



**CARL  
ABRC**

CANADIAN ASSOCIATION OF RESEARCH LIBRARIES  
ASSOCIATION DES BIBLIOTHÈQUES DE RECHERCHE DU CANADA

**compute**canada

## **Globus in Canada: National and University Perspectives**

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GlobusWorld  
April 25, 2018

# Outline

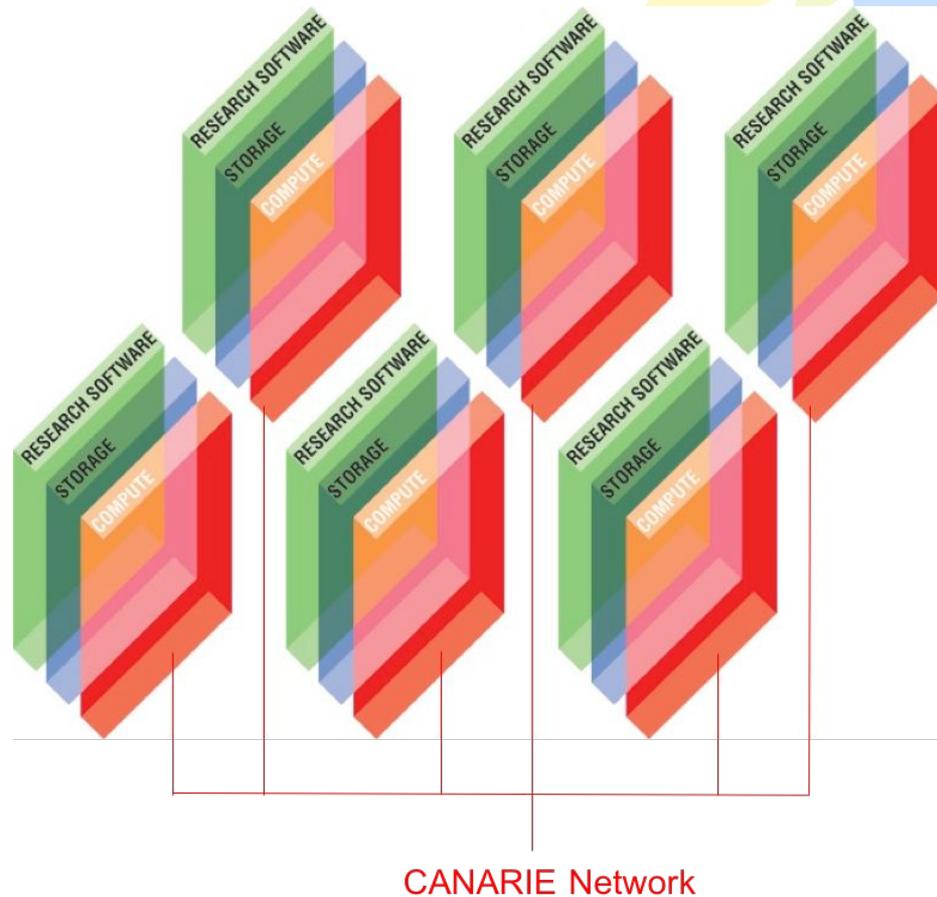


- Compute Canada overview
- Compute Canada Globus File Transfer service
- University of Saskatchewan and Globus
- Federated Research Data Repository (FRDR)
  - Globus Publication
  - Globus Search
  - Globus File Transfer

