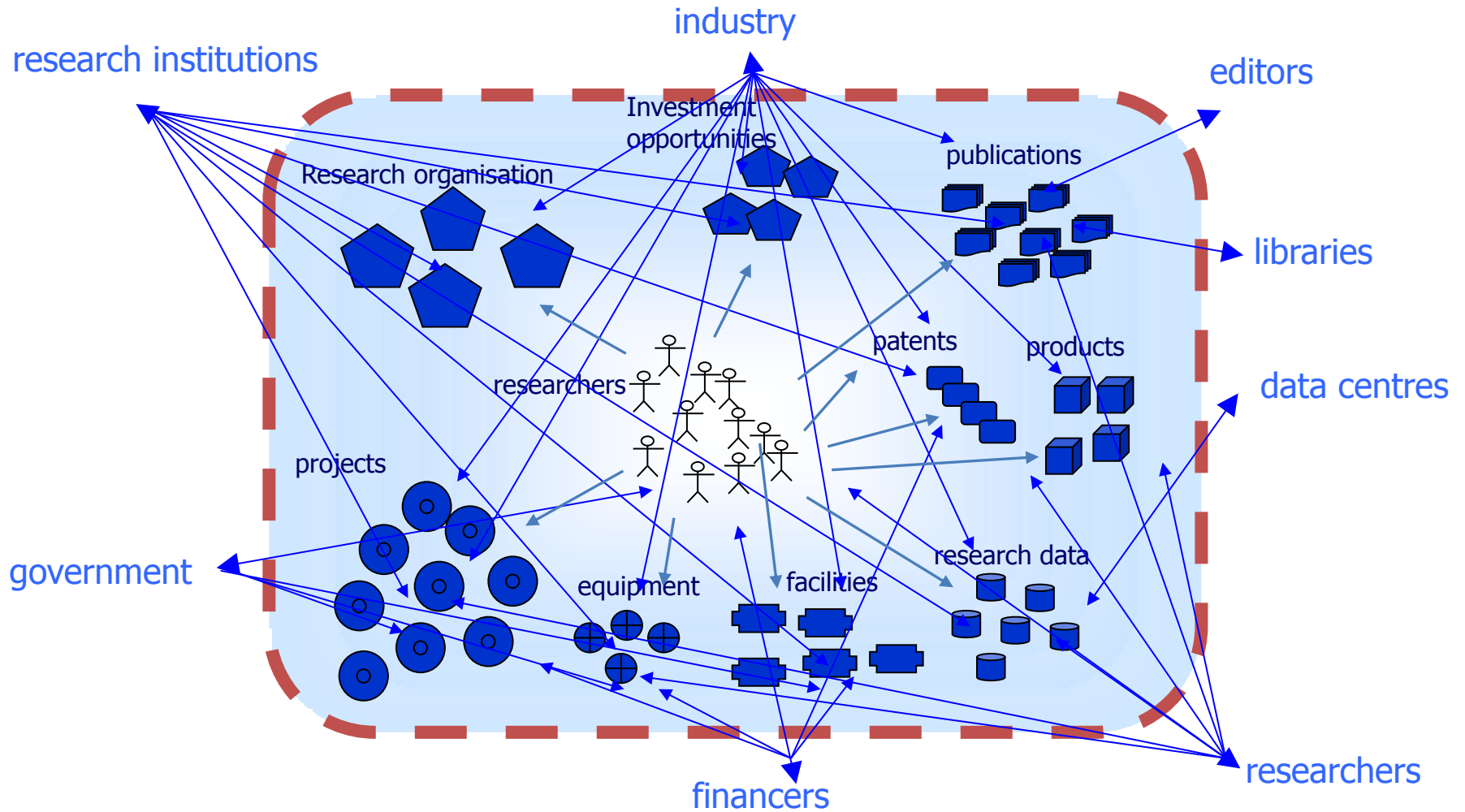
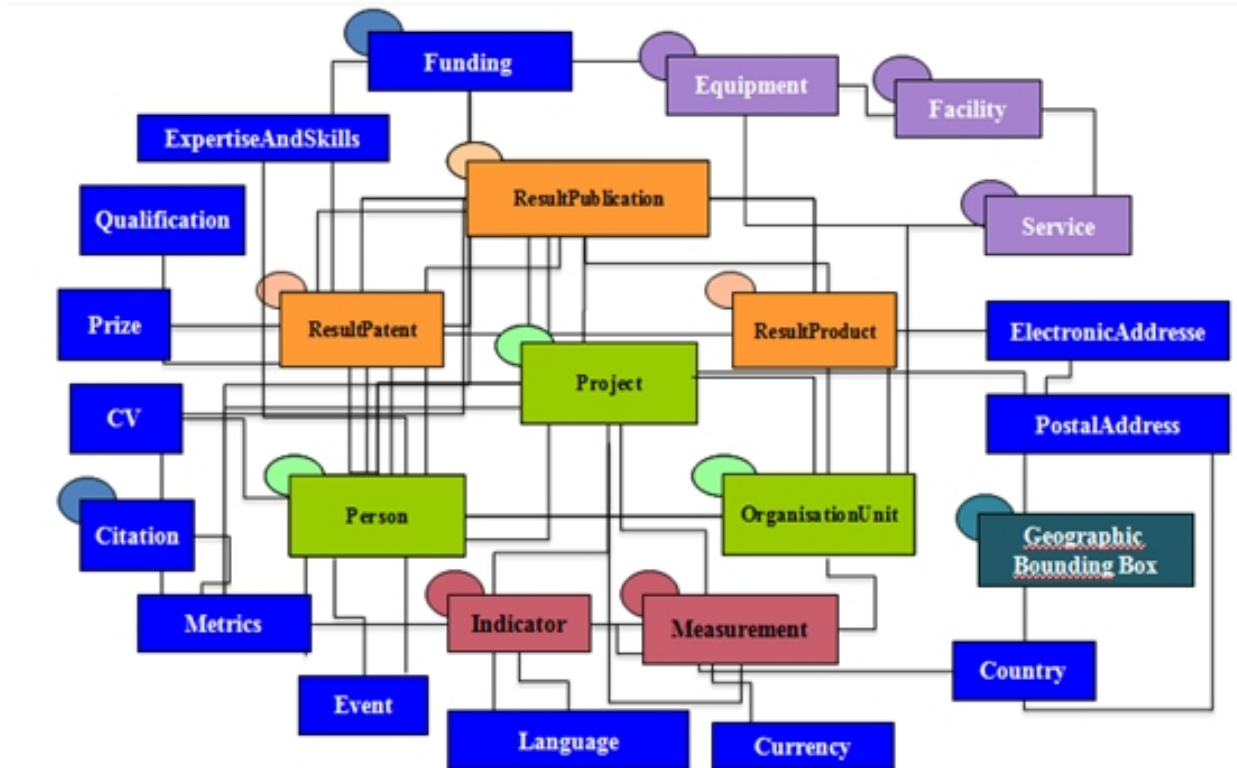


