New avenues for improving research management services through regional research information systems

OSLO
4–6 MAY
CONFERENCE 2022

Sadie Vancauwenbergh, Hasselt University - President of euroCRIS

Annelies Stockmans, Hasselt University

Hanne Poelmans, Hasselt University
Research information space

- Researchers
- Research organisation
- Projects
- Government
- Research institutions
- Industry
- Editors
- Libraries
- Data centres
- Researchers
- Equipment
- Facilities
- Research data
- Publications
- Products
- Patents
- Investment opportunities
- Financers
Research information space
Example: St. Andrews CRIS
Research information systems

• Correct, actual, complete research information
• Connect data silo’s
• Maximum reuse of data
• Reduce system costs

• Reduce administrative burden
• Once-only principle
• Policy monitoring & reporting
• Increase strategic intelligence
• More information services

• Researchers, Institutions, Governments, Funders, Industry, Public
euroCRIS community (eurocris.org)

Mission
Promote cooperation within and share knowledge among the research information community and interoperability of research information through CERIF, the Common European Research Information Format

CERIF
Projects
DRIS
Publication Repository
Conferences
Membership meetings
Webinars
CERIF (https://www.eurocris.org/services/main-features-cerif)

Specification (conceptual level), Model (logical level), Database scripts (physical level)
Projects (https://www.eurocris.org/ongoing-projects)

• Ongoing projects:
  
  • CERIF refactoring project
    • Refactor the CERIF structure in terms of
      • Modularity
      • Extensibility
    • In line with current research practices
  
• Finished projects:

  • DRIS+, METIS2OpenAire, Pasteur4OA, VRE4EIC, Jisc Research Data Shared Service, ENGAGE, HOLACLOUD
Repository (https://dspacecris.eurocris.org/)
DRIS (https://www.eurocris.org/services/dris)

- Directory of Research Information Systems (DRIS)
  - (Minimally sufficient) information on > 850 systems worldwide
  - https://eurocris.org/dris/dris-form
DRIS (eurocris@eurocris.org RDM+ badge)
LINKING RESEARCH INFORMATION ACROSS DATA SPACES

15th International Conference on Current Research Information Systems (CRIS2022)
Dubrovnik, Croatia
May 12-14, 2022

https://cris2022.srce.hr/
Regional Research Information Systems

Example:
Flanders Research Information Space (FRIS - Researchportal.be)

→ Virtual space collecting information on public funded research in Flanders

Goal:
• Simple, transparent, open platform
• Government
• Researchers
• Business
• Citizens
Some history - milestones

Initiative from the Flemish Government, Department Economy, Science and Innovation, in partnership with the Flemish research universities

- 1995: Inventory of Scientific and Technology research
  → Installation of computers at Flemish Research Coordination Offices, funded by the Flemish Government

- 2007: Inclusion of a standard, i.e. the ‘CERIF’ handbook
  → FRIS 1.0
FRIS 1.0 needs & drivers

Better Research Information: correct, actual, complete

Open FRIS data for services and application development

Flemish government Open Data policy

Maximum reuse of components and data

Increase strategic intelligence

Administrative reduction of research reporting

Policy monitoring: efficient & effective

Connect data silo’s

More information services

Reduce system costs

Flemish government Open Data policy

Maximum reuse of components and data

Administrative reduction of research reporting

Connect data silo’s

Reduce system costs

Flemish government Open Data policy

Maximum reuse of components and data

Administrative reduction of research reporting

Connect data silo’s

Reduce system costs
FRIS 1.0

Home

In search of research? The Flemish research portal will be your guide!

Who is doing research on Alzheimer’s disease in Flanders? Where can I find experts on nanotechnology? Which current projects of the Flemish universities are making inquiries about stem cells?

Find the answer to your questions at the FRIS (Flanders Research Information Space) research portal...

You can browse through the database by using several search options: by research projects, organisations or persons.

