

# Catalyzing Sovereign AI Compute Infrastructure in Canada

March 2025



Digital Research  
Alliance of Canada

Alliance de recherche  
numérique du Canada

# The Opportunity



## AI Sovereign Compute Infrastructure Program

As a first step in the AI Sovereign Compute Infrastructure Program, the Government of Canada is inviting eligible proponents to submit non-binding Statements of Interest. Proposals should align with the program's objectives, address the AI compute needs of Canadian researchers and a cross section of industrial research and development (R&D), and encourage cross sector partnerships to drive technological advancement and innovation.

Following this phase, the Government of Canada will launch a full proposal phase which will further refine the program requirements.

### Eligibility

Eligible proponents include not-for-profit organizations, for-profit organizations, academic institutions, and consortia.



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# Who We Are



National  
Scope and  
Mandate



Member-  
Based



Non-Profit



Federally-  
Funded



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**Digital Research Alliance** of Canada

**Canada's Advanced Research Computing Sites**



- 🎯 National Host Sites
- ▲ Support Sites
- AI Compute Sites

# Our Role

## National Coordination & Strategy

- Government of Canada mandate to coordinate, fund and integrate Canada's digital research infrastructure (DRI)
- Develop and execute DRI strategy that aligns to national priorities

## Investment, Delivery & Governance

- Manage federal investments in compute, storage, research software and data management
- Deliver national-scale programs that support thousands of researchers
- Provide governance for efficient deployment of resources, ensuring impact, cost-effectiveness and broad accessibility

## Equitable Access for Researchers

- Access model ensures that compute resources are accessible to all eligible Canadian researchers
- Fair and transparent resource allocation that supports a diverse range of research projects



# Our Objectives

Understand ISED goals

Respond to the strong input from the research community

Embark on a community engagement process

Collaborate on a cohesive national vision



# Our Core Principles

- Address lagging DRI investment
- Meet academic, government and industry research needs
- Beyond AI: HPC, wrap-around services and talent
- Consolidate scale-up compute
- **Minimize Fragmentation:** Our current model and funding cannot adequately support the future needs of researchers
- Align with global best practices
- Sustainable practices and technologies
- Collaboration across the country is critical

# Future Vision for Canada's DRI



Facilitate equitable access to DRI tools and services



Optimize secure access to high-quality Canadian research outputs



Invest in training/upskilling for researchers and DRI workforce



Protect DRI, enable data sovereignty and open science



Increase compute capacity and cloud capability with distributed storage



Expand the user-base of DRI support and services to academic, government and industry-academic research





# Defining Sovereign Compute in Canada

- Ability to maintain full control of Canada's AI infrastructure, data and technological capabilities.
- Ensure AI development serves national interest without external dependencies or influence and follows the following guiding principles:



Robust legal framework and operational safeguards



Reduced reliance on foreign entities controlling AI compute services



Strengthened Canadian innovation ecosystem, prioritizing made-in-Canada solutions



