

# ECOOM: a strategic partner for the Flanders Research Information Space (FRIS)



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KNOWLEDGE IN ACTION

Hanne Poelmans

**ecoom**

EXPERTISECENTRUM  
O&O MONITORING



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# ECOOM

## What?

## ECOOM

- Expertise Centre for Research and Development Monitoring in Flanders
- Interuniversity consortium with participation of all universities in Flanders (KU Leuven, UGent, VUB, UAntwerpen and UHasselt), funded by the Flemish Government (dept. EWI)



- Mission:
  - Development of a consistent system of R&D and Innovation (RD&I) indicators for the Flemish government
  - This indicator system has to assist the Flemish government in mapping and monitoring the RD&I efforts in the Flemish region.



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Expertise

## ECOOM

### Research & expertise domains

- Bibliometrics
- Technometrics
- Innovation studies
- Economic studies
- Researcher's careers
- Non-written research output indicators (e.g. output in the arts)
- Evaluation of societal impact of research
- Semantics and modelling of research information
- Governance of research classifications



## Vlaams Indicatorenboek

Het Vlaams Indicatorenboek bevat beleidsindicatoren die de ontwikkeling van het Vlaams potentieel inzake wetenschap, technologie en innovatie in kaart brengen.

*<https://www.vlaamsindicatorenboek.be/>*



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Expertise

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- **Governance of research classifications**

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# FRIS

## What?

## Flanders Research Information Space (FRIS)

<https://researchportal.be>

FRIS  
Research portal



Flanders  
State of the Art

Contact us    FAQ    Nederlands

HOME    ABOUT FRIS    PARTNERS    FIGURES    CLASSIFICATIONS    NEWS     

Find research...  Search



(697514)  
All results



(44363)  
Researchers



(2305)  
Organisations



(58730)  
Projects



Find expertise



(588297)  
Publications



(2597)  
Patents



(197)  
Infrastructure



(1025)  
Datasets

New at FRIS: patents, infrastructure and datasets

As you can see above, the FRIS Research portal has been expanded with additional information about patents, infrastructure and datasets. Beside information about almost 1800 patents, you can also find limited information about infrastructure and datasets. The amount of information will of course grow systematically in the future, so that this will offer a more complete view of the

### Information on:

- Researchers
- Organisation
- Projects
- Publications
- Patents
- Infrastructure
- Datasets

### Information from:

- Universities
- University colleges
- Strategic research centers
- Research institutions
- Funding agencies



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### FRIS characteristics:

- Flexible & futureproof
- In line with international evolutions & requirements
- Central hub for use and reuse of metadata on publicly funded research