News Headlines

Database about biodiversity in oceans gets international acclaim

Read more about the Ocean Biogeographic Information System (OBIS) of IOC-UNESCO, which is housed in Ostend (Belgium).

New members Young Academy of Flanders

The Young Academy of Flanders chose ten new members in 2017: 8 scientists and two artists. The inauguration takes place on March 16, 2017. Read more (Dutch only)

Search and browse in

29734 Research projects

3596 Publications

2357 Organisations

29264 Researchers
FRIS 1.0

• Data providers:
  • All 5 Flemish Universities
  • Financial stimulus for data delivery in bulk, 2 times/year
  • CERIF-XML

• Data & classifications:
  • Researchers ➔ Science Discipline Codes
  • Organisations ➔ Science Discipline Codes
  • Research projects ➔ Financial Codes

• Simple technical validation rules
  • Example: Use a valid financial code
FRIS 2.0 Needs & drivers

- Correct, actual, complete research information
  - Maximum reuse of research information
  - By connecting data silo’s using standards & identifiers
  - Reducing system costs

- CRIS services & applications
  - Administrative reduction of research reporting (Peters et al. 2011)
  - Increased strategic intelligence
  - Efficient & effective policy monitoring
  - More information services
The Data providers landscape

*Universities*
- KU Leuven
- Universiteit Gent
- Universiteit Antwerpen
- Vrije Universiteit Brussel
- Universiteit Hasselt

*University Colleges*
- Hogeschool Gent
- Artevelde Hogeschool

*Strategic Research Centers*
- iMinds
- VIB
- VITO
- imec

*Research Institutes*
- INBO
- Koninklijk Museum voor Schone Kunsten Antwerpen
- ILVO
- IOF VLIA

*Funders*
- FWO
- Hercules Stichting
- IWT

*Others*
- Cultuur-Jeugd-Sport-Media
- EW
- VLIZ
- Plantentuin Meise
FRIS 2.0

• Real-time data delivery

• Data quality and completeness:
  • Business & technical validation rules

• Open data:
  • 6 SOAP webservices

• Data & classification governance:
  • Researchers → Science Discipline Codes
  • Organisations → Science Discipline Codes
  • Research projects → Financial Codes
  • Publications →
1 SOAP data entry webservice built on CERIF-XML
The importance of semantic interoperability

FRIS 2.0:
Not only architecture, technology,…
… more stress on quality

Semantics of research information and classifications at the intra and interorganizational level

It’s not about agreeing that semantics is important, it’s about real commitment by everyone to implement semantics
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
1. Installation of a governance structure: WHO?
2. Creation of a business layer: WHAT?

Recording of business concepts & meanings by term. theory
3. Inter-organizational semantic alignment

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

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<td>Book chapter</td>
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<td>This term is used to collect a section...</td>
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<td>Correction of errors found in an article...</td>
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<td>An article or paper that discusses...</td>
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<tr>
<td>UH Editorial Material</td>
<td>An article that gives the opinion...</td>
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</tbody>
</table>
Research classifications

• Research classification types
  • Organizations
  • Persons
  • Grants/scholarship
  • Projects
  • Data
  • Publications
  • Socio-economic impact
    • Patents
    • ...

  Code schemes
  • Discipline, accounting
  • Discipline, financial
  • Financial, accounting
  • Financial, discipline, accounting
  • Data type
  • Publication type
  • Socio-economic
  • Technology
Research classifications

• Use purposes:

  • Structured information retrieval
    • Reports
    • Statistics
    • Strategic decisions
    • Visibility
    • Websites

Both at the aggregated level as on the level of an individual
FRIS Research portal

Your window to research in Flanders

This preview version of the FRIS (Flanders Research Information System) Research portal lets you try and test our first release and provide feedback to help us make it even better.

The FRIS Research portal brings a host of new features and changes, including a new search functionality that can be triggered from each page on our website and an expertfinder where you can browse through a list of classifications to find an expert in your domain.

All information that you will find was gathered through a direct integration with the systems of the scientific institutions in Flanders and we are proud to present their information on not only researchers, research groups and publicly funded projects, but also publications from 2008 onwards.

