Canadian Sovereign AI Compute Infrastructure Program SOI

Post-Submission Town Hall

May 2025

Digital Research Alliance of Canada | Alliance de recherche numérique du Canada

The Opportunity

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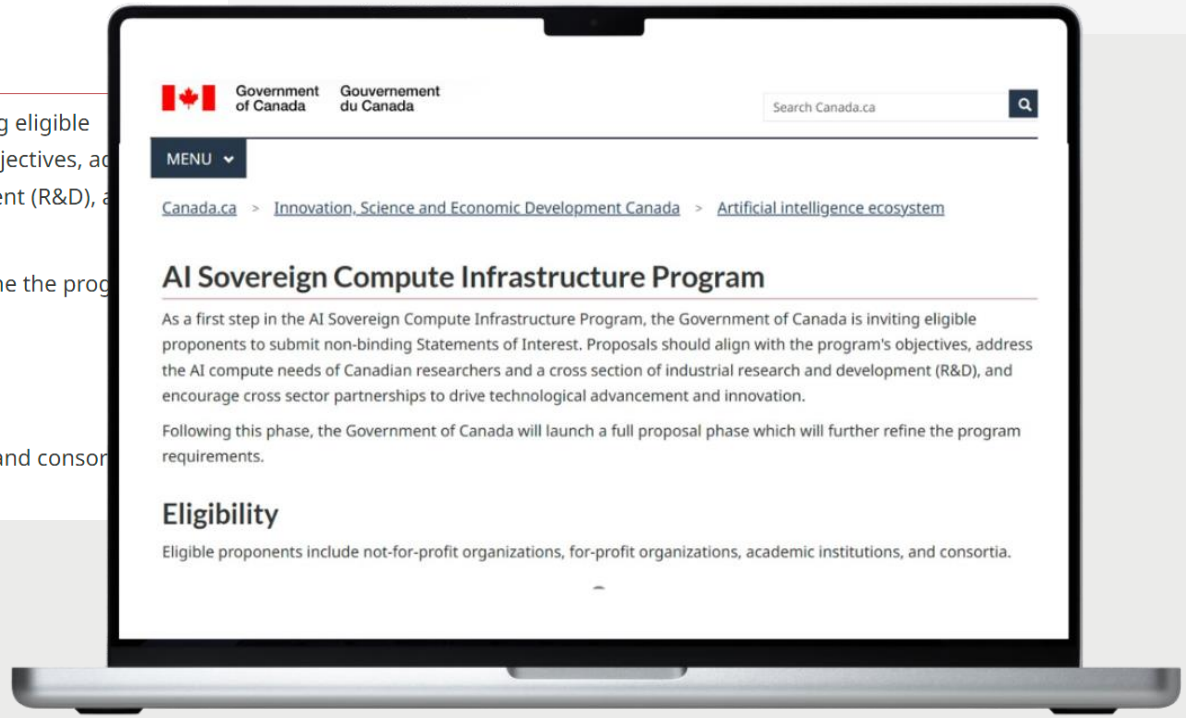
AI Sovereign Compute Infrastructure Program

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, ac
the AI compute needs of Canadian researchers and a cross section of industrial research and development (R&D), a
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 prog
requirements.

Eligibility

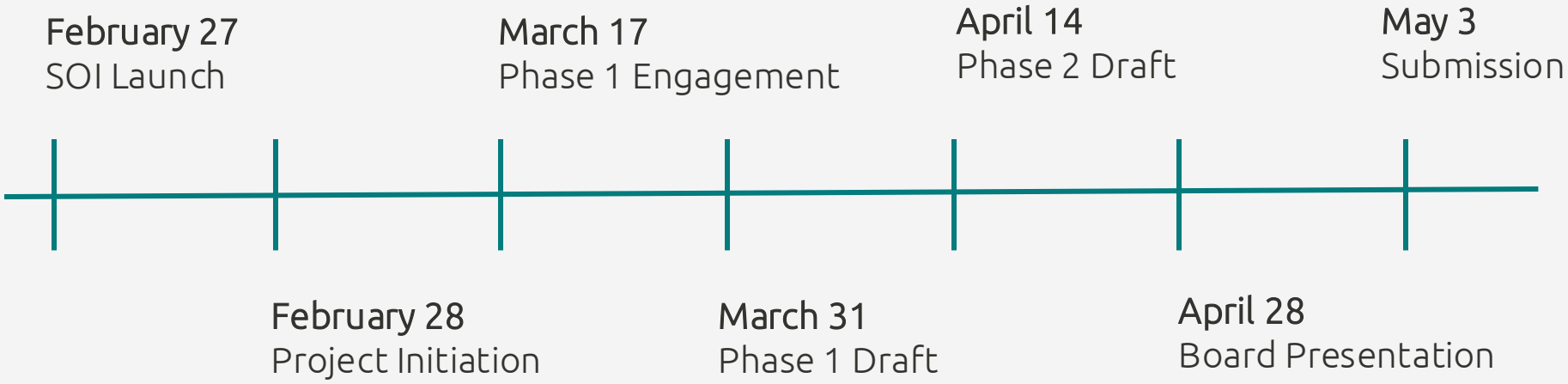
Eligible proponents include not-for-profit organizations, for-profit organizations, academic institutions, and consor



Context for the Request for SOIs

- This Statement of Interest (SOI) is the final component of ISED's $2.4B Securing Canada's AI Advantage Strategy – April 2024.
- More than half of the $2.4B—about $1.4B—is targeted to SMEs and industry for incentives, safety and workforce adaptation.
- An additional $300M is targeted at rapid/urgent public compute needs.
- A total of **$705M is available for public sector AI compute through the AI Sovereign Compute Infrastructure Program (SCIP)**.
  - This component is open to all: *"Eligible proponents include not-for-profit organizations, for-profit organizations, academic institutions, and consortia."*
  - The objectives of the call align with the Alliance's goals and vision – to enhance and expand compute, research data management, research software and talent to advance Canada's knowledge economy and drive economic and social impact.
  - Industry access is a prominent feature.