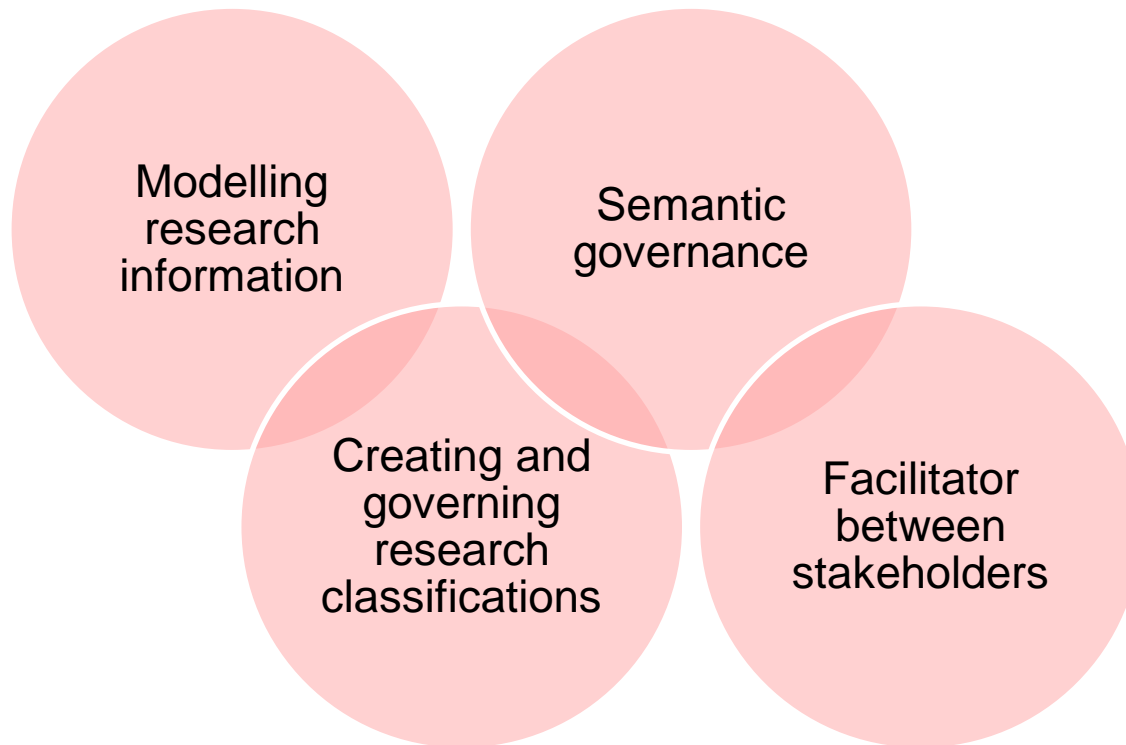
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## ECOOM as strategic partner for FRIS





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## Modelling research information

- Semantically harmonised information models

The screenshot shows the FRIS Research portal interface. At the top left, it features the logos for 'FRIS Research portal' and 'Flanders State of the Art'. To the right, there are links for 'Contact us', 'FAQ', and 'Nederlands'. A yellow navigation bar contains the following menu items: HOME, ABOUT FRIS, PARTNERS, FIGURES, CLASSIFICATIONS, NEWS, and social media icons for Twitter and LinkedIn. Below the navigation bar is a search bar with the placeholder text 'Find research...' and a 'Search' button. The main content area displays a grid of research categories, each with an icon, a count, and a label. The categories are: All results (685858), Researchers (42607), Organisations (2279), Projects (56548), Publications (581006), Patents (2402), Infrastructure (175), Datasets (841), and Find expertise. A red rectangular box highlights the 'Patents', 'Infrastructure', and 'Datasets' categories. Below the grid, a green banner contains the text: 'New at FRIS: patents, infrastructure and datasets'. A paragraph below the banner reads: 'As you can see above, the FRIS Research portal has been expanded with additional information about patents, infrastructure and datasets. Beside information about almost 1800 patents, you can also find limited information about infrastructure and datasets. The amount of information will of course grow systematically in the future, so that this will offer a more complete view of the Flemish research landscape. We wish you a good surfing experience!'

Category	Count
All results	685858
Researchers	42607
Organisations	2279
Projects	56548
Publications	581006
Patents	2402
Infrastructure	175
Datasets	841





## Example: Metadatamodel for research infrastructure

### Characteristics

- 25 metadata fields
- Specification who has to provide which information: e.g. institution/consortium coordinator vs. consortium partner
- Mandatory, Mandatory if applicable, Optional
- Definitions
- Practical examples
- Extra information or value specification

Metadata field	Institution/consortium coordinator	Consortium partner	Definition	Practical example	Extra Info/values
Identifier	M	M	Unique identification number assigned to the infrastructure by the data provider when it is delivered to FRIS.	Institution-specific identifier	Persistente identifier
Name	M	M	Technical name of the <i>infrastructure</i> .		Name is always provided in 2 languages (English/Dutch).  The name and/or abstract must clearly state the exact subject with the brand name if relevant, e.g. what kind of microscope, what it is used for, etc.



