

Digital Research Alliance of Canada

2025–2026 Corporate Plan

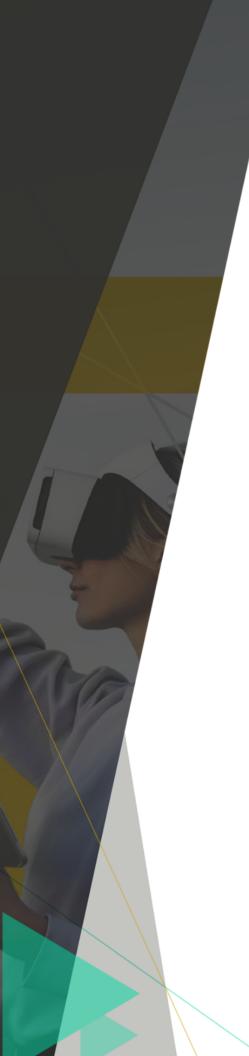






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Our vision

To catalyze world-class Canadian research for the benefit of all.

Our mission

As a trusted and inclusive partner, the Digital Research Alliance of Canada fosters national and global collaboration to provide researcher-centric, sustainable, and integrated digital research infrastructure.

Our values

HEARTFELT HUMILITY

We cultivate safe spaces through mutual recognition and respect.

FEARLESS ENGAGEMENT

We seek out new perspectives and celebrate alternate viewpoints.

UNWAVERING HONESTY

We act with integrity.

STEADFAST ACCOUNTABILITY

We honour our commitments and outcomes.

AUTHENTIC COLLABORATION

We build dynamic relationships.

Guiding principles

RESEARCHER-CENTRIC

STRIVING FOR EXCELLENCE

COLLABORATIVE

SERVICE-ORIENTED

ACCOUNTABLE AND TRANSPARENT

DIVERSE AND INCLUSIVE

Executive summary

About the Alliance

The Digital Research Alliance of Canada (the Alliance) champions the nation's digital research infrastructure (DRI) by supporting the management, storage, and use of national research computing, data, and research software.

As a non-profit organization, funded by the Government of Canada, the Alliance improves data access, collaborates with DRI partners, supports the DRI workforce, integrates services, and enhances security for Canada's research community.

DRI is a critical national asset, and the Alliance leverages its capacities to support cutting-edge research and innovation across all disciplines — propelling Canadian research forward now and into the future.

Key activities

Fiscal year 2024–2025

The Alliance's focus during this current fiscal year has been on the advancement of the 2023–2025 DRI investments, as well as preparations for the next DRI investment cycle and 2025–2030 strategic plan.

Current initiatives are aimed at strengthening DRI in Canada and advancing research excellence through:

- Infrastructure upgrades
- Cybersecurity enhancements
- Capacity building
- Ecosystem engagement
- Training and development
- Support for equity, diversity, inclusion and accessibility (EDIA)

Fiscal year 2025-2026

Looking forward to the next fiscal year (2025–2026), our key programs and initiatives are set to include:

 Providing continued operational and strategic support for national advanced research computing (ARC) and research data management (RDM) services and programs.

- Initiating a funding program focused on the development of research software (RS).
- Enhancing cybersecurity across the DRI ecosystem through upgrades, policies, and training.
- Creating a national training program to develop DRI knowledge and skills amongst researchers.
- Developing a partnership strategy focused on national and international collaboration that will benefit Canada's research community.
- Expanding the Canadian Advanced Network for Astronomical Research (ExCANFAR) with the National Research Council (NRC).
- Responding to the Canadian Sovereign AI Compute Strategy near-term investment opportunity, in accordance with program details to be released by Innovation, Science and Economic Development Canada (ISED).

Current activities – fiscal year 2024–2025

At the Alliance we are focused on advancing research excellence, while building a more agile, robust, and secure digital research infrastructure (DRI) ecosystem. The Alliance is taking a holistic approach through ensuring systems, tools, and resources are enhanced, while providing additional supports and services to the DRI community.

Fiscal 2025 will see the completion of much-needed infrastructure and cloud upgrades, more data management services, and a rigorous cybersecurity action plan. The Alliance is also working to enhance our training portal and hiring more experts to expand educational offerings across the DRI community, while ensuring that users across the country have access to the resources and tools needed.

