Preliminary findings from the global Survey of Research Information Practices

Rebecca Bryant, PhD, Senior Program Officer, OCLC Research
bryantr@oclc.org  @RebeccaBryant18
Pablo de Castro, Open Access Advocacy Librarian, University of Strathclyde; euroCRIS
pablo.de-castro@strath.ac.uk  @pcastromartin
Anna Clements, Assistant Library Director, University of St Andrews; euroCRIS
akc@st-andrews.ac.uk  @AnnaKClements
Today’s talk

• Introducing OCLC Research, euroCRIS and their collaboration

• Discuss joint Survey of Research Information Management Practice: goals, scope, aims

• Share and discuss preliminary survey results and findings
OCLC: A global network of libraries

- Americas: 10,938 members in 28 countries
- EMEA: 4,009 members in 72 countries
- Asia Pacific: 1,601 members in 23 countries

As of 31 December 2017
• Devoted to challenges facing libraries and archives since 1978
• Community resource for shared Research and Development (R&D)
• Engagement with OCLC members and the community around shared concerns
• Learn more
  ▪ oc.lc/research
  ▪ Hangingtogether.org blog
OCLC Research Library Partnership (RLP)

- ~150 research libraries worldwide
- Facilitates collaboration, research, & sharing across member institutions & with OCLC Research
- [oc.lc/rlp](https://oc.lc/rlp)
Research Information Management

Survey of Research Information Management Practices

(report coming 2018)
What is Research Information Management (RIM)?

The aggregation, curation, & utilization of metadata about research activities

Overlapping terms:

- CRIS (Current Research Information System)
- RIS (Research Information System)
- RNS (Research Networking System) RPS (Research Profiling System)
- FAR (Faculty Activity Reporting)
An international not-for-profit association founded in 2002 to bring together experts on research information in general and research information systems (CRIS) in particular.
**Mission**
To promote cooperation within and share knowledge among the research information community and interoperability of research information through CERIF

**CERIF**
Development and governance of the CERIF data model and CERIF XML:
- Common European Research Information Format

**Task Groups**
1) CERIF & CRIS Architecture
2) Standards
3) Best Practice/Directory of Res Info Systems (DRIS)
4) CRIS-IR
5) Indicators/Impact

**Events**
Strategic Membership Meetings (twice a year) & Conferences (every 2 years)
The importance of CERIF

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

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

Official EU Recommendation to Member States

Reference model for the development of Research Information Systems (CRIS)
CERIF covers the research landscape
Fostering system interoperability

Projects

euroCRIS is currently participating in various international projects. These include some EU-funded projects. On top of this, funding has recently been secured for the OpenAIRE-supported METIS2OpenAIRE project.

Ongoing projects

METIS2OpenAIRE (2018-02-01 to 2018-05-15)
The METIS2OpenAIRE has been awarded funding under the end-of-2017 OpenAIRE call for tenders. The project, funded in the category of 'Repository Tools and Services', sets out to make a first institutional CRIS system compatible with the recently released updated version (v1.1) of the CERIF-XML OpenAIRE Guidelines for CRIS Managers. This work to enhance system interoperability will first and foremost be carried out on the METIS CRIS at Radboud University Nijmegen in the Netherlands. In order to ensure a widespread adoption of the new OpenAIRE Guidelines, the project is also working with two external, budget-neutral partners that have committed to its implementation on their respective solutions: these are Pure and OMEGA-PSIR.

Jisc Research Data Shared Service (RDSS)
Collaboration with the Jisc RDSS project for the CERIFication of the underlying data model. The Jisc RDSS aims to enable researchers to easily deposit data for publication, discovery, safe storage, long term archiving and preservation. euroCRIS is teaming up with the Jisc in order for the RDSS solution to achieve the maximum possible degree of system interoperability that will allow the service to interact with a wide range of external services and platforms including CRIS systems.
More info at www.eurocris.org or join the conversation at www.CRIS2018.se
RIM Survey: building on previous work

http://www.eunis.org/blog/2016/03/01/crisir-survey-report/


Lígia Maria Ribeiro, lmr@fe.up.pt
Universidade do Porto – FEUP & EUNIS

Pablo de Castro, pablo.decastro@kb.nl
Stichting LIBER & euroCRIS

Michele Mennielli, m.mennielli@cineca.it
CINECA & EUNIS & euroCRIS
Survey of Research Information Management Practices

- Joint project between OCLC Research and euroCRIS

- Survey Goals
  - To collect data about RIM practices worldwide, in order to identify national and regional practices
  - To gather evidence on the increasing role played by research libraries in RIM practices
  - To inform the research community about the goals, purposes, and scope of RIM practices
  - To examine and report on the institutional stakeholders, workflows, interoperability, and standards in use.
  - To serve as a foundation for future research.

