RESULTS OF THE ASSESS-CT PROJECT.

IMPLICATIONS FOR BELGIUM

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Overview

- What was the ASSESS-CT proiject ?

- What were the 5 recommendations
    of this project ?

- What are the implications for Belgium ?

- What are the challenges for the future ?

What was

the ASSESS-CT proiject ?

ASSESS-CT

ASSESSING SNOMED CT
FOR LARGE SCALE EHEALTH DEPLOYMENTS
IN THE EU

A EU Funded project

- 2 years

- 15 partners from 11 countries

- 40+ experts

- 5 Final recommendations

- Delivered 2016

- An analysis of the drivers of semantic interoperability

www.assess-CT.eu

15 partners from 11 countries

40+ external experts from various stakeholders

- Member State decision makers, Terminology centres, Health professionals, Academics, Industry, SDOs, etc.

ASSESS CT GOAL

To investigate the fitness of
the clinical terminology SNOMED CT
as a potential standard
for EU-wide eHealth deployments,
scrutinising
clinical, technical, financial, and organisational aspects

What were

the 5 recommendations

of this project ?

Recommendations of ASSESS-CT

1. Europe needs a wider, coherent and priority-driven strategy for optimising the benefits of semantic interoperability in health data

2. SNOMED CT is the best available core reference terminology for cross-border, national and regional eHealth deployments in Europe.

3. SNOMED CT should be part of an ecosystem of terminologies, including international aggregation terminologies (e.g., the WHO Family of Classifications) and multilingual user interface terminologies

4. The adoption of SNOMED CT should be realised incrementally, with adapted licences and attention to legacy conversion.

5. Member states should cooperate on terminology and semantic interoperability, with European governance across national terminology centres and eHealth competence centres.

Recommendation 1

Any decision about the adoption and riole of terminologcal resources, including SNOMED CT, must be part of a wider, coherent and priority-driven strategy for optimizing the benefits of semantic interoperabnility. in health data, and of the overarching eHealth Strategy of the European Union and its Member States.

A European terminology strategy should be part of an overarching European eHealth strategy.

The strategy should support the principles of collecting clinical data once and using them multiple times

Thus, administrative, public health and research information should almost always be derived from routinely collected clinical information.

This strategy should have Member State support.

ASSESS CT

Recommendation 2

SNOMED CT is the best candidate for a core reference terminology for cross-border, national and regional eHealth deployment in Europe.

A main advantage is its content coverage, which is superior to any other single terminology, making it the most complete point of reference for health related concepts.

Another advantage of SNOMED CT over a set of other clinical terminologies is its principled ontology-based architecture with a logic-based coordination syntax.

Recommendation 3

SNOMED CT should be part of an ecosystem of terminologies, including international aggregation terminologies (e.g., the WHO Family of Classifications), and inlcuding local/national user interfacte terminologies, which address multilingualism in Europe and clinical communication with multidisciplinary professional language and lay language.

No country sees SNOMED CT as a standalone solution,
but rather as an important part of
the national terminology infrastructure.

Recommendation 4

The adoption of SNOMED CT should be realised incrementally rather than all at once, by developing terminology subsets that address the interoperability requirements for prioritised use cases, and expanding this set over some years, professional language and lay language.

Such incremental use, but across all Member States, might be subject to specially negotiated licences on behalf of the whole of Europe.

Solutions must be in place for legacy conversion, guaranteeing the continued exploitation of historical data, for user interface terminologies, and for assuring the continuation of global mortality and morbidity statistics.

Recommendation 5

Mechanisms should be established to facilitate and co-ordinate European Member State co-operation on terminology and semantic interoperability, including common areas of governance across national terminology centres, eHealth competence centres (or equivalent national bodies).

This should maximise the value of Member State and SDO alignment on the approach to advancing semantic interoperability, including the implementation and deployment of SNOMED CT.

