

# **RESEARCH AND INNOVATION SUPPORT PROGRAM**

## **PRIMA QUEBEC-NRF JOINT RESEARCH PROGRAM PROPOSAL**

### Application Guidelines

**Deadline for submitting requests:  
Noon (Montreal time), May 31, 2021**

## **TABLE OF CONTENTS**

<b>TERMINOLOGY</b>	<b>4</b>
<b>INTRODUCTION</b>	<b>5</b>
<b>PROGRAM OBJECTIVES</b>	<b>5</b>
<b>ELIGIBLE CLIENTS</b>	<b>6</b>
<b>ELIGIBLE PROJECTS</b>	<b>7</b>
<b>ELIGIBLE EXPENSES</b>	<b>8</b>
<b>PROJECT SELECTION</b>	<b>12</b>
<b>APPENDIX 1</b>	<b>14</b>
<b>APPENDIX 2</b>	<b>18</b>
<b>APPENDIX 3</b>	<b>19</b>

## **DOCUMENTS REQUIRED WHEN SUBMITTING THE APPLICATION:**

- ☐ Duly completed application form (signed and dated). Every section in the form must be filled out.
- ☐ Project Leader CV, along with those of the researchers and industrialists belonging to the Quebec – Korea team.
- ☐ Signed letters of support from partners specifying the amount for support the direct cost of the project (companies and non-profit organizations (NPOs) involved in the financing package).

### **Please note:**

- Funding will only be awarded upon proof of the following:
  - All additional funding (NSERC, NRC-IRAP or other) has been approved (a copy of the approval must be forwarded to PRIMA);
  - The various parties have drafted and signed an intellectual property agreement before the first grant payment.
- Once the request for additional funding has been submitted, a copy must be sent to PRIMA Québec
- Partners in the consortium's Quebec portion must be members of PRIMA Québec.

### **Contacts**

For any additional information, or for assistance regarding the application form, please contact Michel Lefèvre at (514) 284-0211, Ext. 227.

Email your duly signed application in single file - PDF format (Adobe Acrobat) **before noon, May 31, 2021 (Montreal times)**, to: [laura.salatian@prima.ca](mailto:laura.salatian@prima.ca).

## TERMINOLOGY

- Internal research and development (R&D) activities: Activities undertaken by an organization with the human and material resources required to conduct part of its research program (researchers, equipment and infrastructure).
- Eligible NPO: A non-profit organization whose mission is to conduct R&D and innovation activities, excluding intermediation organizations and those that promote such activities.
- Stakeholder: The end user of the product, process or service developed under the project. The term “stakeholder” refers to any company or organization with a potential interest in applying, using or promoting the relevant research results.
- Foreign partners: Any foreign partner that meets the eligibility requirements applicable to Quebec partners (teaching and research institutions, hospitals, research NPOs and companies).
- Justifiable expense: Any expense directly attributable to the project's completion.
- Salary expenses: The portion of expenses that represent actual salaries within the purview of the project, prorated to usage time (in addition to fringe benefits).
- Student grants: The grant amount actually paid out to students within the purview of the project, prorated to usage time.
- Equipment purchases or leasing: The fees actually paid out for equipment usage and operating rights. In the case of purchases, the purchase value of each equipment must be less than \$15,000 before taxes.
- Material, consumables and supplies: Perishable goods required to implement the project, excluding fixed assets, but including small equipment directly related to the project's completion.
- Animal facility and platform costs: Recurring costs related to the operation of animal facilities and platforms (owned by the applicant) required for the project's completion.
- Travel and living expenses for Quebec researchers and students: Travel expenses covering air and ground transportation, along with entry fees (visa). Travel arrangements must involve the most economical means of transportation and the most direct route. The minister will not reimburse travel-reward program credits. Living expenses will include accommodations and meals, including taxes and service (see details in Appendix 1). These expenses must not exceed 15% of all eligible expenses (travel and accommodation expenses in Quebec must not exceed one third of this amount).
- Consultant fees and subcontracting costs: External R&D fees required for the project's completion (e.g. analysis costs), excluding costs related to administrative support activities (accounting, auditing, etc.), or any activity that is not eligible under the program. Consultants and subcontractors must not be employees of any organization mentioned in the application (applicant, corporate partners, stakeholders, etc.).