**Data and classification governance,
key to semantic interoperability of CRIS systems
in inter-organizational contexts**



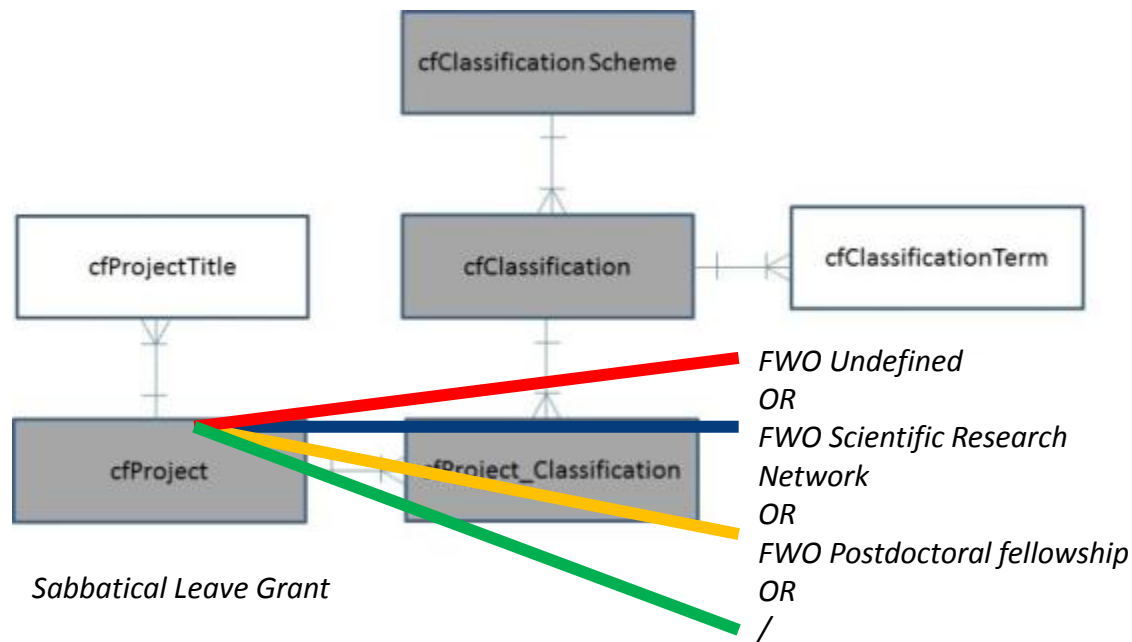
CERIF 1.6

- Almost unlimited flexibility for modelling RI
 - Base, result, infrastructure and 2nd level entities: 293
 - Attributes for metadata and multilinguality: 1814
 - Time-stamped / classification-referenced relations: 665



Caveats

- Semantic mismatches
 - Terminology:
 - same concepts, different meanings and vice versa
 - at the inter- and intra-organizational level



