euroCRIS

Current Research Information Systems.

THE INTERNATIONAL ORGANISATION FOR RESEARCH INFORMATION

INCONECSS
April 19-20, 2016
Berlin

Michele Mennielli
euroCRIS Board Member

Index

▶ **euroCRIS in a nutshell**

▶ **CERIF: the Common European Research Information Format**

▶ **The CRIS/IR Survey**

▶ **The future of Research Information:**

   ▶ Research Data Management and Archiving

   ▶ Management of Multi-dimensional Researcher Portfolio

   ▶ Research Information Infrastructures

euroCRIS in a Nutshell

What is euroCRIS?

euroCRIS
Current Research Information Systems

An international not-for-profit association of experts and users of research information and research information systems (CRIS)

Mission

To advance Interoperability in the Research Community through **CERIF** **C**ommon **E**uropean **R**esearch **I**nformation **F**ormat

CERIF

Development and governance of the CERIF data model and promotion of its use

Task Groups

1) CERIF
2) Architecture & Development
3) Best Practice & DRIS
4) CRIS-IR
5) Indicators

Events

Strategic Membership Meetings (twice a year)

&

Conferences (every 2 years)

CRIS2016 Conference

June 8-11, 2016 – St. Andrews (Scotland, UK)
More info here

The euroCRIS Network

>200 Members

45 Countries

13 Strategic Partners

CERIF

Common European Research Information Format

CERIF: Common European Research Information Format

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

Official EU Recommendation to Member States

CERIF

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

Reference model for the development of Research Information Systems (CRIS)

Strong points of CERIF

CERIF is a comprehensive "legobox" of research information metadata
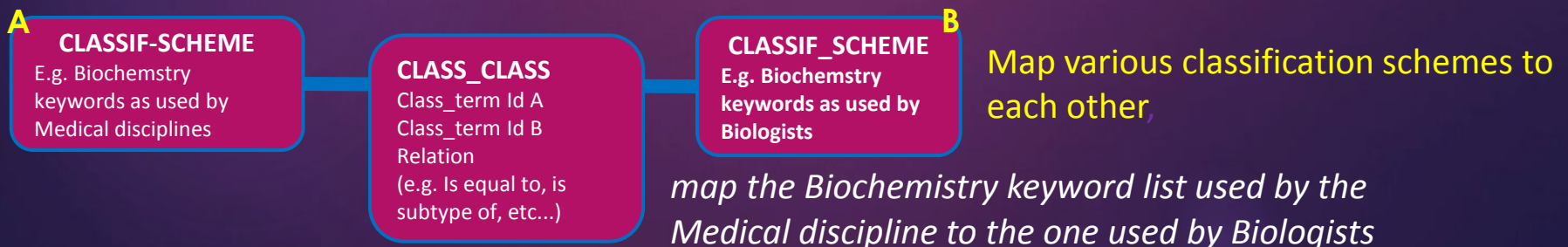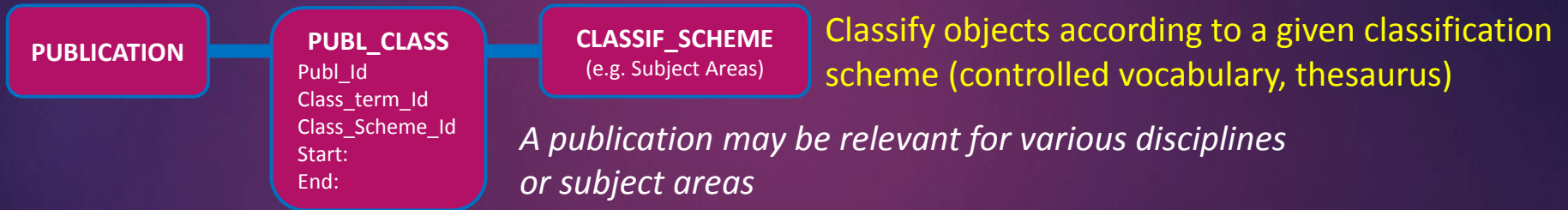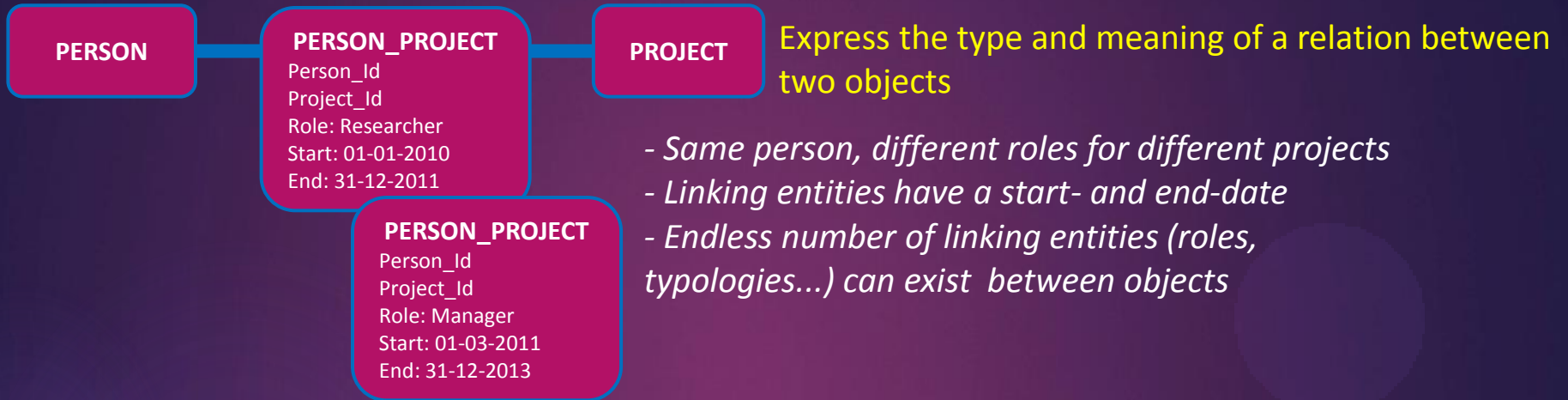
Broad Coverage

