

# Data Management, Sharing, & Preservation Services

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**The Art & Science of Data: From Numbers to Narratives**  
**January 15, 2020**



# Outline

- Context
- The Research and Data Lifecycles
- Data Sharing & Demonstrating Impact
  - File sharing strategies & resources
  - Data publication & preservation

## Context

Increased Project Efficiency

Data Management Plans  
required by funding agencies

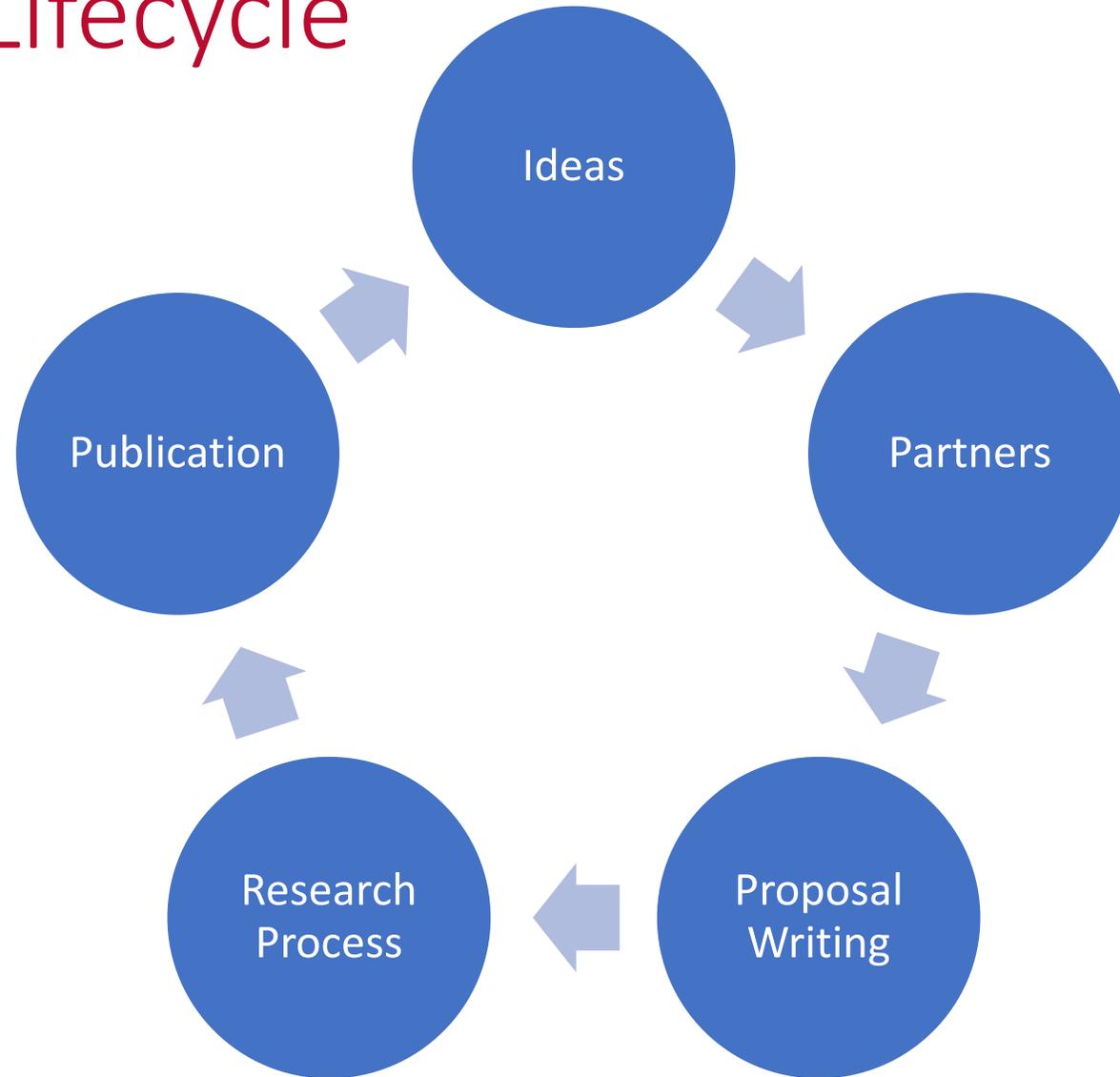
Publications requiring links to  
supporting data

