

Introduction to euroCRIS and some relevant developments going on in the CRIS domain

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CONCYTEC Workshop

Lima, Peru, 2 October 2018

Presentation by:

Ed Simons



Structure of the presentation

- Introduction to euroCRIS
- CRISs their nature and history
- The key role of the researcher
- Relevant developments on a national and international scale, especially related to CERIF.
- Conclusions.

International
Organisation
for Research
Information

eurocris.org

euroCRIS
Current Research Information Systems

euroCRIS:
International Organisation for Research Information

What is euroCRIS?

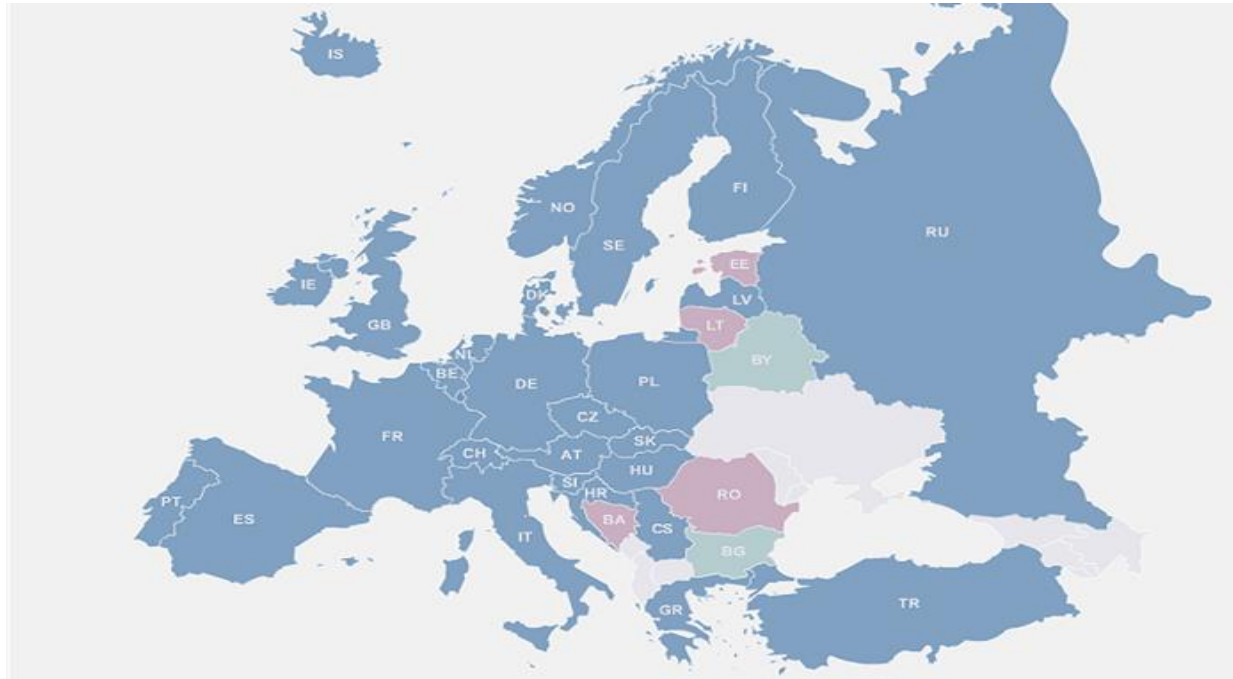
- An international not-for-profit association of experts and users of research information and research information systems (CRIS), legally based in The Netherlands
- *Main activities:*
 - Development and governance of CERIF, a standard data model and exchange format for research information, and the promotion of its use.
 - Promotion of community building and cooperation within the Research Information Domain. To fulfill this function, euroCRIS regularly organises international events: Membership Meetings and Conferences, as well as concluding (strategic) partnerships with other stakeholder organisations in the RI domain.
- *Upcoming events:*
 - Strategic Membership Meeting, Warsaw, 26-28 November 2018.

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euroCRIS
Current Research Information Systems

euroCRIS: Membership



Members outside of Europe:

Australia – Brazil – Canada – China - Colombia – Iran – Israël - Malaysia – Nigeria – Pakistan – Peru - South Korea - USA

200+ members from 45 countries (mainly Europe)

International
Organisation
for Research
Information

eurocris.org

euroCRIS: Strategic Partners



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euroCRIS
Current Research Information Systems

FINAL REPORT

EUNIS – EUROCRIS JOINT SURVEY ON CRIS AND IR

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<http://www.eunis.org/wp-content/uploads/2016/03/cris-report-ED.pdf>

Co-operation
EUNIS-euroCRIS



euroCRIS
Current Research Information Systems



CRIS2016 delegates

Recent News

Videos and presentations Strategic Membership Meeting are online

12-15-2016

In November 2016 euroCRIS organized the Strategic Membership Meeting (SMM) in close collaboration with the National Documentation Centre (EKT/NHRF), the host for this meeting.

New Science Europe Position Paper on Research Information Systems

11-15-2016

At the euroCRIS Strategic Membership Meeting Dr Emily

Strategic Membership Meeting, November 8-10, 2016, Athens, Greece

The videos, presentations and selected photos of the SMM are available. They can be found on the EKT webpage of the euroCRIS event: <http://www.ekt.gr/el/events/program/20510> and on <http://www.ekt.gr/el/events/photos/20525>



Mission

"To advance interoperability in the research community through CERIF"



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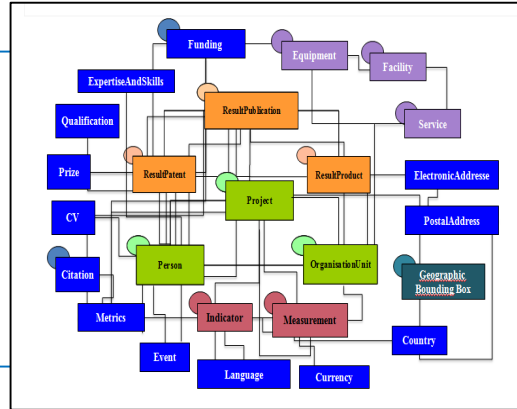
International
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CERIF: euroCRIS's main “product”

An international standard relational data model for storage and interoperability of research information

