

# *eHealth: Improving the delivery of services and patient care*



Richard Corbridge

Chief Information Officer – Health Service Executive - Ireland  
Chief Executive Officer – eHealth Ireland

[richard.corbridge@hse.ie](mailto:richard.corbridge@hse.ie)

[eHealthIreland.ie](http://eHealthIreland.ie) |  [@eHealthIreland](https://twitter.com/eHealthIreland) [@R1chardatron](https://twitter.com/R1chardatron)

## Delivering eHealth Ireland



Office of the Chief Information Officer



# Connected Health

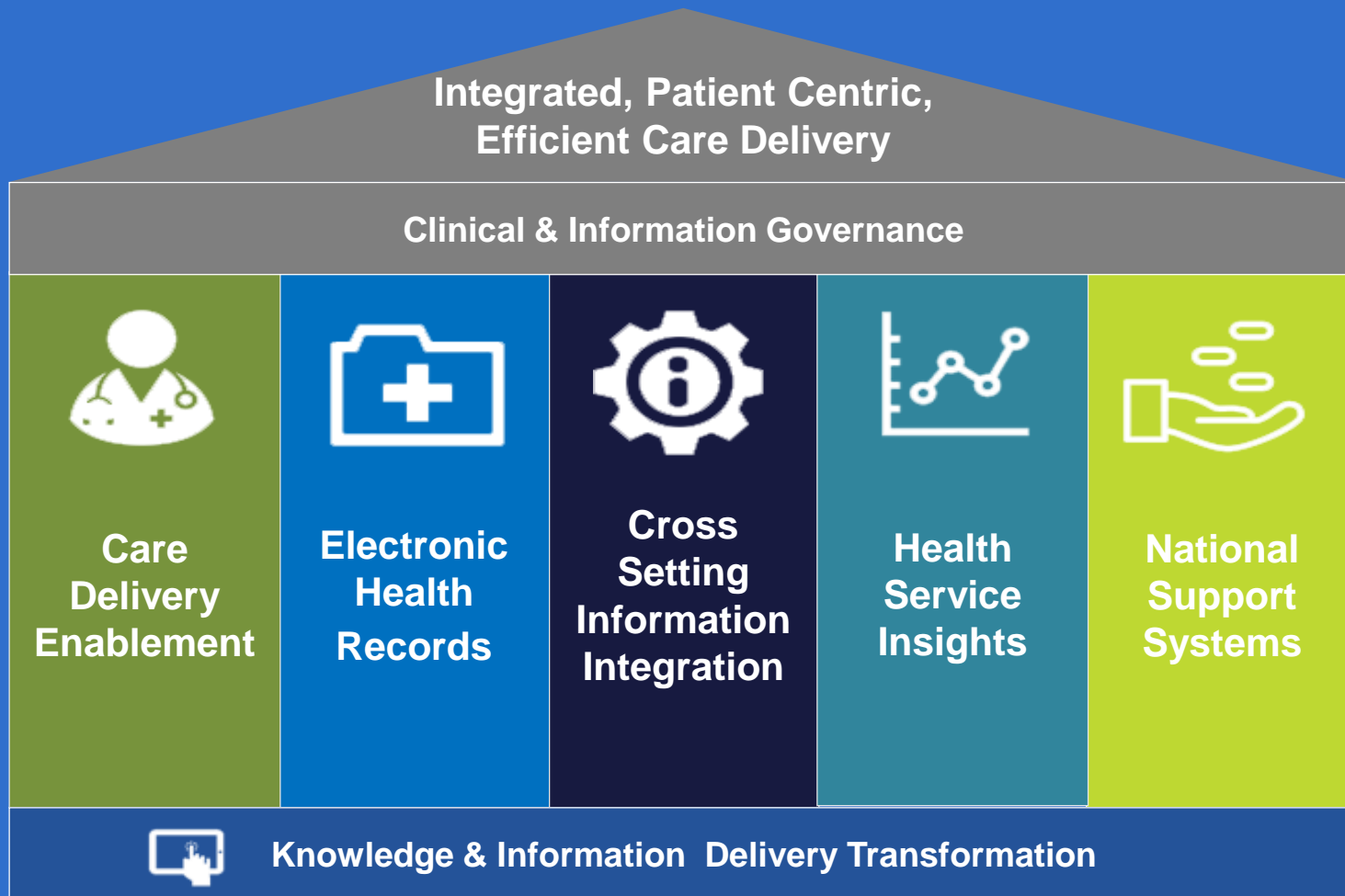




# eHealth Ireland

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# Knowledge & Information Plan



