



Government
of Canada

Trade Commissioner
Service

Gouvernement
du Canada

Service des
délégués commerciaux

Canada

HORIZON EUROPE GUIDE - CANADA

**For Canadian participation in
the European Union's Framework
Programme for Research and
Innovation (2021-2027)**

**Produced by the
Mission of Canada to the EU**

Updated February 2023

Table of Contents

INTRODUCTION	2
1. STEP-BY-STEP: GETTING STARTED	4
1.1 Finding Key Information	4
1.2 Using the R&I Funding and Tenders Portal	7
1.3 Finding a call for proposal/Research Topic	15
2. STEP-BY-STEP: PILLAR I EXCELLENT SCIENCE	18
2.1 European Research Council (ERC)	19
2.2 Marie Skłodowska-Curie Actions (MSCA)	24
2.3 Research Infrastructures	32
3. STEP-BY-STEP: PILLAR II GLOBAL CHALLENGES AND EUROPEAN INDUSTRIAL COMPETITIVENESS	33
3.1 Horizon Europe Clusters	35
3.2 Innovation and Support Actions	39
3.3 European Partnerships	43
3.4 The contemporary “Moonshots”, the European Missions	48
4. STEP-BY-STEP: PILLAR III - INNOVATIVE EUROPE	51
4.1 The European Innovation Council (EIC)	52



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.

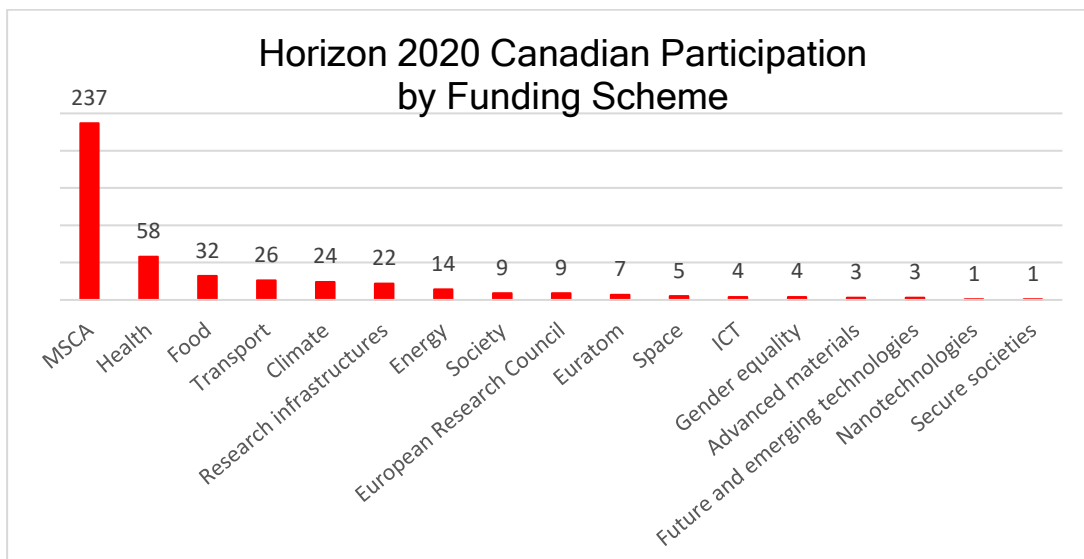


Horizon Europe is the world's largest Research and Innovation program, with a funding envelope of close to EUR 100 billion under the Multiannual Financial Framework 2021-2027. The programme facilitates collaboration and strengthens the impact of research and innovation in developing, supporting and implementing EU policies while tackling global challenges.

