

Federal Public Service of Health,  
Food Chain Safety and Environment  
Directorate-General Health Care  
Department Datamanagement  
Arabella D'Havé, chief of  
Terminology, Classification, Grouping & Audit  
[arabella.dhave@health.belgium.be](mailto:arabella.dhave@health.belgium.be)

Terminology Center  
[terminologie@health.belgium.be](mailto:terminologie@health.belgium.be)  
<http://www.terminology-center.be>  
<http://www.ihtsdo.org/member/belgium>



## BELGIAN USE CASE BASED APPROACH AND APPROACH TO TRANSLATION

Paris, 2015-06-10

Welcome to IHTSDO,  
International Health Terminology  
Standards Development Organisation



Belgium joined the International Health Terminology Standards Development Organisation (IHTSDO®) in September 2013 following a strategic decision to adopt SNOMED CT® as the main Belgian health system's clinical terminology.

# Introduction:

## Background and context



- Actionplan e-health: healthcare informatisation 2013-2018 ([www.rtreh.be](http://www.rtreh.be))
  - Organisation of a Round Table Conference at the end of 2012 with regards to the healthcare informatization process
  - Approved by the Interministerial Conference of April 29th 2013
  - The action plan is structured around five pillars
    - The exchange of information by health care providers based on a common architecture;
    - The increase of the involvement of the patient and his knowledge on e-health;
    - **The realization of a national terminology policy;**
    - The administrative simplification and efficiency;
    - The introduction of a flexible and transparent governance structure in which all relevant authorities and stakeholders are involved;
- Result: 20 concrete and measurable objectives for the next five years

# Introduction:

## Background and context



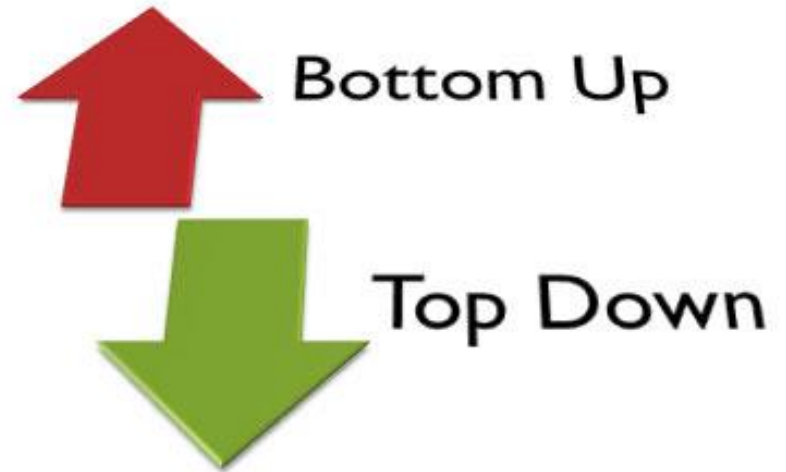
- Develop a national terminology policy
  - ▣ Installing a national terminology center
  - ▣ Providing the necessary tools
  - ▣ The development of a reference thesaurus, primarily based on SNOMED-CT
  - ▣ **Incremental implementation plan tailored to different users**
  - ▣ Mapping with various coding systems
  - ▣ Providing a standard user interface
  - ▣ Development of an electronic platform with Evidence Based Practice guidelines and information.

# Terminology Center



- Provide expert advice on semantic interoperability;
- Organize training on semantic interoperability;
- Translation of clinical terminologies;
- Mapping between clinical terminologies;
- Release management and distribution of terminologies;
- Licensing of clinical terminologies;
- Support the implementation of clinical terminologies;
- Support the adoption of clinical terminologies;

