

The creation of a harmonised, semantically enriched Flemish research discipline list: about pitfalls and opportunities

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Reduction of research reporting

(Peters et al. 2011^a)

Data collection
Research classifications
Semantics



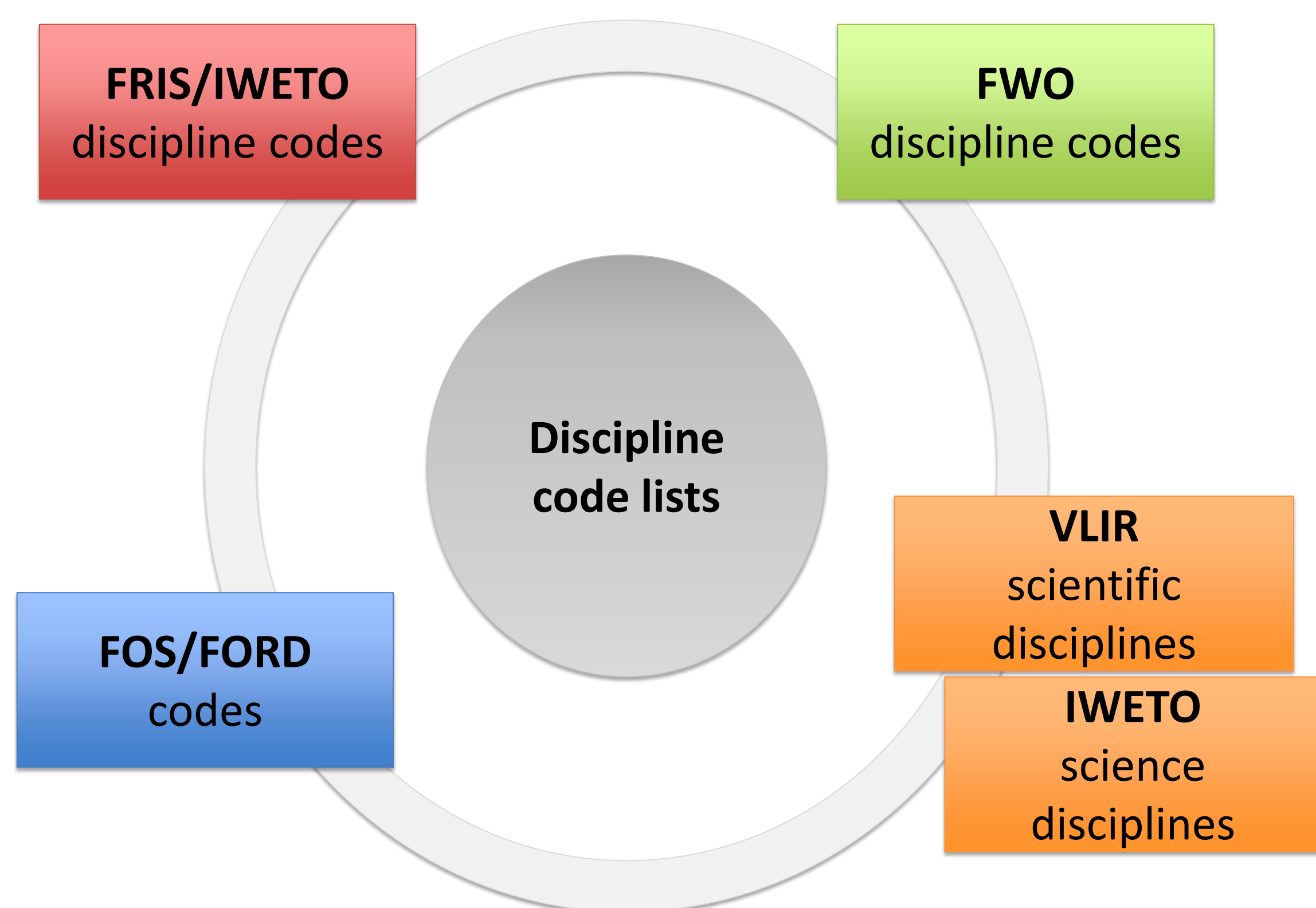
Flanders Research Information Space

www.researchportal.be

75.262 researchers
2.047 organisations
29.635 projects
319.682 publications

Past

Plethora of research discipline lists varying in characteristics & use (reporting, review & communication)