Official EU Recommendation to Member States

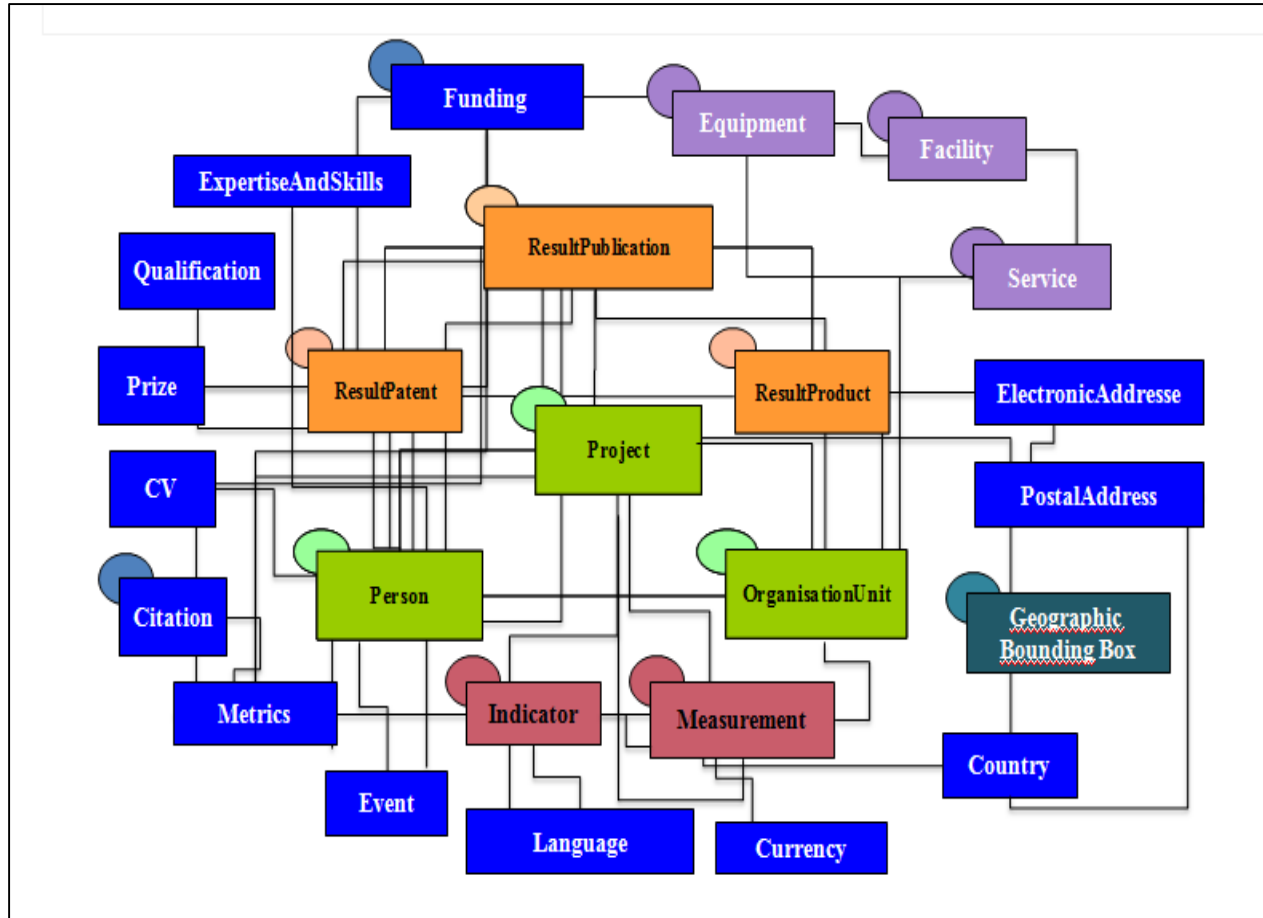


Reference model for development of Research Information Systems (CRIS)

Standard exchange format (CERIF-XML) for interoperability between systems

Common European Research Information Format

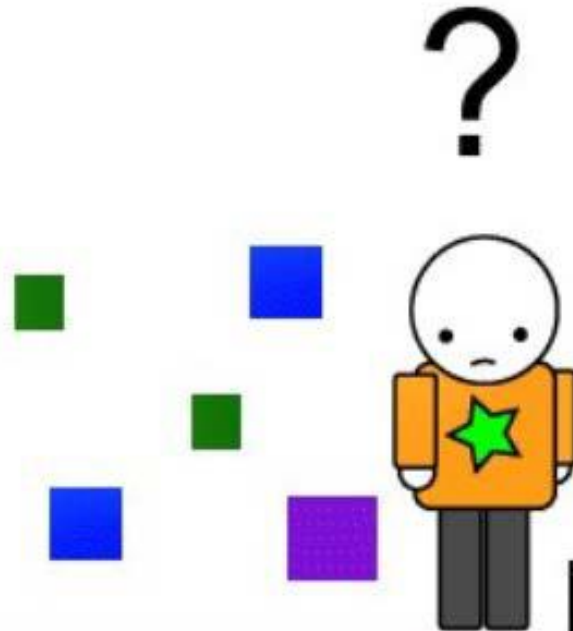
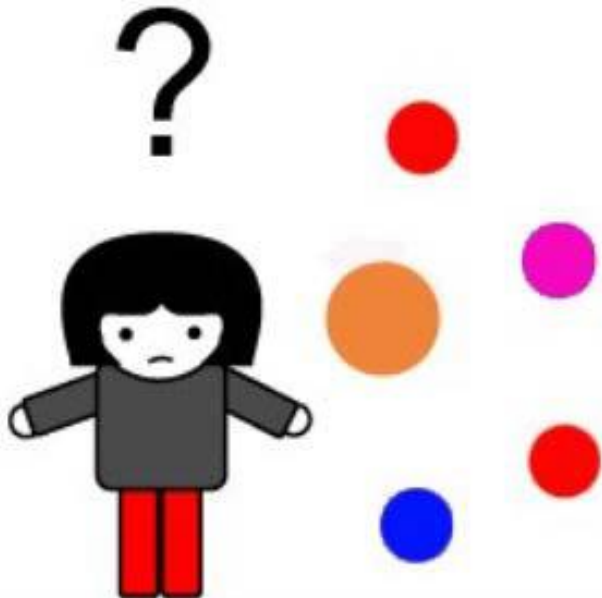
CERIF: euroCRIS's main "product"



