

A SNOMED Perspective on Semantic Interoperability

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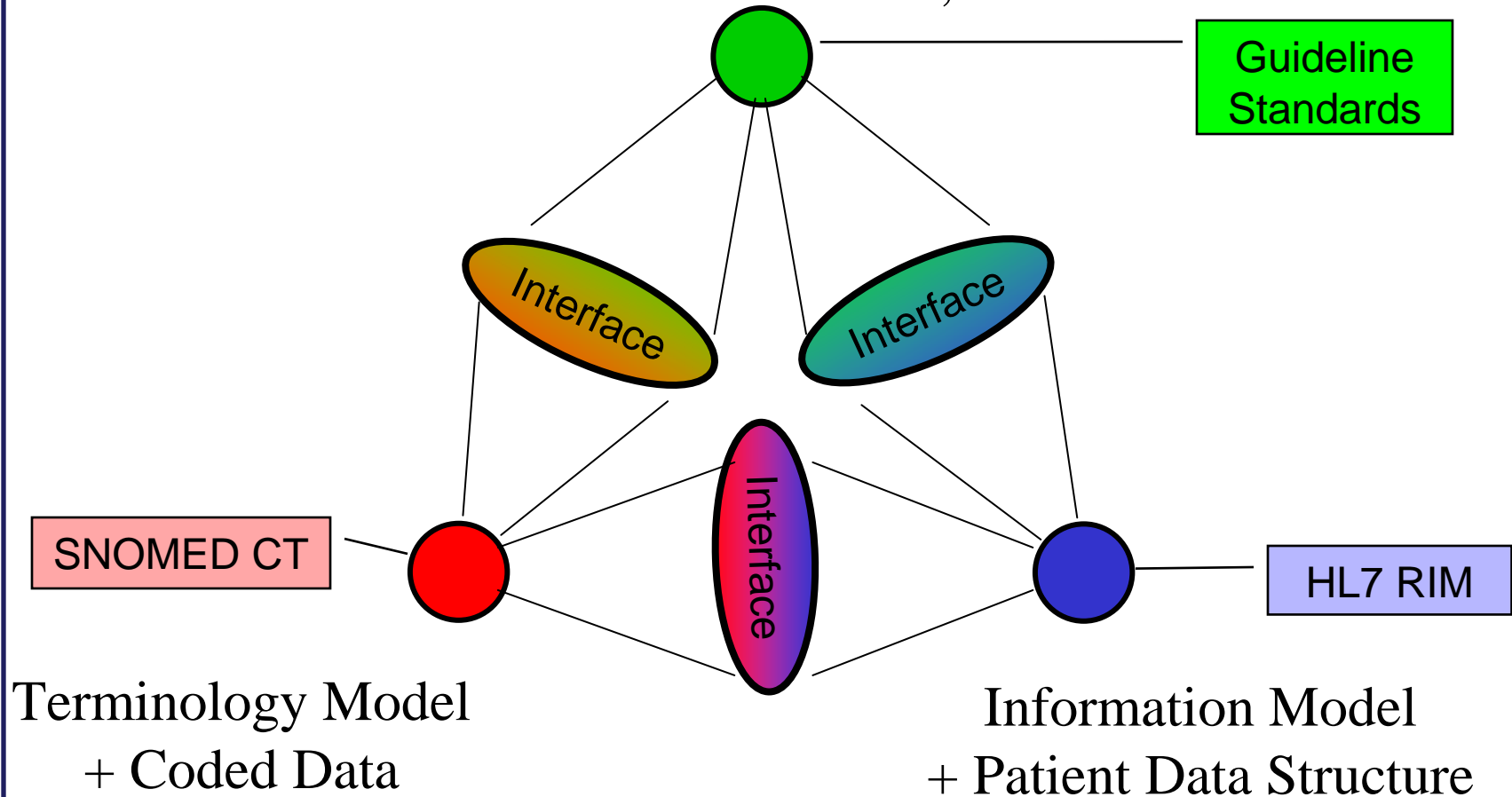
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Semantic Interoperability is Hard

