

## CALL FOR PROJECTS

# Call For Quantum Technology Innovation Projects: Collaborative Industrial Research And Support For Entrepreneurship

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## PREAMBLE

### Background

The quantum technology sector is currently emerging on a global scale. Quantum computers are expected to be commercialized within the next five to ten years. The advent of quantum computers is often referred to as a “quantum revolution”, as it will bring about significant changes in every sphere of human activity.

The growing interest in groundbreaking quantum phenomena and innovations over the years has attracted investments that have enabled the creation of a rich ecosystem in Quebec-based cryptography, high-performance computing, nanomaterials and quantum photonics research.

In Quebec, several innovation centres are currently mobilizing their expertise to grow the sector in collaboration with industry, research platforms and institutes, universities and startup companies. These centres of expertise, know-how and advanced manufacturing infrastructures represent a true vector of innovation for the development of quantum technologies.

Entrepreneurship is also an important component when developing an industrial base around digital and quantum technology. Small and medium-sized enterprises (SMEs) are a pillar of Quebec’s wealth, particularly in terms of employment and economic contribution. Young companies with high growth potential (startups) house their own entrepreneurial culture, based among other things on flexibility, creativity, the development of breakthrough technologies, dynamic business models, innovation and openness to the world.

Quantum technologies have far-reaching potential and are often the source of innovations that help to address global challenges while altering lifestyles, work and entertainment. The development of these technologies is therefore essential when evolving and strengthening Quebec’s economy for its competitive positioning.

### Objectives of the Call For Projects

The objectives of the call are as follows:

- To ensure the development and consolidation of innovation efforts in the field of quantum technologies;
- To strengthen companies’ technological innovation capacity while translating the transfer and development of technology into economic benefits;
- To help strengthen Quebec’s position as a leader in quantum technology development.

## GENERAL INFORMATION

### Minister's Presentation

The minister's mission is to support the growth of business, entrepreneurship, science, innovation, export trade and investment. It also advises the government when promoting economic development throughout Quebec in the following areas:

- Job creation;
- Economic prosperity;
- Sustainable development.

Its actions are intended to help all research and innovation stakeholders become more competitive when creating, promoting and transferring knowledge, particularly in priority and strategic areas for the future of Quebec.

## ELIGIBILITY

### Eligible Clientele

This call for projects is open to all Quebec SMEs that seek to develop innovation projects for the advancement and commercialization of quantum technologies. It is divided into four parts:

- Innovation projects from startups that have been in place for less than three years with support from an incubator or accelerator (Component 1);
- Innovation projects from SMEs that have been in place for more than three years (Component 2);
- Innovation projects from SMEs working in partnership with a public research centre and member of QuébecInnové (Component 3);
- Innovation projects from SMEs working in partnership with one or more SMEs (Component 4).

Projects must fall under **one of the following themes**:

- Quantum communication;
- Quantum computing;
- Quantum materials;
- Quantum engineering.

***Note: Companies that receive funding from the ministère de l'Économie et de l'Innovation Innovation Program must verify their project's eligibility by contacting [quantique@economie.gouv.qc.ca](mailto:quantique@economie.gouv.qc.ca), or by calling (514) 873-1767, ext. 3953.***

Quantum technology startups must meet the following requirements:

- They must be legally incorporated under applicable federal or Quebec laws and registered with the *Registraire des entreprises du Québec*;
- Their head office must be located in Quebec and their employees and subcontractors must be primarily based in Quebec;
- No more than 50% of the startup may be owned by other companies and organizations;
- They have been incorporated for less than three years;
- They own all intellectual property rights regarding their products, processes and services;
- They are currently supported by a business incubator or accelerator;

- They devote (or plan to devote) a significant portion of their resources (50% or more) to the development of their business, from the product, process and service design and development phase to marketing.