*Patient, Clinician, Public*





# Where are the Gaps?

## Finance & Efficiency

- Efficiency
- Savings
- Affordability

## Health & Wellbeing

- Alcohol
- Diabetes
- Obesity

## Care & Quality

- Patient Exp
- Personalisation
- Outcomes



# H = Health not Healthcare



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive

# Current Projects



research of a better future

 **McLernons**  
PHARMACY SOFTWARE

# ePharmacy Engagement



EcoSystem



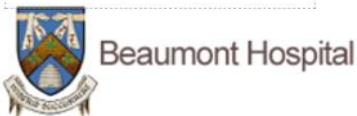
Cancer Care eHealth Programme



Maternal & Newborn  
Clinical Management  
System (MN-CMS)



Peter Weedle Pharmacy





Before



After






# Current...







Security.  
Data Quality.  
Information Governance.  
Data Dictionary.

# The 'fourth utility'



Globally, there are more than **400 EHR vendors** on the market



More than **80%** of US providers use an EHR

**Technology has transformed hotel, transport, retail, banking, communications .....healthcare?**

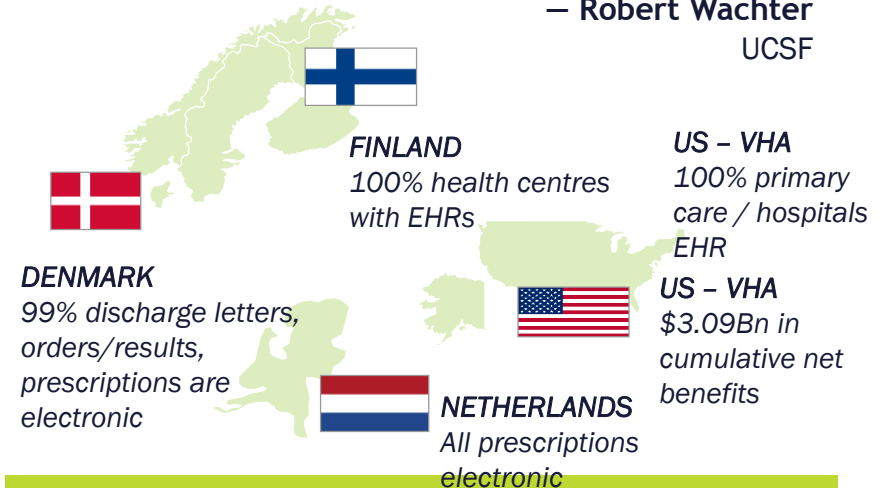
## International eHealth investment Estimates

- €15.8Bn England – NPfIT over 10yrs
- €1.6Bn Canada, Southwest Ontario – 2013-2017
- €25Bn – USA – HITECH Act / Meaningful Use
- €1.6Bn – Australia – predicted over 10yrs
- €5.4Bn – NHS – predicted in next 5 yrs

**Ireland lags** most developed countries but can learn from the investments and initiatives elsewhere

*The history of technology as it enters industries is that people say 'this is going to transform everything in 2 years' And then you put it in and nothing happens and people say 'why didn't it work the way we expected it to?... And then lo and behold after a period of 10 years, it begins working.*

– Robert Wachter  
UCSF



**The goals of Reform cannot be delivered without a National EHR**



# eHealth Blueprint - EHR

## Stakeholders

Healthcare Providers

Patients

Corporate Administrators and Managers

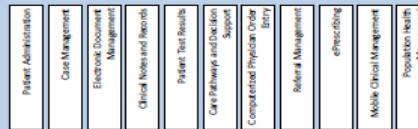
## Clinical Management / Point of Care Environment