Timeline to our SOI Submission



Our National Engagement Process

Process

- **Over 750** academic, industry and government leaders participated in 4 virtual town halls and 20+ executive briefings
- **1:1 engagement** with major public/private proponents submitting an SOI
- **Briefings with ISED leadership** in Canada and in Germany
- **National coordination** among SOI submissions (public and private sector)

Results

- **125 expressions of interest** to partner with the Alliance, including offers for financial (cash, equipment, etc.) and in-kind contributions (expertise, land, etc.)
- **Community willingness to coordinate** and share SOI approaches
- Consensus around a **national, consolidated (non-fragmented) investment**
- **Confirmed ISED's** desire for economic impact and industrial benefit

National Intelligence and Coordination on the SOI

Applicants

- **Post Secondary Institutions:** 5+ major SOI efforts
- **Research Institutes:** Discipline-specific efforts to advocate for specialized resources (compute, data management)
- **Private Sector:** Most entities going after AI Compute Challenge

Profile of Submissions

- Need for **national, scaled up and consolidated investment** in AI compute infrastructure
- Acknowledgement of Alliance role in providing **national services**
- Majority are pitches to **position specific sites**
  - Not all sites have the prerequisite requirements (power, zoning, ownership)
- At least **4 core business models** options with many different variations
  - Private sector primarily pitching co-location or compute as a service model

Responding to Global & National Trends + Researcher Needs

International

- Prioritizing national approaches to AI infrastructure
- Leveraging AI for industry, supply chain resiliency and public benefit
- Global partnership and collaboration opportunities

National

- Fragmented infrastructure investments
- Lack of national data infrastructure
- Capacity crunch driving researchers to foreign owned systems

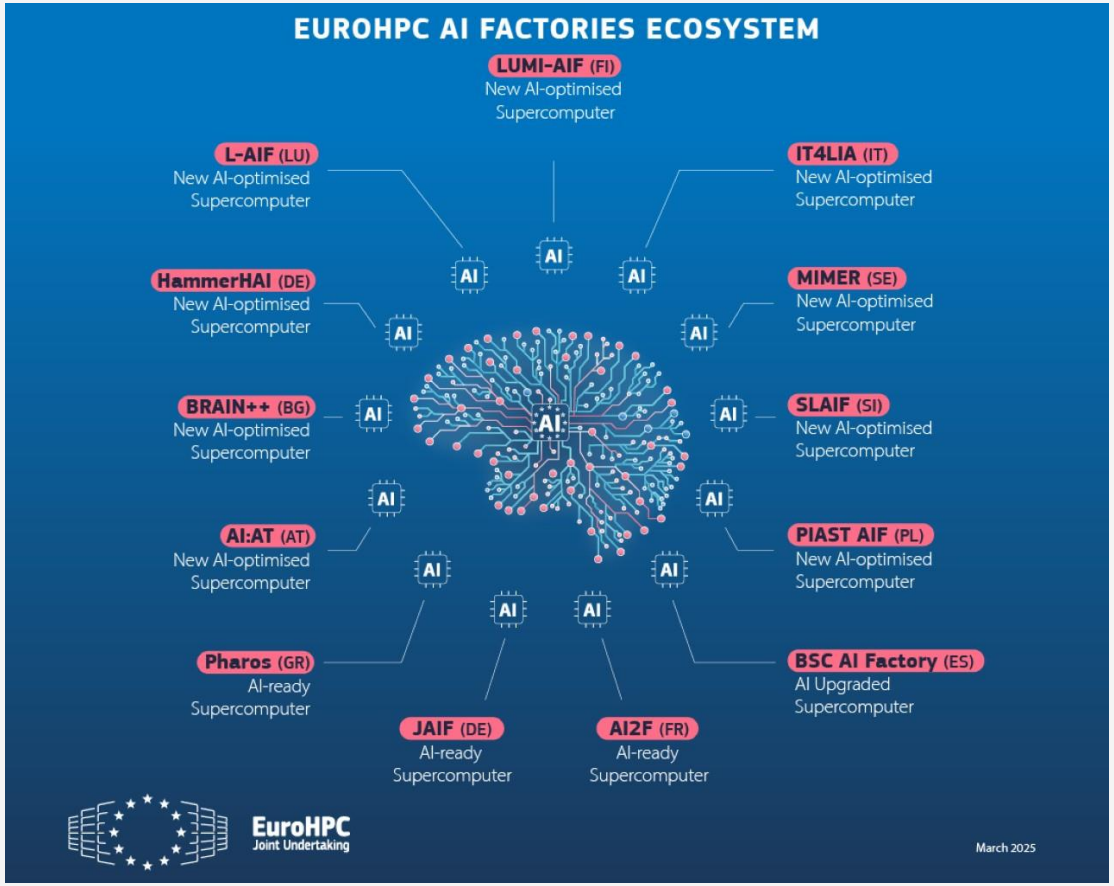
Researcher Needs

- Compute at scale
- Training, services and support
- Interoperability
- Consistent services, policy and implementation
- Flexibility for a wide range of user needs

Canada and European Union Alignment

Canada and increasing collaboration with European Union

- Sovereignty
- Geopolitical Factors
- Intellectual Property
- National Interest



Integration of Intelligence and Feedback into Alliance SOI Response

Demonstrate national leadership role in DRI

Setting expectations for public benefit and researcher requirements

Articulate complexity of digital sovereignty

Coordinating messaging with other SOI proponents

Plan beyond compute access for industry and researchers

Development of **standardized evaluation considerations** for ISED

Our Vision for Public Sovereign and Secure AI Compute Infrastructure

We will position Canada as a global leader in AI, support and protect Canadian research and enable scientific and industrial breakthroughs.