CRIS needs & drivers

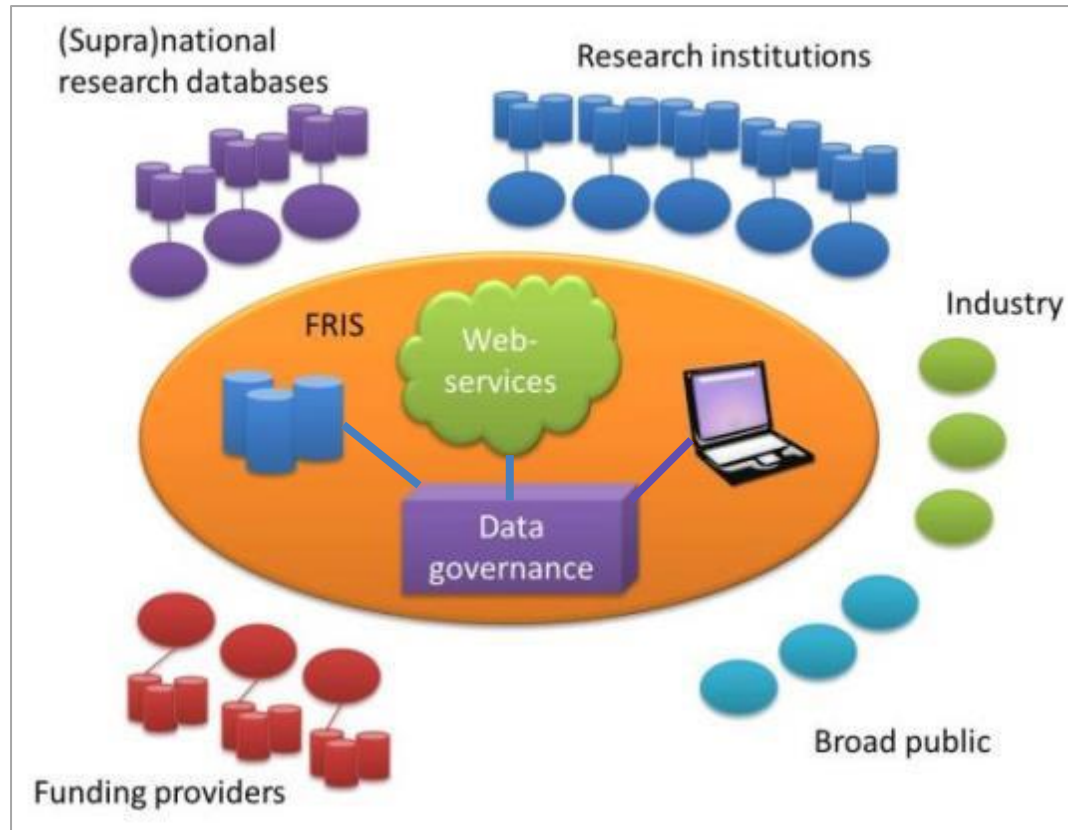
- Correct, actual, complete research information
 - **Maximum reuse** of research information
 - By **connecting data silo's**
 - Reducing system costs

- CRIS services & applications
 - Administrative reduction or research reporting
 - Increased strategic intelligence
 - Efficient & effective policy monitoring
 - More information services

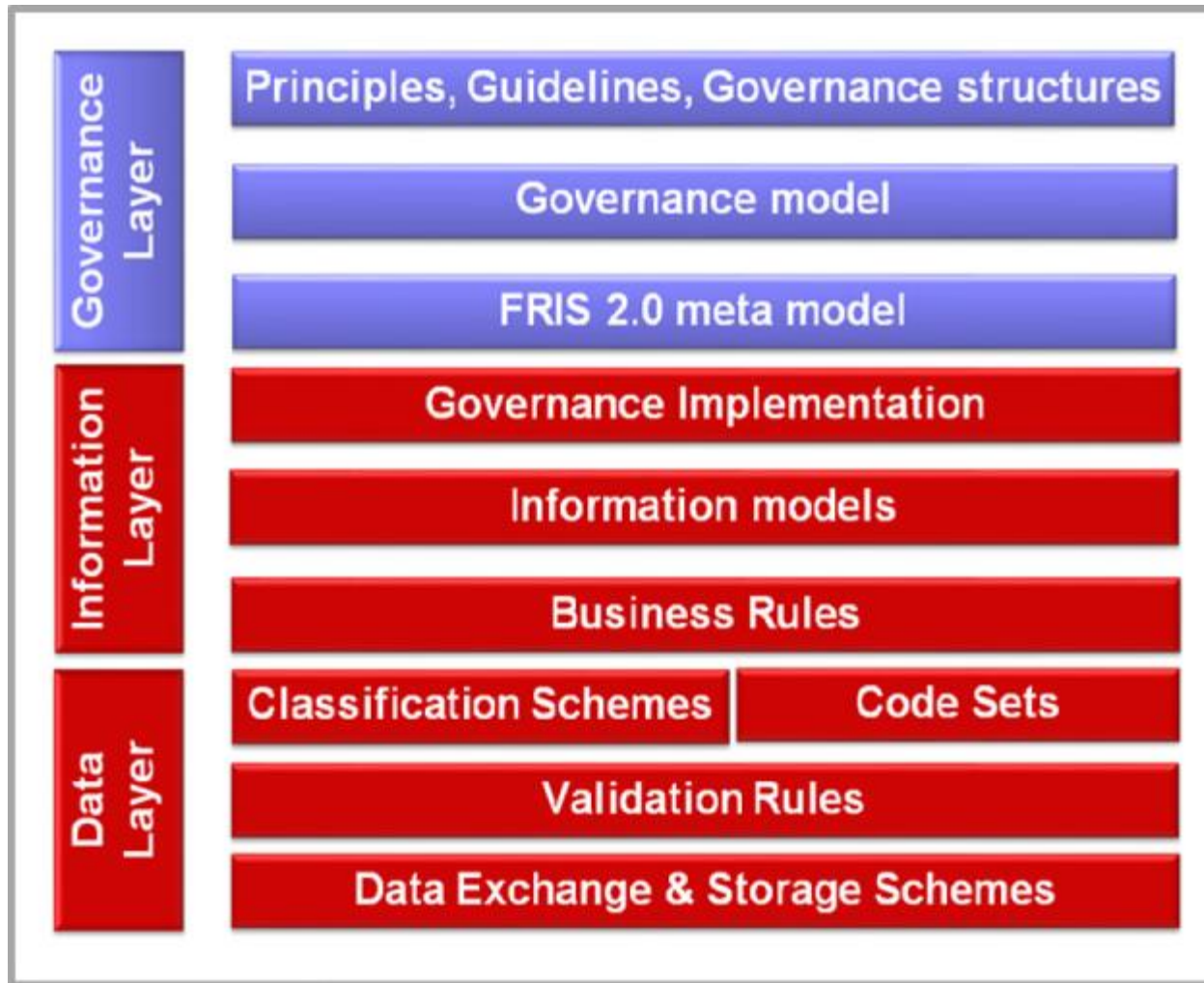
TRUE Semantic interoperability is a MUST