Increasing collaborative  
research where data must be  
shared



# The Research & Data Lifecycles

# Research Lifecycle



JISC -  
<http://www.jisc.ac.uk/whatwe-do/campaigns/res3/jischelp.aspx>

# Research Lifecycle



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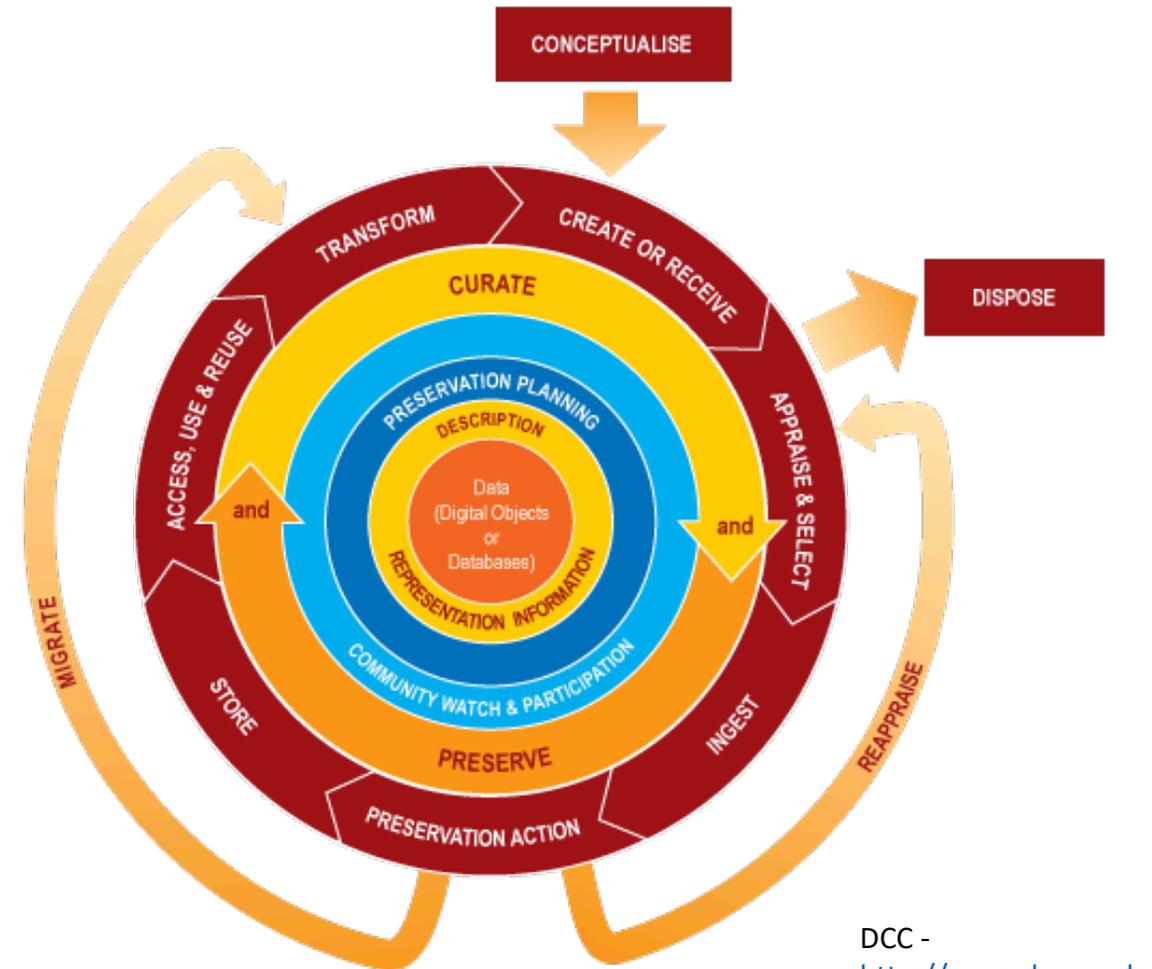
# Research Lifecycle



