

# SNOMED CT in Ireland

Being part of an International Community



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# ARCHITECTURE DEVELOPMENT & ASSURANCE

EA Vision

Technical Architecture Roadmap

Reference Architectures

Architecture Patterns & Domain Blueprints

Team Skills & Capabilities

Architecture Practices & Education

Architecture Representation – National

Architecture Representation - EU

Architecture Review Session

Regulatory Compliance Support

3<sup>rd</sup> Party Contract Reviews

IT Security & Standards

OID Registry

Innovation Support

EU National Contact Point

SNOMED CT National Release Center

## Key Deliverables

Standards, Policies & Guidelines

Architecture Roadmaps

Architecture Blueprints

Architecture Reference Architectures & Patterns

Architecture Education Programme

Regulatory Compliance Support

Information Security & GDPR Checklists

OID Registry

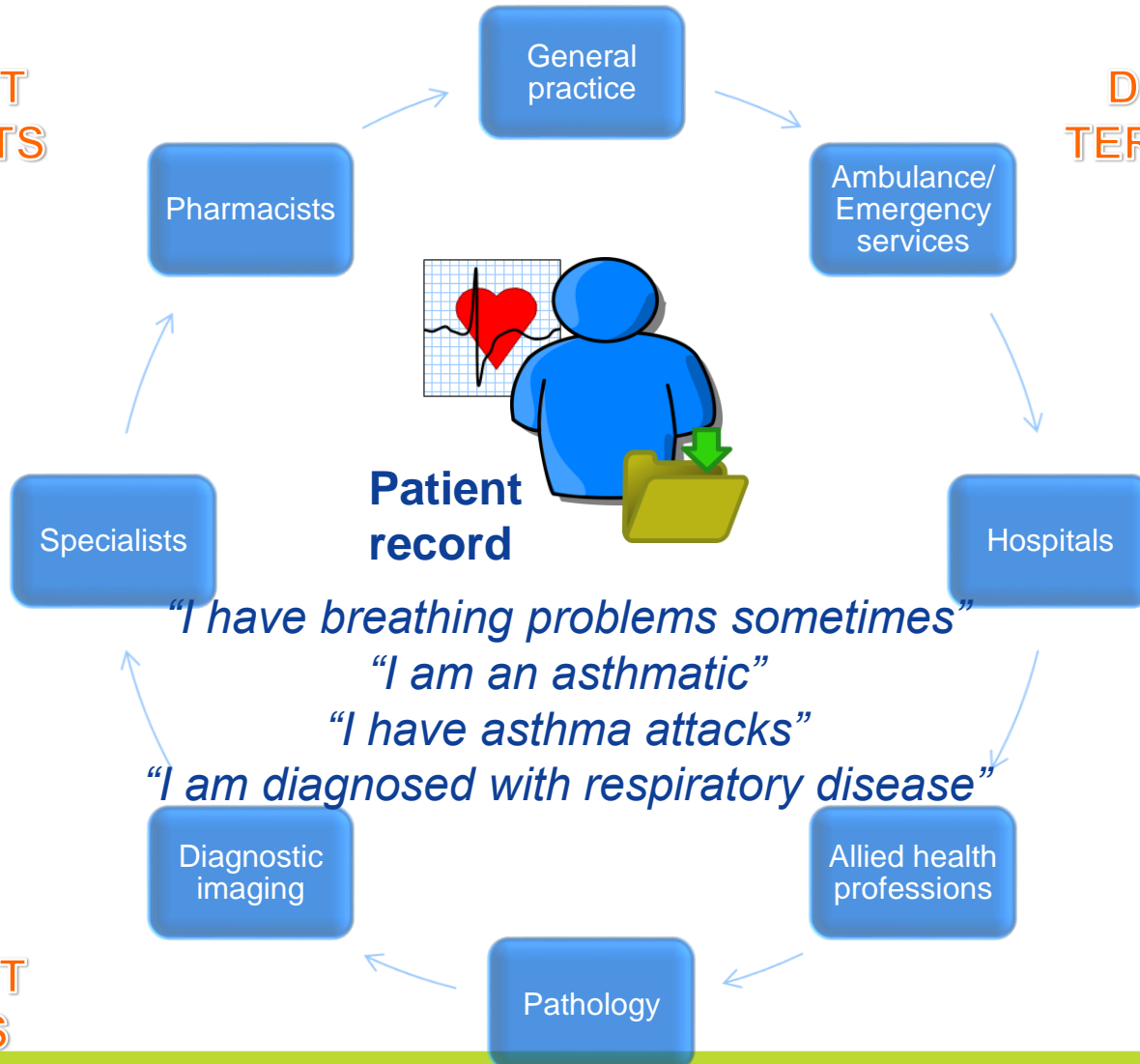
Figure 3: Principles set out in the Sláintecare Report