Common
European
Research
Information
Format

CERIF: interoperability standard

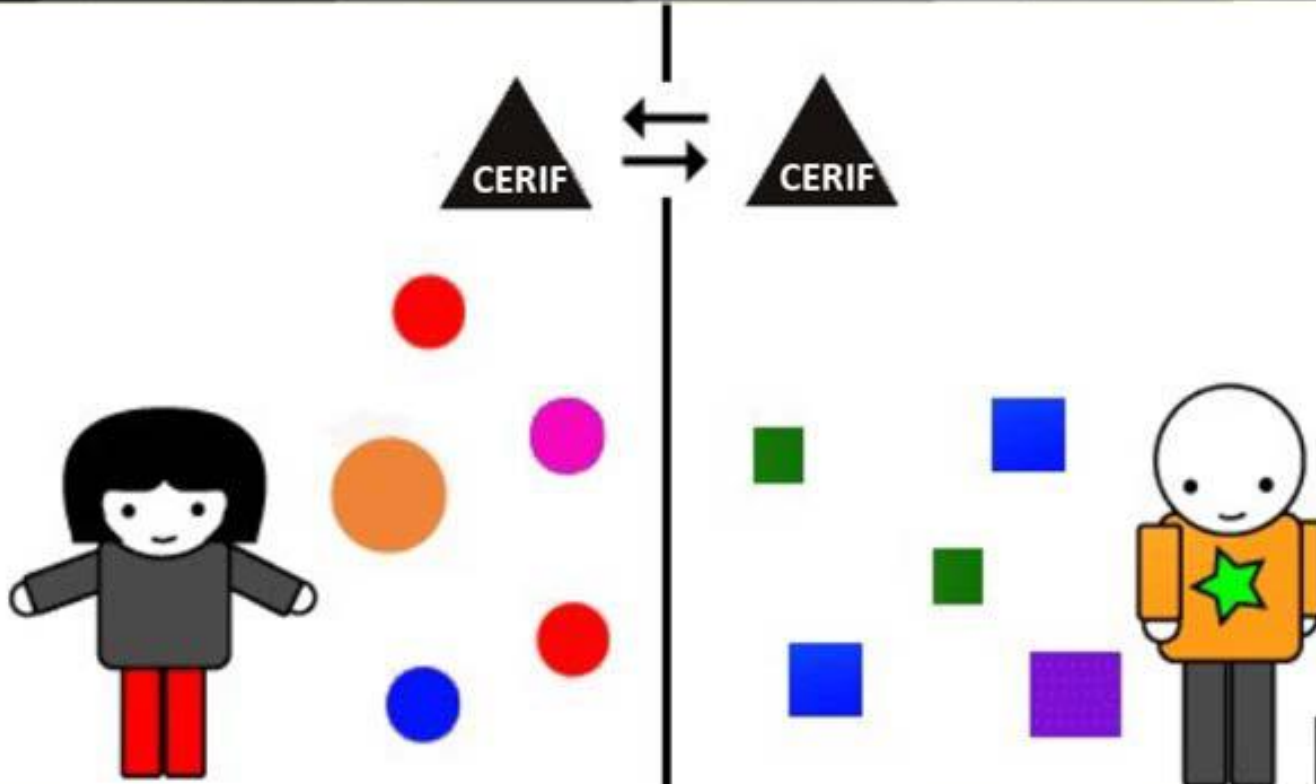
Matilda and Bob want their systems to communicate but it isn't happening...



Common
European
Research
Information
Format

CERIF: interoperability standard

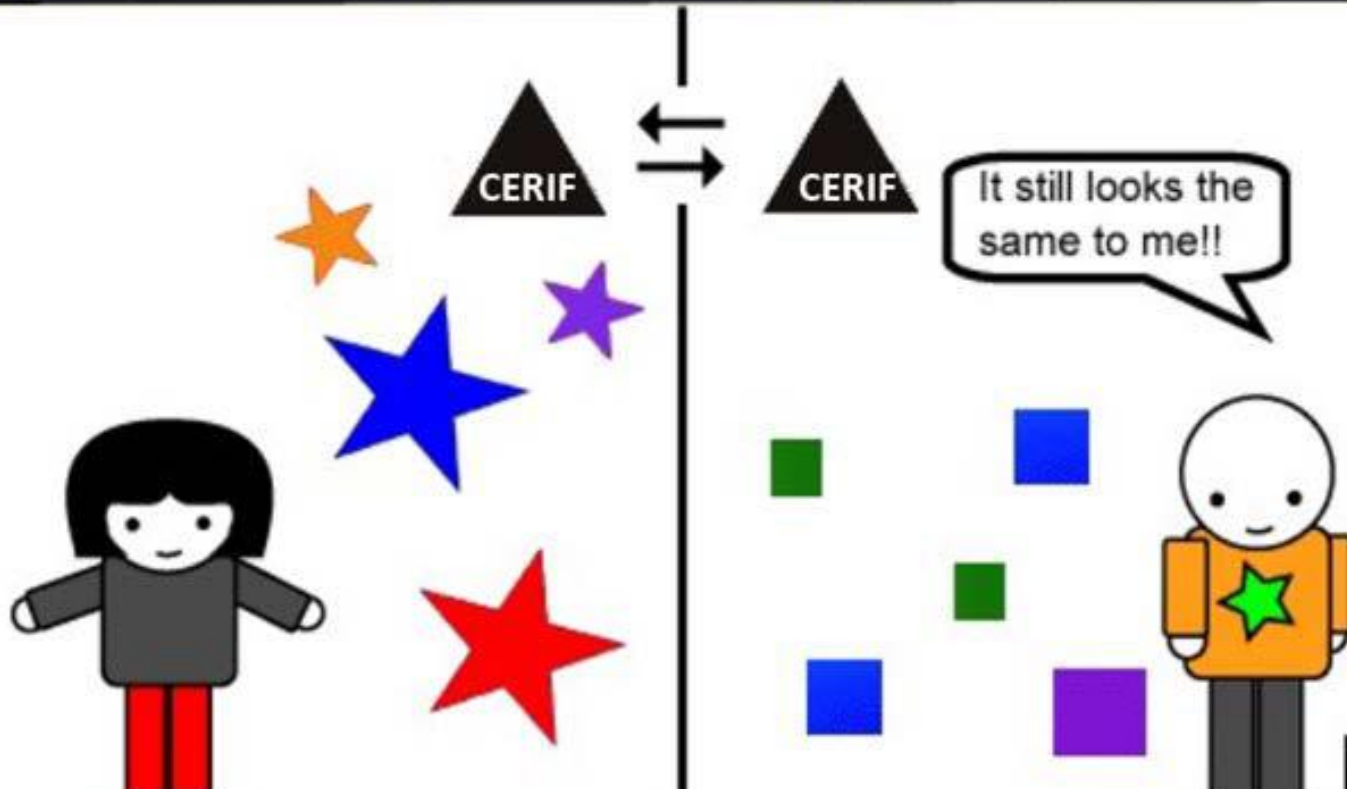
Using standards they achieve interoperability.



