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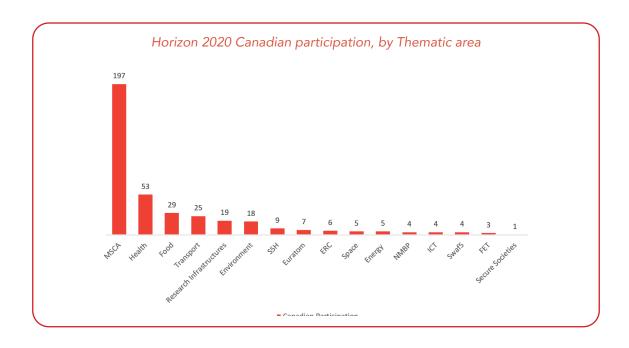
INTRODUCTION

Europe and Canada have a longstanding collaboration in Science, Technology and Innovation (STI), based on shared values, similar scientific cultures and many joint initiatives that made Canadians and Europeans each other's second leading STI partners among industrialized nations.



This relationship gives a powerful foundation for addressing strategic challenges together: economic growth, environmental sustainability, human health, peace and security. The Canadian S&T Strategy sets out a framework for knowledge creation that specifically establishes international standards of excellence, seeks talent worldwide and encourages partnerships across all sectors at home and abroad.

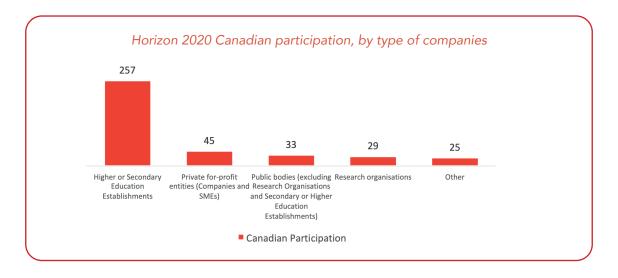
In the past Framework Programmes, Canadian participation has risen constantly reaching its peak under Horizon 2020 (2014-2020) with the participation of 389 Canadian entities.



In the graphic, evidence is shown for Canadian participation in Horizon 2020 main funding schemes. The most successful for Canadians was Marie Sklodowska Curie Actions, with 197 participations; then schemes belonging to the Societal Challenges pillar, Health, Food and Transport sectors, registered respectively 53, 29 and 25 participations; Research Infrastructures, promoted 19 Canadian participations while actions linked to Environment and Societes funding opportunities generated 18 and 9 participations. Euratom, the research programme for nuclear research and training, has provided 7 collaboration opportunities to Canadian entities. Little participation was granted to Canadians within the ERC scheme (6), Space and Energy (5), Nanotechnologies, Advanced Materials, Biotechnology, and Advanced Manufacturing and Processing (NMBP), ICT and Science with and for Society (4), and Future and Emerging Technologies (FET) with 3 participations. The last scheme funded only one Canadian participation in Horizon 2020, Secure Societies.



In the graphic above, data is shown for Canadian participation in Horizon 2020, sorted by Pillars. The Pillar that resulted as the most successful for Canadians is the Excellent Science Pillar, with 225 participations. It is followed by the Societal Challenges Pillar, with 150 participations. From this point on, access granted to Canadians has been less successful, as the Industrial Leadership Pillar provided 13 participations while Euratom and Science with and for Society (SwafS), respectively only 7 and 4 participations.



In the graphic, data is shown for Canadian Participation in Horizon 2020 sorted by type of organization. Higher or Secondary Education establishments have participated the most to the Horizon 2020 Framework programme, with 257 participations during the 2014-2020 period. Private for profit entities registered 45 participations to Horizon 2020 while Canadian Public Bodies, 33. The latter are followed by Research Organisation, which have participated 29 times in H2020 funding schemes. Other organizations (i.e. individuals, scientists, NGOs...) registered 25 participations in Horizon 2020.

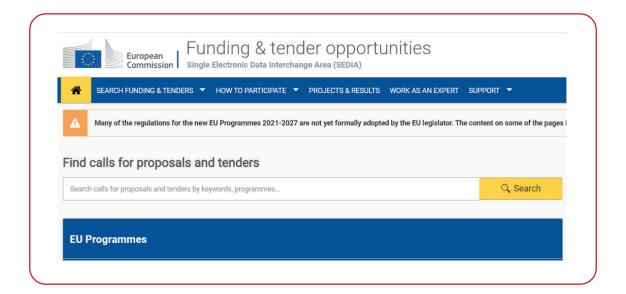
1. STEP-BY-STEP: GETTING STARTED

This Chapter presents the most important on-line sources of information about Horizon Europe and explains the first steps to take for organizations and individuals planning to participate: how to open an account, register an organization, apply to be an expert/evaluator and find potential European partners. In this chapter it will be introduced a description of Enterprise



Europe Network (EEN) and its services. Annex I will thoroughly analyze the Model Grant Agreement and the subsequent implications for Canadian participation.

1.1 Finding Key Information



Funding and Tenders Portal

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home

The Funding and Tenders Portal is the main gateway to Horizon Europe: researchers, innovators, academics can find opportunities for conducting excellent research through funding, support services, reference documents and online guidance¹. It is a user-friendly platform which helps users at any stage of their journeys, from finding partners and networks to preparing, submitting and managing projects. It has both public and secure sections. In the public section you will find:

¹ As the <u>Horizon Europe Online Manual</u>, a step-by-step guide provided by the European Commission on practical issues (costs, rules of consortia, eligibility etc) regarding EU's projects.

- → Search funding and tenders: This section provides all Horizon Europe calls for proposal described in detail, including a description of each specific research topic for which proposals are sought and downloadable "call documents" including the relevant Work Programmes and other information for applicants. Topics/open calls are searchable by status (open/closed or forthcoming), title (keyword), research area, publication date and deadline date as well as by cross cutting priorities addressed.
- → **How to participate:** Gives a synthetic five-step-approach in order to find and apply for suitable EU funding opportunities.
- → **Projects & Results:** this section provides a detailed list of EU projects and their results so far. The user-friendly interface provides data for the Framework programmes since 2007. The Horizon Europe dataset (2021-2027) is still under construction.
- → **Work as an expert:** Register as an expert evaluator for Horizon Europe.
- → **Support:** Provides a listing of useful links, guidance and helpdesk contacts for trouble-shooting related to Horizon Europe projects.

Horizon Europe Website

The Horizon Europe website describes the policies and programme architecture shaping the European framework programme for research and innovation:

https://ec.europa.eu/info/horizon-europe_en

The webpage has been designed to provide the broadest and the clearer approach to the various schemes and instruments embedded in Horizon Europe, through which Canadians may apply in accordance to the legislative texts and current provisions.

Canadians will find further information about:

What is Horizon Europe, a brief introduction about the revamped European Framework Programme for research and innovation, its main objectives and the challenges it seeks to tackle.

New elements in Horizon Europe, highlighting what has changed in the new Framework Programme comparing to its predecessor, Horizon 2020.

Apply for funding, a clickable link redirecting to the Funding and Tenders Portal.

Strategic plan and Work Programmes: the first, sets the content of work programmes for Horizon Europe; the second, enshrines all funding opportunities under Horizon.

Horizon Europe programme structure, defining the Framework Programme's funding schemes

and Pillars, plus the complementary programmes which will work in direct synergy.

Mission areas, Horizon Europe will incorporate research and innovation missions to increase the effectiveness of funding by pursuing clearly defined targets.

European partnerships, Horizon Europe will support European partnerships with EU countries, the private sector, foundations and other stakeholders. The aim is to deliver on global challenges and industrial modernisation through concerted research and innovation efforts.

News and events. To keep track of novelties and related events related to Horizon Europe.

CORDIS Website

https://cordis.europa.eu/

The "Community of research and development Information System" (CORDIS) website provides access to news and information on all European Framework Programmes since 1990.

The website is particularly useful for:

- → **Results Packs:** multilingual collections of up-to-dated articles that focus on a specific theme.
- → **Research*EU Magazines:** Regular EU official magazine highlighting the most promising project outcomes in a range of domains, with a focus on a particular theme in every issue.



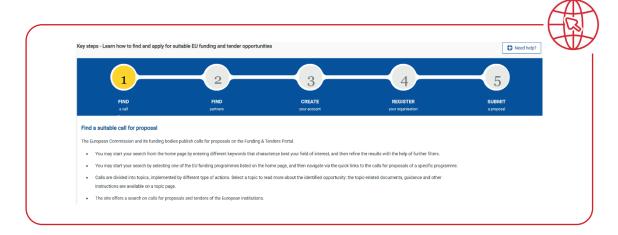
- → **News and Events:** Find Programme updates and articles about Horizon Europe research and related events on research conferences and networking opportunities.
- → **Projects and Results:** A unique feature of the website. Follow this tab to a searchable database of information on all Framework Programme projects since 1990. Search the database by the country of each participant, by theme, title and other selections. Find grant details, funding, participants, publications and summaries.

1.2 Using the R&I Funding and Tenders Portal

Information and assistance

How to participate

By selecting the "How to Participate" tab on the Funding and Tenders portal main page, the interested Canadian entities are introduced to the user-friendly instructions on getting started with the key parts of the portal.



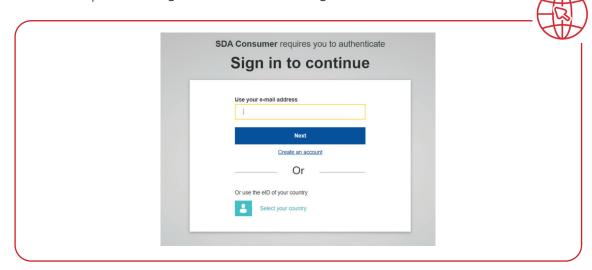
- → **Key steps:** Canadians will learn how to find and apply for tailored EU funding opportunities. In order to help participants to deliver successful proposals, the European Commission has planned as a 5-step-approach:
 - 1. Find suitable call for proposals
 - 2. Find project partners (optional)
 - 3. Create an EU Login account
 - 4. Register an organisation
 - 5. Submit your grant proposal
- → **Reference documents:** This page includes reference documents of the programmes managed on the EU Funding and Tenders portal, from the legal documents and Commission's work programmes up to model grant agreements and guides for specific actions.
- Participant register: If a Canadian subject wants to participate in a project proposal or in a call for tenders, it must proceed through the eSubmission provided by the European Commission. The organisation needs to be registered and have a 9-digit Participant Identification Code (PIC). In this section, it is possible to search for already registered organisations (PIC search) or register a new one (Register your organisation).

Opening an account

Individuals: European Commission Authentication Service (ECAS)

To enter the secure area in the Participant Portal, the user must first open an account through the European Commission Authentication Service (ECAS), as the service acts similarly to an authentication firewall for the Funding and Tenders Portal. Anyone may establish an account with ECAS and enter the Funding and Tenders Portal: there is no limit on the number of individual accounts that can be affiliated with a given organisation.

To open an ECAS account, select "Register" on the home page of the Funding and Tenders Portal and insert the information required (username and email address). A password will be sent to your email address within minutes. Return to the home page of the Funding and Tenders and select Login. You will be directed to the page in the screenshot below. When prompted to indicate a user "Domain", select "External" to indicate that you are not a Commission employee. Use the new password to gain access to the Funding and Tenders Portal.

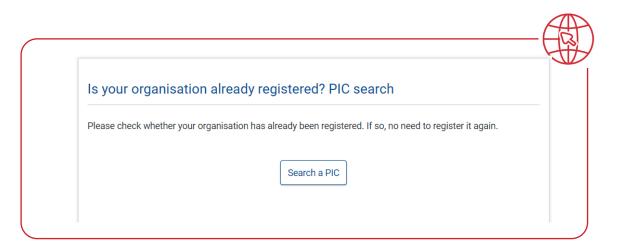


Once logged into the Funding and Tenders Portal, one should complete the user account by identifying the organisations and/or proposals and projects with which they are associated, and then establishing their sole or multiple role in these.

Registering an organization (Legal entity)

Participant Information Code (PIC)

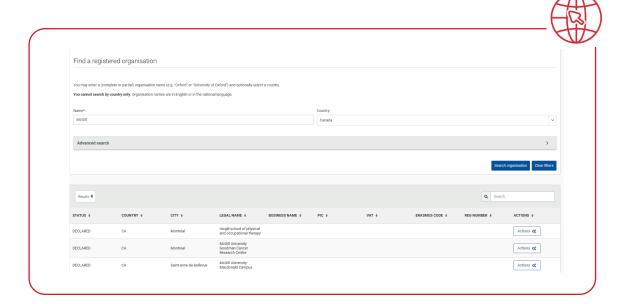
To participate in a Horizon Europe project, a researcher must be associated with a particular organisation or legal entity that is registered with the European Commission. Once registered, organisations receive a unique nine digit "Participant Identification Code" (PIC) that is required for any researcher to submit a proposal. The Commission will use the PIC in all interactions with the organisation and associated researchers.



TIPS

To know if your organization has already a PIC, check on the **Participants Register:**https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/how-to-participate/participant-register



If an organisation does not have a PIC, it must obtain one by registering in the Organization Register. It is hosted within the Funding and Tenders Portal and can be accessed by selecting "Register your organisation". To complete the registration, information regarding the legal status and finances of the organisation will be required. If it is not possible to complete the registration in one session, the information may be saved and re-opened by selecting "My Organisation" in the Funding and Tenders Portal. Once complete, a provisional PIC will be provided electronically within 48 hours.

Please note that, only if a proposal is successful, the Commission will proceed with the validation of all information in the Organisation Register, and provide a definitive PIC. Once validated, the organisation will be required to designate a person to serve as its "Legal Entity Appointed Representative" (LEAR) who is authorised to sign legal documents for the organisation. The Commission will also proceed with a financial viability check at that time. These steps are taken regardless of the age, size or reputation of an organisation.

Designating a Legal Entity Appointed Representative (LEAR)

Once an organisation has been validated, it must appoint someone to serve as its Legal Entity Appointed Representative (LEAR). This person must be authorized to manage legal and financial information about the organisation, manage the access rights of others in the organisation and appoint representatives to electronically sign grant agreements or financial statements on behalf of the organisation via the Funding and Tenders Portal. Typically, a LEAR is employed in the central administration and has an overview of all the projects and proposals in which the organisation is involved, and the roles colleagues have in those projects.

As a general rule, all documents must be submitted (as scanned versions) via the EU Funding & Tenders Portal Electronic Exchange System (i.e. upload in the Participant Register). Upon receipt of approved documents, the Commission will confirm the appointment by electronically providing the LEAR a PIN Code.

More info: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/guidance/rules-lev-lear-fca_en.pdf

Serving as an Expert

The European Commission maintains a database of experts in multiple fields of research and innovation to assist in the evaluation of proposals (peer review), monitoring of projects and in the preparation, implementation or evaluation of programs

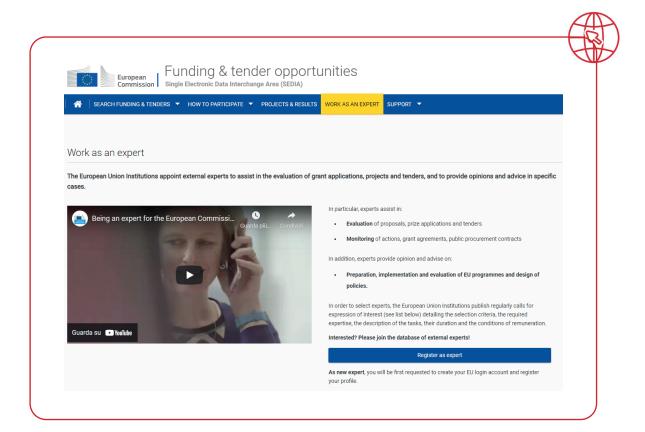
and policies (Horizon Europe Programme Committee).

It is an excellent way for a researcher or innovator to meet European colleagues, learn more about European research and innovation and

familiarize themselves with the application and review processes. The unit cost per working day used previously was broken down into a rate per work unit (i.e. EUR 45 per work unit; 10 work units are equivalent to EUR 450; 10 work units are equivalent to 1 working day) and each task was given the number of work units that correspond to the working time normally required for it.

Evaluations are usually carried out remotely first (i.e. at the evaluator's home or place of work) and then in Brussels or Luxembourg for the evaluators' final consensus meeting, with sessions lasting up to one week.

The number of proposals reviewed by an expert will vary greatly depending on the subject area. Researchers must be registered in the expert database to be selected. To register, complete the profile in "Register as expert" in the Participant Portal (on the right side in the screen shot below).



Finding partners/Being found

Participating in a Horizon Europe project is an excellent way for Canadian researchers to work with European colleagues. In fact, Canadians often know with whom they want to work even before they know of a relevant call for proposals. When this is the case, it is best for them to contact their European colleagues and sale if they are aware of calls for proposals in Horizon Europe



colleagues and ask if they are aware of calls for proposals in Horizon Europe that they might address together. They might also ask if their European colleagues know of doctoral students seeking postdoctoral positions abroad. All too often, Europeans are not aware that Canadians are eligible to participate in Horizon Europe projects.

Most Horizon Europe projects require at least three European partners from three different Member States or Associated Countries², and Calls for proposal may specify that partnerships should include researchers and innovators from across the value chain, the European Commission has developed a number of instruments to help researchers and innovators find partners and be found by potential partners. These include:

- → **CORDIS Partner Search:** Perhaps the world's largest database of self-registered profiles of researchers and innovators, it is searchable by area of expertise, country and call for proposal and accepts Canadian profiles.

 https://cordis.europa.eu/
- → **Experienced researchers**, who have led or participated in funded Framework Programme projects in relevant areas, can be identified in the searchable database of "Projects and Results" on the Funding and Tenders Portal website. The database contains grant details, project descriptions and information on funding, participants and publications for all projects since 1990. The database is searchable by the country of each participant, by theme, project title, and other criteria.

 Chitps://ec.europa.eu/info/funding-tenders/
- → **Events.** It is often useful to attend major European academic and/or professional conferences to meet potential partners. In addition, the European Commission organizes "Info Days" to provide information following the release of each Work Programme. Prior to submission deadlines, it will organize "Proposers' Days," and "Brokerage Events", designed specifically to bring together researchers and innovators interested in particular calls. Information on these events is available on the CORDIS website at:

 https://cordis.europa.eu/news/en
- National Contact Points (NCP) are individuals, or groups of individuals, chosen by national authorities to provide information and assistance to researchers and innovators in their country regarding all aspects of the Framework Programme. They play an active role in building trans-national partnerships and preparing proposals. Canada has a network of NCPs, started since the 6th Framework Programme. The Canadian network will be renewed under Horizon Europe and the information will be available at the link below.

² Canada is still negotiating its Association status with European Union.



Canadian NCP network:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/ncp

→ Enterprise Europe Network (EEN) brings together almost 600 business support organizations in more than 50 countries to assist any company that wants to apply for Horizon Europe funding, improve innovation management or find international partners for business, innovation or technology cooperation. See the searchable database of EEN member organizations at: http://een.ec.europa.eu/

Canada has recently joined the network, proving that the ties with the European Union are close and promising for a fruitful cooperation. In this context, EEN Canada works closely with both Canadian and European colleagues to advance opportunities for SMEs by providing business and innovation support services that help to strengthen companies' competitiveness and sustainability.

http://www.een-canada.ca/

More information at Chapter 5 of this guide.

1.3 Finding a call for proposal/Research Topic

The Funding and Tenders Portal provides a user-friendly procedure in order to allow researchers and innovators, coming from Canada, to find Calls for Proposals and Topics of interest.

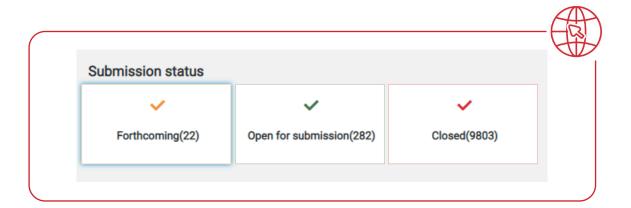


Search Calls for Proposal by keyword

The simplest research, typing in the keywords for a particular call or field of action to get the complete list of Calls for Proposals related, sorted by Grants or Tenders.

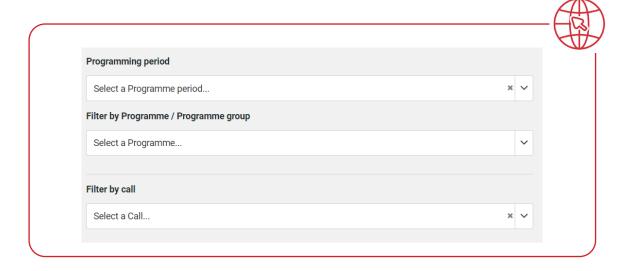
Search for status and topic

The second method to gain access to EU's Calls for Proposals under Horizon Europe is the search by status and topics. Just under the bar where to put the keywords, is it possible to filter Horizon's opportunities by their actual status, sorted by:



- → **Forthcoming**, calls foreseen to be published in the following weeks. Best to know the next opportunities for funding, as to prepare the consortia, the project and the documents with some anticipation.
- → **Open for submission**, the calls that are currently opened.
- → **Closed**, the calls which are not available to provide funding. However, the closed calls for proposals may be an ideal place to start, as they can provide a general overview of what a European Union's call may look like, giving beforehand information to Canadians who want to be best prepared for future opportunities.

Further degrees of sorting are available, to provide a searching channel which is more precise and fit-for-purpose:



Submitting a proposal

Electronic Submission System



All proposals for Horizon Europe projects must be submitted through the Electronic Submission System in the Funding and Tenders Portal. Proposals for a given Topic can only be opened in the system by the proposal coordinator, and only through a link in the tab "Submission Service" within the Topic description.

Once the proposal is opened, the coordinator can add partners to the proposal by entering their PIC number. Thereafter, the coordinator and partners can access the Electronic Submission System directly through the "My Proposals" section of the Funding and Tenders Portal.

The Electronic Submission System guides applicants through the preparation of a proposal. As the preparation and evaluation of Horizon Europe grants varies with the type of funding instrument employed, these topics will be addressed in the subsequent chapters.

2. STEP-BY-STEP: PILLAR I EXCELLENT SCIENCE

Pillar I presents opportunities for Canadians to participate in the mobility, training and career development programmes of Horizon Europe as well as possibilities for collaboration on the development of future and emerging technologies, with a specific focus on the European Research Council (ERC) and Marie Skłodowska Curie Actions (MSCA). The second half of the chapter explains how to prepare a proposal, negotiate a grant agreement, and manage such projects.

Fundamental Research and Innovation

Excellent Science, the first pillar of Horizon Europe, aims to reinforce and extend the excellence of European research and innovation by investing in three fundamental activities. They are all inherently forward-looking, focusing on the next generation of researchers and innovators from across Europe and around the world by supporting advanced research training, leading edge research, breakthrough innovations and European research infrastructures. They are largely investigator-driven initiatives that give the scientific community a strong role in determining the avenues of research to be pursued.

The European Commission, learning from Horizon 2020 experience, has established for Horizon Europe three specific programmes, each with several different funding instruments, to support these three fundamental activities.

- 1. The European Research Council (ERC) provides flexible funding to enable exceptionally talented and creative individuals, and their research teams, to pursue the most promising avenues at the frontier of science;
- 2. **Marie Sklodowska-Curie Actions (MSCA)** provide innovative research training as well as opportunities for cross-border and cross-sector mobility;
- 3. **Research Infrastructure (RI, including e-infrastructures)** aims at further developing European research infrastructures for the years to come.

PILLAR I (Excellent Science)

EUROPEAN RESEARCH COUNCIL

MARIA SKŁODOWSKA-CURIE ACTIONS

RESEARCH INFRASTRUCTURES

The deliberate internationalisation of these activities, and the commitment to support investigatordriven research throughout, makes them particularly flexible and accessible vehicles for Canada-EU collaboration.

2.1 European Research Council (ERC)



Budget: € 16.044.000.000 (2021-27)

https://erc.europa.eu/

The ERC supports investigator-driven frontier research in all fields based on scientific excellence alone. It funds and supports outstanding individuals in establishing research teams that advance frontier research in their field. The Council awards four plus one types of grants (covering 100% of direct cost and 25% of indirect costs to the maximum allowed) plus one complementary scheme, the Proof of Concept.

ERC Starting Grant: Top early-career researchers (2 – 7 years after PhD) are eligible for up to €1.5 million for a period of 5 years. Researchers coming from outside Europe may request and additional €1 million to cover up start-up costs.

ERC Consolidator Grant: Excellent independent researchers (7 – 12 years after PhD) are eligible for up to €2 million for a period of 5 years. Researchers coming from outside Europe may request an additional 1€ million to cover start-up costs.