# The interoperability challenge

DIFFERENT  
DOCUMENTS

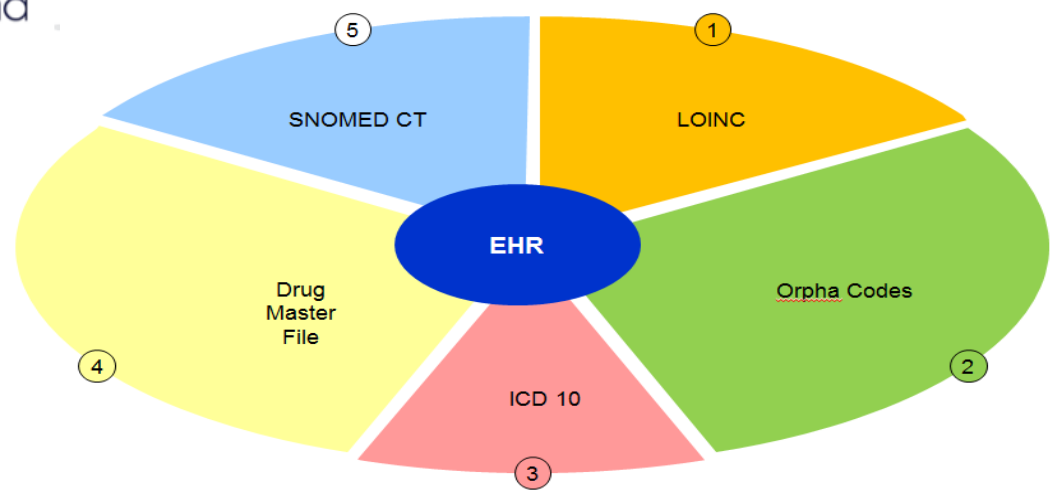
DIFFERENT  
TERMINOLOGY



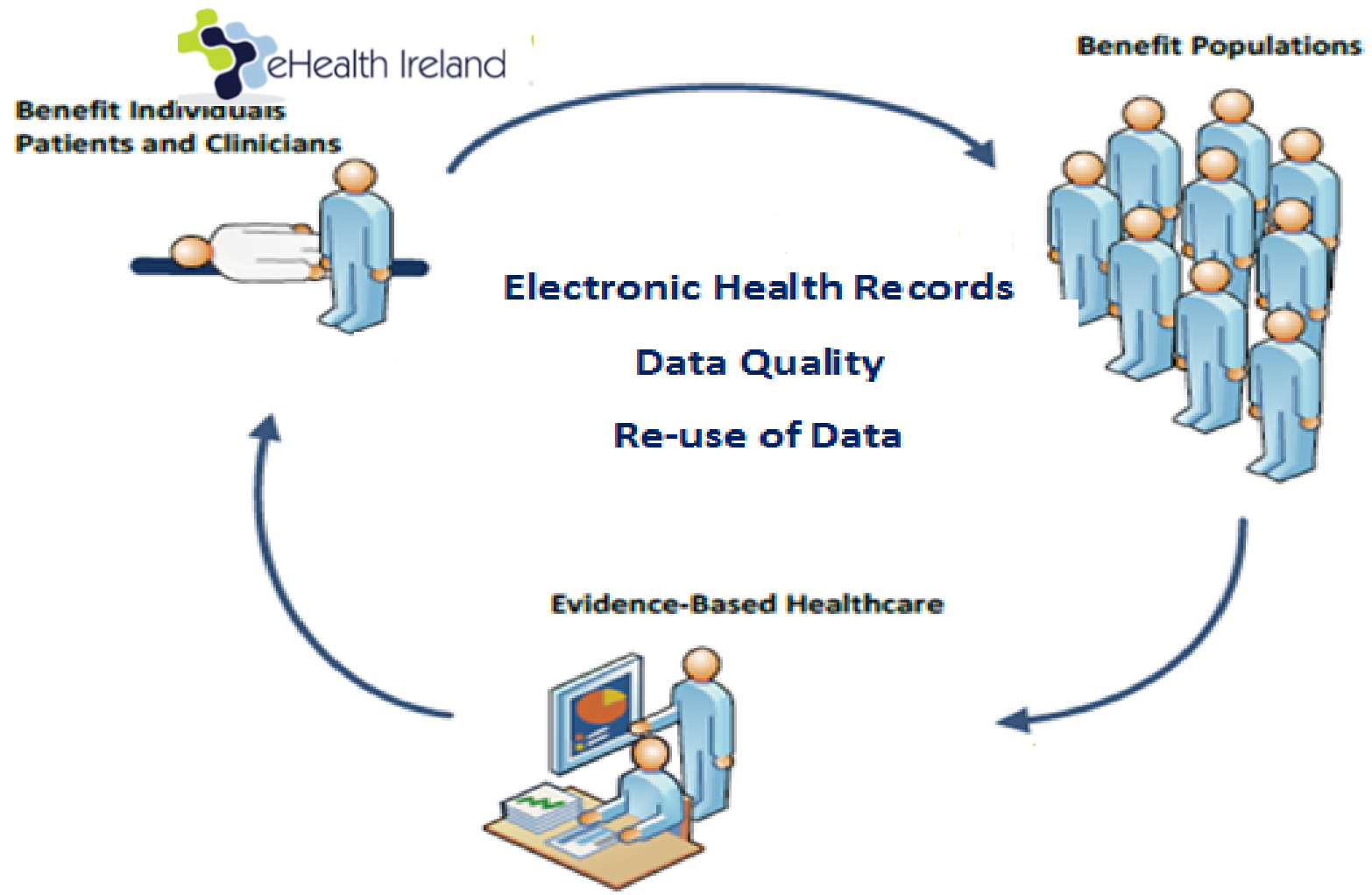
DIFFERENT  
FORMATS

DIFFERENT  
SYSTEMS

■ ICD 10



	SNOMED	ICD 10
Type	Terminology System	Classification System
Purpose	Information Input	Information Output
Function	Describes and defines clinical information for primary data purposes	Aggregates and categorises clinical information for secondary data purposes





- 1) SNOMED CT should be **adopted** as a national clinical terminology for Ireland immediately.
- 2) A SNOMED CT National license should be **purchased** and the resourcing and functioning of a national release centre for Ireland should commence in 2015.
- 3) The feasibility of entering into an **agreement** with a SNOMED CT national release centre in another jurisdiction should be investigated in order to provide support in the short-term (early stages of operation of SNOMED CT in Ireland).
- 4) SNOMED CT should be **introduced** gradually on a project-by-project basis with the active support of the SNOMED CT National Release Centre.
- 5) In order to future proof information communication technology (ICT) investment, the requirement to support SNOMED CT should be included in all relevant software **procurements** from now on.
- 6) A **review** should be undertaken to determine the most appropriate agency to establish and operate the SNOMED CT National Release Centre



## What is SNOMED?

- SNOMED CT is a terminological resource that can be implemented in software applications to represent clinically relevant information reliably and reproducibly thus
  - providing standardised way to represent clinical information
  - improving our ability to code, retrieve, and analyse clinical data
  
- SNOMED CT
  - the most comprehensive clinical terminology available internationally
  - organised in 19 hierarchies such as diseases, symptoms, procedures
  - composed of concepts, descriptions and relationships
  - extensive
    - - 293,000 concepts
    - - 765,000 descriptions
    - - 830,000 relationships



Establishing the NRC is similar to establishing a franchise “knowledge, processes, and trademarks”