- **Projects**
- **Persons**
- **Organisations**
- **Funding**
- **Publications**
- **Datasets**
- **Patents**
- **Products**
- **Bibliometrics**
- **Impact Indicators**
- **Equipment**
- **...**

Fine-grained structure & flexible architecture

- **Input/Output of any (meta)data format**
- **Expression (= translation) of any formalised use case**
- **Ingestion of an unlimited number of controlled vocabularies (semantic layer)**

Key feature of CERIF: Linking Entities

euroCRIS
Current Research Information Systems

PERSON ── **PERSON_PROJECT**
Person_Id
Project_Id
Role: Researcher
Start: 01-01-2010
End: 31-12-2011
── **PROJECT**

PERSON_PROJECT
Person_Id
Project_Id
Role: Manager
Start: 01-03-2011
End: 31-12-2013

Express the type and meaning of a relation between two objects

- *Same person, different roles for different projects*
- *Linking entities have a start- and end-date*
- *Endless number of linking entities (roles, typologies...) can exist between objects*

PUBLICATION ── **PUBL_CLASS**
Publ_Id
Class_term_Id
Class_Scheme_Id
Start:
End:
── **CLASSIF_SCHEME**
(e.g. Subject Areas)

Classify objects according to a given classification scheme (controlled vocabulary, thesaurus)

A publication may be relevant for various disciplines or subject areas

A **CLASSIF-SCHEME**
E.g. Biochemstry keywords as used by Medical disciplines
── **CLASS_CLASS**
Class_term Id A
Class_term Id B
Relation
(e.g. Is equal to, is subtype of, etc...)
── B **CLASSIF_SCHEME**
E.g. Biochemstry keywords as used by Biologists

Map various classification schemes to each other,

map the Biochemistry keyword list used by the Medical discipline to the one used by Biologists

CERIF and the World of Research

Widely recognized as a standard storage model for research information metadata and a standard for interoperability of research information (CERIF-XML)

OpenAIRE Guidelines for CRIS Managers based on CERIF-XML

The OpenAIRE Guidelines for CRIS Managers version 1.0, together with the accompanying material, is available at http://doi.org/10.5281/zenodo.17065 .