ERC Advanced Grant: Senior researchers with significant achievements in the last 10 years are eligible for up to €2.5 million for a period of 5 years. Researchers coming from outside Europe may request an additional 1€ million to cover start-up costs.

Synergy Grant: Starting from 2022. A group of two to maximum four Principal Investigators (PIs) working together and bringing different skills to tackle ambitious research problems. No specific eligibility criteria regarding academic training are required. Funding up to a max of €10 million for a 6-year period plus additional € 4 million a to cover start-up costs. In this funding scheme, one host institution of the Principal Investigator can be based in a non-European Union country.

Proof of Concept: ERC scheme opened for researchers who have already obtained an ERC grant in the past years. Researchers are eligible for a lump-sum up to €150.000 in order to bridging the gap between the researchers' past ideas to the market.



OPPORTUNITIES FOR CANADIANS:

ERC grants offer important opportunities for Canadian researchers and innovators as well as Canadian research institutions because:

- → They are opened to researchers from all around the world;
- → Principal investigators are required only to spend a minimum of 50% of their work time on the project and a minimum of 50% of their work time in a European Union (EU) Member State (MS) or Associated Country (AC)³. They can spend the rest of the time in Canada;
- Research institutions outside Europe may be eligible for funding from the grant if they host researchers who are part of the research team and essential to the project;
- → They offer additional funding for researchers coming from outside Europe.

European Research Council (ERC) Proposal preparation and evaluation

⇒ Proposal Preparation

The Starting, Consolidator and Advanced Grant proposals are prepared and submitted by the Principal Investigator, in collaboration with the European host institution.



For each call, a Guide for Applicants is published on the ERC website and the Research and Innovation Participants Portal. The guides describe in detail the purpose, rules of participation, selection criteria and eligible costs. They also include templates of the electronic forms to be prepared and submitted online. It is essential for Canadian applicants to review the guides carefully and contact the research services office at the proposed European "host" institution, both to notify them of a potential application and to obtain advice and assistance. They should ask for sample proposals, templates and spreadsheets to facilitate preparation of the proposal and the calculation of expenses to ensure that they use terminology and methods for budgeting that are consistent with those of the ERC.

A complete proposal consists of the following elements:

³ Canada Association Agreement still under negotiation

Extended synopsis: 5 pages

Curriculum Vitae: 2 pages

Track Record: 2 pages

Scientific Proposal: 14 pages

Resources and Time Commitment: 2 pages

Host Institution Binding Statement of Support

- **Ethics Review Table**
- PhD record and supporting documentation for eligibility checking (for Starting and Consolidator Grants only)

Evaluation Procedure

A single submission of the full proposal is followed by a two-step evaluation. Throughout the process, peer review is conducted by a panel of high-level experts in the subject area of each proposal. The ERC has established peer review panels in ten subject areas within the physical sciences and engineering, nine in the life sciences and six in the social sciences and humanities. A full list of the panels is available in the ERC Work Programme Annex I, page 47-494. Please note that remote referees may assist expert panels.



The allocation of the proposals to the various panels will be based on the expressed preference of the applicant. Proposals may be allocated to a different panel with the agreement of both Panel Chairs concerned. In cases where panels determine that a proposal is of a cross-panel or cross-domain nature, panels may request additional reviews by appropriate members of other panels or additional remote referees.

During the electronic proposal submission, applicants can request that up to three specific persons should not act as peer reviewers in the evaluation of their proposal. It is fine to exclude a reviewer if you have a very good reason to do so (note that you do not have to specify the reason for exclusion).

At step one (1), the extended synopsis and the Principal Investigator's track record and CV will be assessed (not the full scientific proposal).

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021/wp_horizonerc-2021_en.pdf

→ At step two (2), the complete versions of all retained proposals will be assessed (including the full scientific proposal).

Principal Investigators applying for Starting and Consolidator Grants whose proposals are retained for step two (2) may be invited for an interview in Brussels⁵, to present their project to the evaluation panel.

⇒ Evaluation Criteria

For all ERC grants, "excellence" is the sole criterion of evaluation. It will be applied to the evaluation of both the research project and the track record of the Principal Investigator.



The Principal Investigator's transition to independence and possible breaks in their research career will be considered, as will the amount of time they expect to spend on the ERC project and in the Member State or Associated Country of the "host" institution.

In general, projects wholly or largely focused on the collation and compilation of existing material in new databases, editions or collections are unlikely to constitute ground-breaking or "frontier" research, no matter how useful such resources might be to subsequent original work. Such projects are therefore unlikely to be recommended. Similarly, if an applicant submits a proposal that coincides fully or in essence with a proposal made by another applicant in the same or any other call, both the ground-breaking nature of the project and the Principal Investigator's capacity to carry it out may be called into question.

⇒ Grant Preparation and Management

Applicants will receive electronic confirmation of submission of their proposal. Within four to five months of the deadline for submission, they should receive the first feedback from the ERC.



If approved, the procedure for the preparation and management of a Grant Agreement is similar to that for other Horizon Europe/2020 grants and is described in Annex I below (except that no Consortium Agreement is required). See page 27 and page 104 Note that the ERC employs a unique Grant Agreement, that differs in certain respects from the Model Grant Agreement for Horizon Europe. The ERC Templates for multi-beneficiary and mono-beneficiary projects are located at:

https://erc.europa.eu/sites/default/files/document/file/ERC_StG_2021_B1_FINAL.docx https://erc.europa.eu/sites/default/files/document/file/ERC_StG_2021_B2_FINAL.doc https://erc.europa.eu/sites/default/files/document/file/ERC_HI_letter_2021_FINAL.doc

⁵ According to COVID-19 European Union disposals.

2.2 Marie Sklodowska-Curie Actions (MSCA)



Budget: € 6.603.000.000 (2021-27)

https://ec.europa.eu/research/mariecurieactions/msca-actions_en

The Marie Skłodowska-Curie Actions (MSCA) focus on excellent research that is fully bottom-up, open to any field of research and innovation from basic research up to market take-up and innovation services. The MSCA are the main instrument at EU-level for attracting researchers from third countries to Europe, thus making a major contribution to global cooperation in research and innovation.

The MSCA strongly contribute to excellent research, boosting jobs, growth and investment by equipping researchers with new knowledge and skills and providing them with an international as well as inter-sectoral exposure (including through academia-business collaboration), to fill the top positions of tomorrow.



There are 3 specific funding opportunities open for Canadians:

→ MSCA Postdoctoral Fellowships:

Postdoctoral Fellowships support postdoctoral researchers moving between EU Members States, Horizon Europe Associated Countries and Third Countries (like Canada⁶) or between sectors for advanced research and innovation skills training. Supported fellows must be postdoctoral researchers at the date of the call deadline, (i.e. in a possession of a doctoral degree, defined as a successfully defended doctoral thesis, even if the doctoral degree has yet to be awarded).

Recruited researchers must comply with the following mobility rule: they must not have resided or carried out their main activity (work, studies, etc.) in the country of the beneficiary (for European Postdoctoral Fellowships), or the host organisation for the outgoing phase (for Global Postdoctoral Fellowships) for more than 12 months in the 36 months immediately before the call deadline. At the call deadline, supported researchers must have a maximum of 8 years full-time equivalent experience in research, measured from the date that the researcher obtains a doctoral degree and certified by appropriate documents. Years of experience outside research and career breaks (e.g. due to parental leave⁷), will not be taken into account.

At the current state of negotiations between EU and Canada Association Agreement.

Maternity: for each child born prior to the call deadline, 18 months will be deducted from the experience in research unless the applicant can document a longer parental leave prior to the call deadline. Paternity: for each child born prior to the call deadline, the documented time of parental leave taken until the call deadline will be deducted from the experience in research.

Postdoctoral Fellowships either can take place in Europe (i.e. in an EU Member State or a Horizon Europe Associated Country) or in a Third Country not associated to Horizon Europe:

- → European Postdoctoral Fellowships are open to researchers of any nationality who wish to engage in R&I projects by either coming to Europe from any country in the world, or moving within Europe.
- → Global Postdoctoral Fellowships are open to European nationals or long-term residents who wish to engage in Research &Innovation (R&I) projects with organisations outside EU Member States and Horizon Europe Associated Countries. These fellowships require an outgoing phase of maximum 24 months in a non-associated Third Country (like Canada), and a mandatory 12-month return phase to a host organisation based in an EU Member State or a Horizon Europe Associated Country.

The EU contribution for MSCA Postdoctoral Fellowships will take the form of unit contributions: Living allowance (EUR 5080), Mobility allowance (EUR 600), Family allowance -if applicable (EUR 660), Research, training and networking contribution (EUR 1000) and Management and indirect contribution (EUR 650).

Researchers receiving a Postdoctoral Fellowship may opt to include a secondment phase, within the overall duration of their fellowship in any country worldwide (including Canada).



OPPORTUNITIES FOR CANADIANS:

European Postdoctoral Fellowships may be attractive for postdoctoral Canadian researchers seeking positions and advanced research and/or innovation training in Europe⁸. Special consideration is given to individuals restarting research careers and to researchers who are citizens or long-term residents of European Member States seeking to return to research positions in Europe⁹. Global Fellowships may be attractive for Canadian institutions as they provide full funding (living allowance, mobility, family allowance) for postdoctoral European researchers to receive training and conduct research for one to two years in Canada.

Moreover, Canadian institutions are not required to submit a proposal, sign a grant agreement or administer the award. Yet, they are eligible to receive support for "research, training and networking costs" from the European "host" institution. At the proposal stage, a Canadian institution must submit a "letter of commitment" and a Canadian researcher must provide information regarding their expertise, research and the training they will provide. Following signature of a Grant Agreement, the Canadian institution must negotiate a "partnership agreement" with the European "host" institution (detailing financial and training provisions).

⁸ Please note that European Postdoctoral Fellowships are not open to Canadian researchers on sabbatical.
Researchers holding European Fellowships have an obligation "not to receive, for activities carried out in the frame of the action, other incomes than those received from the beneficiary" (host institution).
9 A. Individuals who have not worked in research for 12 months prior to the application deadline can apply to have

⁹ A. Individuals who have not worked in research for 12 months prior to the application deadline can apply to have their application considered by a multi-disciplinary Career Restart Panel (CAR). B. European citizens and long-time residents working in research outside Europe can apply to have their applications considered by a multidisciplinary Reintegration Panel (RI). Long-term residents are researchers who spent a period of full-time research activity of at least five consecutive years (without breaks in research) in one or more Member States or Associated Countries.

→ MSCA Doctoral Networks

The MSCA Doctoral Networks aim to train creative, entrepreneurial, innovative and resilient doctoral candidates, able to face current and future challenges and to convert knowledge and ideas into products and services for economic and social benefit.



The MSCA Doctoral Networks will raise the attractiveness and excellence of doctoral training in Europe. They will equip researchers with the right combination of research-related and transferable competences, and provide them with enhanced career perspectives in both the academic and non-academic sectors through international, interdisciplinary and inter-sectoral mobility combined with an innovation-oriented mind-set.

Applications must be submitted by a consortium including at least three independent legal entities, each established in a different EU Member State or Horizon Europe Associated Country and with at least one of them established in an EU Member State. The EU contribution for MSCA Doctoral Networks will take the form of unit contributions: Living allowance (EUR 3 400), Mobility allowance (EUR 600), Family allowance -if applicable (EUR 660), Research, training and networking contribution (EUR 1 600) and Management and indirect contribution (EUR 1 200).



OPPORTUNITIES FOR CANADIANS:

Canadian institutions may participate as 'Associated partners'. Associated partners are entities which participate in the action, but without the right to charge costs or claim contributions. They contribute to the implementation of the action, but do not sign the grant agreement. Associated partners may not employ the researchers under the action.

Associated partners must include a letter of commitment in the proposal to ensure their real and active participation in the action. The involvement of any associated partner for which no such evidence of commitment is submitted will not be taken into account during evaluation.

→ MSCA Staff Exchanges

MSCA Staff Exchanges promote innovative international, inter-sectoral and interdisciplinary collaboration in research and innovation, through exchanging staff and sharing knowledge and ideas at all stages of the innovation chain. The scheme fosters a shared culture of research and innovation that welcomes and rewards creativity and entrepreneurship and helps turn ideas into innovative products, services or processes. It is open to research, technical, administrative and managerial staff.

Applications must be submitted by a consortium including at least three independent legal entities in three different countries, two of which established in a different EU Member State or Horizon Europe Associated Country. If all participating organizations are from the same sector (i.e. either only academic or only non-academic), there must be at least one organization from a non-associated Third Country. Above this minimum, the participation of organizations from any country (i.e. Canada) is possible under the conditions provided by the Horizon Europe Rules for Participation and Dissemination.

Secondments are open for researchers at any career stage (from doctoral candidates to postdoctoral researchers), as well as administrative, managerial and technical staff supporting R&I activities under the action. Supported staff members must be actively engaged in or linked to R&I activities for at least one month (full-time equivalent) at the sending institution before the first period of secondment.

The overall EU contribution for MSCA Staff Exchanges amounts to a maximum of 360 personmonths per project. The maximum duration of the project is 48 months from the starting date set out in the grant agreement. Secondments must last at least one month and cannot be longer than 12 months for the same staff member (independently of the number of organisations the staff is seconded to). It is expected that all organizations will continue to pay staff salaries during the exchanges. The EU contribution for MSCA Staff Exchanges will take the form of unit contributions: Top-up allowance (EUR 2 300), Research, training and networking contribution (EUR 1 300), Management and indirect contribution (EUR 1 000).



OPPORTUNITIES FOR CANADIANS:

Canadian institutions may participate as "Associated partners" (entities which participate in the action, but without the right to charge costs or claim contributions. They contribute to the implementation of the action, but do not sign the grant agreement). Canadian institutions can second and/or host eligible staff members to and/or from EU Member State or Horizon Europe Associated Country.

MSCA Preparation and Evaluation

Proposal preparation

→ The **Postdoctoral Fellowships** proposal should be prepared by the researcher in cooperation with the host organisation, which is represented by the main supervisor of the proposal. The postdoctoral researcher and the supervisor must be two different people.



- → Proposals can be **created and submitted** by the supervisor or the postdoctoral researcher. However, the submission of the proposal and other actions that follow this procedure (such as withdrawal) fall under the final responsibility of the host organisation as represented by the main supervisor, who is also the main contact person for the European Commission.
- → **Doctoral Networks** applications must be submitted by a consortium including at least three independent legal entities, each established in a different EU Member State or Horizon Europe Associated Country, and with at least one of them established in an EU Member State.
- → Staff Exchange applications must be submitted by a consortium including at least three independent legal entities in three different countries, two of which established in a different EU Member State or Horizon Europe Associated Country.
- → **Individual researchers** can apply directly to the organizations and institutions offering positions and fellowships posted on the EURAXESS "Jobs" page.

For each call, a <u>Guide for Applicants</u> is published on the Funding & tender opportunities. The guides describe in detail the purpose, rules of participation, selection criteria, evaluation process and eligible costs. They also include templates and instructions for completing the electronic forms to be prepared and submitted online. It is essential for Canadian applicants to review the guides carefully and contact the research services office at the proposed European "host" institution (or the institution of the coordinator) to notify them of a potential application and to obtain advice and assistance. They should ask for sample proposals, templates and spreadsheets to facilitate preparation of the proposal and the calculation of expenses to ensure that they use terminology and methods for budgeting that are consistent with those of the European Commission.

MSCA proposals consist of the following elements:

- 1. General information about the proposal (including the abstract and peer-review panel selection);
- 2. Data on participants and contacts;
- 3. Budget;
- 4. Ethics issues table;
- 5. Information on Partner organisations (not required for Staff Exchange applications).

Evaluation Criteria

Applications will be evaluated by experts on the basis of the award criteria 'excellence' (50%), 'impact' (30%) and 'quality and efficiency of the implementation' (20%). Applications scoring equal to or above 70% will be considered for funding — within the limits of the available call topic budget. Other applications will be rejected.



Grant Preparation and Management

The coordinator of each MSCA proposal will receive electronic confirmation of submission. Within approximately three months of the submission deadline, they should receive an Evaluation Summary Report (ESR) with the results of the evaluation process. If the proposal is selected for funding, the coordinator will then receive



a letter inviting the proponents to prepare and sign a Grant Agreement with the Commission. The coordinator, acting on behalf of the "host" institution, will manage discussions amongst the partners and, through an online exchange of documents, prepare a Grant Agreement with the European Commission. This process may take two to three months.

After signature of the Grant Agreement, the coordinator will invite the project partners to negotiate and sign a Partnership Agreement governing the internal management of the project, intellectual property issues and the transfer of resources between partners, as required. In the case of an Individual Fellowship, the Beneficiary will also negotiate an Employment Contract with the Fellow.

2.3 Research Infrastructures



Budget: €2.406.000.000 (2021-27)

https://ec.europa.eu/info/research-and-innovation/strategy/european-research-infrastructures_en

While the role of Member States remains central in developing and financing research infrastructures, the Union plays an important part in supporting infrastructure, fostering the emergence of new facilities, broadening access to national and European infrastructures, and making sure that regional, national, European and international policies are consistent and effective. Through the implementation of the European Strategy Forum on Research Infrastructures (ESFRI) roadmap, considerable progress has been made towards integrating and opening national research facilities and developing e-infrastructures underpinning a new digital European Research Area.

Horizon Europe continues these efforts with funding for activities that aim at:

- → Developing European research Infrastructures on the basis of the objectives set under the new Digital Decade policy framework;
- → Fostering the Innovation Potential of research Infrastructures and their Human Capital;
- → Reinforcing European Research Infrastructure Policy and International Cooperation.



OPPORTUNITIES FOR CANADIANS:

The Work Programme encourages international cooperation at the policy level. Calls for coordination and support actions supporting such initiatives are will be launched on the Funding & Tenders Portal, highlighting if and at what scope Canadians entities shall be eligible.

3. STEP-BY-STEP: PILLAR II GLOBAL CHALLENGES AND EUROPEAN INDUSTRIAL COMPETITIVENESS

The Second Pillar Global Challenges and European Industrial Competitiveness

The Pillar Global Challenges and European Industrial Competitiveness is divided in six different thematic clusters, each of those tackling a specific vertical societal issue at its broadest extent. These policy objectives are reflected in specific activities included in each Cluster.

For each Cluster, a Work Programme, released every two years for all of the six specific areas, sets out more detailed objectives. Several Calls for Proposals, each including detailed topics for research corresponding to these objectives, are released every year and Canadians are sought to participate by the means and the extent of the required action.

PILLAR II (Global Challenges & European Industrial Competitiveness)

HEALTH

CULTURE, CREATIVITY & INCLUSIVE SOCIETY

- CIVIL SECURITY FOR SOCIETY
- DIGITAL, INDUSTRY & SPACE
- CLIMATE, ENERGY & MOBILITY
- FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE & ENVIRONMENT

Other actions enshrined in this Pillar will be the following:

- → revamped European Partnerships initiatives where the EU together with private and/ or public partners commit to jointly support the development and implementation of a programme of research and innovation activities;
- → the **European Missions**, high ambition, high-profile initiatives which will put forward concrete solutions to challenges concerning European citizens and society.



OPPORTUNITIES FOR CANADIANS:

The Second Pillar of Horizon Europe is structured in order to be entirely open to international collaborations in tackling shared challenges and people's needs. As of today Canadian researchers will not be automatically funded, but they could access to European funding in case their participation would be deemed essential.

Negotiations between Canada and the European Union to enhance those opportunities are currently ongoing, although they are not yet finalized and consequently, still not legally applicable. In any case, Canadians could find financial support from the Canadian Federal government or Provinces, using the funds listed in <u>Chapter 6</u>.

3.1 Horizon Europe Clusters

Six clusters, for six priority sectors in which the EU and its partners wish to develop deep collaborations, in order to tackle pressing contemporary challenges. Pillar II was designed by the European Commission as to give the opportunity to create synergies among the different themes also leveraging funding from other sources (i.e. working in synergy with the European Partnerships and the Missions, which are enshrined in the very same pillar).

In detail:

⇒ Cluster I – Health

Cluster I - "Health" aims to promote well-being and protect human health in every aspect. It will reduce the burden of diseases and disabilities on people and communities, giving the impulse to societies to adopt a more prevention-minded approach, enhancing and create new health care systems in their efforts towards an equal access to innovation in the health sector. Lastly, it will contribute to foster an innovative and sustainable, resilient and competitive European health industry.

Destinations¹⁰:

¹⁰ The European Commission set a definition of Destination, which refer to packages of actions around which each Work Programme part will be designed, aimed at contributing to the objectives and expected impacts set out in the Strategic orientations. The Destinations will provide policy narrative for the calls and actions included in the WP.

- 1. Staying healthy in a rapidly changing society
- 2. Living and working in a health-promoting environment
- 3. Tackling diseases & reducing disease burden
- 4. Ensuring access to innovative, sustainable & high-quality Healthcare
- 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society
- 6. Maintaining an innovative, sustainable & globally competitive health industry

⇒ Cluster II – Culture, Creativity and Inclusive Society

Cluster II - Culture, Creativity and Inclusive Society, aims to reinforce EU priorities and objectives on democratic governance and citizen participation, while promoting cultural heritage. The initiatives proposed in this cluster are set to respond to multifaceted social, economic, technological and cultural transformations. The scope is expanding civic engagement, while providing transparency, accountability, inclusiveness and legitimacy of governance and tackling violent extremisms.

Destinations:

- 1. Innovative research on democracy and governance
- 2. Innovative Research on the European Cultural Heritage and the Cultural and Creative Industries
- 3. Innovative Research on Social and Economic Transformations

⇒ Cluster III – Civil security for Society

Cluster III - Civil security for Society, aims to protect EU and its citizens from terrorism, organized crime (also including cyber threats) and from the negative externalities stemming from natural and man-made disasters. For the EU and Associated countries and partners, security is a top-tier priority and the latter needs to be tackled adopting effective policies, though the help of latest technologies. In this context, security research provides the resources to be able to adequately counter current threats, enabling the availability of state-of-the-art equipment and knowledge.

Destinations:

- 1. Better protect the EU and its citizens against Crime and Terrorism
- 2. Effective management of EU external borders
- 3. Protected infrastructures
- 4. Cybersecurity
- 5. Disaster-resilient society for Europe
- 6. Strengthened security research and innovation

⇒ Cluster IV – Digital, Industry and Space

Cluster IV - Digital, Industry and Space will develop and stream resources in key enabling, digital and space technologies, which will lie at the foundation of societies and economies. Its main aims is to support digitalisation and transformation of European industries, contributing to securing industrial leadership in key sectors and sovereignty regarding technologies and resources. Nonetheless, this not mean a Europefirst approach: the contribution and the participation of Associated countries will deem necessary for fostering international cooperation in digital, industrial and space sectors and developing win-win partnerships which will deliver solutions at the global level.

Destinations:

- 1. Climate neutral, circular and digitised production
- 2. Increased autonomy in key strategic value chains for resilient industry
- 3. World leading data and computing technologies
- 4. Digital and emerging technologies for competitiveness and fit for the Green Deal
- 5. Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data
- 6. A human-centred and ethical development of digital and industrial technologies

⇒ Cluster V - Climate, Energy and Mobility

Cluster V - Climate, Energy and Mobility, will tackle main issues regarding one of the biggest threats that our societies have ever faced: climate change. In this context, Cluster V will help to reduce negative externalities related to climate while, at the same time, improving the competitiveness of the energy and transport industries. The actions foreseen in this Cluster will contribute to deep-rooted transformations in sectors like research, economy and society in order to achieve climate neutrality, adapt to future changes already present in our biosphere and to ensure a holistic approach to societies' demands and needs.

Destinations:

- 1. Climate sciences and responses for the transformation towards climate neutrality
- 2. Cross-sectoral solutions for the climate transition
- 3. Sustainable, secure and competitive energy supply
- 4. Efficient, sustainable and inclusive energy use
- 5. Clean and competitive solutions for all transport modes
- 6. Safe, Resilient Transport and Smart Mobility services for passengers and goods

⇒ Cluster VI – Food, Bioeconomy, Natural Resources, Agriculture and Environment

Cluster VI – Food, Bioeconomy, Natural Resources, Agriculture will contribute to restore polluted biosystems, tackling and reducing biodiversity, improving natural risk disaster management, as well as the creation of a sustainable and circular use of land and sea. The circularity of raw materials will play a pivotal role, also in green, digital and socially acceptable systems for agriculture. Research and innovation in this sector will benefit people and society by promoting safe and healthy food, coming from safe and healthy soils, waters and skies, also prioritizing the behavioural side of people. Furthermore, number of activities will help to develop vibrant rural and coastal areas and to establish governance models for the transition towards sustainability. In this Cluster, a great importance will be given to fostering the circularity of a climate-neutral economy, in compliance with the European Green Deal, the Paris Agreement on Climate Change and the SDGs.