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## Governance of research classifications

- Research classifications
  - Research disciplines
  - Research funding
  - Technology domains
  - Publication types



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## Governance of research classifications

- **Research disciplines**
  - Development in 2016-2018
  - Update in 2021-2023
  - Harmonised semantics
  - Harmonising implementation
  - Standard in Flanders

### Disciplines

Filter disciplines...

- ▲ Agricultural, veterinary and food sciences (3618) ⓘ
- ▶ Agriculture, forestry, fisheries and allied sciences (2720) ⓘ
- ▶ Other agricultural, veterinary and food sciences (346) ⓘ
- ▶ Veterinary sciences (977) ⓘ
- ▶ Engineering and technology (12169) ⓘ
- ▶ General and logistic services (27) ⓘ
- ▶ Humanities and the arts (5760) ⓘ
- ▶ Medical and health sciences (16195) ⓘ
- ▶ Natural sciences (19562) ⓘ
- ▶ Social sciences (13115) ⓘ
- Theoretical aspects of nuclear physics (6) ⓘ

Do you see incorrect information? Please [notify](#) us!



### Project

Unravelling how selenium can contribute to increase the efficiency of cadmium phytoextraction by *Brachiaria decumbens*: from soil to plant. (R-12634)

The Research Council of Hasselt University approved the stay of Flávio Henrique Silveira Rabêlo (University of São Paulo Brazil). During this stay, Flávio Henrique Silveira Rabêlo will perform research in cooperation with your research group CMKMB.

**Date:** 1 Jul 2025 → Today

**Keywords:** cadmium, phytoextraction, selenium

**Disciplines:** Environmental rehabilitation, Environmental technologies, Sustainable agriculture



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Flanders  
State of the Art

cium carbonate precipitation. Also, the autogenous self-healing capacity and bacteria will be added into lime mortar, to induce CaCO<sub>3</sub> precipitation.

### Impact of local topology and local adaptation on net

Ghent University

Joni Dambre

Department of Electronics and information systems

The research topics of this project are the use of biologically inspired priors, and the study of local and global network topologies. I develop a locally plausible ANNs for complex temporal tasks. I start from state-of-the-art

### Autophagy dysregulation in cerebral palsy: a common

University of Antwerp

Marije Meuwissen

Medical Genetics (MEDGEN)

Cerebral palsy (CP) is a clinical descriptive term that defines a heterogeneous group of neurodevelopmental disorders of motor impairment, which co-occur with other conditions, such as intellectual disability (ID), speech and language deficits, autism spectrum disorder, hearing impairment. It is the most frequent cause of motor impairment in children. CP has a significant impact on quality of life and a ...





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## Governance of research classifications

- **Research funding**
  - Continuous updates
  - Collaboration with funders
  - Community reinforcement

### Project

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#### RESEARCHERS

- [Jaco VANGRONSVELD](#) (Promoter)  
[Environmental Biology](#)  
**Duration:** 1 Jul 2025 → Today

#### PROJECT PARTNERS

- University of Sao Paulo  
Project Partner  
**From** 1 Jul 2025 → Today  
[Hasselt University](#)
- [Environmental Biology](#) (Research group)  
Project Owner  
**From** 1 Jul 2025 → Today  
[Hasselt University](#)

#### FUNDING

- **Funding:** BOF - mobility (Principal funding)  
**Funding party:** Flemish Government  
**Policy level funding:** Flemish

1 - 1 of 1 results



#### FUNDED BY



#### ZOEK GELIJKAARDIGE PROJECTEN

- Q about cadmium phytoextraction
- Q about selenium
- Q about cadmium phytoextraction with funder Flemish Government
- Q about selenium with funder Flemish Government