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
- **Equitable national access** to researchers in Canada
- **Align** with global best practices
- **Sustainable** practices and technologies
- **Collaboration** across the country is critical

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

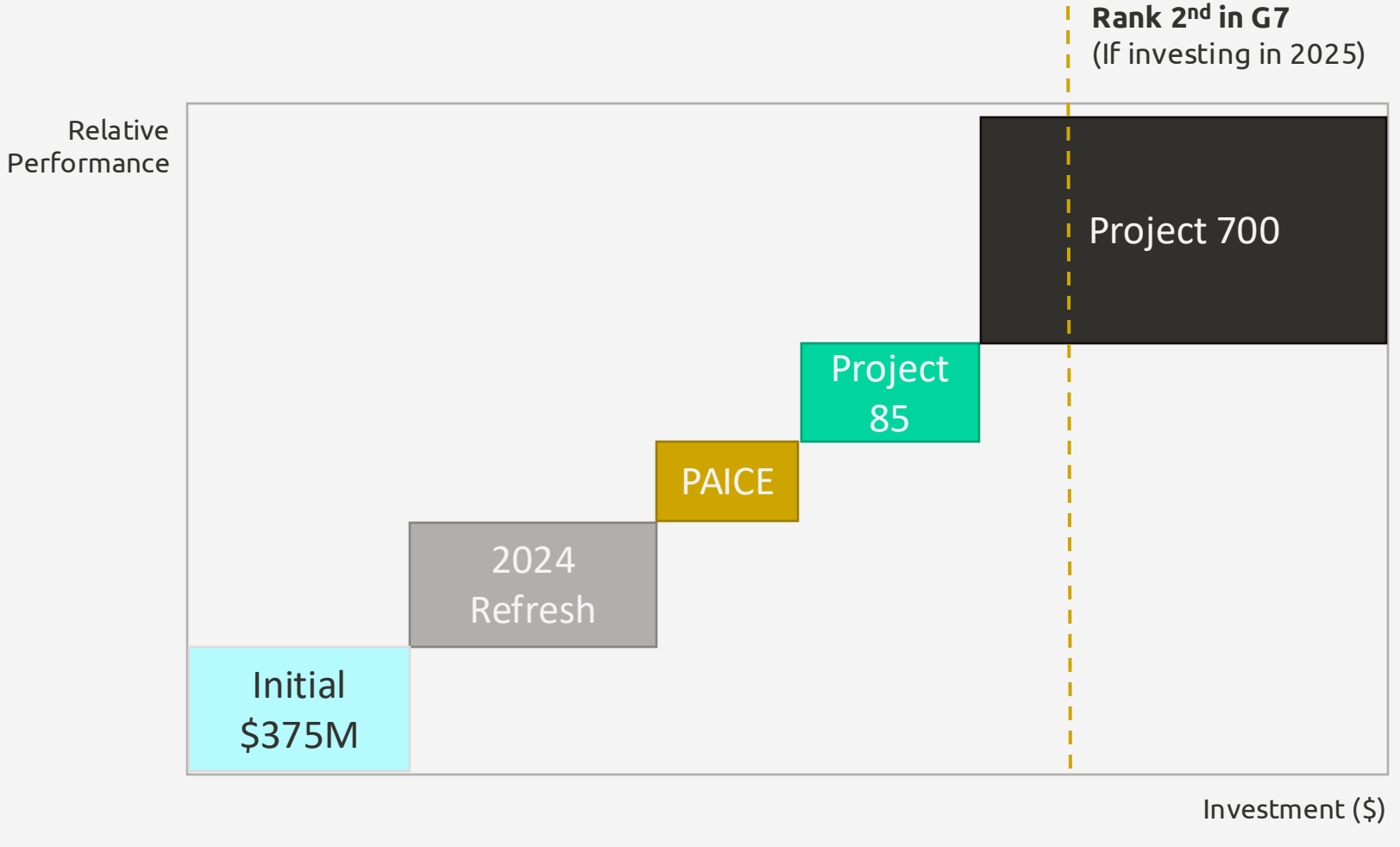
Reduced reliance on foreign entities controlling AI compute services

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

Canadian talent development

Defining Nationally Significant AI Compute Investment in Canada

- The Alliance will make investment decisions and recommendations that will position Canada within the **top 25th percentile of G7** countries for compute.
- The AI Compute funding is additive to existing national compute capacity (host sites and PAICE site systems).
- Value-added services and data are important!