### Hospital Groups

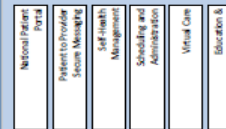


### Provider Health Portal

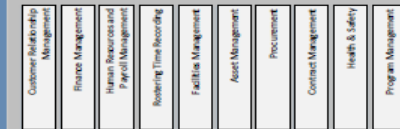
### Community Healthcare Organisations



### Consumer Health & Wellbeing

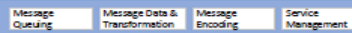


### Corporate Setting

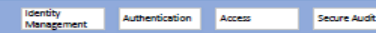


## National EHR Integration and Access Layer

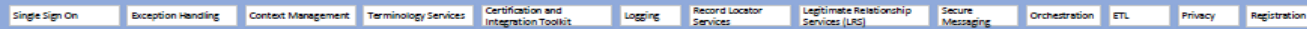
### Communication Layer



### I.A.A.A. Layer



### Core Capabilities



## National EHR Registries and Domains

### National EHR Registries

Client Registry    Provider Registry    Location Registry

### National EHR Domains

Medical Imaging    Laboratory Results    Pharmaceutical History    Immunization History    Infectious Disease History    Clinical Document Repository    Encounter History

### National Analytics

Performance Management    Population Based Analytics    Business Intelligence

## HSE Integrated Service Framework (ISF) - National eHealth Core Infrastructure Services

Secure Health Network

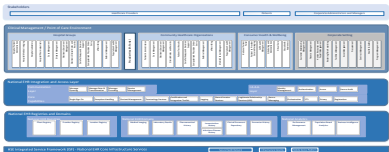
Infrastructure Security

Mobile Device Platform

*Overall Blueprint defined as the long term vision for eHealth in Ireland and endorsed by industry – Solutions for Hospital Groups identified as a core area*

