Financement de la R-D collaborative pour la réduction des GES au Québec

APPLICANT'S GUIDE

Partenaire financier











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CONTEXT OF THE CALL FOR PROJECTS UNDER THE INNOV-R PROGRAM

In November 2020, the Quebec government announced its 2030 Plan for a Green Economy (2030 PGE). Within the framework of its electrification and climate change policy, the government wants to make the fight against climate change a major lever for economic development and international influence. To this end, it will rely on the electrification of the economy, the development of other renewable energy resources, as well as on the emergence of economic sectors of the future that create quality jobs. The INNOV-R program is part of this vast initiative and aims to develop innovative collaborative projects that will enable Quebec to reach its greenhouse gas (GHG) emission reduction objectives more quickly and efficiently.

2. REDUCING GHG EMISSIONS IN QUEBEC: ALL ECONOMIC SECTORS IN QUEBEC

The INNOV-R program is financed by the Fonds d'électrification et de changements climatiques (FECC) and the funds are administered by the Quebec's Ministry of Economy and Innovation (MEI). The purpose of the program is to allow the realization of collaborative research projects with a high potential for GHG emissions reduction in Quebec, the benefits of which will contribute to the achievement of Quebec's medium- and long-term reduction objectives and targets, in particular for 2030, which is set at 37.5% below the 1990 level.

The grants were approved by decrees number 230-2022 and 231-2022 on March 9th, 2022, as part of actions 2.3.1.2 and 2.1.1.3 of the Implementation Plan (IP) resulting from the 2030 Green Economy Plan (2030 GEP) to support the realization of collaborative industry research projects for the reduction of greenhouse gas emissions.

The INNOV-R program is deployed by the "Regroupements sectoriels de recherche industrielle (RSRI)", which have been designated by the Quebec government to act as intermediation and funding organizations for collaborative research. Through their mandate, they promote the transfer of knowledge and the appropriation of innovation by businesses in various key sectors of the economy. The seven RSRIs designated to deploy the program are listed in Appendix A.

3. ELIGIBLE COLLABORATIVE RESEARCH PROJECTS

Eligible projects for the INNOV-R program must demonstrate a strong potential to reduce GHG emissions in Quebec.

- 50,000 tonnes of CO₂ eq. reduced or avoided in the first ten (10) years after the product, technology or innovation is commercialized:
- MEI/MELCC's contribution to the project must be less than \$20 per ton of CO₂ avoided.

Applicants can receive free assistance in completing and validating their calculations. Please contact your RSRI for more information (see Appendix A).

Projects must involve at least one Quebec-based company with in-house production or research and development activities and at least one Quebec-based public research institute (university, College Technology Transfer Centres (CTTC)¹ or a Quebec-based public research center)². Other partners such as NPOs, Crown corporations, public agencies, municipalities, companies outside Quebec and others may also be involved in the project. The principal applicant must be affiliated with an IRPQ.

¹ https://synchronex.ca/centres.

² https://www.economie.gouv.qc.ca/fr/bibliotheques/programmes/mesures-fiscales/reconnaissance-des-centres-de-recherche-publics-admissibles/liste-des-centres-derecherche-publics-admissibles/.

Companies listed in the Register of Companies Not Eligible for Public Contracts (RENA) and those that have defaulted on their obligations to the Quebec government are not eligible.

Eligible projects must have a maximum Technology Readiness Level (TRL) of 6 at the start of the research project³.

4. ELIGIBILITY OF EXPENSES

4.1 Eligible Expenses

Eligible expenses include direct research costs and in-kind contributions related to the project. Direct costs related to the research project must be incurred by the academic partner (university, CTTC or public research center established in Quebec).

The eligible direct costs are as follows:

- Salaries, wages, and benefits⁴;
- Student scholarships;
- Supplies, consumables⁵, and labware;
- Equipment purchase or rental (maximum 25% of total eligible expenses)⁶;
- Intellectual property management fees;
- Professional fees;
- Travel and lodging expenses;
- · Management fees;
- · Knowledge dissemination costs;
- Platform fees;
- Subcontracting costs.

In-kind contributions from businesses and partners are considered eligible project expenses. These in-kind contributions are eligible if:

- These expenses are auditable (their value can be reasonably established and supported by documentary evidence);
- They are essential for the achievement of the selected project;
- They correspond to costs incurred specifically to carry out the project;
- They represent something that would otherwise have to be paid for at equal or greater cost.