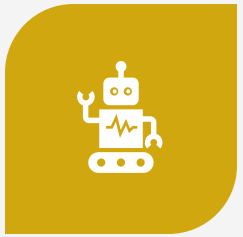


Our Proposed Approach

AI Compute & Canada's First AI Factory

National Data Platform And Unified AI Foundational Infrastructure

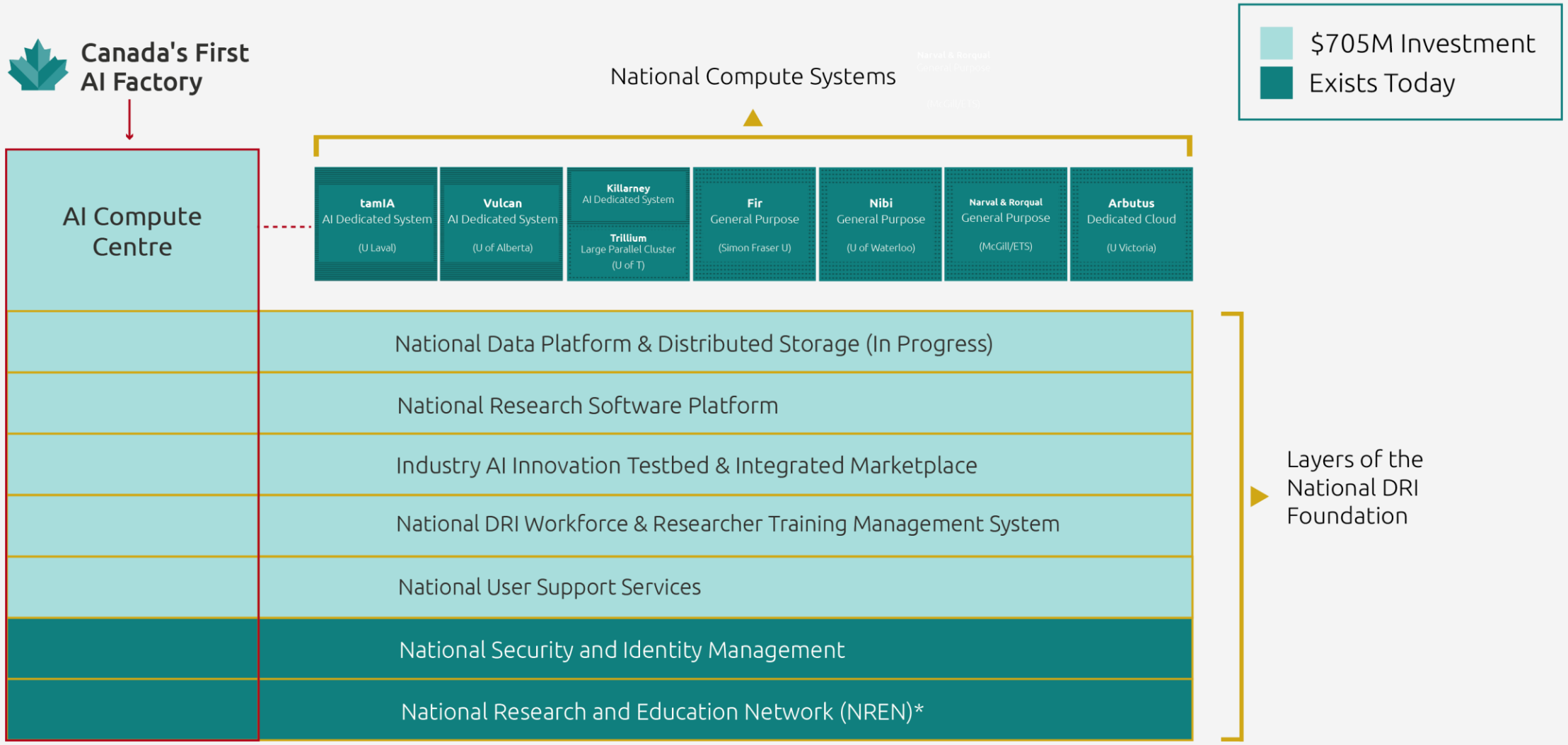
AI Infrastructure Testbed & Integrated Marketplace



AI Workforce Development, Researcher Upskilling

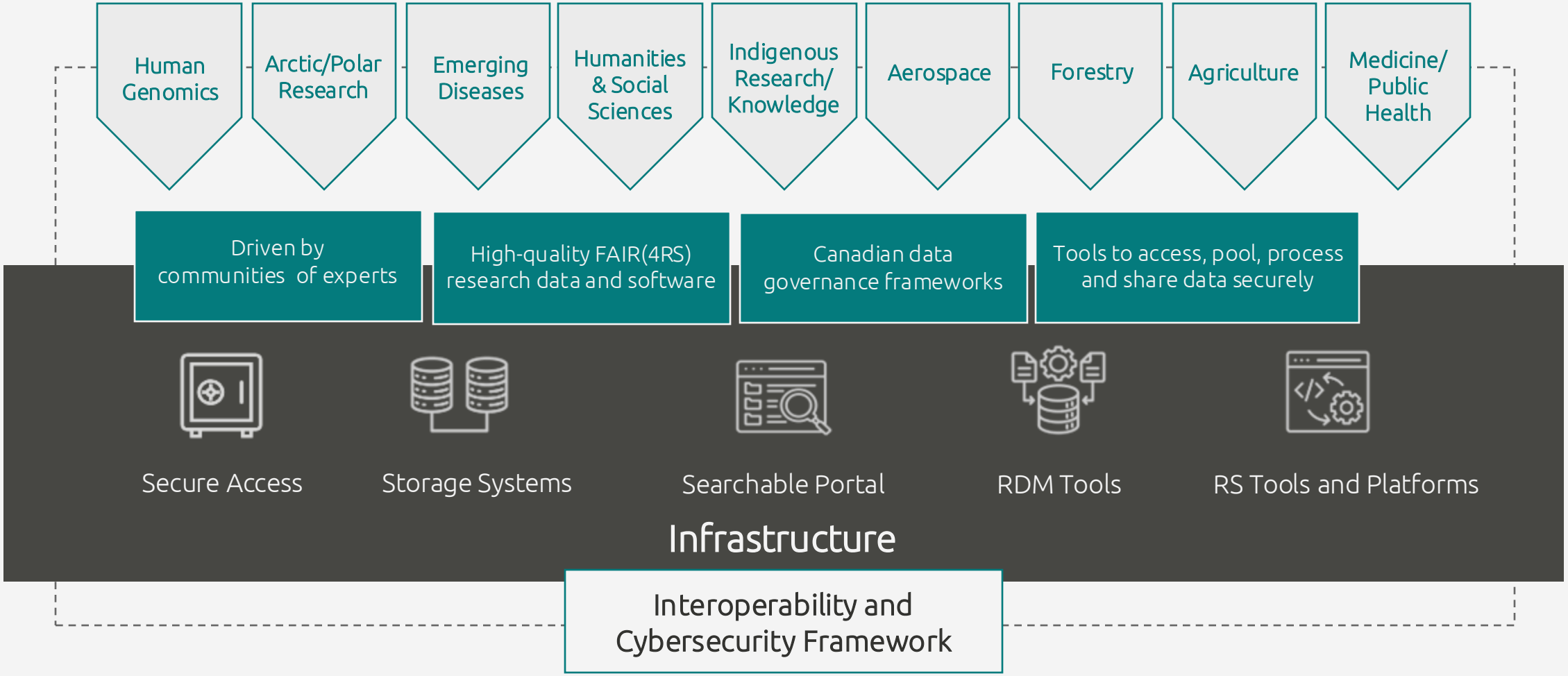
Economic Security & Investment Attraction