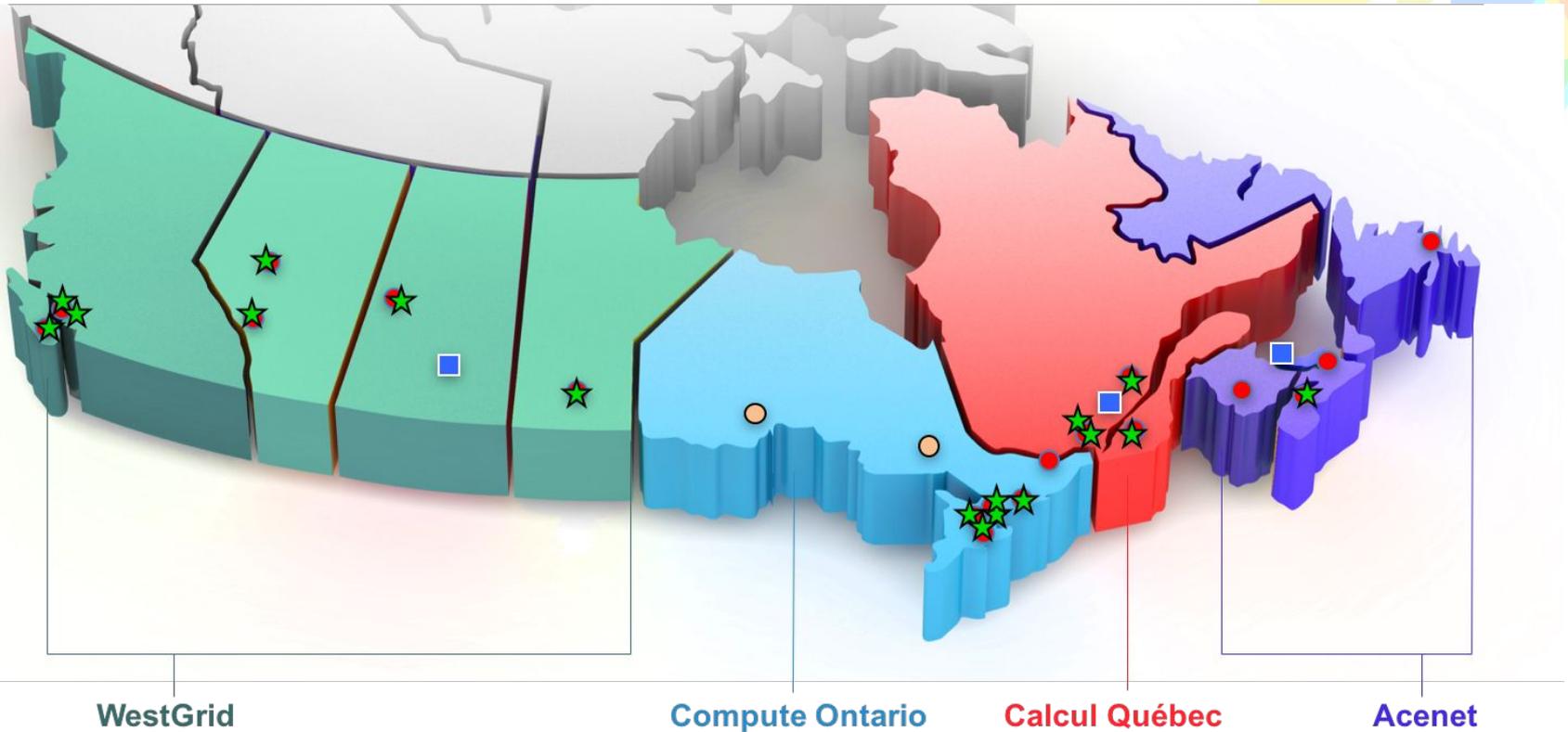


# Compute Canada

- CC is a not-for-profit organization that provides digital infrastructure for researchers in Canada
- 50 HPC Systems
- 27 Data Centres
- 200 Experts
- Consolidating, renewing infrastructure in 2017-18



# CC Globus Deployment



- Member University
- Member University + Personnel Site
- Member University, Personnel + Infrastructure Site
- ★ Globus Site