Quantum technology SMEs must meet the following requirements:

- They must be legally incorporated under applicable federal or Quebec laws and registered with the *Registraire des entreprises du Québec*;
- Their head office must be located in Quebec and their employees and subcontractors must be primarily based in Quebec;
- No more than 50% of the SME may be owned by other companies and organizations;
- They have been incorporated for more than three years.

## COMPONENT SUMMARY DESCRIPTION

Component	Submitting an Application	Maximum Duration	Maximum Rate of Assistance	Maximum Cumulative Rate of Government Assistance	Maximum Amount of Assistance
<b>Component 1 –</b> Innovation Projects From Startups	MEI	1 year	50% of eligible expenses	80% of total project expenditures	\$75,000 per project
<b>Component 2 –</b> Innovation Projects From SMEs	MEI	1 year	30% of eligible expenses	50% of total project expenditures	\$75,000 per project
<b>Component 3 –</b> Innovation Projects From SMEs Working In Partnership With A Public Research Centre	PRIMA or Prompt	3 years	40% of eligible expenses	60% of total project expenditures	\$750,000 per project
<b>Component 4 –</b> Innovation Projects From SMEs Working In Partnership With One Or More SMEs	PRIMA or Prompt	3 years	50% of eligible expenses	50% of total project expenditures	\$750,000 per project

## COMPONENT 1 – INNOVATION PROJECTS FROM STARTUPS

Component 1 targets quantum technology startups that are currently receiving (or planning to receive) support from one of the following four organizations:

- *Centre de l'entrepreneurship technologique de l'ÉTS* (Centech);
- *Accélérateur de création d'entreprises technologiques* (ACET);
- *Entrepreneuriat Laval*;
- *Institut national d'optique* (INO).

The startup must provide proof of support (an official letter signed by the incubator or accelerator) upon submitting its application, or demonstrate that support procedures have been initiated.

### Eligible Projects

Eligible projects are those that require research and innovation to address issues regarding the startup's development and growth. These may be technological innovation projects (involving the products and services at the root of the startup), or organizational projects (involving growth issues for the company itself, such as personnel, structure, etc.).

## FINANCING TERMS AND CONDITIONS

### Financing

The Government of Quebec's contribution under Component 1 will not exceed **\$75,000** per project, for a maximum period of **twelve months (one year)**. The rate of financial assistance will not exceed 50% of the project's total eligible expenses.

The combined assistance from various levels of government (municipal, provincial and federal) will not exceed 80% of the project's total eligible expenses.

Private contributions must represent a minimum of 20% of eligible expenses.

Payments are conditional upon the assured funding of partners and the successful completion of the project, in accordance with the funding agreement and the established annual budget.

## COMPONENT 2 – INNOVATION PROJECTS FROM SMES

Component 2 targets quantum technology SMEs that seek to produce goods and services or undertake internal research and development activities.

### Eligible Projects

Eligible projects involve innovative product and process-related projects, from the planning stage to pre-commercialization (technology showcase). The products or processes developed by companies may be intended for sale or for the company's own use. Projects must:

- Involve the development of a new product or process, or the significant improvement of an existing product or process;
- Demonstrate the degree of innovation required, i.e., the product or process's decisive advantage over existing solutions in the market or targeted industry at the national or international level;
- Involve a technological or business risk/uncertainty for the company;
- Require (or will require) research and development efforts;
- Demonstrate commercial potential (if the product or process is intended for sale).

## FINANCING TERMS AND CONDITIONS

### Financing

The Government of Quebec's contribution under Component 2 will not exceed **\$75,000** per project, for a maximum period of **twelve months (one year)**. The rate of financial assistance will not exceed 30% of the project's total eligible expenses.

The combined assistance from various levels of government (municipal, provincial and federal) will not exceed 50% of the project's total eligible expenses.

Private contributions must represent a minimum of 50% of eligible expenses.

Payments are conditional upon the assured funding of partners and the successful completion of the project, in accordance with the funding agreement and the established annual budget.



