



DIGITAL
TECHNOLOGY
SUPERCLUSTER

PROGRAM GUIDE

Technology Leadership Program
Cycle 4

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General Overview

Canada's Digital Technology Supercluster ("the Supercluster") will position Canada as a global leader in digital innovation by unlocking the potential of data to transform our economies and securing economic success and social wellbeing for Canadians. We invest in ambitious projects that propose solutions that have the potential to transform industries and propel the economic growth of Canada.

Our investments are aimed at creating digital solutions that can be extended across multiple industries including natural resources, healthcare and industrial sectors. This will create products, processes, platforms and companies that will drive new commercial opportunities and provide access to untapped markets. We support industry-driven research and the development of digital innovations that will support the transformation of our industries and drive us to global leadership. The Supercluster delivers the Technology Leadership Programs to enable the projects that will lead to the adoption and creation of such innovations.

Our investment in technology development will also integrate the development of a diverse and skilled workforce to support the scaling of small and medium enterprises and a robust innovation ecosystem. We support projects and opportunities that will support our mandate to build capacity in the digital technology ecosystem, increase the breadth and diversity of talent in the sector and expand Canada's capacity to be a global leader in digital technology development, adoption and deployment.

Cycle 4 Areas of Interest

We are seeking big, ambitious projects that align with the Supercluster's overall strategic plan, with an emphasis on those that will have a significant impact in the following areas:



Keeping
Canadians
Safe & Healthy



Addressing Climate
Change &
Protecting the
Environment



Accelerating
Digital
Transformation

Keeping Canadians Safe and Healthy

Technology solutions that support a resilient healthcare system, enabling Canadians to manage their own health and wellness. Examples include, but are not limited to:

- changing the way mental health services are created, supported, connected and accessed
- improving the quality of care for seniors and other vulnerable populations
- ensuring exceptional and safe care at home
- integrating personalized intelligent diagnostics and treatments into clinical pathways
- accelerating the integration and adoption of virtual care to improve access to health services
- ensuring Canadians have secure access to their health data

Addressing Climate Change & Protecting the Environment

Technology solutions that help us protect our planet, enabling us to best manage our natural resources, ensure food security and reduce emissions. Examples include, but are not limited to:

- improving the management of natural resources, conservation of wildlife and protection of threatened habitats
- reducing waste and creating a healthier food ecosystem
- improving environmental quality and ensuring clean air and water
- predicting, mitigating and responding to weather events and natural disasters
- reducing, reusing and recycling carbon

Accelerating Digital Transformation

Technology solutions that support the digitization of industries to enable growth and profitability while advancing the mission of Canada's Digital Charter. Examples include, but are not limited to:

- accelerating speed to market (e.g. IoT enablement)
- boosting efficiencies by digitizing business processes and improving customer experience (e.g. intelligent service agents)

- ensuring cybersecure operations and infrastructure
- collaborating effectively with a distributed and remote workforce

Eligible Projects

Project Eligibility

Who is eligible to apply?

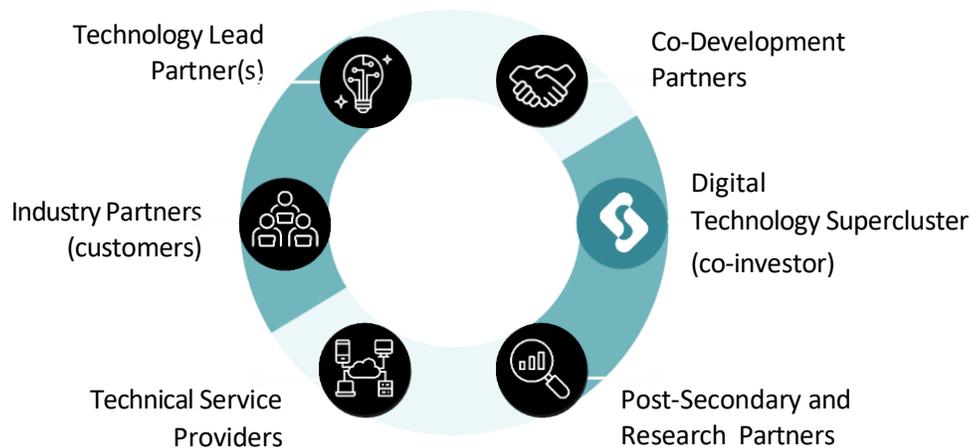
Projects must be industry-led. The lead applicant for a project must be from the private sector with operations in Canada. At the Expression of Interest (EOI) stage, all applicants must be either a Member or an Associate of the Supercluster. At the Full Project Proposal (FPP) Stage, all participating organizations anticipating funding from the Supercluster must be full Members.