DRIVERS FOR INVESTMENTS IN SEMANTIC INTEROPERABILITY

1. Better quality and safety of care to individual patients
2. Enriched EHR data exchange for continuity of care
3. Cost reduction
4. Optimising reimbursement
5. Analysis (secondary) uses
6. Cross-border information and knowledge sharing

What are

the implications for Belgium ?

1 *once*

The act of entering medical data

should be performed only once,

yet permit multiple applications

1 *once*

is a very ambitious objective.

It requires a chain of prerequisites to be fulfilled :

- Standardized Electronic Health Records
  (HL7, OpenEHR, or EN13606)
- Terminology binding and direct coding
  with a reference terminology and
  with classifications
- A sophisticated end-user terminology
- Optimal human-computer interface
- Skilled and well-trained health care practitioners

There are 3 types of terminologies

End-user terminologies
Linguistic, managing ambiguity of language
=> for natural medical documentation

Reference terminologies
Conceptual, comprehensive, precise
multi-axial formal logic
=> for precise identiication of concepts
Aggregation terminologies
from less to more granular
Uni-axial hierarchy
= for epidemiology and science

The role of different terminologies in a terminology ecosystem

User interface terminology
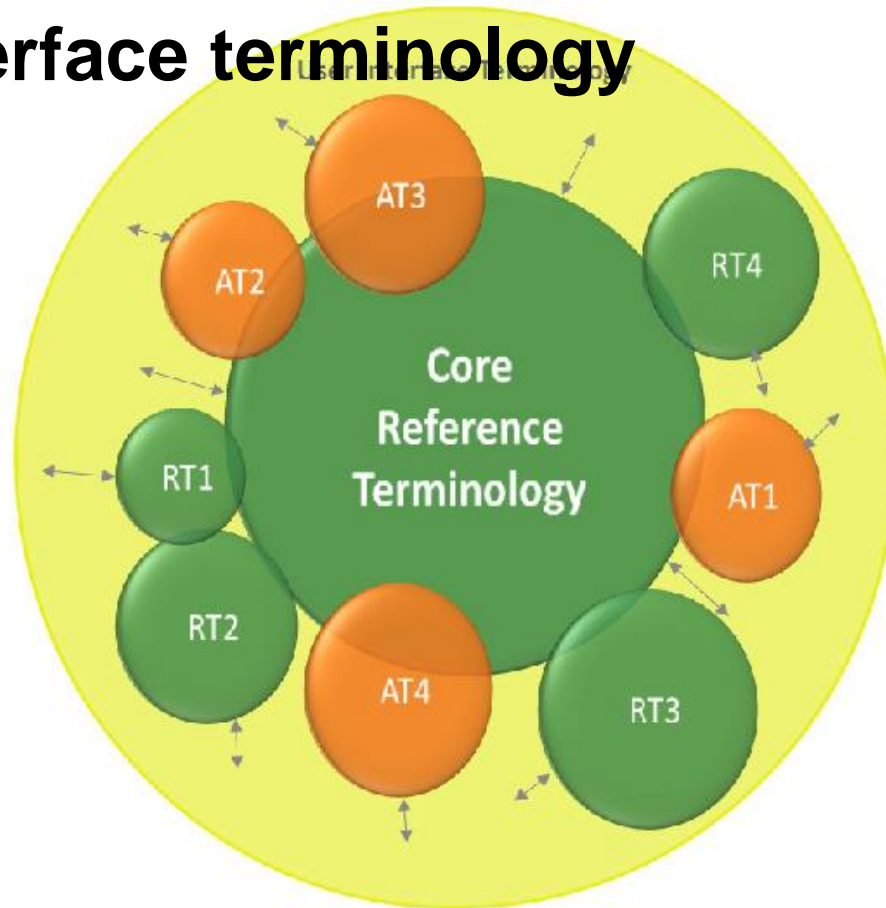
RT = reference terminology
AT = aggregation terminology