## Irish NRC

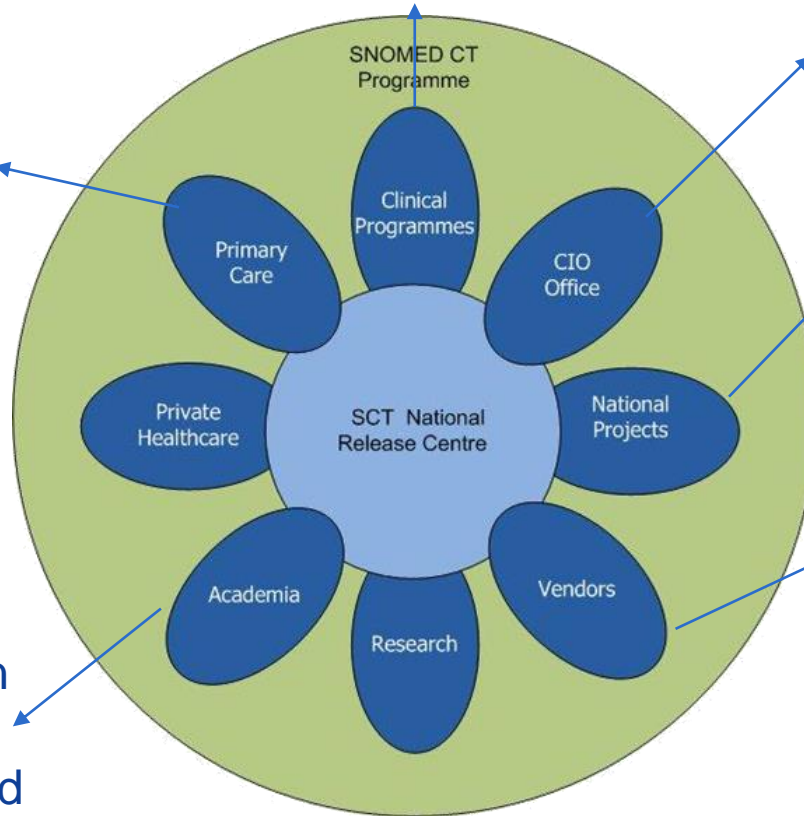


CCIO and CIO Nursing, Clinical leads all HSE domains and commence Masterclasses

Office of CIO is the delivery channel for SNOMED CT

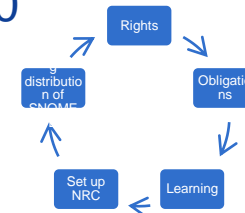
Chronic Disease Management

AFIS, CDM, EHR, MN-CMS, NRH, CHI

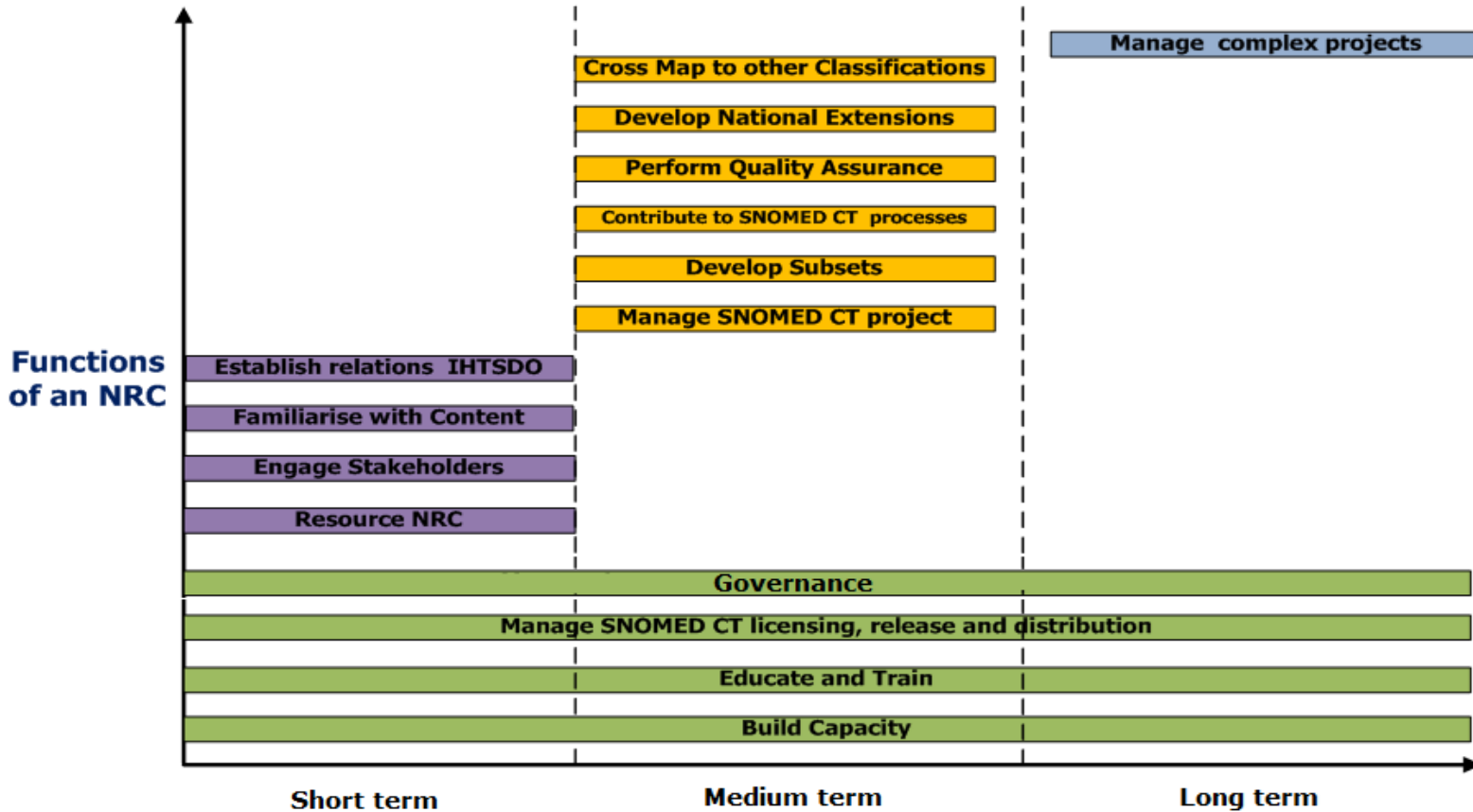


Presentations given in UCC, UL and HISI

Vendor specification document and developers day March 2020



## Implementation of a National Release Centre



**General Assembly** –is the highest authority in SNOMED International and contains one representative from each member country

They can make binding decisions on budgets, work plans and strategic goals

Twice yearly face to face meetings

**Member Forum** rep-acts as an advisory body to the Management board and facilitates point of contact for all stakeholders