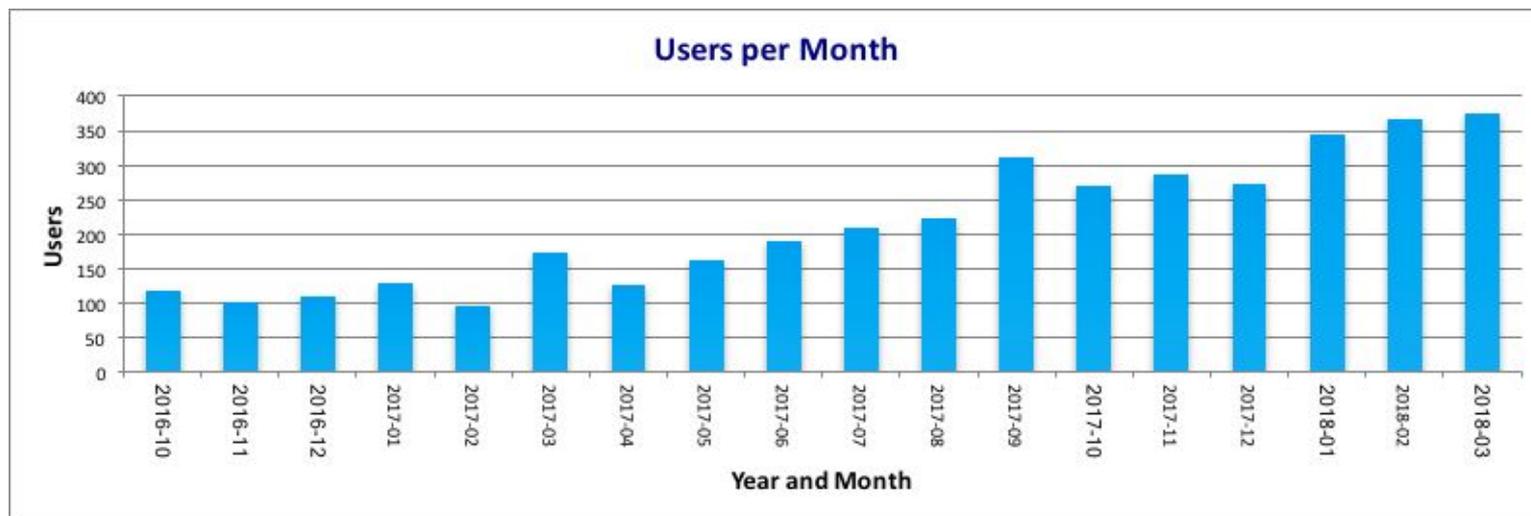
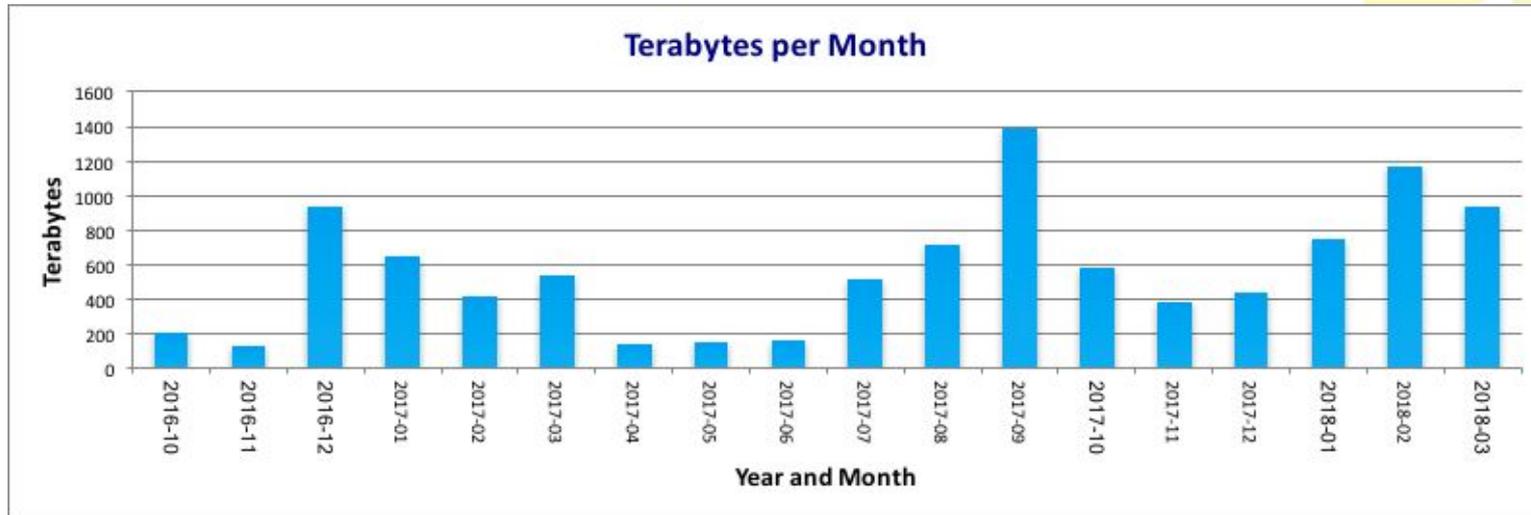