The Alliance is continuing to forge national and international partnerships, while building momentum and knowledge in the dynamic realm of AI.

More details on our activities are as follows:

Advanced research computing (ARC)

Renewed ARC and cloud infrastructure

- A competitive procurement process was completed by the national host sites to renew critical hardware starting in Fall 2024.
- Hardware has been delivered to all hosts sites and has been installed and is undergoing testing and acceptance.
- We are supporting researchers using quantum computers by establishing a national team and a report for funders and partners related to future initiatives and momentum in quantum computing.

Alliance Cloud Connect Pilot (ACCP)

- Coordinated multiple teams across academia, the private sector, and cloud service providers, to develop and launch a single portal for researchers to access on-demand key commercial and community cloud services.
- The operational phase of this pilot will continue into 2025–2026.

National Help Desk

 Developed a process and implementation plan to deliver high-quality support to researchers using the national ARC and cloud infrastructure in collaboration with service delivery partners, in the official language of their choice.

Equity, diversity, inclusion and accessibility (EDIA)

Self-determination and data sovereignty for Indigenous peoples in Canada

- Developed an Indigenous data sovereignty funding call.
- First Nations Information Governance Centre (FNIGC)-led project is in progress.
- Continuing to engage with Inuit and Métis partners to identify suitable projects.

DRI Champions: building diversity in DRI

 The DRI EDIA Champions Pilot Program funded 82 projects led by a diverse set of students and post-doctoral scholars to bring new perspectives to DRI services.

Research data management (RDM)

Stabilization and growth of the DMP Assistant

- Hired two personnel and implemented the first work package.
- Completed single sign-on implementation.
- Developed a plan for a second work package, including platform migration.

Expansion of Lunaris

- Established a user community group to guide the future development of the platform and gather feedback on the user experience (UX).
- Developed a UX design plan to formalize a process for incorporating design best practices in future development.
- Improved the metadata harvesting process, ensuring the schema is welldocumented and all crosswalks are correct and complete.
- Created a specialized disciplinary data harvesting plan and a new repository harvesting plan to guide engagement with a broad range of data sources,

alongside an Indigenous Data Strategic Plan to guide engagement with First Nations, Métis, and Inuit communities.

Controlled Access Management (CAM)

 Completed the Federated Research Data Repository (FRDR) pilot testing and analysis of the results, alongside an approved product roadmap to guide future development planning and activity.

Cybersecurity

Cybersecurity Framework and Long-Term Action Plan (LTAP)

- Implemented an enterprise vulnerability scanning solution across the national host sites.
- Currently developing a risk-register and risk roll-up report.

Training and development

Development of the national DRI training framework

- Redesigned the Alliance training calendar (which is shared with regional partners) with a data-driven approach and partnered with experts to refine existing DRI training services.
- Conducted a feasibility assessment of training policies, needs, and sharing agreements with partners, in addition to specialized training, grounded in community consultation on priorities.
- Extended user support by hiring additional personnel.
- Completed a workforce planning exercise, revised the original plan, and worked with regional partners to identify the roles best suited to meet the needs of the community and align with our strategic vision for Canadian DRI.

Strategic engagements and activities

Ecosystem engagement

- Developed an advisory structure to foster information exchange and inputs on decision-making.
- The establishment of additional committees and tables is on hold pending the outcome of the 2025–2030 mandate renewal activities.

National and international engagement

- Maintaining and expanding partnerships with key jurisdictions (Australia, United Kingdom, European Union), as well as key international scientific projects like the Square Kilometer Array, to enhance Canada's DRI ecosystem.
- Collaborating with CANARIE to plan activities for the DRI ecosystem to ensure alignment on key portfolios, such as cybersecurity.
- Working to coordinate efforts with federal funding agencies—Canada Foundation for Innovation (CFI), Canadian Institutes of Health Research (CIHR), Natural Sciences and Engineering Research Council (NSERC), Social Sciences and Humanities Research Council (SSHRC), Genome Canada, and others, to continue to provide support to programs of national interest, such as the Pan-Canadian Al Compute Environment (PAICE) and the Human Genome Library.