- Commercialization of research and innovation results and intellectual property protection costs: Professional patent agent fees for specialized consulting services, research acquisition fees (or fees involving similar documents), Canadian or foreign patent application and registration fees for industrial design and integrated circuit topography, along with all intellectual property (IP) protection fees. IP maintenance or commercialization costs will not be eligible.
- Duly authorized signatory: Any person authorized to sign the grant agreement through a resolution from the applicant organization's Board of Directors, or any administrator clearly identified under the *Registraire des entreprises du Québec* (REQ), should the *Ministère de l'Économie et de l'Innovation* approve the funding request.

## INTRODUCTION

The Québec government considers innovation as an important driver of economic growth. If Quebec is to maintain its status as an advanced society, exercise influence and open itself up to the world, it must ensure the participation of its researchers and organizations within collaborative industrial research projects that can generate future technologies. The government therefore seeks to encourage international research partnerships.

PSO-International helps to support the international efforts of Quebec's universities and colleges, along with those of institutional and industrial players working within various research and innovation markets. To this end, the *Ministère de l'Économie et de l'Innovation* (MEI) supports PRIMA Québec's participation in the Quebec - Korea call.

## PROGRAM OBJECTIVES

### General Objective

Support and implement international research and innovation initiatives between universities, colleges, institutions and industries. Specifically, this program aims at both forging new and strengthening existing research collaboration between Korea and the Province of Québec through the involvement of academic and industrial partners, from both sides.

### Targeted Results

1. Increased research collaboration between universities and industry, along with greater international, inter-sectoral and inter-agency collaboration;
2. Greater visibility for Quebec researchers and their institutions at the national and international levels;
3. Greater development for researchers seeking to improve their competitive positioning in Quebec's future markets through R&D projects.
4. The 2020 PRIMA QUEBEC-NRF Joint Research Program Proposal will fund up to 2 projects.

## ELIGIBLE CLIENTS

### Quebec Eligible applicants

Applications must be submitted by Quebec research establishments. Universities, CCTTs or public research centers<sup>1</sup> are eligible (if the research center is not on the list, please contact a PRIMA advisor to verify its status (public or private) with MEI). They must allow the training of highly qualified personnel (HQP).

### Quebec Eligible Manufacturers

It is necessary to have at least one company (primarily an SME) with a presence in Quebec (production or R&D). Businesses outside Quebec are not eligible. The participation of partners is the subject of a signed letter of support.

You cannot have related companies in the consortium. Therefore, the subsidiary or the parent company of the Quebec company cannot participate in the project with the international partner.

**Hydro-Québec** is considered, by default, as a public research center. However, the latter can be considered as an industrialist under certain conditions, see Annex 2 for details.

### PRIMA Quebec membership

All industrial organizations, academics or public research centers participating in the Quebec part of the consortium must be members in good standing of PRIMA Quebec at the time of project submission and must remain so throughout the duration of the project if it is accepted for funding.

To become a member of PRIMA Québec: <https://www.prima.ca/en/product/prima-quebec-membership/>

0-50 employees	280.00 CAD
51-249 employees	450.00 CAD
250-499 employees	650.00 CAD
500 employees and (+)	1 000.00 CAD
Universities	2 000.00 CAD
CCTT – Public Laboratory	1 000.00 CAD

### Précisions

- The Ministère Économie et Innovation (MÉI) reserves the right to refuse any financial assistance request from organizations and companies that are currently in default regarding PSR-SIIRI projects.
- The same project cannot be presented more than twice to PSR-SIIRI and PSO-International. Thus, a project that has been evaluated and refused twice by the Ministère Économie et Innovation (MÉI) cannot be presented a third time.

<sup>1</sup> The list of recognized eligible public research centers is available at the [following link](#)

## ELIGIBLE PROJECTS

All research projects with technological maturity levels (TRL 1-9) are eligible.

