FEDERAL SCIENCE Libraries NETWORK

The Federal Open Science Repository of Canada: A key destination on Canada's Roadmap to Open Science

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Government of Canada | Gouvernement du Canada

Canada

With this presentation we intend to…

1. Explain the **context** and policy drivers that led to the development of the Federal Open Science Repository of Canada (FOSRC)

2. Provide an overview of the **tool**, including goals, long term vision and technical infrastructure

3. Describe the **collaboration** model and roles and responsibilities of the 3 operating and 8 participating collaborators

4. Discuss challenges and **lessons** learned throughout development and implementation

5. Share upcoming **milestones**

CONTEXT -

Science and innovation in the Government of Canada

16,000 professional scientists

Including about 3,500 federal researchers

A dozen departments

Are considered science-based, i.e. they conduct in-house research activities

4,000 Publications

About 4,000 peer reviewed scholarly journal publications per year are co-authored by federal scientists

Science is focused on public benefits

- **Public-good services**, e.g. weather
- **Well-being**, e.g. health, food, and environmental regulation
- **Public safety**, e.g. wildfire or pandemic response
- **National security**, e.g. defence research
- **Innovation**, e.g. technology development in critical economic sectors

More information here:

https://science.gc.ca/eic/site/063.nsf/eng/home

CONTEXT -

Open Government is our main driver

- National Action Plan on Open Government
- **Roadmap for Open Science**
  - Individual departments' open science action plans
- Shared Services Canada Departmental Plan 2022-2023

OCSA's Roadmap for Open Science recommendation #4:

Federal departments and agencies should make federal science articles openly accessible by January 2022 and federal science publications openly accessible by January 2023, while respecting privacy, security, ethical considerations and appropriate intellectual property protection.

FOSRC is a new enterprise solution that supports GC commitment to open government vision and enables science based departments and agencies (SBDAs) to meet recommendation #4 of the Roadmap for Open Science

TOOL -

Goal/outcomes: Why we are doing this

GOAL:

Provide federal researchers with a state-of-the-art repository for sharing their research results in support of GC open access goals

Expected outcomes:

- Increase the dissemination and use of the results of publicly funded scientific research
- Collect and curate current Canadian government scientific research outputs to ensure permanent preservation and access to peer-reviewed publications resulting from GC research
- Better understand scientific output, trends, future directions and research priorities of GC science