There must be a minimum of three organizations participating in a project consortium (not including the Supercluster), each contributing in a meaningful way.

- At least one of the consortium partners must be a small or medium sized (SME) enterprise
- At least one must be a post-secondary institution (PSI)
- All projects are expected to feature diverse, inclusive teams with meaningful participation of women, Indigenous Peoples and/or other under-represented groups.

Ideal Consortium

The ideal project consortium is led by a technology product company and includes other co-development partners or technology service providers, at least one customer/technology adopter and one or more post-secondary institutes. All projects must have experienced and capable project management.



What is an eligible project?

Projects must be incremental to the regular business undertakings of any of the individual participating organizations.

What are eligible costs?

- The Supercluster co-invests up to 43% of total eligible project costs for eligible Members participating in a project.
- Refer to the [Co-investment Guidelines](#) found on the website for information on organizations eligible to receive funds from the Supercluster, eligible costs and the Supercluster approach to co-investment

Application

Each organization participating in the project consortium agree that, by submitting an application they will:

- Comply with the IP and Data Guidelines in Appendix B and adhere to Canada's Digital Supercluster's [Intellectual Property \(IP\) Strategy](#) and [Data Strategy](#), which can be found on the Member Resource Portal.
- Agree to allow the Supercluster to disclose the list of project participants, the total project investment and the amount of funding being sought from the Supercluster and full or partial contents of the Executive Summary of the EOI and FPP.
- Adhere to the Supercluster Charter of Values, including the Diversity & Inclusion principles outlined in the Membership and/or Participation Agreement.

Submission deadlines

Cycle 4 submissions will be accepted on a continuous-intake basis. You can register your interest to submit an application on our [website](#).

Application Process

Once you have read the Program Guide, the Co-Investment Guidelines and registered your interest via our [website](#), teams may enter a two-step application process.

1. Expression of Interest

The lead organization will be invited to submit an Expression of Interest (EOI) on behalf of the project consortium which will be reviewed and evaluated by the Supercluster. At this step, the project consortium may be asked to present and/or provide additional information to a review panel. Following review, successful teams will be invited to the next stage. View a sample EOI [here](#).

2. Full Project Proposal

The project consortium will submit a Full Project Proposal (FPP) which includes a project budget. At this stage, the project consortium may be invited to present and/or provide additional information to a review panel. Following review, the lead organization will receive a notice of decision. Successful teams will proceed

to contracting to formalize a Master Project Agreement (MPA). The MPA template can be found on the Member Resource Portal. View a sample FPP [here](#).

Reference Documents

All reference documents can be found on our Member Resource Portal.

1. [Co-Investment Guidelines](#). Refer to this guide for a description of the Supercluster co-investment model, eligibility of organizations to receive funds from the Supercluster, and eligible and ineligible costs.
2. [Evaluation Criteria](#). Evaluation Criteria for all programs can be found in Appendix A.
3. [Master Project Agreement \(MPA\) Template](#). This template provides the standard terms for a project agreement among the consortium partners and uses the content of the FPP for the Schedules to the Agreement.
4. [Intellectual Property Strategy](#). This document outlines the Supercluster's intellectual property strategy. A detailed rationale pertaining to IP and any materials that may require copyrights, trademarks, or patents is required in the FPP.
5. [Data Strategy](#). This document describes the Supercluster's strategy and approach to data governance, security and management which must be adhered to by the project consortium.
6. [Supercluster Strategic Plan](#). This document outlines the Digital Technology Supercluster Strategic Plan for 2018-2023.
7. [Non-Disclosure Agreement Template](#). This template is available for project consortiums who wish to have a non-disclosure agreement in place during the application phase.

Tips for a Successful Application



- ✓ Assemble a strong consortium
- ✓ Layout clear accountabilities and decision-making processes
- ✓ Define measurable and ambitious innovation and R&D outcomes
- ✓ Craft a coherent plan for IP generation and data management
- ✓ Develop a strong go-to-market plan and clear return on investment
- ✓ Make an impact in the ecosystem through contributions to workforce development, SME growth, academic research
- ✓ Embrace diversity and inclusion

Evaluation

Review Process

The Supercluster's evaluation and selection of projects is a competitive process. Proposals will be assessed against the Evaluation Criteria outlined in Appendix A.