Optimizes the collaboration and coordination among member countries

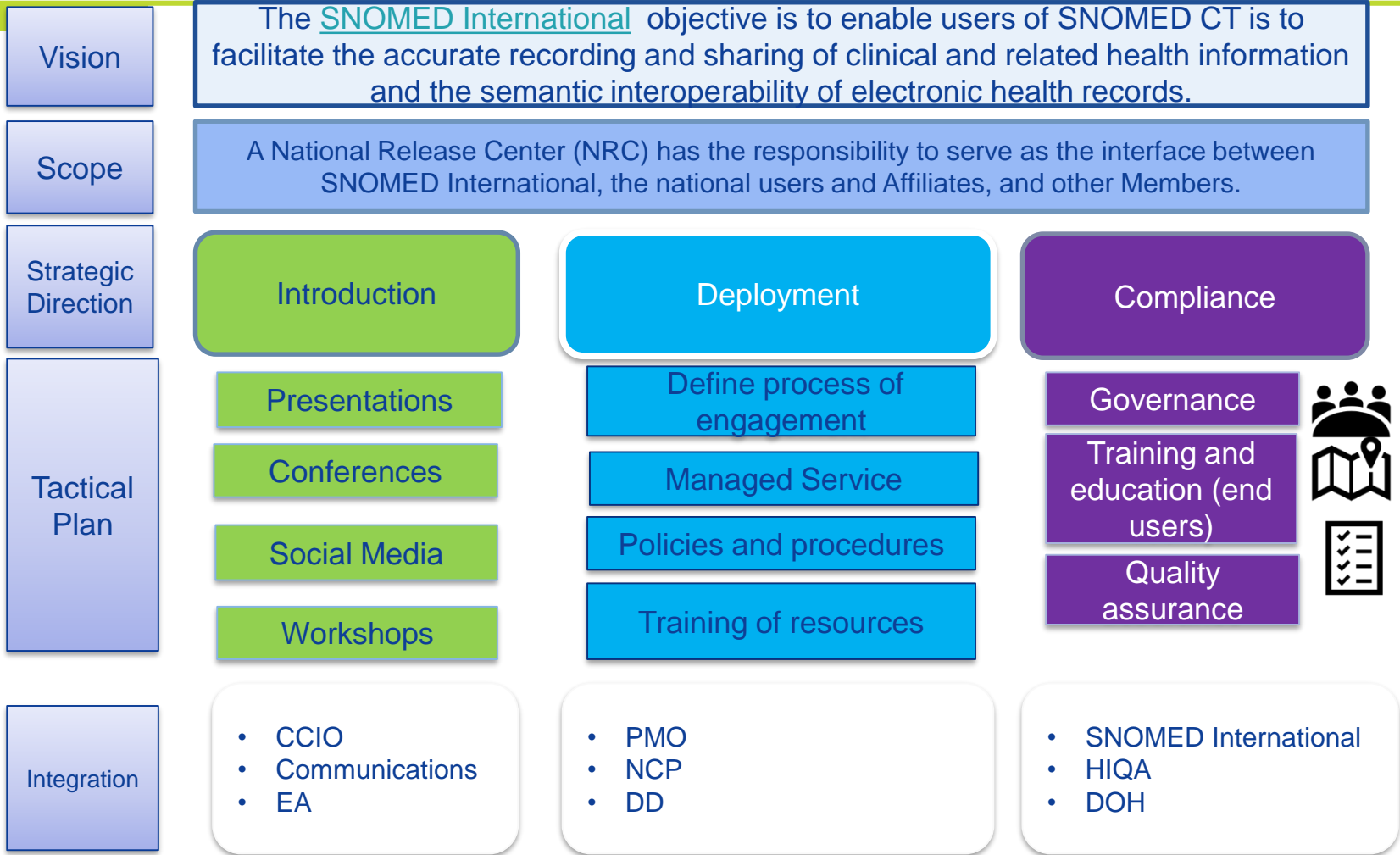
Facilitates contact and communication between countries with similar foundations/needs