# Compute Canada Globus

- Compute Canada branded file transfer service launched June 2014
  - Compute Canada users have transferred more than 12.8PB of research data
  - 375+ unique users from Compute Canada in March 2017
  - Transferred 7.3PB in 2017 alone, more than all previous years combined
- Compute Canada users leverage Globus Plus features
  - Sharing
  - Personal file transfer
- Globus is Compute Canada's backbone service for migrating PB of data from defunded, legacy systems to new infrastructure



# Compute Canada Globus Usage



# Globus and University of Saskatchewan / CLS

- Canadian Light Source: only Canadian Synchrotron
- USask / CLS became Globus campus to help manage and move large amounts of data generated at CLS and USask
  - predominant data transfer for CLS users still sneakernet
- CLS
  - Alternate Globus IDP using CLS credentials
  - Production DTN purchased, test DTN deployed
  - CLS look-and-feel Globus transfer page
  - A new way for researchers to move their data from CLS to their home institution



# Globus and University of Saskatchewan

- USask provides research storage service DATASTORE
  - Access for small data by NFS, CIFS for convenience
  - Access by Globus
    - speed
    - automation
    - connection with Compute Canada
    - more complex data management
- Integrated USask IDP using CAF/CILogon
  - USask look-and-feel customized Globus page May 2018
  - Production DTNs connecting to DATASTORE, research clusters, Compute Canada
- Large-scale research projects leveraging the service



# Federated Research Data Repository

FRDR = Federated Research Data Repository (DFDR en français)

Designing infrastructure for a national-scale research data repository

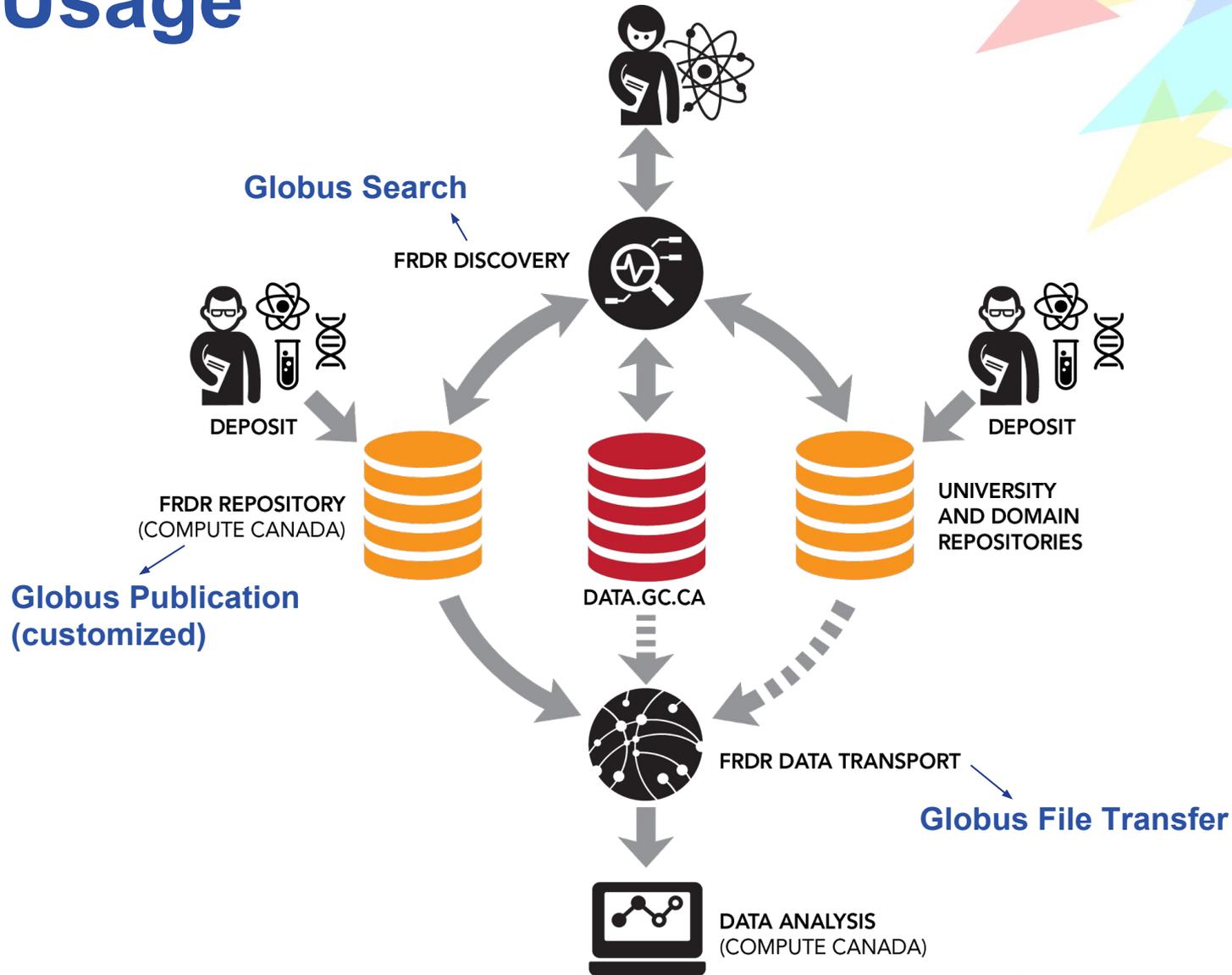
- Partnership between Compute Canada and CARL (Canadian Association of Research Libraries)
- Partnership between Compute Canada and Globus
- Using Compute Canada hardware