Pan-Canadian Artificial Intelligence (AI) Strategy

 Dedicated computing capacity hardware and services, to support the <u>Pan</u> <u>Canadian AI Strategy</u>, is being received, installed, and made available for use by AI researchers at AI institutes across Canada (through the Alliance).

National service management and continuous improvement

 Developed a new service management system and continuous improvement process that supports researchers.

National DRI Service Catalogue

- Compiled an inventory of resources, tools, and services.
- A validation exercise for existing services is being scheduled.
- The Alliance is in the process of creating a service catalogue (to be hosted within the Alliance's website), as well as a service catalogue awareness campaign, set for 2025.

Planned activities – fiscal year 2025–2026

The Alliance's upcoming activities are around a continued focus and forward momentum related to investing in, and improving, our national digital research infrastructure which is essential to equipping Canada's research community with the tools, skills, and resources needed to drive progress and innovation across diverse disciplines.

Advanced research computing (ARC)

National platform and services support

• Continue to lead the ARC technical governance and coordination structure.

Resource allocation programs and support

- Manage the annual resource allocation program and related account information.
- Provide consultation, pre-consultations, and condition letters for funding agencies.

Identity and access management

Central single-sign-on and identity management for ARC services.

Operational cybersecurity support

 Operational support for multi-factor authentication and other cybersecurity initiatives.

Equity, diversity, inclusion and accessibility (EDIA)

Indigenous Data Sovereignty

 Continue to facilitate Indigenous enactment and assertion of data sovereignty, including equitable access to DRI for Indigenous researchers and communities, and build on plans for targeted calls.

Research data management (RDM)

FRDR operations

Continue operational support for the Federated Research Data Repository (FRDR), a national, bilingual platform for sharing and preserving Canadian research data. The FRDR service provides Canadian researchers in any discipline with a robust repository option into which large research datasets can be ingested, curated, processed for preservation, discovered, cited and shared.

Lunaris operations

 Continue operational support for the delivery of Lunaris, a national data discovery service that provides a single point of search for Canada's multidisciplinary research data held in a variety of repositories including those of post-secondary institutions, departments at all levels of government, research organizations, and national repository initiatives.

DMP Assistant operations

 Continue operational support for the delivery of the DMP Assistant, a national tool that supports the development of Data Management Plans (DMPs). This tool is freely available to all researchers and develops a DMP through a series of key data management questions, supported by best-practice guidance and examples.

Coordinating the RDM Network of Experts

 Continue coordination support for the Alliance's RDM Network of Experts, a professional community focused on key RDM functions such as curation, metadata and discovery, training, repositories, ethics, preservation, metrics and analytics, and Data Management Plans (DMPs).

National PID Program Operations

Continue operational support and funding for the delivery of the National Persistent Identifiers (PIDs) program. This includes operations support for the DataCite Canada and ORCID-CA consortia, community and user engagement on PIDs, development and implementation of a national PID strategy, and coordination of the Canadian Persistent Identifier Advisory Committee.

Borealis operations

Continue operational support and funding for Borealis, a bilingual, multidisciplinary, secure, Canadian research data repository, supported by academic libraries and research institutions across Canada. Borealis is a shared service provided in partnership with Canadian regional academic library consortia, institutions, research organizations, and the Digital Research Alliance of Canada, with technical infrastructure hosted by Scholars Portal and the University of Toronto Libraries.

Advancing support for sensitive research data

 Continue to advance support for the controlled access management of sensitive or restricted research data using the roadmap developed by the 29 partner organizations in the first phase of the Controlled Access Management for Research Data (CAM) initiative, and through projects undertaken in collaboration with partner organizations on specific aspects of controlled access management.

RDM training

 Continue support for the development and delivery of national RDM training initiatives, including the operationalization of the 2024/25 RDM Spring Training Bootcamp pilot.

National RDM leadership and continuous improvement

 Act as a leader in advancing RDM nationally across a variety of key areas, including data repositories, metadata and discovery, standards and policy, sensitive or restricted data, data stewardship and preservation, and training.
Continue to implement continuous operational improvement practices across all national RDM services and programs.

Research software (RS)

RS development program

 Initiate a funding program to support development and/or maintenance of RS that meets research needs on a national scale.