The funding recipients shall be universities, research institutions and industries (particularly small and medium-sized enterprises) based in Korea and the Province of Quebec. Eligible for funding are consortia composed of at least four partners (2+2), two partners from the Korean side and two from the Quebec side. **For each side, these consortia should include at least one university or research institution AND at least one enterprise;** but the coordinator for each consortia should be from university or research institution

The projects must demonstrate a balanced participation of the Quebec and foreign parties throughout their development; a financial contribution in cash totalling at least 20% of the eligible expenses in Quebec is required from the Quebec tenant community and a contribution in cash or in kind totalling at least 30% of the overall expenses of the Quebec - Korea consortium project is required for the 'all of the project's foreign partners.

The financial assistance from MEI will take the form of a non-repayable and non-recurring contribution of up to 50% of the eligible expenses of the Quebec part, up to \$140,000 per project (FIR included) over two years. Other contributions must be demonstrated (official signed letters specifying the amounts granted for the realization of the project).

### Duration of Projects

The maximum duration of the project will be two years.

## PRIORITY THEMES

In keeping with its strategic plan, PRIMA Québec recommends the submission of proposals dealing with the development of advanced materials applied to key Québec sectors such as transportation and infrastructure, energy, environment, electronics, health and chemistry.

Technologies targeted by this call for projects include primarily:

- **New materials:** Polymers, elastomers, biomaterials, metals, innovative fillers, cellulosic filaments, natural and synthetic fibers, nanomaterials, quantum materials, etc.
- **Formulated materials or high-performance finished or semi-finished products:** Composites (TD or TP), rubbers, alloys, ceramics, smart textiles, flexible materials, membranes, thin layers, coatings, biocompatible materials, encapsulation, sensors, quantum technologies, etc.
- **Implementation processes, scaling and new characterization techniques:** Additive manufacturing and 3D printing, modification and surface treatment, micro/nanofabrication tools, new characterization tools, modeling and simulation, shaping processes, quantum technologies, photonics, etc.
- **Use of artificial intelligence with advanced materials for production, integration or implementation processes or characterization technique.**

## ELIGIBLE EXPENSES

Eligible expenses are those that involve the Quebec team's research activities and include project-related costs in Quebec. No additional financial assistance will be granted for any cost overrun regarding an approved project.

The following expenses will be eligible when justified and directly attributable to the project.

## DIRECT PROJECT COSTS

The following expenses will be eligible if deemed reasonable, justifiable and directly attributable to the project:

- Salary expenditures for the R&D personnel hired to complete the project (by organization type):
  - **For universities and institutions in the health and social services network where research activities are conducted:** Salary expenditures for graduate and post-graduate students, research assistants, research professionals and technicians;
  - **For College Technology Transfer Centres (CTTCs), NPOs and public research institutions:** Salary expenditures paid out to researchers and R&D personnel hired to complete the project without any other financial support from the MEI.
- Student scholarships;
- The purchase or leasing of project-related equipment<sup>2</sup>;
- Research-related consumables and supplies;
- Animal facilities and platform-related costs;
- Travel and living expenses for Quebec researchers and students (airfare, local transportation, accommodations, meal expenses and visa costs);
- Consulting fees and subcontracting costs;
- Management costs for the use of intellectual property;
- Knowledge dissemination costs;
- Costs related to the use of research and innovation results and intellectual property protection (publication costs, scientific and technological dissemination costs, workshop and seminar administration costs, international patent fees, etc.);
- Legal document translation and design costs for partnership consolidations (maximum \$10,000).

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<sup>2</sup> Expenses regarding small equipment purchases or equipment leasing will be limited to a maximum of 25% of all eligible expenses. The purchase value of each piece of equipment must be equal to or less than \$15,000 before taxes.

## Specifications

Eligible project salaries are set according to the agreed-upon salary rates within each organization and **prorated to the involvement of the various employees.**

Maximum Wage Grid for the Analysis of Applications	
Position	Maximum Wages + Fringe Benefits
Project Manager (Research Professional)	Maximum \$90/hour (including fringe benefits)
Student or Research Assistant	Maximum \$30/hour (including fringe benefits)
External Consultant	Maximum \$100/hour, or \$75,000 per project
Secretary	Maximum \$25/hour (including fringe benefits)
Technician	Maximum \$45/hour (including fringe benefits)

Travel and living expenses in Quebec and abroad for Quebec researchers and students must not exceed **15%** of all eligible expenses (up to a maximum of 5% of all eligible expenses in Quebec). When calculating the grant, only amounts that correspond to current Government of Quebec rates will be considered (see Appendix 1 herein for details).