Common
European
Research
Information
Format

CERIF: interoperability standard

Matilda swaps her circle system for a new star system...and they can still interoperate.



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Research
Information
Format

CRISs: their nature and history

What is a CRIS?

A CRIS is an information system that holds data about virtually all aspects of research:

- *The researchers* (ID, name, title, affiliation, ...) and their role.
- *The projects* (ID, title, description, key words, start- and enddate, ...)
- *The organisations* (institutes, universities,...) involved and their role (owner, funder, ...)
- *The input* invested in the research both in time (f.t.e.) and money.
- *The results* from the research (publications, datasets, software, patents, images, etc...)
- *The equipment and services* used.
- *Cooperations* with other projects, researchers, groups, organisations.
- *Links to other systems* (HRM, financial, external: ORCID, WoS, Scopus, ...)
- *The domain or subject area* of the research belongs to.
- *The impact of the research*, both in- and outside of academia (metrics, impact indicators,...).
- *Semantic classifications of the research* on various dimensions (typologies, ...),
- *Rights metadata*: who is authorised or which conditions may apply to access (some of the) information in the CRIS
- Etc...

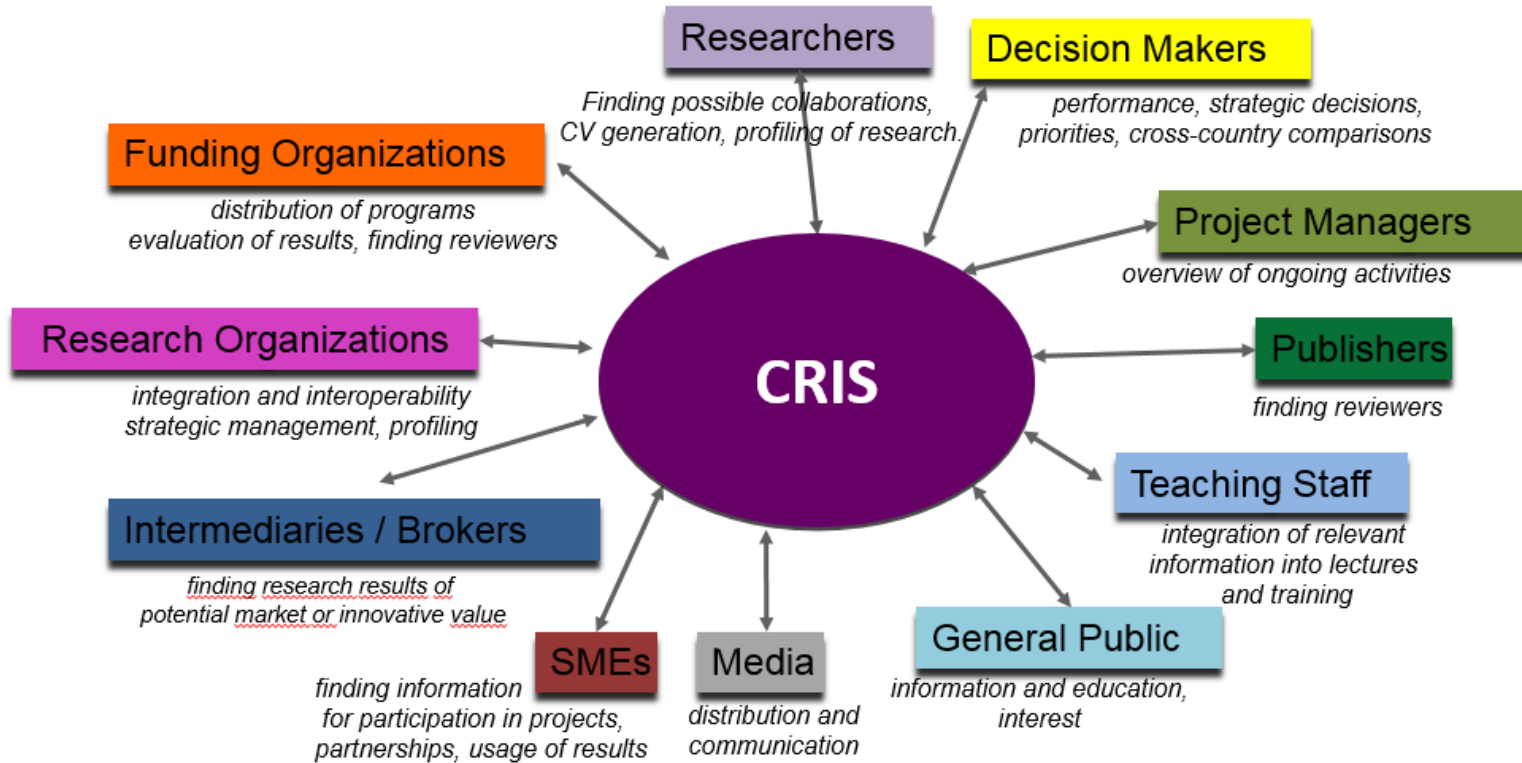
And all these aspects related or linked to each other!

(meta)Data in a
CRIS

What is a CRIS: a bit of history

- CRIS's first appeared around the end of the 80's, early 90's, closely linked to emerging policies of research assessment and evaluation within some European countries (e.g. The Netherlands, Norway, Denmark,...).
- So initially they more or less uniquely had an administrative purpose and were also as such conceived by the research community.
- In the course of time, and especially the last decade, however the image has changed and CRIS nowadays are evolving into multifunctional instruments for a multitude of stakeholders among which research managers and, not the least, *the researchers themselves*.

