FRIS: Flanders Research Information Space

>> Tussen bubbel en silo | Felnet | 24 november 2022

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ECONOMY, SCIENCE & INNOVATION

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1. **FRIS: Flanders Research Information Space**
2. **Monitoring using FRIS:**
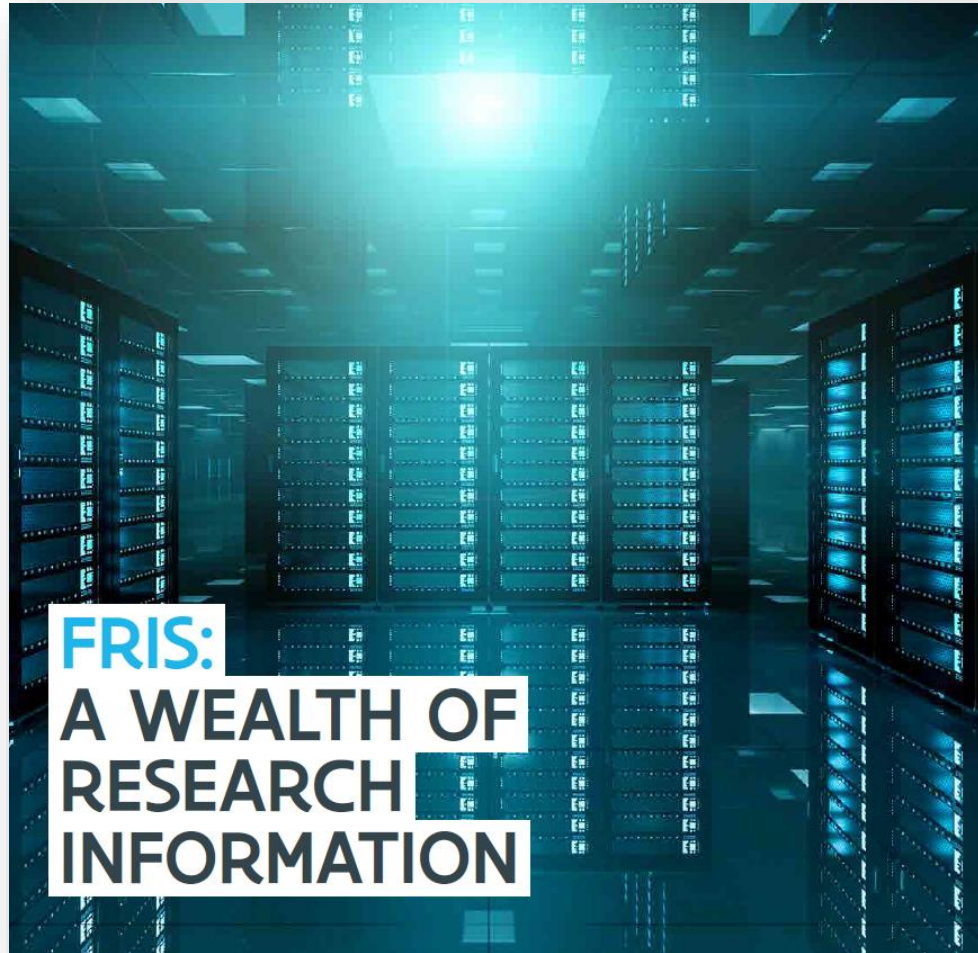   - → **Research activities**
   - → **Open Science**

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FRIS: Flanders Research Information Space

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FRIS: Flanders Research Information Space

FRIS:
A WEALTH OF
RESEARCH
INFORMATION

FRIS in numbers

>40.000
active
researchers

>47.000
research
projects

>500.000
publications

FRIS

NEW in 2022:
> Patents
> Research
  infrastructures
> Datasets

Onderzoeksinstellingen = dataleveranciers

2008

KU Leuven	UGent	UHasselt	VUB	UAntwerpen

2018 <

INBO	ILVO	ITG	Plantentuin Meise	KMDA
KMSKA	VLIZ	Alamire	Begunstigden van VLAIO-financiering (>25)	Waterbouwkundig Lab
	FWO	Orpheus Instituut	Antwerp Management School	

2022 <

Hogescholen (DOSP)	Vlerick Business School	IMEC	VIB	Flanders Make	VITO

FRIS Objectives

OPEN-NESS

- Accelerate the chain from idea to innovation by ensuring a better information flow between research institutes and innovative organisations

SIMPLI-CITY

- Simplifying administration through webservices
- Obtaining information directly from systems
- Requesting information just once, sharing and reusing it to get the most out of it

EFFECT-IVENESS

- To make the government, corporate and research innovation strategy more effective and efficient

TRANS-PARENCY

- To make research information publicly available so that everyone can use it freely

FRIS-principles

- **Data ownership by the research institutes**

- **Contract with the research institutes, not the individual researcher**

- **No data manipulation, we do say yes to enrichment**

- **Working in silo's (because of ownership)**

- **Linking of information through system of aliasing by PID's**

- **Future: golden record-visualization**

FRIS: Flanders Research Information Space

- **CRIS: publicly funded research performed in Flanders**

- **Connected with:**
  - institutional CRIS systems (automated flow)
  - manual input also possible

- **Exchange format: CERIF 1.5 + fris-extensions**

- **Database information versus open data information:**
  - Database: FRIS/EWI
  - Information available through portal (Researchportal.be) and open API's

Monitoring of research activities

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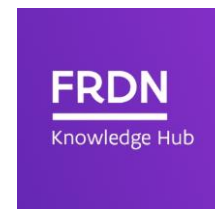
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Monitoring of research activities

- **FRIS: overview of research activities of publicly funded research in Flanders**

- **Useful tool for policy monitoring:**
  - research budget on specific topics, strengths of Flanders, ...