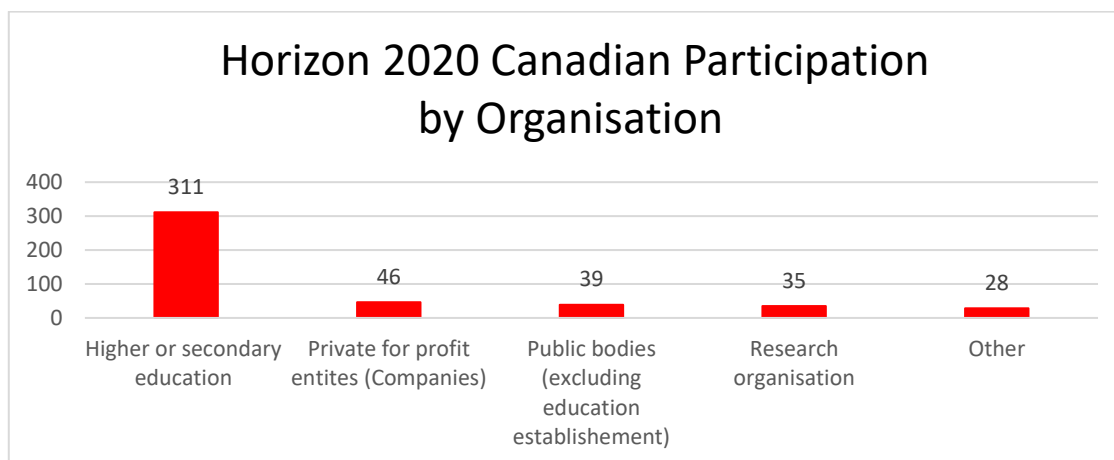
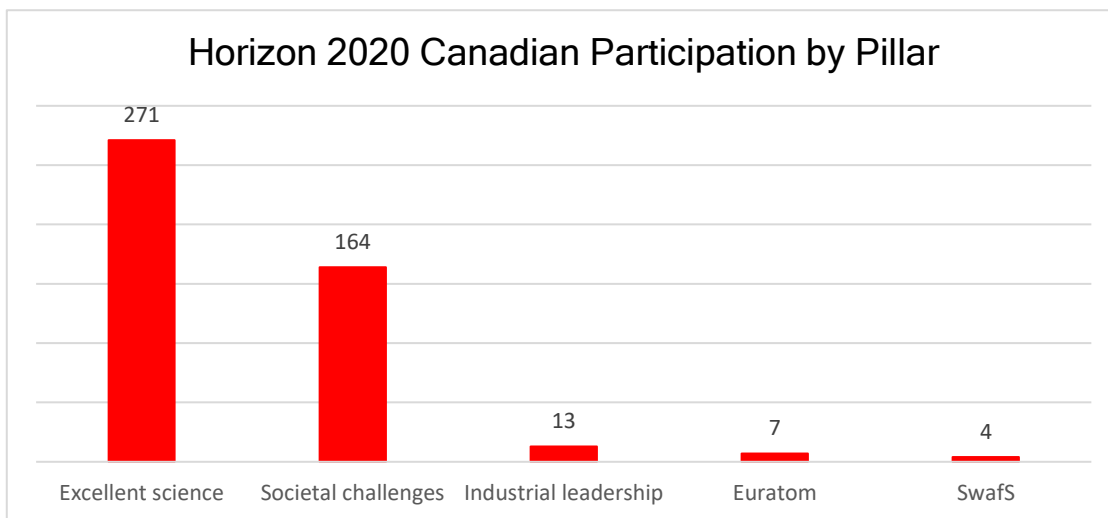
This guide has been created to provide helpful information to Canadians interested in participating in Horizon Europe, such as: navigating through the portal and the online application process, promoting the opportunities available to Canadians within the different pillars, and presenting the resources and funding available to Canadian participants. For detailed information on available Canadian funding please see Horizon Europe Guide to Canadian Part II: Canadian Funding Programs.

In past Framework Programmes, Canadian participation has risen constantly, reaching its peak under Horizon 2020 (2014-2020) with the participation of 459 Canadian entities. The following three graphs show Canadian participation by funding scheme, pillar and type of participant. Most Canadians participated in Pillar 1 (59%), primarily in Researcher Mobility, then Research Infrastructures. The balance participated in Pillar 2, Societal Challenges (36%), in Health, Food, Transport and Climate. 90% of all Canadian participants were researchers and academics.





Graphic 1.1 demonstrates the prominent scheme among Canadians: Marie Skłodowska Curie Actions (MSCA), followed by Societal Challenges pillar schemes: Health, Food, Transport and Climate.



In Graphic 1.3 category Other can include scientists and NGOs.