## COMPONENT 3 – INNOVATION PROJECTS FROM SMES WORKING IN PARTNERSHIP WITH A PUBLIC RESEARCH CENTRE

### Eligible Projects

Eligible projects are those that promote collaborative quantum technology research with a public research centre and member of QuébecInnove.

Projects must be submitted to the *Pôle de recherche et d'innovation en matériaux avancés au Québec* (PRIMA) or Prompt.

## FINANCING TERMS AND CONDITIONS

### Financing

The financial assistance granted through PRIMA or Prompt will be a non-repayable and non-recurring financial contribution. The minister's maximum assistance per authorized project will not exceed \$500,000 per year, up to a maximum of \$750,000 per project, for a maximum duration of three years. The financing terms are based on the project's technological maturity level.

Payments are conditional upon the assured funding of partners and the successful completion of the project, in accordance with the funding agreement and the established annual budget.

## COMPONENT 4 – INNOVATION PROJECTS FROM SMES WORKING IN PARTNERSHIP WITH ONE OR MORE SMES

### Eligible Projects

Eligible projects are those that promote collaborative quantum technology research with one or more SMEs. The business combination must share the innovation project's costs, benefits and intellectual property rights.

Projects must be submitted to the *Pôle de recherche et d'innovation en matériaux avancés au Québec* (PRIMA) or Prompt.

## FINANCING TERMS AND CONDITIONS

### Financing

The financial assistance granted through PRIMA or Prompt will be a non-repayable and non-recurring financial contribution. The minister's maximum assistance per approved project will be \$750,000 per project for a maximum duration of three years. The financing terms are based on the project's technological maturity level.

Payments are conditional upon the assured funding of partners and the successful completion of the project, in accordance with the funding agreement and the established annual budget.

## ALL COMPONENTS

### Financial Arrangement

The organization must submit the financial arrangement required for the completion of its project (income and expenses incurred).

## ELIGIBLE EXPENSES

Eligible expenses must be necessary, reasonable and directly attributable to the project. The minister will determine the eligibility of expenditures when calculating the grant.

Under this call for projects, eligible expenses for the completion of the project will include the following:

- Project-related salaries, wages and benefits<sup>1</sup>;
- Travel and accommodation costs, in accordance with the minister's guidelines;
- The required material and supplies;
- Equipment purchases and rentals (maximum 25% of total eligible expenses)<sup>2</sup>;
- Intellectual property exploitation costs (legal support) ;
- Fees (including those of researchers);
- Communication-related expenses;
- Subcontracting fees.

<sup>1</sup> Amounts required to release teachers for project activities may not be included under these expenditures.

<sup>2</sup> The value of purchased equipment must be equal to or less than \$15,000 before taxes.

Expenses incurred before the funding application deadline will not be eligible. In addition, the following expenses **will not be eligible**:

- Expenses involving office or laboratory rental fees for business expansion (subsidiary or additional office);
- Debt servicing, repayment of future borrowings, capital loss or replacement, payments or amounts disbursed as capital;
- Capital and depreciation expenses;
- Sales taxes;
- Expenses not included in the as-presented financial arrangement upon submission of the funding application;
- Expenses that have already received financial assistance from the minister;
- The cost of acquiring structuring equipment (e.g., a piece of equipment requiring more than 60% of the grant paid).

## SUBMITTING AN APPLICATION

### Deadline

The deadline for electronic submissions will be **January 31, 2020, at 4 p.m.**

### Components 1 and 2

### Required Documents

Proposals must comply with the following criteria:

1. The application must be written in French and include:
  - A project submission letter signed by a person authorized to sign the financial assistance agreement;
  - The Financial Assistance Application form for the relevant component, duly signed and completed;
  - A project description (project structure, financial arrangement, partners, objectives, actions and deliverables, along with the anticipated benefits);
  - A letter of support from the incubator or accelerator that supports the startup (Component 1).
2. The project description must be clear and concise and **must not exceed five pages**. It must be submitted in PDF or Word format (Arial font, Size 11). Appendices, if any, must not exceed three pages. Applications that fail to comply with the prescribed number of pages will not be considered for evaluation.