# Problem statement



# Results:

## Clarifying the role of government

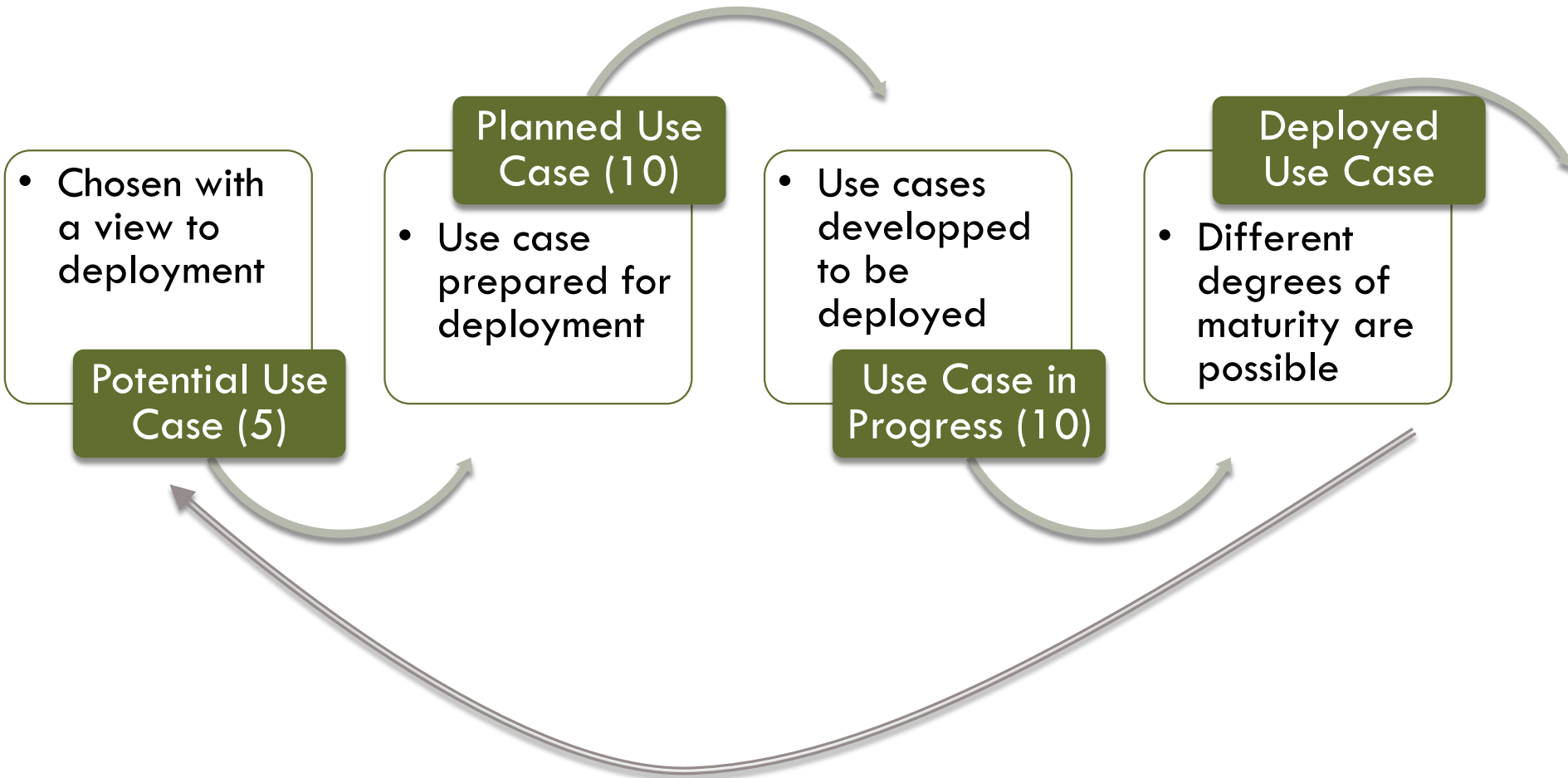


Governance continuum			
	Regulated	Guided	Free
Type of governance	Bureaucratic governance	Market governance	Network governance
Structure	Centralized	Combines centralized and decentralized	Decentralized
Controls	Legislation and sanctions	Performance based on outcomes	Coproduction and cooperation

Adapted from National E-Health and Information Principal Committee. National E-Health Strategy, 30th September 2008. Adelaide, Deloitte & Touche Tohmatsu, 2008.