Canada's First AI Factory



** Managed by CANARIE*

National Data Spaces



AI Workforce Development

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.

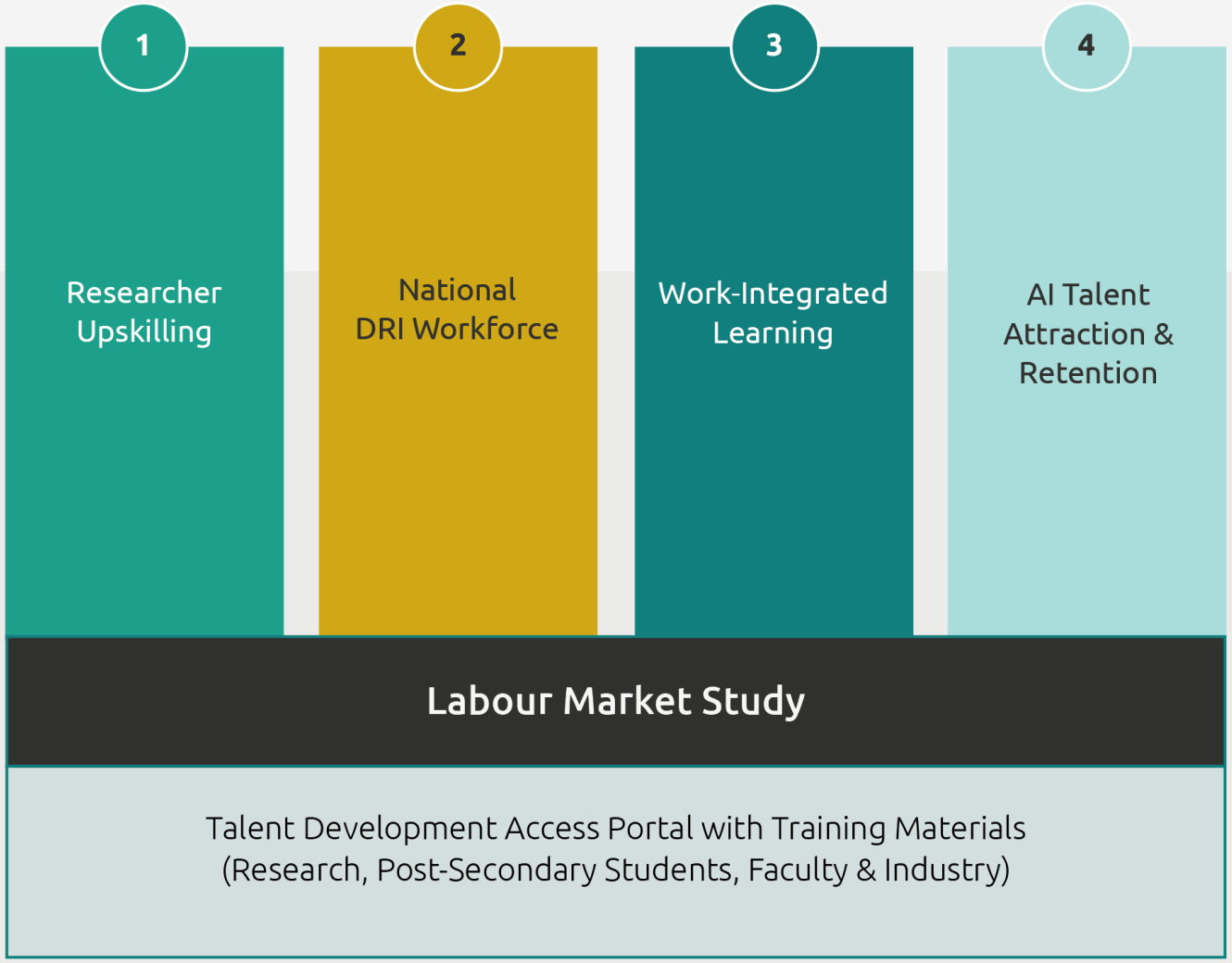
Training Programs through Collaboration

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

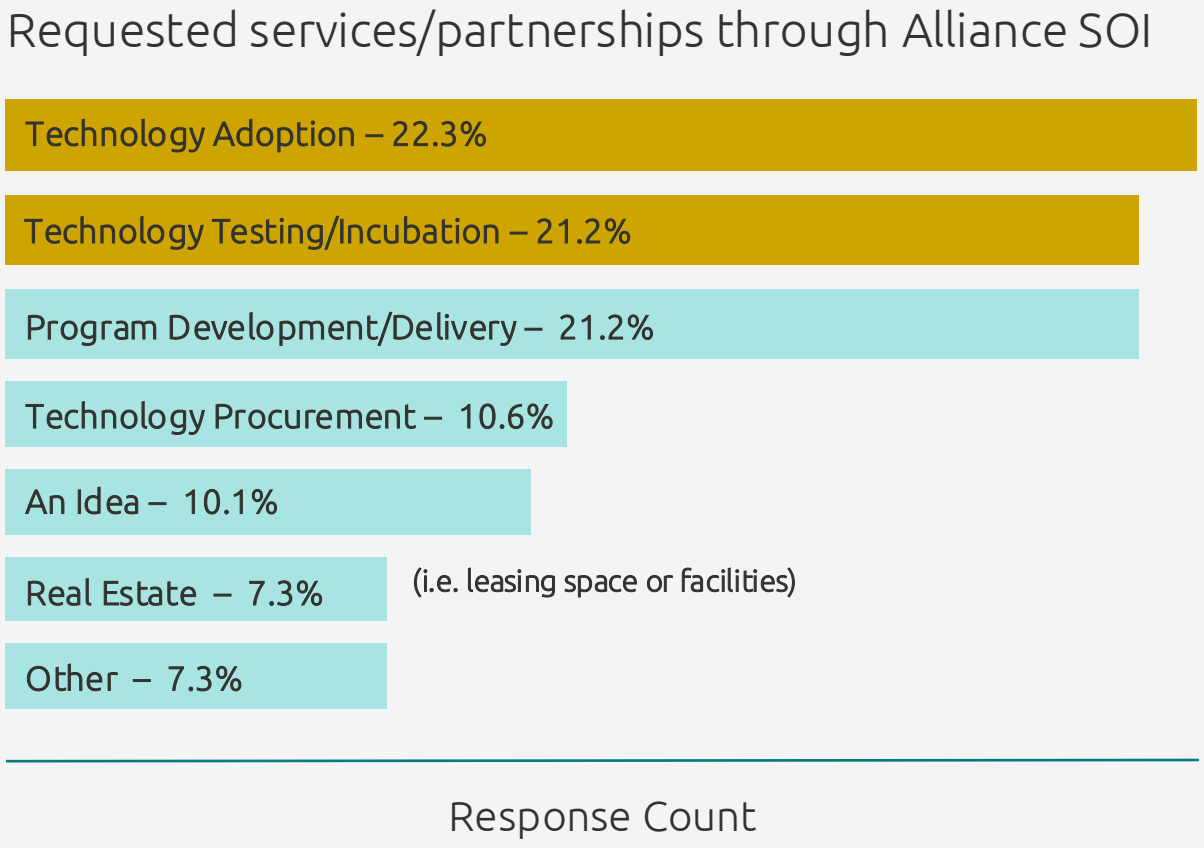
Canada's strength is our 200+ pan-Canadian workforce that supports DRI. We want to develop and grow this talent base across the country.