Semantic interoperable CRIS

Flanders Research Information Space (FRIS)

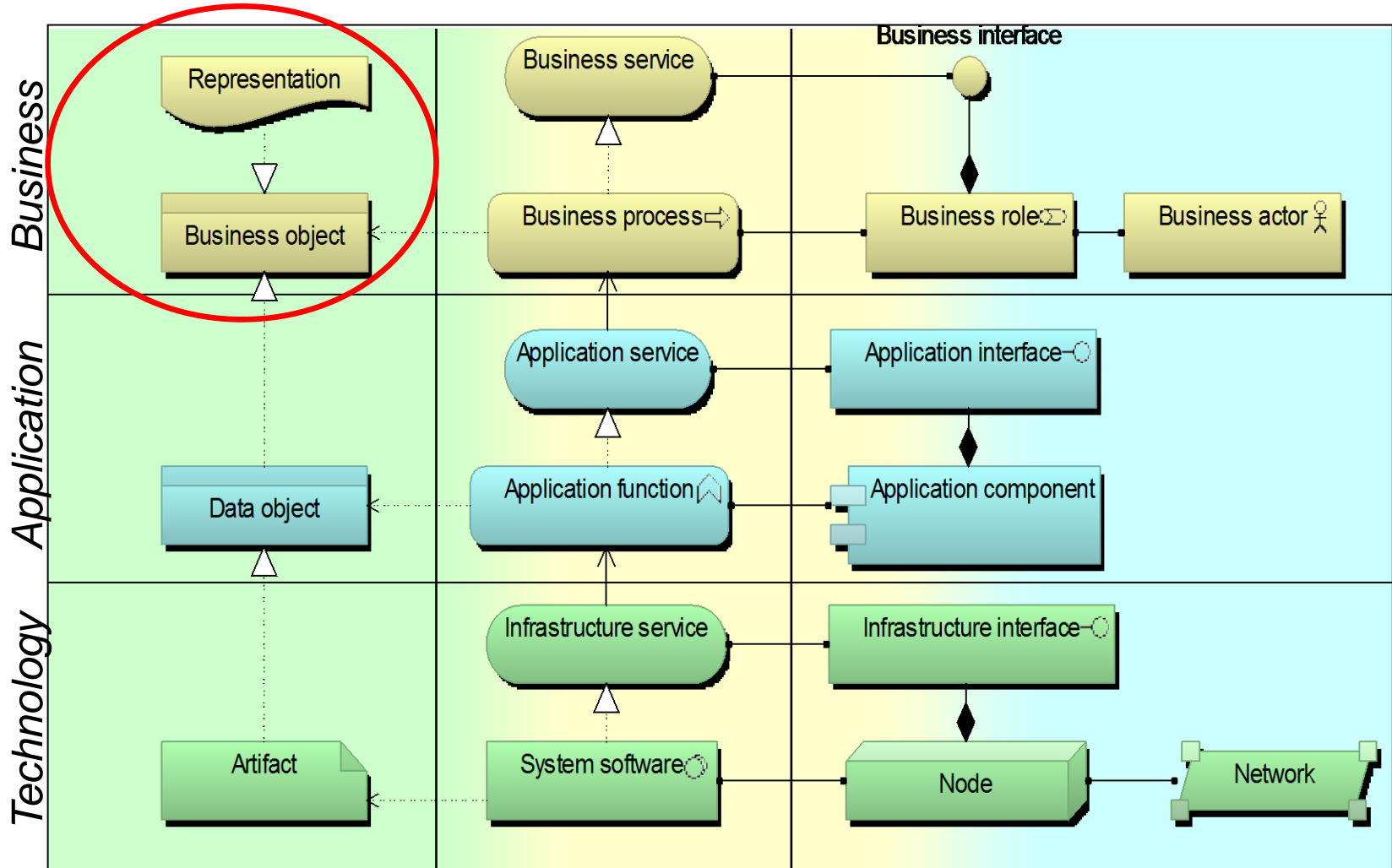


1. Installation of a governance structure



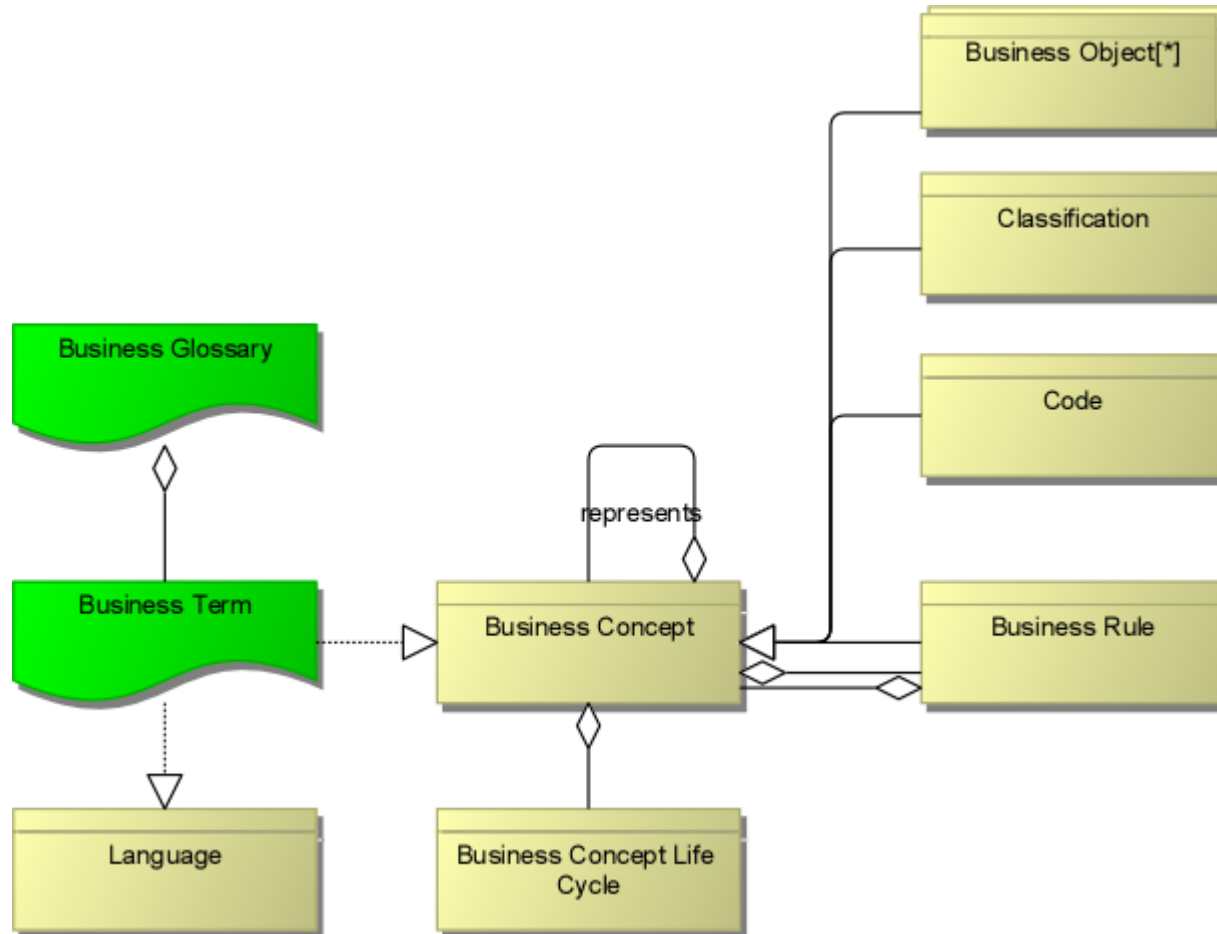
2. Involvement / creation of a business layer

- Recording of business concepts and meanings



2. Involvement / creation of a business layer

- Semantics (not) (yet) in place





- Edit
- Move
- Delete
- Simple Approval
- Vote
- Edit Business Term
- Funding Program Onboarding Process
- Discover

Overview

+ Add

Hierarchy

Fact Types

Responsibilities

Traceability

Comments

+ Add

Activity

Attachments

Definition