The EOI stage is intended to assess project fit and eligibility, the potential for success, and the consortium's readiness to develop a Full Project Proposal (FPP). The EOI will be evaluated against a subset of the full Evaluation Criteria that is aligned with the information provided at this stage.

FPPs will be reviewed and evaluated against all Evaluation Criteria by a panel of independent, external reviewers and select members of the Supercluster team. Final investment decisions will be made by the Supercluster.

The Supercluster reserves the right to modify the review and evaluation process with advice from its Board of Directors and the Government of Canada as needed.

Notification of Decision

EOI Stage

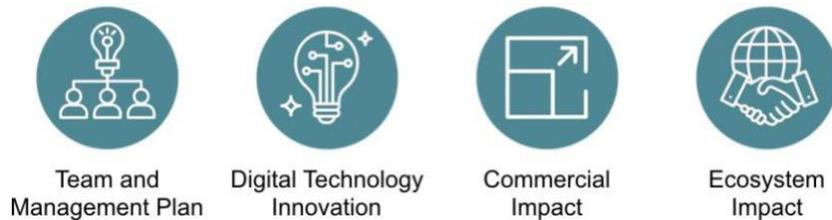
The lead organization for each application will receive a notification of decision letter following EOI review. If successful, project consortia will be invited to proceed to the FPP stage. Feedback will be provided to all applicants.

FPP Stage

The lead organization for each proposal will receive a notification of decision letter following FPP review. Feedback will be provided to all applicants.

Appendix A: Evaluation Criteria, Technology Leadership

The following four evaluation criteria categories will be used to assess all Technology Leadership applications throughout the project evaluation and selection process. The relative weighting of each evaluation criteria category is included in the headers below.



Team and Project Management Plan (25%)

Quality of the consortium

- Does the composition of the consortium (SME, academia, customer, multi-national enterprise, etc.) represent a holistic approach to collaboration?
- Does the consortium include a customer/consumer of the project's output?
- Does each consortium participant have an appropriate level of engagement (role, investment, etc.) in the project?
- As a consortium, do the participants possess the necessary and complementary IP and capabilities to meet the project objectives and results?
- Individually, do consortium participants have the necessary expertise and existing (background) IP to carry out their tasks?
- Have all of the consortium participants clearly articulated commercial and/or scientific/engineering/artistic interest in achieving the results?

Added value through collaboration

- Does the project benefit from being done collaboratively, or better yet, is collaboration required?
- Is there material involvement from post-secondary institutions that will strengthen industry-driven research and/or talent generation?
- Does the project demonstrate clear sharing of risks, costs, know-how, and benefits?
- Will the collaboration result in outputs greater than what could be achieved by any individual participant?
- Do all consortium participants stand to gain commercially, scientifically or academically from the project results?
- Does one participant stand to benefit disproportionately from the project results?

Realistic and clearly defined project management plan

- Does the project plan include a realistic timeline in relation to the tasks and objectives?
- Are key issues, project objectives and outputs fully identified and formulated?

- Are the goals clearly identified and logically set out through well-described work packages?
- Are the milestones and deliverables clearly identified? Do they allow for monitoring of progress, implementation, including go/no-go decisions?
- Are the roles and responsibilities of each consortium participant clearly described and differentiated in the work plan? Is the planned use of subcontractors clearly identified?
- Has a strong and experienced project manager been identified?
- Is the project management structure well described? Is there an appropriate and capable structure for implementing the project (e.g. decision making, tracking, dispute resolution, ensuring progress, reporting, etc.)?
- Does the project define how it will deal with technical uncertainty?

Reasonable cost structure

- Is the cost breakdown well-structured and does it correspond to the deliverables and work to be performed by each participant?
- Are the costs reasonably distributed between consortium members and do they reflect the role of each of the participants?
- Are the project costs clearly justified?
- Are subcontracting costs appropriately justified?

Digital Technology Innovation (30%)

Degree of innovation

- Are the project deliverables technologically innovative or a significant improvement on existing solutions?
- Will the project deliver new products, processes or services to the intended customer(s) or end-user(s) with clear added value?
- Is the resulting technology product an advance on commercial state-of-the-art?
- Are the technologies to be used completely novel or considered state-of-the-art?
- Has the project team done the prior state-of-the-art and competitive technology research?