Canadian talent development



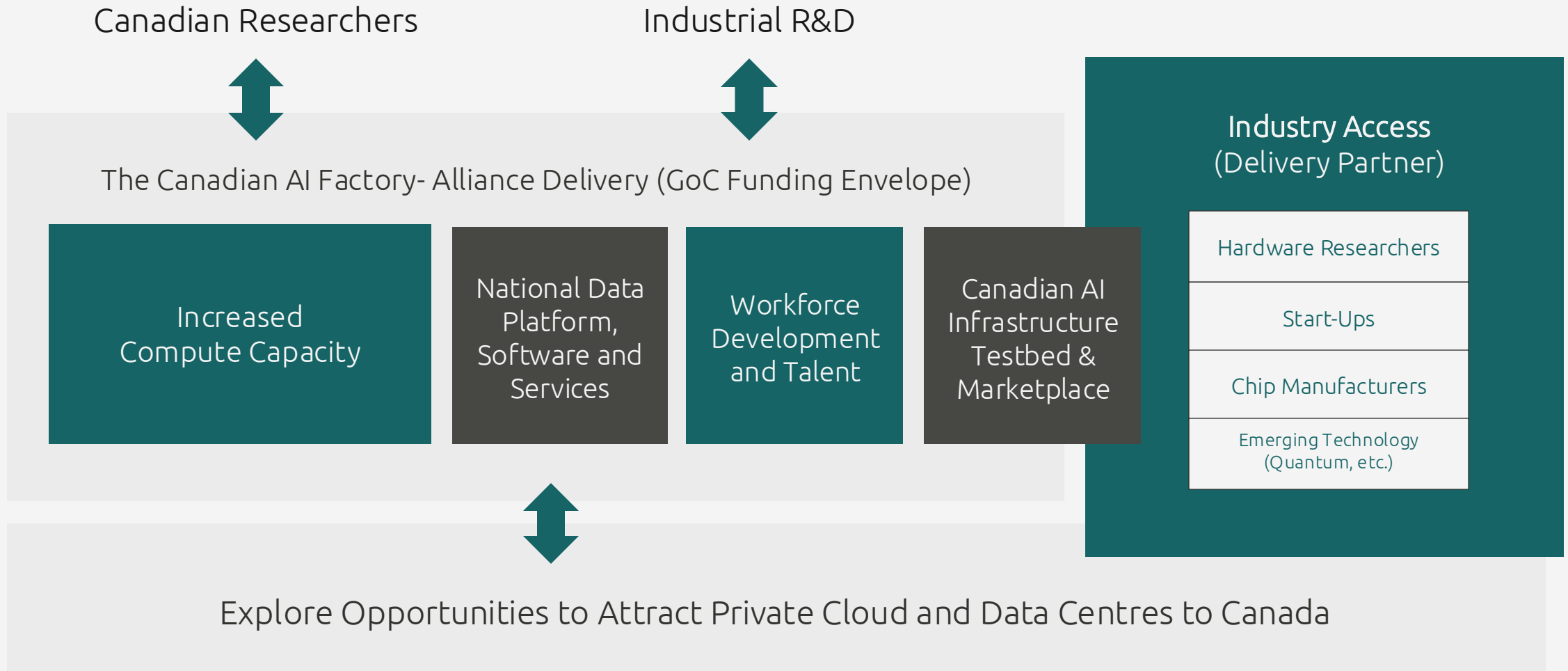
# Catalyzing Sovereign & Secure Canadian AI Capabilities

Building on the Alliance's strong foundation of digital research infrastructure and services, we are committed to leverage **seed funding** to create world-class infrastructure by **unlocking public-private investments** to **position Canada as a global leader** in artificial intelligence.

This investment will not only **support and protect** Canadian research but **accelerate the next generation of economic prosperity** for Canada through scientific and industrial breakthroughs **made here in Canada**.



# Building Blocks of Sovereign and Secure Canadian AI Capabilities



# Towards an Interoperable Canadian Data Ecosystem



Driven by communities of experts

High-quality FAIR(4RS) research data and software

Canadian data governance frameworks

Tools to access, pool, process and share data securely



Secure Access



Storage Systems



Searchable Portal



RDM Tools



RS Tools and Platforms

## Infrastructure

Interoperability and Cybersecurity Framework

...one data space at a time.

# Developing and Growing our Workforce



## Labour Market Inventory and Advocacy for New Job Classifications

New job classifications will emerge from the growth of Canada's AI and DRI sector. We aspire to document and support a national labour market assessment to promote the industry and fill critical skills gaps.



## Training Programs through Collaboration

We aspire to work with our AI Institutes and academic institutions to develop and deliver world-class training programs.



## Growing our Distributed Workforce and Canada's AI Talent

Canada's strength is our 200+ pan-Canadian workforce that supports DRI. We want to develop and grow this talent base across the country.



# Defining the National Interest

1



3



2



4

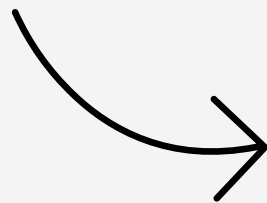


1. NCI Australia: NFP; University Collaboration Model
2. FINLAND CSC: NFP Owned and Operated
3. Lawrence Livermore National Laboratory: Government Owned and Operated
4. Other Models

Establish a set of criteria that meets the needs of Canadian researchers based on global best practices and best value to the taxpayer.



Engage  
With Us



[alliancecan.ca/sovereign-ai](https://alliancecan.ca/sovereign-ai)



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