Functionality of CRIS



CRIS:
Multifunctional
Information
Resources

Introduction

ERIM Overall

- Input >
- Output >
- Productivity >
- Doctoral programme >
- Research programmes >

Introduction

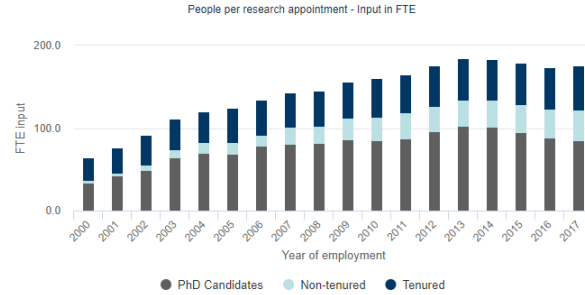
The information on **input** is presented for people and Full Time Equivalents (FTE), the different ERIM membership-types, research appointment ((non) tenured), gender, internationalisation and seniority of the group.

The **output** shows statistics on publishing. We distinguish several analytics on quality publishing in journals: Core (ERIM) journals vs Non core journals, ISI vs Non-ISI journals, ISI quartiles, ISI 1st Quartile, ISI 1st Decile, the ratio of articles in ISI 1st Quartile journals (Q1 Ratio) and the ratio of articles in ISI First Decile (D1 Ratio).

The **productivity** is calculated as the Top Core (ERIM P* and P articles) per fte Tenured faculty, ISI 1st + ISI 2nd per fte Tenured faculty, ISI 1st decile per fte Tenured faculty.

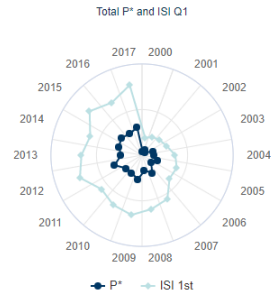
We present information on the Doctoral Programme community, PhD- and research master students graduated per year, gender ratio's, International vs Dutch PhD entrants, nationalities and Time to PhD.

People per research appointment - Input in FTE



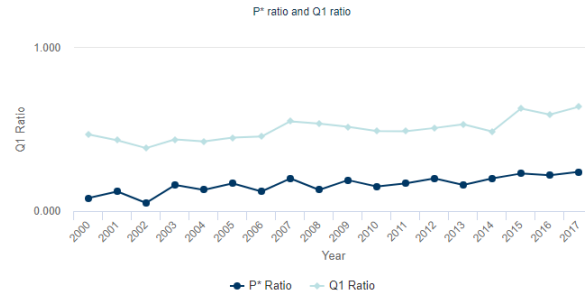
Erasmus Research Institute of Management (ERIM) / Dialogic

Total P* en ISI Q1



Erasmus Research Institute of Management (ERIM) / Dialogic

P* ratio and Q1 ratio



Erasmus Research Institute of Management (ERIM) / Dialogic

CRIS:
Instrument for
Profiling or
Showcasing of
research
Institutes ...

M.J.C.M. (Marno) Verbeek

Professor of Finance



Marno Verbeek is a Professor of Finance at Rotterdam School of Management, Erasmus University (RSM). He was Dean of Research of RSM and Academic Director of the Erasmus Research Institute of Management (ERIM) from 1 July 2011 until 15 July 2017.

His recent research is largely in the area of empirical finance with a particular focus on mutual funds, hedge funds, asset pricing, investment strategies, survival bias and performance evaluation.

He is the author of the textbook *A Guide to Modern Econometrics* (5th ed, 2017), and has published articles in international scholarly journals including the *Journal of Financial and Quantitative Analysis*, *Management Science*, the *Review of Finance*, the *Journal of Banking and Finance*, the *Journal of Empirical Finance*, *Financial Management*, the *Journal of Financial Markets*, the *Journal of Business and Economic Statistics*, *Review of Economics and Statistics*, the *Journal of Econometrics* and the *International Economic Review*.

He received his PhD from Tilburg University in 1991.

+ Work in Progress (3)

- Publications (56)

Key Publications (28)

- › T.C. Dyakov & M.J.C.M. Verbeek (2018). [Can Mutual Fund Investors Distinguish Good from Bad Managers?](#) *International Review of Finance*, Accepted. doi: 10.1111/irfh.12187[[go to publisher's site](#)]
- › W.J. Armstrong, E. Genç & M.J.C.M. Verbeek (2018). [Going for Gold: An Analysis of Morningstar Analyst Ratings](#), *Management Science*, Accepted. doi: 10.1287/mnsc.2017.2884
- › M.J.C.M. Verbeek (2017). *A Guide to Modern Econometrics, 5th edition*. Hoboken, NJ: John Wiley and Sons
- › H. Jiang, M.J.C.M. Verbeek & Y. Wang (2014). [Information Content when Mutual Funds Deviate from Benchmarks](#), *Management Science*, 60 (8), 2038-2053. doi: <http://dx.doi.org/10.1287/mnsc.2013.1847>[[go to publisher's site](#)]
- › D. Blitz, J.J. Huij, S.D. Lansdorp & M.J.C.M. Verbeek (2013). [Short-Term Residual Reversal](#), *Journal of Financial Markets*, 16 (3), 477-504. doi: <http://dx.doi.org/10.1016/j.finmar.2012.10.005>[[go to publisher's site](#)]



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Research Initiatives

- › Erasmus Finance Group

Work in progress

T.C. Dyakov, H. Jiang & M.J.C.M. Verbeek (2018). [Trading is Hazardous to Your Wealth: Evidence from Mutual Funds around the World](#). (Preprints). Rotterdam: Rotterdam

G.P. Baquero & M.J.C.M. Verbeek (2018). [Hedge Fund Flows and Performance Streaks: How Investors Weigh Information](#). (Preprints). : working paper

R. Shen, M.J.C.M. Verbeek & Y. Wang (2016). [Fundamental Analysis, Mutual Fund Trading and Fund Performance](#). (Preprints). :

Latest publication

T.C. Dyakov & M.J.C.M. Verbeek (2018). [Can Mutual Fund Investors Distinguish Good from Bad Managers?](#) *International Review of Finance*, Accepted. doi: 10.1111/irfh.12187[[go to publisher's site](#)]

CRIS:
Instrument for
Profiling or
Showcasing of
research

... Researchers

Functionality of CRIS

Central Position of CRIS in the Research Information Landscape

INPUT FROM

External Publication / Data Resources



(WoS, Scopus, Google Scholar...)

Researchers



Administrative Resources



(HRM, Finance, Project Man.)