Destinations:

- 1. Biodiversity and Ecosystem Services
- 2. Fair, healthy and environmentally-friendly food systems from primary production to consumption
- 3. Circular economy and bioeconomy sectors
- 4. Clean environment and zero pollution
- 5. Land, oceans and water for climate action
- 6. Resilient, inclusive, healthy and green rural, coastal and urban communities
- 7. Innovative governance, environmental observations and digital solutions in support of the Green Deal

Funding Instruments

For each Topic, the Commission indicates a specific "funding instrument" (or "type of activity"). The funding instrument defines the type of project, and type of award, that the Commission will support to address a given topic. Canadian participation would be limited in this specific section, as it will be accepted only if deemed "necessary" for the development of the projects and thus, reported in the related Work Programmes for each Cluster. In addition, Canadian participation is to be defined in the light of the outcomes of the Association Agreement negotiations with the European Union (still ongoing).

In the Global Challenges & European Industrial Competitiveness pillar, such instruments are confirmed to be the same as Horizon 2020, as to say Research and Innovation Actions (RIA), Innovation Actions (IA) or smaller scale Coordination and Support Actions (CSA) that support policy, community building or developmental initiatives.

Research and Innovation Actions (RIA):

- Research and Innovation Actions (RIA) support small, medium or large-scale collaborative research and innovation projects aiming to establish new knowledge and/or to explore the feasibility of a new or improved technology, product, process, service or solution. They can finance basic and applied research, technology development and integration, testing and validation on a small-scale prototype in a laboratory or simulated environment. Projects may contain closely connected but limited demonstration or pilot activities aiming to show technical feasibility in a near to operational environment.
- PRIA projects require consortia of three or more organizations located in at least three European Member States or Associated Countries. Beyond this strict minimum, any number of organizations, located anywhere in the world, may participate. The size of a consortium, the size of grant requested, and the duration of a proposed project are determined by the consortium members. However, the Commission expects RIA proposals to request on average €2.0- 5.0 million for projects that last from 36-48 months. Typically, consortia include five to twenty-five different organizations.

Eligible expenses:

- → Direct Costs (personnel costs including benefits and other direct costs for travel and events, equipment and consumables). Funding Rate: 100 per cent.
- → Indirect Costs or overhead costs. Funding Rate: The Commission will contribute 25 per cent of all direct costs (personnel and other) to indirect costs.

Innovation Actions

→ Innovation Actions (IA) support activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services. They may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication. Projects may include limited research and development activities.



→ IA projects require **consortia of three or more organizations in any sector located in at least three European Member States or Associated Countries**. Beyond this strict minimum, any number of organizations, located anywhere in the world, may participate. The size of a consortium, the size of grant requested, and the duration of a proposed

project are determined by the consortium members. However, the Commission expects IA proposals to request on average €2.0-5.0 million for projects that last from 30-36 months. Typically, consortia include five to twenty-five different organizations.

Eligible expenses:

- → Direct Costs (personnel costs (including benefits) and other direct costs (for travel and events, equipment and consumables). Funding Rate: 70 per cent for companies, 100 per cent for other legal entities.
- → Indirect Costs or overhead costs. Funding Rate: The Commission will contribute 25 per cent of all direct costs (personnel and other) to indirect costs.

Coordination and support actions (CSA)

- → Coordination and Support Actions (CSA) are smaller-scale projects designed to facilitate coordination and support for research and innovation activities and / or policies (e.g., networking, information sharing, agenda setting, policy development and communication).
- CSA projects require consortia of three or more organizations in any sector located in at least three European Member States or Associated Countries. Beyond this strict minimum, any number of organizations, located anywhere in the world, may participate. The size of a consortium, the size of grant requested, and the duration of a proposed project are deter-mined by the consortium members. However, the Commission expects CSA proposals to request on average €0.5-2.0 million for projects that last from 12-30 months. Typically, consortia include five to fifteen different organizations.

Eligible expenses:

- → Direct Costs (personnel costs (including benefits) and other direct costs (for travel and events, equipment and consumables). Funding Rate: 100 per cent.
- → Indirect Costs or overhead costs. Funding Rate: The Commission will contribute 25 per cent of all direct costs (personnel and other) to indirect costs.



OPPORTUNITIES FOR CANADIANS:

RIA, IA and CSA projects in Global Challenges and European Industrial Competitiveness present two types of opportunities for Canadians.

Participation in international research: First and foremost, Horizon Europe is a vehicle for Canadians seeking to work on global challenges with leading international colleagues, to strengthen their professional networks, broaden their capacity, leverage resources and increase the impact of their work. They can apply funding from federal, provincial, institutional and private sector sources to participate in any activity within Horizon Europe.

→ Targeted opportunities: The European Commission will occasionally issue a Call for Proposals that includes a specific topic identified as areas of importance for Canada-EU cooperation. In these cases, the topic description will specifically request proposals with Canadian partners. This does not mean that Canadians will be automatically funded, but sends a clear signal to European researchers and innovators that they should include Canadians in their proposals. Canadians may wish to approach European colleagues regarding collaboration on these topics.

Exceptional funding for international research: In RIA, IA and CSA projects, Canadians are only eligible for support from the European Commission if they request funding in the application (a request cannot be made after a proposal is submitted or after it receives funding) and the peer review committee deems their participation essential to project success. To make such a request, Canadians must have the approval of all project partners. To be successful, they must demonstrate that (a) the project would not meet its objectives without their contribution and (b) there is no European researcher able to make the same contribution.

In Horizon 2020, the European Commission funded 389 Canadian organisations. In these cases, Canadians demonstrated either unique expertise or access to unique research infrastructure (either equipment, databases, subjects or environments) or were able to provide a particular comparative perspective.

→ **Automatic funding:** On rare occasions, the European Commission will also specify in the description of topics or calls for proposal that Canadians are eligible for funding.

3.2 European Partnerships

European Partnerships are initiatives where the EU together with private and/or public partners commit to jointly support the development and implementation of a programme of research and innovation activities. The partners could represent industry, universities, research organisations, bodies with a public service remit at local, regional, national or international level or civil society organisations including foundations and NGOs.

The aim of European partnerships with EU and associated countries, the private sector, foundations and other stakeholders is to deliver on global challenges and modernise industry. The Horizon Europe proposal lays down the conditions and principles for establishing European Partnerships. There are 3 types.

Co-programmed European Partnerships

The Co-programmed European Partnerships between the Commission and private and/or public partners are based on memoranda of understanding and/or contractual arrangements.

Co-funded European Partnerships using a programme co-fund action

Partnerships involving EU countries, with research funders and other public authorities at the core of the consortium.

Institutionalized European Partnerships

These are partnerships where the EU participates in research and innovation funding programmes that are undertaken by EU countries. Institutionalized partnerships will only be implemented where other parts of the Horizon Europe programme, including other types of partnership, would not achieve the desired objectives or expected impacts.

Not all the European Partnerships have been or are open to Third Countries. Although the different degree of openness, since Horizon 2020 Canada has been member of different Partnerships, especially Public2Public partnerships, giving the chance to its researchers and entrepreneurs to access the calls published from the different Partnerships.



OPPORTUNITIES FOR CANADIANS:

Canadian support to the partnerships is under renewal, but funding from CIHR is confirmed in all the partnerships highlighted in bold below. Please note that usually, Co-programmed partnerships allow the participation of Third Countries.

The portfolio of European Partnerships includes 49 candidates, which have now been taken into the next step of preparations. By the end of 2021 and 2022 the European Commission expects to launch the great majority of the 49 proposed. Below, a list of all European Partnerships gathered by theme, highlighting those in which Canada may participate:

Horizon Europe Partnerships proposal webpage:

https://ec.europa.eu/info/horizon-europe/european-partnerships-horizon-europe_en

HEALTH

European Partnership for EU-Africa Global Health (Institutionalised)

European Partnership for Innovative Health (Initiative) - Institutionalised

European Partnership for Risk Assessment of Chemicals - Co-funded

European Partnership - ERA for Health Research - Co-funded

European Partnership on Health and Care Systems Transformation - Co-funded

European Partnership for Personalised Medicine - Co-funded

European Partnership on Rare Diseases - Co-funded

European Partnership for One Health/AMR Antimicrobial Resistance (AMR) - Cofunded

CLIMATE, ENERGY AND MOBILITY

European Partnership for transforming Europe's rail system - Institutionalised

European Partnership for Integrated Air Traffic Management (ATM) - Institutionalised

European Partnership for Clean Aviation – Institutionalised

European Partnership on Clean Hydrogen - Institutionalised

People-centric sustainable built environment (Built4People) – Co-programmed

European Partnership – Towards zero-emission road transport (2ZERO) – Co-programmed

European Partnership on Connected and Automated Driving (CCAM) - Co-programmed

European Partnership on zero-emission waterborne transport – Co-programmed

European Partnership for an Industrial Battery Value Chain – Co-programmed

European Partnership - driving urban transitions to a sustainable future (DUT) - Cofunded

European Partnership for Clean Energy Transition - Co-funded

CLIMFOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT

European Partnership accelerating farming systems transition: agroecology living labs and research infrastructures – Co-funded

European Partnership for Animal health (PAH) – Co-funded

Agriculture of data – Co-funded

European Partnership for rescuing biodiversity to safeguard life on Earth – Co-funded

European Partnership for a climate neutral, sustainable and productive Blue Economy

– Co-funded

European Partnership for Safe and Sustainable Food Systems – Co-funded

European Partnership for a Circular bio-based Europe - Institutionalised

European Partnership Water Security for the Planet (Water4All) - Co-funded

PARTNERSHIPS ACROSS THEMES (Explained in Pillar III)
European Partnerships Innovative SMEs
European Open Science Cloud (EOSC) Partnership
EIT Climate-KIC
EIT InnoEnergy-KIC
EIT Digital-KIC
EIT Health-KIC
EIT Food-KIC
EIT Manufacturing-KIC
EIT Raw materials-KIC
EIT Urban Mobility-KIC
EIT Cultural and Creative Industries-KIC

3.3 The contemporary "Moonshots", the European Missions

One of the main novelties of Horizon Europe is the introduction of Missions: high ambition, high-profile initiatives which will put forward concrete solutions to challenges facing European citizens and society. Missions are intended to achieve a measurable goal within a set timeframe, with impact for science and technology for society and citizens that could not be achieved through individual actions.

The topics for the missions are part of the regular Work Programmes, and the rules for participation and engagement for Canadians are also the same as the rest of Pillar II.

Mission topics should stem from the following mission areas, which have been defined in the Horizon Europe agreement:

1. Conquering Cancer: Mission Possible

Targets by 2030: more than 3 million lives saved, living longer and better, achieve a thorough understanding of cancer, prevent what is preventable, optimise diagnosis and treatment, support the quality of life of all people exposed to cancer, and ensure equitable access to the above across Europe.

2. A Climate Resilient Europe - Prepare Europe for climate disruptions and accelerate the transformation to a climate resilient and just Europe by 2030

Targets by 2030: prepare Europe to deal with climate disruptions, accelerate the transition to a healthy and prosperous future within safe planetary boundaries and scale up solutions for resilience that will trigger transformations in society.

3. Mission Starfish 2030: Restore our Ocean and Waters

Targets by 2030: cleaning marine and fresh waters, restoring degraded ecosystems and habitats, decarbonising the blue economy, in order to sustainably harness the essential goods and services they provide.

4. 100 Climate-Neutral Cities by 2030 - by and for the citizens

Targets by 2030: support, promote and showcase 100 European cities in their systemic transformation towards climate neutrality by 2030 and turn these cities into innovation hubs for all cities, benefiting quality of life and sustainability in Europe.

5. Caring for Soil is Caring for Life

Targets by 2030: at least 75% of all soils in the EU are healthy for food, people, nature and climate. The proposed mission combines research and innovation, education and training, investments and the demonstration of good practices using "Living labs" (experiments and innovation in a laboratory on the ground) and "Lighthouses" (places to showcase good practices).

How will they work?

EU missions are a novel instrument in the Horizon Europe Framework Programme for Research and Innovation. For their successful implementation, they will work in synergy and coordination with other missions and schemes of Horizon Europe, in particular with European Partnerships and Clusters, as well as with other instruments and policies outside R&I. Furthermore, they will need to be implemented in close synergy with funding, programmes and strategies both at Member State / Associated Country and regional level, as well as with civil society and the private sector.

A preparatory phase began in November 2020, and will last a maximum of 12 months. Plans with detailed actions, investment strategy and performance indicators will be developed during this phase. At the end of it, missions will be assessed against a set of robust criteria. Once approved, missions will get fully up and running. Europeans and Associated/Third countries will continue to be engaged throughout their implementation.



OPPORTUNITIES FOR CANADIANS:

Critical to the success of the missions will be the extent of wide engagement across the EU, Associated Countries, and beyond. In this framework, Canada participation is likely to be welcomed in all the five mission proposed.

However, at the time of writing this guide, there are no fully detailed regulations regarding Canadian participation into Missions: researchers, research centres, universities, industries and relevant stakeholders at national level will be encouraged to engage whether their participation will be foreseen at the publication of the first Mission Work Programme, normally at the end of 2021.

Conversely, Canadian participation will be surely welcomed in the health sector, as the European Commission specifies in the first provisions for Mission Cancer:

"This would be through a health-in-all policies approach¹¹; through infrastructure support, regional, social and citizen community development; through investments, support and commitments from public and private sources, including from Member States, Associated countries and industry; and through cooperation with third countries¹² (full implementation of the mission is subject to final political confirmation)."

¹¹ Health in All Policies is an approach to public policies across sectors that systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity. https://www.who.int/social_determinants/publications/health-policies-manual/key-messages-en.pdf

¹² As Canada to be considered at the time this guide is being published.

4. STEP-BY-STEP: PILLAR III - INNOVATIVE EUROPE

The European one-stop-shop for breakthrough innovations

Innovative Europe, the renewed third pillar of Horizon Europe, intends to stimulate pioneer technologies that have the potential to create new markets and build favorable ecosystems to innovation. For these purposes, the third pillar aims to the identification of ground-breaking solutions, through the gathering of diverse players in the innovation domain and financing high-risk/high-reward ideas to provide society with unprecedented benefits.

The particularly ambitious objective of European Commission is to find and bring to market, in the years to come, enterprises and people with the highest innovation potential, mainly scale-up firms and global leading scientists.

This pillar is notably opened for participation exclusively for Associated Countries to the Horizon Europe programme. Canada, following current legislative framework, cannot be considered as a European Union's Associated Country as the process is still ongoing, while is foreseen to be completed by the start of 2022. **Nevertheless, Canadian entities will be considered as eligible to participate in one precise scheme within this pillar, which is the EIC Pathfinder Open.**

4.1 The European Innovation Council (EIC)

The European Innovation Council aims to enhance Europe's capabilities in identifying and bringing to the market a new wave of disruptive innovations that will be able to generate unprecedented markets. The EIC will be best known for its unique feature of a technologic one-stop-shop for enabling inventors, innovators and investors to develop very promising ideas to the application in real world, while supporting the scaling up of strongly innovative startups, firms, companies and spin-offs. The EIC will play a key role in fueling and deploying disrupting and breakthrough innovations wherever they originate from, with a special focus on innovations stemming from other Pillars of Horizon Europe.

The EIC Pathfinder Open

The EIC's Pathfinder Open will provide a very active support to the development and nurturing of breakthrough technologies, which will lead to the discovering of disruptive innovations. This instrument works majorly through a bottom-up approach, but also the Pathfinder Open will try to implement a top-down basis to build up its thematic portfolios of projects in sectors most

needed. For those purposes, it will create and foster synergies and closer coordination with other initiatives stemming from Clusters of Pillar II, as to avoid technology overlapping and ensuring overarching coordinated management where relevant.



OPPORTUNITIES FOR CANADIANS:

The EIC Pathfinder Open offers grants to researchers to promote inter-disciplinary, collaborative, innovative research and deeply breakthrough science-inspired innovations, which will lead to radically new future technologies. Normally, the Pathfinder grants are for consortia of at least 3 entities¹³ from 3 different Members States and Associated Countries/Third countries, with at least one established in one European Member state. Association to this type of action follows the basic rules of International Cooperation in Horizon Europe.

¹³ The legal entities may for example be universities, research organizations, SMEs, start-ups or natural persons

5. WHERE TO FIND ADDITIONAL SUPPORT

The European Commission, the Government of Canada and partner organizations in the academic, private and public sectors have launched joint initiatives to advise and assist Canadian researchers and organizations seeking opportunities for international partnerships in Horizon Europe. Each initiative offers a range of services for different types of organizations.

5.1 National Contact Points (NCPs)

Reference:

http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html

or http://www.era-can.net/ncps

The European Commission has established networks of National Contact Points (NCPs) in all Member States, Associated Countries and many Third Countries around the world, to provide researchers in all subject areas with guidance, practical information and assistance regarding Horizon Europe.

All NCPs have a deep knowledge of the research community in their field within their country. They understand the research, know the researchers, the institutions and are familiar with national funding agencies and programmes. They work in government agencies and research organizations. Often, more than one person fulfills this role in each country to ensure the best possible service.

The services which NCPs provide:

- → **Communications and Assistance:** NCPs inform their national research communities of calls for proposals and assist researchers with the preparation of proposals and the management of projects by preparing guidelines, providing training sessions and offering coaching services.
- → **Partnerships:** To ensure that their researchers are engaged in strong and successful projects, NCPs use their network across Europe to assist their researchers in developing partnerships with strong researchers in other countries.
- → **Policy:** The European Commission facilitates the work of NCPs by providing them privileged access to programmes statistics and advance information on policy changes, upcoming events and calls for proposals. The EC also consults regularly with NCPs on policy and programme changes. As a result, NCPs represent important gateways into European research communities for Canadians. They welcome inquiries from Canadian researchers and research institutions. Their contact information is available, in a searchable online contact database, at the website address above. The above web link also shows contacts for Canadian NCPs, including the National coordinator.

5.2 Enterprise Europe Network (EEN) Canada

With over 600 partner organizations, the Enterprise Europe Network is the world's largest support network for **small and medium-sized enterprises (SMEs)** with international ambitions. Within the Enterprise Europe Network, a country outside the EU can be represented by a consortium forming a Business Cooperation Centre. For the Canadian side, it is called is called the Enterprise Europe Network



Canada (EEN Canada) and is coordinated by the German-Canadian Centre for Innovation and Research in Edmonton. EEN Canada works closely with both Canadian and European colleagues to advance opportunities for SMEs by providing business and innovation support services that help to strengthen companies' competitiveness and sustainability.

The primary and overarching objective of EEN-Canada is to assist European and Canadian companies in internationalization, growth, and sustainable prosperity by facilitating opportunities to meet and collaborate with Canadian/European partners, and to better access mutual markets.

EEN-Canada acts as an information point, offering insight and connections to both European and Canadian companies, as well as the opportunity to share proposals and requests through the Partnership Opportunities Database. EEN Canada offers informational resources around topics such as applied research, CETA, employee mobility, and much more. EEN Canada also actively fosters participation in brokerage events to facilitate collaborations in business, technology development and transfer, and joint research.

Services include:

- → **Identifying and promoting business**, R&D and joint venture opportunities in Canada and EU.
- → **Providing advisory services in accessing finance**, loans and equity capital in all phases of SMEs' lifecycle.
- → Assisting SMEs in finding business opportunities and partners in Canadian/EU markets, understanding Canadian/EU legislation, and providing practical information on how to do business within Canada/Europe.
- → Increasing SMEs' competitiveness by exchanging best practices and market intelligence among Enterprise Europe Network members.
- → Supporting entrepreneurs and their businesses.

For More Information: http://www.een-canada.ca/
Dr. Katelyn Petersen, http://www.een-canada.ca/

5.3 EURAXESS

EURAXESS is a pan-European initiative, managed through a unique Web Portal. The portal provides access to a complete range of information and support services for researchers wishing to pursue their careers in Europe. Most importantly, it includes a searchable database with thousands of jobs and fellowships open at European and international institutions. Jobs and fellowships posted on the EURAXESS "Jobs" pages include professional positions and fellowships offered at individual institutions with support from MSCA and ERC grants.

In addition, the European Commission contributes to the national programmes of Member States, through its COFUND programme (a MSCA initiative), in order to make them accessible to researchers from across Europe and around the world. As a result, thousands of positions in Member State programmes are open to international participants.



OPPORTUNITIES FOR CANADIANS:

Canadian researchers will find thousands of professional research positions as well as doctoral and post-doctoral fellowships and career development opportunities in the EURAXESS "Jobs" database, searchable by country, research field, programme and stage of career. Those considering a move to Europe will find information on visas and access to personalized assistance on the EURAXESS "Links" pages. Canadian organizations can advertise positions and fellowships available at their institutions in the EURAXESS "Jobs" database.

https://euraxess.ec.europa.eu/jobs

6. CANADIAN FUNDING PROGRAMMES FOR SCIENCE, TECHNOLOGY AND INNOVATION ACTIVITIES

6.1 Canadian federal funding opportunities

To Note: The eligibility rules of Horizon Europe permit any federal government science based department and agency (SBDA) scientist/researcher to collaborate in a project consortium. However, it is highly recommended that before doing so, authority and approval from the respective SBDA is granted.

AGRICULTURE AND AGRI-FOOD CANADA (AAFC)

FUND NAME: Internal Project Funding and International Opportunities Program Fund

- **Program Type:** Research and Development
- Thematic Area: Agriculture and Agri-food
- Funding Opportunity: These funds are only available to Agriculture and Agri-Food Canada (AAFC) researchers. AAFC provides funding for its internal researchers through its annual calls for proposals (A-base) process. AAFC researchers are encouraged to include their plans and requests for international cooperation projects in their A-base proposals. They are encouraged to plan 6-12 months in advance for their participation in international projects such as Horizon Europe. They are strongly advised to secure funding prior to co-submitting their Horizon Europe application, to avoid the risk of jeopardizing funding for their EU collaborators. Please consult the most current Request for Proposals for details including AAFC international science cooperation priorities.

The International Opportunity Program provides small amounts to supplement international cooperation non-full-time staff costs (e.g. travel, publications, part-time students, materials) by AAFC researchers on international priorities.

- Eligibility Criteria: AAFC researcher working on a current international priority.
- **Budget:** AAFC funding for projects varies: A-Base internal funding would support the bulk of the project work (wide range of project value), while funds from the International Opportunity Program could supplement smaller parts of the cooperation (typically ranges from \$10K to \$50K).

- **Application Deadline:** Application process is recurring, typically with a spring and a summer call. Deadlines vary. (Please see internal AAFC information on Request For Proposals)
- **Submission Process:** (Submit A-base proposal through internal Letter of Intent (LOI) process; Submit an application for International Opportunities Program application)
- For More Information: AAFC Science and Technology Branch International Engagement
 Division

For all inquiries regarding AAFC participation in European Partnerships, please con-

tact: Sara Sarkar, National Contact Point for Food Security, Sustainable Agriculture and the Bio-economy Senior Analyst, International EngagementDivision Science and Technology Branch, Agriculture and Agri-Food Canada

Email: sara.sarkar@canada.ca

CANARIE

CANARIE connects Canadians to each other and to the world. The programs equip Canadian researchers, students, and startups to excel on the global stage. Established in 1993, CANARIE is a non-profit corporation, with most of the funding provided by the Government of Canada.

FUND NAME: DAIR Cloud (the Digital Accelerator for Innovation and Research)

- **Program Type:** Technology Development.
- Thematic Area: All.
- Funding Opportunity: DAIR is a free service designed to help Canadian entrepreneurs and small to medium businesses accelerate their time to market and their learning of emerging technologies, while benefitting from the efficiencies and agility of cloud computing. Any successful Canadian applicant can use this funding to leverage their ability to partner under Horizon Europe projects. Participants are able to access:
 - » Generous monthly credits to spend on hosted-in-Canada public cloud resources through Amazon Web Services or Microsoft Azure, as well as access to Graphical Processor Units (GPUs), based on availability.
 - » BoosterPacks, curated packages of resources and sample code that support specific emerging technologies (e.g., IoT, machine learning, augmented reality). Each Booster-Pack is built by a Canadian business with experience developing products or services

using that technology, and willing to share their expertise with the next cohort of startups.

» A collaborative community of Canadian entrepreneurs and cloud development experts. Use our private Slack channel to chat with your peers and get tech support from our

own DAIR Cloud experts.

- Eligibility Criteria: DAIR is available to all Canadian startups or small or medium-size business with fewer than 500 employees for the design, development, validation, and/or demonstration

of a product or service.