For a comprehensive look at our new search functionality so far, you may want to check out the search requirements.

As a researcher at one of our Flemish Institutions you can take part in shaping the portal by test-driving this release version and letting us know what you find. If you encounter an issue with regards to your projects or publications that needs addressing, report it to your institution directly by using our form.
FRIS 3.0

- Reporting on public research funding
  - Legal framework
    - BOF (art.68) - approved on May 3, 2019
    - IOF (art. 20/1) - approved on May 24, 2019
  - Information objects/metadata to be included in FRIS
  - Reporting on public research funding
  - Indicators & conditions
  - Deadline: December 31, 2021
  - Cave: Data should comply as of January 1, 2019
Administrative reduction of research reporting

Peters et al. 2011. De vereenvoudiging van onderzoeksverslaggeving, een analysetraject uitgevoerd door de Vlaamse universiteiten en hogescholen en de VLIR, in opdracht van de Vlaamse Overheid (EWI).
FRIS 3.0

- Metadata: linking and extending existing objects
- New research information objects
FRIS 3.0

• Data providers:
  • All 5 Flemish Universities
    • No financial stimulus of the Flemish government
    • Legal obligation to report via FRIS on BOF and IOF funds
  • Some smaller research institutes
    • PURE platform offered via continuous governmental funding
  • By 2024 all 4 strategic research centres
    • As stated in Agreement between Government and strategic research centres
  • By 2021 all university colleges
    • Using a common platform (not yet defined) via govermental funding program
FRIS 3.0

Starting from legal obligations…

… assessing current quality of FRIS-information

… improvement roadmaps

… individual trajects, yet working together

… to ensure semantic interoperability

… uniform research reports
## FRIS 3.0

### 2a. BESTEDINGEN in jaar t (in EUR)

<table>
<thead>
<tr>
<th>Onderzoeksprogramma's:</th>
<th>bedrag</th>
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<tbody>
<tr>
<td>1. BOF-opvangbeurzen voor doctorandi</td>
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<tr>
<td>2. BOF-docotorale mandaten</td>
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<td>3. BOF-beurzen voor dubbeldoctoraten</td>
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<td>4. BOF-opvangbeurzen voor postdocs</td>
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<td>6. BOF-startkrediet ZAP</td>
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<td>7. BOF-tenure track</td>
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<td>8. BOF-ZAP BOF mandaten</td>
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<td>9. BOF-Mthsalem</td>
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<td>11. BOF-projecten</td>
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<td>12. BOF-interuniversitair samenwerkingsprogramma - type 3</td>
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<td>13. BOF-onderzoeksexcellente centra</td>
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<td>14. BOF-internationale wetenschappelijke samenwerkingsprojecten</td>
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<td>15. BOF-wetenschappelijk apparatuurprogramma</td>
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<td>16. BOF-lang verblijf buitenland</td>
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<td>17. BOF-sabbatical leave</td>
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### 2b. BESTEDINGEN van de toekenningen in jaar t (in EUR)

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Research classification as tool

- Implementation by all stakeholders
  - Data governance center
  - FRIS SOAP-services: CERIF-XML, change services

- Reporting by aggregating existing information in CRIS
  - Ex.: expenditure international scientific cooperation in biological sciences

- Revision of existing information objects:
  - Projects: funding codes
  - Researcher: nationality? MSc certificate?
  - Organization: legal address? Physical partner address?
  - Associated publications, data, patents, research infrastructure
Research classification as tool

• Reporting via FRIS
  • Year: grant start year, budget year, year of approval?
  • Budget: awarded, budgeted (which procedure), spent (which end date)

• Further improvements:
  • Information model
  • Data governance

• Quality assurance
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 1400 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!
FRIS research portal: a tool to help researchers...

... get to know the output of the research topics they plan to pursue

... identify funding opportunities

... find an expert (identify collaborators & competition)

.. identify resources (infrastructure & datasets)
How to search in FRIS?