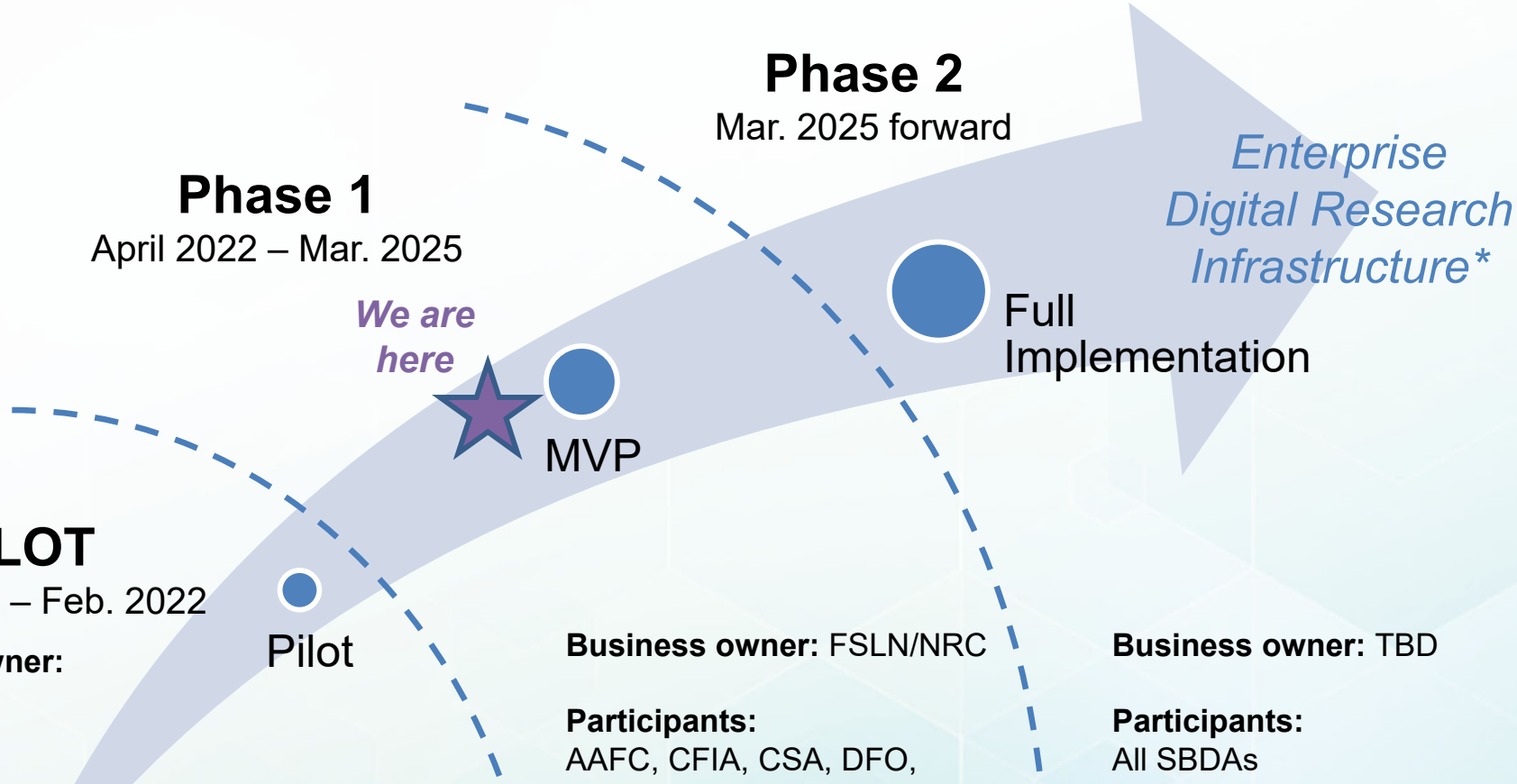
TOOL -

Technical infrastructure

- Shared instance of DSpace (Amazon cloud)
- Out of the box features
- Identity, Authentication, Authorization solution (GCPass)
- GC look & feel compliant
- GC compliance:
  - Accessibility
  - Privacy
  - Official languages
- Enhanced bibliographic and descriptive metadata
- Digital registry (DOI, ORCID)
- Customized deposit agreement
- Designed for Data Hub integration

TOOL -

Path to full implementation



Business owner:
OCSA

Participants:
AAFC, CFIA, ECCC, NRCan, STATCAN

Funding Source:
SSC Science Program

Business owner: FSLN/NRC

Participants:
AAFC, CFIA, CSA, DFO, ECCC, HC, PHAC, TC

Funding Source:
SSC Science Program, participating departments

Business owner: TBD

Participants:
All SBDAs

Funding Source:
Central ask and/or SBDA contributions

*See Annex

COLLABORATION -

Federal Science Libraries Network (FSLN)

- Established in 2014 as a collaborative approach for SBDAs to deliver library and information services and increase visibility and access to GC print and electronic library collections by Canadians (Open Government 2.0 commitment)
- Assuming role of business owner for phase 1, leveraging:
  - Pre-established governance and service delivery models
  - Experience in collaborative information systems management
  - Expertise in scholarly publishing and knowledge management