Expenditures involving the purchase or leasing of equipment and materials, consumables and supplies, including costs related to animal facilities and platforms dedicated to the project, must not exceed **25%** of all eligible expenses. The purchase price for each piece of equipment must not exceed \$15,000 before taxes.

## INDIRECT PROJECT COSTS

Additional operating expenses will be eligible for **universities and affiliated hospitals**. A maximum rate of **27% prorated to the MEI contribution** will be applied to the following five eligible cost items included in the direct project-related costs:

- Salaries and fringe benefits;
- Student scholarships;
- Materials, consumables and supplies, including animal facility and platform-related fees;
- Equipment purchases or leasing (maximum \$15,000 before taxes per purchased equipment);
- Travel and living expenses.

Indirect research fees (IRF) will be included in the MEI's financial support. Every financial partner involved must match this contribution.

## INELIGIBLE EXPENSES

Ineligible expenses will include, among others:

- Salaries for university professor-researchers, college professors and researchers from participating federal research centres;
- Salaries for administrative support staff;
- Travel expenses for the Quebec team's researchers and students attending events not directly related to the project;
- Accommodations, travel and living expenses for foreign researchers and students;
- Support expenditures for the programming of activities;
- Equipment purchases priced above \$15,000 before taxes;
- Expenses for project planning activities, or any commercial, economic or technology transfer activity, including:
  - Detailed market research;
  - Detailed financial studies;
  - Technological demonstrations;
  - Product or process testing and validation;
  - Product certification;
  - Market expansion;
  - Marketing plans;
  - Promotional activities;
  - Regulatory issues beyond the scope of intellectual property management and use, etc.;
  - The sale of samples, products, equipment and technology;
  - Any building purchase, sale or construction;
  - Licensing;
  - Joint ventures, mergers, acquisitions, etc.
- Any expense not directly related to the project;
- The cost of establishing an on-line presence or web hosting;
- Grant funds already received from the following:
  - Canada Foundation for Innovation (CFI), excluding the Infrastructure Operating Fund (IOF);
  - Other MEI financial assistance programs.

## FINANCING PACKAGE

**For the Quebec team's** research activities, **MEI financial assistance will not exceed 50% of eligible cash expenses.** PSO-International will accept a public co-financing for eligible cash expenses from multiple sources, (please contact a PRIMA advisor to ensure the eligibility of additional funding), including but not limited to:

- The applicant organization;
- Institutions in the health and social services and education networks;
- Federal departments and agencies, including federal granting councils.
- Provincial and municipal departments and agencies, along with Quebec research funds.
- Crown corporations.

**Financial assistance under the PSO-international will not be combined with contributions from any other MEI program, including MITACS grants, which will not be accepted as co-funding for the financing package.**

Co-funding sources must be included in the financing package; a copy of the additional funding request must be provided upon submission. **The application of the complementary funding MUST be sent at maximum 1 week after submitting to PRIMA.**

Combined assistance from municipal, provincial and federal governments, as well as from partners with intervention funds financed by these levels of government, will not exceed **80%** of all project-related expenses. The assistance considered in this calculation will involve project-related grants, loans and tax incentives.

Companies must provide a minimum **cash** contribution equal to **20%** of eligible expenses.

## FINANCIAL ASSISTANCE TERMS AND CONDITIONS

### Form and Amount

The financial assistance will be provided over a two-year period and represents a non-repayable, non-recurring financial contribution. It may reach 50% of eligible cash expenses related to the performance of activities in the Quebec portion, but it will **not exceed \$140,000 over two years for each project.** It may reach 50% of eligible expenses, up to a maximum of \$140,000 per research and development project under the Quebec-Korea call. The \$140,000 amount will include direct research costs, as well as indirect research costs, where applicable. The MEI financial contribution will be non-repayable and non-recurring.

## **PROJECT SELECTION**

Following a call for proposals, projects will be submitted and evaluated by competent PRIMA Québec and NRF of Korea committees. The committee of each country assigns a score out of 50 and the project will be evaluated on a scientific and economic component.