- Report expected in 2018

oc.lc/rim
RIM Survey Working Group members

Rebecca Bryant, PI, OCLC Research
Pablo de Castro, Strathclyde University and euroCRIS
Anna Clements, University of St. Andrews and euroCRIS
Annette Dortmund, OCLC EMEA
Jan Fransen, University of Minnesota, Twin Cities
Muhammed Javed, Cornell University
Constance Malpas, OCLC Research
Michele Mennielli, DuraSpace and euroCRIS
Maliaca Oxnam, University of Arizona
Rachael Samberg, University of California-Berkeley
Julie Speer, Virginia Tech

Plus a number of valuable collaborators at OCLC
Methodology & promotion

• Online survey data collection: Oct 2017 – Jan 2018
  • English and Spanish versions

• Survey promotion through:
  o OCLC and euroCRIS communications channels and events worldwide
  o Communications by CRIS vendors and user communities
  o Listservs, social media, and announcements to research & library organizations
Known limitations

• Inherent difficulties of evaluating RIM practices internationally—with differences in practices, terminology, maturity, and local or national scope
  —This may have inadvertently limited the response of national/regional CRIS or funder systems
  —Absence of libraries in national/regional CRISs—in part because of our outreach and interest in library engagement
• Large, but fairly heterogeneous sample
  —Resulting sub-samples may be too small for significance
• Specific advocacy bias inevitably skews results (e.g., in favour of specific vendors and countries)
• Survey fatigue
RIM Survey responses: geographic overview

381 survey respondents from 44 countries

<table>
<thead>
<tr>
<th>Country</th>
<th># Resp.</th>
<th>Country</th>
<th># Resp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>39 (10%)</td>
<td>Canada</td>
<td>4 (1%)</td>
</tr>
<tr>
<td>United States</td>
<td>39 (10%)</td>
<td>South Africa</td>
<td>4 (1%)</td>
</tr>
<tr>
<td>Peru</td>
<td>39 (10%)</td>
<td>Andorra</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Italy</td>
<td>28 (7%)</td>
<td>Colombia</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Australia</td>
<td>24 (6%)</td>
<td>Finland</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Germany</td>
<td>14 (4%)</td>
<td>India</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>10 (3%)</td>
<td>Japan</td>
<td>3 (1%)</td>
</tr>
<tr>
<td>Portugal</td>
<td>7 (2%)</td>
<td>Austria</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Poland</td>
<td>6 (2%)</td>
<td>Bahrain</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Spain</td>
<td>6 (2%)</td>
<td>China</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Belgium</td>
<td>5 (2%)</td>
<td>Denmark</td>
<td>2 (0.5%)</td>
</tr>
<tr>
<td>Ireland</td>
<td>5 (2%)</td>
<td>New Zealand</td>
<td>2 (0.5%)</td>
</tr>
</tbody>
</table>

1 respondent from each of the following countries: Afghanistan, Albania, Azerbaijan, Barbados, Belize, Brazil, Hungary, Lebanon, Mexico, Namibia, Russia, Saudi Arabia, Slovakia, Sri Lanka, Sweden, Trinidad and Tobago, Turkey, Uganda, United Arab Emirates and Uruguay.

by [OCLC Research](https://www.oclc.org) | [CC BY 4.0](https://creativecommons.org/licenses/by/4.0) | Research Information Management (RIM) Systems: International Survey of Libraries, preliminary results (2018)
Geographic distribution of responses: some findings

- Widest insight ever on the degree of RIM practice implementation
- RIM is practised worldwide, with European representation by far the strongest
- Slightly biased results arising from specific advocacy patterns
- Remarkable differences with previous EUNIS/euroCRIS survey results
  - Particularly the absence of Norwegian responses
Research Information Management Systems
Well over half (58%) have a live RIM System

**Respondents by RIM Status (n=381)***
- Not considering: 49 (13%)
- Exploring: 46 (12%)
- Procuring: 13 (4%)
- Implementing: 51 (13%)
- EMEA
- Americas
- APAC
- Unknown