Strategic Talent Framework



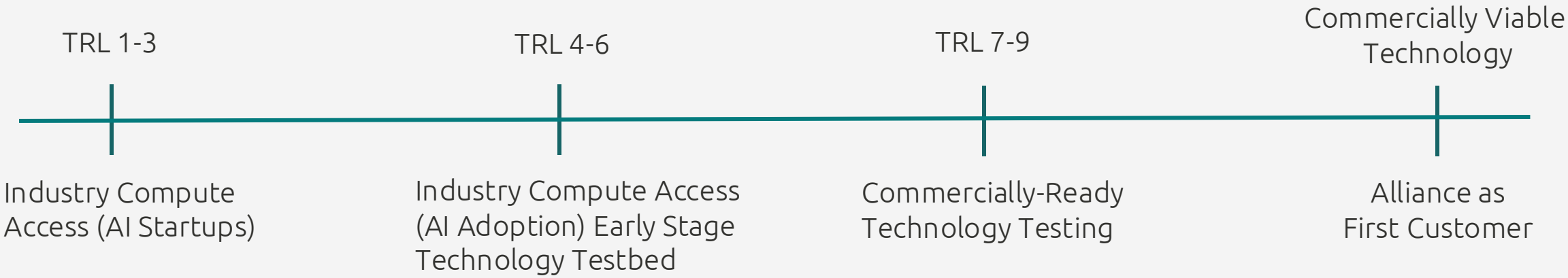
AI Infrastructure Testbed & Integrated Marketplace Sovereignty Beyond Compute

- Industrial benefits extend beyond compute access
- Testing, incubation, and adoption of compute technologies important
- Growing domestic supply chains that could interoperate with stable trading partners