- Budget: DAIR provides participants monthly credits to spend on hosted-in-Canada public

cloud resources each tenant for one year. There is no cost to access BoosterPacks or the DAIR

community.

- Application Deadline: Ongoing

- Submission Process: Application is via a short online form on the CANARIE website. Applicants

should expect to receive a response within three (3) business days.

- For More Information: https://www.canarie.ca/cloud/

CANADIAN INSTITUTES OF HEALTH RESEARCH

The Canadian Institutes of Health Research (CIHR) is Canada's federal funding agency for health research. Composed of 13 Institutes, we collaborate with partners and researchers to support

the discoveries and innovations that improve our health and strengthen our health care system.

FUND NAME: Project Grant

- Program Type: Research

- Thematic Area: Health

- Funding Opportunity: The Project Grant program is designed to capture ideas with the great-

est potential for important advances in fundamental or applied health-related knowledge, health care, health systems, and/or health outcomes by supporting projects or programs of research proposed and conducted by individual researchers or groups of researchers in all areas of

health.

The Project Grant program supports health research that is aligned with the CIHR mandate: "To

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excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system". More than ever before, the health of Canadians is deeply intertwined with the health of people around the world. **Projects or programs that have a global health research focus, or include international collaborations, are eligible for support through the Project Grant program.**

Funding for the Project Grant program is augmented by CIHR Institute Priority Announcements (PAs) that award grants in specific research areas relevant to the Institutes' mandates. PAs offer additional sources of funding for highly ranked applications in the Project competition that are relevant to specific research priority areas. Please see <u>ResearchNet</u> for the current PA.

- **Eligibility Criteria:** See <u>CIHR's website</u> and <u>ResearchNet</u> for up-to-date and detailed information on eligibility criteria for the Project Grant program. The core criteria for the 2020-21 program are as follows:
 - 1. The Nominated Principal Applicant must be:
 - a) an independent researcher or a knowledge user affiliated with a Canadian postsecondary institution and/or its affiliated institutions (including hospitals, research institutes and other non-profit organizations with a mandate for health research and/or knowledge translation).
 - If the Nominated Principal Applicant is a knowledge user, there must be at least one Principal Applicant who is an independent researcher.

<u>OR</u>

b) an individual affiliated with an Indigenous non-governmental organization in Canada with a research and/or knowledge translation mandate.

<u>OR</u>

- c) an Indigenous non-governmental organization in Canada with a research and/or knowledge translation mandate (see Administration of Funds, below).
- 2. The Nominated Principal Applicant must have their substantive role in Canada for the duration of the requested grant term.
- 3. Principal Applicants must be <u>independent researchers</u> **or** <u>knowledge users</u> (inclusion of one or more Principal Applicants is optional).
- 4. Co-Applicants can be one of the following (inclusion of one or more is optional):

- independent researchers
- knowledge users
- trainees
- Other
- **Budget:** Please see <u>CIHR's website</u> and <u>ResearchNet</u> for up-to-date and detailed information on the budget for the Project Grant program.
- **Application Deadline:** Typically there are two competitions per year Spring and Fall for the Project Grant Program. Please see <u>CIHR's website</u> and <u>ResearchNet</u> for up-to-date information on application deadlines.
- **Submission Process:** Please review all instructions on "How to Apply" in the Project Grant funding opportunity on ResearchNet. In general, the application process for this funding opportunity is comprised of two steps: Registration and Application. A Registration must be submitted to be eligible to submit a full application.
- For More Information: https://cihr-irsc.gc.ca/e/193.html

CIHR Contact Centre Telephone: 613-954-1968 Toll Free: 1-888-603-4178

Email: support-soutien@cihr-irsc.gc.ca

CANADIAN INSTITUTES OF HEALTH RESEARCH

FUND NAME: N/A

- Program Type: Research Calls for Proposals under European Partnerships

- Thematic Area: Health

- Funding Opportunity: CIHR's objective is to support the involvement of Canadian researchers in international research consortia in a limited number of strategic Calls for Proposals launched under the EU Framework Programme. CIHR engagement in the EU Framework Programme is predominantly through public-to-public partnerships (e.g. European Partnerships) involving EU members states, Third Countries (e.g. Canada), Associated Countries, and the European Commission. For CIHR, the European Partnerships are significant for their size, scope and ability to enable European, Canadian and international research collaborations.

CIHR participates in joint calls through public-to-public partnerships in the following research areas:

- » Active and Assisted Living
- » Antimicrobial Resistance
- » Cancer Research
- » Cardiovascular Diseases
- » Healthy diet for a healthy life
- » More years better lives
- » Neurodegenerative diseases
- » Neuron
- » Personalized Medicine
- » Rare Diseases

Public-to-public partnerships typically launch Calls on an annual basis. CIHR determines its participation in Calls based on the topic, alignment with Canadian priorities and available funding.

When CIHR participates in a Call, funding is dedicated to support the **Canadian component** of the transnational team and a Funding Opportunity is posted on ResearchNet. The CIHR Funding Opportunity supplements the Call posted on the Call Secretariat website and highlights Canadian funds available, eligibility criteria and other relevant requirements. Calls for Proposals with Canadian dedicated funding are announced annually in the winter on CIHR's website and ResearchNet.

- **Eligibility Criteria:** It is required that the Canadian researcher(s) team will be an integral part of the larger international research team. In general, for an application to be eligible for CIHR funding:
 - 1. The Nominated Principal Applicant must be **an** <u>independent researcher</u>.
 - 2. The Nominated Principal Applicant must be appointed at an **eligible institution** (see the <u>CIHR Application Administration Guide Part 4</u>) at the time of application.

For an application to be eligible for European Partnerships' funding:

The Nominated Principal Applicant must apply with at least three (3) eligible partners from three (3) different countries (see individual Calls for details).

Please note that additional eligibility criteria may apply for specific Calls. Please see Call specific information on the Call Secretariat website **AND** ResearchNet for further details. It is incumbent upon Canadian researchers to review and understand all expectations of the Calls.

- Budget:

- » The total budget available from CIHR and Canadian partners varies for each Call.
- » Typically, the funding available for the Canadian component of a transnational project is \$200,000 to \$900,000 for up to three years.
- » Funding from CIHR and its Canadian partners is provided directly to the Canadian Nominated Principal Applicant's institution.
- **Application Deadline:** For public-to-public partnerships, pre-proposals deadlines are typically between January and March and the full proposal deadlines are typically between April and July. For Call specific information please visit <u>CIHR's website</u> and <u>ResearchNet</u>
- **Submission Process:** Calls for proposals typically follow a two-step process for Canadian applicants: 1. Pre-Proposal to the Call Secretariat; and 2. Full Proposal to the Call Secretariat and Abbreviated Application to CIHR.

Step 1 - Pre-Proposal to the Call Secretariat

- » Pre-Proposals must be submitted using the Call Application form and submitted directly to the Call Secretariat.
- » Note that no documents need to be submitted to CIHR at this stage.

Step 2a - Full Proposal to the Call Secretariat

Full Proposals must be submitted to the Call Secretariat following the instructions in the Call.

Step 2b - Abbreviated Application of Full Proposal to CIHR

- » Canadian applicants must complete an abbreviated CIHR application and submit it using ResearchNet.
- » The purpose of this additional application is to provide an overview of the proposed research including a description of the work to be conducted within Canada, an Operating Budget for the project, with the amounts quoted in Canadian dollars, and a complete justification for funds requested.

For further details on submission processes, please visit <u>CIHR's website</u> and <u>ResearchNet</u>.

- For More Information:

For all inquiries regarding application to CIHR, please contact:

CIHR Contact Centre Telephone: 613-954-1968 Toll Free: 1-888-603-4178

Email: support-soutien@cihr-irsc.gc.ca

For service hours, please consult our Contact us page.

For all inquiries regarding CIHR participation in European Partnerships, please contact:

Danièle St-Jean

National Contact Point (NCP) for Health, Demographic and Well-being for Horizon 2020 Advisor, Strategic Partnerships and International Relations

Canadian Institutes of Health Research

Email: Daniele.St-Jean@cihr-irsc.gc.ca

FISHERIES AND OCEANS CANADA

Fisheries and Oceans Canada is the Canadian federal lead for safeguarding our waters and managing Canada's fisheries, oceans and freshwater resources. They support economic growth in the marine and fisheries sectors, and innovation in areas such as aquaculture and biotechnology.

FUND NAME: Ecosystems and Oceans Science Contribution Framework

- **Program Type:** Funding support for scientific research and related science activities.
- **Thematic Area:** Fisheries and Aquaculture Science, Ecosystem Science, Oceanography and Modelling, Hydrographic Science, Freshwater Science.
- Funding Opportunity: These funds support scientific research and related scientific activities, such as data collection, integration, monitoring, and communication, including communication via conferences and symposia, in support of areas under thematic areas of interest to the Department. Projects supported by DFO's Ecosystems and Oceans Science Contribution Framework can leverage funding or in-kind contributions to join a Horizon Europe collaboration.
- **Eligibility Criteria:** Eligible recipients will be selected from science research organizations able to conduct scientific research and related scientific activities of interest to the Department, and organizations and groups associated with the management, conservation, protection and promotion of ocean and freshwater resources, including:
- (a) Canadian post-secondary academic institutions;

- (b) Canadian non-governmental organizations;
- (c) Indigenous organizations or groups;
- (d) Canadian provincial, territorial, and municipal governments;
- (e) Businesses and industry, including business and industry associations;
- (f) Community groups;
- (g) Canadian not-for-profit organizations;
- (h) Foreign governments and international non-governmental organizations;
- (i) Foreign Academic Institutions; and
- (j) Port Authorities.

In the case of for-profit entities, only early stage research activities are eligible for funding. All eligible recipients must possess the legal capacity necessary to enter into a contractual agreement with DFO.

- **Budget:** Payments to eligible recipients under the Framework may be used to offset reasonable costs of projects incurred by a recipient. Funding is provided in accordance with the Canadian federal fiscal year (April-March) and varies from year to year.
- **Application Deadline:** Application deadlines for any open call process will be made available on the Fisheries and Oceans website and will vary according to the timing of each annual process.
- **Submission Process:** Applicants must submit a scientific project proposal and financial budget itemizing all project costs utilizing templates made available online as part of the application process. https://www.dfo-mpo.gc.ca/science/index-eng.htm (NOTE: The website is under development with an updated version including the Ecosystems and Oceans Science Contribution Framework by April 2021.)
- **For More Information:** For further information, please contact DFO's Office of Partnerships and Collaboration <a href="https://openstage.com/openstage.co

INNOVATION CANADA

Innovation Canada provides single-window access to a tailored list of everything that government can do to help businesses innovate, create jobs and grow Canada's economy. Innovation Canada's flagship programs and service offerings include the Innovative Superclusters Initiative,

the Strategic Innovation Fund, **Innovative Solutions Canada**, Explore IP, Clean Growth Hub, and the Accelerated Growth Service. Innovation Canada is part of the Government of Canada's department of **Innovation, Science and Economic Development**.

FUND NAME: Innovative Solutions Canada (ISC) Program

- **Program Type:** ISC is a Government of Canada R&D procurement program that supports innovative **Canadian firms** to grow, and scale-up through the development and commercialization of R&D linked to Government of Canada priorities and operational requirements. ISC supports the full range of R&D activities of innovative Canadian firms through a <u>Challenge stream</u> focused on <u>early-stage</u> R&D and a <u>Testing stream</u> focused on testing of <u>late-stage</u> R&D (i.e. pre-commercial prototypes) in operational settings.
- **Thematic Area:** Various. ISC supports R&D related to a broad range of technology areas.
- Funding Opportunity: Challenge Stream: The Government of Canada is looking for innovators to solve challenges. As the single largest purchaser of Canadian goods and services, the Government of Canada has a unique opportunity to support the growth of Canadian innovators and entrepreneurs. We need Canadian small businesses and innovators to develop novel solutions to these challenges. Through the ISC program, we are partnering with eligible Canadian small businesses and facilitating the development, testing and validation of prototypes, as well as preparing a pathway to commercialization. Successful applicants may be able to leverage their participation in ISC by partnering with a Horizon Europe consortium to further advance their endeavors.
 - » If your idea is selected, you could receive funding to develop a proof of feasibility;
 - » If your proof of feasibility is approved, you could receive funding to <u>develop a prototype</u>:
 - » If the developed innovation solves the Government of Canada's challenge, we could be your <u>first buyer</u>; and
 - » Available funding is identified in each individual challenge.

Testing Stream: The Government of Canada buys and tests your pre-commercial goods and services in a real-life setting. The program leverages its government partnerships to enable your innovation to be tested and to provide you with valuable feedback before you launch your innovation into the marketplace.

- *Eligibility Criteria*: Challenge Stream: Solution proposals can only be submitted by a small business that meets all of the following criteria:

- » For profit;
- » Incorporated in Canada (federally or provincially);
- » 499 or fewer full-time equivalent (FTE) employees;
- » Research and development activities that take place in Canada; and
- » 50% or more of business activities must occur in Canada as defined under each challenge.

Testing Stream:

- » Must meet <u>definitions</u> for Canadian content and Ownership;
- » Pre-commercial status: The proposed innovation must not be openly available in the marketplace, and must not have been previously sold on a commercial basis as of the date of this bid submission;
- » Maximum funding: The Bidder's financial proposal must not exceed the relevant component's maximum funding amounts; and
- » Visit ISC's website to find eligibility on small and medium enterprise call for proposals.
- **Budget:** ISC's **Challenge Stream** provides up to \$150K for Phase 1 Proof of feasibility, and up to \$1M for Phase 2 Prototype development. ISC's **Testing Stream** has maximum available funding of \$550,000 for non-military innovations, and \$1,150,000 for military innovations.
- **Application Deadline:** At varying intervals each year, the program launches challenges under its **Challenge Stream**. Application periods are dependent on needs of federal departments. The program also typically launches 2-3 Calls for Proposals each year under its **Testing Stream** dependent on available funding, usually with a 3-week application period.
- **Submission Process:** Interested applicants must sign up for an account through <u>ISC's website</u> to apply for Challenge or Testing Stream funding opportunities.

Challenge Stream: Phase 1 – Officials from the sponsoring department and from the National Research Council's Industrial Research Assistance Program (IRAP) evaluate the proposals received in response to the challenge. Awardee(s) receive funding to prove how they will solve the challenge. Awardee(s) have up to 6 months to submit a proof of feasibility report. Once completed, awardees are automatically invited to submit a Phase 2 application. Phase 2 – Officials from the sponsoring department and IRAP evaluate the Phase 1 reports and Phase 2 proposals. Selected Awardee(s) receive funding and are given up to 2 years to develop their prototype and complete their Phase 2 report.

Testing Stream Proposals are evaluated by IRAP and Public Services and Procurement Canada (PSPC). Successful proposals are entered into a pool of eligible innovations available for testing. Departments and agencies then identify innovations of interest. Based on available budget, ISC greenlights projects for test plan development. Once a test plan is established, the project is referred to PSPC for contract negotiation. Upon contract award, innovation testing can begin.

- **For More Information:** For more information see <u>ISC's website</u> or email the <u>program mailbox</u> For notifications regarding potential funding opportunities, subscribe to <u>ISC's mailing list</u>.

MITACS

MITACS is a national, not-for-profit organization that has designed and delivered research and training programs in Canada for 20 years. Working with over 70 Canadian universities, over 6,000 companies, and both federal and provincial governments, Mitacs builds partnerships between academia, industry, and the world – to create a more innovative Canada.

FUND NAME: Mitacs Globalink Research Awards (GRA) and Accelerate International (iAcc)

- Program Type: Research exchange

- Thematic Area: All

- Funding Opportunity:

Globalink Research Award for **academic internships**: Award amount is \$6000. Projects are supervised by a Canadian home supervisor and a host supervisor at university in one of Mitacs's partner countries or regions. For the MSCA RISE - Mitacs arrangement, the host supervisor must be supported by a Research and Innovation Staff Exchange (RISE) grant. Travel duration must be between 12-24 weeks. Find the eligibility criteria, award details and the application package on the Mitacs Globalink Research Award webpage.

Accelerate International for **industrial internships**: Award amount is \$15,000. Projects are supervised by a Canadian home academic supervisor, a host academic supervisor and/or a host industry supervisor in one of the Horizon 2020 countries. The host supervisor must be supported by a Research and Innovation Staff Exchange (RISE) grant. Travel duration depends on the level of study – please consult the website. Find the eligibility criteria, award details and the application package on the Mitacs Accelerate International webpage.

- *Eligibility Criteria*: Canadian Master's, PhD and postdoctoral researchers in RISE projects.
- **Budget:** \$6,000 CAD award for the GRA program; \$15,000CAD for the iAcc program.
- Application Deadline: MSCA Research and Innovation Staff Exchanges (RISE) grant competition.

- **Submission Process:** Successful applicants of the MSCA Research and Innovation Staff Exchanges (RISE) grant competition are invited to connect with Mitacs to discuss eligibility criteria.
- For More Information: please contact gra@mitacs.ca for more information.

NATIONAL RESEARCH COUNCIL OF CANADA

The **National Research Council of Canada** (NRC) is Canada's largest federal research and development organization with over 2,000 researchers at over 20 locations across Canada.

The NRC partners with Canadian industry to take research impacts from the lab to the market-place, where people can experience the benefits. This market-driven focus delivers innovation faster, enhances people's lives and addresses some of the world's most pressing problems. We are responsive, creative and uniquely placed to partner with Canadian industry, to invest in strategic R&D programming that will address critical issues for our future.

Each year our scientists, engineers and business experts work closely with thousands of Canadian firms, helping them bring new technologies to market. We have the people, expertise, services, licensing opportunities, national facilities and global networks to support Canadian businesses.

FUND NAME: Grants and Contributions Programs

- **Program Type:** Support is offered for collaborative research and development and prototype development intended to support research, development, adoption and/or adaptation of innovative or technology-driven new or improved products, services or processes in Canada.
- Thematic Area: Alignment with NRC challenge programs and supercluster support programs.

Current NRC Challenge Programs:

- » Pandemic Response Challenge Program
- » Materials for Clean Fuels Challenge Program
- » High-throughput and Secure Networks Challenge Program
- » Artificial Intelligence for Design Challenge Program
- » <u>Disruptive Technology Solutions for Cell and Gene Therapy</u>
- » Aging in Place Challenge Program
- » Internet of Things: Quantum Sensors Challenge Program

Current NRC supercluster support programs:

- » Advanced Manufacturing
- » Digital Health and Geospatial Analytics
- » Ocean
- » Sustainable Protein Production
- » Artificial Intelligence for Logistics
- **Funding Opportunity:** Grant or contribution funding limits depend on the call for proposals. Salaries, research support costs, travel and accommodation, equipment and indirect costs are eligible for grant and contribution funding, you will find more details here.
- *Eligibility Criteria*: Eligible recipients include: academic institutions, non-profit organizations, small and medium-sized enterprises up to 500 employees, provincial, territorial, regional, and municipal governments and agencies, and Indigenous governments and organizations. Large companies of more than 500 employees are not eligible to receive grant and contribution funding but may collaborate as part of the NRC's programs and initiatives.

Grant and contribution funding is available for international collaborators, including participation in Horizon Europe consortia, where there is a benefit to Canada.

- **Budget:** Grant or contribution funding limits depend on the call for proposals.
- **Application Deadline:** Deadlines are announced with calls for proposals in addition there are some ongoing opportunities. We recommend contacting the NRC with your specific questions for more detailed information.
- **Submission Process:** Process will be indicated in the call for proposal.
- **For More Information:** Further information can be found <u>here</u>. For project specific advice please contact Marta Farsang, Director, International Relations, National Research Council of Canada: <u>marta.farsang@nrc-cnrc.gc.ca</u>

THE NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA

The **Natural Sciences and Engineering Research Council of Canada** (NSERC) is the federal funding agency for academic research in the fields of natural sciences and engineering. The agency supports university students in their advanced studies, promotes and supports discovery

research, and fosters innovation by encouraging Canadian companies to participate and invest in postsecondary research projects.

FUND NAME: Alliance Grants

- **Program Type:** Research/ Training/ Innovation/ Technology development/ Application of research results.
- **Thematic Area:** Any R&D project that seeks to respond to a research challenge in the natural sciences or engineering.
- **Funding Opportunity:** Alliance grants encourage **university researchers** to collaborate with partner organizations, which can be from the private, public or not-for-profit sectors. These grants support research projects led by strong, complementary, collaborative teams that will generate new knowledge and accelerate the application of research results to create benefits for Canada.
- *Eligibility Criteria*: If you are a Canadian university researcher who is eligible to receive NSERC funds, you can apply on your own or as a team with co-applicants who are also eligible academic researchers. You must have at least one partner organization (in the private, public or not-for-profit sector) whose cash contributions will be recognized for cost-sharing but you may include other partner organizations who play an important role in your research project whether or not their cash contributions are recognized for cost sharing. *Any successful* Canadian applicants can use this funding to leverage their ability to partner under Horizon Europe projects.

International collaborations can be built into project proposals in a variety of ways to enhance collaboration and increase your project's impact. Refer to the Alliance Grants website for more information regarding the eligibility of expenses you may incur in support of such collaborations.

- Budget: Funding is available from \$20,000 to \$1 million per year over 1 to 5 years.
- **Application Deadline:** There is no application deadline, you can apply at any time. The number of applications, review mechanism, and expected assessment time differ for each cost-sharing option (more information on the Alliance Grants website).

- Submission Process:

- » Fill out the proposal template following the instructions for completing an Alliance grant application.
- » Submit your completed application and supporting documents for the applicant and all co-applicants, through <u>NSERC's Online system</u>.
- » The contact person from your partnering organization (s) will be invited through NSERC's Online system to provide information about the partner organization.

- For More Information:

Website: https://www.nserc-crsng.gc.ca/innovate-innover/alliance-alliance/index_eng.asp

Email: alliance@nserc-crsnq.qc.ca; 613-995-1111

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL

Social Sciences and Humanities Research Council (SSHRC) is the federal research funding agency that promotes and supports postsecondary-based research and training in the humanities and social sciences.

FUND NAME: Insight Grants (IG)

- **Program Type:** Insight Grants support research excellence in the social sciences and humanities. These grants enable scholars to address complex issues about individuals and societies, and to further our collective understanding.
- Thematic Area: Open.
- **Funding Opportunity:** Funding is available to both **emerging and established scholars** for research initiatives of two to five years. Applicants choose from one of two streams, depending on the amount of funding required.
- **Eligibility Criteria:** Applicants (except postdoctoral researchers and PhD students) must be affiliated with an eligible Canadian postsecondary institution at the time of application and before funding can be released. Researchers who maintain an affiliation with a Canadian postsecondary institution, but whose primary affiliation is with a non-Canadian postsecondary institution, are not eligible for applicant status. See <u>subject matter eligibility</u> for more information.

Canada-based applicants can name Europe-based researchers as collaborators.

- **Budget:** Stream A: \$7,000 to \$100,000; Stream B: \$100,001 to \$400,000, 2 to 5 years.
- Application Deadline: Competitions are run annually; see Insight Grants for the next deadline.
- **Submission Process:** The deadlines and application process are identical for both streams. Applicants must complete the <u>application form</u> in accordance with <u>accompanying instructions</u>. Applications must be submitted electronically by an authorized research grants officer, or equivalent, from the applicant's institution. Eligible PhD students and postdoctoral researchers may submit their applications directly to SSHRC.
- **For More Information:** https://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/insight_grants-subventions_savoir-eng.aspx?cmp=1&_ccCt=cigo-22n7do-oanfje-ciepz8b8

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL

FUND NAME: Insight Development Grants (IDG)

- **Program Type:** Insight Development Grants support social sciences and humanities research in its initial stages. The grants enable the development of new research questions, as well as experimentation with new methods, theoretical approaches and/or ideas.
- Thematic Area: All
- **Funding Opportunity:** Insight Development Grants foster research in its early stages, and are not intended to support large-scale initiatives. Proposed projects can involve, but are not limited to, the following types of research activities: case studies, pilot initiatives and critical analyses of existing research.
- *Eligibility Criteria*: Applications may be submitted by an **individual researcher or a team** of researchers (consisting of one <u>applicant</u> and one or more <u>co-applicants</u> and/or <u>collaborators</u>). Applicants (except postdoctoral researchers and PhD students) must be affiliated with an <u>eligible Canadian postsecondary institution</u> at the time of application and before funding can be released.

Canada-based applicants can name Europe-based researchers as co-investigators or collaborators.