Discovery platform

- Leveraging Globus Search
- Indexing items in existing repositories, improving discovery



# Usage





# Find and Share **Canadian** Research Data



Deposit Data



[Advanced Search](#)

## About FRDR

The Federated Research Data Repository (FRDR) is a joint initiative led by the Canadian Association of Research Libraries (CARL) and Compute Canada to provide Canadian researchers a place to deposit large data sets and to improve the discovery of existing Canadian research data.

[Learn More »](#)

## Deposit Data

Any researcher affiliated with a Canadian institution can deposit data in the Federated Research Data Repository (FRDR). The platform efficiently moves large data sets and does preservation and archiving automatically. Curators will assist researchers to record metadata to facilitate discovery and data reuse.

[Learn More »](#)

## Find Data

Search the Federated Research Data Repository (FRDR) to find research data sets from researchers affiliated with Canadian institutions. Data deposited to other repositories across Canada can also be found by searching in FRDR. See the growing list of collaborating repositories by clicking Learn More.

[Learn More »](#)

# Search Results

The screenshot shows the FRDR search results page for the query "research". The page features a search bar at the top with the text "research" and a search icon. Below the search bar, there are options for "Log In", "Account", "Help", and "EN". The search results are displayed in a list view, sorted by relevance. The left sidebar contains a "Filter Results" section with a "Date range" histogram (1967 to 2017) and a "Source" list. The main content area shows 42182 results found, with the first 20 results displayed. The results include titles, logos, and dates, with some terms highlighted in yellow.

**Filter Results**

**Date range**

1970 1980 1990 2000 2010

1967 to 2017

Apply filter

**Keywords**

**Source**

UBC Circle	39444
Abacus Dataverse Network	1532
Open Data Canada	1064
U of A Dataverse	74
SFU Radar	33
Polar Data Network	21
Concordia Spectrum Research	10
York University Digital Library	4

Load More

42182 results found.