1) Via search term in the search bar

2) Search all results or a specific type of information
Refine search results via filters

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Bendik Heltem Aalby
Tania Love Asen
Manuel Aalbers
Chris Salbert
Jeffrey Aalders
Asli Berendina Aitay
Yasmina Aboukouy
Artem Abakumov
Sergey Abakumov
Filters vary depending on type of information.
Get to know the output

Search for: diagnosing cancer

Disciplines:
- Agriculture & Environment
- Environmental science & technology
- Food & animal science & technology
- Biology (Organismic & Suborganismic Level)
- Microbiology
- Veterinary sciences
- Biomedical research
- Anatomy & pathalogy
- Biomaterials & bioengineering
- Experimental/laboratory medicine
- Pharmacology & toxicology
- Physiology
- Biosciences (General, Cellular & Subcellular Biology, Genetic)
- Biochemistry/biophysics/molecular biology
- Cell biology
- Genetics & developmental biology
- Multidisciplinary biology
- Chemistry
- Analytical, inorganic & nuclear chemistry
- Applied chemistry & chemical engineering
- Materials science
- Multidisciplinary chemistry
- Organic & medicinal chemistry
- Clinical and Experimental Medicine
- General & internal medicine
- Cardiovascular & respiratory medicine
- Endocrinology & metabolism
- General & internal medicine
- Hematology & oncology
- Immunology

(1955) Publications

Type:
- Book contribution type
- Book abstract conference contribution
- Book chapter conference contribution
- Chapter
- Book type
- Book
- Dissertation
- Report
- Journal contribution type
- Journal abstract conference contribution
- Journal article
- Journal article conference contribution
- Journal editorial
- Journal
- Review article

Year:
- 2022: 310
- 2021: 293
- 2020: 229
- 2018: 156

Knowledge institution:
- Ghent University
- Hasselt University
- Institute of Tropical Medicine
- KU Leuven
- University of Antwerp
- UCLouvain
- Vrije Universiteit Brussel
The Treasury of images: exploring the opportunities for diagnosing and treating prostate cancer

Cédric Davids

External beam radiotherapy (EBRT) is often used to treat prostate cancer (PCA). Technological developments in radiation delivery techniques allowed increasing the dose to the entire prostate gland thereby improving treatment outcome. Unfortunately these positive results come often at the cost of increased toxicity and local recurrences are still observed, mostly at the site of the primary tumor. New strategies to further enhance local control...

White light, autofluorescence and narrow-band imaging bronchoscopy for diagnosing airway pre-cancerous and early cancer lesions: a systematic review and meta-analysis

Leiwen Daqing, Lin Huang

We aimed to summarize the diagnostic accuracy of white light bronchoscopy (WLB) and advanced techniques for airway pre-cancerous lesions and early cancer, such as autofluorescence bronchoscopy (AFB), AFB combined with WLB (AFB + WLB) and narrow-band imaging (NBI) bronchoscopy.

IOTA strategies for assessment of adnexal findings: improving strategies for di-
White light, autofluorescence and narrow-band imaging bronchoscopy for diagnosing airway pre-cancerous and early cancer lesions: a systematic review and meta-analysis

Authors/Publisher

Research Units

earma.org #EARMAconference
Get to know the output
METABOLIC MARKERS FOR DIAGNOSING OF CANCER

Peter Adriaenssens, Kurt Baten, Piet Stinus

The present invention relates to a panel of metabolites in a body fluid sample that can be used for the diagnosis of breast, lung, colon and prostate cancer. More specifically, the invention relates to the NMR analysis of a urine or blood sample, whereby the simultaneous determination of the concentration of a panel of metabolites allows the diagnosis of breast, lung, colon or prostate cancer with a high sensitivity and specificity. In particular, the panel of metabolites comprises methyl histidine and proline.

