to support staff carry out job functions/tasks
  - Existing ICT staff – validate and develop skills
  - Retraining/up skilling to provide additional ICT staff resources



Staff/Professional Training Development Matrix

Integrated Services Framework (ISF) for Technical, Information & Application Architectures

Critical ICT component in the provision of an integrated model for healthcare delivery on a national basis as electronic systems and technologies require a multi-layered infrastructure to enable flexibility and interoperability of the various technology components to provide eHealth services.

Provides the overarching framework for all ICT systems and technologies as it contains and maintains and enables the unique identification of the key information and technology required in all patient care, service delivery, management and operational locations and provides the means to access, communicate and utilise information and technology effectively

To meet this requirement, a specific standards based systems, information, technology and communications services oriented architecture has been defined as a component model designed and is in the process of being implemented

Return

Structure of Information & Applications Access

User Access - Electronic Record Viewers - Portals

Applications

Business Process and Logic

Identity & Security Management Services

Database Management

Systems & systems Interfaces

Communication
& Technical
Infrastructure

Return

Applications & Applications Architecture

Applications	Applications Architecture
Electronic Health Record **Performance Man'gt Chronic Care Systems**	**Common Applications**
Acute PAS OC/RR Clinical Mgt Clinical Systems Emeg Dept E P'cribing Blood Tracking Maternity **Primary** Primary Care Teams Clinical Mgt GP Admin **Community** Child Health Care of The Elderly Medical cards Long Term Care Immunisation **Resource Mgt** Finance Human Resources Materials Planning	**Individual Applications & Systems**
Identity/Registration Services **National client Index, National Databases** **Shared Applications/ Services** **Internet/Intranet,** **Provider Index, Drugs File, etc.,**	**Common Services**

Return

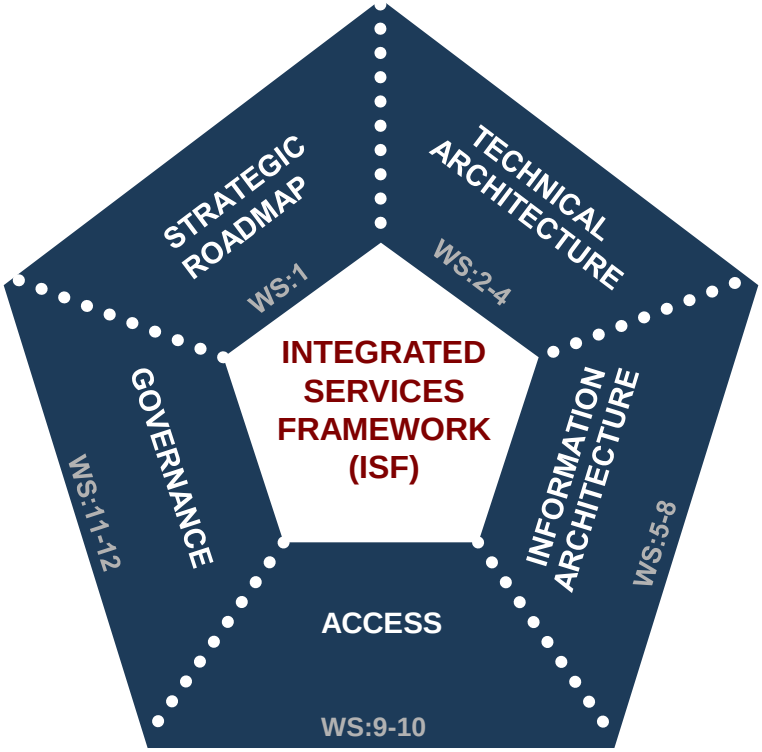
Programme of Work

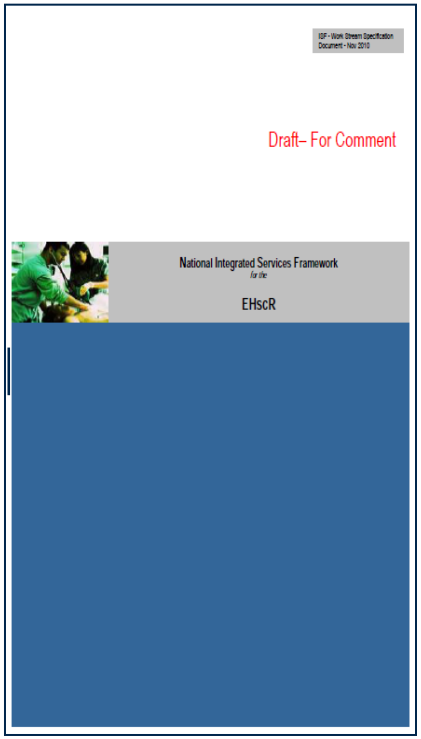
Project approved by CMOD

Work Done
- Project Brief
- Business Case
- PID
- Project Board

Work –In-Progress
- Work-Streams Document
- Workshops
- Forums
- Global Review

Work Planned
- Partnerships
- Stakeholder Engagement
- Prototype of Data Model
- Consultation on work-streams
- Progression of Work-streams





Return