Cybersecurity

Security operations

 Ongoing monitoring, detection and response to cybersecurity threats in real time to protect the Alliance's digital infrastructure.

Policy framework

 Create a set of guidelines and policies that define how the Alliance and its partners protect their digital assets, manage risks and ensure compliance with cybersecurity standards. This framework will provide clear protocols for handling threats, safeguarding data, and maintaining a secure environment across all Alliance members.

Cybersecurity training and awareness

 Educate Alliance members and partners about cybersecurity risks and best practices through regular training sessions and awareness programs, helping to build a security-conscious culture across the Alliance.

Training and development

National training program

- Establish a comprehensive, centralized platform to facilitate access to training resources and materials across the country.
- Design and implement a standardized curriculum tailored to meet the diverse needs of our stakeholders, ensuring consistency and quality in training delivery.
- Introduce a credentialing system to recognize and certify the skills and knowledge acquired through the program, enhancing the credibility and professional development of participants.

Strategic engagements and activities

Canadian Advanced Network for Astronomical Research

 Expand ExCANFAR, facilitated by a \$34.7M contribution agreement with the NRC for 2023–2031. This agreement supports Canada's Square Kilometer Array (SKA) regional centre (SRC) by providing dedicated storage, computing capacity, and related services through an infrastructure as a service (IaaS) model.

Partnerships

Develop a partnership strategy for national and international collaboration that focuses on delivering value to Canada's research community. Focus will be on Australia, United Kingdom, the European Union, and key international scientific projects like the SKA.

Expansion of national AI infrastructure

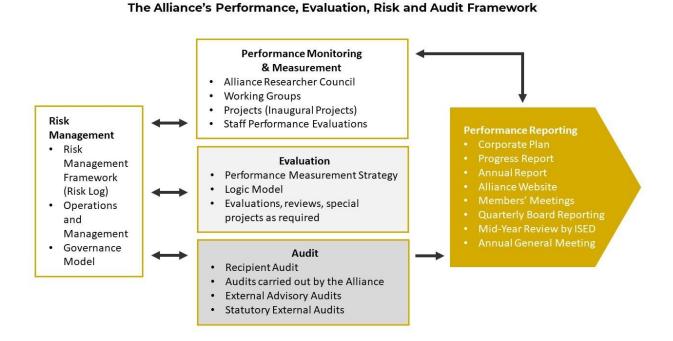
- Deploy AI-specific infrastructure (GPUs-graphics processing units) and distributed storage to meet Canada's immediate needs in AI and dataintensive research.
- Focus on rapid procurement and deployment of hardware to address growing demand for GPU cycles.
- Ensure Canadian researchers have access to advanced resources required for globally competitive research.

National data platform

- Begin developing the national data platform to enhance the value and return on investment of publicly funded research data and software.
- Create a seamless and open environment for sharing, accessing, and reusing research data.
- Utilize a grid of storage nodes distributed across the country to enable secure and efficient data management.
- Address key challenges, such as data transfer security, cost optimization, and operational efficiencies.
- Foster collaboration across the research community to ensure long-term impact and sustainability.

Performance monitoring, risk and mitigation strategies

The Alliance uses a performance, evaluation, risk and audit framework (PERAF) for monitoring activities, assessing performance, and managing risks at both the senior management and Board of Director levels.



Risk assessment and mitigation strategies

Our management team regularly assesses, and documents, identified risks in a risk register whenever there is a material change.

At the Board of Directors level, the Audit, Finance, Risk, and Investment Committee ensures that financial risk assessments are conducted regularly. The Human Resources Committee reviews HR-related risks, while the Governance and Nominating Committee oversees governance risks. Each committee reports its findings to the Board. As the Board is responsible for overall risk management, including security and reputational risks, it reviews the risk assessment reports and the risk register during its regular quarterly meetings.

The Alliance's management team, in collaboration with the committees of the Board and the DRI community, has identified the following potential risks for the current and upcoming years:

Community buy-in and mobilization

Risk

Implementation of our vision requires numerous parallel activities, many of which will call for participation from the DRI community. Some resources will be solicited repeatedly, potentially straining community capacity.