**Live RIM Systems (n=193)*
Base: Institutions with a live RIM

<table>
<thead>
<tr>
<th>System</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure (Elsevier)</td>
<td>30%</td>
</tr>
<tr>
<td>Developed in-house</td>
<td>28%</td>
</tr>
<tr>
<td>Elements (Symplectic)</td>
<td>12%</td>
</tr>
<tr>
<td>DSpace-CRIS (Open source)</td>
<td>10%</td>
</tr>
<tr>
<td>Converis (Clarivate Analytics)</td>
<td>10%</td>
</tr>
<tr>
<td>VIVO (Open source)</td>
<td>4%</td>
</tr>
<tr>
<td>Profiles (Open source)</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>36%</td>
</tr>
</tbody>
</table>

*Note: 29 respondents did not provide their RIM system

RIM System Distribution: findings

• Note that we invited research institutions at any stage of RIM adoption to participate
  ▪ Reveals a quickly shifting landscape, with many institutions currently exploring RIM
  ▪ > 200 institutions with an active RIM provides a significant sample
  ▪ More synthesis may reveal regional differences

• Diversity of RIM systems in use
  ▪ Elsevier Pure and locally-developed systems have highest adoption
  ▪ The “Other” category is also significant, featuring entries like IRIS (Italy), ResearchMaster (Aus/NZ), OMEGA-PSIR (Poland), InfoEd
DRIVERS—WHY RIM?
Reporting and compliance drive RIM adoption

Importance of Reasons for Pursing RIM Activities (n=222)
Base: Institutions with a live RIM

- Managing annual academic activity reporting: 58% Extremely important, 28% Important, 9% Somewhat important, 5% Not important, 4% N/A or Not sure
- Supporting institutional compliance: 53% Extremely important, 26% Important, 12% Somewhat important, 1% Not important, 4% N/A or Not sure
- Supporting institutional research reputation and strategic decision making: 40% Extremely important, 42% Important, 16% Somewhat important, 2% Not important, 4% N/A or Not sure
- Improving services for researchers: 36% Extremely important, 43% Important, 16% Somewhat important, 4% Not important, 4% N/A or Not sure
- Supporting expertise discovery: 23% Extremely important, 46% Important, 20% Somewhat important, 7% Not important, 4% N/A or Not sure
- Recording IR facilities and their use: 11% Extremely important, 32% Important, 25% Somewhat important, 17% Not important, 14% N/A or Not sure

by OCLC Research CC BY 4.0
## Mandates: Very important incentive for researchers to use RIM

### Importance of Incentives for Researchers to use RIM (n=154)

Base: Institutions with a Live RIM

<table>
<thead>
<tr>
<th>Incentive</th>
<th>Very important</th>
<th>Somewhat important</th>
<th>Neither important nor unimportant</th>
<th>Not too important</th>
<th>Not at all important</th>
</tr>
</thead>
<tbody>
<tr>
<td>National, funder, institutional or department mandate</td>
<td>53%</td>
<td>23%</td>
<td>10%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Publicly sharing information about research and scholarship</td>
<td>24%</td>
<td>43%</td>
<td>21%</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Depositing works to a repository</td>
<td>33%</td>
<td>27%</td>
<td>18%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>Generating curriculum vitae, dossiers, or annual activity reports</td>
<td>26%</td>
<td>32%</td>
<td>27%</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Reuse of profile information (in web pages, ORCID profile, etc.)</td>
<td>21%</td>
<td>36%</td>
<td>24%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Communicating research impact</td>
<td>17%</td>
<td>34%</td>
<td>28%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>Internally sharing information about research and scholarship</td>
<td>10%</td>
<td>36%</td>
<td>36%</td>
<td>12%</td>
<td>6%</td>
</tr>
<tr>
<td>Discovery of collaborator opportunities</td>
<td>8%</td>
<td>30%</td>
<td>30%</td>
<td>19%</td>
<td>13%</td>
</tr>
<tr>
<td>Discovery of funding opportunities</td>
<td>7%</td>
<td>21%</td>
<td>17%</td>
<td>27%</td>
<td>28%</td>
</tr>
</tbody>
</table>


by OCLC Research CC BY 4.0
Convenience and Compliance

- Collaborative project between

- Case studies on adoption of persistent identifiers in RIM infrastructures
  - Finland
  - Germany
  - The Netherlands