Applicants must send two copies of the application to the minister, including one **print** copy and one **electronic** copy:

- The **electronic copy**, in PDF or Word format, must be emailed to the following address before 4:00 p.m. on January 31, 2020:  
[quantique@economie.gouv.qc.ca](mailto:quantique@economie.gouv.qc.ca)
- The duly signed **print copy** must be mailed for reception at the following address no later than February 7, 2020:

**Direction des maillages et des partenariats industriels**  
Ministère de l'Économie et de l'Innovation  
380 Saint-Antoine Street West, 5th Floor  
Montreal, Quebec H2Y 3X7

### Components 3 and 4

Projects must be submitted to the *Pôle de recherche et d'innovation en matériaux avancés au Québec* (PRIMA) or Prompt.

#### PRIMA

505 De Maisonneuve Boulevard West,  
Suite 225  
Montreal, Quebec H3A 3C2  
Telephone: (514) 284-0211  
Email: [michel.lefevre@prima.ca](mailto:michel.lefevre@prima.ca)

#### Prompt

25 René-Lévesque Boulevard  
Suite 1510  
Montreal, Quebec H3B 1R2  
Telephone: (514) 875-0032  
Email: [info@promptinnov.com](mailto:info@promptinnov.com)

## EVALUATION

### Evaluation Criteria

The submitted projects will be evaluated according to the following criteria:

- The project's objectives, quality and relevance;
- The project's innovative nature;
- Its commercialization potential;
- The ability of the team and organization to complete the project;
- The intellectual property protection strategy;
- The benefits for Quebec (economic and social benefits, consolidation of knowledge, etc.).

## CONFIDENTIALITY AND ETHICS

Personal and confidential information will be collected and used in accordance with the Act respecting access to documents held by public bodies and the protection of personal information (CQLR, chapter A-2.1), hereinafter the "Access Act," and subject to the exceptions provided for therein.

For the purpose of evaluating and validating applications under this call for projects, personal and confidential information may be collected and used only by those involved in the application selection and validation process. Some personal or confidential information may be shared with the evaluation committee in order to process an organization's application, in accordance with the consent provided in the form.

Once the applications have been selected, any personal and confidential information gathered will remain confidential. The minister and evaluation committee will use personal and confidential information for program monitoring purposes and to evaluate projects.

Members of the evaluation committee will sign a confidentiality agreement covering the use of personal information and the protection of its confidentiality.

The minister will not disclose personal or confidential information to any external third party without the organization's explicit consent, or in accordance with the Access Act.

In addition, the minister's personnel will comply with the Regulation on Ethics and Discipline in the Public Service (CQLR, chapter F-3.1.1.1, r. 3) to preserve and strengthen public trust in the integrity and impartiality of the civil service and to maintain high levels of quality in the services rendered.

## INFORMATION

For any additional information, please contact [quantique@economie.gouv.qc.ca](mailto:quantique@economie.gouv.qc.ca).

## APPENDIX

### Application File Content

The application must include a project description that does not exceed five pages. This document should ideally include the following:

- A project description (purpose, objectives, theme, actions and activities, planned research and innovation axes, etc.);
- An expense and revenue budget, including detailed contributions from partners;
- The added value of the financing requested from the minister to complete the project;
- The basic intellectual property management principles and rules;
- The competencies of those assigned to the project;
- The existing or anticipated partners, along with the sharing of roles and responsibilities;
- The potential benefits for Quebec (economic and social).

Appendices, if any, must not exceed three pages.

The application must be written in a clear and concise manner. Applications that fail to comply with the prescribed number of pages will not be considered for evaluation.

[economie.gouv.qc.ca](http://economie.gouv.qc.ca)