**Snomed-CT is part of the
terminological solution
but not the only solution**

We need
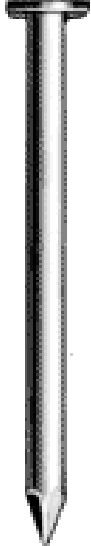   ICD for worldwide statistics

    LOINC for lab results

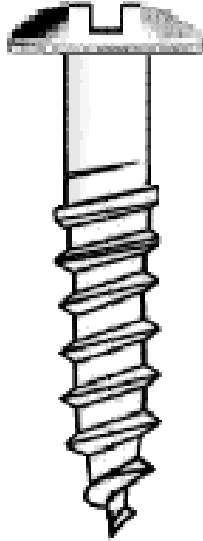   ICPC for epidemiology in primary care

    ATC for medications
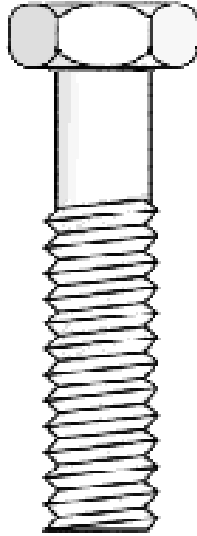
      => We need a multiterminological solutions
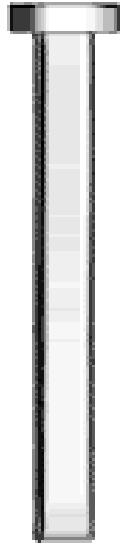
Rivet Nail Screw Bolt

If you only have a hammer, everything looks like a nail

The Belgian Terminology Centre

should be more than

the National Release Center of SNOMED-CT

It should be the Terminology Centre
of all relevant terminologies

Terminology for who ?

Hospital care
40 medical subspecialities

Primary care
General Practitioners
Nurses
Physiotherapists
Speech therapists

The health care managers and scientists

The patient
The literate patient
The Illiterate patient
With of without medical experience

**What is the motivation for health care professionals to go the extra mile
for high quality medical documentation ?**

- Not cost reduction !
- Not more possibility for governars to control !
- Not financial incentives !

It makes
- high quality decison support working.
- point-of-care information systems more efficient.
- communication with specialists, allied personel, patients easier
- multilingual solutions possible.
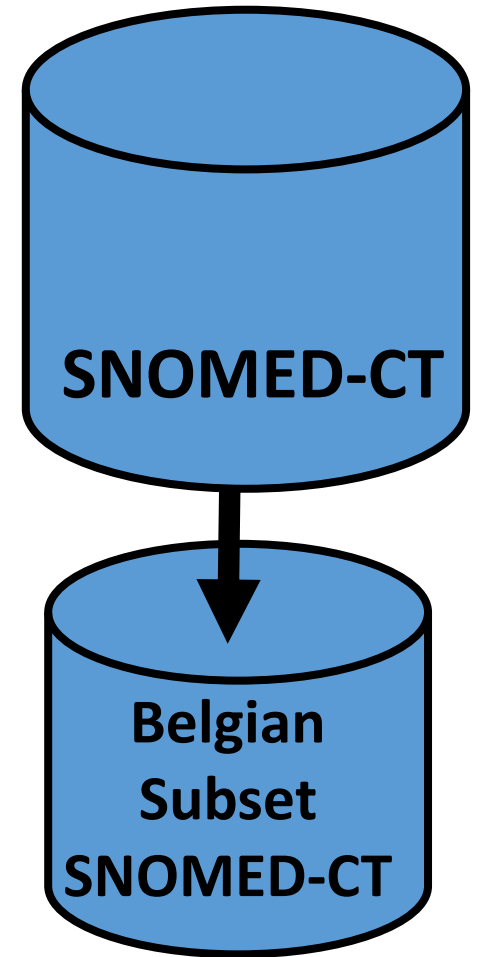
What are

the challenges for the future ?