Can raise issues of concern to management board

Key player in which work items should be prioritized

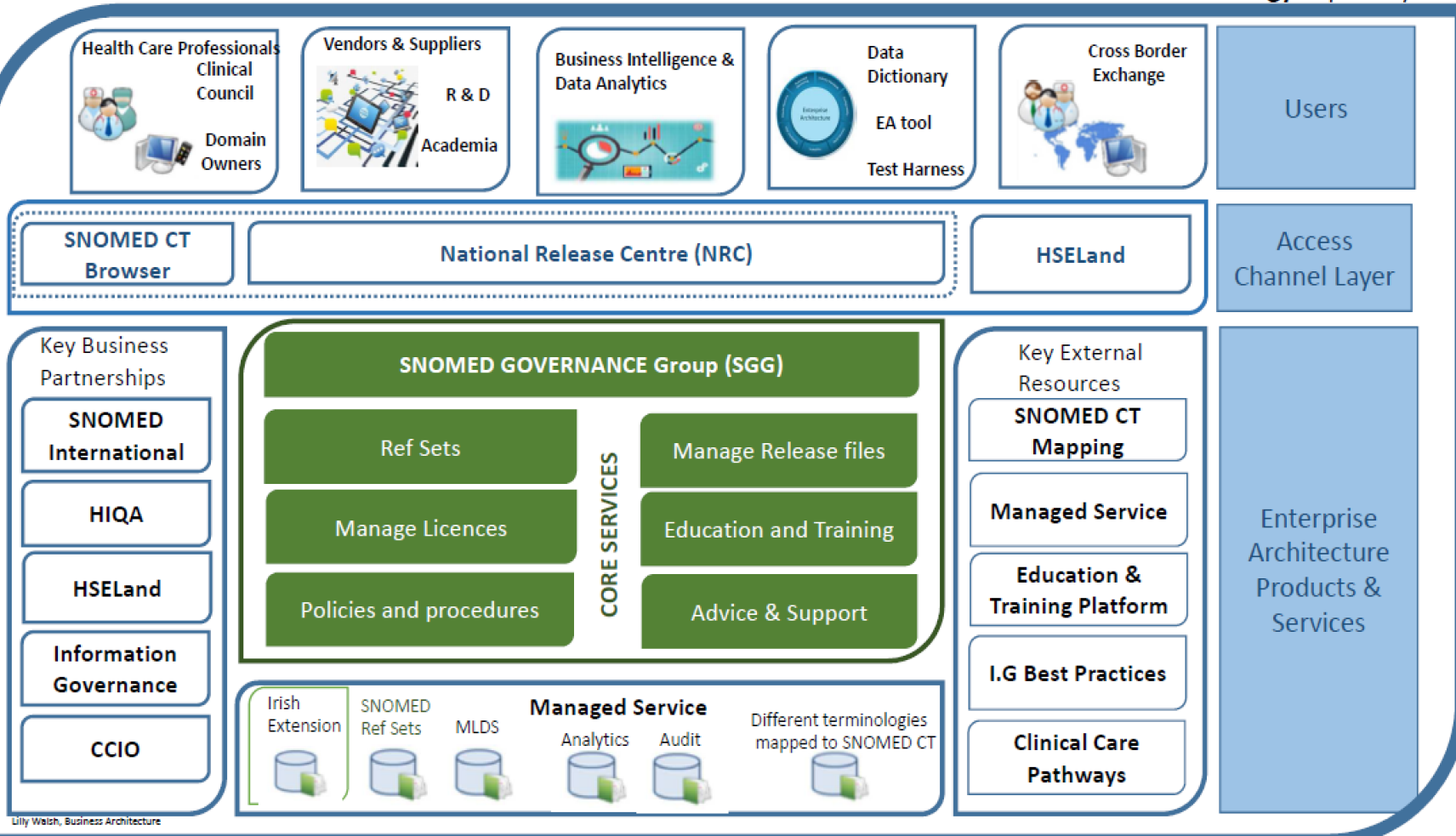
Twice yearly face to face meetings

# Strategic deployment



# Capability Map

## Clinical Terminology Capability Map



Lily Walsh, Business Architecture

# Clinicians role /Office of CIO role

Having all our healthcare information on computers will improve everything?

- SNOMED CT is the clinical terminology that will record, retrieve, and help us to analyse our patient information for better patient outcomes
- This needs to be configured for our systems with our clinical leads deciding what clinical terms are in our systems



Ensure Vendor specification document included in all clinical system procurements  
Ensure clinicians are aware of requirement to engage with NRC



# SNOMED International SNOMED CT Browser

[SNOMED CT Statistics - International Edition](#)

The SNOMED International SNOMED CT Browser provides ways to browse and search SNOMED CT. The browser has been implemented as part of development within the SNOMED International Open Tooling Framework, by the SNOMED International and its development partners

The Browser is provided by SNOMED International to anyone for reference purposes. The interface and REST APIs are **not** to be used as part of production systems in health care settings.

Any abuse of the REST APIs will result in the offending IP address being banned from accessing the browser.

Please provide any feedback on the browser by clicking on the feedback button at the top of the page. Your feedback is essential to the evolution and improvement of this service. Please visit the [SNOMED CT Content Request Service](#) to provide content feedback.

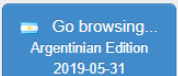
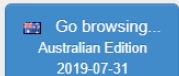
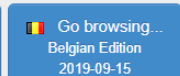
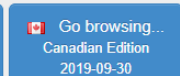
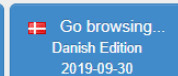
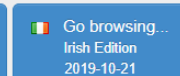
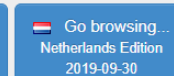
This site has been optimized for the Google Chrome browser and **it will not work with Internet Explorer.**

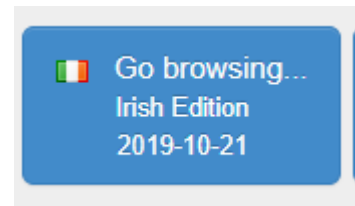
**If you do not have access to Chrome, please visit the [IE compatibility version here](#)**