A book is a set of written, printed, illustrated, or blank sheets, made of ink, paper, parchment, or other materials, usually fastened together to hinge at one

Descriptive Example

No value has been given yet. Double click or use the edit button.

identified by

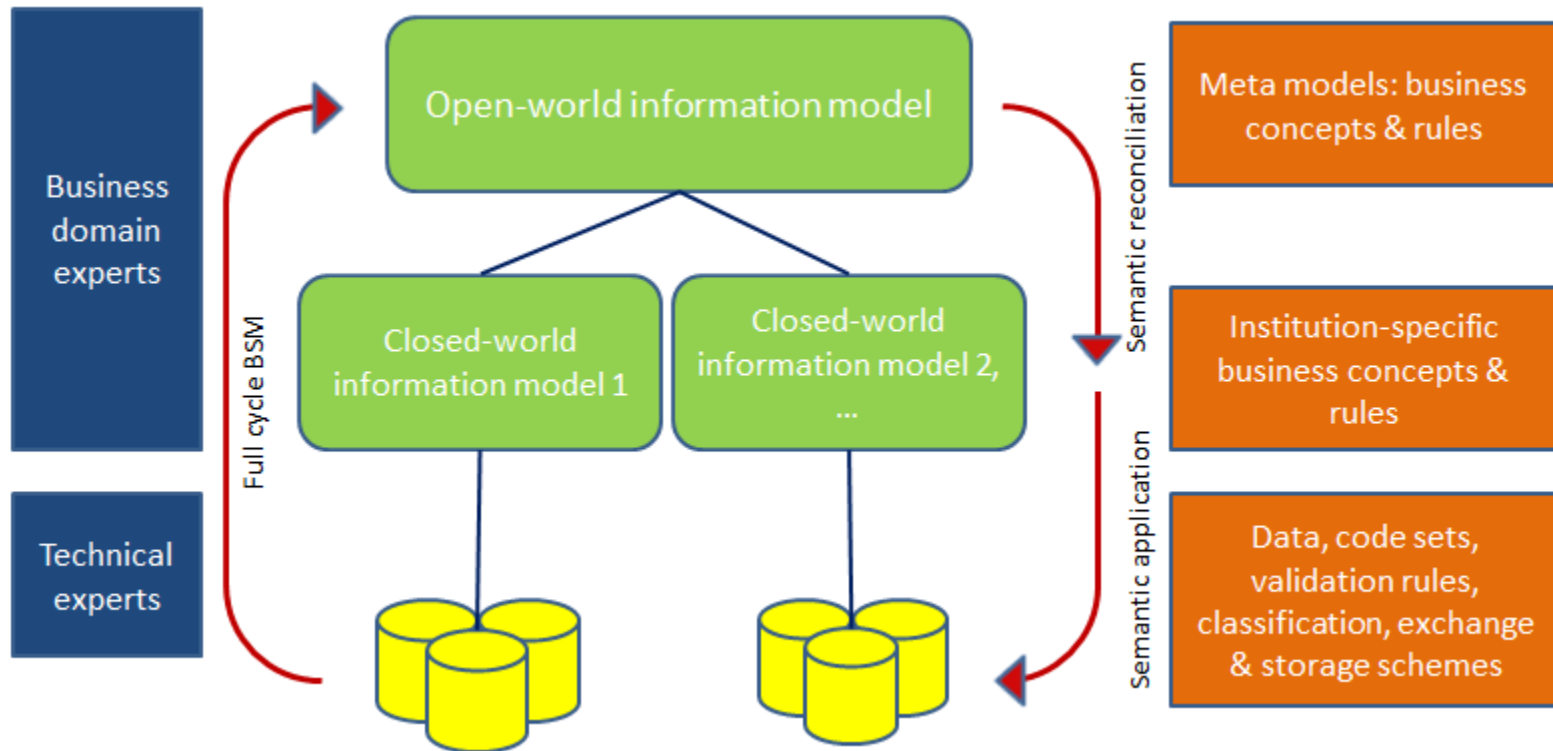
Name	Definition	Description	Domain
DOI	DOI is an acronym for "digital o... The DOI Handbook: http://www.d		Identifier Glossary
ISBN	An ISBN is an Internatíonal Stand...	An ISBN is essentially a product...	Identifier Glossary
UH Identifier	UHasselt handle, neemt de volg...		UH Identifier
VABB Identifier	The unique identifier of a re...		Identifier Glossary
WoS ID	The Identifier of Research Outp...	Synonyms found: ISI, ISI Identifi...	Identifier Glossary