oc.lc/rim
RIM uses
Several different RIM functions reported

<table>
<thead>
<tr>
<th>Important Functions of RIM (n=203)</th>
<th>Extremely important</th>
<th>Important</th>
<th>Somewhat important</th>
<th>Not important</th>
<th>N/A or Not sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registry of institutional research outputs</td>
<td>77%</td>
<td>16%</td>
<td>1%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>External (e.g., National) research assessment</td>
<td>56%</td>
<td>19%</td>
<td>11%</td>
<td>7%</td>
<td>7%</td>
</tr>
<tr>
<td>Internal reporting</td>
<td>52%</td>
<td>37%</td>
<td>8%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Publicly available researcher profiles</td>
<td>44%</td>
<td>34%</td>
<td>11%</td>
<td>3%</td>
<td>8%</td>
</tr>
<tr>
<td>Compliance and open access to publications</td>
<td>45%</td>
<td>29%</td>
<td>14%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Annual academic activity reporting workflows</td>
<td>35%</td>
<td>31%</td>
<td>15%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>Reporting scholarly impact</td>
<td>32%</td>
<td>42%</td>
<td>20%</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Awards/grants management workflows</td>
<td>29%</td>
<td>26%</td>
<td>15%</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Reuse (in CVs, biosketches, other web pages)</td>
<td>27%</td>
<td>39%</td>
<td>19%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Compliance and open access to research datasets</td>
<td>28%</td>
<td>26%</td>
<td>21%</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Identifying collaborators or expertise</td>
<td>22%</td>
<td>36%</td>
<td>26%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Reporting societal impact</td>
<td>20%</td>
<td>33%</td>
<td>29%</td>
<td>6%</td>
<td>12%</td>
</tr>
</tbody>
</table>

by OCLC Research CC BY 4.0
Findings: RIM uses

• The majority of respondents report that their RIM is valuable as a registry of the institution’s research outputs
• We can also see that institutions are using their RIM for multiple uses
  ▪ External & internal assessment are among the most important (and unsurprising)
  ▪ Managing OA compliance is also important
  ▪ Supporting the discovery of potential research collaborators is less important
  
  o We are eager to learn more about regional differences
HOW
RIM inter-operates with multiple internal and external systems

**Internal Systems that Interoperate with your RIM (n=184)**
- Base: Institutions with a live RIM
- Note: Respondents could select more than one answer
  - Human resources system: 78%
  - Institutional authentication system: 76%
  - Institutional repository: 43%
  - Student information system: 42%
  - University finance and accounting system: 36%
  - Grants management system: 32%
  - Analytics system: 26%
  - Project management system: 24%
  - Library management system: 22%
  - Electronic Thesis/Dissertation (ETD) repository: 20%
  - Research data repository: 16%
  - Tech/knowledge transfer: 5%
  - Active data management system: 3%
  - Other: 16%
  - None of the above: 3%

**External Systems that Interoperate with your RIM (n=178)**
- Base: Institutions with a live RIM
- Note: Respondents could select more than one answer
  - Publication metadata sources: 76%
  - Researcher/author ID registry/database: 65%
  - Research metrics sources: 47%
  - National or regional reporting system: 29%
  - Aggregated research portals: 24%
  - Government/private grants award system: 10%
  - Organization ID registry/database: 7%
  - Aggregated research data portals: 4%
  - Other: 16%
  - None of the above: 11%

Institution's website (n=6)
- Faculty activity system (n=5)

National publication database (n=20)

*by OCLC Research CC BY 4.0*  
# Top Bibliographic Metadata Sources for RIM

**Publication Metadata Sources that Populate your RIM (n=185)**

Base: Institutions with a live RIM  
Note: Respondents could select more than one answer

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scopus</td>
<td>72%</td>
</tr>
<tr>
<td>Web of Science</td>
<td>63%</td>
</tr>
<tr>
<td>PubMed</td>
<td>61%</td>
</tr>
<tr>
<td>CrossRef</td>
<td>44%</td>
</tr>
<tr>
<td>ArXiv</td>
<td>37%</td>
</tr>
<tr>
<td>Europe PubMed Central</td>
<td>26%</td>
</tr>
<tr>
<td>Google Books</td>
<td>12%</td>
</tr>
<tr>
<td>CiNii</td>
<td>11%</td>
</tr>
<tr>
<td>SSRN</td>
<td>10%</td>
</tr>
<tr>
<td>RePEc</td>
<td>9%</td>
</tr>
<tr>
<td>WorldCat</td>
<td>7%</td>
</tr>
<tr>
<td>MLA International Bibliography</td>
<td>7%</td>
</tr>
<tr>
<td>dblp</td>
<td>6%</td>
</tr>
<tr>
<td>Scielo</td>
<td>4%</td>
</tr>
<tr>
<td>SAO/NASA Astrophysics Data System</td>
<td>4%</td>
</tr>
<tr>
<td>Other (Please specify):</td>
<td>11%</td>
</tr>
<tr>
<td>None of the above</td>
<td>14%</td>
</tr>
</tbody>
</table>