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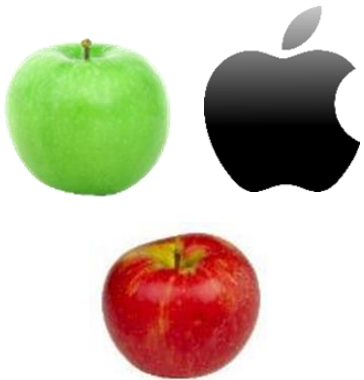
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## Semantic governance

- **Semantic harmonisation** of research terms and concepts related to:
  - Information models in FRIS
  - Research classifications
  - FRIS reports (BOF/IOF/FOSB)
  - Research reports (on request, e.g. university rankings)



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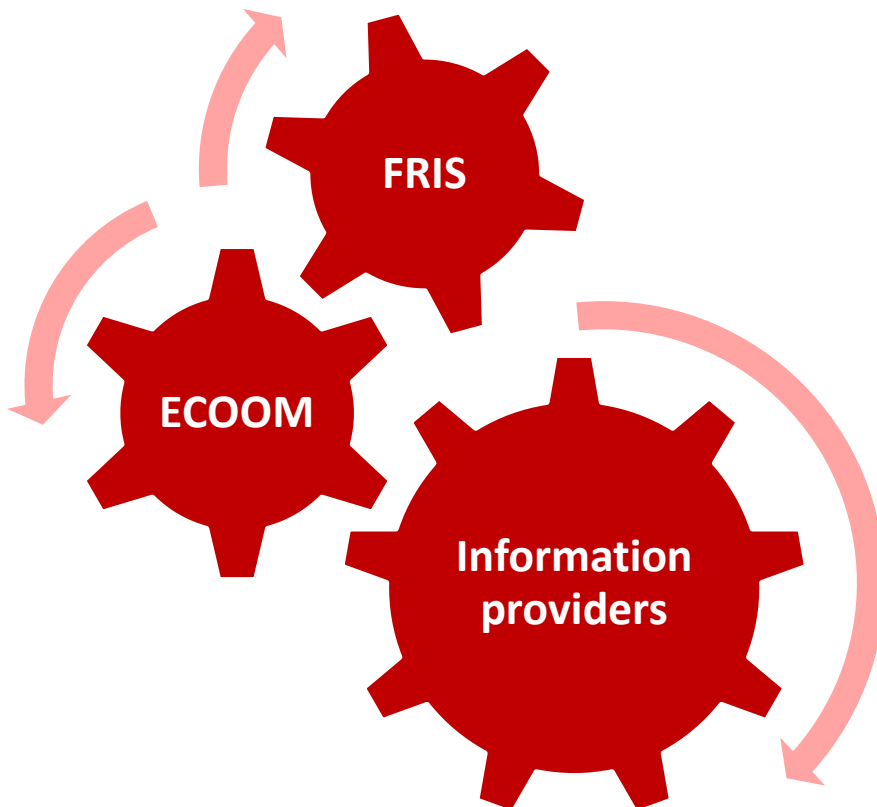
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## ECOOM as strategic partner for FRIS



### Ecosystem to support FRIS:

- A futureproof and flexible platform
- In line with international evolutions and requirements
- A central hub for research information that can be used for multiple purposes:
  - Visibility
  - Transparency
  - Reporting
  - Strategic decision making
  - Stimulating collaboration
  - Stimulating open science
  - Accelerating innovation
  - ...



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## Contact

- **ECOOM promotorship & supervision**

- Prof. Dr. K. Haenen & Dr. Sadia Vancauwenbergh
- Dr. A. Ali-Eldin
- Dr. H. Poelmans

- **ECOOM researchers**

- Dr. A. Ali-Eldin
- Dr. S. Hoang-Pham
- Dr. E. Neyens
- Mrs. T. Araboeli
- Mrs. D. Vermin

- **More information?**

- [ecoom@uhasselt.be](mailto:ecoom@uhasselt.be)

- **Special thanks to the FRIS team!**

- Ils de Bal
- Pascale Dengis