- **Budget:** Insight Development Grants are valued at up to \$75,000 over one to two years. A minimum budget of \$7,000 in at least one of the years is required. For the February 2021 competition, at least 50% of funds are reserved for applications from <u>emerging scholars</u>.
- **Application Deadline:** Competitions are run annually; see <u>Insight Development Grants</u> for the next deadline.
- **Submission Process:** Applicants must complete the <u>application form</u> in accordance with accompanying instructions. Applications must be submitted electronically by an authorized research grants officer, or equivalent, from the applicant's institution. Eligible PhD students and postdoctoral researchers can submit their applications directly to SSHRC.
- **For More Information:** https://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/insight development grants-subventions de developpement savoir-eng.aspx

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL

FUND NAME: Partnership Grants (PG)

- **Program Type:** Partnership Grants support **formal partnerships between academic researchers, businesses and other partners** that will advance knowledge and understanding on critical issues of intellectual, social, economic and cultural significance.
- Thematic Area: All
- Funding Opportunity: A range of types of partnerships are funded:
 - » Disciplinary and interdisciplinary research partnerships: Interinstitutional research initiatives designed to make a significant contribution to advancing knowledge and understanding in the social sciences and/or humanities. While SSHRC welcomes proposals for interdisciplinary research partnerships involving natural sciences, engineering and/or health partner organizations, partnerships of this nature must follow SSHRC's subject matter eligibility guidelines
 - » Cross-sector co-creation of knowledge and understanding: Partnerships to foster innovative research, training and the co-creation of new knowledge on critical issues of intellectual, social, economic and cultural significance.
 - » Networks for research and/or related activities: Networks designed to advance the innovative co-creation of knowledge, as well as training and mobilization of research, on critical issues of intellectual, social, economic and cultural significance.
 - » Partnered knowledge mobilization: Partnerships designed to synthesize, apply and mobilize new and existing social sciences and humanities research knowledge in accessible ways to build institutional capacity and to increase the national and international impact and stature of Canadian research.
- **Eligibility Criteria:** Applications may be submitted by a team of researchers (consisting of one <u>applicant</u> / project director and one or more <u>co-applicants</u> and/or <u>collaborators</u>). The applicant / project director prepares the application on behalf of the <u>partner organizations</u> of the <u>formal partnership</u>.

Canada-based applicants can name Europe-based researchers as co-investigators or collaborators. Applications can include European institutions as Partners.

- **Budget:** Applications successful in Stage 1 are valued at up to \$20,000. Partnership Grants in Stage 2 are valued at up to \$500,000 per year over four to seven years, up to a total of \$2,500,000.
- Application Deadline: Competitions are run annually; see Partnership Grants for the next

deadline.

- **Submission Process:** Applicants must complete the <u>application form</u> in accordance with <u>accompanying instructions</u>. Eligible PhD students and postdoctoral researchers can submit their applications directly to SSHRC.
- **For More Information:** https://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/partnership_grants_stage1-subventions_partenariat_etape1-eng.aspx

SOCIAL SCIENCES AND HUMANITIES RESEARCH COUNCIL

FUND NAME: Partnership Development Grants (PDG)

- **Program Type:** Partnership Development Grants support smaller-scale or early stage formal partnerships between academic researchers, businesses and other partners that will advance knowledge and understanding on critical issues of intellectual, social, economic and cultural significance.
- Thematic Area: Open
- Funding Opportunity: Partnership funding is intended for formal partnerships between postsecondary institutions and/or organizations of various types. For more information, see the definitions for <u>formal partnership</u> and <u>partner organization</u>.

These grants provide support over one to three years to teams/partnerships, led by a project director, to:

- » develop research and/or related activities in the social sciences and humanities—these can include knowledge mobilization and the meaningful involvement of students and <u>emerging scholars</u>, by fostering new partnerships with existing and/or potential partners; or
- » design and test new partnership approaches for research and/or related activities that can result in best practices or models—these can either be adapted by others or have the potential to be scaled up to a regional, national or international level.
- **Eligibility Criteria:** Applications may be submitted by a team of researchers (consisting of one <u>applicant</u> / project director and one or more <u>co-applicants</u> and/or <u>collaborators</u>). The applicant / project director prepares the application on behalf of the <u>partner organizations</u> of the <u>formal partnership</u>. Applicants (except postdoctoral researchers and students) must be affiliated with an <u>eligible Canadian institution</u> at the time of application.

Canada-based applicants can name Europe-based researchers as co-investigators or collab-

orators. Applications can include European institutions as Partners.

- **Budget:** Partnership Development Grants are valued at \$75,000 to \$200,000, over one to three years.
- **Application Deadline:** Competitions are run annually; see <u>Partnership Development Grants</u> for the next deadline.
- **Submission Process:** Applicants must complete the <u>application form</u> in accordance with <u>accompanying instructions</u>.
- For More Information: https://www.sshrc-crsh.gc.ca/funding-financement/programs-programmes/partnership development grants-subventions partenariat development-eng.aspx

TRI-AGENCY PROGRAMS

SSHRC also delivers tri-agency programs that **support postsecondary-based research and training** in all disciplines.

FUND NAME: New Frontiers in Research Exploration Stream

- **Program Type:** The goal of the Exploration stream is to inspire high-risk, high-reward and interdisciplinary research.
- Thematic Area: Open.
- **Funding Opportunity:** Generates opportunities for Canada to build strength in high-risk, high-reward and interdisciplinary research. Exploration stream grants support projects that:
 - » bring disciplines together beyond traditional disciplinary or common interdisciplinary approaches;
 - » propose to explore something new, which might fail; and
 - » have the **potential for significant impact**.
- **Eligibility Criteria:** The NFRF Exploration stream eligibility criteria can vary between competitions. See NFRF Exploration for details.

Canada-based applicants can name Europe-based researchers as co-investigators.

- Budget: \$125,000 per year (including up to 25% for indirect costs) for up to 2 years.
- **Application Deadline:** Application deadlines can vary between competitions. See <u>NFRF Exploration</u> for details.

- Submission Process: All applications are completed through the Convergence Portal.
- **For More Information:** https://www.sshrc-crsh.gc.ca/funding-financement/nfrf-fnfr/exploration/exploration-eng.aspx

TRI-AGENCY PROGRAMS

FUND NAME: New Frontiers in Research Transformation Stream

- **Program Type:** Provides large-scale support for Canada to build strength and leadership in interdisciplinary and transformative research.
- **Thematic Area:** Open. The challenge may be fundamental, leading to a scientific breakthrough, or applied, with a social, economic, environmental or health impact.
- Funding Opportunity: Transformation stream grants will support projects that:
 - 1. tackle a well-defined problem or challenge;
 - 2. propose a **novel world-leading** approach that is different from the current state-of-the-art approaches to the issue;
 - 3. are interdisciplinary, bringing different perspectives to the defined problem; and
 - 4. have the potential to be **transformative**, defined as the potential to **create a significant and real change or impact**—a noticeable leap or tangible breakthrough rather than an incremental advance.
- **Eligibility Criteria:** The NFRF Transformation stream eligibility criteria can vary between competitions. See NFRF Transformation for details.

Canada-based applicants can name Europe-based researchers as co-investigators.

- **Budget:** Grants between \$2,000,000 and \$4,000,000 (including up to 25% for indirect costs) per year for 6 years.
- **Application Deadline:** Application deadlines can vary between competitions. See <u>NFRF Transformation</u> for details.
- **Submission Process:** All applications are completed through the **Convergence Portal**.

TRI-AGENCY PROGRAMS

FUND NAME: New Frontiers in Research International Stream

- **Program Type:** Enhances opportunities for Canadian researchers to participate in research with international partners.
- **Thematic Area:** Open and targeted.
- Funding Opportunity: The NFRF International stream supports various funding mechanisms:
 - » Joint calls: Joint funding calls with international agencies on topics of international relevance
 - » **Global platforms**: Dedicated funds to support participation of Canadian researchers within international teams in projects seeking funding from major global platforms
- **Eligibility Criteria:** Eligibility can vary between competitions. See <u>NFRF international</u> for details.
- **Budget:** Available budget can vary between competitions. See NFRF international for details.
- **Application Deadline:** Application deadlines can vary between competitions. See <u>NFRF international</u> for details.
- Submission Process: All applications are completed through the Convergence Portal.
- **For More Information:** https://www.sshrc-crsh.gc.ca/funding-financement/nfrf-fnfr/international-eng.aspx

WESTERN ECONOMIC DIVERSIFICATION CANADA

Western Economic Development Diversification Canada (WD) is a federal department that promotes economic growth in Western Canada (British Columbia, Alberta, Saskatchewan, and Manitoba). Its programs and services help businesses, not-for-profits, and communities grow stronger by focusing on business development, innovation, and community development.

- Fund Name: Business Scale-up and Productivity (BSP) A stream of Regional Economic Growth through Innovation (REGI)
- Program Type:
 - » Productivity improvement
 - » Business scale-up
 - » Technology commercialization

- Thematic Area:

- » Advanced Manufacturing
- » Clean Resources
- » Clean Technology
- » Digital Industries
- » Health/Bio-sciences
- » Natural Resources Value-added Processing
- » Value-added Agriculture
- Funding Opportunity: Funding offered under this stream supports high-growth businesses that are scaling up and producing innovative goods, services or technologies. It offers interest-free repayable funding to incorporated businesses. Preference will be given to proposals with a demonstrated focus on:
 - » Clean Technology
 - » Food and Ingredients Processing
 - » Health Analytics and Diagnostics
 - » Zero Emission Heavy Equipment Vehicles

Preference may be given to small and medium-sized enterprises (SMEs) with less than 500 full-time employees (FTEs). BSP funding may support western Canadian entrepreneurs and innovators as they collaborate with international partners in Horizon Europe.

- **Eligibility Criteria:** The <u>BSP</u> program is open to incorporated **high-growth business-es** that have been operating in western Canada for a minimum of 2 years. Businesses must meet the following mandatory criteria:
 - » high-growth business¹⁴ that is scaling up and producing innovative goods, services or technologies;
 - » incorporated to do business in Canada;
 - » have been in business for at least 2 years in Canada;

¹⁴ A high-growth business can be defined as any for-profit company that has notable and/or consistent revenue increases year over year. Typically, this means an increase of at least 20% year over year. Businesses that are negatively impacted by the current pandemic would be eligible if they met this definition prior to March 31, 2020.

- » have staffed operating facilities in Western Canada (defined as British Columbia, Alberta, Saskatchewan or Manitoba);
- » have confirmed, at the time of expression of interest submission, funding from all other sources, including government and non-government (non-government funding must represent at least 50% of the proposed project costs).
- **Budget:** Subject to parliamentary decisions, WD currently has a budget of up to \$30 million available for investments to support departmental priorities in 2020/21. Total support to any one organization cannot exceed \$10M over the life of the BSP program (2018-2023).
- **Application Deadline:** The BSP stream has multiple intakes per year, based on demand and available funding, during which businesses are invited to submit their Expression of Interest (EOI). The next BSP stream intake is between March 15 and April 14, 2021.

WD will accept only one EOI per business for each intake. In addition, businesses will be limited to one successful application per year. EOIs that have not been invited to submit an application, will not be automatically considered in subsequent intakes. Re-submission of your EOI in a future intake will be required.

- Submission Process:

- 1. The business submits to WD via email (with a subject line of "BSP Expression of Interest") the following documentation:
 - a. A completed EOI form.
 - b. Financial statements for the past 2 years, as well as interim financial statements for at least the last 6-month period.
 - c. Confirmation of other funding sources (e.g. bank statements, unused portion of lines of credit, official letters of intent, funding agreements, signed term sheets).
 - d. Other supporting information (e.g. business plan, pitch deck) detailing your organization, how it meets the high-growth definition, and details about the proposed project.
- 2. Within 30 calendar days of the close of the intake, WD will invite selected companies to submit a full application for funding consideration. If you have not been contacted, your project will not be considered further.
- For More Information: BSP webpage: https://www.wd-deo.gc.ca/eng/19762.asp

WESTERN ECONOMIC DIVERSIFICATION CANADA

Fund Name: Regional Innovation Ecosystems (RIE)

- **Program Type:** A stream of Regional Economic Growth through Innovation (REGI)
 - » Not-for-profits
 - » Business supports
- **Thematic Area:** Activities that support a regional innovation ecosystem to respond to a specific challenge, opportunity, or market need or demand related to business scale-up and productivity, with emphasis on:
 - » Technology Commercialization
 - » Business Scale-Up
 - » Productivity Improvement
 - » Ecosystem Capacity Building
 - » Business Acceleration and Incubation
- **Funding Opportunity:** RIE is open to not-for-profit organizations that support businesses, innovators, and entrepreneurs in priority sectors to innovate, grow, and compete globally. RIE is also open to not-for-profit organizations fostering inclusive growth through supporting underrepresented groups, mainly women, Indigenous peoples and young entrepreneurs, to more fully participate in the innovation economy.

Funding offered under this stream helps create, grow and nurture inclusive regional ecosystems that support business needs and foster an entrepreneurial environment conducive to innovation, growth and competitiveness. It also fosters the entrepreneurial environment necessary for more innovative regional economies and increases the competitiveness of small-and medium-sized enterprises (SMEs), women entrepreneurs and underrepresented groups.

The objectives of the RIE stream are:

- » **Support and grow strategic clusters** to leverage regional strengths and support businesses commercialize products, technologies and services, and to scale-up.
- » Enhance the development and reach of business accelerators and incubators, and other organizations, which support entrepreneurs, start-ups and companies with high-growth potential.

- » Support projects led by innovation-oriented organizations to increase and promote business productivity and global competitiveness, and investment and talent attraction.
- » Enhance the capacity of ecosystems to **support underrepresented groups**, including women, Indigenous peoples, and young entrepreneurs.

Priority may be given to projects demonstrating broad financial support and leverage of resources. RIE funding may support western Canadian innovators as they collaborate with international partners in Horizon Europe.

- Eligibility Criteria: Applicants must meet one of the following mandatory criteria:
 - » post-secondary educational institutions;
 - » Business Accelerator and Incubators;
 - » angel networks;
 - » Indigenous (First Nations, Inuit, Métis) organizations, including Indigenous-led not-for profit organizations and Indigenous-owned businesses;
 - » social enterprises;
 - » a group of eligible recipients such as an industry association or consortium; or
 - » a municipality and all other municipal-type organizations.

All eligible applicants must be legal entities capable of entering into legally binding agreements. RIE projects must support one of the following two priority areas:

- » **Cluster**¹⁵ **Growth**, within one of the following priority sectors:
 - Clean Technology
 - o Clean Resources
 - Life Sciences
 - o Value-added Agriculture
 - Advanced Manufacturing
 - Digital Technology

¹⁵ Clusters are defined as a dense area of business activity containing a critical mass of large and small companies, post-secondary and research institutions, and other innovation actors. Their close geographic proximity can result in supply-chain benefits, encourage knowledge sharing and collaboration, drive competition and business specialization, and help to attract "anchor" companies from around the world.

- » **Inclusiveness**, with respect to one of the following under-represented groups:
 - o Indigenous Peoples
 - Women
 - Youth
- **Budget:** Subject to parliamentary decisions, WD currently has a budget of up to \$30 million available for investments to support departmental priorities in 2020/21.

If you are successful in obtaining RIE funding for your project, WD will normally provide the non-repayable funding in periodic reimbursements, based on the submission of claims for reimbursement. These reimbursements will be released to recipients for the approved portion (i.e. up to 100%) of eligible projects costs that have been incurred and paid. Recipients will need to plan project cash flows accordingly based on the timing of the claims and the period to process the reimbursement. WD will provide an orientation to this process to all those who are approved for RIE funding.

Typically, contribution towards a commercial project with a not-for-profit organization or towards any project with a for-profit organization is repayable. However, this may vary depending upon how the project risk will be shared between the government and the project proponent.

Potential funding recipients are expected to have secured all non-WD requested project financing (typically, at least 50%) before applying.

- **Application Deadline:** The RIE stream currently uses a continuous intake approach for receiving applications. If you are interested in submitting an application for the RIE stream, applicants should contact their regional WD office for more information on how to proceed and current timelines.

- Submission Process:

- 1. Contact your regional WD office to discuss your project idea and its compatibility with the RIE stream.
- 2. If the project idea is a good fit with the RIE stream, an Expression of Interest (EOI) will be requested to outline the project further.
- 3. Only if the EOI demonstrates the project has high merit and strongly fits with RIE objectives, will you be asked to submit a full application.
- 4. WD's service standard is to provide a funding decision to an applicant within 90 business days (90% of the time) of receiving a complete funding proposal.
- For More Information: RIE webpage: https://www.wd-deo.gc.ca/eng/19775.asp

6.2 Provincial Funding Programs For Science, Technology And Innovation Activities

ALBERTA

EMISSIONS REDUCTIONS ALBERTA

Emissions Reductions Alberta (ERA) for more than 10 years, ERA has been investing the revenues from the carbon price paid by large final emitters to accelerate the development and adoption of innovative clean technology solutions. Since ERA was established in 2009, they have committed \$616 million toward 186 projects worth \$4.5 billion that are helping to reduce greenhouse gas emissions (GHG)s, create competitive industries and are leading to new business opportunities in Alberta. These projects are estimated to deliver cumulative GHG reductions of 35 million tonnes of of CO₂ by 2030.

FUND NAME: Emissions Reduction Alberta Funding Challenges

- Program Type: Innovation late-stage clean technology development (TRL 7 through 9).
- **Thematic Area:** Cleaner Oil and Gas; Low Emitting Electricity System; Food, Fibre and Bioindustries; Low Carbon Industrial Processes and Products.
- Funding Opportunity: ERA is seeking innovative technologies through competitive challenges that reduce greenhouse gas emissions. Any successful ERA applicant can use this funding to leverage their ability to partner under Horizon Europe Programs. Projects must have a material benefit to Alberta's industries or be demonstrated using Alberta infrastructure, or successful ERA applicants can include European-based institutions or organizations as partners.

- Eligibility Criteria:

- » ERA's focus is on technologies to support large industrial emitters (SMEs, researchers, innovators, academia, industry).
- » To demonstrate market demand, all contributions from ERA are required to be matched with private dollars.
- **Budget:** Up to \$10 million per project.
- Application Deadline: ERA funds projects in two ways.
- 1) ERA announces regular <u>funding challenges</u> aimed at specific emissions reduction challenges. After a funding challenge is announced, applicants have approximately 8 weeks to prepare an expression of interest.

- 2) ERA has a Partnership Intake Program.
- **Submission Process:** Projects submitted for funding consideration are evaluated through a rigorous process to ensure that ERA's funds are invested prudently. ERA uses a Call for the Proposals process that is divided into two stages, the Expression of Interest (EOI) stage and the Full Project Proposal (FPP) stage. This is then followed by Contracting and Project Execution. While this procedure is used in each case, some adaptations are made to achieve the greatest outcomes for each initiative. ERA typically finalizes its funding decisions approximately six months after receiving the original Expressions of Interest.

To learn more about the funding process, click here.

- For More Information: https://eralberta.ca/

Cailee Ellis, Executive Director, Strategy and Engagement (cellis@eralberta.ca)

GERMAN-CANADIAN CENTRE FOR INNOVATION AND RESEARCH (GCCIR)

German-Canadian Centre for Innovation and Research (GCCIR) is an initiative for the development of European–Canadian research and business relations. Based in Edmonton, Alberta and located in the TEC Edmonton Business Accelerator, the GCCIR provides support for the exchange of information, development of networks, the establishment and cultivation of collaborative partnerships in academia, business, and industry, as well as cultural exchange. The central focus is on enhancing international knowledge and technology transfer, and on raising the profile of Canada and Europe as centres of excellence in innovation and research. In addition to multiple academic and international partnerships, the GCCIR operates the Alberta-Europe Technology Collaboration Fund, which is aimed at facilitating and supporting joint, innovative technology development projects between Albertan and European SMEs. This program is supported by the provincial Ministry for Jobs, Economy and Innovation.

FUND NAME: Alberta-Europe Technology Collaboration Fund

- **Program Type:** The overarching goal of the Alberta-Europe Technology Collaboration Fund is to help participants become more globally competitive by developing innovative technologies and research-based alliances with the potential to foster economic growth. As such, this fund supports pre-commercial technology development activities. Projects may include any or all of the following stages of pre-trade activity on the path to commercialization:
 - » Applied research and development
 - » Technology demonstration

- » Prototype development
- » Proof of concept
- Thematic Area: Open to all sectors.
- Funding Opportunity: Funds may only be used to pay for budget items as outlined in the application and the written agreement between the GCCIR and the Albertan SME. Claimed expenses are subject to approval by GCCIR. Eligible costs are limited to project-specific expenses. GCCIR funding can also be leveraged to allow an Albertan company to participate in Horizon Europe consortium projects. Eligible costs include:
 - » Costs of Alberta-based project personnel (i.e. researchers, engineers, technicians, tradespeople, project management and support staff when involved in project activity). Monetary contributions from GCCIR can also be put towards resources from third-party organizations (e.g. consultants or contractors).
 - » Costs of instruments and equipment required for the project (except when disposed of on a commercial basis after the project is over).
 - » Additional costs incurred directly as a result of project activity.
 - » Other project-specific expenses including materials and supplies and travel expenses for trips to Europe related to project activities (travel expenses are limited to 10% of program funds, but applicants can contribute further funds for additional travel).
 - » Professional services directly related to project activities.
 - » IP management, market assessment, fees for service labs.

Expenses not eligible under the program include:

- » Training courses.
- » Administrative fees or overhead charges for administering this program.
- » Design and production of advertising material.
- » Sales and promotional activities.
- » Costs associated with applying for government grants and programs.

Any expenses outside of those listed above must be pre-approved by the GCCIR prior to the actual expenditure. Ownership of all purchased materials resides with the SME.

- Eligibility Criteria: Albertan small and medium-sized enterprises (1 to 499 employees and less than \$50 million in gross revenue) are welcome to apply to the Alberta-Europe Technology Collaboration Fund if they are undertaking R&D and/or technology development activities together with European partners. Albertan SMEs are defined as incorporated (Albertan

or Canadian registration) for-profit companies, sole proprietorships or partnerships with an office and employees in Alberta. The company needs to have a significant technology development presence in Alberta. The partner from Europe can be a small or medium-sized enterprise, or a larger company. Independent research institutions in Europe can also participate in projects and may receive funding as well. All proposals to the program must involve an industry partner from each jurisdiction with an interest in commercialization.

Furthermore, the two project partners must be legally independent. A subsidiary is not a partnership. If your company has investment in the other company, or vice versa, you can still apply, as long as each party is independently investing in the project.

- **Budget:** Albertan companies may apply for up to \$250,000 CAD. Any funds requested must be matched with a combination of cash and in-kind contributions from the Albertan company. European partner companies may apply for funding through regional, national, or EU funding bodies. GCCIR is happy to help European companies find the best opportunities in their jurisdictions. Should the European partner company be bigger than an SME or should circumstances prevent an application to an appropriate European funding agency, then the only prerequisite for participation is that the European company contribution matches the amount of the GCCIR contribution to a given project.
- **Application Deadline:** Applications are accepted on a rolling basis. Alternately, GCCIR can tailor the Alberta application intake to match any deadlines required by European funders.
- **Submission Process:** The submission process is as follows:
 - Please contact GCCIR as soon as you know you would like to apply to the Alberta-Europe Technology Collaboration Fund. This will allow us to advise you on the details of the application process and, if necessary, to coordinate with relevant European funding bodies.
 - 2. The Albertan company must submit a completed application form (available at Alberta-Europe Collaboration Fund GCCIR), along with a draft of a cooperation / IP agreement between them and their European partner.
 - 3. The review process on the Albertan side will take approximately three months, but may be extended to allow for results on the European side.
 - 4. Should the application be successful, once the cooperation / IP agreement between the company participants is finalized, and the Grant Agreement between the Albertan company and the GCCIR is signed, the project can begin.
- For More Information: http://www.gccir.ca/en/alberta-europe-collaboration-fund/

Dr. Katelyn Petersen, kpetersen@gccir.ca, 780-492-4287

BRITISH COLUMBIA

Genome BC is a non-profit research organization, leads genomics innovation on Canada's West Coast and facilitates the adoption of genomics into society. Genome BC's major investors are the Province of British Columbia and the Government of Canada through Genome Canada and Western Economic Diversification Canada. This funding is complemented by partnerships with many national and international public and private funding organizations to drive societal, environmental, and economic benefits for British Columbia, Canada and beyond.