- **2019: also basis for financial reporting of government research funding:**
  - BOF (Special Research Funds) and IOF (Industrial Research Funds)
  - Transition process: concepts and definitions, identify extra information needed, extending the FRIS-datamodel, data gathering, trial runs, collecting feedback, re-iterate and optimize. Took about 3 years.
  - Results expected:
    - Less administrative burden
    - More information in FRIS
    - More accurate reports

Monitoring of Open Science

Open Science policy in Flanders

- **Flemish Government & EOSC: initiative in 2019**

- **Investment of 5 mio € per year for 5 years**

- **Structure:**
  - Flemish Open Science Board (FOSB)
  - Flemish Research Data Network (FRDN)
  - Working groups

- **Role of FRIS:**
  - Hub for metadata on datasets towards EOSC
  - Making research information more accessible and findable
  - Monitoring of Open Science KPI's

Defining the Open Science KPI's (I)

- **Goal: monitoring of progress of Open Science in Flanders**

- **5 KPI's:**

  - **ORCiD KPI:** researchers that receive public funding should have an ORCiD

  - **DMP KPI:** projects that receive public funding should have a Data Management Plan (DMP)

  - **Open Access KPI:** peer-reviewed journal articles resulting from publicly funded research should become available in Open Access

  - **FAIR KPI:** Research data underlying journal articles resulting from publicly funded research should become as FAIR as possible

  - **Open Data KPI:** Research data underlying journal articles resulting from publicly funded research should become openly available.

- **Intensive process with all stakeholders involved in FOSB working groups and taskforces to make definitions and set realistic goals**

Defining the Open Science KPI's (II)

SETTING GOALS:

- **3 possible timelines in degree of ambition: most ambitious track = shorter timeline**

- **Zero-measurement will determine the track**

- **Zero-measurement will be re-measured every year – changes of track possible**

	ORCiD KPI: Goals per track		
year to be measured	track 1	track 2	track 3
2020 (zero measurement)	>20%	10% - 20%	<10% or not measurable
2021	30%	20%	action plan
2022	60%	30%	20%
2023	90%	60%	30%
2024	95%	90%	60%
2025	95%	95%	90%
2026	95%	95%	95%

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Measure KPI's using FRIS: step 1: Extend the metadatamodel

- **Open Data:**
  - No model yet available – developed in FOSB Working group Metadata & Standardisation
  - New model based on DataCite, extended for Open Science metrics
  - Exchange model for FRIS: based on Cerif 1.5: dfResProduct entity, with extensions for extra info like size, format, opt-outs,...

- **Other extensions:**
  - **DMP label**
  - **Open Access label for publications**

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step 2: KPI-metrics based on FRIS-data (I)

- **Translation of KPI-definitions into FRIS-metrics:**

  E.g. Definition: "researchers that receive public funding" should have an ORCiD

  In FRIS: researchers that have an affiliation that is active on the reference date and have a link to a project with public funding

- **Formulated in *Technical Forms* and made publicly available**

- **Advantages:**

  - Transparancy: results are reproducable

  - Consistenty: all institutions measured the same way

  - Reduces administrative burden: for those institutions already integrated

  - Increases data quality: institutions not yet connected to FRIS need to gather the same data and data quality to measure the KPI themselves

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Example of KPI report: overview

Measurement of KPI0: ORCiD through data as available in FRIS				
KPI according to the definition of Open Science*				
Reference date	**Researchers on reference date and with Flemish funding**	**of which having an ORCiD**	**ORCiD KPI %**	**track and goal percentages**
1/2/2020 (zero meas.)	3987	2387	**60%**	**track 1**
1/2/2021	4532	2987	**66%**	**30%**
1/2/2022				**60%**
1/2/2023				**90%**

Example of KPI report: details

Institution	Person Data Provider ID	First Name	Last Name	Active affiliation on 1/02/2021	Project Ids Flemish funding	Researchers active on 1/02/2021 and with Flemish funding	ORCID
Institution	PersonID1	Alex	Peeters	10/02/2020 - 1/01/2023		0	0000-0002-8552-1234
Institution	PersonID2	James	Mercury	7/05/2009 - 1/01/2023		0	
Institution	PersonID3	Elsa	Halloway	1/01/2008 - 1/01/2023	ProjectID1, ProjectID5, ProjectID8	1	0000-0003-2902-1234
Institution	PersonID4	Nancy	Vasquez	28/01/2019 - 1/01/2023		0	0000-0002-2978-1234

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Step 2: KPI-metrics based on FRIS-data (II)

- KPI's measured yearly end of April – update possible end of May

- Institutions report yearly in June on Open Science activities to the FOSB, including the KPI's

- Evaluation of Open Science initiative in 2023

Conclusion

1. **FRIS:**
   1. **database of publicly funded research in Flanders**
   2. **Open data & small part confidential data**

2. **Reporting:**
   1. **Financial**
   2. **Policy**

3. **Open Science:**
   1. **Data**
   2. **Reporting**

FRIS: organisation

- **Embedded in the Flemish Government:**
  - Department of Economy, Science and Innovation
    - Research division

- **Team FRIS**
  - 3 vte

- **Partners:**
  - Knowledge institutions (Dataproviders)
  - FWO, VLAIO, EWI (Research funders)
  - ECOOM Hasselt (Semantics & information models)
  - IT-crew (analysts, developers)

Questions?

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