Methods for diagnosing ovarian cancer

Thijs Baert, Jolien Caustens, An Goethem, Dirk Timmerman, Ben Van Calster, Giselle Vergote

The invention relates to in vitro methods of distinguishing, in a patient diagnosed with an ovarian tumour, between a benign ovarian cyst and malignant ovarian cancer, based on determining in a blood sample the amount of at least NK cells, total myeloid cells, myeloid-derived suppressor cells (MDSC), monocyteic myeloid derived suppressor cells (mMDSC), and PD1 positive monocyteic myeloid derived suppressor cells (mMDSC-PD1). The invention further relates to kits comprising reagents for the detection of NK cells, myeloid-derived suppressor cells (MDSC), monocyteic myeloid derived suppressor ...
METABOLIC MARKERS FOR DIAGNOSING OF CANCER

The present invention relates to a panel of metabolites in a body fluid sample that can be used for the diagnosis of breast, lung, colon and prostate cancer. More specifically, the invention relates to the NMR analysis of a urine or blood sample, whereby the simultaneous determination of the concentration of a panel of metabolites allows the diagnosis of breast, lung, colon or prostate cancer with a high sensitivity and specificity. In particular, the panel of metabolites comprises methyl histidine and proline.

Patent Publication Number: WO2011128256
Source: WIPO
Year filing: 2011
Year approval: 2012
Year publication: 2011
Status: Requested
UR: Link to Espacenet
Technology domains: Measurement, Analysis of biological materials
Validated for IOD-key: Yes
Attributed to: Association University - Colleges Limburg
Identify funding opportunities

Lithium batteries

(590) All results
(98) Researchers
(17) Organisations
(70) Projects
(396) Publications
(9) Patents
(0) Infrastructure
(0) Datasets

Find expertise
**Synthesis of onion structured core-multishell particles for improved lithium sulfur batteries**  
**Hasselt University**

Lithium sulfur batteries can store high amounts of energy around 10 times as much as current commercial lithium ion batteries. However, lithium sulfur batteries suffer from a very short cycle life. This is mainly due to polysulfide intermediates which are formed at the cathode, diffuse towards the anode, leading to loss of active material. In order to prevent this, a single shell particles of sulfur are wrapped in oxide polymer carbon etc.

**Solid-State lithium ion batteries for macro-and micro-battery applications**  
**Ghent University**

The overall objective of the Project is to build a functional 2D thin film micro battery with a solid electrolyte which inherently represents an improvement on the current lithium batteries with liquid electrolytes in terms of safety and battery performance. Additionally, new research and makes it possible concepts battery electric vehicles, micro-systems on chip, etc. To this end, have to be developed electrolyte materials, etc.

**Electrodeposition of Anode and Cathode Materials for Lithium Batteries**  
**KU Leuven**

Rechargeable lithium-based batteries are mainly used in portable devices, due to their high specific energy. In the future they also play an important role for grid scale storage and the electrification of vehicles. In this PhD thesis three types of batteries were investigated in the frame of three research projects. Each type of battery has certain improved properties compared to current lithium ion batteries. In a first project...
Study of the interfacial mechanical degradation in all-solid-state lithium batteries
By University: Brussels
Anders Kuhl

Enhancing lithium stripping from the solvent extraction system of tributyrylphosphate and FeCl₃ using amine
By University: Brussels
Sara Bjarke

Toward the understanding of solid-state electrolyte/cathode interfaces of all-solid-state lithium-ion batteries through multiscale modelling
By University: Brussels
Jeffrey J. Cahзык

Chemical synthesis of inorganic composite solid electrolytes with enhanced ionic conductivity by interfacial Li⁺-ion diffusion
By University: Brussels
Anish Bhat
**Chemical synthesis of Inorganic composite solid electrolytes with enhanced ionic conductivity by Interfacial Li+ Ion diffusion.**