FUND NAME: Genome BC Funding Programs

- **Program Type:** Genome BC supports research projects, technology platforms and innovation initiatives with the aim of growing a globally competitive life sciences sector and delivering sustainable benefits for British Columbia, Canada and beyond.
- **Thematic Area:** Genome BC invests in research and innovation initiatives that align with the needs of areas of strategic importance to British Columbia such as health, forestry, fisheries and aquaculture, agrifood and agriculture, energy, mining, and environment.
- Funding Opportunity: Funding opportunities vary by program on an ongoing basis. Genome BC's unique co-funding approach relies on collaborative research agreements and commitments to milestones and outputs, a model perhaps best described as "contract" research. Genome BC funds projects across the research continuum from discovery through to application and translation. Any successful applicant from British Columbia, Canada, can use this funding to leverage their ability to partner under Horizon Europe projects.
- **Eligibility Criteria:** Varies depending on program. For example:

<u>GeneSolve</u> Program brings **industry and academia** together to find solutions for sector challenges. Industry partners must provide 1:1 funding match.

<u>Sector Innovation</u> Program open to researchers aiming to provide genomic solutions to enhance sector competitiveness and sustainability.

<u>Societal Issues</u> Competition open to research projects that identify and study the societal issues that emerge from genomics-based innovations.

<u>Industry Innovation</u> Program provides debt financing commercialization support for **BC-based companies** developing innovative life science technologies.

- **Budget:** Varies depending on program. For example:

GeneSolve Program: Up to \$250,000 per project, with a 1:1 match from the Sector Partner.

Sector Innovation Program: Up to \$250,000 per project.

Industry Innovation Program: Between \$500,000 and \$1,250,000 per company.

- Application Deadline: Varies depending on program. For example:
 - » GeneSolve Program: Ongoing.
 - » Sector Innovation Program: Recurring.
 - » Genomic Applications Partnership Program: Recurring.
 - » Large-Scale Applied Research Project Program: Recurring.
 - » Societal Issues Competition: Recurring.
 - » Industry Innovation Program: Ongoing.
- **Submission Process:** Varies depending on program. Contact Genome BC for information on how to apply to any open program.
- For More Information: https://www.genomebc.ca/funding/current-opportunities

GOVERNMENT OF BRITISH COLUMBIA

FUND NAME: British Columbia Knowledge Development Fund

- **Program Type:** The BC Knowledge Development Fund is the provincial government's primary investment in support of research infrastructure for researchers from the Province of British Columbia, Canada.
- **Thematic Area:** Infrastructure funding only (e.g., research equipment, building adaptation, databases).
- **Funding Opportunity:** The BC Knowledge Development Fund functions as a cost-sharing program with the Canada Foundation for Innovation. The BC Knowledge Development Fund typically funds up to 40 per cent of the total eligible costs of a research infrastructure project. The Canada Foundation for Innovation funds up to 40 percent of total eligible project costs, and other funding partners provide cash or in-kind funding for the remainder. Some infrastructure projects may involve partners from multiple provinces or countries.
- Eligibility Criteria: Only public post-secondary institutions of the province of British Columbia are eligible and the funded infrastructure must be a capital asset on their books. The funded asset may be located outside of the province of British Columbia and may contribute to the infrastructure of larger international research project (e.g., at CERN in Europe).

- **Budget:** The maximum amount per application depends on the type of competition (Major or Minor).
- **Application Deadline:** The deadlines of the BC Knowledge Development Fund align with those of the Canada Foundation for Innovation (one month apart). Typically: Three intakes per year for Minor projects and one intake every three years for Major projects.
- **Submission Process:** Applicants apply through the research office of their post-secondary institution that forward the requests to the BC Knowledge Development Fund within one month of a request being sent to the Canada Foundation for Innovation.
- For More Information: https://www2.gov.bc.ca/gov/content/governments/technology-inno-vation/bckdf

SASKATCHEWAN

INNOVATION SASKATCHEWAN

Innovation Saskatchewan is the central agency of the Government of Saskatchewan with responsibility for implementing Saskatchewan's innovation priorities.

FUND NAME: Agtech Growth Fund (AGF)

- **Program Type:** The Agtech Growth Fund (AGF) is a research and development (R&D) funding program designed to accelerate the commercialization of game-changing technological innovations in the province's agricultural sector. Through AGF, Innovation Saskatchewan provides non-repayable grants to projects that address a specific industry challenge.
- Thematic Area: Agriculture, agriculture technology.
- **Funding Opportunity:** Through AGF, Innovation Saskatchewan provides non-repayable grants to projects that address a specific industry challenge. Specifically, Innovation Saskatchewan will accept applications for funding in the below categories:
 - » Digital Ag Software/Hardware (e.g., sensors, imagery, precision ag, data stewardship)
 - » Smart Farm Equipment (e.g., robotics, machinery, automation)
 - » Food Processing (enabling technologies)
 - » Indoor Agriculture (enabling technologies)
 - » Animal Health/Verification Technology
 - » Supply Chain Technology (e.g., traceability)
 - » Agricultural Marketplace/Fintech

- *Eligibility Criteria*: All applications must meet the following criteria to be considered for funding:
 - Proposed by an active researcher and research consortium (open to public, private or academic) that represent the project's value chain (researchers, those involved in the production/supply process, and customer/end users).
 - 2. Active partner: participating in the project either through cash and/or in-kind contribution, equity investment, and/or letter of intent to purchase.
 - 3. Majority of the R&D activities must be conducted by **Saskatchewan-based partners**.
 - 4. Priority is given to proposals that also have an **academic partner from a Saskatch-ewan post-secondary or research institute.**
 - 5. Demonstrate how the technological innovation will solve a specific industry-wide challenge and benefit the agriculture sector overall, not just individual companies.
 - 6. Technological solutions must be novel and innovative.
 - 7. Demonstrate a feasible path to commercialization and how the benefits of the project will be sustained over the long-term.

Successful Saskatchewan applicants can use this funding to leverage their ability to partner under Horizon Europe projects.

- **Budget:** Industry partners must provide 50% or more of the project's budget. The amount requested from Innovation Saskatchewan is no more than 30% of the proposed budget. The remaining amounts can be secured from other sources (i.e. federal funding agencies). In-kind matching contributions cannot exceed 20% of the budget and must be valued at cost.

Disclaimer: Applicants applying to both the AGF and the Saskatchewan Technology Start-up Incentive (STSI) are limited to a lifetime cap of \$450,000 combined between the two programs. Please contact the program manager if you have additional questions.

- **Application Deadline:** The AGF has two intakes per fiscal year. Please see https://innovation-sask.ca/research/agf for established deadlines.
- **Submission Process:** To be considered for funding, prospective applicants must submit an EOI and complete the "Eligibility Questionnaire" found on the website before the intake deadline. The EOI should be three pages or shorter. Applicants must use the template provided on the website to develop the EOI. EOIs not using the template, or not submitted with the completed Eligibility Questionnaire, will not be accepted. Only shortlisted applicants will be invited to submit full proposals. Shortlist decisions made by Innovation Saskatchewan's internal selection committee are final.

Innovation Saskatchewan will provide feedback to any applicants that submit a draft of their proposal before the submission deadline. All applicants submitting a full proposal are strongly advised to take advantage of this opportunity.

- For More Information:

The program specific webpage can be located here: https://innovationsask.ca/research/agf. For more information, please contact Kevin Chung at kevin.chung@innovationsask.ca/research/agf.

INNOVATION SASKATCHEWAN

FUND NAME: Saskatchewan Advantage Innovation Fund (SAIF)

- **Program Type:** The Saskatchewan Advantage Innovation Fund (SAIF), is a research and development (R&D) funding program designed to accelerate commercialization of game-changing technological innovations in the province's core sectors.
- **Thematic Area: Industry** consortium research projects that align with Saskatchewan's provincial priorities and growth plan. See below for targeted sectors.
 - » Mining
 - » Energy
 - » Manufacturing
 - » Education
 - » Healthcare
- **Funding Opportunity: Industry consortium research** projects that align with Saskatchewan's provincial priorities and growth plan. Through SAIF, Innovation Saskatchewan provides non-repayable grants to projects that address a specific industry challenge.
- **Eligibility Criteria:** All applications must meet the following criteria to be considered for funding:
- Proposed by a group of active research partners (academic, private sector, or public sector)
 that represent the project's value chain (researchers, those involved in the production/ supply
 process, and customer/end users).
 - » Active partner: participating in the project either through cash and/or in-kind contribution, equity investment, and/or letter of intent to purchase.
 - » Majority of the R&D activities must be conducted by **Saskatchewan-based** partners.

- » Priority is given to proposals that have an academic partner from a Saskatchewan post-secondary or research institute.
- 2. Demonstrate how the technological innovation will solve a specific industry challenge and benefit the sector overall, not just individual companies.
- 3. Technological solutions must be novel and innovative.
- 4. Demonstrate a feasible path to commercialization and how the benefits of the project will be sustained over the long-term.

Successful Saskatchewan applicants can use this funding to leverage their ability to partner under Horizon Europe projects.

- **Budget:** Industry partners must provide 50% or more of the project's budget. The amount requested from Innovation Saskatchewan is no more than 30% of the proposed budget. The remaining amounts can be secured from other sources (i.e. federal funding agencies). Inkind matching contributions cannot exceed 20% of the budget and must be valued at cost. **Disclaimer:** Applicants applying to both the Saskatchewan Advantage Innovation Fund (SAIF) and the Saskatchewan Technology Start-up Incentive (STSI) are limited to a lifetime cap of \$450,000 combined between the two programs. Please contact the program manager if you have questions.
- **Application Deadline:** Intakes for SAIF are held twice per fiscal year. Please see https://innovationsask.ca/research/saskatchewan-advantage-innovation-fund for established deadlines.
- **Submission Process:** To be considered for funding, prospective applicants must submit an EOI and complete the "Eligibility Questionnaire" found on the website before the intake deadline. The EOI should be three pages or shorter. Applicants must use the template provided on the website to develop the EOI. EOIs not using the template, or not submitted with the completed Eligibility Questionnaire, will not be accepted. Only shortlisted applicants will be invited to submit full proposals. Shortlist decisions made by Innovation Saskatchewan's internal selection committee are final.

Innovation Saskatchewan will provide feedback to any applicants that submit a draft of their proposal before the submission deadline. All applicants submitting a full proposal are strongly advised to take advantage of this opportunity.

- For More Information:

Program specific webpage: https://innovationsask.ca/research/saskatchewan-advantage-innovation-fund.

For more information, please contact Andrew Cerkowniak at andrew.cerkowniak@innovationsask.ca

QUÉBEC

CONSORTIUM FOR RESEARCH AND INNOVATION IN AEROSPACE IN QUÉBEC

Consortium for Research and Innovation in Aerospace in Québec (CRIAQ), in partnership with the Ministère de l'Economie et de l'Innovation du Québec.

FUND NAME: Exploring Innovation Program

CRIAQ has played an important role in the aerospace research collaboration between Canada and Europe, by supporting international projects with various European countries, since 2009.

The first steps in a collaboration under calls for projects for research and innovation in aerospace between Canada and Europe were carried out by various research support programs, including CRIAQ, during the seventh framework program of the EU, according to <u>CANNAPE</u>'s mandate.

Between 2014 and 2019, the CARIC, Consortium for Aerospace Research and Innovation in Canada, built on the CRIAQ model, represented the research interests of the Canadian aerospace industry internationally. The European Commission's Horizon 2020 program has made it possible to collaborate more in the field of aerospace. Indeed, CARIC supported international projects under international and joint Canada-EU Horizon 2020 calls. In Quebec, CARIC was supported in this effort by CRIAQ.

At the end of CARIC in 2020, the Canadian National Aerospace Contact Point (NCP Aerospace) under the Horizon 2020 sector of Smart, Green and Integrated Transport (Smart, Green and Integrated Transport) was transferred to CRIAQ. Since the launch of the new program Horizon Europe, CRIAQ works directly with a sub-group dedicated to international collaboration of the European group ACARE. The intent is to increase bilateral cooperation in aerospace between Canada and the EU under the New Horizon Europe Program.

As part of this NCP role, CRIAQ can:

- » Inform potential Canadian participants about the on-going Horizon Europe calls of interest for aerospace research in Canada;
- » Organize mobilization around a specific topic key for international collaboration in aerospace and aviation (green technologies for aviation for example);
- » Support teams with at least two organizations based in Québec in joining a Horizon Europe call consortium building.

This support can be aligned with three different CRIAQ programs:

The CRIAQ <u>Exploring Innovation International Program</u> would be the most appropriate tool of support for projects in collaboration with Europe in which academic & research organizations partners are strongly involved, along with industry partners, to de-risk a pre-competitive technology development that will enable the future of aerospace.

- **Program Type:** collaborative research, pre-competitive technology development
- Thematic Area: aerospace and aviation
- **Funding Opportunity:** The objectives are: ramp up international research collaborations between **universities and industry**; increase the visibility of **Quebec-based** researchers and their institutions; and foster the development of researchers, through R&D projects, to gain an advantage in future niches for Quebec.

Parameters are: The research is carried out primarily at **universities, colleges, and research centers**; these projects focus on technology at an initial technology readiness level (TRL) of anywhere from 2 to 4; and this program is a great vehicle for training graduate students in connection with concrete aerospace applications alongside international partners.

Must be a Public Research Organization

- Eligibility Criteria:

- » Existence of a value-added application in aerospace (collaboration with other sectors in possible).
- » 1 industrial partner in Quebec and 1 public research organization (universities, colleges, research centers ...).
- » 1 industrial partner (not parent of the Quebec industry partner) and 1 public research organization in the country (or countries) of collaboration.
- » Minimum TRL of 2-3.
- » 2-year duration.
- **Budget:** Funding rate: CRIAQ provides a maximum of 50% and industry must provide 20% of support in cash. Up to a maximum financial aid requested of 1.5M\$ CAD (up to 500K\$ CAD per year). Maximum public funding: 80% of the project's value in cash.
- **Application Deadline:** Approximately 4 times a year. To know the exact dates for the submission of projects, please refer to <u>CRIAQ's website</u>, under the section Programs and Projects, International Program.

- Submission Process:

- 1. Join CRIAQ network, by contacting the Director of Programs to obtain the necessary documents to complete.
- 2. Submit a <u>letter of intent</u> to CRIAQ, once the project team is complete. The Letter of Intent form is a document to be completed by the project leader. Its purpose is to ensure that the project meets the qualifications required under the funding program. It provides preliminary information such as: a summary that describe the purpose of the project in the most common terms possible and its impact for the business community, the estimated contribution of the industrial partners to the project, the estimated total project budget and the composition of the project team.
- 3. If the letter of intent is reviewed positively, submit a full proposal for evaluation by CRIAQ scientific Committee. The application kit will be provided by the CRIAQ project manager. The full proposal must include:
 - » Research proposal: synopsis, state of the field of research, objectives and challenges, methodology, workplan and schedule, team expertise, research management, training of highly qualified personnel, industrial relevance, social and economic benefits for Quebec and Canada, maturation plan, GANTT chart;
 - » Budget validated by a CRIAQ project manager;
 - » Letters of support from each industrial partner, signed by the authorized representative of each organization;
 - » The academic attestation forms signed by the authorized representative of each organization.

If the project is approved, sign the related projects agreements. CRIAQ prepares the project agreement, based on a mandatory template created and approved by organizations (OEM, tier-ones, Universities, Research centers...) representatives of the ecosystem. This agreement covers the project, including confidentiality, property rights on materials and equipment, intellectual property, publications, partner liability, warranties, arbitration, etc. The generic agreement has been in use since 2005 and was signed for over 160 projects.

- For More Information: https://www.criaq.aero/en/our-programs/

Clothilde Petitjean - Director of Programs - <u>Clothilde.petitjean@criaq.aero</u>

CONSORTIUM FOR RESEARCH AND INNOVATION IN AEROSPACE IN QUÉBEC

FUND NAME: CRIAQ Maturing Innovation International Program

The CRIAQ Maturing Innovation International Program would be the most suitable avenue for projects where **SME partners in Québec** and, as needed, Europe, are strongly involved. The projects under this program aim to **demonstrate**, in collaboration, a new technology or product to access a new market together, or dramatically change their processes (to reduce their carbon footprint and their clients 'one, for example). The partners involved on both sides should beneficiate of the outputs of the project results.

- **Program Type:** collaborative development, demonstration projects, SME driven innovation.
- Thematic Area: aerospace and aviation.
- **Funding Opportunity:** Objectives are: To drive international research collaborations; foster the integration of Quebec SMEs from the aerospace sector into global innovation networks; and extend the network of potential partners to international collaborators.

Parameters are: Support projects aimed at involving **SMEs,** in the global innovation network, for the demonstration of aerospace technology parts, technology and systems.

Must be a SME or Public Research Organization.

- Eligibility Criteria:

- » Existence of a business opportunity and/or visibility of expertise internationally for the SMEs.
- » 2 companies in Quebec, including at least 1 SME with 1 company partner (not parent of the Quebec companies) in the country of collaboration.
- » Minimum TRL of 4.
- » 2 years duration.
- **Budget:** CRIAQ provides a maximum of 50%, industry must provide 20% of support of the project value, up to a maximum of 500K\$ CAD. Maximum public funding: 50% of the project value.
- **Application Deadline:** Approximately 4 times a year with different thematic focus each time. To know the exact dates for the submission of projects, please refer to <u>CRIAQ's website</u>, under the section Programs and Projects, International Program.

- Submission Process:

- 1. Join CRIAQ network, by contacting the Director of Programs to obtain the necessary documents to complete.
- 2. Submit a <u>letter of intent</u> to CRIAQ, once the project team is complete. The Letter of Intent form is a document to be completed by the project leader. Its purpose is to ensure that the project meets the qualifications required under the funding program. It provides preliminary information such as: a summary that describe the purpose of the project in the most common terms possible and its impact for the business community, the estimated contribution of the industrial partners to the project, the estimated total project budget and the composition of the project team.
- 3. If the letter of intent is reviewed positively, submit a full proposal for evaluation by CRIAQ scientific Committee. The application kit will be provided by the CRIAQ project manager. The full proposal must include:
 - » Research proposal: synopsis, state of the field of research, objectives and challenges, methodology, workplan and schedule, team expertise, research management, training of highly qualified personnel, industrial relevance, social and economic benefits for Quebec and Canada, maturation plan, GANTT chart;
 - » Budget and ventilation validated by the CRIAQ project manager;
 - » For SMEs:
 - » Last financial statements;
 - » Projected cash flows (2 years after Project start)
 - » Letters of support from each industrial partner, signed by the authorized representative of each organization;
 - » If project involving a Research organization in Québec involved: a Research service offer signed by the university partner and the industry lead.

If the project is approved, sign the related projects agreements. CRIAQ provides support to the project team for the signing of a project agreement. This agreement covers the project, including confidentiality, property rights on materials and equipment, intellectual property, publications, partner liability, warranties, arbitration, etc.

- For More Information: https://www.criaq.aero/en/our-programs/

Clothilde Petitjean- Director of Programs - Clothilde.petitjean@criaq.aero

CONSORTIUM FOR RESEARCH AND INNOVATION IN AEROSPACE IN QUÉBEC

FUND NAME: Canada-Europe Structuring Initiatives

For Projects in coordination with Europe which have a major impact on the future of the Aviation industry and/or its regulation and where the collaboration of major partners and/or institutions and/or regulatory bodies is required. These structuring initiatives might emerge not more than once a year and the support need to be adjusted to their specific configuration.

- **Program Type:** Pilot integrated program, structuring project, coordination action, full scale demonstration.
- **Thematic Area:** aerospace and aviation.
- **Funding Opportunity:** Objectives are: Enable a coordinated response to a worldwide scale challenge; position Quebec as a worldwide class Aerospace innovation cluster; and demonstrate a technology at value chain scale to speed up its adoption by various stakeholders simultaneously.
- Eligibility Criteria: To be unveiled April 2021.
- **Budget:** CRIAQ provides a maximum of 50%. Additional information will be available April 2021.
- Application Deadline: Once a year max, on the initiative of CRIAQ and/or its governance.
- **Submission Process:** Join CRIAQ network, by contacting the Director of Programs to obtain the necessary information after April 2021.
- For More Information: https://www.criaq.aero/en/our-programs/

Clothilde Petitjean - Director of Programs - <u>Clothilde.petitjean@criaq.aero</u>

MINISTRY OF ECONOMY AND INNOVATION OF QUEBEC

The Ministry develops and implements various financial assistance programs and tax measures aimed at supporting businesses and research organizations in the pursuit or increase of their activities.

FUND NAME: Programme de soutien aux organismes de recherche et d'innovation (PSO) – International

- **Program Type:** International research and innovation projects.
- Thematic Area: Mutisectoral
- Funding Opportunity: The PSO-International helps to support the international action of Quebec players from universities, colleges, institutions and industries working in various research and innovation sectors. Eligible expenses are those related to the research activities of the Quebec team and cover the costs of carrying out the project in Quebec.

The projects will be prioritized based on the government's strategic orientations in research and innovation. Priority will be given to projects relating to the following strategies, technologies or areas: 1. Aerospace;

- 2. Biotechnology and bio-food;
- 3. Maritime development and marine biotechnologies;
- 4. Renewable energies, clean technologies and green construction;
- 5. Industry 4.0 and innovative manufacturing;
- 6. Social innovation;
- 7. Advanced materials;
- 8. Optics-photonics, quantum technologies and virtual and augmented realities;
- 9. Life sciences, medical technologies and personalized health care;
- 10. Information and communications technologies, financial technologies and artificial intelligence;
- 11. Mining technologies, aluminum and arctic development;
- 12. Intelligent transport and electrification of transport.

Any successful québécois applicant can use this funding to leverage their ability to partner under Horizon Europe projects.

- Eligibility Criteria:

- » Quebec non-profit organizations operating in the various research and development sectors.
- » Establishments of the health and education networks involved in the various research and development sectors.
- » Quebec public research establishments.

6. CANADIAN FUNDING PROGRAMMES FOR SCIENCE, TECHNOLOGY AND INNOVATION ACTIVITIES

- Budget: In general, the financial assistance granted varies according to the type of project

and does not exceed 50% of the eligible expenses related to the realization of all the activities

of the Quebec part. The financial package may include a maximum of 80% of public assistance from the various levels of government, with the exception of social innovation projects, for which

the accumulation can reach 100% of eligible expenses.

A minimum contribution of 20% in cash of the planned expenses of the Quebec portion is re-

quired from the Quebec buyer community, with the exception of social innovation projects, for

which the contribution is not required. The amount granted is for a period of three years and

varies according to the type of projects:

Bilateral: \$ 150k

Multilateral: \$ 250k

Large scale: \$ 1.5 million

- Application Deadline: Annual call with two deadlines. Dates are specified on the website.

- Submission Process: Read the Application Guide to correctly complete the application form

and annexes. All requests must be written in French, signed by an official duly authorized by the organization by resolution of the board of directors or belonging to the list of directors clearly

identified by the Registraire des entreprises du Québec, and sent in electronic format to the

following address: pso.international@economie.gouv.qc.ca

The signed original of the request must also be sent by mail.

- For More Information: Alexandra.Burnet@economie.gouv.qc.ca (link)

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6.3 Summary Of Federal And Provincial Funding Programs

FEDERAL				
Agriculture & Agri-Food Canada Internal Project Funding & International Opportunities Program Fund	CANARIE ■ DAIR Cloud	Canadian Institutes of Health Research Project Grant Research Calls for Proposals under European Partnerships	Fisheries & Oceans Canada • Ecosystems and Oceans Science Contribution Framework	
Innovation Canada Innovative Solutions Canada Program	MITACS Mi- tacs Glo- balink Re- search Awards & Acceler- ate Inter- national	National Research Council of Canada Grants & Contributions Programs	Natural Sciences & Engineering Research Council of Canada • Alliance Grants	
Social Sciences & Humanities Research Council Insight Grants Insight Development Grants Partnership Grants Partnership Development Grants	Tri-Agency Programs New Frontiers in Re- search Ex- ploration Stream New Frontiers in Re- search Trans- for- mation Stream New Frontiers in Re- search Irans- for- mation Stream New Frontiers in Re- search Inter- na- tional Stream	Western Economic Diversification Canada Business Scaleup and Productivity Regional Innovation Ecosystems		

PROVINCIAL				
Alberta:	British Columbia:	Saskatchewan:	Québec	
Emissions Reductions Alberta Emissions Reduction Alberta Funding Challenges German-Canadian Centre for Innovation and Research Alberta-Europe Technology Collaboration Fund	Genome BC Genome BC Funding Programs Government of BC British Columbia Knowledge Development Fund	 Agtech Growth Fund Saskatchewan Advantage Innovation Fund 	Consortium for Research & Innovation in Aerospace in Québec Exploring Innovation Program Maturing Innovation International Program Canada Europe Structuring Initiatives Ministry of Economy and Innovation of Québec PSO International	

PROGRAMS TO WATCH

The below programs currently do not have any funding calls open. Please refer back to the websites regularly in order not to miss any opportunities.

Canadian Federal Funding

ArcticNet

Since 2004, **ArcticNet** has brought together scientists and experts in the natural, human health and social sciences with their partners in Inuit organizations, northern communities, governments and the private and public sectors to further our understanding of and help prepare for the impacts and opportunities brought by climate change and modernization in the Arctic.