Flemish research discipline list

Classification governance
Dynamic list
Multiple use purposes
Scheme, semantics, roles
Evaluation procedure, automated gap identification
4 hierarchical layers
7 > 42 > 382 > 2866 codes

Sector (Level 1)	Disciplinary Field L1	Disciplinary Subfield L2	Disciplinary Subfield L3	Definitions
Interdisciplinary topics				
02 Engineering and technology	0200 Civil and building engineering	020101 Architectural engineering	02010100	Architectural engineering is the discipline concerned with the application of engineering principles to the design and construction of buildings.
02 Engineering and technology	0200 Civil and building engineering	020102 Architectural engineering	02010101	Structural design is the discipline concerned with the methodical design of structures.
02 Engineering and technology	0200 Civil and building engineering	020103 Architectural engineering	02010102	Structural optimisation is the discipline covering studies on size, shape and material of structures.
02 Engineering and technology	0200 Civil and building engineering	020104 Architectural engineering	02010103	Sustainable building is the research field referring to both a structure and its environment.
02 Engineering and technology	0200 Civil and building engineering	020105 Architectural engineering	02010109	Architectural engineering not elsewhere classified
02 Engineering and technology	0200 Civil and building engineering	020110 Urban and regional design, development and planning	02011000	Environmental and sustainable planning is the research field referring to the design and development of the built environment in relation to the environment.
02 Engineering and technology	0200 Civil and building engineering	020111 Urban and regional design, development and planning	02011101	Housing markets, development, management
02 Engineering and technology	0200 Civil and building engineering	020112 Urban and regional design, development and planning	02011102	Smart cities
02 Engineering and technology	0200 Civil and building engineering	020113 Urban and regional design, development and planning	02011103	Urban and regional design
02 Engineering and technology	0200 Civil and building engineering	020114 Urban and regional design, development and planning	02011104	Urban and regional development
02 Engineering and technology	0200 Civil and building engineering	020115 Urban and regional design, development and planning	02011105	Urban and regional planning policy, instruments and legislation
02 Engineering and technology	0200 Civil and building engineering	020116 Urban and regional design, development and planning	02011106	Urbanism and regional planning
02 Engineering and technology	0200 Civil and building engineering	020117 Urban and regional design, development and planning	02011107	Urban and regional design, development and planning not elsewhere classified
06 Humanities and the arts	0604 Arts	060401 Art studies and sciences	06040100	Architectural history and theory
06 Humanities and the arts	0604 Arts	060402 Art studies and sciences	06040101	Architectural design history and theory
06 Humanities and the arts	0604 Arts	060403 Art studies and sciences	06040102	Interior architecture history and theory
06 Humanities and the arts	0604 Arts	060404 Art studies and sciences	06040103	Landscape architecture history and theory
06 Humanities and the arts	0604 Arts	060405 Art studies and sciences	06040104	Art studies and sciences not elsewhere classified
06 Humanities and the arts	0604 Arts	060406 Architectural design	06040105	Design innovation
06 Humanities and the arts	0604 Arts	060407 Architectural design	06040106	Design management
06 Humanities and the arts	0604 Arts	060408 Architectural design	06040107	Design practice
06 Humanities and the arts	0604 Arts	060409 Architectural design	06040108	Design research
06 Humanities and the arts	0604 Arts	060410 Architectural design	06040109	Digital and interaction design
06 Humanities and the arts	0604 Arts	060411 Architectural design	06040110	Inclusive design
06 Humanities and the arts	0604 Arts	060412 Architectural design	06040111	Sustainable design
06 Humanities and the arts	0604 Arts	060413 Architectural design	06040112	Architectural design not elsewhere classified