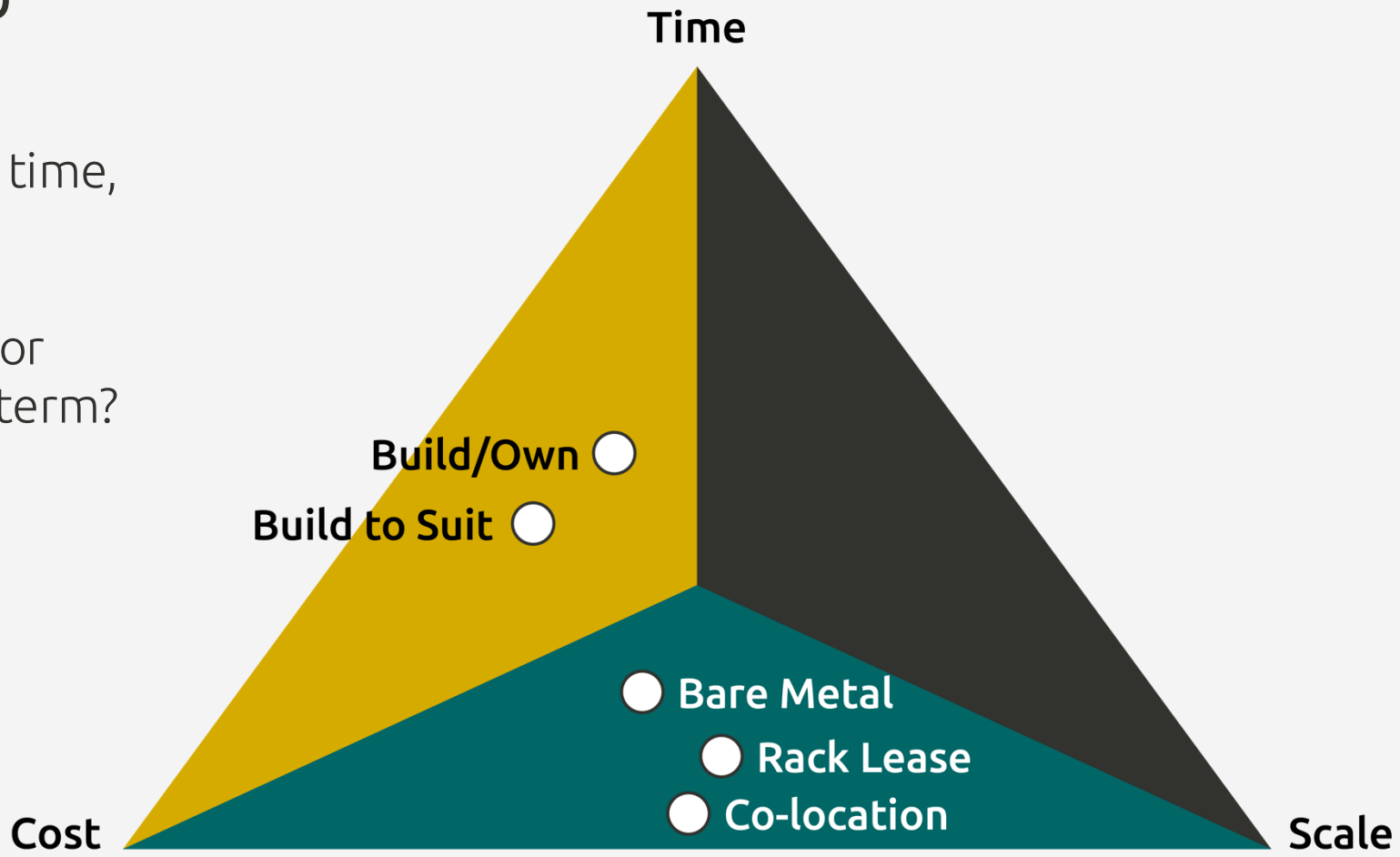
Economic Security & Resiliency

- Support across the technology readiness scale
- Provide infrastructure to complement existing industry support entities (IRAP, RDAs, Superclusters, etc.)



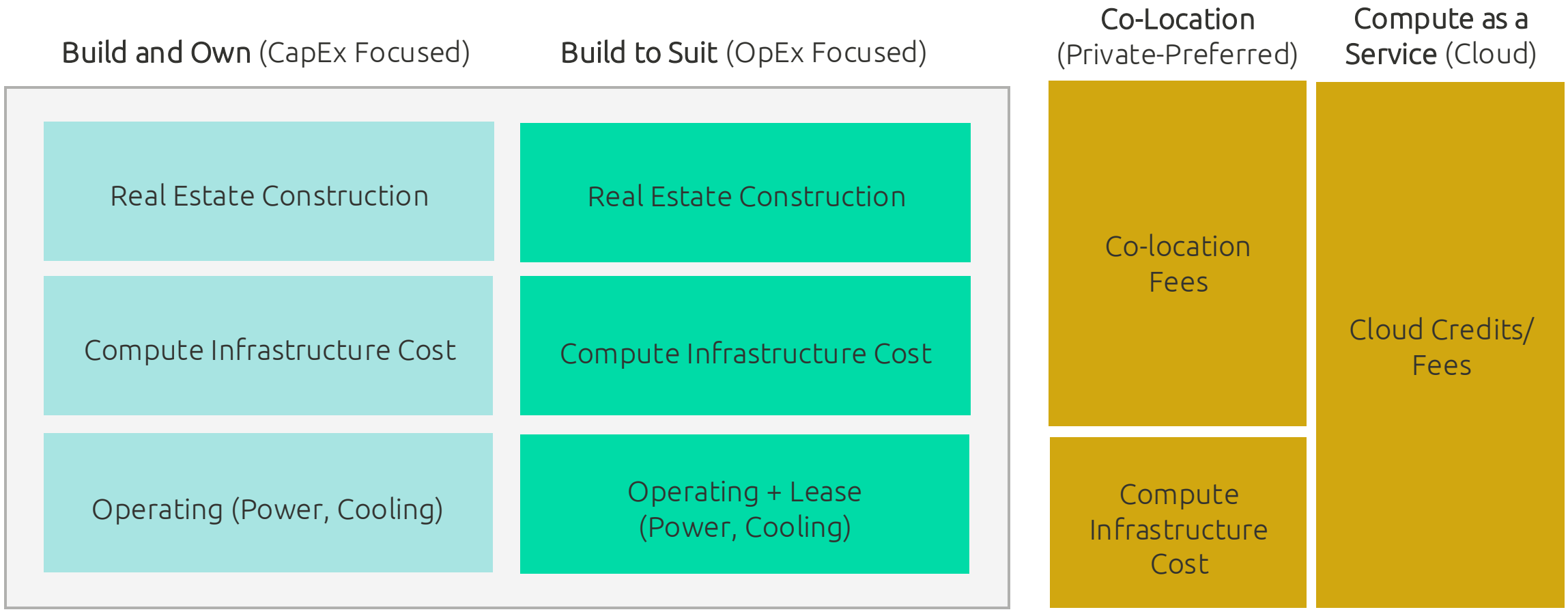
The Triple Constraints – Informing Federal Decision-Making