ArcticNet funds Canadian researchers via competitive Calls for Proposals (CFPs). Funded by the federal government's Networks of Centres of Excellence (NCE) program, ArcticNet has four years of guaranteed funding (April 1, 2021-March 31, 2025) relevant to the Horizon Europe initiative. ArcticNet only funds the most competitive proposals received via its competitions.

This is usually less than one third of submitted proposals. While the Network does not designate funding specifically for Horizon Europe, we do value international collaborations, and encourage interested parties to apply. Proposals with international connections are viewed as competitive.

ArcticNet is funded by the Canadian Tri-Council through the NCE program and through various partnerships with non-profit organizations and the private sector. ArcticNet's mandate is to fund academics across the nation and does not hold funding competitions for private sector participants.

ArcticNet does not designate funding levels. However, when a Call for Proposals is released, the total amount available will be made clear, as well as a suggested range for the number of projects ArcticNet is likely to fund. This gives applicants a range to strategically apply for and request funding. It should be noted that the amounts considered would be in the hundreds of thousands of dollars range, not millions. Additionally, projects are only funded under ArcticNet that exemplify strong partnerships via cash and in-kind contributions. Leveraging is a requirement.

The application deadlines and the submission process will be specified when a Call for Proposals is released. The applicant will be required to create a comprehensive research proposal that will be evaluated against ArcticNet's funding criteria. When a Call for Proposals is released, it will be available on ArcticNet's website. For more information: https://arcticnet.ulaval.ca/

CANADA FOUNDATION FOR INNOVATION (CFI)

Established in 1997 the **Canada Foundation for Innovation** (CFI) makes financial contributions to Canada's universities, colleges, research hospitals and non-profit research organizations to increase their capability to carry out high-quality research.

Research supported by the CFI is helping build communities across Canada. That's because the CFI gives researchers the tools they need to think big and innovate. And a robust innovation system translates into jobs and new enterprises, better health, cleaner environments and, ultimately, vibrant communities. By investing in state-of-the-art facilities and equipment in Canada's universities, colleges, research hospitals and non-profit research institutions, the CFI also helps to attract and retain the world's top talent, to train the next generation of researchers and to support world-class research that strengthens the economy and improves the quality of life for all Canadians.

Funding formula

The CFI will fund a maximum of 40 percent of the total eligible costs of the infrastructure project. The remainder must be provided by the institution(s) and/or eligible funding partners.

For more information: https://www.innovation.ca/

CFI Funding Programs

1. John R. Evans Leaders Fund

The John R. Evans Leaders Fund enables a select number of an institution's excellent researchers to undertake leading-edge research by providing them with the foundational research infrastructure required to be or become leaders in their field. In turn, this enables institutions to remain internationally competitive in areas of research and technology development, aligned with their strategic priorities.

This fund also offers institutions the opportunity to create competitive research support packages in the form of infrastructure and a portion of the operating and maintenance costs, coupled with direct research costs from partner organizations.

There are a total of five different streams under the John R. Evans Leaders Fund: the unaffiliated stream and four partnership streams.

- » JELF Unaffiliated stream: This stream allows institutions to provide individuals or small groups of researchers (up to three) with research infrastructure necessary to conduct their research program.
- » JELF Partnership streams: These streams are a result of a joint process that has been developed with the <u>Canada Research Chairs (CRC) Program</u>, the <u>Canada Excellence Research Chair Program</u>, the <u>Natural Sciences and Engineering Research Council of Canada (NSERC)</u> and the <u>Social Sciences and Humanities Research Council of Canada (SSHRC</u>). They offer eligible institutions and their researchers the opportunity to create competitive packages for the funding of infrastructure and research support. The purpose of this collaboration is to lessen the workload of both the applicant and the reviewers by reducing the number of proposals needed to secure both infrastructure and research support, as well as to ensure an accurate and fair review of both infrastructure and research support requests.

For more information: https://www.innovation.ca/awards/john-r-evans-leaders-fund

2. Innovation Fund

The Innovation Fund provides investments in infrastructure, across the full spectrum of research, from the most fundamental to applied through to technology development. Projects funded through the Innovation Fund will help Canada remain at the forefront of exploration and knowledge generation while making meaningful contributions to generating social, health, environmental and economic benefits and addressing global challenges.

Competitions for the Innovation Fund are launched at intervals of 24 to 30 months and allow institutions to plan strategically and to propose mature projects, while continuing to develop promising ones for future competitions.

For more information: https://www.innovation.ca/awards/innovation-fund

3. College-Industry Innovation Fund

The College-Industry Innovation Fund (CIIF) seeks to enhance the capacity of colleges to support business innovation in Canada by providing them with state-of-the-art, industry-relevant research infrastructure to foster partnerships with the private sector in a specific area of strategic priority to the institution.

There are two competition streams under the College-Industry Innovation Fund to allow colleges to enhance an already established applied research and technology development capacity through the acquisition or development of research infrastructure.

- » Stream 1 Research infrastructure: This stream provides funding for research infrastructure. It allows colleges to acquire the tools needed to conduct applied research and technology development activities that respond to well-identified needs of the private sector and have been developed in collaboration with key industrial partners.
- » Stream 2 Research infrastructure associated with a College and Community Innovation Program Build Innovation Enhancement (CCI-Build IE) Grant application to the Natural Sciences and Engineering Research Council of Canada (NSERC).

For more information: https://www.innovation.ca/awards/college-industry-innovation-fund

4. Major Science Initiative

The Major Science Initiative (MSI) Fund was created in 2010 to fund the operation and maintenance (O&M) and the scientific performance of national research facilities. The MSI is intended to:

- » Secure and strengthen state-of-the-art national research facilities that enable Canadian researchers to undertake world-class research and technology development that leads to social, health, economic, or environmental benefits to Canadians;
- » Enable funded facilities to operate at an optimal level and to have their scientific and technical capabilities fully exploited; and,
- » Promote the adoption of best practices in governance and management, including long-term strategic and operational planning in keeping with the scale and complexity of the facility.

For more information: https://www.innovation.ca/awards/major-science-initiatives-fund

5. Exceptional Opportunities Fund

The Exceptional Opportunities Fund is designed to fund exceptional research opportunity that would be missed if channeled through the CFI's other funding programs. The Exceptional Opportunities Fund is designed to assist institutions and their partners in seizing such unique opportunities.

While most infrastructure projects require significant time to develop from conceptualization to implementation, there are rare instances where an exceptional research opportunity could be missed if it had to follow our regular national competition processes.

To qualify for this funding opportunity, a project must meet the following requirements:

- » It must take advantage of an exceptional and time-sensitive opportunity and partnership that justifies having the project considered outside the normal pan-Canadian competitive review process.
- » It requires the coordination and financial support of other relevant agencies for the funding of the research, the infrastructure and its operations in a timely manner.
- » The infrastructure component must be an indispensable element of the project.

For more information: https://www.innovation.ca/awards/exceptional-opportunities-fund

POLAR KNOWLEDGE CANADA

Polar Knowledge Canada is the federal organization responsible for advancing knowledge in Canada's Arctic, operates out of the Canadian High Arctic Research Station (CHARS) campus in Cambridge Bay, Nunavut.

Canadian and international researchers with priorities that align with POLAR's 2020-2025 Science and Technology Framework and Strategic Plan are encouraged to apply to conduct research at the CHARS campus. POLAR may be able to provide in-kind resources to individuals looking to use the CHARS campus facilities to conduct their research. The CHARS campus has been established to provide world-class science facilities, research labs, centres for technology development and knowledge sharing, and facilities for teaching, training and community engagement. Through the campus, researchers can also access research support such as on-campus accommodations, access to all-terrain vehicles (ATVs), snowmobiles, small boats, fat bikes, sleds, and trailers, as well as support from our Operations Team field technicians. For information about the research facilities and to apply to for these supports, refer to the support request forms located here on our website.

For researchers looking for information about what is required and what to expect while conducting research in Canada's North, POLAR has compiled region-specific resources as well as information regarding regional and federal permitting authorities, which can be found here.

Provincial Organizations

Alberta

Alberta Innovates is the province's largest research and innovation agency. Funding research to commercialization, they are Alberta's innovation engine. Alberta Innovates is working to solve today's challenges, create new opportunities and forge a healthy, sustainable and prosperous future for Albertans today and for generations to come.

Originally founded in 1921 as the Alberta Research Council, Alberta Innovates continues to support the growth of Alberta's research and innovation priorities for the Government of Alberta, Canada. Advancing the economic benefit for the province's agriculture, energy, environment, forestry and health sectors.

Alberta Innovates drives innovation and the development of new technologies from idea generation, through applied testing and validation, to commercialization and end use. Alberta Innovates has specific focus areas that provide support and/or funding to clients:

- » Applied Research;
- » Agriculture, Forestry & Food;
- » Clean Recourses;
- » Emerging Technologies;
- » Entrepreneurial Investments;
- » Health Innovation and Platforms;
- » Post-Secondary Investments.

Alberta Innovates uses data, digital technologies, artificial intelligence, clean technology, and other emerging technologies to pivot to new opportunities.

- » Artificial intelligence and machine learning allow large data repositories to be linked and mined for better decision making, prediction, and efficiency.
- » Applying digital technologies to smart agriculture, food development and distribution to feed a hungry world.
- » Digital health solutions will harness people's social determinants of health to improve patient outcomes, reduce costs and improve our overall health.
- » Developing cleaner energy production methods, using less water, and emitting fewer greenhouse gases.
- » And finding ways to turn Alberta bitumen into new materials like activated carbon and carbon fibre, allowing for an entirely new manufacturing industry to emerge.

Another of Alberta Innovates' focus areas is around entrepreneurial development and investment by providing programs, networks and connections to entrepreneurs and start-ups to commercialize their innovations and scale their businesses.

Alberta Innovates' subsidiaries, InnoTech Alberta and C-FER Technologies, test, de-risk and translate innovation to assist clients accelerate commercialization and market adoption. It has expertise that can be applied across global markets. The Global Partnerships programs focus on assisting for-profit Alberta SMEs establishing global partnerships by providing the opportunity to enter into a joint project to develop and commercialize innovative technology with a global SME partner. Program outcomes are:

- » Collaborative technology development in a not competitive environment;
- » Soft landing for international commercialization;
- » De-risk funding and accelerate the adoption of new innovative technologies in new global markets;
- » Long-term business partnership;
- » Access to new capital and resources;
- » Expand export markets.

Alberta Innovates support the entire innovation spectrum – from the generation of new ideas through applied testing to commercialization or end-use. It provides funding programs, advice, connections, technical expertise and applied research services to stimulate and grow research and innovation across Alberta.

Visit their website for more information www.albertainnovates.ca

QUÉBEC

Fonds de recherche du Québec:

- » FRQ- Nature et technologies [FRQNT]
- » FRQ- Société et culture [FRQSC]
- » FRQ- Santé [FRQS]

The "FRQ" refers to the three independent funds, *Nature & Technologies, Society & Culture* and *Health*. They often join their funds to support research projects held by Quebec researchers. These projects can be in partnership with European researchers if no mandatory in some of their programs.

In accordance with their research sectors, the FRQ have the mandates to promote and provide financial support for research; for the dissemination of scientific knowledge; for the training of researchers through merit scholarships for graduate and postgraduate students and persons who engage in postdoctoral research; and to create any necessary partnerships, in particular with universities, colleges and cultural institutions, and the government departments and public and private bodies concerned."

"The FRQ can fund academic researchers in a Quebec institution only. More precisely, the FRQ can fund:

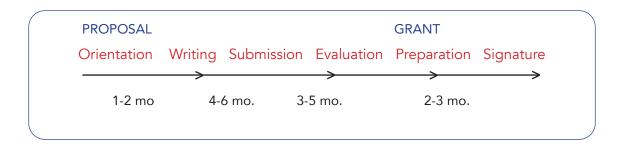
- University researchers,
- · Clinical university researchers,
- College researchers

For definitions see: http://www.frqs.gouv.qc.ca/en/regles-generales-communes

For the list of Recognized Institutions: https://frqnet.frq.gouv.qc.ca/Documents/Etab_Reconnus_FRO.pdf

ANNEX I: PROPOSAL PREPARATION AND EVALUATION / GRANT PREPARATION AND MANAGEMENT

THE PROJECT CYCLE

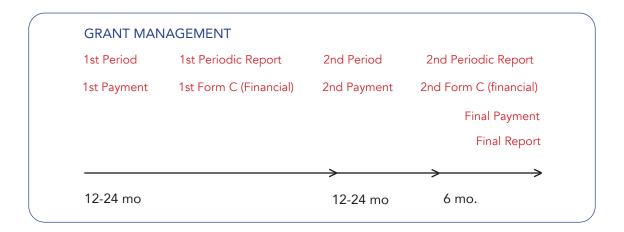


The life cycle of a Horizon Europe project is marked by a number of distinct phases.

Initially, researchers and innovators go through an orientation phase of one to two months (preferably two). During that time, they learn about the opportunity to work on a specific topic, assess it and find partners, then make a decision to proceed forward.

Next step is to open an account and register their organization with the Commission in order to submit a proposal. Writing the proposal may take several months, with partners exchanging draft copies of the proposal and budget, entering and updating them in the Funding and Tenders Portal, before making the formal submission.

It takes the Commission approximately five months to complete the evaluation phase for RIA and IA projects before inviting the consortium to prepare and sign a Grant Agreement (GA), if selected. During the evaluation and preparation phases, the Commission conducts an ethics and gender review and security screening (where applicable) of the proposal as well as the legal entity validation and financial capability check of all partners. Once everything is approved, the coordinator is invited to sign the Grant Agreement with the Commission and the process will require three months (on average). All final documents and signatures are electronic (there are no paper copies).



In addition, consortium partners are required to sign a separate Consortium Agreement (CA) amongst themselves, governing management of the consortium and intellectual property.

Once the GA is signed, the Commission provides an initial payment and the implementation phase begins. During that time, the consortium members will be required to conduct their research, communicate and meet regularly, and – usually in the middle and at the end of the project – submit periodic and financial (Form C) reports on their progress. The project ends when the Commission is satisfied with a summary final report and the last payment is made to the consortium. The following pages review this process in detail.

CHOOSING A ROLE

After deciding to join colleagues in preparing a proposal, it is essential to determine what role each partner will play in the group. In deciding to submit a proposal, the group formally becomes a consortium with well-defined and legally binding roles that will carry on throughout the life cycle of the project. There are three options:

Coordinator: A project coordinator is the individual who leads a Horizon Europe project (similar to a "principal investigator" in ERC and many Canadian granting programmes). Generally, the coordinator will organize the consortium, prepare the proposal and manage the project. The coordinator signs the Grant Agreement the organization with the European Commission and other beneficiaries accede to the Agreement. The coordinator is the only authorized representative of the consortium for any communication with the Commission.

In the Grant Agreement, the Coordinator's contractual responsibilities include:

Administration of the EC contribution, including its distribution to all beneficiaries in accordance with the GA and CA

- → Keeping records and financial accounts.
- → Reviewing all periodic and financial reports to verify consistency with the project tasks before transmitting them to the EC
- → Monitoring the compliance of beneficiaries with their obligations under the GA and CA

As Canadians cannot generally receive funding directly from the European Commission and, in most cases, do not have as much experience (or as much experienced administrative support) with the Framework Programme as Europeans, **Canadians would often do best to avoid the role of project coordinator**. This reduces the administrative burden for Canadians and, ideally, ensures that an experienced coordinator is available to provide advice and assistance throughout the application and project management processes.

It is always a good idea to work with an experienced project coordinator who has been successful in previous Framework Programme projects. The CORDIS database, the broadest database of R&I projects since 1990, includes the names of previous beneficiaries in a searchable database.

https://cordis.europa.eu/projects/en.

The same applies for the Funding and Tenders Portal, which offers a view of projects, beneficiaries and a regular update regarding data and impact of ended/ongoing projects.

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/projects-results

Beneficiaries: beneficiaries are full participants in a project. They sign the Grant Agreement, they may or may not receive funding directly from the Commission, and they take moral responsibility with the other beneficiaries for executing the entire project.¹ Taken together, the coordinator and beneficiaries form the project consortium.

In the Grant Agreement, a beneficiary must:

- → Carry out the work, as identified in Annex I of the GA (Description of Work)
- → Ensure that his or her tasks are performed correctly and in a timely manner
- → In due time, inform other beneficiaries and the EC (through the coordinator) of the contact information of the person responsible for the work, any changes in the organization's

Please note that beneficiaries are not jointly and severally liable for the project. Liability to the European Commission is covered by a mandated the Mutual Insurance Mechanism (MIM) see page 119 below established at the beginning of the project. Liabilities towards each other are negotiated in a Consortium Agreement and are usually limited to the value of each beneficiary's participation in a project..

legal status, and any events which may affect project implementation

- → Take part in management meetings of the consortium
- → Provide the EC with all requested information in case of controls and audits. The EC may request an audit of any beneficiary receiving more than €325,000 in a given project

Canadian beneficiaries may fall into one of three categories:2

1. In most cases, Canadian beneficiaries will participate without an EC contribution although they will still incur costs in relation to the project. In these cases, Canadians must insist that the Commission, the coordinator and other beneficiaries insert the appropriate standard (invariable) texts into the following Articles within the Model Grant Agreement.

The European Commission has established standard (invariable) texts that may be included as options within specific articles of the Grant Agreement to facilitate arrangements for the most common "exceptions."

Article 24: Inclusion of the appropriate text will exempt entities not receiving an EC financial contribution from requirements to submit financial reports, certificates on financial statements and financial audits.

- 2. On occasion, Canadians may receive funding directly from the Commission if, at the time of application, they successfully demonstrate that the overall project would be impossible without their participation and that similar expertise is not available in Europe (see rules of participation, Chapter 4) In these cases, Canadians are subject to the same reporting requirements as all beneficiaries receiving funding from the Commission.
- 3. Canadians may also participate as "Experts / Members of Advisory Boards" or "Associate Members." In these cases, Canadians are not beneficiaries and do not sign the Grant Agreement. Rather, other beneficiaries (usually the coordinator) will reimburse them for related travel and accommodation expenses.³

Third Parties: Third parties do not sign the Grant Agreement and do not receive funding directly from the European Commission. Instead, they may receive funding from a beneficiary for:

→ Making resources (e.g. personnel, equipment) available to a beneficiary

² Please see <u>Chapter 2</u> for information on the roles open to Canadian researchers and innovators, and Canadian institutions, in ERC and MSCA grants (not described here), including: Partner Organization, Fellow, Doctoral Student, Principal Investigator.

³ The term "Associate Partner" is not officially recognized by the EC, but comes from use.

Carrying out part of the work as subcontractor or third party linked to a beneficiary. Note that subcontracting (beyond minor arrangements for website hosting, etc.) is not common as these costs are not included in the direct costs that form the basis of the EC's contribution to a beneficiary's indirect costs.

In both cases, the third party must be identified during the negotiations and mentioned in Annex I of the Grant Agreement (Description of Work). The beneficiary, however, bears sole responsibility for the work of the third party.

CONTRACTUAL AGREEMENTS BETWEEN POTENTIAL PARTNERS

It is advisable for potential partners to sign a Confidentiality Agreement before preparing a proposal or entering negotiations, in which they will exchange valuable information that anyone acting in bad faith could misappropriate or unduly disclose. Confidentiality agreements identify the classified information to be communicated and the purpose of communication (i.e. the setting up of the project and the drafting of the proposal). They generally establish restrictions and limits regarding the use of confidential information by the receiving parties, and may also include penalty clauses for defaulting parties.

Sometimes, confidentiality obligations are included in a separate agreement that establishes a framework for the negotiations. In Europe, this separate agreement is known as a Memorandum of Understanding or Letter of Intent. In these agreements, participants tackle issues such as meeting for proposal preparation, good faith during negotiations, legal and other costs. Participants normally sign such agreements at the very beginning of negotiations.

A full Consortium Agreement is only negotiated after the Commission has accepted the proposal.

European Commission: Throughout the life of a Horizon Europe project, three EC officials will play critical roles in defining the research topic, signing the Grant Agreement and managing the project:

- → Project Officer (otherwise known as the Scientific Officer): This person, who often has a scientific background, is in charge of the overall management of the project. He or she will follow the project's progress and must approve of any deviations from the Description of Work.
- Administrative or Legal Officer: This person oversees the administrative and legal aspects of the project and plays an important role in preparing the GA. This kind of professional verifies the beneficiaries' legal status, the Grant Preparation Forms and the Grant Agreement. The Administrative (or Legal) Officer will also review any subsequent

Amendments to the Grant Agreement.

→ **Financial Officer:** This person tracks the financial progress of the project, and must approve all cost claims at the end of each reporting period.

PREPARING A PROPOSAL

The preparation and evaluation of Horizon Europe proposals varies with the type of funding instrument employed. This chapter focuses on the processes for preparing and evaluating RIA, IA and CSA proposals, as these are the main funding instruments used in Global Challenges and European Industrial Competitiveness pillar.

⇒ Opening a Proposal: Electronic Submission System

Reference: User Guide to the Submission Service

https://ec.europa.eu/research/participants/data/support/sep_usermanual.pdf

Like all proposals for Horizon Europe grants, those submitted for RIA, IA and CSA grants must be submitted through the Electronic Submission System in the Funding and Tenders Portal. Proposals for a given Topic can only be opened in the Electronic Submission System by the project coordinator and only through a link in the tab "Submission Service" within the Topic description (See chapter 1). Once the proposal is opened, the coordinator can add partners to the proposal by entering their PIC number (all potential partners should provide these to the coordinator upon request). Thereafter, the coordinator and partners can access the Electronic Submission System directly through the "My Proposals" section of the Funding and Tenders Portal.

Proposal Preparation

Reference: Horizon Europe 2020 Manual

https://webgate.ec.europa.eu/funding-tenders-opportunities/display/OM/Online+Manual

The coordinator should take the lead in preparing the proposal in consultation with the other participants. An experienced coordinator will facilitate this process by providing participants with a Microsoft Excel template for calculating person-month, direct and indirect costs. The coordinator must use the requisite Microsoft Word or PDF template, available in European Commission website to prepare the Technical Annex or Description of Work (DoW).

TIPS

Canadians should request these documents from their project coordinator prior to preparation of the proposal.

⇒ RIA, IA and CSA proposals all consist of two parts:

Part A contains detailed information for administration of the project:

- → General Information (including an abstract)
- → Administrative Data of Participating Organizations
- → Budget for the Proposal
- → Fthics Issues Table
- → Call Specific Questions (if any)

Part B is the scientific and technical part of the proposal. Part B, also called the Technical Annex or the Description of Work (DoW), is divided into three main sections:

- → Excellence
- Objectives
- Relation to the Work Programme
- Concept and Approach
- Ambition
- → Impact
- Expected Impacts
- Measures to Maximize Impact (Dissemination and Exploitation; Communications)
- → Implementation
- Work Plan Work packages, tasks, deliverables and milestones
- Management Structure and Procedures
- Consortium as a Whole
- Resources to be Committed

In the Work Plan, activities are organized into Work Packages or sub-projects that are, in turn, divided into a number of specific with a specific task. Each task has a specific number of person-months and direct costs attributed to them, as well as tangible outputs called Deliverables and Milestones. Typically, a coordinator will ask another participant to lead and oversee the management of each Work Package. One of the Work Packages will summarize this management structure and the steps to be taken by the consortium to ensure sound management of the project.

While the consortium is preparing the DoW, it is strongly recommended that coordinators upload each draft version into the system. Documents may be uploaded, and proposals submitted any number of times prior to the deadline. Just before a submission deadline, the system may encounter errors caused by the number of proposals submitted at the last minute.

The coordinator is responsible for validating all information in the system and formally submitting the proposal electronically. Once submitted, the coordinator will receive an email notification to share with other participants, and the "My Proposals" tab of each organization will be updated.

All Calls for Proposals are due at 5:00 p.m. Brussels time on the day of the deadline. The EC considers any proposal submitted after this time ineligible. **It makes no exceptions**.

TIPS

Better submitting the proposals 4-5 days in advance, as to review the proposal, possible mistakes, the documentation attached and, most importantly, to avoid platform issues due to late-minute over-submitting.