New applied knowledge

- Will the project result in the creation of new knowledge that does not currently exist in the defined sector?
- Will the project resolve an issue of technical uncertainty, resulting in new knowledge?
- Will the new knowledge bring the consortium participants to the forefront of their respective domains?
- Does the project clearly describe what foreground IP will be created?
- Will the project capture new data or create new relationships between (previously unrelated) data?

Level of technical challenge

- Does the project involve a high degree of technical challenge?
- Does the project clearly state the area of technical uncertainty to be addressed?
- Does the project depend on technology which is still immature?
- Does achieving the project results require a significant level of specialized knowledge or domain expertise?
- Is the level of technical challenge such that the project results could not easily be replicated by others?

Technical achievability and risk

- Is the proposed approach technically sound?
- Is the consortium making use of appropriate technologies to achieve the stated objectives?
- Is the proposal making use of established standards?
- Are the proposed technical developments achievable within the defined budget and timeframe?
- Is the research method described appropriate for achieving the technical developments (e.g. it includes a program of design, test, analysis, decision and iteration if appropriate)?
- Are the associated technical risks clearly outlined and has an appropriate approach to risk mitigation been outlined?
- Does the project incorporate go/no-go decision points for appropriate outcomes and at regular intervals?

Commercial Impact (30%)

Market size

- Has the project clearly identified the stakeholder(s) for whom value is created?
- Is this value well defined and realistic? Is it clear who will be prepared to pay for the product or platform?
- Is there a profitable market for the product or platform?
- Has the project proposal quantified the market size, growth prospects and expected market share of the product or platform?
- Has the consortium demonstrated the strong foundation for sustainable competitiveness?
- Is there a scalability opportunity beyond the targeted market?

Market access and risk

- Have any of the consortium members deployed background IP in the targeted market?
- Are the consortium participants qualified to compete in the targeted market?

- Do any of the consortium members have commercial relationships with the targeted stakeholders/customers?
- Has the proposal identified realistic barriers to entry (e.g. regulations, standards and certification, competition, etc.)?
- Is the project delivering an end-to-end solution to the market or a component of a supply chain that has external dependencies?
- Has the proposal identified other mechanisms to reduce the time/costs of going to market (e.g. leverage reference customers, market adoption/roll-out strategies, etc.)?

Competitive advantage

- Is the product or platform clearly differentiated from the competition?
- Will the product have a significant price or quality advantage over competing products?
- Does the proposal introduce a new business model?
- Are there network effects possible with the proposed product or platform?
- Will the consortium participants be in a position to generate strong IP to protect the project deliverables?
- Will the project result in a time-to-market advantage over competition?
- Has the consortium carefully analysed relevant, existing IP and assessed how it might affect their approach to market rollout?

Clear and realistic commercialization plans

- Has the consortium clarified the commercial relationships between members?
- Has the consortium clearly outlined the business plans for commercializing the product or platform?
- Has the division or sharing of project outputs been defined with a view to commercialization?
- Is there a clear specification of what foreground IP will be created and which member will own which part?
- Do the commercialization plans include the proposed pricing approach and realistic and credible projections for revenue, investment required, and anticipated costs associated with launching a new product or platform?
- Do the participants have a proven track record of commercializing similar digital technologies?
- Does the adoption of the newly developed technology require new regulations, incentives or policies to be developed?

Ecosystem Impact (15%)

SME growth through access to supply chains

- Does the proposal set a credible expectation of SME growth for those directly involved in the project?
- Is there clear potential to benefit additional SMEs (outside of the project consortium) through future access to the project's foreground IP?

- Could the project result in the creation of a platform or a network that SMEs (outside of the project consortium) could participate in, or build new products on top of?
- Does the project have the potential to create a network effect beyond the results within the project?
- Will the project results give opportunities for the creation of new start-ups?

Application of foreground IP

- Does the consortium's approach to IP to be generated by the project (foreground IP) demonstrate a commitment to sharing or licensing amongst the consortium members and other organizations within the Supercluster community?
- Does the project proposal demonstrate a substantial potential for future, post-project incremental work, where the foreground IP could be, for instance, taken to new regions or applied to different industries?
- Do the consortium members describe a willingness to allow for the use of the foreground IP in such non-primary or non-competitive areas?
- Is the foreground IP exportable outside of Canada?

Job creation, skills and diversity development

- Does the project proposal describe how it will create a legacy in terms of a highly skilled talent pool?
- Does the project identify new skills and training development opportunities?
- Does the project address important capacity gaps?
- Will the project create jobs and digital opportunities for minorities, women and other underrepresented groups?
- Will the project lead to creating jobs and opportunities in indigenous and remote geographic regions?
- Does the project create the conditions for attracting talent from abroad?