has property

Name	Definition	Descriptive Example	Domain
Abstract	a short resume		Research Output Glossary
Book Edition	a particular version of a book		Research Output Glossary
Book Series Name	A book series name is the nam...		Research Output Glossary
Book Volume	A volume forming part of a larg...		Research Output Glossary
ISSN	An International Standard Serial...		Identifier Glossary
Keywords	A keyword is a significant word...		Research Output Glossary
Language	The language expressed in a ce...		FRIS Glossary
Page Count	The total number of pages of a ...		Research Output Glossary

3. Inter-organizational semantic alignment

- Definition of required business concepts on the meta-level
- Collaborative, machine-readable manner
- *Full-cycle* business semantics management





Filter on community or domain...

- > Data Governance Council
- > ECOOM
- ▼ Flanders Research Information Space
 - > FRIS Application Community
 - > FRIS Model Community
 - > FRIS Working Group on Business Rules
- ▼ Information Providers Community
 - > HoGent Research Information Community
 - > KU Leuven Research Information Community
 - > UAntwerpen Research Information Community
 - > UGent Research Information Community
- ▼ UHasselt Research Information Community
 - ▼ UHasselt Business Object Community
 - ☐ UH Funding
 - ☐ UH Identifier
 - ☐ UH Life Cycle
 - ☐ UH Location
 - ☐ UH Party
 - ☐ UH Project
 - ☑ UH Research Output
 - > UHasselt Publication Data Assets Community
 - ☐ Hasselt Research Information Glossary
- > VUB Research Information Community
- > Reference Models and Standards Community

UH Book	A nonperiodical publication con...	Book
UH Book Section	A major section of a book, com...	Book chapter
> UH Conference Material	Unpublished literature of conferen	
▼ UH Journal Contribution	This term is used to collect a se...	
UH Article	An article reports of research o...	Journal Article
UH Book Review	A critical appraisal of a book th...	Review Article
UH Correction	Correction of errors found in ar...	Journal Article
UH Correction, Addition J...	Correction of errors found in ar...	Journal Article
UH Discussion	An article or paper that discuss...	Journal Article
UH Editorial Material	An article that gives the opinion...	Journal Editorial

Classification governance for financial codes

- Research funding:
 - given to persons, projects, consortia,...
 - obtained via many funding sources
 - organisations, programs, grants
 - identified by financial codes classification



- without classification governance:
 - semantic mismatches
 - terminology and meaning
 - decentral maintenance of code lists

Extract Generation 1 financial code list

3.8 EU - Programmes and initiatives outside the framework programmes					
	3800	EU - out of framework - indefinite	01/01/1980	31/12/9999	G3
	3801	IMPACT	01/01/1988	31/12/9999	G3
	3802	SPRINT	01/01/1988	31/12/9999	G3
	3803	TIDE	01/01/1988	31/12/9999	G3
	3804	ISC (International Scientific Cooperation)	01/01/1992	31/12/9999	G3
	3805	AVICENNE	01/01/1992	31/12/9999	G3
	3806	PECO/COPERNICUS (Central and Eastern Europe)	01/01/1993	31/12/9999	G3
	3807	INTAS	01/01/1994	31/12/9999	G3
	3808	ALTENER	01/01/1994	31/12/9999	G3
	3809	LIFE	01/01/1994	31/12/9999	G3
	3810	JRC (Joint Research Centers)	01/01/1988	31/12/9999	G3
	3811	Euratom	01/01/1980	31/12/9999	G3
	3899	Other EU initiatives out of framework	01/01/1980	31/12/9999	G3
3.9 Multilateral International Collaboration outside EU					

Implementation of classification governance

- Revisiting the financial information model & code list
 - No hierarchy, autonumbering
 - More granularity, in line with reporting obligations
- Governance tool
 - Roles & responsibilities
 - Central maintenance of code lists in DGC, incl. allowed value
 - Semantics and examples
 - Workflows for creating/editing existing codes
 - Full view on remarks & comments
 - Concordance tables
- Automated, collaborative & machine-readable