# Results:

## A pragmatic approach





## Results:

### A pragmatic approach



- Demand-driven: the use case model is not a model conditioned by supply but a user demand-driven model
- Bottom-up: the use case model is not conditioned by a top-down approach as this often leads to limited adoption (limited uptake) due to a lack of commitment and participation of the user. The model is characterized by a bottom-up approach, based on the needs of users.

# Results:

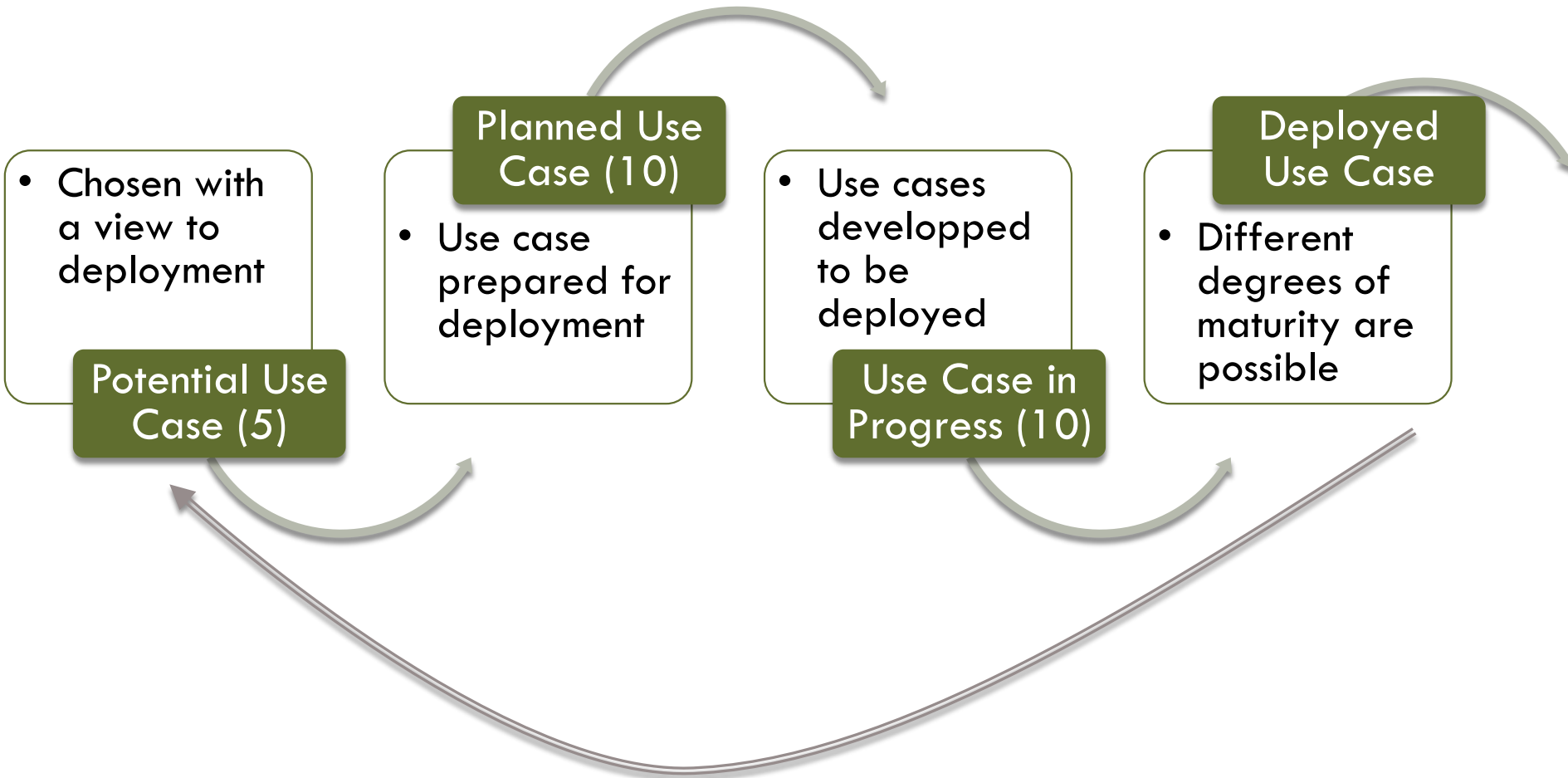
## A pragmatic approach



- Proactive: an active search of use cases is performed, based on the needs/demands of the potential users. It may occur that these needs/demands do not necessarily involve the explicit request for the use of SNOMED CT. It is the role of the Terminology Centre to explore the potential of each of these applications and, if possible, to incorporate SNOMED CT.
- Level of activity: the model must maintain a minimum level of activity and has to have a constant input/output. The arbitrarily determined minimum level of activity:
  - 5 "potential use cases"
  - 10 "planned use cases"
  - 10 "use cases in progress"

# Results:

## A pragmatic approach



# Results:

## A pragmatic approach



- Chosen with a view to deployment

Potential Use  
Case (5)

- A request from a user that does not necessarily imply the explicit request for the use of SNOMED CT, but could potentially lead to the use of SNOMED CT.
- The Terminology Centre explores the potential of each of these applications and it assigns these use cases, which qualify to become "planned use cases."

# Results:

## A pragmatic approach



### Planned Use Case (10)

- Use case prepared for deployment

- A use case that is prepared for further development, especially for it to evolve to the stage of "use cases in progress."
- The preparation consists of an analysis to determine the necessary resources (financial resources, skills, staff ...) as well as the scope, maturity of deployment...

# Results:

## A pragmatic approach



- Use cases developed to be deployed

Use Case in Progress (10)

- A use case that is prepared for deployment.
- For each of the use cases in progress, the moment of deployment is determined, more precisely the start date and end date are set, and the objective is well defined.