- At least 3 major types of standards, and *their interactions*, have to be taken into account
 - Terminologies / ontologies
 - Information models / architectures
 - Standards for decision support rules / guidelines

Standards-based Semantic Interoperability

Decision Support Model & Inference Mechanisms
+ Encoded Guidelines, Rules



Focus: Terminology

- The rest of this presentation will focus on just one of the three points of the triangle

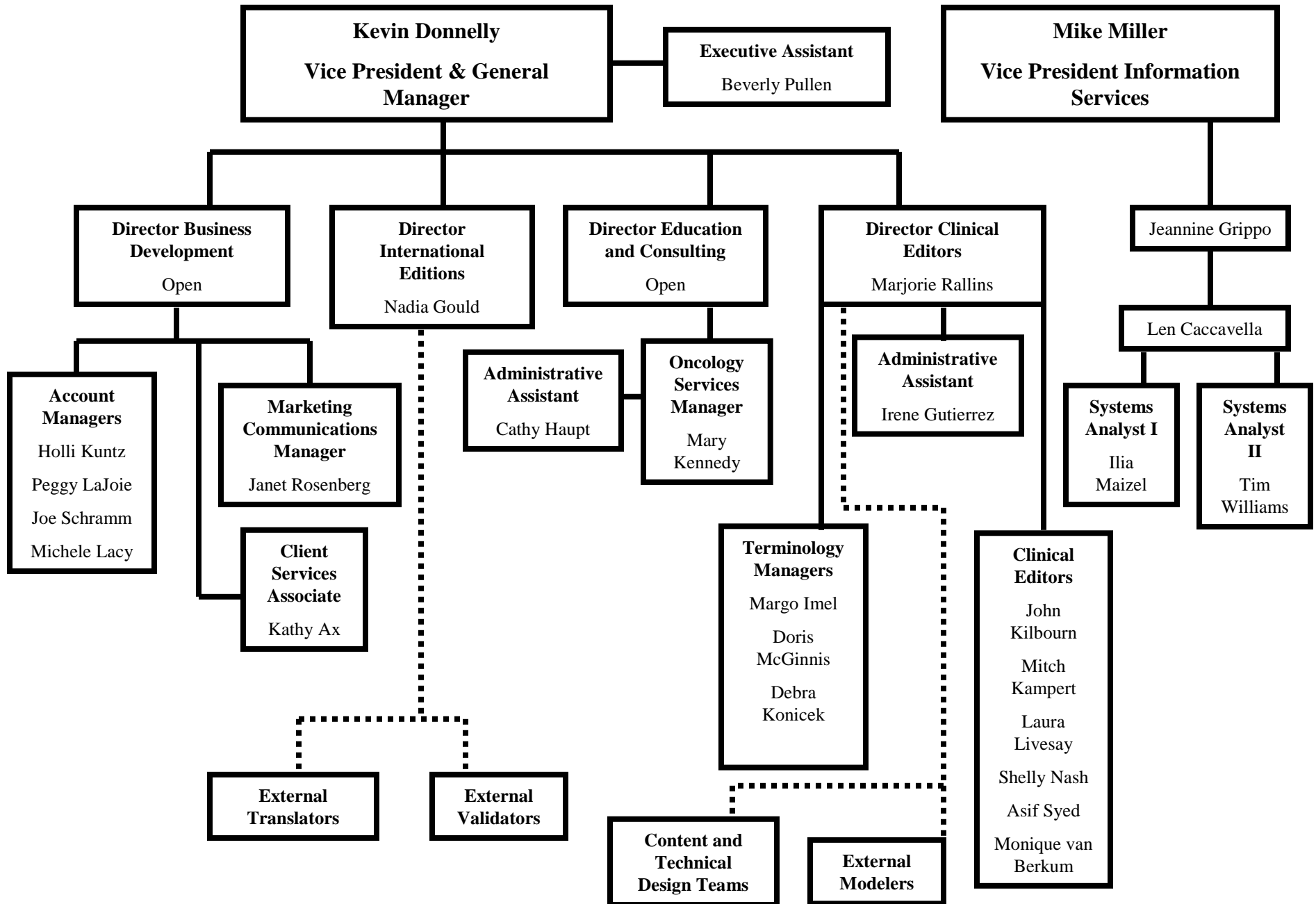
Building Terminology Standards is Time-Consuming and Expensive