The topic of the proposal at hand is the challenging chemical synthesis and understanding of solid state Li+ electrolytes with high ionic conductivity enabling the creation of full solid state environmental devices such as lithium ion batteries (LIB) instead of traditional single phase Li+ conductors. Here the focus is on inorganic composites. Preliminary literature demonstrates higher conductivity in such composite conductors than in certain pure materials. However, there is a lack of systematic investigations and a full fundamental understanding of how the improvement in the conductivity comes about is lacking. The project will contribute to filling this knowledge gap by developing new synthesis routes for these advanced composites, studying the solid state diffusion of Li+, and deriving guidelines for the design of composites with optimal Li+ conductivity. The project at hand clearly goes beyond the mainstream research of single phase solid electrolytes, which by themselves are already a hot topic at the forefront of the field. In contrast to commercially available thin film microstructures, which mostly pure Inorganic thin films as electrolytes, here focus is on mostly unaltered composite bulk electrolytes. Ultimately, solid state batteries containing these new composites could replace the current LIB as they promise improved safety (higher and lower voltages, which are important factors in applications such as residential storage of renewable energy).

**Date:** 1 Oct 2018 – 30 Sep 2017

**Keywords:** INORGANIC NANOMATERIALS

**Disciplines:** Inorganic chemistry

### RESEARCHERS

- **S. G. H. K. (Promoter)**
  - Laboratory of Inorganic and Physical Chemistry
  - Duration: 1 Oct 2018 – 30 Sep 2017

- **H. van R. (Co-promoter)**
  - Laboratory of Inorganic and Physical Chemistry
  - Duration: 1 Oct 2018 – 30 Sep 2017

### PROJECT PARTNERS

- Laboratory of Inorganic and Physical Chemistry
  - Duration: From 1 Oct 2018 – 30 Sep 2017
  - Utrecht University

### FUNDING

- **Funding:** Project FWO (Principal funding)
  - Funding party: Research Foundation Flanders
  - Policy level funding: Flemish
Identify funding opportunities
The research group "Materials Chemistry" (MATCHEM) focuses on the synthesis, characterization and application of advanced functional materials. The group encompasses several expertise groups with specific and complementary expertise, closely collaborating and operating within the spearhead research domains of the Institute for Materials Research (IMO) of Hasselt University. The group is also linked to the IMEC associated laboratory 'IMOMEC'...
The research group "Materials Chemistry" (MATCHEM) focuses on the synthesis, characterization and application of advanced functional materials. The group encompasses several expertise groups with specific and complementary expertise, closely collaborating and operating within the spearhead research domains of the Institute for Materials Research (IMO) of Hasselt University. The group is also linked to the IMEC associated laboratory '1MHOME'. Main activities focus on:

1. new materials for energy generation and energy storage;
2. life sciences materials;
3. materials obtained from waste recycling.

**CURRENT RESEARCHERS**

- Peter ADRIAENSSENS (Responsible)
- Peter ADRIAENSSENS (Member)
- Mariaga ARREGUI CAMPOS (Member)
- Omar BECKERS (Member)
- Naomi BILLIET (Member)
- Dries BLEUS (Member)
- Raheed BOLLA (Member)
- Sonny BREBELS (Member)
- Daria BUROVA (Member)
- Pascal BUSKENS (Member)

**PUBLICATIONS**

- **Synthesis and Characterization of Perovskite Materials with Self-Organizing Organic Cations for Stable Optoelectronic Applications.** (2023)
  - Authors: Marijn MERTENS, Dirk VANDERZANDE
  - Number of pages: 249

- **Characterization of Two Wood-Waste and Coffee Bean Husk Biochars for the Removal of Micropollutants from Water.** (2022)
  - Authors: Thessa VAN LIMBERGEN, Inez Roegiers, Robin BONNE, Federica Mare, Tom HAELEBERMANS, Bjorn JOOS, Olivier NOUWEN, Jean MANCA, Jaak VANGRONSVELD, Sofie THUS

- **Introducing functionality in 2D hybrid perovskites: Structure formation, optoelectronic properties, and stability.** (2022)
  - Authors: Paul-Henry DENIS, Dirk VANDERZANDE
  - Number of pages: 244