- The role of the terminology center depends on the complexity of the use case. Use cases that will lead to reusable deliverables are managed and delivered through a more centralized approach.

# Results:

## A pragmatic approach



### Deployed Use Case

- Different degrees of maturity are possible

- A use case that is deployed.
- Depending on the technical maturity level, this use case can be brought into the system again to reach a higher level of semantic maturity

# Use cases in progress (10)



- Use cases in progress (10)
  - UREG (Emergency registration)
  - eMediAtt (Medical Certificates, Medex)
  - Nephrology (Hospital Erasme, Brussels)
  - Gastro-enterology (Hospital Ziekenhuis Netwerk, Antwerp)
  - Kind & Gezin (Postnatal care)
  - Hospital nursing (University Hospital, Leuven)
  - Mapping Nursing Data within Minimum Hospital DataSet
  - Registries (Scientific Institute for Public Health)
  - Mapping ICD-10-CM
  - Nursing SNOMED CT list



# Conclusion



- The strategy team will need to decide how to prioritize its efforts and how to engage most effectively, particularly with those stakeholders most affected by the strategy, or most capable of influencing it and its implementation.
- Serving the true customers of the strategy is as critical as achieving buy-in for the vision.
- The initial stakeholder identification and characterization phase, as well as the trial use-cases will help the National Release Center decide how to prioritize its efforts and how to engage most effectively with each individual stakeholder.

# Lessons learned



- A form of regulation is needed
- Translation is needed
  - Multidisciplinary approach is needed
  - Concept-based translation
- Many different implementation approaches possible
  - They vary in complexity and extensiveness
- Terminology services and tools are needed
- International collaboration and sharing is needed

# Translation approach



- Goal: National Edition
  - ▣ Language Reference Sets in Dutch and French
  - ▣ Coverage: Not all concepts
    - Simple Reference Sets (Subsets)
      - Use case driven
    - Fully Specified Name in English
    - Preferred term translated
    - At least one description for clinicians
    - At least one description for patients (update action plan)
  - ▣ Following translation guidelines IHTSDO
    - Some translation has been done, need for QA