STOA-Report: *Measuring Scientific Performance for Improved Policy Making*, p. 14.

The feasibility of a European integrated research information infrastructure

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.

The CRIS/IR Survey

The CRIS/IR Task Group

euroCRIS
Current Research Information Systems

**CRIS-IR
Task Group**

The **CRIS-IR Task Group** aims at furthering the science and technology of the linkage between CRIS and repositories and specifically open access institutional repositories of publications

Joint euroCRIS-EUNIS **Survey on CRIS and IR systems** across Europe. The final report is available here: http://www.eurocris.org/sites/default/files/files/cris-report-ED%281%29.pdf

Interoperability between National CRISs and National Repository Network: a CRIS/IR interoperability workline for implementing Open Access (OA) in countries where there's little or no repository infrastructure

The CRIS-IR Survey

![euroCRIS - Current Research Information Systems]

🌐 **20 Countries**   🏛 **84 Institutions**
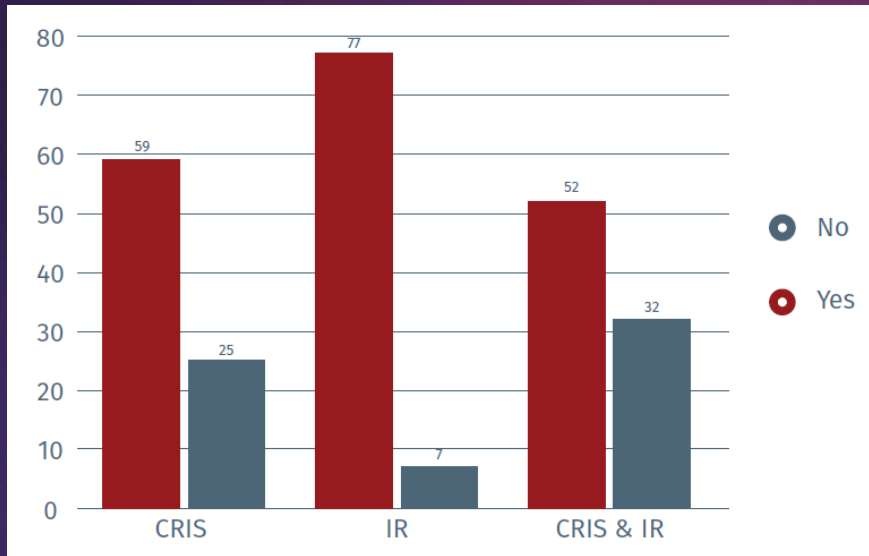
It is interesting to observe that 62% of institutions have both a CRIS and an IR.
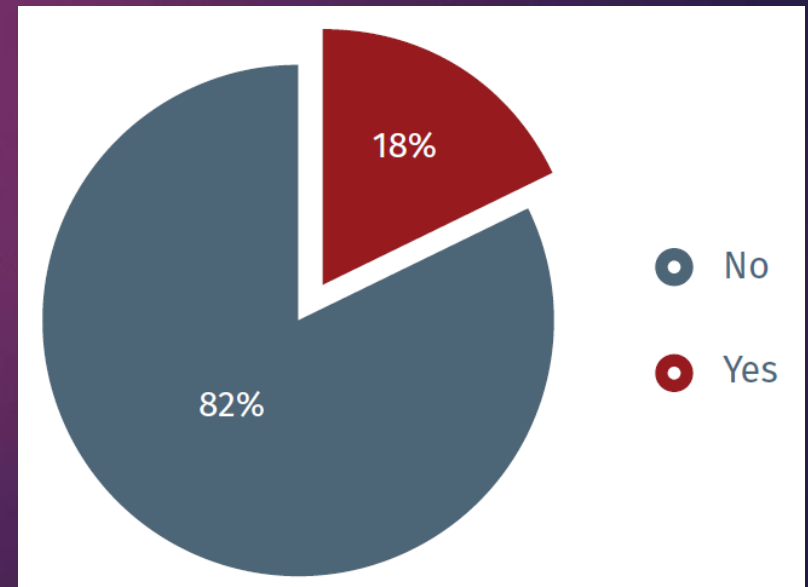
In the 18% of the cases where both CRIS and IR systems are available a single software platform is used for both

CRIS/IR Survey: Type of Content

Are the two systems overlapping in their functionalities?