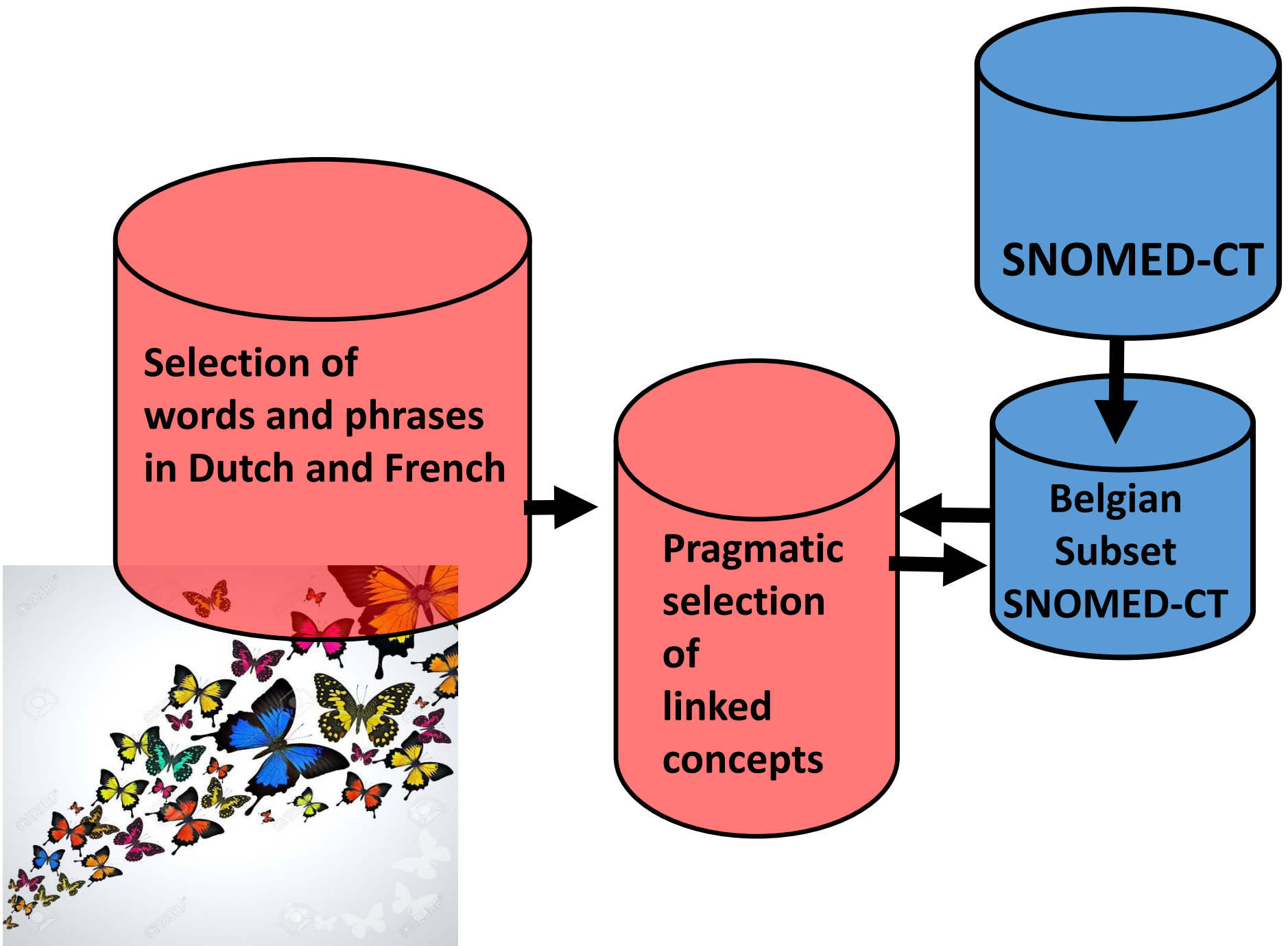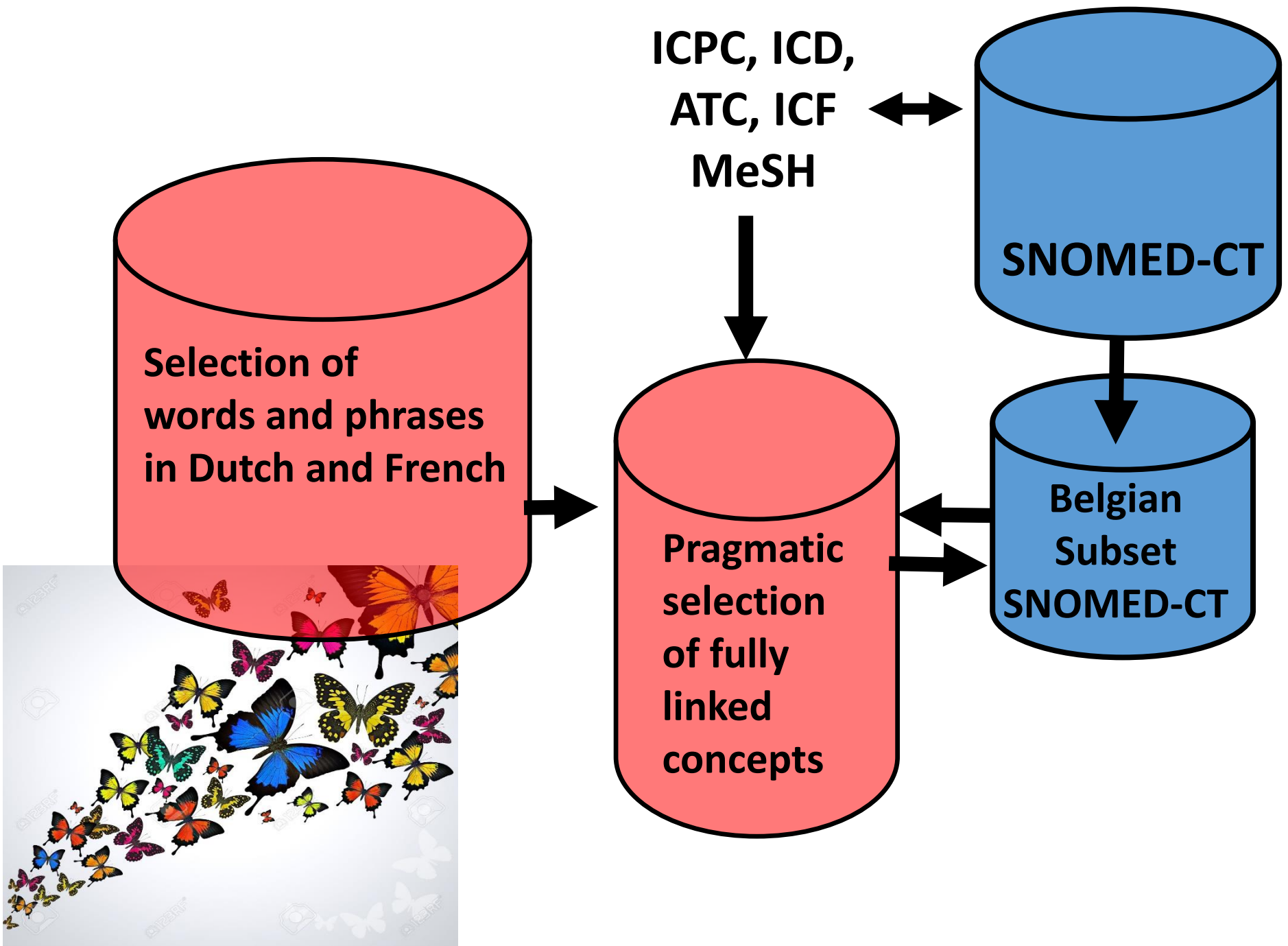# Biggest challenge

Build a bridge

between language and

conceptual terminologies

Other challenges:

- Deal with multilingual Europe
  now that, after Brexit,
  only 4.8 citizens of Europe
  have English as official language
  (but prefer to speak Gaellic).

- Harness the power of Natural Language Processing
  for better medical documentation,
  by cooperating with computational linguistics.

Final Challenge:

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Find the right place for

the formidiable resource SNOMED-CT

in an eco-system of medical terminologies.