# What is the EHR

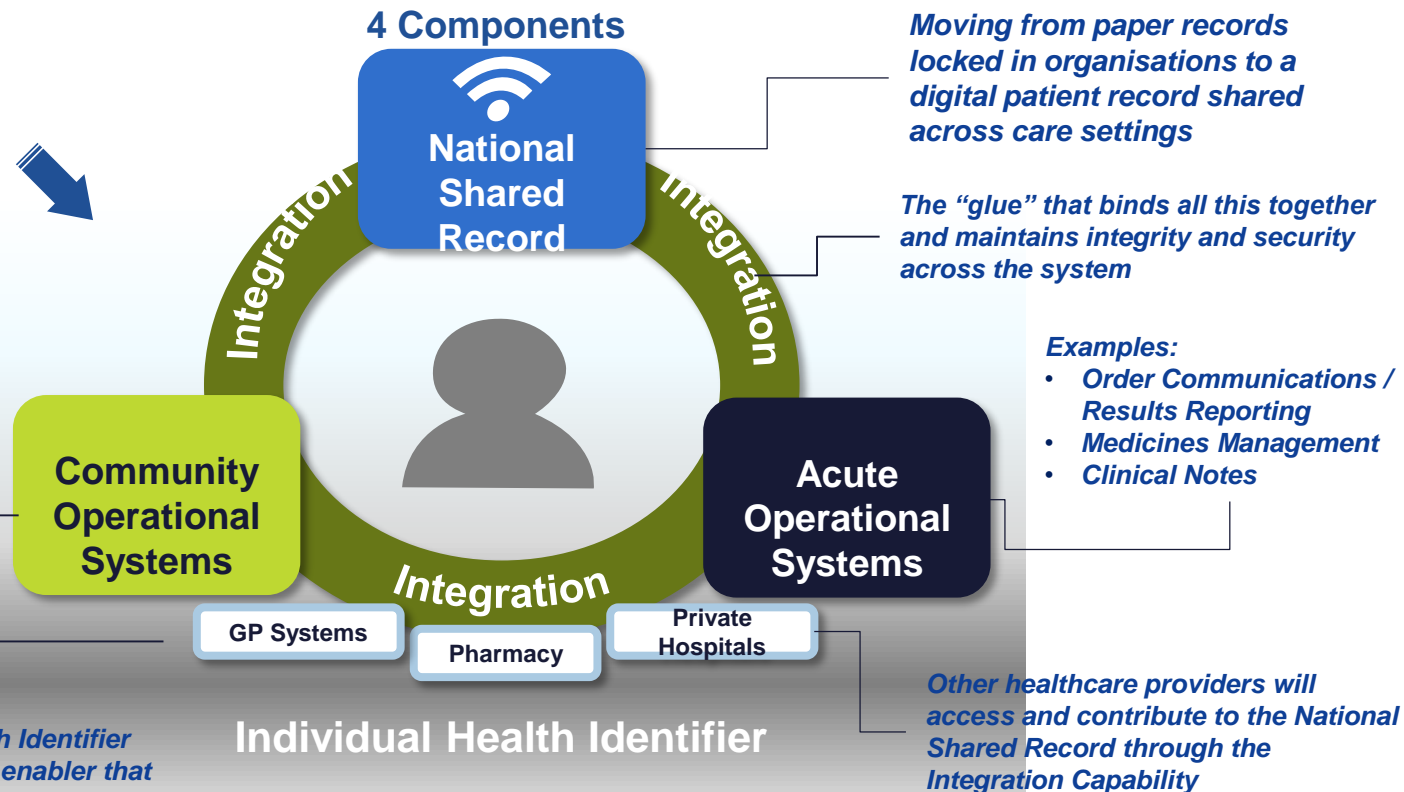
## eHealth Blueprint



### Examples:

- Single MPI
- Scheduling
- Clinical Notes / Records
- Screening & Surveillance

*The Individual Health Identifier Programme is a key enabler that allows information to be shared about a patient*

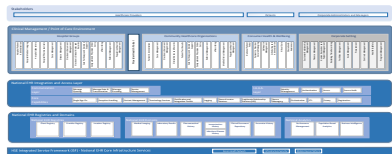


### Examples:

- Order Communications / Results Reporting
- Medicines Management
- Clinical Notes

# eHealth Blueprint - EHR

## eHealth Blueprint



### 4 Components

National  
Shared  
Record

*Moving from paper records  
locked in organisations to a  
digital patient record shared  
across care settings*



#### Examples:

- Single MPI
- Scheduling
- Clinical Notes / Records
- Screening & Surveillance

#### Examples:

- Order Communications / Results Reporting
- Medicines Management
- Clinical Notes