Representatives from the MEI will act as observers during the regional selection committee meeting.

PRIMA Québec will issue funding recommendations for a list of projects prioritized by its Board of Directors.

The Board of Directors will approve the list and indicate the cut-off threshold. It will then issue recommendations that include, among other points, the title of each approved project, along with the relevant financial commitment.

## **PROJECT APPROVAL**

Funding recommendations and assessment reports will be forwarded to the MINISTER, in accordance with the agreement. The MINISTER may then approve projects and award co-funding according to the established parameters, or refuse the co-funding of certain projects while specifying the problematic components that led to the refusal.

Project funding approvals will be confirmed through an award letter that specifies the terms and conditions surrounding accountability.

## **PROJECT MANAGEMENT COSTS**

Funding applicants are required to inform the industrial partners of PRIMA Québec's management fees. These industrial partners must contribute to PRIMA Québec's management costs, up to a total of 3% of the amount of the research mandate.

## **PROJECT TRACKING**

The annual activity report must include a progress report containing updated information on every active project.

## **CALL FOR PROJECTS CALENDAR**

**Opening of the call for proposals: April 14th, 2021.**

**Letter of Intent Deadline: May 17, 2021**

**Deadline for submitting proposals: May 31th, 2021** (*noon, Montréal Time for Canada / 18:00, Seoul Time for Korea*)

**Eligibility check: June 2nd , 2021.**

**Project Evaluation Period: June - July 2021**

**Exchange of evaluation results: mid-august 2021**

**Final Decision: end august, 2021**

**Start Date : October 1, 2021**

## APPENDIX 1

### DETAILS ON ELIGIBLE TRAVEL EXPENSES

#### TRAVEL EXPENSES IN QUEBEC

Travel expenses refer to costs incurred by a person travelling outside of his or her usual work territory.

This appendix will cover travel expenses regarding certain modes of transportation, hotel accommodations and restaurant expenses. Other travel expenses, or reimbursements in excess of those established, may be authorized if necessary, but only when documented. Barring exceptional circumstances, the methods chosen must demonstrate due regard for cost saving.

The BENEFICIARY must comply with the "Directive sur les frais remboursables lors d'un déplacement et autres frais inhérents", available on the *Conseil du trésor* website at the following address: <http://www.tresor.gouv.qc.ca/publications/secretariat/>.

On the agreement signature date, these guidelines prescribed the following rates:

##### Transportation

More economical forms of public transportation must be prioritized over personal vehicles.

With regard to personal vehicles, the following rates will be eligible according to the applicable kilometrage during the BENEFICIARY's fiscal year:

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Annual Kilometrage	Rates
1 <sup>st</sup> instalment: 1 to 8,000 km	\$0.490/km
2 <sup>nd</sup> instalment: More than 8,000 km	\$0.440/km

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If the appropriate public transportation is available but the BENEFICIARY opts for a personal vehicle, the eligible rate will be reduced to \$0.145 per kilometre travelled.

### Hotel Accommodations

The following maximum daily allowance for hotel accommodations will apply:

City	Maximum Allowance	
	Low Season <sup>3</sup>	High Season <sup>4</sup>
City of Montreal territory	\$126	\$138
Quebec City territory	\$106	
The cities of Laval, Gatineau, Longueuil, Lac-Beauport and Lac-Delage	\$102	\$110
Establishments located elsewhere in Quebec	\$83	\$87
All other establishments	\$79	

**These rates are based on the *Secrétariat du Conseil du trésor* guidelines and may vary.**

These maximum amounts do not include the Goods and Services Tax (GST), the Quebec Sales Tax (QST), or the accommodation tax, which will be reimbursed where applicable.

### Restaurant Expenses

The following maximum daily allowance for restaurant expenses will be applied:

	Applicable Rate
Breakfast	\$10.40
Lunch	\$14.30
Dinner	\$21.55
<b>Total</b>	<b>\$46.25</b>

**These rates are based on the *Secrétariat du Conseil du trésor* guidelines and may vary.**

The rates shown above including taxes and service.

<sup>3</sup> From November 1 to May 31

<sup>4</sup> From June 1 to October 31

## TRAVEL EXPENSES OUTSIDE QUEBEC

This section covers expenses incurred outside Quebec for programs that include these costs.