- Read Codes
 - 34 million pounds through 1999
- SNOMED RT
 - 17 million dollars over 5 years 1997-2002
- Merger of the two -> SNOMED CT
 - Additional 9 million dollars over 3 years 1999-2002
- Not counting multiple millions of dollars per year in in-kind contributions from Kaiser Permanente and clinical organizations and volunteers

Current Support for SNOMED Maintenance

- US support:
 - NLM contract \$5M/year (renewable in 5-year increments)
 - makes it freely available *in perpetuity*
 - CHI and NCVHS endorsement for gov't use
- UK adoption for NPfIT
- Other countries

SNOMED International: Staff Structure as of January 2005



Moving Forward

- Terminology maintenance requires broad-based cooperation
- Cooperation thrives on openness and reciprocity
- SNOMED has already made significant moves in this direction
 - e.g. liberalization of academic licensing
 - e.g. open description of its underlying description logic, and clarification that this DL is non-proprietary
- Additional steps are required if we expect SNOMED to be made “open source” and managed as a “meritocracy”

Need for Change

- SNOMED International recognizes it will be necessary to change its business model and governance, if it is to accommodate growing international interest, especially:
 - EU Interest
 - WHO Interest
- This change must be done with care and due deliberation
- Let's not have one foot on the dock and the other in the boat, while the boat drifts away . . .

EU Interest

Recommendation 18

- The Commission, should examine the business case for negotiating an EU-wide licence for the EU to use SNOMED CT.
- The study should consider whether there is a justification for a body to provide a channel for EU input into the further development and maintenance of SNOMED since it still needs to be improved.
- The EU should further consider whether there an **international agreement could be reached whereby SNOMED could be managed by a global public body.**
- The business case should consider support for establishing European interests in creating and maintaining a unified approach to medical terminology in the wider context of world markets and specialist requirements

Report from the
CEN/ISSS e-Health Standardisation Focus Group Draft V8.2



The Case of eHealth

- Considerable advantages could accrue if SCT became the standard for the EU as a whole.
- However this raises a question of *licensing*, *translations* and *mechanisms for maintenance* whereby EU member states could influence future SNOMED developments and maybe additions to the terminology (some terms may be peculiar to particular member states)