The two systems are clearly complementary
while IRs are the preferred ones for managing publications, dissertations and datasets, CRISs are regularly chosen for managing all the remaining data.
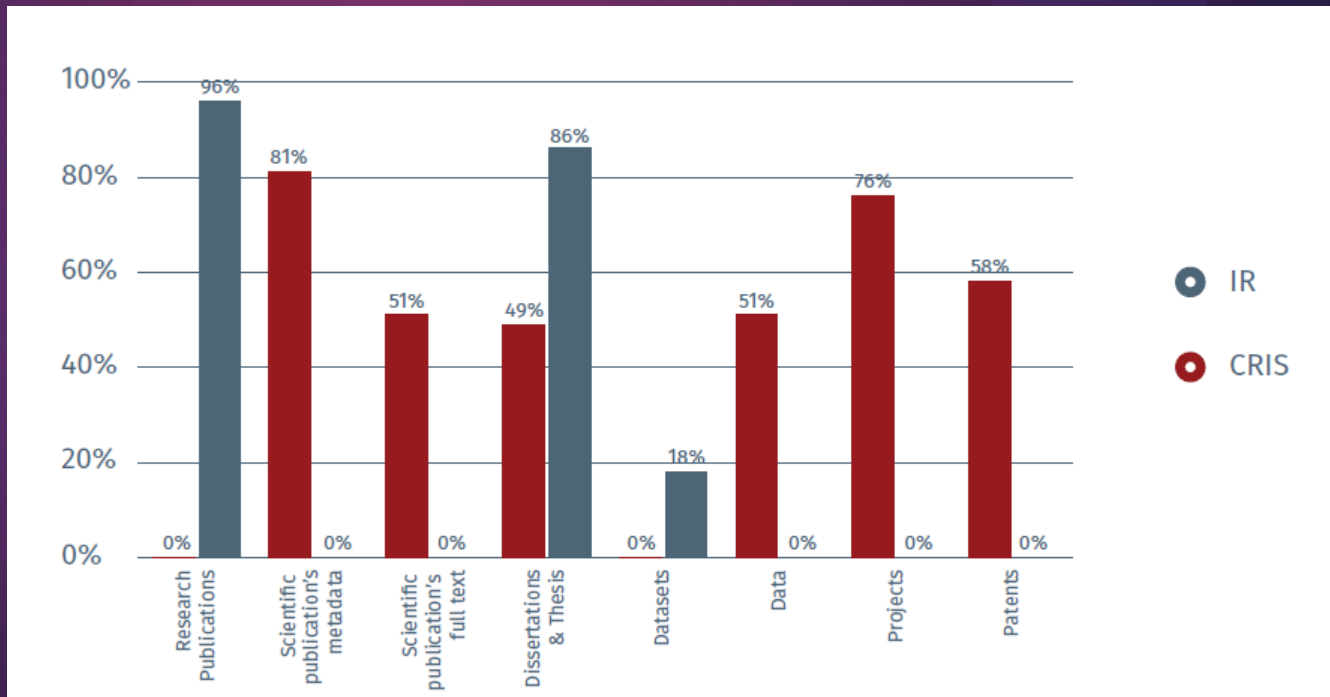
CRIS/IR Survey: Link to Internal Systems