COLLABORATION -

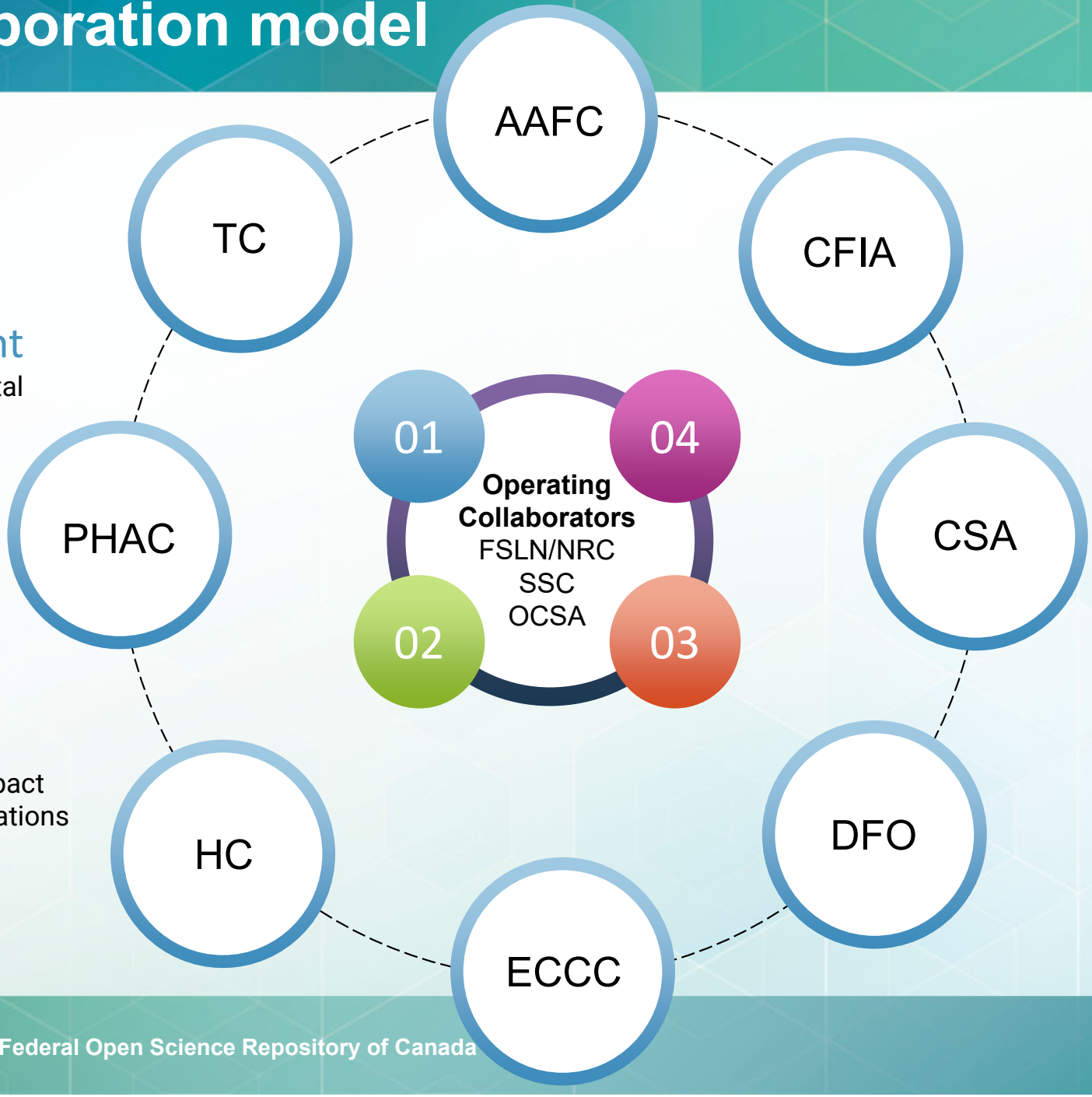
Collaboration model

Financial Management

- Interdepartmental arrangements
- Cost sharing

Monitoring

- User behaviour
- Scientific contribution/impact
- Repository operations



Governance

- Strategic
- Technical

Technology

- Infrastructure
- Priortization
- Testing

COLLABORATION -

Roles and responsibilities

Collaborators Science based Departments and Agencies (SBDAs)	**Business Owner** Federal Science Libraries Network (FSLN)	**Product Owner** Shared Services Canada (SSC)	**Strategic Advisor** Office of the Chief Science Advisor (OCSA)
• Policies and procedures associated with content • Publications management • Quality assurance • Training • Promotion • 1st level operational support	• Governance • Client/Stakeholder/ Partnership management • Financial/operations management • 2nd level operational support	• Systems operations • Product development • IM/IT vendor relations • 3rd level operational support	• Open science Champion • Long-term vision

LESSONS -

What we learned from the pilot project

Conditions for Sustainable Success

Enterprise digital research infrastructure

- A siloed publication repository is of limited value
- A rich scientific information environment for researchers, policy makers and innovators is the key to sustainable success

Centralized, long-term funding

- SSC Science Program provided interim funding to demonstrate sandbox and pilot capabilities
- Experience from similar federal projects suggests that seeking funds from Depts on a year-by-year basis is not sustainable

Vested business owner with expertise

- Office of Chief Science Advisory (OCSA) is the interim business owner which has worked very well in the short-term