JISC - <http://www.jisc.ac.uk/whatwe-do/campaigns/res3/jischelp.aspx>

Data Management, Preservation, & Sharing Services

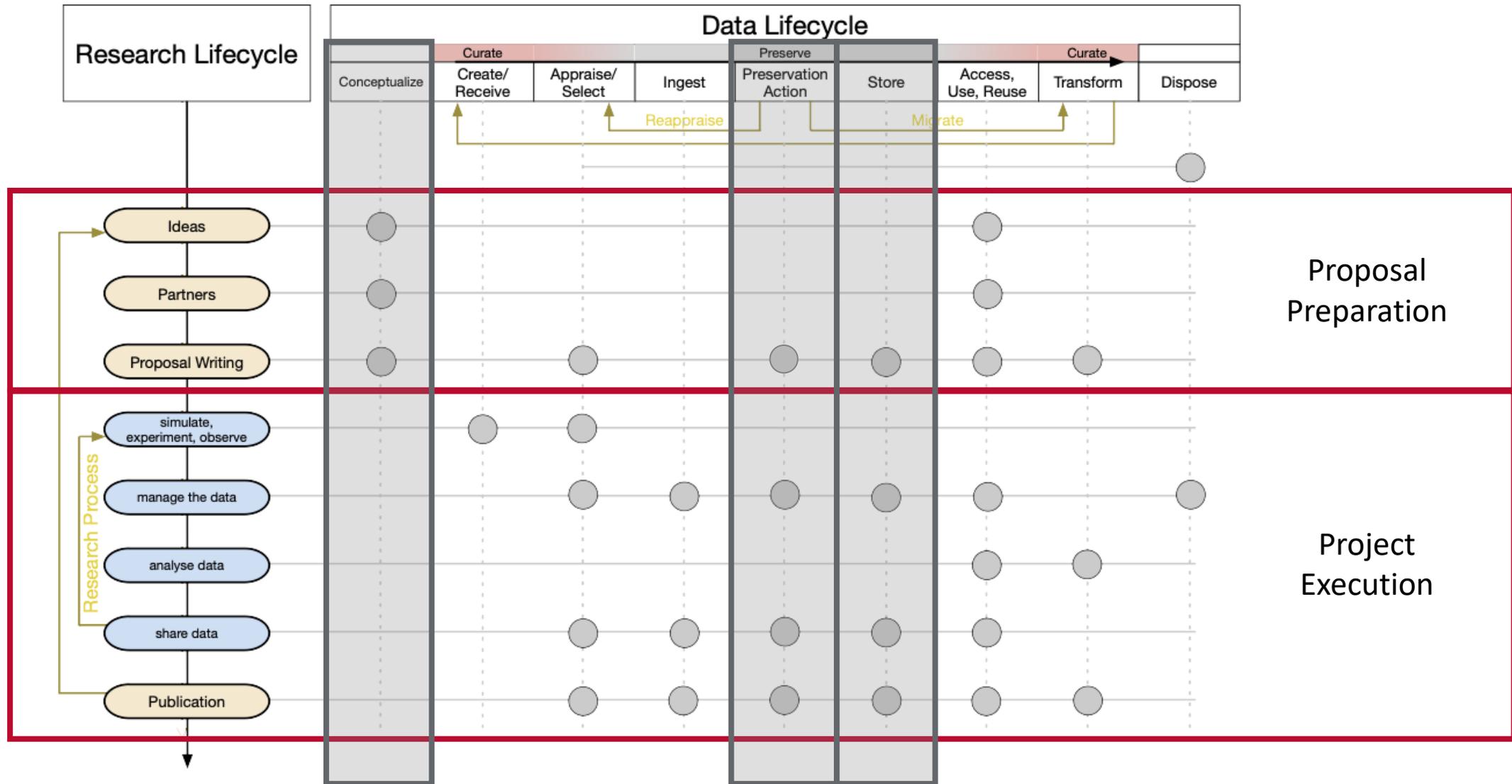
# Data Lifecycle



Data Lifecycle

DCC - <http://www.dcc.ac.uk/resources/curation-lifecycle-model>

# Research & Data Lifecycles



# Collaborative Data Management & Sharing

# Collaboration & Sharing Solutions

## Library Supported Platforms

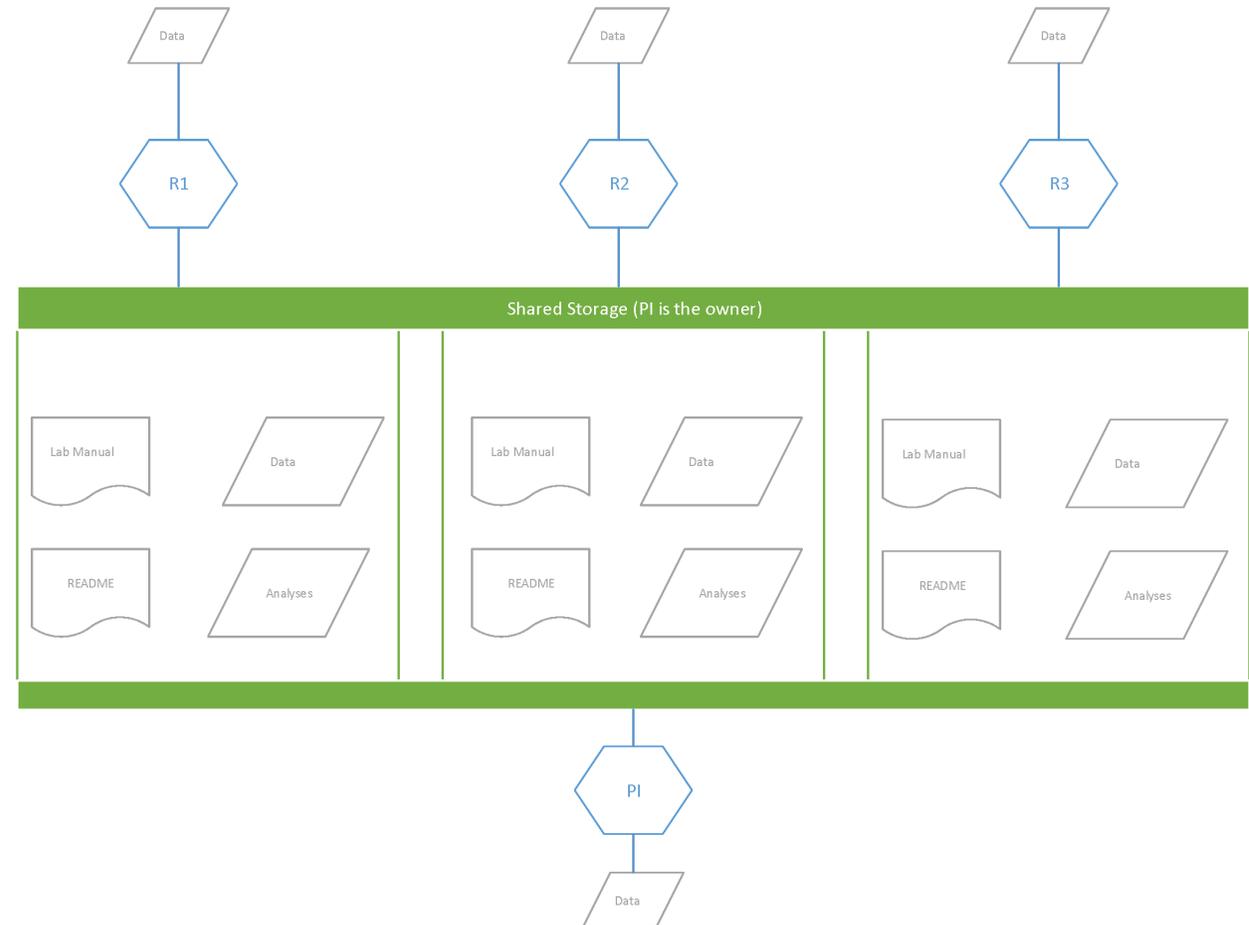
- LoboGit
  - <https://lobogit.unm.edu/>
  - Supports source code development, data collection, data analysis
- UNM Digital Repository
  - <https://digitalrepository.unm.edu/>
  - Public open access repository for documents and data
- Dryad
  - <https://datadryad.org>
  - Public open access data preservation
- LibSafe
  - Non-public digital preservation for all content types (images, documents, data)