euroCRIS
Current Research Information Systems

➢ **Almost 65% of the institutions have linked their CRIS and their IR**

➢ **CRISs are the preferred systems to link to legacy systems**

➢ **There is still very little integration with Learning Management Systems**
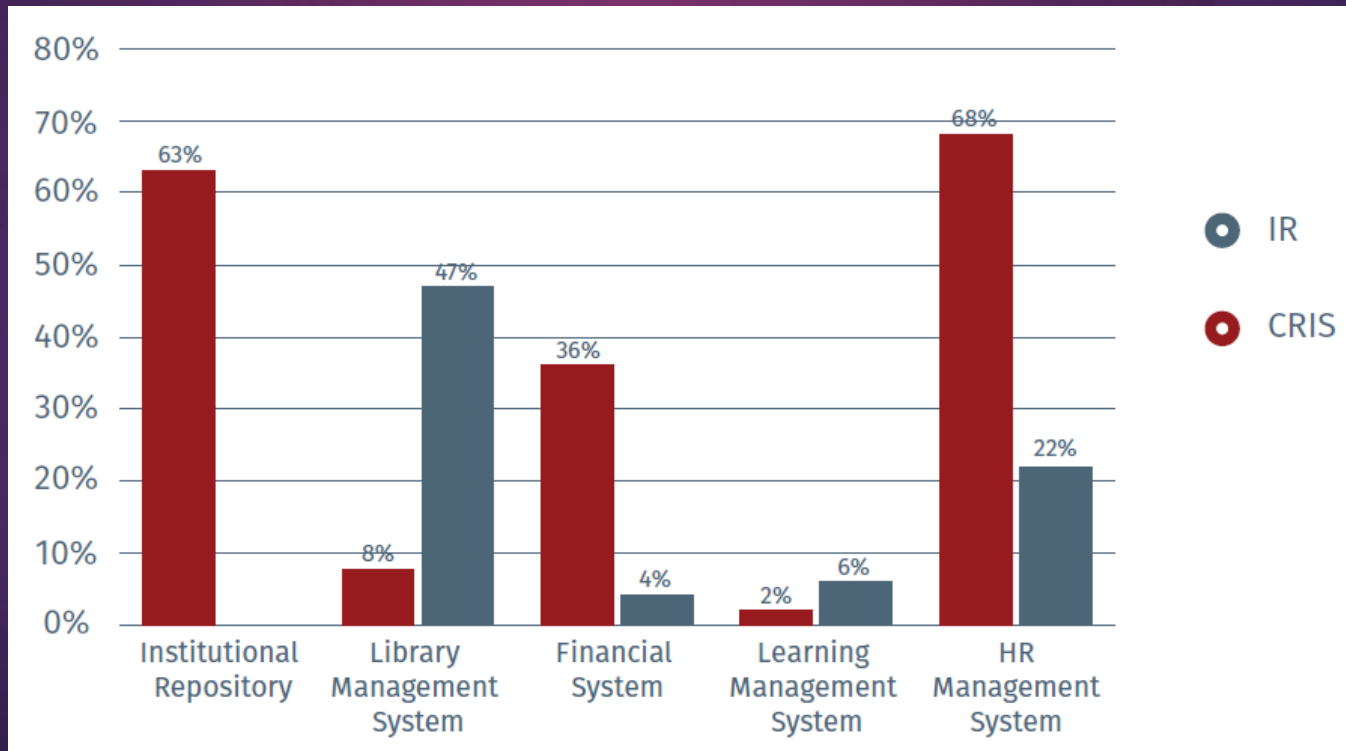
The future of Research Information
Research Data Management and Archiving

Research Data: role of CRIS

euroCRIS
Current Research Information Systems

selection

analysis

Article

CRIS
Registration of (metadata) for dataset

CRIS
Data life cycle management

CRIS
Linking publications to dataset + archiving of data.

