Research Software Program: Local Research Software Support – Call 1
Backgrounder
Where we were...

Platform 1

Platform 2

Platform 3

Platform 4
Where we are now...

Platform 1

Platform 2

Platform 3
But there are other factors to address

> Not all researchers need a full research platform.

> What happens to purpose-built research software when funding ends?

> Can software that’s already been created at the institution be reused?

> Can we introduce software engineering best-practices into research software development?
Why is this important?

> Huge investments in research software are lost when not reused or staff move on

> Lack of S/W engineering best practices results in software of lesser quality
  • Could affect research outcomes
  • Hinders reuse

> Re-developing or making minor changes to software delays research and costs money and time
What’s Next: Local Research Software Support at the Institutional Level (2018 – 2023)

- Existing Research Software
- Software Engineering Best Practices
- Sustainability

Local Research Software Support Team
How we’re getting there: Local Research Software Support Call 1

> Based on Canadian pilot and international experience
  • Similar efforts in the UK and other European countries
  • CANARIE pilot with 3 Canadian institutions in 2018

> Program will fund teams of:
  • 3 software developers, in-residence
  • at 6 institutions
  • for up to 34 months

> Teams to assist researchers from all disciplines and departments
So what will a Local Research Software Support Team actually do (1/2)?

> Support researchers with software architecture, including architecture to support use of Canadian digital infrastructure
  - Development environments
  - Languages, libraries, and 3rd party software
  - Development methodologies and software project management

> Find and catalogue existing software available at the institution

> Develop/modify/integrate software

> Support researchers on team composition and recruiting
So what will a Local Research Software Support Team actually do (2/2)?

> Assist researchers in proposal writing (for software components of research proposals)

> Promote team to engage researchers within the institution

> Interface with similar groups at other institutions to share learnings and strengthen best practices

> Other activities that their institution deems necessary, with the approval of CANARIE
Working with ARC and Compute Canada

> Leverage ARC/Compute Canada staff to support researchers, rather than duplicate their work
  • Goal is to augment these groups, not to supplant them

> Important role in supporting computational research:
  • For researchers moving into computational research: introduce them to large-scale application development
  • For researchers transitioning from desktop or cloud to high performance computing (HPC): translate between the language of research and the language of HPC
Application Questions
Who can apply?

> Applicants must be a Canadian university, college, corporation, or other legally recognized entity.

• This entity will act as the Lead Contractor.

• The Lead Contractor must be able to enter into a project agreement with CANARIE.

• Applications generally expected to originate from CIO or VPR offices.

> Smaller institutions may partner to share a Local Research Software Support Team.
Who is not eligible?

> Individual researchers or departments
  • This call is intended for institutions only

> Institutions that already have software teams to support research in place
  • Regardless of how they are funded

> Federal government institutions
  • federal departments, agencies, or Crown corporations, including their research facilities

> Foreign organizations

> Organizations not involved in academic research
What does the application require (1/2)?

1. Demonstration of the institution’s commitment
   • through letters of support from VPR’s office + department that will be responsible for team

2. Demonstration of researchers’ needs
   • through letters of support from minimum three (3) researchers who plan to use the Team’s services

3. Identification of a Project Authority (PA)
   • A senior person appointed to oversee the creation of the Team and guide its strategy
   • Will also be accountable for the status information and metrics provided to CANARIE
   • This is not a funded position
What does the application require (2/2)?

4. A Statement of Work (based on CANARIE template) that includes:
   - Researcher Engagement Plan
   - Project Selection Plan
   - Staffing Plan
   - Proposed Metrics

5. A preliminary budget
How will funding be received?

> Submit quarterly claims

- Retroactive funding
- Supporting documentation is required with each claim
  - Payroll reports
  - Timesheets

> Receive payments

- Approved claims are paid typically within 10 business days
- All payments are subject to a 10% holdback. The cumulative holdback is released upon successful completion of the project (including financial audit and submission of technical report)
Reporting Questions
What are the reporting requirements to CANARIE?

> Every four (4) weeks:
  
  • 30-minute project status meeting via videoconference

> At the end of each fiscal year (31 March):
  
  • Written report on activities carried out over the year
  • Formal review of these activities

> At the end of the funding period:
  
  • Final written report
Metrics

> We ask you to collect metrics and provide them for every status meeting to:

  • Measure the effectiveness of CANARIE’s Research Software program

  • Support project management

  • Demonstrate the value of the Team to the institution
**Selected Metrics**

- Time saved by reusing team-developed software
- Time saved by reusing software the team did not create
- Papers published based on the work of the Team
- Published works that cite these papers
- Publicity for the institution
- Grants received as follow-on to the Team’s work
- Short quotes from researchers who have worked with the Team
Schedule
Timeline: Proposal Development and Selection

> **Call Launch:** January 30, 2020


> **Proposals Due:** March 17, 2020 before 1:00 p.m. ET

> **Results Announced:** April 24, 2020

> **Agreements in Place:** June 1, 2020

> **CANARIE Onboarding and First Team Member Recruiting:** Up to June 1, 2020

> **Team Operations:** June 1, 2020 – March 31, 2023
How CANARIE can help:

> **Local Research Software Support Starter Kit** (resources to help funded institutions plan and get teams off the ground)
  - Job descriptions
  - Rules for selecting projects
  - Researcher engagement plans
  - Steering Committee charters
  - Tips on Support Team management
  - Guidance for demonstrating value to the institution

> **Want to discuss further?**
  - Scott Henwood – Director, Research Software
    scott.henwood@canarie.ca