## International Editions

 Go browsing... International Edition 2019-07-31	 Go browsing... Spanish Edition 2019-10-31
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## Local Extensions

 Go browsing... Argentinian Edition 2019-05-31	 Go browsing... Australian Edition 2019-07-31	 Go browsing... Belgian Edition 2019-09-15	 Go browsing... Canadian Edition 2019-09-30	 Go browsing... Danish Edition 2019-09-30	 Go browsing... Irish Edition 2019-10-21	 Go browsing... Netherlands Edition 2019-09-30
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Go browsing...  
Irish Edition  
2019-10-21

SNOMED International 2017 v1.33.2

Home Search Favorites Refset

Taxonomy

Preferred view

- SNOMED CT Concept
  - Body structure (body structure)
  - Clinical finding (finding)
  - Environment or geographical location (environment / location)
  - Event (event)
  - Observable entity (observable entity)
  - Organism (organism)
  - Pharmaceutical / biologic product (product)
  - Physical force (physical force)
  - Physical object (physical object)
  - Procedure (procedure)
  - Qualifier value (qualifier value)
  - Record artifact (record artifact)
  - Situation with explicit context (situation)
  - SNOMED CT Model Component (metadata)
  - Social context (social concept)
  - Special concept (special concept)
  - Specimen (specimen)
  - Staging and scales (staging scale)
  - Substance (substance)

Concept Details




Concept Details

Summary Details Diagram Expression Refsets Members References

Stated

Parents

- SNOMED CT Concept (SNOMED RT+CTV3)

 Clinical finding (finding)  

SCTID: 404684003

404684003 | Clinical finding (finding) |

Clinical finding (finding)

Clinical finding

No attributes

Children (32)

32 Children

# Managed service

- 2<sup>nd</sup> release October 2019 Next release April 2020

Authoring Platform | Dashboard | Edit Concepts / IEPRE18 / IEPRE18-4 | All concepts loaded | Theresa Barry Logout

Task Title:  
Test Sept 20

Task Details:

Edit Task Details

Classify

Validate

Submit For Review

Promote This Task to the Project

Body structure (body structure) | Stated | Inferred | AF

123037004 Body structure (body structure) → 138875005 SNOMED CT Concept (SNOMED RT+CTV3)

Acute Floor Information System Reference set (foundation metadata concept) | Stated | Inferred | AF

31000220100 Acute Floor Information System Reference set (foundation metadata concept) → 448509000 Simple type reference set (foundation metadata concept)

Code	Label	System	Language	Terminology	Version	Effective
ci	Body structure (body structure)	FSN	us:P	gb:P	ie:N	
ci	Body structure	SYN	us:P	gb:P	ie:N	
ci	Body structures	SYN	us:A	gb:A	ie:N	
0	Is a (attribute)					

Code	Label	System	Language	Terminology	Version	Effective
CS	Acute Floor Information System Reference set (foundation metadata concept)	FSN	us:P	gb:N	ie:P	
CS	Acute Floor Information System Reference set	SYN	us:P	gb:P	ie:P	
CS	AFIS	SYN	us:N	gb:N	ie:A	
0	Is a (attribute)					

## Advisory groups

- Content Managers advisory groups
  - E-Learning Advisory groups
  - Terminology Release Advisory Group
  - Modeling Advisory Group
  - Editorial Advisory Group
  - Software Development Advisory Group
  - Tooling Advisory Group
- Role of an advisory group
  - SNOMED International has seven Advisory Groups (AGs) that conduct specific activities that contribute to the fulfillment of the Management Team's responsibilities and the organization's mandate.
  - The Advisory Groups are chaired by Management Team members and are agile in nature, given the changing needs and direction of the organization.
  - At the beginning of each year, each Advisory Group develops a group work plan outline, determines whether Task and Finish sub-groups are required, outlines any resource requirements, and lays out a set of criteria in order to measure the progress of the applicable group work plan.

## Clinical-Reference-groups

- › Allergies/Hypersensitivity and Intolerance Clinical Reference Group
- › Anesthesia Clinical Reference Group
- › Blood Components Clinical Reference Group
- › Cancer Synoptic Reporting Project Group
- › Clinical Engagement
- › Dentistry Clinical Reference Group
- › Family Practice and General Practice Clinical Reference Group
- › Genomics and Precision Medicine Clinical Reference Group
- › Medical Devices Clinical Reference Group
- › Mental and Behavioural Health Clinical Reference Group
- › Nursing Clinical Reference Group
- › Nutrition Care Process Terminology Clinical Project Group
- › Pathology and Laboratory Medicine Clinical Reference Group

## User-groups

- › Translation User Group

## SNOMED-teams

- › SNOMED International Technical Group

## Clinical Engagement strategy

**SNOMED International Clinical Engagement strategy** sets out the organisations approach to engaging with clinicians and clinical groups. It provides a framework for engagement activities, and details how clinical input will be provided to ensure that SNOMED CT meets the requirement of clinicians, and remains clinically relevant in the changing face of healthcare.