**Additional Sources (n=11):**

- EBSCOhost (n=4)
- Mendeley (n=4)
- Espacenet (n=3)
Some summary findings

- Fairly high degree of RIM system interoperability with other institutional systems – including IRs
- Significant workflows for funding information exchange both internally and externally
- Institutions leverage publications metadata harvesting
- Extensive integration of person identifiers like ORCID into RIM systems
- OrgID implementation remains very low (but worth a follow-up sometime in the near future)
- Nearly 50% now include externally-sourced bibliometrics
Person & organizational identifiers in RIM

Researcher Identifiers Used in Your RIM (n=182)
Base: Institutions with a live RIM
Note: Respondents could select more than one answer

- ORCID: 73%
- Scopus ID: 60%
- Researcher ID: 35%
- PubMed ID: 29%
- ArXiv ID: 9%
- National authority files: 7%
- ISNI: 3%
- VIAF: 0%
- Other (Please specify): 21%
- None of the above: 15%

Organization Identifiers Used in Your RIM (n=162)
Base: Institutions with a live RIM
Note: Respondents could select more than one answer

- None of the above: 77%
- National authority files: 6%
- GRID: 6%
- Ringgold: 5%
- CrossRef Funder Registry: 2%
- ISNI: 1%
- Other (Please specify): 5%

Google Scholar ID (n=4)
SSRN (n=3)
Codice fiscale (Italy) (n=19)
Protocols/Standards/Vocabularies in use

Protocols/Standards/Vocabularies
RIM Relies On (n=169)
Base: Institutions with a live RIM
Note: Respondents could select more than one answer

- OAI-PMH: 45%
- CERIF/CERIF XML: 40%
- Shibboleth: 36%
- Field of Science (FOS) Classification: 7%
- Other (Please specify): 12%
- None of the above: 20%

Fields of Research (n=4)
MESH (n=2)

by OCLC Research CC BY 4.0
Some summary findings

- Congruent with our qualitative *Convenience and Compliance* findings
- Strong adoption of person identifiers
  - ORCID becoming a *de facto* standard in scholarly literature, but other identifiers also needed and used
  - Organizational identifiers largely unused
  - We expect to find regional concentrations of standards like CERIF
Libraries support RIM activities in many ways

RIM Activities for which the Library Plays a Role (n=172)
Base: Institutions with a live RIM

- Open access, copyright, and deposit: 129 (Primary Role: 14)
- Metadata entry: 73 (Primary Role: 44)
- Metadata validation workflows: 92 (Primary Role: 12)
- Training and support: 70 (Primary Role: 36)
- Research data management: 84 (Primary Role: 16)
- Proposing, initiating or driving adoption: 37 (Primary Role: 47)
- Outreach and communications: 54 (Primary Role: 25)
- Strategic development, management and planning: 35 (Primary Role: 26)
- System configuration: 37 (Primary Role: 25)
- Creating internal reports for units: 33 (Primary Role: 29)
- Impact assessment and reporting: 29 (Primary Role: 21)
- Maintaining or servicing technical operation: 20 (Primary Role: 24)
- Project management: 29 (Primary Role: 10)
- Financial support for RIM: 22 (Primary Role: 14)

Some summary findings

- Libraries are playing a larger role in RIM, as it increasingly intersects with areas of library expertise:
  - Open access
  - Author rights
  - Publications metadata management & validation
  - Training & support for researchers
- Congruent with a recent position paper by OCLC
References


euroCRIS & OCLC Research. International Survey on Research Information Management Practices. Publication of results as an OCLC Research report expected in 2018

Discussion

- Survey results and data to be published as an OCLC Research Report in 2018
- Follow us at hangingtogether.org
- More information at oc.lc/rim

Rebecca Bryant, PhD, Senior Program Officer, OCLC Research
bryantr@oclc.org__@RebeccaBryant18

Pablo de Castro, Open Access Advocacy Librarian, University of Strathclyde; euroCRIS
pablo.de-castro@strath.ac.uk__@pcastromartin

Anna Clements, Assistant Library Director, University of St Andrews; euroCRIS
akc@st-andrews.ac.uk__@AnnaKCllements