4.2 Non-eligible expenses

- Expenses that have already received financial support from the Quebec's Ministry of Economy and Innovation (MEI);
- Transactions between businesses or related partners;
- Recurring costs such as annual subscription fees and software upgrade fees.

³ See ISO 16290:2013 (E): Space systems - Definition of technology maturity levels (TMLs) and their assessment criteria and https://ised-isde.canada.ca/site/office-technologies-industrielles/fr/programme-demonstration-technologies-pdt#p9.

⁴ Amounts related to the release of university teachers to carry out project activities cannot be included under this item.

⁵ Please provide details of consumable purchases over \$1000.

⁶ In the case of purchase, the value of the equipment must be equal to or less than \$25,000 before taxes. Example: Software licenses are included in the purchase and rental of equipment. Not to be confused with the purchase of computers which are considered as consumables since their life span is estimated at 3 years (maximum duration of the project).

4.3 Indirect costs of research

Indirect costs of research (ICR) are additional operating expenses incurred by the academic institutions and CTTCs that are necessary to carry out the projects but cannot be directly associated with them. For all funded projects, the award to universities and CTTCs includes, in addition to the research grant, a contribution to indirect research costs at a rate of 27% of the RSRI grant and applicable to the following direct cost expense items:

- Salaries, wages, and benefits;
- Student scholarships;
- · Supplies and consumables;
- · Equipment purchase or rental;
- · Travel and lodging expenses.

4.4 Management fees

A management fee of up to 5% of the eligible project expenses will be charged. These fees will be divided between the industrial partner(s) and the Ministry of Economy and Innovation (MEI) for the management of the program⁷.

 $^{^{\}rm 7}\,{\rm Percentage}$ to be confirmed by the RSRI to which you submitted your application.

5. FUNDING PARAMETERS

The funding parameters for projects submitted to the <u>INNOV-R</u> program are presented in Table 1 below. They are based on two (2) funding streams:

- · Regular Track;
- Express Track (this track is designed to optimize the approval time and accelerate the project start-up).

Table 1. Details of INNOV-R funding

	Regular Track	Express Track	
Quebec-based business (min.) (required)	1		
Business outside Quebec (optional)	Yes, as a 2 nd business		
Quebec public research institute (university, CTTC or public research centre) (min.) (required)	1		
INNOV-R funding (max. % of eligible expenses)	40%	50%	
Private funding (min. business's contribution) (50% of which may be in-kind)	20%	50%	
Additional public funding	Other federal, provincial (other than MEI) or municipal funding sources can be added. ⁸	No additional funding	
Cumulative public contribution (max.)	80%	50%	
Project duration (max.)	3 years		
INNOV-R funding ⁹	\$500 000/year	\$499 999	

Note: A single budget presenting all the activities is to be approved. Thus, the matching of a project already funded by the addition of new activities funded by the RSRI does not meet program standards. In addition, the sources of co-funding identified must be free from existing commitments.

⁸ Other sources of public funding may include NSERC, NRC-IRAP, MITACS (non-MIE portion). Please contact the RSRI to which you are applying for more information.

⁹ The maximum INNOV-R funding includes all MEI contributions, i.e., direct research costs, IRFs and management fees.

6. FILING AN APPLICATION

Depending on the sector targeted by your project, the request must be submitted to one of the following seven RSRIs:

- Consortium de recherche et innovations en bioprocédés industriels au Québec (CRIBIQ);
- Innovation en énergie électrique (INNOVÉÉ);
- Consortium de recherche et d'innovation en transformation métallique (CRITM);
- Pôle de recherche et d'innovation en matériaux avancés du Québec (PRIMA Québec);
- Consortium de recherche et d'innovation en aéronautique du Québec (CRIAQ);
- Centre québécois de recherche et de développement de l'aluminium (CQRDA);
- Consortium de partenariats de recherche en technologies de l'information et des communications (PROMPT).

The names and contact details of the persons responsible, as well as detailed description of the business sectors, are presented in Appendix A.

A total of two (2) forms must be filled out by applicants:

- **a. General Application Form** collects information about the collaborative research project. To obtain this form, you must contact the person in charge of the RSRI to which you are applying **directly**;
- **b. GHG Form:** <u>INNOV-R</u> collects information on the potential for GHG emission reductions in Quebec during the first ten (10) years of the commercialization phase of the solution developed by the collaborative research project. To obtain this form, you must contact the person in charge of the RSRI to which you are applying (see Appendix A) **directly**. Free coaching, notably by the CIRAIG, is available to guide applicants in completing the "GHG reduction potential" section of the GHG Annex.