## Other University Supported Platforms

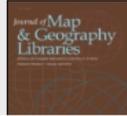
- OneDrive
  - File sharing & collaborative document development for non-sensitive data
- SharePoint
  - Project management & file sharing for non-sensitive data
- Secure SharePoint
  - Project management & file sharing for *some* sensitive data

# Best Practices

- Develop a data management plan documenting
  - Expected data types & sources
  - Roles & responsibilities
  - Backup & preservation strategies
  - Publication & archiving strategies
- Centralize shared file management
- Establish project-wide file naming conventions
- Verify backups
- Share & publish documentation where appropriate



# Demonstrating Impact



Journal

**Journal of Map & Geography Libraries** >

Advances in Geospatial Information, Collections & Archives

Volume 11, 2015 - Issue 2: Geospatial Data Management, Curation, and Preservation

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Jonathan Wheeler & Karl Benedict

Pages 155-179 | Published online: 04 Sep 2015

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## Citations

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Robert R. Downs. (2015) Management, Curation, and Preservation of Geospatial Data: Introductory Perspectives. *Journal of Map & Geography Libraries* 11:2, pages 117-122.

## Articles from other publishers

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## Functional Requirements Specification for Archival Asset Management: Identification and Integration of Essential Properties of Services Oriented Architecture Products

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[Jon Wheeler](#), *University of New Mexico - Main Campus*  
[Karl Benedict](#)

### Document Type

Preprint

### Publication Date

Summer 9-4-2015

### Abstract

The complexity and size of geospatial data can constrain service providers and create risks to the long term preservation of valuable information assets. While services oriented architectures, the Earth Data Analysis Center's Geographic Storage, Transformation and Retrieval Engine (GSToRE) facilitate increased use and impact of geospatial data by mitigating these complexities through the development of dynamic applications and interfaces, such services can often be primarily focused on the maintenance and delivery of only the most current versions of geospatial data that may nonetheless possess significant historical, cultural, or scientific value. Actions and documentation required to assure long term preservation may not be supported by existing business models, or may be otherwise compromised. However, general purpose archives offer a preservation capability that is complementary to the value created by dynamic service providers. We present an overview of the features of GSToRE and the DSpace2 repository platform and describe the requirements of a methodology for the harvest, quality assurance, and ingest of geospatial data into an institutional repository as a complement to the dynamic data access and visualization services provided by GSToRE and systems like it.