Inst. Secretariat



Internet



OUTPUT TO

Publication Repositories



Dataset Repositories / Archives



Profiling & Management Applications



((inter)national) Research Portals



Other RIS-systems / formats

ORCID

VIVO

CRIS:
Multifunctional
Information
Resources

CRIS and Institutional Repositories

- CRIS and Repositories become more and more integrated, meaning that information is automatically exchanged between the CRIS and the Repository (and vice versa).
- Basically three variations of this concept exist:
 - Repository functionality is built into the CRIS (e.g. The PURE-Elsevier CRIS).
 - CRIS functionality is added to a Repository system (e.g. Dspace-CRIS).
 - CRIS and Repository remain two separate systems but an automated interface is built between them, where the CRIS typically is the leading resource (e.g. METIS, a Dutch CRIS).

CRISs: the researcher is the key

The researcher is the key

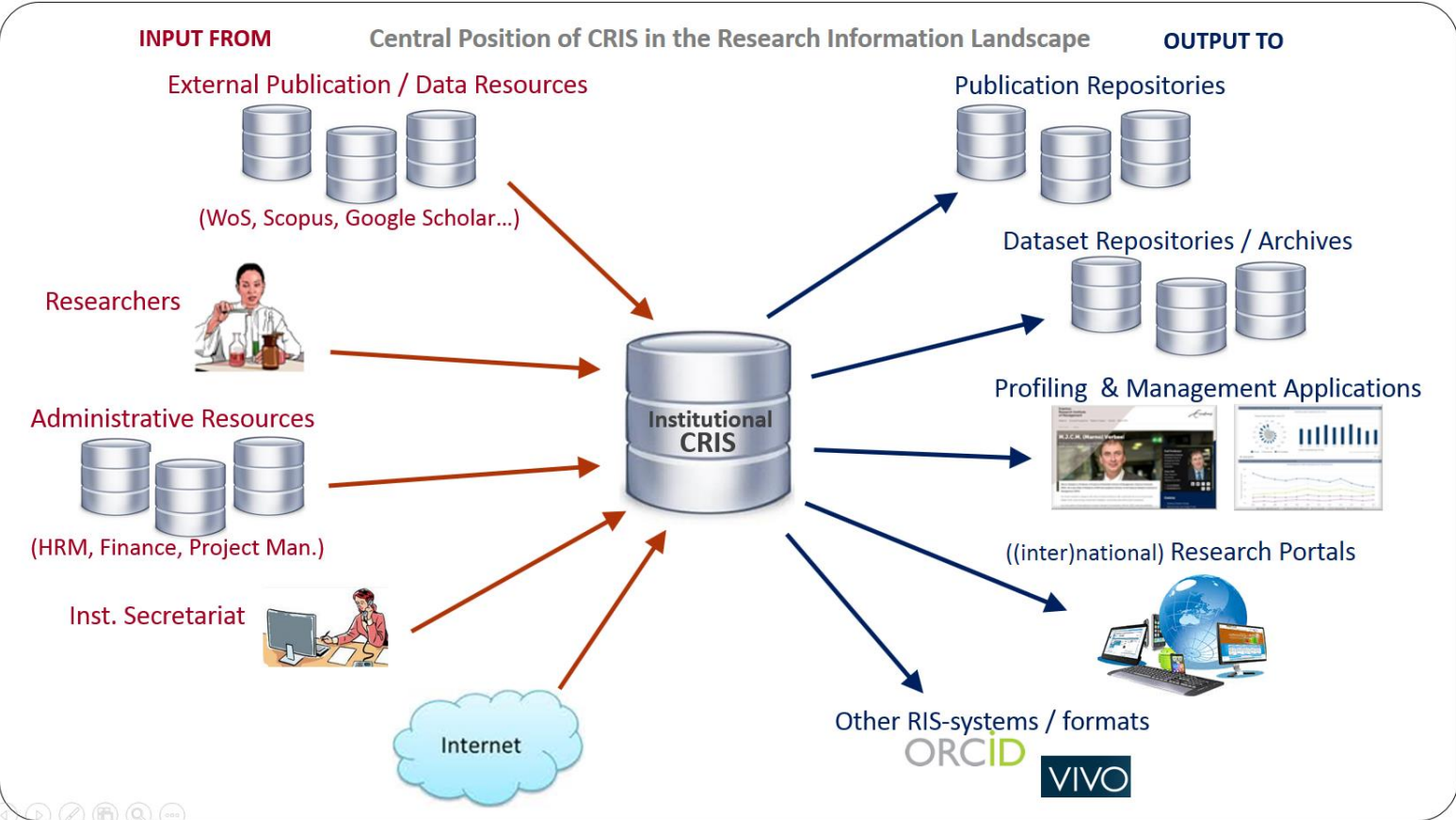
In order for CRISs to be able to optimally perform its various and multiple functions, they in the end depend on the *Researchers* to provide the information completely and in time.

To promote this two things should be taken care of

1. The *overhead for a researcher* involved in the use of CRISs (and their neighbouring systems) *should be reduced as much as possible*, meaning both:
 - the *time* and
 - the *complexity*to use the system(s) should be as limited as possible.
2. The CRIS should hold a clear *added value for the researchers themselves*.

Core aspect:
Reducing
overhead

Reduction of time: *automated import of data* into the CRIS.



Core aspect:
Reducing overhead

Reduction of complexity: *one stop shop* interface.

Demotivating or “killing” for the commitment of a researcher (to provide information) is a situation in which:

- At 9 o'clock he/she has to use interface A of system X (e.g. the system of a Funder)
- At 10 o'clock interface B of system Y (e.g. the Institutional Repository)
- And at 11 o'clock interface C of system Z (e.g. the CRIS)

to provide basically the same information.

(where these interfaces not only look different but often also use a different terminology).

Core aspect:
Reducing
overhead

Reduction of complexity: *one stop shop* interface.

The screenshot displays the Research Information Services (RIS) interface. At the top, the header includes the text "RESEARCH INFORMATION SERVICES" and a logo, with the name "E. Simons" on the right. Below the header is a navigation bar with buttons for "add result", "overview", "contact/help", "userguide", and "exit". A secondary bar contains "info", "delete", "previous", "next", "copy", "save", and "new result". The main content area features a "Type" dropdown menu. The dropdown is open, showing a list of result categories: "- choose a result-", "academic speech", "annotation", "article - letter to the editor", "article in volume - proceedings", "audio-visual aids", "award", "book - monograph", "book editorship", "book review", "computer program / software", "contribution weekly / daily journal", "data management plan", "dataset" (highlighted in blue), "design", "doctoral thesis", "internet article", and "journal editorship - refereed". To the right of the dropdown is a "personal key publication" checkbox. The footer of the interface shows the version number "2017 v 4.4.21".