Central maintenance of code lists in DGC, incl. allowed value

Generation 1 Funding Codes Classification

 Hierarchy    Discover

Name ▾	Has translation	Defi...	Desc...	Allowed value
> Research Foundation Flanders - Mixed rese...	FWO - Gemengde onderzoeksfi			✗
> Public funding by the regions/communities	Publieke financiering door de g			✗
> Public Funding by the Federal Government	Publieke financiering door de fi			✗
> Private national funding	Prive-financiering van binnenla			✗
> Own means	Eigen middelen			✗
> International means	Internationale middelen			✗
> Institutional subsidies (of the governmental ...	Institutionele werkingstoelagen			✗
> Financing by decentralized governments	Financiering door gedecentralis			✗

Semantics and examples

H2020 – Frontier Research (ERC)
Type: [Funding Source](#) Status: [Accepted](#)

Edit Move Delete Funding Source – Reject Simple Approval Approval Vote Ed

Definition

The ERC's frontier [research grants](#) operate on a 'bottom-up' basis without pr of science, scholarship [and](#) engineering. In particular, proposals of [an](#) interdi new and emerging fields of [research or](#) proposals introducing unconventional

Descriptive Example

ERC-Starting [Grant](#), ERC-Consolidator [Grant](#), ERC-Advanced [Grant](#)



Classification E - Generation 1 Funding Codes

Type: Funding Domain

Edit Delete Funding Source - Proposal Discover

Assets

+ Add

Default

Attributable
Funding
Sources

Generation 1
Funding Codes
Classification

Non-
attributable
Funding
Sources

Responsibilities

Snapshots

Tasks

Description

There is currently no description.

Default < The default view to show all the assets in this domain.

Hierarchy Discover

Name	Definition	Steward
------	------------	---------

- Actions and programmes of the Flemish Government on the account of FWO
- Activities of International Cooperation
- Activity supporting strategic priorities of the federal government
- Activity to stimulate the use of and cooperation with The Belgian Co-ordinated Collections of Micro-organisms (BCCM)
- ACTS (Advanced Communication Technologies)
- Actual problems relating to social cohesion

Start Form

*Funding Source Name

*Funding Source Definition

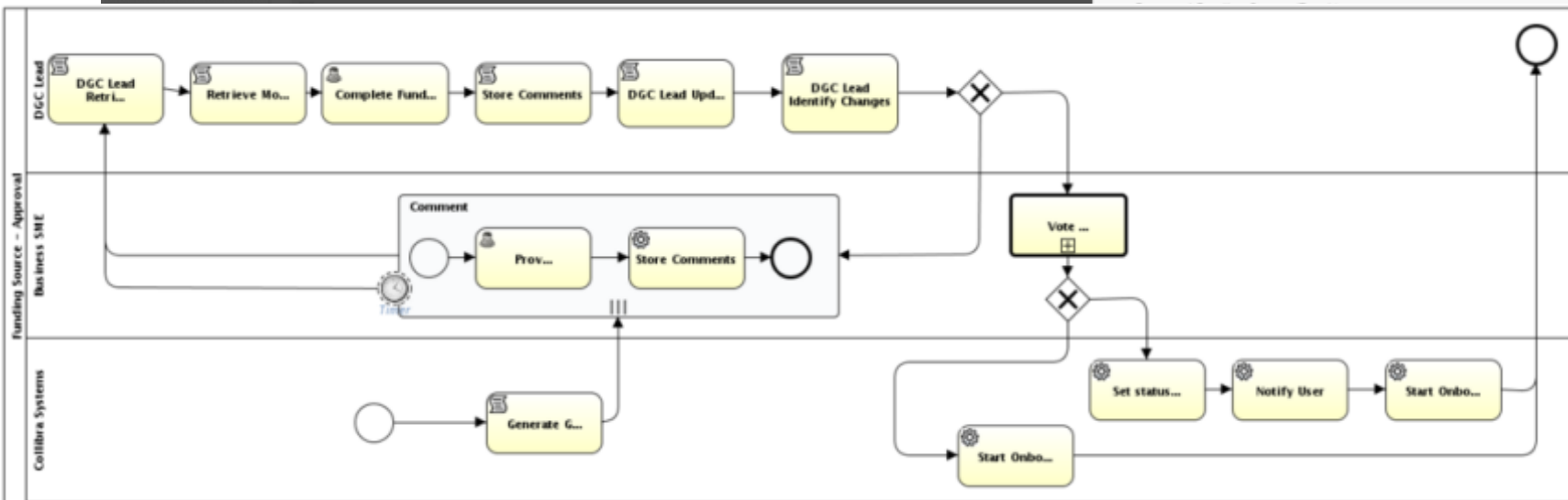
Rich text editor toolbar with icons for bold, italic, underline, link, unlink, bulleted list, numbered list, indent, outdent, undo, redo, and other editing functions.

Click here and start typing..

Funding Source Start Date


Funding Source End Date

URL







Submit

Full view on remarks & comments

- 1 [Eline Schoeters](#) says: 1 year ago 





Ik vind bovenstaande definitie te lang. Misschien gebruiken we beter volgende definitie?
UHasselt definitie: A nonperiodical publication consisting of a substantial number of pages in one physical piece and written on a specific topic, usually by a specialist in the field.