data collection

publication
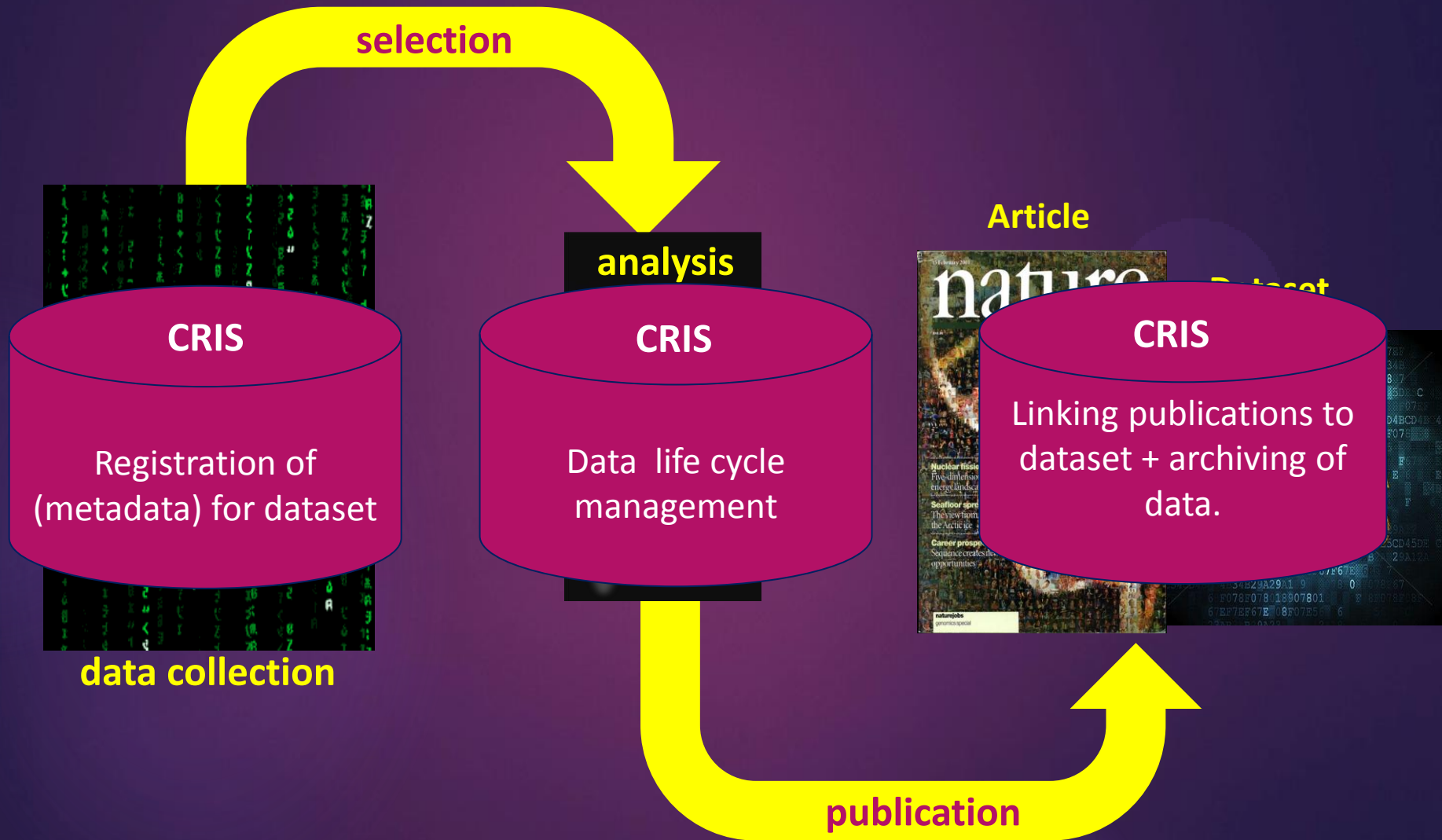
The future of Research Information
Management of Multi-dimensional Researcher Portfolio

Towards multi-dimensional research(er) evaluation and monitoring tools

The issue

- Growing questioning of the "traditional" bibliometrics

A possible solution

- Combination of an extensive set of quantitative and qualitative indicators, altmetrics, narratives to give a complete picture of a researcher's expertise, skills, experience, performance and impact

The challenge for a CRIS

- Integrate all these aspects and various types of data into their systems

e.g.: ACUMEN
academic careers understood through measurement and norms

http://research-acumen.eu/

Towards a DRE/VRE?

The **Digital Research(er) Environment** is an extensive toolbox covering all information and management aspects of the research life cycle including research production tools

The future of Research Information
Research Information Infrastructures

Research Information Infrastructure

euroCRIS
Current Research Information Systems

integration | networked structure | interoperability standards
Identifiers | vocabularies | exchange format

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

Institutional CRIS

OUTPUT TO

Publication Repositories

Dataset Repositories / Archives

Profiling & Management Applications

((inter)national) Research Portals

Other RIS-systems / formats
ORCID VIVO

Thank you very much for your attention!

INCONECSS
April 19-20, 2016
Berlin

Michele Mennielli
m.mennielli@cineca.it