

INSTITUTIONAL RESEARCH DATA MANAGEMENT STRATEGY TEMPLATE

V. 2.0

Originally Prepared by the Portage Institutional RDM Strategy Working Group; updated by the Portage Secretariat

There is growing recognition in the research community and beyond of the importance of managing and providing access to research data for verification and transparency as well as for reuse and integration of data for discovery and innovation. Over the past decade, the Canadian Association of Research Libraries (CARL) has been expanding its efforts to raise awareness of the benefits of research data management (RDM) and build capacity for research institutions to support RDM activities. To that end, in 2015 CARL launched the Portage initiative, a national, library-based RDM network mandated to coordinate expertise, services, and technology in RDM for the higher education community. The Portage Network has since been recognized by funders, government, and RDM stakeholders for successfully delivering a range of RDM training, tools, platforms, policies, and services in Canada.

In recognition of the benefits of RDM, organizations around the world are adopting policies and practices to improve the way research data is being managed. In Canada, the Tri-Agencies (SSHRC, NSERC, and CIHR) published a [Statement of Principles on Digital Data Management](#) in spring 2016, which outlined expectations and responsibilities for RDM in the academic community. After much consultation and revision, the Tri-Agency RDM Policy was launched in the spring of 2020. The first of three major pillars of this policy is a requirement that research institutions develop and post publicly an institutional strategy for RDM.

Institutions play an important and expanding role in supporting RDM. Researchers need local support for the adoption of good data management practices. Together, they need to work toward stable and sustainable solutions for preserving and providing access to research data. This template was originally produced by a multi-stakeholder working group convened by CARL and Portage in 2017 to assist Canadian institutions in developing a strategy that will improve RDM at both the institutional level and within the broader research community, as well promoting greater consistency among institutions.

The current version of this template was updated to coincide with the launch of the Tri-Agency RDM Policy. While it is recommended that institutions try to address each of the four major components included in the template, we recognize that each institution may do so with varying levels of depth and detail depending on the size and capacity of the institution.

DEFINITIONS

The CASRAI dictionary provides the basis for a common understanding of the terms and definitions in this template.

CASRAI defines research data as “data that are used as primary sources to support technical or scientific enquiry, research, scholarship, or artistic activity, and that are used as evidence in the research process and/or are commonly accepted in the research community as necessary to validate research findings and results. All other digital and non-digital content have the potential of becoming research data. Research data may be experimental data, observational data, operational data, third party data, public sector data, monitoring data, processed data, or repurposed data.”¹

Please refer to the [CASRAI dictionary](#) for definitions of the other terms used in this document.

OBJECTIVES

An RDM strategy will improve institutional capacity to support researchers in the management of research data and adhere to Tri-Agency RDM policy requirements. The specific objectives of a strategy are as follows:

- To promote research excellence within the university and research community through the adoption of good data management practices
- To support institutions in evaluating their current capacity in the area of RDM
- To identify what changes are needed in order to comply with funder policies and other RDM requirements
- To define a roadmap to develop institutional capacity for research data stewardship
- To ensure research data storage, retention and availability for access and reuse, where appropriate.

¹ [CASRAI Definition – Research Data](#)

STRATEGY COMPONENTS

There are four main components of an institutional strategy:

- 1. Raise awareness:** Researchers' perspectives towards data sharing are varied, as are levels of expertise in terms of good data management practices. There is a need to raise awareness within the research community about the benefits of and best practices for good data management, as well as funder and journal policy requirements.
- 2. Assess institutional readiness:** To effectively manage data holdings and fully realize their potential, an organization must first be aware of the location, condition, estimated growth, and value of those data sets. Institutions can undertake a review of the data landscape on campus, using one of a number of existing tools.
- 3. Formalize RDM practices:** Formalizing the expected practices around RDM through the adoption of guidelines, procedures or policies is an important step in establishing an effective and sustainable approach to RDM at the institution. This will set the tone for research undertaken at the institution and underscore institutional commitment and expectations. Depending on the institution, this could be implemented through a set of coherent guidelines or procedures, or through the implementation of a cohesive policy. Community engagement and consultation are essential prerequisites for researcher and institutional buy-in.
- 4. Define a roadmap:** A pragmatic roadmap will help institutions build capacity for RDM over the medium term. Best practices in RDM contribute to research excellence, greater efficiency, and greater transparency of research. The defined roadmap will ensure that institutions are able to adhere to RDM requirements and continue to improve institutional capacity for RDM activities.

TEMPLATE

For each of the four RDM strategy components described below, institutions can develop more detailed and concrete plans, which may include timelines, and designation of the people and/or departments responsible for carrying out the activities.

The activities in the template can be undertaken concurrently, with the exception of the roadmap, which will be based on information gathered in the assessment of institutional readiness activity.

For more information on each of these sections, please consult the accompanying [guidance document](#).

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1. Raise awareness

- 1.1. Identify stakeholder communities on campus
- 1.2. Recruit local champions to help promote the value of RDM and engage with various communities
- 1.3. Develop awareness materials and resources for different communities
- 1.4. Determine and apply the appropriate delivery mechanisms for outreach
- 1.5. Participate in any future Tri-Agency consultations around RDM policy.

2. Assess institutional readiness

- 2.1. Define the ideal state for RDM on campus
- 2.2. Undertake a survey of institutional data assets and data management practices on campus
- 2.3. Evaluate existing RDM services:
 - Data management plans
 - Institutional support and training
 - Data repositories and archiving
 - Institutional policies and procedures
- 2.4. Identify gaps in the existing RDM environment

3. Formalize RDM practices

- 3.1. Adopt policies, guidelines and/or procedures that advance good practices and assign responsibilities. These may address a variety of aspects of RDM, such as:
 - Data quality and standards
 - Data access and sharing

- Data retention
- Long-term data preservation
- Data management plans
- Privacy, ethical issues, and intellectual property
- Consideration of Indigenous data sovereignty
- Other aspects: monitoring and rewarding compliance, articulating and promoting RDM principles and scope for the institution.

4. Define a roadmap

4.1. Based on the information gathered in the previous components of the strategy, a roadmap should answer the following questions:

- What are our current practices and what support do we have in place?
- What are the gaps?
- What must we do to meet any identified gaps?
- When will we do it?
- Who will take responsibility?
- What resources are needed for each item and how will we secure those resources?
- How will the roadmap be assessed over time and success be measured?

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