Core aspect:
Reducing
overhead

Reduction of complexity: setup of an appropriate *Support Service*

Research Information Services

Core aspect:
Reducing
overhead

The screenshot shows a website with a red navigation bar containing 'HOME', 'MANUALS', and 'SUPPORT'. Below the navigation bar are eight service cards arranged in a 2x4 grid. Each card has a title, a brief description, and a list of steps. The cards are: 'Register your publication', 'Upload your full text', 'Dataset archiving and registration', 'DMP tool', 'Policy', 'RDM support', 'Open access', and 'Log in to RIS'. The 'Open access' card features a large orange padlock icon.

Service	Description	Steps
Register your publication	You can use the RIS interface to register your publication. Link your publications and datasets and make them visible in the Radboud Repository and on your personal profile page .	<ul style="list-style-type: none">> Step-by-step: registering a publication
Upload your full text	You can use the RIS interface to upload the full text of your publication to the Radboud Repository . Your publication will be easy to find through the usual search engines like Google (Scholar).	<ul style="list-style-type: none">> Step-by-step: uploading full text to a publication
Dataset archiving and registration	Use RIS to make a dataset available via the certified DANS EASY archive. Choose 'register only' if you've archived a dataset elsewhere.	<ul style="list-style-type: none">> Step-by-step: registering and archiving a dataset> Step-by-step: registering a dataset
DMP tool	You can make a good start on managing your data by writing a data management plan. Radboud University has developed a tool for writing such a plan, included in the RIS interface.	<ul style="list-style-type: none">> Step-by-step: writing a data management plan
Policy		
RDM support		
Open access		
Log in to RIS	You can use Surfconext to log in. Use your RU credentials (u-number and password):	<ul style="list-style-type: none">> SURFCONEXT

But still....

Even if overhead is reduced and researcher profiling functions have been developed and added, this may not be quite enough to really make CRISs a “researcher thing”, as long as the CRIS is seen as belonging to “a different world”, meaning is not directly connected to the research process.

Researcher:
the key player

Research activities



“My World”

Research information activities



“Their (administration) World”

But the growing focus on and importance of (the practice of) *Research Data Management* could be a game changer in this respect.

The researcher is the key

In order for CRISs to be able to optimally perform its various and multiple functions, they in the end depend on the *Researchers* to provide the information completely and in time.

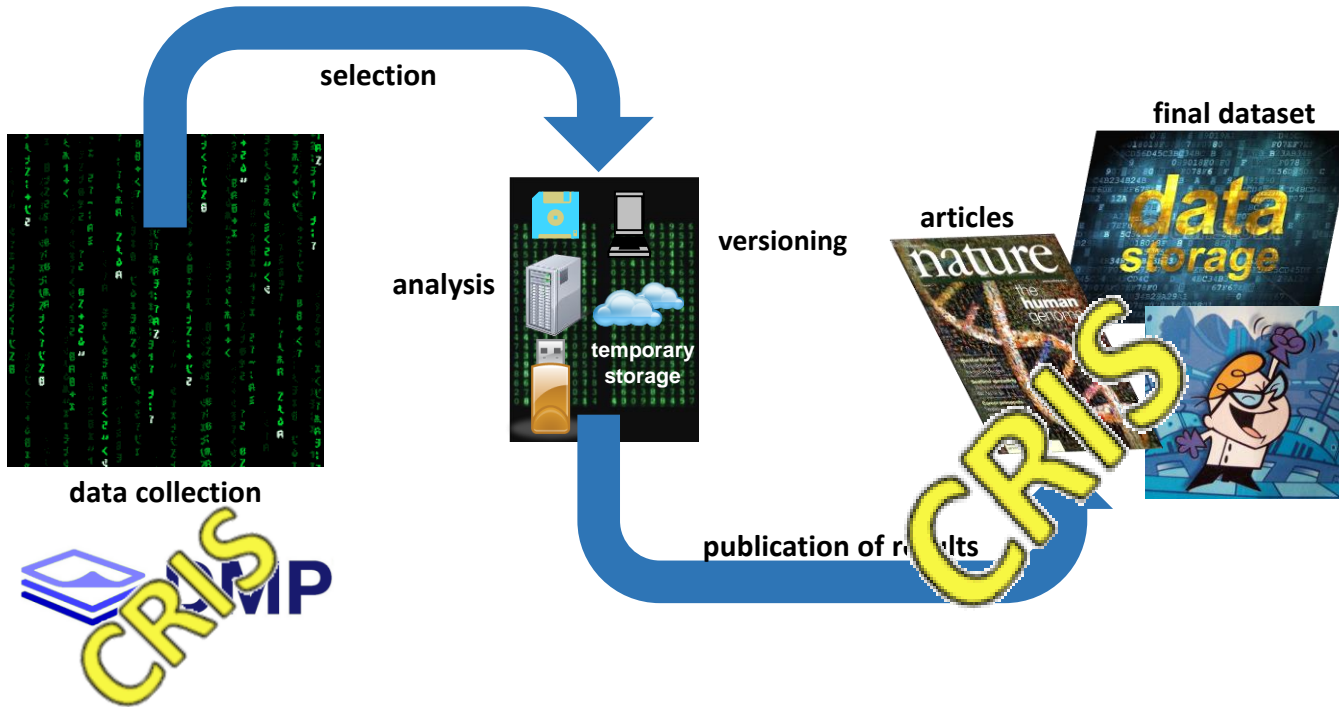
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1. The *overhead for a researcher* involved in the use of CRISs *should be reduced as much as possible*, meaning both:
 - the *time* and
 - the *complexity*to use the CRIS should be as limited as possible.
2. **The CRIS should hold** *added value for the researchers themselves.*