- Decisions are constrained by time, cost and scale factors
- What is the "right" decision for Canada now and in the long-term?



Dynamics of Public Benefit

The Triple Constraints – Building an Evaluation Model



CHRISTOPHER BOZYK ARCHITECTS

WALES McLELLAND CONSTRUCTION

PowerHouse DATA CENTRE GROUP

Defining the National Interest

1

2

3

4

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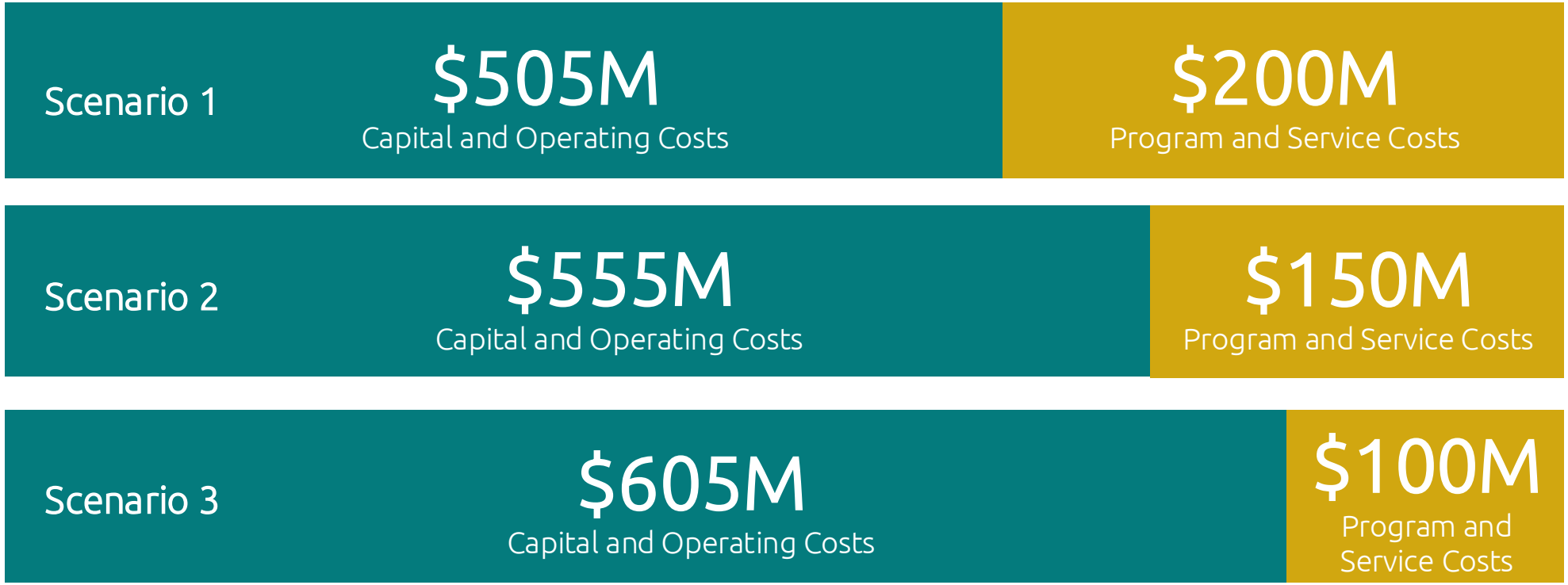
1. **NCI Australia:** NFP; University Collaboration Model
2. **FINLAND CSC:** NFP Owned and Operated
3. **Lawrence Livermore National Laboratory:** Government Owned and Operated
4. **Other Models**

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

The $705M Budget Scenarios

- Funding envelope is insufficient
- Ensure SOI meets federal policy objectives
- Maximizing funding for value-added services, not just compute hardware and infrastructure costs



Our Recommendations

1. Canada requires a comprehensive and consolidated investment in AI Compute.

2. Infrastructure and critical wrap-around services must be managed by a national public entity.

3. Alliance-developed evaluation framework proposed to assess SOIs.

Next Steps


February 2025
Sovereign AI Compute Infrastructure Program Announced
March 2025
Alliance-Led National Consultation — Phase 1
May 2025
Alliance Statement of Intent Submitted
May 2025 (& beyond)
National Conversations on Sovereign AI Compute
TBD
ISED Review Process (Expert Panel Anticipated)
TBD
Government of Canada Call for Proposals (Anticipated)
TBD
Alliance-Led National Consultation — Phase 2 (Anticipated)

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