EVALUATION OF A PROPOSAL

⇒ Single Stage Evaluation Process

The most common, Single Stage evaluation process, takes place in three phases:

- → Phase 1: Individual Evaluation: Three experts are selected to review a proposal and submit an Individual Evaluation Report (IER).
- → Phase 2: Consensus Group: The three experts meet to establish a common view and to agree on comments and scores reported in a Consensus Report (CR).
- Phase 3: Panel Review: A larger panel of experts will review all proposals and Consensus Reports to ensure consistency, prepare an Evaluation Summary Report (ESR) and establish a Panel Ranked List. Occasionally, the Commission may organize hearings with the applicants as part of the panel deliberations. Call documents will indicate if hearings are required Hearings are usually held in Brussels, but may also be conducted by a written procedure, via telephone, or by video-conference, also in light of precautionary health rules stemmed by Covid-19 pandemic.

Grants will be awarded based on the Panel Ranked List and the available budget. If successful, a coordinator will receive an Evaluation Information Letter inviting the consortium to prepare a Grant Agreement with the Commission. If unsuccessful, the coordinator will receive a Proposal Rejection Letter explaining why and how to appeal. A number of proposals may be kept on a Reserve List in case any proposals are withdrawn or additional funds become available.

⇒ Two Stage Evaluation Process

Some Calls for Proposals will employ a two-stage evaluation process. In these cases, applicants are required only to submit a short outline proposal at the first stage that may only be reviewed by two experts in the first phase. If successful, the project will be invited to submit a full proposal for the second stage. The review process at each stage is similar.

⇒ Evaluation Criteria and Scoring

Horizon Europe uses the same three evaluation criteria for all activities unless otherwise indicated in the Work Programme:

- → Excellence
- → Impact
- → Quality and Efficiency of the Implementation

Each criterion receives a score on a scale from 0 to 5. Half point scores may be given. For each criterion under examination, score values indicate the following:

- 0 The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information.
- 1 Poor. The criterion is addressed in an inadequate manner or there are serious inherent weaknesses.
- 2 Fair. While the proposal broadly addresses the criterion, there are significant weaknesses.
- 3 Good. The proposal addresses the criterion well although improvements would be necessary.
- 4 Very Good. The proposal addresses the criterion very well although certain improvements are still possible.
- 5 Excellent. The proposal successfully addresses all relevant aspects of the criterion in question. Any shortcomings are minor.

The threshold for each criterion is set at 3 out of 5. For the entire proposal, the minimum score is 10 out of 15. Proposals failing to pass any one of the four thresholds will be rejected.

⇒ Redress

If a proposal appears to have been unduly rejected, the coordinator may (a) file a complaint and (b) request an evaluation review.

- (a) The coordinator must file a complaint in the My Personal Area section of the Funding and Tenders Portal ('formal notifications box').
- (b) Within 30 days of receiving the rejection letter, the coordinator must file a request for an evaluation review, using the on-line forms referred to in the proposal rejection letter. The review covers only the procedural aspects of the evaluation, not the merits of the proposal.

ESTABLISHING A GRANT AGREEMENT

During the evaluation process, the Commission will conduct an ethics review and security screening of the proposal. If the proposal passes these stages and is selected for funding through the evaluation process, the coordinator will receive a letter inviting the consortium to prepare a Grant Agreement with the Commission.

⇒ Grant Agreement Preparation

The preparation of a Grant Agreement should take no more than 90 days. All necessary measures, including the signature of the Agreement, are done electronically using the functions available on the My Projects page for the coordinator and each participant in the Funding and Tenders Portal.

Using these functions, the consortium partners will prepare the online forms and Annex I (Description of Work) for the Grant Agreement based on the project proposal (information will be automatically inputted from the proposal for review by the consortium). The Commission will check these documents for consistency and completeness, a verification after which the consortium may make any final adjustments as necessary.

The coordinator takes the lead in preparing the Grant Agreement. Although the GA includes many of the same details as the proposal submission, at this stage many partners will take extra time to ensure that the allocation of funding for person-months and expenses attributed to their organization is as accurate as possible. In signing the GA, the coordinator and participants are entering into a contract with the European Commission and with each other. There is a clear

difference between the Horizon Europe Grant Agreement (a contract) and Grant Agreements signed with Canadian granting agencies (i.e. grants).

⇒ Legal Entity and Financial Capability Validation

Organizations that have never before participated in a Framework Programme project will be required to complete the processes for validating their status with the European Commission. This involves (a) validation of the legal entity (organization) itself, and (b) the validation of its financial capacity.

- (a) To validate the legal entity, an organization will be asked to submit supporting documents through the My Organization) to establish its:
 - → Legal name
- → Legal form of the organization (e.g. public body, business, other)
- → Legal address
- → VAT (GST) number or exempt status

(b) To ensure that funds are managed properly, the Commission will validate the financial capacity of all organizations coordinating projects unless they are public bodies, universities or colleges, international organizations or individuals receiving a scholarship. It will check to ensure that the organization has sufficient liquidity, is financially autonomous, is solvent and profitable. Organizations may use a "self-check" tool available on the Funding and Tenders Portal to validate their own financial capacity
https://ec.europa.eu/research/participants/lfv/lfvSimulation.do

⇒ Signing the Grant Agreement: Process and Implications

Following the preparation of the Grant Agreement (GA), the European Commission and the Coordinator will electronically sign it. Other partners then access the GA by electronically signing Form "Accession to the Grant Agreement," which becomes Annex III to the Grant Agreement.

In signing the Accession Agreement, all partners in the proposal become beneficiaries of the Grant Agreement. They become jointly and severally responsible for the project, and must take all necessary and reasonable measures to ensure that it is carried out in accordance with the terms and conditions of the GA. Should any beneficiary fail to achieve its objectives, those objectives will fall to the other beneficiaries without an additional EC contribution. In this case however, the consortium could reallocate funds originally assigned to the defaulting beneficiary

by amending the GA.⁴ The GA will enter into force on the date of the last signature.⁵

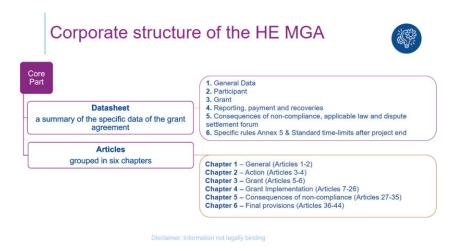
⇒ (Corporate) Model Grant Agreement (MGA)

Reference Document: Corporate Model Grant Agreement.

https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/agr-contr/general-mga_horizon-euratom_en.pdf

The new Model Grant Agreement provided for Horizon Europe, has been drafted keeping in mind a bold process of simplification and harmonization of rules and awarding procedures within the European context. As a matter of fact, the new model will find application in all directly-managed European programmes financed through the EU budget allocated for the period 2021-2027. From this year on, in the light of the brand-new approach adopted by the Commission, it will be called (Corporate) Model Grant Agreement (MGA).

Nevertheless, as the MGA adopts a corporate approach, all rules stemming from the model do not explain in detail Horizon Europe's implementation process, but exclusively the financial aspects. Having a broader look to the MGA, in Horizon Europe it will be composed as follows:



Also, the structure of the MGA has undergone substantial modifications. The Core part will be composed by a Datasheet, where the coordinator highlights the specific data referred to the Grant Agreement. This section will be followed by a series of articles, which will be grouped by Chapters. Specifically:

⁴ Please note that beneficiaries are not jointly and severally liable for the project. Liability to the European Commission is covered by a mandated The Mutual Insurance Mechanism (see page 120) established at the beginning of the project. Liabilities towards each other are negotiated in a separate Consortium Agreement and are usually limited to the value of each beneficiary's participation in a project.

⁵ The project duration starts on the first day of the first month following the entry into force of the GA. However, a consortium may be able to negotiate a fixed starting date (sometimes with a retroactive effect) instead.

Chapter 1: General (subject of the agreement, Articles 1-2)

Chapter 2: Action (description and duration, Articles 3-4)

Chapter 3: Grant (amount, reimbursement rates and eligible costs, Articles 5-6)

Chapter 4: Grant Implementation (Articles 7-26). This chapter will further divide in:

Section 4.1 Division of roles

Section 4.2 Rules for implementation (security, ethics, intellectual property, communication)

Section 4.3 Administration (payments, reporting, impact evaluations)

Chapter 5: Consequences of non-compliance (Rejection, Reduction, Penalties, Termination; Articles 27-35)

Chapter 6 Final Provisions (Entry into force, amendments, applicable law; Articles 36-44)

The Annexes are templates or forms for use in the administration and management of the project. In Horizon Europe, all will be completed and submitted online using the My Project section of the Funding and Tenders Portal. They include:

Annex I: Description of Work (DoW)

Annex II: Estimated Budget

Annex IIa: Additional information on unit costs and contributions

Annex III: Accession forms for beneficiaries

Annex IIIa: Joint liability of affiliated entities

Annex IV: Financial Statement Model (the past Form C in Horizon 2020)

Annex V: Specific Rules

Canadians may be particularly interested in the following elements of the Model Grant Agreement:

Annex I - Description of Work (DoW): It is based on a template that covers, among other things, the objectives of the proposed work, the planned activities, the roles of each participant and the

management structure, the dissemination strategy and the expected impact. The planned activities take the form of Work Packages: sub-projects divided into a number of specific tasks, each with a specific number of person-months and direct costs attributed to them, as well as tangible outputs called Deliverables and Milestones. Typically, a coordinator will ask another participant to lead and oversee the management of each Work Package. One of the Work Packages will summarize this management structure and the steps to be taken by the consortium to ensure sound management of the project.

→ Eligible Expenses

The European Commission provides funding for (a) Direct Costs including person-months and other direct costs (travel, equipment, consumables) and (b) Indirect Costs. The GST or other Value Added Taxes are eligible expenses and may be included in these costs.

→ (a) Direct Costs:

Personnel: Personnel costs are calculated on the basis of the real "person-month" cost – including salary, social and other benefits and overhead costs – incurred by an employer in retaining an employee for one day.⁶ One "person-month" is commonly calculated as 17.9 working days per month (after deducting time for holidays, sick leave, training and office meetings). As a result, Canadian participants must estimate (at the proposal and GA preparation stages) the number of days each person will work on a project.

During the project, beneficiaries must record and report the number of days worked for each employee unless the employee works full time on the project. SME owners and people not receiving a salary must charge their person-month cost at the rate assigned to experienced researchers in MSCAs.⁷

Other Direct Costs: These include all common expenses required to complete a project (i.e. equipment, consumables, travel and accommodation). In reporting direct costs, all "major cost items" must be noted; project beneficiaries may define these items themselves.

→ (b) Indirect Costs:

The European Commission contributes an amount equivalent to 25 per cent of all eligible direct costs (personnel and other direct costs) towards a beneficiary's indirect costs. The overall fund-

⁶ In some cases, organizations may obtain permission from the Commission to report using their "average personnel costs."

⁷ This is true even if they do not qualify as experienced researchers.

ing rate applies to the total of Direct and Indirect Costs. RIA and CSA projects have an overall funding rate of 100 per cent. However, Innovation Actions (IA) have an overall funding rate of 70 per cent. As a result, the Commission will only pay 70 per cent of the eligible Indirect Costs for an IA project.

The sections on Project Management below show details regarding other sections of the Model Grant Agreement.

PREPARING A CONSORTIUM AGREEMENT

Almost all Horizon Europe beneficiaries must sign two agreements: a Grant Agreement (GA) with the European Commission and a Consortium Agreement (CA) with the other beneficiaries. Ideally, the Consortium Agreement is signed before the Grant Agreement. In practice, the two are often negotiated at the same time (on parallel tracks). It is also possible that the Consortium Agreement follows the Grant Agreement, and that it is signed retroactively to the start of the Grant Agreement.

The GA is a standard contract and cannot provide for the particularities of every project and consortium. It leaves room for internal negotiation and agreement upon many topics: notably (a) governance of the project (b) distribution of the EC contribution and (c) intellectual property management.

There is no official "model" Consortium Agreement, although the EC provides model clauses on topics that a CA may include among the Reference Documents on the Funding and Tenders Portal.

(a) **Project Management / Travel:** The CA usually requires that all beneficiaries participate in consortium meetings and sets out a schedule for these meetings, specifying the amount of advance notice the coordinator must provide. **Canadians may wish to request additional notice in order to make the necessary arrangements for international travel.**

In general, meetings will be scheduled at the end of each reporting period to facilitate the preparation of reports. The CA should also include provisions to address issues associated with delinquent or defaulting partners and mutual liability. The Mutual Insurance Mechanism usually covers until 5% - 8% of liabilities towards the Commission. The CA is often used to limit liability between beneficiaries to one or two times the value of their participation in the project. Under Belgian Law, injury caused by willful acts or gross negligence cannot be limited.

- **(b) Distribution of the EC Contribution:** Please see "payments" below. In general, the Commission will provide an advance "pre-financing" payment and will then make payments based on the progress of work at the end of each reporting period. The Consortium Agreement may specify how the coordinator will distribute the pre-financing and subsequent payments to the beneficiaries.
- (c) Intellectual Property: Please see "intellectual property" below. In general, the Grant Agreement recognizes that each beneficiary owns any background they bring into a project and establishes, as a basic principal, that all beneficiaries should own a fair share of any foreground to which they contributed within a project. Beyond that, it insists only that the participants negotiate and sign a Consortium Agreement to establish what background each brings into a project, the access rights of other participants and specific arrangements governing the ownership of any foreground developed within the project. All beneficiaries, including Canadians covering their own costs, have a role in negotiating a Consortium Agreement.

MANAGING A PROJECT

⇒ Periodic and Financial Reports

The Grant Agreement is a regular contract (with payments authorization provided after the approval of the project reports by the European Commission. The consortium must provide detailed reports of progress and expenditures at the end of each reporting period (generally, every 12-24 months).

Within 60 days of the end of the reporting period, the coordinator – on behalf of the consortium – must upload or complete the following reports in the My Projects section of Funding and Tenders Portal:

- → Deliverables identified in Annex I (DoW) to the Grant Agreement. These are often reports on individual project activities and must be uploaded according to a set timetable or, at a minimum, prior to submission of the Periodic Report.
- Periodic Report. A summary of project activities and deviations from Annex I (Description of Work), over the course of the period. The report must follow a template available on the Funding and Tenders Portal and be uploaded in the My Projects page. It justifies the expenditure of funds during the period.
- Financial Statement (or Form C).8 Annex IV of the GA is the Form C or Financial Statement of expenditures made during the period. Each beneficiary must prepare and submit a Form C in the My Projects section of the Funding and Tenders Portal. A compilation, reviewed by the coordinator, is automatically submitted to the Commission.

⁸ For Canadian beneficiaries with costs incurred in relation to the project but no EC contribution (identified in Article 9), the Form C is not required for the Periodic Report.

→ **Explanation of the Use of Resources**. Each beneficiary must provide an explanation of their major cost expenditures.

The project coordinator should take the lead in preparing the Periodic Report in collaboration with the other beneficiaries, and ensure that all Deliverables and Financial Statements have been submitted, as required, by each beneficiary. An experienced coordinator can facilitate the reporting process for all concerned by providing beneficiaries with templates for reporting personnel, direct and indirect costs, as well as the accomplishment of specific tasks, deliverables and milestones to make record keeping easier.

TIPS

Canadians should request these documents from their project coordinator at the outset to facilitate records keeping and reporting.

⇒ Amendments

A major change to the Core of the GA or to Annex I that depends on the agreement of the parties (i.e. termination/addition of a beneficiary, change of coordinator, modification of project duration and/or start date, change of financial contribution, modification of reporting periods, etc.) requires an amendment. An amendment to a Grant Agreement is a legal act modifying the commitments that the parties initially accepted. It may create new rights, or impose new obligations on the parties or otherwise modify significant parts of the GA.

This is not an uncommon procedure and the process is straightforward. The Coordinator, on behalf of the consortium, must submit a letter (based on a standard template) through My Projects requesting and explaining the necessity for the amendment. It is approved or rejected when the Project Officer, on behalf of the Commission, responds in writing.

⇒ Final Report

At the end of the project, the consortium must submit a Final Report in addition to the Periodic Report and Financial Statements for the last period. The technical part includes an overview of the action implementation. It must be prepared using the template available in the Portal Periodic Reporting tool.

The financial part of the periodic report includes:

- → the financial statements (individual and consolidated; for all beneficiaries/affiliated entities)
- → the explanation on the use of resources (or detailed cost reporting table, if required)
- → the certificates on the financial statements (CFS) (if required)

All the documentation must be submitted within 60 days from the project deadline, in order to receive the payment for all the expenditures incurred.

→ Managing Project Finances

As the Grant Agreement works like a contract, beneficiaries will receive payments after the reporting documentation has been approved by the European Commission. There are two important exceptions to this rule:

- 1. The Commission will provide a generous one-time Pre-Financing Payment at the beginning of the project (from which it will deposit five (5) to eight (8) per cent in a Mutual Insurance Mechanism for the beneficiaries).
- 2. The Commission will retain ten (10) per cent of its contribution until successful completion of the project.

⇒ Pre-Financing

The Commission will make a one-time "Pre-Financing" payment to the Coordinator within the first period of entry into force of the GA. The Coordinator will have a preset deadline to distribute the pre-financing, as described in the Consortium Agreement:

- The prefinancing may be distributed only if the minimum number of beneficiaries set out in the call conditions (if any) have acceded to the Agreement, and only to beneficiaries that have acceded.
- The Coordinator will distribute the pre-financing to the other beneficiaries in conformity with the GA and the decisions taken in the CA. The amount of pre-financing is subject to negotiation, depending on the project necessities.

→ Mutual Insurance Mechanism (MIM)

The EC will take a sum between the five (5) and eight (8) per cent of its total contribution to the project from the Pre-Financing Payment and deposit that amount in the Mutual Insurance Mechanism (MIM) for the beneficiaries. This will reduce the risk to the consortium if members cannot recover funds from any of the beneficiaries, if required, at any time during the project.

⁹ Legally, however, the pre-financing remains the property of the EU until the final payment.

In addition, the interests generated by the MIM will cover the risk to the Commission of non-reimbursement of any amounts due by the beneficiaries.

Canadian beneficiaries who do not receive EC contributions do not contribute to the MIM.

⇒ Interim Payments

Interim payments are based on the EC contribution approved in each reporting period. However, the total amount of the interim payments and the pre-financing payment will be limited to a given percentage of the maximum EC contribution (as a result of the 10 per cent retained until successful completion of the project and 5-8 per cent held in the MIM). As a result, some interim payments may be lower in order to respect this limit. According to EU rules, payments are provided by the European Commission within 90 days from the reports submission at the end of each reporting period.

⇒ Final Payment

The EC will only transfer the final payment after approval of the Periodic Report and Financial Statements (Form C) for the final period and the Final Report for the project. The final payment consists of the difference between the EC contribution (calculated on the eligible costs) and the amounts already paid.

Example: RIA project with 3 reporting periods and an EC contribution of €3.000.000

- → Pre-financing (160% of the average EC contribution per period) = €1.600.000
- → Contribution to the The Mutual Insurance Mechanism (i.e. 5% of total EC contribution) = €150.000
- → Net pre-financing received by the Coordinator = €1.450.000
- → Ceiling of 90% of EC contribution = €2.700.000
- → Amount of EC contribution accepted in the 1st reporting period = €1.000.000
- → 1st Interim payment = €1.000.000 (€1.600.000 + €1.000.000 < €2.700.000
- → Amount of EC contribution accepted in the 2nd reporting period = €1.000.000
- → 2nd Interim payment = €100.000
- → Amount of EC contribution accepted in the 3rd reporting period = €1.000.000
- → FINAL PAYMENT = €450.000 (€300.000 + €150.000)

⇒ Currency

Beneficiaries with general accounts established in a currency other than the euro must convert the costs recorded in their accounts into euro, at the average of the daily exchange rates published in the C series of the Official Journal of the European Union (ECB website), calculated over the corresponding reporting period.

If no daily euro exchange rate is published in the Official Journal for the currency in question, they must be converted at the average of the monthly accounting exchange rates published on the European Commission website (InforEuro), calculated over the corresponding reporting period.

Beneficiaries with general accounts in euro must convert costs incurred in another currency into euro, according to their usual accounting practices.

⇒ Audit / Certificate on the Financial Statement (CFS)

The EC may request an audit – or a Certificate on the Financial Statement (CFS) – of any beneficiary receiving more than a certain financial thresholds for a given project. Basically, the EC may request the audit according to two procedures:

- 1. Standard threshold (beneficiary-level), for requested EU contribution to the costs greater than or equal to €430.000
- 2. Special threshold for beneficiaries with a systems and process audit¹0, for requested EU contribution to costs greater than or equal to €725.000.

In terms of timing, the European Commission may request an audit up to two years¹¹ after the final payment is made.

MANAGING INTELLECTUAL PROPERTY

Intellectual property (IP) management has important implications in any Horizon Europe project. The coordinator, on behalf of the consortium, must detail plans for IP management in the proposal, the Grant Agreement and the Consortium Agreement. The coordinator must, at all times, communicate very clearly on IP issues with the other beneficiaries.

¹¹ Still to confirm in Horizon Europe

- "Background" refers to the information and knowledge that beneficiaries hold prior to their accession to the GA, as well as copyrights or other IP rights pertaining to such information, including any applications that a beneficiary has filed before his or her accession to the aforementioned agreement, which the consortium needs for carrying out the project or for using foreground.
- "Foreground" refers to the tangible and intangible results (including information and knowledge) that the project generates. Such results may or may not involve rights related to copyright, design rights, patent rights, plant variety rights, and similar forms of protection.

Beneficiaries will usually need to exchange some background and foreground (in the form of patents, know how, etc.) through the access rights system.

⇒ Access Rights

Access rights deal with licenses and user rights to foreground or background owned by another beneficiary in the project. The Grant Agreement's provisions relating to access rights constitute "minimal" provisions that, unless otherwise indicated, cannot be set aside or restricted.

	Access to background	Access to foreground
Project implementation	Royalty-free, unless otherwise agreed before acceding to the Grant Agreement (GA)	Royalty-free
Use of results (exploitation or further research)	Royalty-free, or on fair and reasonable conditions	Royalty-free, or on fair and reasonable conditions

According to the Grant Agreement (Annex V), access rights to another beneficiary's foreground and/or background can only be granted if the requesting beneficiary needs such access to carry out the project or to use his or her own foreground. The request must be made in writing, and may be conditional on the acceptance of specific conditions (confidentiality obligations, for instance).

As a result, it is extremely important that the beneficiaries define the IP they need with respect to the obligation to grant access rights. It is in this context that participants may determine which elements of their background should be included or excluded from the project. This will limit their obligation to grant access rights to other participants. This must be done in the form of an annex to the Consortium Agreement (usually through a 'background negative or positive list').

A beneficiary can request access rights up to one year (or more if set differently in the Grant Agreement) after either the end of the project or the termination of the participation of the owner of the foreground or background concerned.

⇒ Ownership of Foreground

The foreground resulting from the project belongs to the beneficiary generating it. When several beneficiaries generate it jointly, and it is not possible to distinguish their individual contributions, the relevant beneficiaries will jointly own the foreground generated unless they agree to a different solution. These beneficiaries will either incorporate the necessary provisions into the Consortium Agreement or sign a joint ownership agreement. In the case where there are no provisions in the CA and no signed joint ownership agreement, the default joint ownership regime as established in the GA will apply. The default regime will mean that each of the joint owners can grant non-exclusive licenses to third parties, after giving prior notice and fair compensation to the other joint parties.

⇒ Dissemination

There is an obligation to disseminate foreground which is set up to 4 years after the end of the project, except in cases where dissemination would adversely affect its protection and use. Dissemination must be compatible with the protection of the IP rights, confidentiality obligations and legitimate interests of the owners (any disclosure, prior to filing for protection, may invalidate a subsequent or potential valuable protection).

⇒ Eligibility of IPR Costs

Costs associated with Intellectual Property Rights (IPR) rights protection and dissemination activities are eligible expenses as Other Direct Costs. Costs associated with patents (or other IP rights) relating to results obtained outside of the project (e.g. in parallel with it, after its end, or before its start) are ineligible for funding. The following principles are guidelines for licensing royalties. The Project Officer will address these issues on a case-by-case basis:

Royalties Paid to a Third Party

In principle, such royalty fees (and by extension any down payments) are eligible expenses. However, eligibility might be limited in some instances, as in the case of royalty fees that relate to an exclusive license, unless the exclusivity (and the higher royalty fees which will likely follow) is absolutely necessary for the implementation of the project. If a licensing agreement was already in force before the start of the project, only a fraction of the corresponding license fees should be considered eligible, as the license was presumably taken for reasons other than participation in the Framework Programme.

Royalties paid for access rights granted by other beneficiaries

As a general rule, access rights to foreground and background needed for implementing the project must be granted without royalties. However, if all participants agree before accession to the grant agreement, access rights to background needed for implementing the project can involve payment of a royalty (for example, if one of the participants has unique and valuable background necessary for implementing the project and others do not bring the same level of background or expertise). In principle, such royalty fees (arising during the project) may be eligible.