Mitigation

- Whenever possible, existing forums will be utilized to optimize community participation.
- We have integrated multiple layers of consultative mechanisms into the organization through various channels, including the Researcher Council and working groups. This multi-dimensional approach will help reduce or avoid consultation fatigue within the community, while securing the necessary input to achieve our goals.
- We will make concerted efforts to use our members' and stakeholders' time efficiently. For instance, working groups will be consolidated to reduce duplicate or overlapping work and meetings.
- We will continue our efforts to communicate on a regular basis.

Stakeholder engagement

Risk

Not reaching all stakeholders despite efforts to identify and involve partners across the DRI ecosystem in planning and operations.

Mitigation

The Alliance has, and continues to develop and augment, a fulsome stakeholder engagement strategy.

Inclusivity

Risk

Well-established research communities may unintentionally overshadow groups that have not been well represented in this arena.

Mitigation

The Alliance has undertaken specific, targeted EDIA activities within our governance, organizational and advisory functions, and will continue to explore ways to build capacity and support engagement with under-represented groups.

Security – confidentiality

Risk

Unauthorized access or illegitimate disclosure of personal information in the Alliance's custody and/or ransomware or hacking incidents at the National Data Centres.

Mitigation

- Personal information is restricted to human resources and finance/payroll staff.
- We will actively monitor and secure access to data and files. We will also ensure data centres are applying cybersecurity best practices.

Security and integrity

Risks

- Alteration or loss of personal information in the Alliance's custody.
- Recent advisories from the Communications Security Establishment Canada (CSE) and the Canadian Centre for Cybersecurity have identified elevated levels of risk, with a substantial threat of sophisticated, targeted attacks, including those sponsored by state actors.

Mitigation

- Access to sensitive information is restricted, and data is backed up as needed.
- A partnership with CANARIE is in place through a jointly branded task force and initiative. This partnership evaluates the level of risk to intellectual property and research infrastructure and determines appropriate responses based on assessed risks, in line with advisories from the CSE and the Canadian Centre for Cybersecurity.

Infrastructure

Risk

Loss or damage of office equipment along with the inability to synchronize maintenance and upgrade schedules for equipment at National Data Centres, resulting in downtime at host sites.

Mitigation

- We will ensure office systems are housed in secure office spaces. Desktop and laptop systems can be easily replaced, and backup file storage is maintained via the cloud.
- Host sites must plan for costs associated with equipment maintenance including emergency maintenance.

Finance

Risk

Adverse financial audit opinion or reviews.

Mitigation

- We will actively engage with our auditors and perform a comprehensive review of the annual audit plan with the Board's Audit, Finance, Risk, and Investment Committee.
- We will implement access control measures and a robust set of internal controls with regular monitoring.

Human Resources

Risk

Challenges in recruiting qualified personnel and/or an inability to offer competitive compensation structures to attract and retain personnel.

Mitigation

We will conduct ongoing market studies of our compensation offerings, including salary scales and benefits programs, and offer fair and competitive compensation and benefits packages.

Reputation

Risk

Not meeting expectations or needs of stakeholders, the research community, or contribution agreement deliverables.

Mitigation

- We will ensure transparency with stakeholders and follow through on commitments by maintaining regular and effective communications.
- We will actively engage with the Researcher Council to receive and share progress.
- We will allocate resources to projects during budget development and embrace good project management practices.

Governance and collaboration

Risk

Failing to provide good governance, challenges in developing a value proposition for primary and associate members, and/or the loss of organizational history when Board Director terms are completed.

Mitigation

- Adoption of best practices related to governance standards, including corporate by-laws and policies, a skills matrix, self-assessment, diversity, and Board sub-committees.
- The Alliance is working with the Board's Member and Stakeholder Committee to define our value proposition.
- Staggered board terms help mitigate organizational knowledge loss.

Funding

Risk

Lack of materialization of the contribution agreement, matched funds from provinces and other sources, and/or a potential rejection of the National Service Delivery and Funding Model, as well as the strategic plan.

Mitigation

 ISED and the Alliance are engaged in on-going conversations with provincial ministries and regional organizations to assess the likelihood of securing provincial matching funds.