 Reply  

[Geert Van Grootel](#) replied: 1 year ago 

Eline,

Je voorstel voor definitie bevat verschillende functionele aspecten die los staan van het Book object op zich. voorbeelden: a specific topic, specialist in the field, substantial number of pages. Die functionele aspecten hou je best als waarden van properties of waarden van classificaties. het is niet moeilijk om een aantal voorbeelden van een boek, als vormfactor want daarop is de FRIS definitie gebaseerd, in je bibliotheek te vinden die niet voldoen aan je definitie of waarvan over elementen van je definitie discussie zal ontstaan. Bij wijze van voorbeeld " a specific topic", wat dan met een encyclopedie die juist over zoveel als mogelijk topics gaat en een "Book" is.

 Reply  
- 2 [Cynthia De Ghellinck](#) says: 6 months ago 

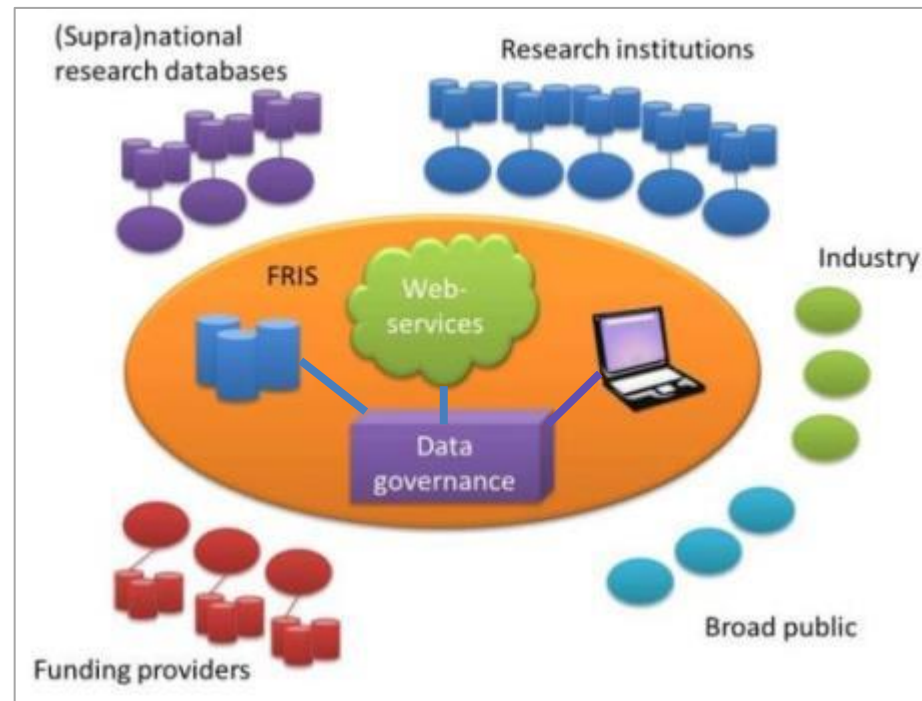
Sadia,

Implementation of classification governance

- Revisiting the financial information model & code list
 - No hierarchy, autonumbering
 - More granularity, in line with reporting obligations
- Data governance tool
 - Roles & responsibilities
 - Central maintenance of code lists in DGC
 - Semantics, examples and allowed value lists
 - Workflows for creating/editing existing codes
 - Full view on remarks & comments
 - Concordance tables
- Automated, collaborative & machine-readable

Conclusion

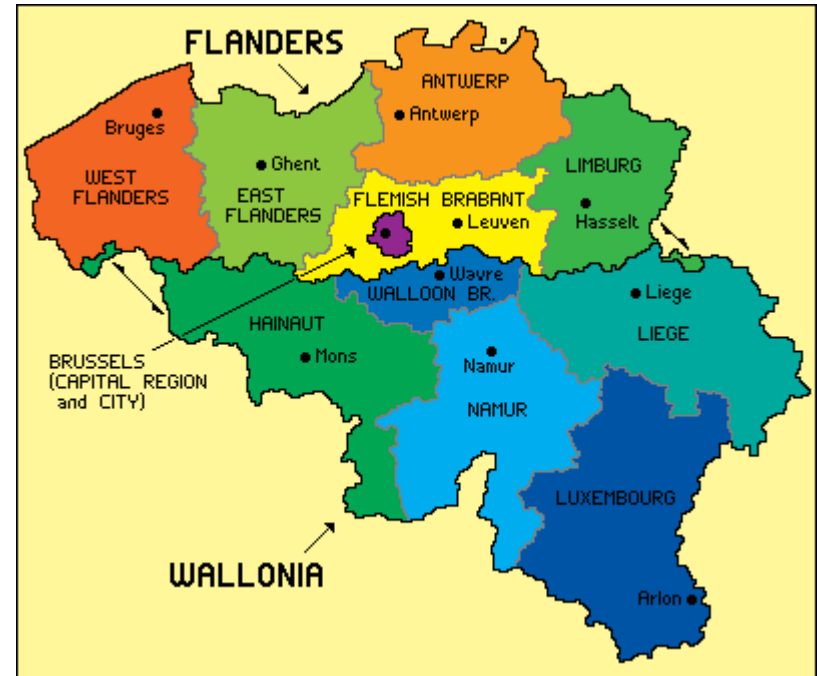
Data and classification governance,
key to true semantic interoperability of CRIS
systems in inter-organizational contexts



Acknowledgements

- Flanders Government, Department Economy, Science and Innovation (EWI)
- ECOOM project team
 - Hanne Poelmans
 - Helen Cheng





Dr. Sadia Vancauwenbergh, PhD

*Project Leader ECOOM - Research Classification Governance
Head Information Management and Data-Analysis
Research Coordination Office*

T [+32\(0\)11 26 91 09](tel:+32011269109)

www.uhasselt.be

Hasselt University | Campus Hasselt
Martelarenlaan 42 | B-3500 Hasselt
Office R2.06