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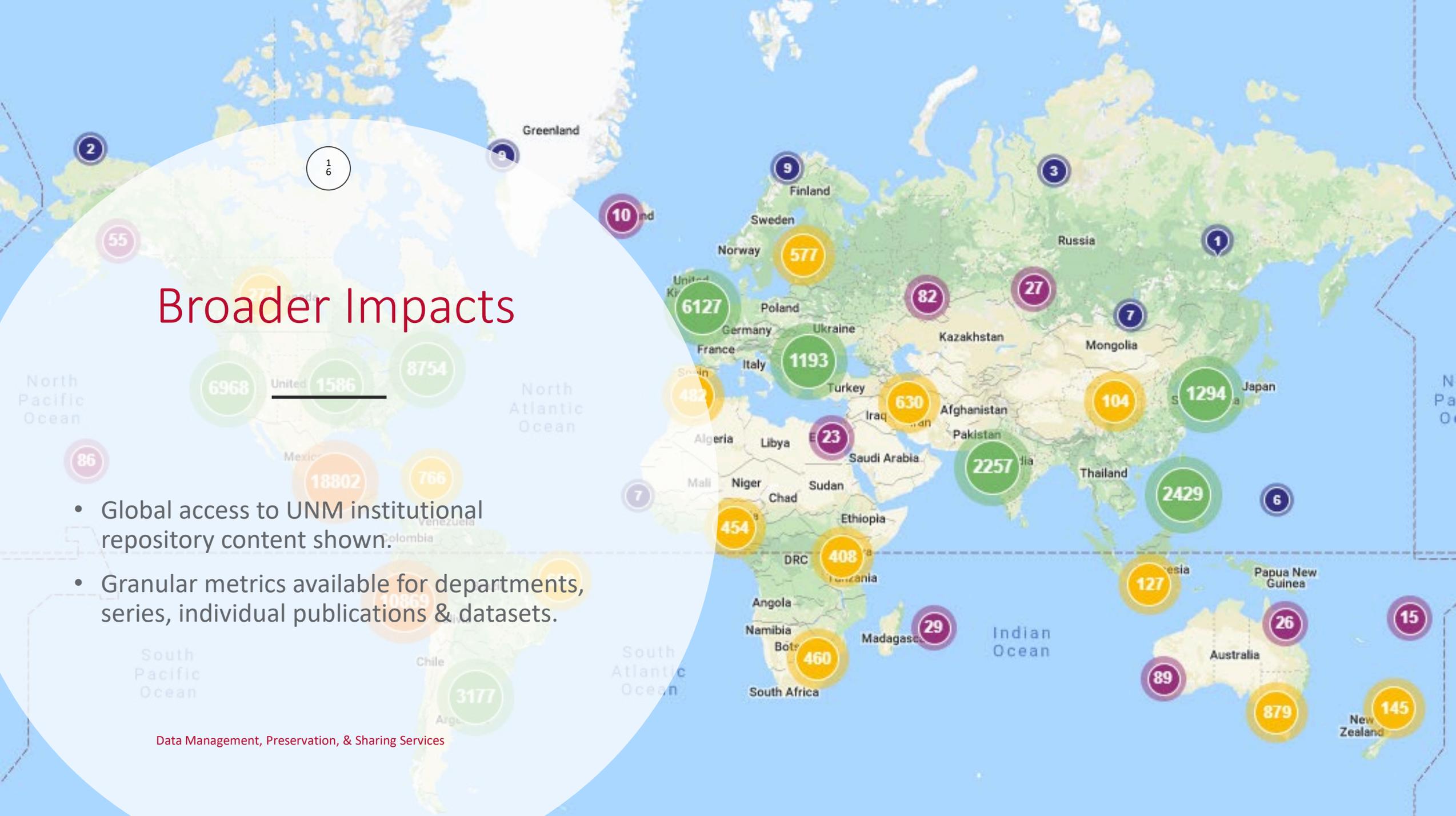
SHARE





# Broader Impacts

- Global access to UNM institutional repository content shown.
- Granular metrics available for departments, series, individual publications & datasets.



# Making Research Accessible

- Research Data Services can help:

Identify Shareable Products



Identify Best Fit Repositories



Curate, Document & Publish



Report & Assess Impact