- **Comparing the Performance of Supported Ru Nanocatalysts Prepared by Chemical Reduction of RuCl₃ and Thermal Decomposition of RuCl₃OCl in the Sunlight-Powered Sabatier Reaction.** (2022)
Identify experts (collaborators & competition)

Search for researchers OR organisation

Search for researcher AND organisation
Identify experts (collaborators & competition)
Identify resources (infrastructure & datasets)
Synthetic population data for Belgium for STRIDE

Lander WILLEM, Pieter LIBIN

This repository contains population files with 11 million individuals for Belgium we used to explore the impact of contact tracing and household bubbles on Belgian deconfinement strategies after the COVID-19 related lockdown in 2020 (Willem et al 2021) and universal testing strategies for COVID-19 mitigation (Libin et al 2021). We created census-based synthetic populations for Belgium consisting of individuals that are part of "contact pools", representing a household, school-class, workplace, or community. References: Willem L. Abrams S, Libin JK P, Petrof O, Coletti P, Kuylen E, Mögelmose ...

CoMix social contact data (Belgium)

Pietro COLETTI, James WAMEUA, Lander WILLEM, Sarah VERCRUYSSSE, Niels HENS

CoMix social contact data for Belgium, collected within the EpiPose project.
FRIS & research reporting

- Financial reporting: Special research fund/Industrial research fund
  - FRIS included in W&I decree
  - Reporting semi-automatically via information in FRIS
  - Financial information only back-end in FRIS
  - Harmonisation between data providers

- Open Science: policy formation & monitoring
  - Open Science Roadmap: 5 KPI’s measured by FRIS
    - ORCID
    - Open Access
    - Open Data
    - DMP
    - (FAIR data)

→ Administrative simplification of reporting!
FRIS & strategic data analytics

- Open and reusable data: FRIS web services

- Classifications & labelling
  - Research disciplines (Flemish Research Discipline Standard)
  - Funding programmes
  - Funder
  - Technology domains
  - ...
FRIS: researchers in Flanders

Researchers per university

- Antwerp University: 34%
- Ghent University: 35%
- Hasselt University: 6%
- KU Leuven: 15%
- VUB: 10%
FRIS: researchers benchmark

Flanders

- Agricultural, veterinary and food sciences: 23%
- Engineering and technology: 18%
- Humanities and the arts: 10%
- Natural sciences: 22%
- Medical and health sciences: 22%
- Social sciences: 5%

UHasselt

- Agricultural, veterinary and food sciences: 24%
- Engineering and technology: 20%
- Humanities and the arts: 7%
- Natural sciences: 25%
- Medical and health sciences: 24%
- Social sciences: 0%
FRIS: publications in Flanders
FRIS: publications benchmark
FRIS: publications benchmark
FRIS: projects
FRIS: projects benchmark

**Project funder - Flanders**
- European Commission: 36%
- Flanders Innovation & Entrepreneurship: 8%
- Research Foundation Flanders: 9%

**Project funder - UHasselt**
- Federal gov.: 50%
- Flemish gov.: 7%
- Universities: 9%
- Other: 3%
FRIS: patents, infrastructure, 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 1400 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!
Potential of regional CRIS for the RMA community

- Correct, actual, complete Research Information
- Connect data silo’s
- Maximum reuse of data
- Reduce system costs

- Reduce administrative burden
- Once-only principle
- Policy monitoring & reporting
- Increase strategic intelligence
- More information services

- Alignment with processes is crucial!
Contacts:

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FRIS (FRIS architecture and implementation):
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ECOOM (semantics & information models):
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UHasselt (Directorate Research, Library and Internationalisation):
Annelies Stockmans, Hanne Poelmans, Sadia Vancauwenbergh
LINKING RESEARCH INFORMATION ACROSS DATA SPACES

15th International Conference on Current Research Information Systems (CRIS2022)
Dubrovnik, Croatia
May 12-14, 2022

https://cris2022.srce.hr/
THANK YOU