## Research Information Management Integration for Canada

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## What is Research Information Management?

Research information management (RIM) concerns itself with the data that surround research activities -- including data and metadata related to researchers, their outputs and affiliations, publications, datasets, patents, grants and projects, academic service and honours, media reports, and statements of impact. RIM systems collect and store these data and metadata, and facilitate leveraging these data to advance the research enterprise.

RIM systems are valuable to research institutions, all levels of government and individual researchers[1]. They combine the local with the global, providing opportunities for new insights at the departmental, faculty, institutional, and national level, as well as the potential for regional, national, and transnational sharing and benchmarking. They can also tell an important story about research impact and collaboration, and support reputation management for the institution and its researchers.

## Value of national RIM integration:

Research information management is rapidly growing in importance within the context of a highly globalized and competitive research landscape. Nations at all stages of development are seeking to build knowledge-based economies and to attract and retain knowledge experts, while highly mobile students and researchers are increasingly pursuing opportunities outside their own national borders.

At the same time, with increasing globalization, there is growing focus on world-class prestige, university rankings, and indicators of research and education impact. Institutions and governments are responding by seeking improved quantitative data for decision-making, strategic planning, and benchmarking against peers.

A national RIM interoperable layer would provide enormous value by allowing all types of institutions and governments, large or small, to answer key questions related to:

• Interdisciplinary collaborations (e.g. who are the researchers in Canada working across disciplinary boundaries on a COVID-19 vaccine?);

• Institutional collaborations (e.g. what are the collaborations between UBC and SFU in computer science?);

• Research Impact analysis (e.g. what are the most productive research groups in Canada working on AI?)

National RIMs have already been implemented in a number of European countries, such as Norway, Sweden, Slovakia, the Netherlands, and others with a common metadata format.[2] For example, similarly to our proposal here, the Danish National Research Database is a single entry point for Danish research, Danish researchers and Danish research institutions.[3]

Globalization, intense competition, institutional rankings, and the need for improved data for decision-making are driving RIM adoption. In addition, funders and policymakers are seeking quantitative measures to assure that research dollars are yielding the highest impact. Advances in technologies, standards, and persistent identifiers are offering scalable solutions for collecting, disambiguating, and making use of research information.

## Summary

We propose that NDRIO engage in a leadership role in implementing a national-scale, lightweight, interoperable RIM integration for Canada as a vital component of the overall RDM ecosystem.

Equal and timely access to a national lightweight RIM integration layer would provide a competitive edge for Canadian institutions, funders, government, and researchers. This will not interfere with the existing deep integrations that some Canadian institutions have in place to assess their research impact and collaborations. We are well situated to make it a reality in Canada, by drawing upon our strong competencies in network and systems administration, library and research data management services, and national IT support.

This proposal is endorsed by the Canadian Association of Research Libraries (CARL) and the CARL Portage Network. The Canadian Research Knowledge Network as the administrative lead organization for DataCite Canada Consortium and ORCID-CA also endorses this proposal.

 [1] Clements, A., de Castro, P., & Bryant, R. (2019). Practices and Patterns in Research Information Management: Findings from a Global Survey.
https://www.oclc.org/content/dam/research/publications/2018/oclcresearch-practices-patterns
-research-information-management.pdf

[2] CERIF – the Common European Research Information Format https://www.eurocris.org/eurocris\_archive/cerifsupport.org/cerif-in-brief/index.html

[3] The Danish National Research Database - https://www.forskningsdatabasen.dk/en