7. CALL FOR PROJECTS CALENDAR

Please note that the application process and dates may vary depending on the RSRI to which the funding application is submitted. The contact information for each RSRI can be found in Appendix A of this Guide.

Call launch

September 13th, 2022

Deadline for CIRAIG assistance

December 2nd, 2022

Closing of the call (submission of projects to RSRIs)

December 13th, 2022

8. PROJECT EVALUATION CRITERIA

Projects submitted under the <u>INNOV-R</u> program will be evaluated in two (2) parts: the scientific evaluation, which accounts for 50% of the final score, and the evaluation of the potential to reduce GHG emissions **in Quebec**, which accounts for the other 50%.

a. Scientific evaluation

The evaluation criteria for the scientific component of the projects are as follows and are worth fifty (50) points:

- Scientific quality;
- Quality of the research team;
- · Degree of innovation;
- Ability to complete the project;
- Benefits for the industrial partner(s) of the project;
- Quality of the public-private partnership;
- Expected scientific and technological outcomes;
- Expected benefits for the training of highly qualified personnel (HQP);
- Expected social, economic, and other benefits for the province of Quebec.

b. Evaluation of the potential to reduce GHG emissions in Quebec

This evaluation is done by a committee of experts in GHG quantification. This committee will specifically evaluate the "GHG Emissions Reduction Potential" section of all projects submitted to all RSRIs.

The evaluation criteria for the scientific component of the projects are as follows and are worth fifty (50) points:

- Demonstration of the solution's ability to reduce GHG emissions in Quebec during the first ten (10) years of the commercialization phase;
- Amount of GHG emissions that can be reduced or avoided, in tons of CO₂/year in Quebec;
- Cost per ton of CO₂ reduced or avoided in Quebec;
- Quality of the methodology used to demonstrate the GHG reduction potential, referring to ISO 14064-2
 Part 2;
- Risks related to the deployment of the solution (evaluated by the technical-economic committees of each RSRI and used by the GHG committee to evaluate the project).

9. MENTION OF FINANCIAL ASSISTANCE RECEIVED

All communication activities related to the grant obtained must mention the financial support of the Government of Quebec under the <u>INNOV-R</u> program and comply with the terms and conditions of the *Guide sur les communications publiques à l'intention des bénéficiaires d'une aide financière découlant du Plan pour une économie verte 2030.*

APPENDIX A - Industrial Research Sectoral Groups (RSRI)

RSRIs, which are innovation catalysts, have been designated by the Quebec government to act as intermediation and funding organizations for collaborative R&D. Through their mandate, they promote knowledge transfer and technological appropriation by businesses in various strategic sectors of the economy by encouraging the emergence of links between the industrial and research communities. The RSRIs involved in implementing the program are:

INNOVATION EN ÉNERGIE ÉLECTRIQUE (INNOVÉÉ)



CONTACT PERSON:

Mathilde Boucher, Innovation Advisor 514 416-6777 ext. 208 mboucher@innovee.quebec

InnovÉÉ's mission is to stimulate, support and finance collaborative research projects related to the electrical industry, smart grids, transportation electrification, and intelligent vehicles and transportation systems, by pooling the expertise and resources of industrial partners and research institutions.

They provide access to grants for R&D projects involving the development of new technologies associated with:

- Electrification of transport;
- Autonomous vehicles and intelligent transport systems;
- Processes for vehicle lightening;
- Electricity production (hydraulic, solar, wind, etc.);
- Transmission, distribution, storage, and optimized use of electrical energy.

CONSORTIUM DE RECHERCHE ET INNOVATIONS EN BIOPROCÉDÉS INDUSTRIELS AU QUÉBEC (CRIBIQ)



CONTACT PERSON:

Jean Philippe Chenel, Director of Innovation 418 914-1608 ext. 203 jp.chenel@cribiq.qc.ca

CRIBIQ's mission is to bring together businesses and public research institutes to create value through the promotion of innovation and the funding of collaborative research projects in the fields of biobased products and bioprocesses.

Its levers of action are based on 3 industrial sectors:

- Industrial bioproducts (bioenergy, biosourced chemistry, and biosourced materials);
- Environment;
- Agri-food.