City/Country	Maximum Allowance	
	Accommodations Per Day In CAD	Meals Per Day In CAD
<b>CANADA (OUTSIDE QUEBEC)</b>		
Calgary	\$166	\$50
Charlottetown	\$148	\$50
Edmonton	\$115	\$50
Halifax	\$136	\$50
Moncton	\$148	\$50
Ottawa	\$148	\$50
Regina	\$108	\$50
Saskatoon	\$102	\$50
St. John's (Newfoundland and Labrador)	\$159	\$50
Toronto	\$184	\$60
Vancouver	\$184	\$55
Victoria	\$184	\$50
Winnipeg	\$102	\$50
Other cities	\$102	\$50
<b>AMERICA</b>	<b>In USD</b>	<b>In USD</b>
Atlanta	\$120	\$50
Boston	\$192	\$50
Chicago	\$130	\$50
Dallas	\$120	\$50
Detroit	\$120	\$50
Los Angeles	\$120	\$50
Miami	\$120	\$50
New York	\$192	\$60
Philadelphia	\$120	\$50
San Francisco	\$160	\$50
Seattle	\$120	\$50
Washington, D.C.	\$120	\$50
Other cities	\$120	\$50
Brazil	\$123	\$40
Mexico	\$177	\$43
<b>EUROPE</b>	<b>Local currency</b>	<b>Local currency</b>
Germany	€137	€60
Belgium	€137	€54
Spain	€161	€59
France	€174	€62
Italy	€218	€52
Luxembourg	€125	€52
Netherlands	€111	€61
United Kingdom	£139	£51
Switzerland	209 Francs	92 Francs

City/Country	Maximum Allowances	
	Accommodation Per Day	Meals Per Day
<b>SCANDINAVIAN COUNTRIES</b>	<b>In USD</b>	<b>In USD</b>
Denmark	\$105	\$65
Iceland	\$153	\$69
Norway	\$114	\$78
Sweden	\$127	\$55
Finland	<b>Local currency</b> €125	<b>Local currency</b> €71
<b>NEAR EAST</b>		
Israel	<b>In USD</b> \$219	<b>In USD</b> \$80
<b>ASIA</b>	<b>In USD</b>	<b>In USD</b>
China	\$145	\$48
South Korea	\$159	\$57
India	\$190	\$38
Japan	\$164	\$89

**These rates are based on the *Secrétariat du Conseil du trésor* guidelines and may vary.**

These maximum amounts do not include the Goods and Services Tax (GST), the Quebec Sales Tax (QST), the accommodation tax, or any other tax in effect within the relevant countries, which will be reimbursed where applicable.

Stated amounts are based on the US dollar, notwithstanding Canada and countries that use the Euro. Local currencies are used for information purposes only.

Please contact us for any other destination.

Support documents, including receipts and proof of payment, will be required and must be kept by the applicant for possible auditing purposes.

## **APPENDIX 2**

### **HYDRO-QUÉBEC**

Hydro-Québec is considered by default to be a public research center.

However, Hydro-Québec plays an extremely structuring role in the innovation ecosystem in electricity production and distribution, a sector where it is a major client in a context of monopoly. Because of this unique situation, the MEI authorizes Hydro-Québec to be considered as an industrial partner in research projects in partnership with InnovÉÉ, PRIMA and PROMPT if the following criteria are met.