A Business Owner is needed to:

- prioritize activities and make decisions
- secure funding and develop a sustainable business model for the service
- engage SBDAs and promote an enterprise direction

Recommendations

Commit to long-term vision of integrating the repository in a broader digital research infrastructure

Solidify commitment to adopt shared tools and enterprise digital research infrastructure

<u>Interim:</u> Seek MVP funding from participating SBDAs starting FY 22-23 for a 3 year period

<u>Long-term:</u> Sustainable funding post-MVP is secured as part of a broader digital research infrastructure project envelope

Transition of business owner with expertise in science publication for a 3 year period, and move towards a long-term digital research infrastructure owner

Keys to success

Momentum is building around this project, thanks to:

- Critical senior management buy-in
- Tie in with key institutional and government priorities
- Achieving successes with smaller pieces

We are learning to advance together even if we don't know everything in advance

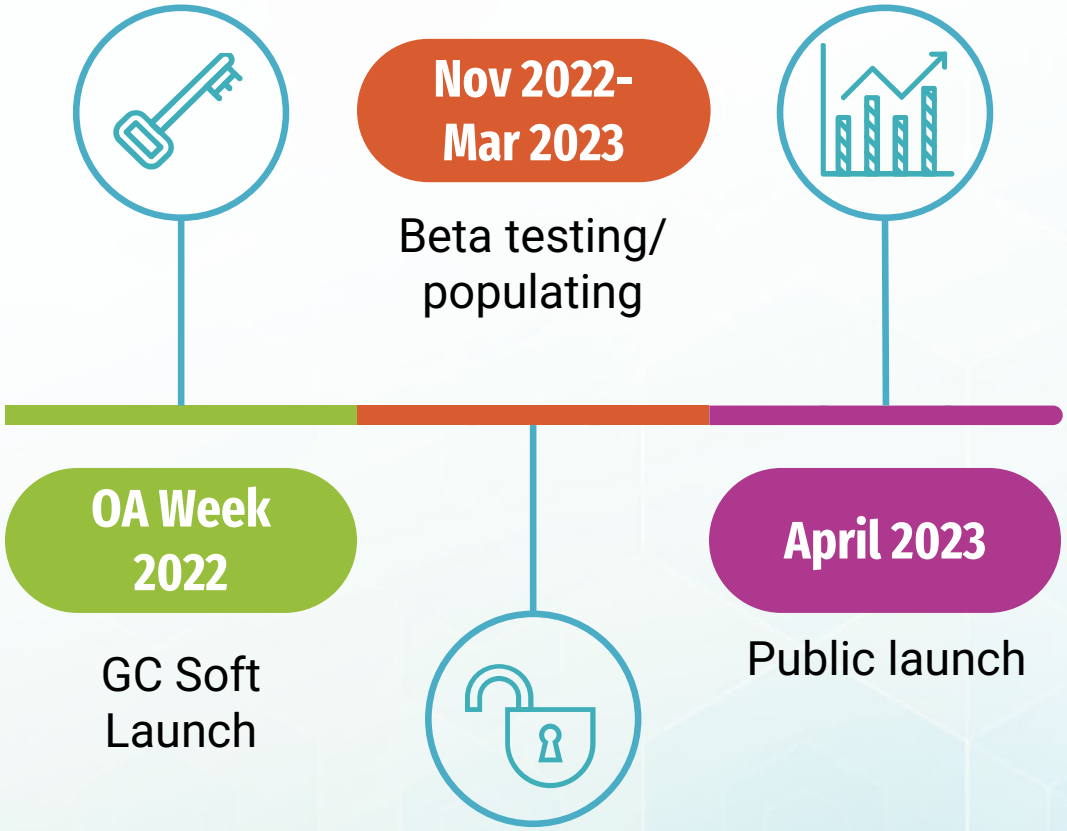
- Tension between a growing agile culture and well-established risk-averse culture
- Opening doors for others to go through

A one-team approach across and within departments underpins our efforts

- e.g. librarians and policy

MILESTONES -

Upcoming milestones



Thank you!

Annex: Phase 2 Vision

A publication repository that is part of a coherent state of the art digital research infrastructure that balances open and secure, and seamlessly connects researchers, policy makers and innovators to the computers, data, tools, techniques and skills that underpin the most ambitious and creative research.