Community  
Operational  
Systems

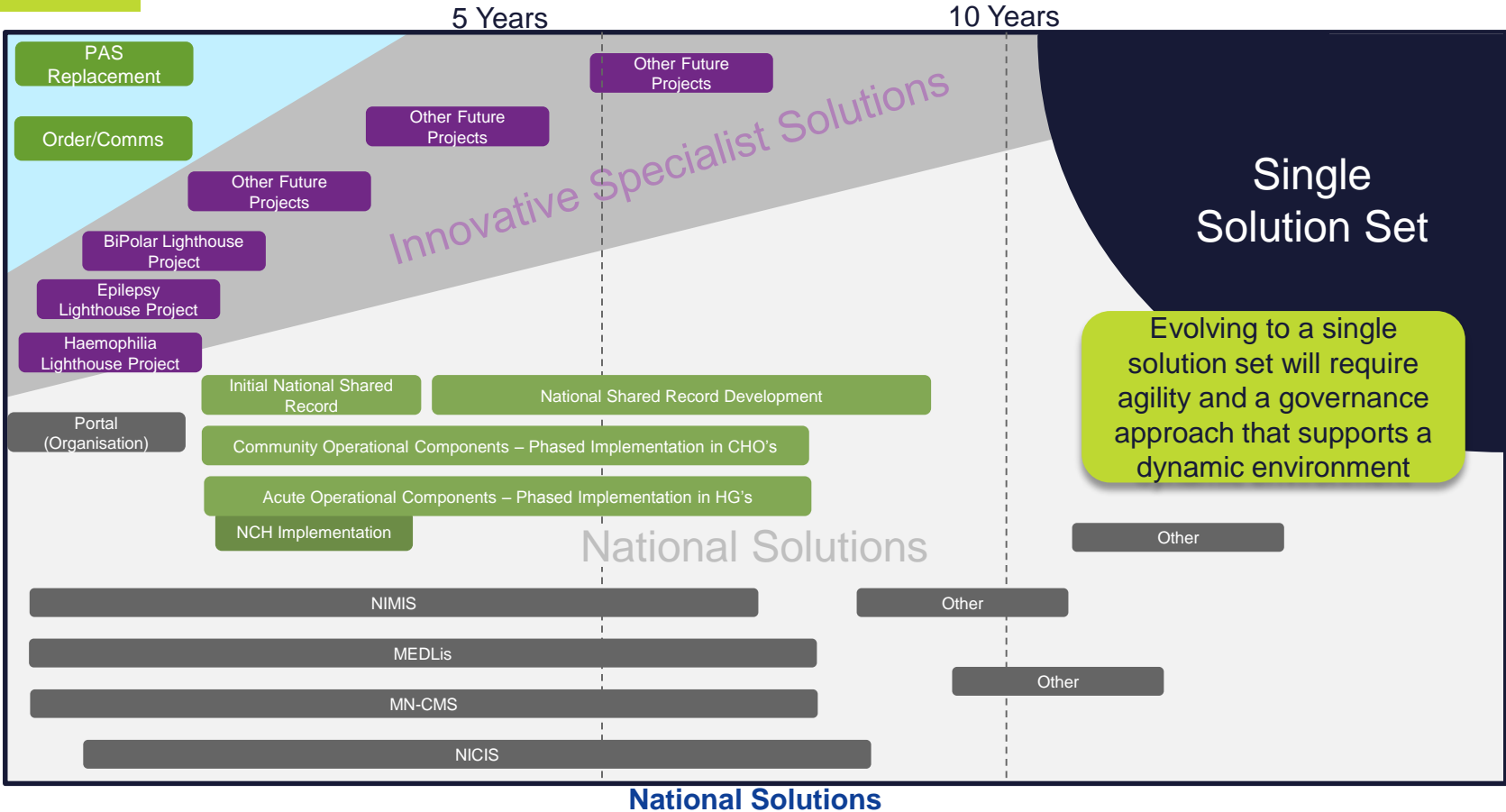
Acute  
Operational  
Systems

### Integration

*The “glue” that binds all this together  
and maintains integrity and security  
across the system*

# eHealth Blueprint - EHR

Critical Tactical Solutions  
Innovative Specialist Solutions



# What can eHealth Do?





# Lighthouse Projects

A lighthouse on a rocky island in the ocean at dusk. The lighthouse is white with a dark top section. The ocean is dark blue with white foam from the waves crashing against the rocks. The sky is a mix of dark blue and purple.

**Epilepsy:** All patients on the EHR, Patient mobile application, Population health analysis, GP access and image reviews, IHI, Genomic sequencing for under 5s.



# Lighthouse Projects

The background of the slide is a photograph of a lighthouse situated on a small, rocky island in the middle of a dark, choppy sea. The lighthouse is white with a dark top section. The sky is a deep blue, suggesting dusk or dawn. The overall mood is serene yet powerful, reflecting the 'Lighthouse' metaphor used in the project names.

**Epilepsy:** All patients on the EHR, Patient mobile application, Population health analysis, GP access and image reviews, IHI, Genomic sequencing for under 5s.

**Haemophilia:** National Integration to hospital PAS, Open source platform, Open Data pilot, Patient mobile application, IHI, Secure clinical communicator, Next generation solution.



# Lighthouse Projects



**Epilepsy:** All patients on the EHR, Patient mobile application, Population health analysis, GP access and image reviews, IHI, Genomic sequencing for under 5s.

**Haemophilia:** National Integration to hospital PAS, Open source platform, Open Data pilot, Patient mobile application, IHI, Secure clinical communicator, Next generation solution.

**Bipolar Disorder:** Secure clinical communicator, Information integration regardless of setting, Open Source solution, Innovation led approach, Clinical support tool.