Development of industry-informed academic research, learning and training

- Have the consortium members expressed if, and to what extent, they plan to present aspects of the project work to the broader academic community (through workshops, conferences, guest lectures, integration into curriculum, etc.)?
- Does the project direction stimulate potential future collaborative research and learning projects for post-secondary institutions?
- Will the project have a material effect on the stimulating new research or learning directions?

Benefits to the ecosystem

- Has the consortium articulated how the proposed digital technology will have positive impacts (social, environmental, commercial) on various stakeholder groups outside of the immediate consortium participants?

- Does the project have relation to another supercluster project (e.g. a continuation of a previous technology project or supporting a Capacity Building project)?
- Are the effects of the project outcome limited to British Columbia or could they also benefit other provinces or territories?
- Is it likely that the results of the project will attract additional venture capital investment?

Appendix B: IP and Data Guidelines

Intellectual Property

In submitting an application, consortium partners must be prepared to fully comply with the Digital Supercluster’s Intellectual Property Strategy including the following general principles and requirements:

- Describe the expected Intellectual Property which will be created as part of the Project (“Foreground IP”) and any improvements to Intellectual Property existing before the start of the Project (“Background IP”)
- License the Foreground IP, and any Background IP required to make use of the Foreground IP, after the end of the Project to other consortium members and other supercluster members on fair, reasonable, and non-discriminatory (FRAND) terms
- License any Background IP to other members of the Consortium as is required for the purposes of the Project
- List a short description of the Foreground IP along with the terms to license this IP on a registry that is available to other Supercluster Members
- Describe how the Foreground IP will be protected (i.e., patent, copyright) having regard to the following principles related to IP protection in the chart on the following page.

	PATENTS	CONFIDENTIAL INFORMATION / TRADE SECRETS	COPYRIGHT	INDUSTRIAL DESIGNS	TRADEMARKS
ELEMENT COVERED BY PROTECTION	New, useful, and nonobvious products or processes (inventions)	Commercial information, the value of which lies in its secrecy	Literary, artistic, musical, and dramatic works	Aesthetic design features of useful articles; “eye appeal”	Distinctive signs, marks, or symbols associated with products and services
ACQUISITION PROCESS	Registration	Automatic with maintenance of secrecy	Automatic with creation of work	Registration	Automatic with use of mark or through registration
COST	\$\$\$\$	\$	\$	\$\$	\$\$
DURATION OF PROTECTION	20 years	Potentially indefinite	Life of author plus 50 or 70 years, depending on jurisdiction	Usually 10–15 years but could be longer in some countries	Potentially indefinite
SCOPE OF PROTECTION	<ul style="list-style-type: none"> • Protection against third parties making, selling, or using invention without permission • Protection against independent creation 	<ul style="list-style-type: none"> • Protection against use or disclosure without permission • No protection against reverse engineering 	<ul style="list-style-type: none"> • Bundle of rights provided by law including protection against copying whole or substantial part of a copyright work without permission 	<ul style="list-style-type: none"> • Protection against third parties making, selling, or importing for commercial purposes without permission • Protection against independent creation 	<ul style="list-style-type: none"> • Protection primarily against use by a competitor that causes consumer confusion

Data

In submitting an application, consortium partners must be prepared to fully comply with the Digital Supercluster's Data Strategy including the following general principles and requirements:

- Implement appropriate measures to address:
 - *Data Privacy* which requires the adoption of policies, procedures and standards necessary to comply with applicable data privacy regulations.
 - *Data Security* which requires the adoption of policies, procedures and standards focused on protecting restricted, confidential or sensitive data from unauthorized access or loss (e.g. encrypting data, backing it appropriately, taking measures to prevent cyberattacks).
 - *Data Stewardship and Storage* which requires the adoption of policies, procedures and standards around data extraction, standardization, storage and access including ensuring that data is collected for specified, explicit and legally authorized purposes.
 - *Data Exchange* which requires that the adoption of standardized methods to generate insights from data and permits sharing of data between members so as to increase its utility enabling new business opportunities.
- Identify data that will be required for the purposes of the project, the source(s), owner(s), custodian(s) and the consumer(s) along with the terms for using that data.
- Identify what data will be generated through the project and the roles that each consortium partner will play with respect to this data – such as data producer, data owner, data custodian and/or a data consumer.
- Specify how data will be managed after the completion of the project and on what terms that data may be shared with other Supercluster Members.