CONSORTIUM DE PARTENARIATS DE RECHERCHE EN TECHNOLOGIES DE L'INFORMATION ET DES COMMUNICATIONS (PROMPT)



CONTACT PERSON:

Jinny Plourde, SPO Program Director, Quantum & INNOV-R 514 875-0032 ext. 14 jplourde@promptinnov.com

Prompt is Quebec's industrial research consortium in the digital and ICT field. It supports the creation of partnerships, the development of projects and the financing of R&D between businesses and the institutional research community. The projects funded cover all sub-sectors of this vast field, from software and hardware development to components, networks, and applications. As an innovation broker, Prompt aims to breathe new vitality into the ecosystem of innovation and collaborative research in ICT. With the financial support of the Quebec government and the private sector, Prompt stimulates the creation of new alliances that enhance the R&D capabilities of Quebec-based businesses, stimulate private research investments, and foster the development of highly qualified personnel for Quebec's future.

PÔLE DE RECHERCHE ET D'INNOVATION EN MATÉRIAUX AVANCÉS DU QUÉBEC (PRIMA QUÉBEC)



CONTACT PERSON:

Michel Lefèvre, B.Eng., Ph.D., Director of Programs, and International Collaboration 514 284-0211 ext. 227 michel.lefevre@prima.ca

PRIMA Quebec animates and supports the advanced materials ecosystem, an engine of innovation and growth for the province of Quebec. Through its support and financing, it helps stimulate the competitiveness of Quebec-based businesses by enabling them to benefit from research expertise. The targeted application sectors include transportation, infrastructure, energy, the environment, microelectronics, telecommunications, health, chemicals, and textiles.

The technologies targeted by this call for projects mainly include:

- **New materials:** Polymers, elastomers, biomaterials, metals, innovative fillers, cellulosic filaments, natural and synthetic fibers, nanomaterials, etc.;
- Formulated materials or finished or semi-finished high-performance products: Composites (TD or TP), rubbers, alloys, ceramics, intelligent textiles, flexible materials, membranes, thin layers, coatings, biocompatible materials, encapsulation, sensors, etc.
- Implementation and scaling processes and new characterization techniques: Additive manufacturing and 3D printing, surface modification and treatment, micro/nanofabrication, tooling, new characterization instruments, modeling and simulation, shaping processes, etc.

CONSORTIUM DE RECHERCHE ET D'INNOVATION EN AÉRONAUTIQUE DU QUÉBEC (CRIAQ)



CONTACT PERSON:

Mohammed Boutouba, Project Portfolio Manager 514 244-8443 mohammed.boutouba@criaq.aero

CRIAQ is a unique model of collaborative research conducted by businesses of all sizes involving universities and research centers. It promotes industry research collaboration to identify and develop projects that meet industrial requirements.

Through CRIAQ, businesses have access to the expertise of renowned researchers and to financial resources that will allow them to significantly increase their initial R&D budget.

CONSORTIUM DE RECHERCHE ET D'INNOVATION EN TRANSFORMATION MÉTALLIQUE (CRITM)



CONTACT PERSON:

Jean-François St-Cyr, Program Manager 418 446-7187 jfstcyr@critm.ca

CRITM is a non-profit organization. It is the ninth (9th) sectorial grouping of industrial research accredited and financed by the Government of Quebec.

The CRITM's mission is to increase the wealth of metal processing businesses by supporting innovation. It contributes to the realization of applied research projects between businesses and research institutions in the following four areas:

- Development of transformation processes;
- Design of advanced metal products;
- Reduction of the ecological footprint;
- Reduction of energy consumption.

CENTRE QUÉBÉCOIS DE RECHERCHE ET DE DÉVELOPPEMENT DE L'ALUMINIUM (CQRDA)



CONTACT PERSON:

Raphaëlle Prévost-Côté, Attachée d'administration RD raphaelle.cote@cqrda.ca

The Centre québécois de recherche et de développement de l'aluminium (CQRDA), created in 1993, actively supports links between SMEs, educational institutions, and public and private research centres in Quebec.

While promoting the use of aluminum in the R&D projects it is asked to support, the CQRDA provides technical and financial resources to various promoters with a creative and innovative spirit who want to create and expand in this sector of activity.

Through its liaison, monitoring and R&D activities, the CQRDA has been effectively transferring knowledge, expertise and new technologies that have been building up Quebec's wealth for 25 years.