



CANADA'S DIGITAL
TECHNOLOGY
SUPERCLUSTER

Technology Leadership Program Guide

MARCH 2019

Who is this guide for?

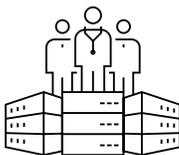
Welcome! This guide is meant for individuals working at Canadian organizations who have joined us, the Canada’s Digital Technology Supercluster (“Supercluster”), as Members. You will likely have a job title resembling “Head of Innovation”, “Director of Research”, “Chief Innovation Officer”, “VP of Partnerships”, “Director of Business Development”, CTO or even CEO. The important commonality, and pre-requisite, is that you have a well-formed idea for an innovation project involving digital technologies that can only be achieved by a consortium of partner organizations. This guide will outline the process to follow to apply for Supercluster co-investment to help fund this project.

If you do not yet have a fully formed idea or any consortium partners, consider visiting the web-based [Supercluster’s Ideation Hub](#) where Members post and discuss ideas, as well as look for partners to form consortia. You might also want to attend one of the Supercluster-organized Ideation Forum events that are held throughout the year. For more information, be sure to register on the Member Resource Portal, a Member-only area of our website. We select projects for co-investment using a competitive process.

What type of projects do we help to fund?

The Supercluster is an innovation organization that provides catalytic co-investment to a selection of Member-led, collaborative technology development projects that fall into a specified set of investment themes. Our aim is to position Canada as a global leader in digital innovation by unlocking the potential of data to create new scalable products and services and secure social well-being for Canadians. Consequently, only ambitious technology projects that propose to develop products and/or platforms that have the potential to transform industries and propel the economic growth of Canada are considered.

We are looking for projects that are aligned with one of the following three digital technology Project Streams:



PRECISION HEALTH

Projects that leverage digital technologies to transform any aspect of healthcare delivery and life sciences.



DIGITAL TWINS

Projects that involve the digital representation of real-world objects or systems and the dynamics of how they function over their life cycle.



DATA COMMONS

Projects that involve the aggregation of diverse sources of data to create collaborative platforms on which to build new products.



We select projects for co-investment using a competitive process. However, to be eligible to be considered, projects must demonstrate the following:

- 1 The lead applicant of the consortium proposing the project must be a Member of the Supercluster from the private sector (i.e., a Member not-for-profit organization or an any Associate Member cannot lead a project, but can of course participate in a project consortium).
- 2 There must be a minimum of three project partners (consortium), of which at least one must be a small or medium sized enterprise and at least one must be a post-secondary institution; each contributing to the project in a meaningful way.
- 3 The initiative must be “incremental” to the regular business undertakings of the participating organizations, in that the project is new, would not be possible without participation of consortium partners or not undertaken at the same scope or scale without the co-investment provided by the Supercluster.
- 4 The project must include a rationale that indicates how the proposed project would create opportunities for Members of the Supercluster, including Members who are not participating in the project, to access the expected new intellectual property (IP) arising from the project (foreground IP).

What do we mean by “co-investment”?

The Supercluster has been funded in part by the Government of Canada, via the Ministry of Innovation, Science, and Economic Development, and by funding commitments made by our initial cohort of Members. We have earmarked the bulk of this funding to be used to co-invest in selected technology projects. The term “co-investment” refers to the fact that project consortia are expected to participate in funding the projects that they are proposing. Selected projects, whose budgets are approved, are eligible to receive up to 75 cents of co-investment by the Supercluster for every eligible dollar invested by the consortium partners. More details on this are available in the “Co-investment Guidelines” document.

We anticipate that our co-investments will range in size from \$0.4M to \$13M, depending on the project; this corresponds to projects having total budgets ranging from \$1M to \$30M spanning all project milestones.

Note: Total available investment funds will vary from one competition cycle to another.

When can I propose a project?

We intend to have two project competition cycles per year. Each competition cycle is announced with a call for projects when the schedule for submission deadlines will also be published.



There are **two discrete phases** to selecting projects. The first is an Expression of Interest (EOI) and is followed by a Full Project Proposal (FPP). The intention is that, throughout the process, project proposals become more precisely defined, and uncertainties/risks become clearer and are resolved or mitigated.



1 *Expression of Interest (EOI)*

Once a competition cycle has been announced. Participants may submit a short EOI document outlining their project concept, consortium partners, a high-level business case and budget estimate. The required template for an EOI is available for download from the Member Resource Portal.

During the period from the call for projects to the published EOI submission deadline, a subset of the Supercluster team will be available to answer questions and help you elaborate a potentially viable EOI. We can also assist in matching you with other Supercluster Members and Associate Members that may have technical expertise or capabilities that might be required to form an effective project consortium. This includes helping to pinpoint relevant roles for post-secondary institutions, such as identifying relevant academic research labs. To ensure the integrity of our process, these assigned individuals from the Supercluster team are not involved in the evaluation and selection of successful EOIs.