Sort by relevance List view

1 to 20 of 42182 Page 1

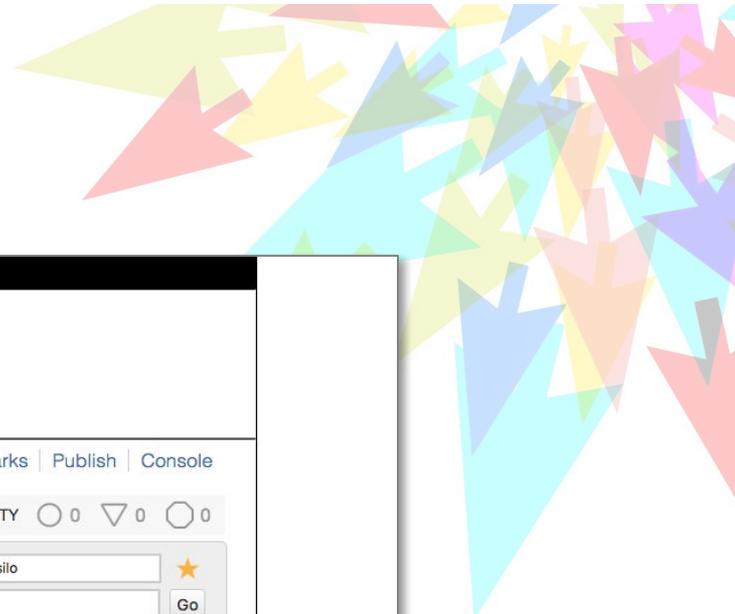
- [Geospatial Data Archiving and Preservation - Research and Recommendations Executive Summary](#)  
Open Data Canada  
Natural Resources Canada | Ressources naturelles Canada — 2011-01-01  
+ Show Details
- [Research partner and search methodology expert : the role of the librarian in systematic reviews](#)  
UBC Circle  
Beck, Charlotte — 2016-02-04  
+ Show Details
- [Attitudes Toward Local Government in Newfoundland, 1984](#)  
Abacus Dataverse Network  
York University Institute for Behavioural Research and Survey Research Centre — 1984  
+ Show Details
- [Alberta Survey, 2011A](#)  
U of A Dataverse  
Population Research Laboratory — 2013-12-06  
+ Show Details
- [Canadian Business Ethics Research Network](#)  
York University Digital Library  
Canadian Business Ethics Research Network (Creator) — 2015-01-12

Search Facets

Source Repositories



# Dataset File Transfer



Manage Data ▾ Groups ▾ Account

 **compute** | **calcul**  
canada | canada

Transfer Files | Activity | Endpoints | Bookmarks | Publish | Console

RECENT ACTIVITY ○ 0 ▾ 0 ○ 0

**Transfer Files**

Endpoint  ☆ Path  Go

Endpoint  ☆ Path  Go

select all up one folder refresh list

	CCIN11942_20150423_Gastropod_Survey_2013.xlsx	75.06 K
	CCIN11942_20150423_Gastropod_Survey_2013_Freshwater_Sampling_0903_K	6.93 K
	CCIN11942_20150423_Gastropod_Survey_2013_Mats_Averaged.csv	1.84 K
	CCIN11942_20150423_Gastropod_Survey_2013_Mats_Data.csv	15.18 K
	CCIN11942_20150423_Gastropod_Survey_2013_Terrestrial_Sampling_09079_K	6.79 K
	CCIN11942_20150423_Gastropod_Survey_2013_Terrestrial_Transects.csv	954 B

select all up one folder refresh list

Folder

data

Label This Transfer

This will be displayed in your transfer activity.

Transfer Settings  sync - only transfer new or changed files ?