Core aspect:
Reducing
overhead

CRIS in the Research Data Life Cycle

CRIS & RDM

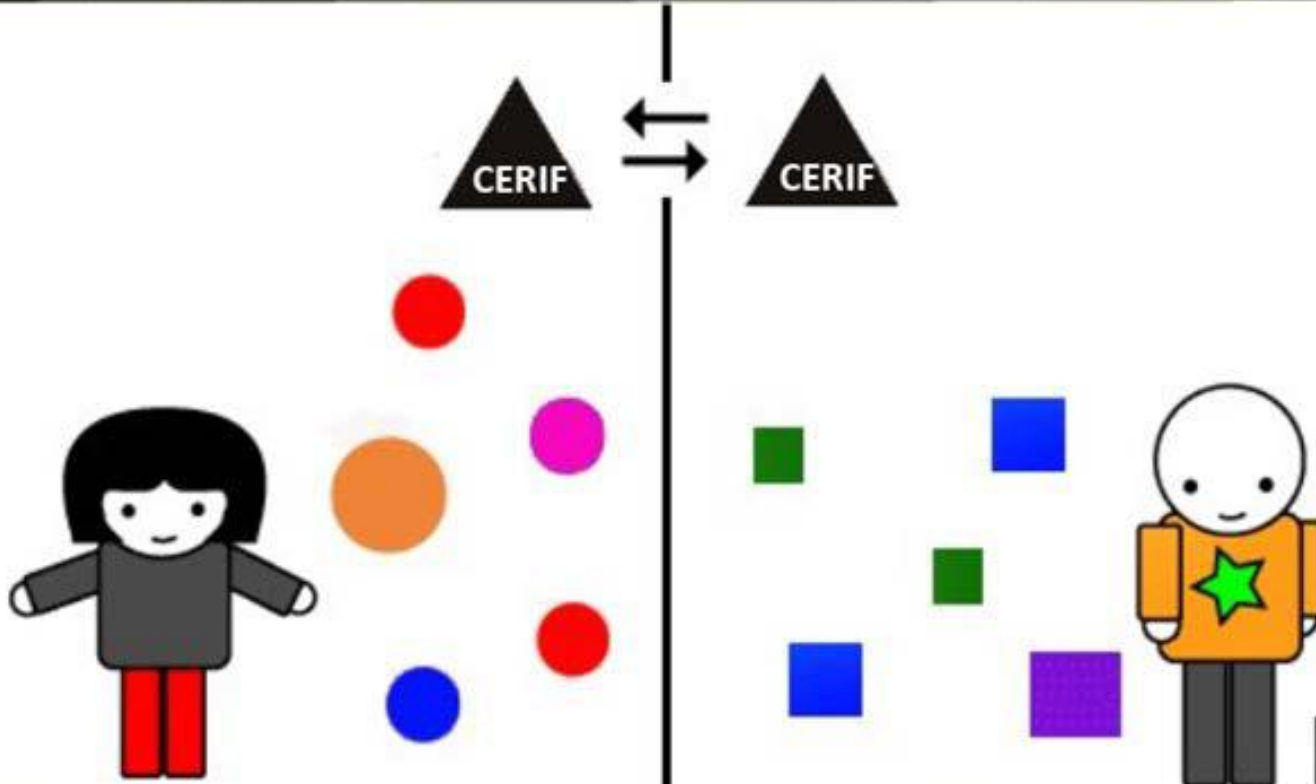


CERIF: relevant developments on a national and international (European) scale

*C*ommon
*E*uropean
*R*esearch
*I*nformation
*F*ormat

CERIF: interoperability standard

Using standards they achieve interoperability.



Common
European
Research
Information
Format

Ongoing implementations of CERIF

- **Finland:**
 - VIRTA: national CRIS system of Social Sciences and Humanities: implementation of CERIF for supply of information to OpenAIRE.
- **The Netherlands:**
 - NWO – CRIS of main national research funder: implementation of CERIF-XML for exchange of information with the Dutch universities' CRISs.
 - NARCIS, national CRIS system: implementation of CERIF for OpenAIRE
 - METIS, CRIS system of 3 universities is also implementing CERIF for OpenAIRE
- **Poland:**
 - OMEGA-PSIR: CRIS system of 9 Polish universities: implementation of CERIF for OpenAIRE.
- **Portugal:**
 - PT-CRIS: national CRIS system: implementation of CERIF-XML for the exposure of researcher CV-information as well as for exchange with OpenAIRE.
- **Dspace-CRIS:**
 - Implementation of CERIF for OpenAIRE.
- **Elsevier-PURE:**
 - Implementation of CERIF for OpenAIRE.

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*R*esearch
*I*nformation
*F*ormat

Growing awareness on the policy level

Conclusion of a report of a working group of the European Parliament (April 2014):



Science and Technology
Options Assessment

Measuring scientific performance for improved policy making

“We conclude that a European Integrated Research Information Infrastructure is *technically feasible* thanks to recent technological developments *and especially the maturity of the European CERIF standard*, which allows seamless interlinking of datasets and/or research information systems, in different formats and including non-CERIF systems”
(page 14 of the Report)



Science and Technology Options Assessment
European Parliamentary Research Service
European Parliament
April 2014
PF.522.383



Common
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Research
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Growing awareness on the policy level



Science Europe Position Statement

On Research Information Systems

NOVEMBER 2016

- ▶ Promote the adoption of research information systems with the following characteristics:
 - Economic value-creation for service providers that does not depend on siloing and closing data;
 - No pay-walling of research activity data, given that dataset combination is a basic requirement to understand the research landscape; and
 - Interoperability based on a common exchange format and open standards for the definitions of the entities (such as researchers, organisations, grants, activities, and outputs) and attributes in the research information domain, and for the identification of these entities with unique and persistent identifiers.

*C*ommon
*E*uropean
*R*esearch
*I*nformation
*F*ormat

Some Conclusions

- CRISs have gradually grown into multifunctional systems of relevance for various stakeholders in the Research Information Domain and as a result are taking a central position within the research information systems infrastructure.
- The CERIF standard exchange format is currently being implemented on a broad scale in Europe, both by major CRIS developers/vendors and by national CRIS systems. This development could provide examples and best practices that might well be of use for the Peruvian situation and initiative.
- The motivation and practice of researchers to supply (in time and complete) information is a key aspect for a research information infrastructure to (optimally) function. It is therefore of importance to both reduce the overhead for researchers to a minimum and to provide and demonstrate clearly the added value for/to them connected with the use of the infrastructure.
- The implementation of CRIS-infrastructures could be supported by and gain from demonstrating the potential of (the information in) CRISs for Open Science.

Conclusions

Thank you very much for your attention!

Questions?