After your EOI has been submitted (at any time up to the submission deadline), we perform a completeness check to verify that the proposed project meets all the eligibility criteria. Then, we conduct an evaluation of all submitted EOIs and invite the most promising projects and consortia to deliver a concept pitch presentation. If you are invited to deliver the concept pitch, you will be given 15 minutes to present the project idea and address the topics included in the Expression of Interest document. After the pitch, a 10-minute period will be reserved for questions.

Your proposed project will be evaluated, in particular, on its ambition to extend the state-of-the-art, its potential commercial impact, the strength of the consortium and the positive effects on the business ecosystem.

2 *Full Project Proposal (FPP)*

If your consortium has demonstrated world-class capabilities and presented a project proposal with a high degree of innovation, significant impact potential and practical paths to deliver commercial outcomes, you may be invited to submit a Full Project Proposal. A template for the FPP submission document will be made available for download from the Member Resource Portal.

Please note that every organization that makes up your consortium will undergo a financial viability check at this phase. Our team will reach out to you and coordinate what financial information we require (such as your business registration number, audited financial statements, etc.). As a co-investor in the project, this is a necessary step to provide us with the necessary assurance that the project can be successfully undertaken. This financial due diligence is necessary to ensure that each participant can financially support their stated commitment. Your consortium partners will also be assessed to ensure that their capabilities, existing IP and talent pool are congruent with their potential project role.

Once your FPP document is complete and has been submitted by the FPP submission deadline, we will proceed with a full Expert Review of the project. All projects that reach this stage will be reviewed by our team, as well as by three independent, domain expert reviewers. Rest assured that all reviewers, whether internal or external, are vetted for conflicts of interest and are required to sign a non-disclosure agreement.

All projects will be assessed using the Supercluster's Project Evaluation Criteria (included in the Appendix). The criteria encompass **four categories**:



Team and Management Plan



Digital Technology Innovation



Commercial Impact



Ecosystem Impact

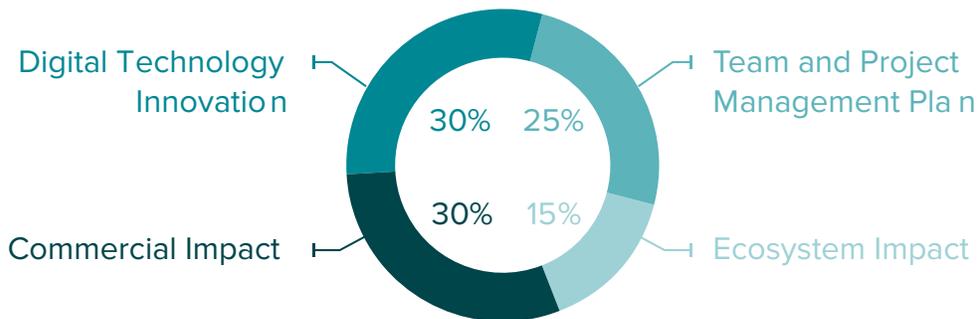
You and your consortium will be invited to attend a 60-minute final presentation session in front of our Project Selection Committee; a committee comprised of members of the Supercluster leadership team as well as selected leaders from the industrial, technology and investment communities. The session will comprise a 30-minute presentation and 30 minutes reserved for questions from the Committee.

What happens after a project is selected?

If your project is included in the final list of projects selected by the Project Selection Committee, and the proposed co-investment budget is ratified by our Board of Directors, we will then begin the contracting phase of your project. This will take the form of a Master Project Agreement (MPA) that will represent the legal framework for the execution of the project amongst your consortium and will include detailed statements of work, budgets, project plans and consortium agreements on IP and the use of data. Once the MPA is signed, work and co-investment intended to reach the first project milestone(s) can begin!

Appendix: Project Evaluation Criteria

The following four evaluation criteria categories will be used to assess projects throughout the project evaluation and selection process.



The relative weighting of each evaluation criteria category is listed in the headers below.

1 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?
- Do all of the consortium participants have clearly articulated commercial and/or scientific/engineering/artistic interest in achieving the results?

Added value through cooperation

- Does the project benefit from being done cooperatively, or better yet, is cooperation 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 for academically from the project results?
- Does one participant stand to benefit disproportionately from the project results?

Realistic and clearly defined project management and planning

- 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 within each work package clearly described and differentiated in the work plan? Is the planned use of subcontractors clearly 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 tasks and activities to be implemented by each participant?
- Are the costs reasonably distributed between consortium members and reflect the role of each of the participants?
- Are the project costs clearly justified?
- Are subcontracting costs appropriately justified?

② **Digital Technology Innovation (30%)**

Degree of innovation

- Are the project deliverables technologically new or a significant improvement on existing solutions?
- Will the project deliver objectively new products, processes or services to the intended customer(s) or end-user(s) with clear added value?
- Is the 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 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 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?



3 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 are scalability opportunity beyond the targeted market?

Market access and risk

- Has 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 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?

4 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 to 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?