- Extensive engagement, involvement, and community consultation activities are planned to identify and address issues and concerns early, and in a timely manner.
- The Alliance will: provide required reporting to ISED, ensure that ISED is informed of matters as they arise, and promptly respond to any requests for information.

Financial plan – revenue, expenses and leveraged funding

The Alliance is funded through contribution agreements with the Government of Canada through ISED, membership fees, and interest income.

The expenses of the Alliance can be broken out into three categories:

- Program expenses: the Alliance enters into agreements with Canadian institutions to fund defined activities that enable DRI service delivery to Canadian researchers.
- **National service expenses:** the Alliance coordinates and delivers DRI services to Canadian researchers, using its own staff and resources.
- Management and administration expenses: management, administrative, and communication activities that support the other previous two categories.

Through its programs, the Alliance requires the ultimate recipients to raise funding from other sources, including provincial government, institutions, corporations, and not-for-profits. These additional funds leverage the contribution from the federal government into a greater investment in the DRI ecosystem. The Alliance enters into agreements with the ultimate recipients only once leveraged funding has been secured and confirmed.

The Alliance plans to allocate the funding received from the 2025–2030 DRI operations contribution agreement as follows:

- \$34.0M for programs expenses
- \$11.5M for national services expenses
- \$6.5M for management and administration expenses

Additionally, with funding from the 2025–2030 AI Compute Access contribution agreement, the Alliance will incur \$71M in AI-specific expenses.

There will also be continued expenses of \$15.4M under the DRI Infrastructure, PAICE, and ExCANFAR contribution agreements.

All planned expenses are eligible costs per the respective contribution agreements.

The table below provides a breakdown of the planned revenue, expenses, and leveraged funding from other sources.

Annual cash flow requirements

| [in \$K] | 2025-2026 [BUDGET] | | |
|----------------------------------|-----------------------|-----------------|---------------|
| | Alliance | Leverage | Total |
| REVENUE | | | |
| Government Funding | 138,448 | | 138,44 |
| Leveraged Funding | | 30,809 | 30,80 |
| Membership Fees | 625 | | 62 |
| Interest Revenue | 195 | | 19 |
| Other Revenue | - // | | - |
| REVENUE - TOTAL | 139,268 | 30,809 | 170,07 |
| EXPENSES | | | |
| LEVERAGED | | | |
| Programs | | | |
| DRI – Operations | | | |
| Advanced Research Computing | 16,797 | 11,248 | 28,04 |
| Research Support | 9,918 | 6,487 | 16,40 |
| Research Data Management | 4,035 | 913 | 4,9 |
| Cybersecurity | 2,250 | 2,250 | 4,5 |
| Research Software | 1,000 34,000 | 1,000 21,898 | 2,00 55,89 |
| DRI – Infrastructure (2023-2025) | | | |
| Advanced Research Computing | 3,037 | 3,037 | 6,07 |
| | 3,037 | 3,037 | 6,0 |
| PAICE | 8,811 | 5,874 | 14,68 |
| ExCANFAR | 3,600 | - | 3,6 |
| SUBTOTAL | 49,448 | 30,809 | 80,2 |
| NON-LEVERAGED | | | |
| Alliance Operations | | | |
| Al Compute Access | 71,000 | | 71,00 |
| DRI – Operations | | | |
| National Services | 11,500 | | 11,50 |
| Management and Administration | 6,500 18,000 | | 6,50 18,0 |
| SUBTOTAL | 89,000 | - | 89,0 |
| EXPENSES - TOTAL | 138,448 | 30,809 | 169,2 |
| | 100,140 | 00,000 | 100,20 |
| EXCESS / (DEFICIT) | 820 | - | 8: |

The Government of Canada is making an investment of \$260M through the DRI program to sustain the Alliance's operations from 2025 to 2030, alongside an additional \$85M through the AI Compute Access program for the same period.

This funding commitment underscores the government's dedication to empowering Canada's research community, ensuring they have the infrastructure and services required to drive innovation.

For fiscal year 2025–2026, the cash flow requirements are:

- \$52M DRI operations
- \$71M Al compute access

In addition, there are cash flow requirements under previously existing contribution agreements, namely:

- \$8.8M PAICE
- \$3.6M ExCANFAR