Globus Transfer

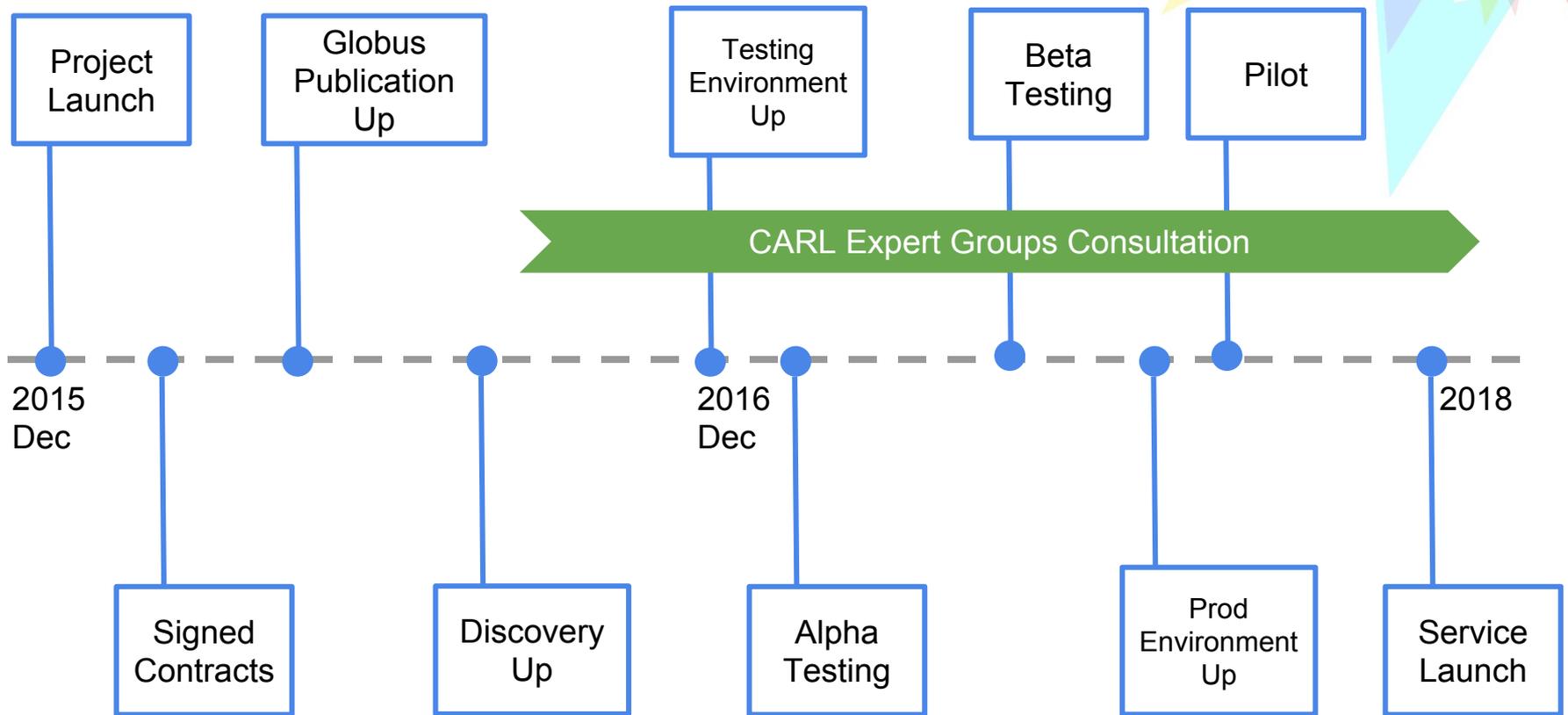


# FRDR service

- FRDR Launched Limited Production September 2018
- A service based on FRDR offers to Canadian researchers:
  - A place to deposit large data sets
  - A place to deposit data sets if researcher does not have a local option
  - Preservation for long term usability of data sets
  - Archiving (and automatic geographic replication) of data sets to fit in with researcher backup strategy
  - Provide permanent identifiers (DOIs) for data sets
  - A way for researchers to discover data sets regardless of which repository they were deposited
- Storage and repositories can be distributed, owned and operated by organizations / institutions.



# Project Timeline



# Questions?

- [www.computecanada.ca](http://www.computecanada.ca)
- FRDR Public web site: <http://frdr.thedev.ca>
- Access the repository at:  
<https://www.frdr.ca/repo/>  
<https://demo.frdr.ca/repo/>



# Acknowledgements

- Steering committee: Dugan O’Neil, Jeff Moon, Lee Wilson, Jay Brodeur, Umar Qasim, John Simpson, Jason Hlady
- CARL/Portage experts: DEG / CEG / PEG
- UBC and the Open Collections team: Eugene Barsky, Schuyler Lindberg
- Compute Canada: Cloud East and Cloud West teams, communications team, translators, support
- FRDR Development team: Alex Garnett, Keith Jeffrey, Todd Trann, Mike Winter, Adam McKenzie