CEN/ISSS report draft V8.2, November 2004

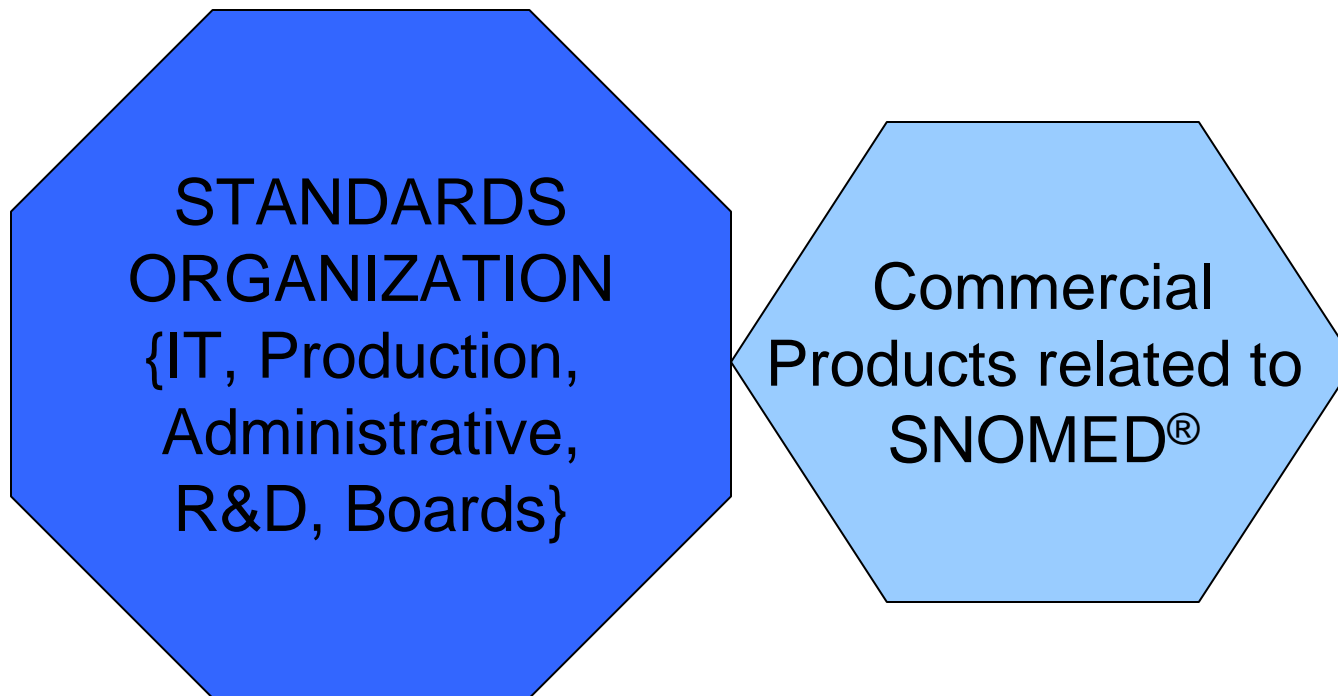
WHO interest

- The FDC (Family Development Committee) accepted that there should be engagement between classifications and terminologies
- Agreed to consider terminologies in relation to the WHO-FIC.
- The depth of engagement between WHO-FIC and SNOMED-CT now required a stronger structure than the FIC terminologies working group. This would be further discussed by the planning committee.

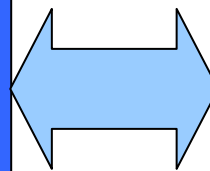
Draft report WHO FIC Network meeting Reykjavik October 24-30, 2004

What is the Future for SNOMED International ?

SNOMED[®] International business model has two distinct functions



An alternative SNOMED[®] International business model



GLOBAL TERMINOLOGY SERVICE PROVIDER *



and/or

SECRETARIAT **

CAP core competencies

* Terminology producer * QA/Accreditation provider * * Association manager



Barriers

- Governance model: making it concrete and getting buy-in and endorsement
- Mechanisms for support and cooperation: Who pays? Who does the work? Who benefits?
- Localization & translation: how are language translations funded? How are localizations supported? How are the global/local tensions to be adjudicated?

If you would like to make suggestions

- Contact any of us:
 - Kent Spackman, spackman@ohsu.edu
 - Chair, SNOMED International Editorial Board
 - Kevin Donnelly, kdonnel@cap.org
 - VP and General Manager of SNOMED International, CAP
 - Frank Elevitch, felevitch@aol.com
 - Chair, SNOMED International Authority
 - Martin Severs, martin.severs@port.ac.uk
 - UK Member, SNOMED Int'l Authority
 - Drafting a discussion document on possible options that could be considered for governance of an international terminology standards organization

Localization & Translation

- Perception: SNOMED is an American (i.e. US) terminology
- Reality: it has always been international
 - But its main countries today are US & UK
 - And its main language is English
- Support for localization and translations is built in to the structure of SNOMED
 - Spanish translation provides extremely valuable experience in translation and localization