### VISION -

- To ensure that all activities of the SNOMED International are influenced by global clinical communities
- SNOMED International's culture has a progressive and sustainable approach to engaging clinicians

Access strategy here [Clinical Engagement](#)

## WELCOME

### • Why is your opinion important to us?

As a clinical terminology, it is essential that SNOMED CT has input from clinicians to ensure that it remains relevant and up to date with the ever changing face of healthcare. Your opinion as clinicians is therefore essential to us to highlight the necessary changes and updates required, and advise us on content and products e.g.subsets which can be provided to support the implementation of SNOMED CT.

### • The evolution of clinical engagement

SNOMED CT has always had input from clinical groups throughout its history. Historically, this has been provided through special interest groups (SIG's), groups dedicated to specific clinical areas. The groups have been successful, but have been limited in their number of specialties covered; Dentistry, Nursing, Pathology and Laboratory medicine, Anaesthesia, Family/General Practice, Pharmacy. In addition to the clinical SIG's, there were two functional SIG's covering Mapping and Implementation.

Clinical Engagement has always been central to the development of SNOMED CT. In 2016, SNOMED International formally recognised the importance of clinical input, through the creation of a dedicated clinical engagement team and the agreement of [clinical engagement strategy](#). The aim of the strategy is to provide a scalable approach to engaging with clinicians, and to ensure SNOMED CT has the input required to ensure it remains up to date and relevant to clinical practice. To provide a scaleable approach for gaining clinical input from all clinical specialties, SNOMED International has put in place Clinical Reference Groups.

## ABOUT

# Analytics

- SNOMED CT concepts are modelled in such a way that their meaning can be represented using a formal family of logics called
- Description Logic (DL). Description logic enables computers to make inferences about the concepts in SNOMED CT and their meanings, and to classify SNOMED CT using a DL reasoner. Description logic also allows the formal computation of:
  - Subsumption – Testing pairs of expressions to see whether one is a subtype of the other
  - Equivalence – Testing pairs of expressions to see whether they have the same logic-based meaning
  - Subsumption and equivalence are both extremely useful functions when retrieving or querying clinical information. For example, when retrieving all clinical records related to 73211009 [diabetes mellitus], it would usually be necessary to retrieve records referring to any subtype of this concept, such as 23045005 insulin dependent diabetes mellitus type 1A

# SNOMED CT Course Catalogue E Learning

The SNOMED CT Course Catalogue offers education courses and certification exams for beginners through to advanced users of SNOMED CT.

## SNOMED CT Foundation Course

This course provides an introduction to a broad range of SNOMED CT related topics, including the why, what and how of SNOMED CT.

[View Details >](#)

## SNOMED CT Implementation Course

This course provides an in depth understanding of the stages in implementing a SNOMED CT enabled system - from the decision to adopt SNOMED CT, through to design, procurement, development, and use.

[View Details >](#)

## SNOMED CT Authoring Level 1 Course

This course teaches you the knowledge and skills needed to perform basic SNOMED CT authoring tasks. It also prepares you for the SNOMED CT Authoring Level 1 certification exam.

[View Details >](#)

## SNOMED CT Authoring Level 1 Certification

This certification recognizes your competence in performing basic SNOMED CT authoring tasks.

[View Details >](#)

## SNOMED CT for Developers

This learning pathway consists of a collection of E-Learning resources designed for software developers. The goal is to teach you enough about SNOMED CT in as short as possible a time to enable you to develop software applications that leverage its capabilities.

[View Details >](#)

## SNOMED CT for Data Analysts

This learning pathway consists of a collection of E-Learning resources designed for data analysts. The goal is to provide a solid understanding of how SNOMED CT can be used to support your clinical data analytics requirements.

[View Details >](#)



# Next steps

## Key stakeholders

- PMO, Vendor engagement document circulated and available

Vendor developers day March 24<sup>th</sup> 2020

- Clinicians', Clinical Forum engagement and Master classes planned.

Clinicians to configure datasets to create ref sets to import into solutions

# Useful Links

## Useful links

**Email** [NRC@hse.ie](mailto:NRC@hse.ie)

**Website** <http://www.snomed.org/>

### Apply for an affiliate licence

<https://mlds.ihtsdotools.org/#/landing/IE?lang=en>

### Education and learning

Log in to [www.hseland.ie](http://www.hseland.ie) (if you are a first time user select 'create an account')

Select 'Hubs' from the homepage

Enter the 'Share Centre'

Select 'SNOMED-CT' from the list of Projects and Resources

### SNOMED CT Browser

<https://browser.ihtsdotools.org/?>



**SNOMED Ireland**  
@IrelandSnomed

Email. [NRC@hse.ie](mailto:NRC@hse.ie)  
[Theresa.barry@hse.ie](mailto:Theresa.barry@hse.ie)