Classification development

1. Flemish code lists
2. International code lists
- FOS/FORD
- ANZSRC
- ...
3. Gap analysis
4. Draft discipline list

Evaluation

1. FWO expert groups
2. Stakeholders (i.e. FWO, VLIR, FRIS)
3. Researchers, research societies based on expertise

Semantics

1. Initial definition based on online sources
2. Evaluation by experts
3. Flemish research discipline list

Concordances

1. Development of concordance schemes
2. Evaluation by experts
3. Fixed concordance schemes allow for uniform usage

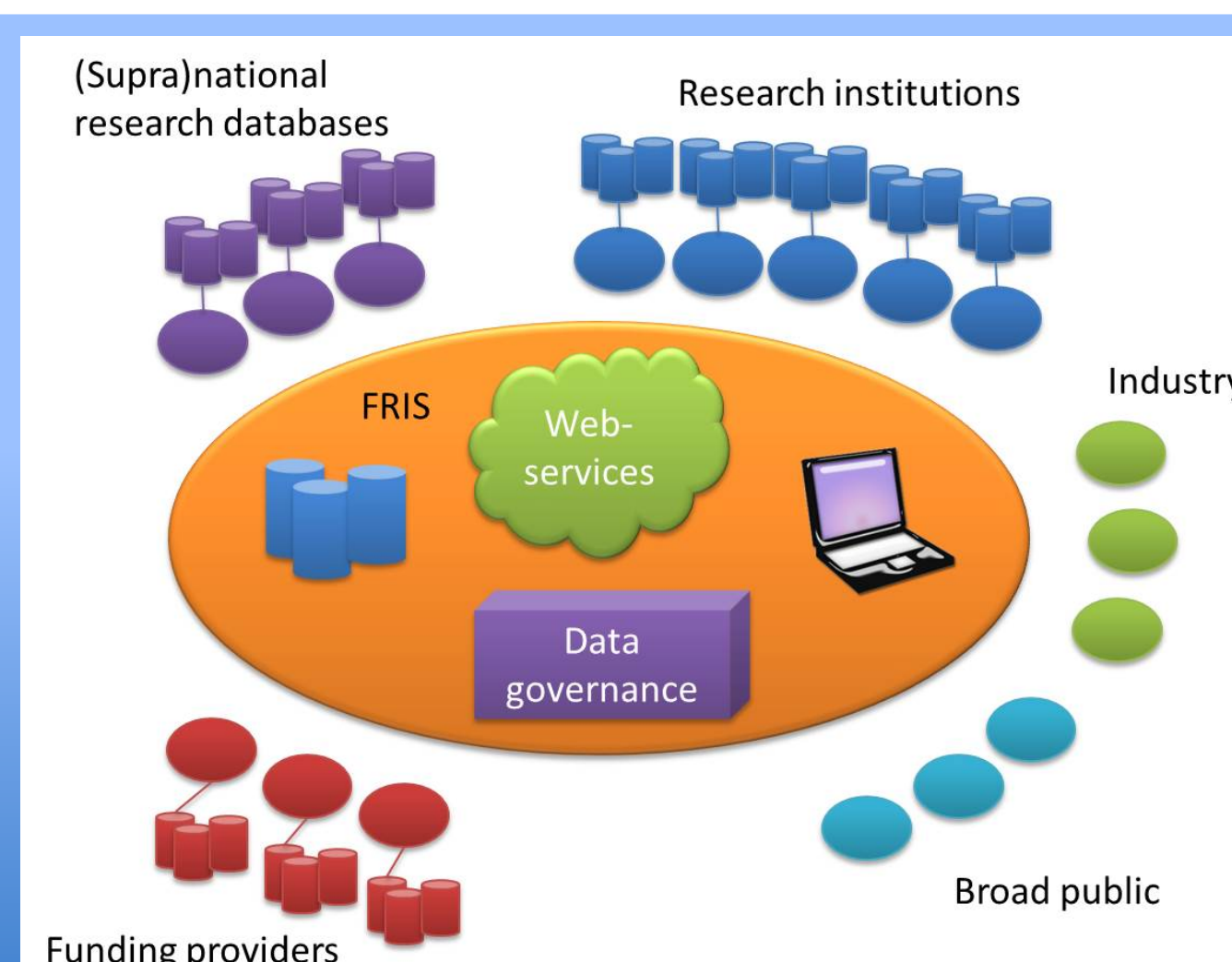
Implementation

1. Different organisational database systems
2. Adaptations in FRIS (portal, validator, ...)
3. Different implementation trajectories

Procedural evaluation by Steering Committee

Dynamic follow-up

**Semantic interoperability
of research
information systems**



**At the benefit of
policy formation,
scientific discovery
& open innovation**