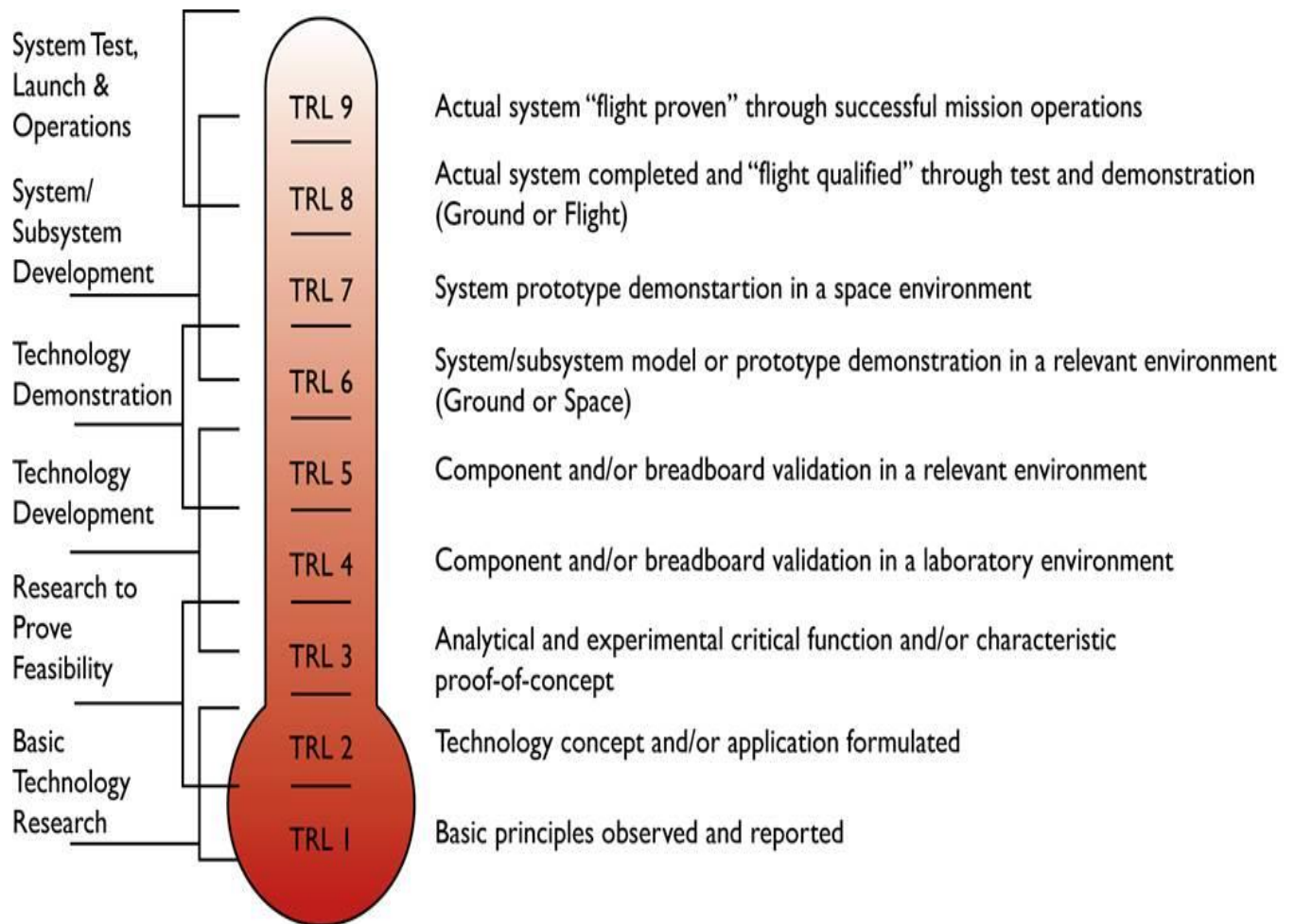
1. Themes:
  - Field of production, transport and distribution of electricity.
2. Partnership:
  - At least one Quebec company other than Hydro-Quebec must be involved in the project.
  - The Quebec company must derive significant benefits from the partnership, notably an equitable sharing of the IP.
3. Structuring and strategic nature of the projects:
  - To be eligible, projects involving Hydro-Québec must be “structuring” and aim at “solving problems of a strategic nature for Québec”. In this sense, projects whose spin-offs will allow above all the continuous improvement of Hydro-Québec operations are not eligible.

These project eligibility criteria must be analyzed by the evaluation committee and appear in the report submitted to MEI.

Apart from this exception, all other PSO-International standards must be respected.

## APPENDIX 3

### DEFINITION OF DIFFERENT TECHNOLOGY READINESS LEVELS (TRL)



Graphic inspired by the document: Space Systems - Definition of Technology Readiness Levels (TRL) and their criteria of assessment, ISO 16,290.

The ISO16290 standard is available for consultation at the offices of PRIMA Québec.