1. STEP-BY-STEP: GETTING STARTED

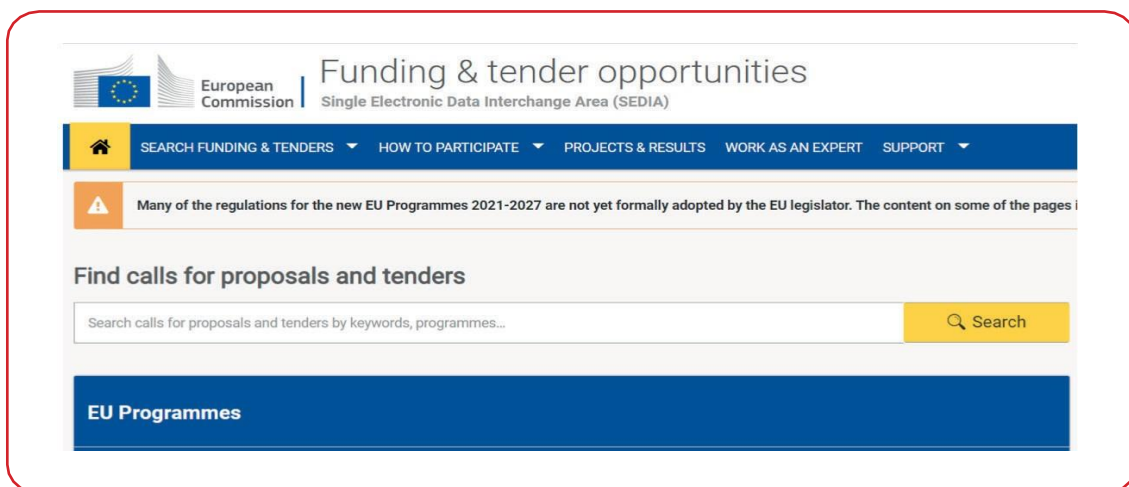
1. STEP-BY-STEP: GETTING STARTED

This Chapter presents important online resources 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

This chapter also provides an overview of Enterprise Europe Network (EEN) and its services, followed by the Model Grant Agreement and 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 and academics can find opportunities for conducting excellent research through funding, support services, reference documents and online guidance¹. It is a user-friendly

¹ The [Horizon Europe Online Manual](#) is a step-by-step guide provided by the European Commission on practical issues (costs, rules of consortia, eligibility etc.) regarding EU's projects.



1. STEP-BY-STEP: GETTING STARTED

platform to support users at any stage of their efforts, from finding partners and networks, to preparing, submitting and managing projects. It has both public and secured sections. In the public section, you will find:

- **Search funding and tenders:** This page provides all Horizon Europe calls for proposal and their description, including an explanation 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, deadline date and a cross cutting of the priorities addressed.
- **How to participate:** gives a five-step-approach to find and apply for suitable EU funding opportunities.
- **Projects & Results:** provides a detailed list of EU projects and their results to date. The user-friendly interface provides data for the Framework Programmes since 2007.
- **Work as an expert:** where one can register as an expert evaluator for Horizon Europe.
- **Support:** provides a list of useful links, guidance and helpdesk contacts for trouble-shooting related to Horizon Europe projects.

Horizon Europe Website

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

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

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



1. STEP-BY-STEP: GETTING STARTED

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. This highlights what has changed in the new Framework Programme, compared to its predecessor, Horizon 2020.

Apply for Funding. A link that directs one to the Funding and Tenders Portal.

Strategic Plan. It sets the content of work programmes for Horizon Europe.

Work Programmes. It enshrines all funding opportunities under Horizon.

Horizon Europe Programme Structure. It defines the Framework Programme's funding schemes and Pillars, and the complementary programmes working 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 modernization through concerted research and innovation efforts.

News and events. To keep track of latest news and events that relate to Horizon Europe.

CORDIS Website

➔ <https://cordis.europa.eu/>

The “Community Research and Development Information System” (CORDIS) website provides access to news and information on **all European Framework Programmes since 1990.**



1. STEP-BY-STEP: GETTING STARTED

The website is particularly useful for:

- **Results Packs:** multilingual collections of up-to-date articles that focus on a specific theme.
- **Research*EU Magazines:** Regular EU official magazines 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, theme, title and other selections. Find grant details, funding, participants, publications and summaries.

1.2 Using the R&I Funding and Tenders Portal

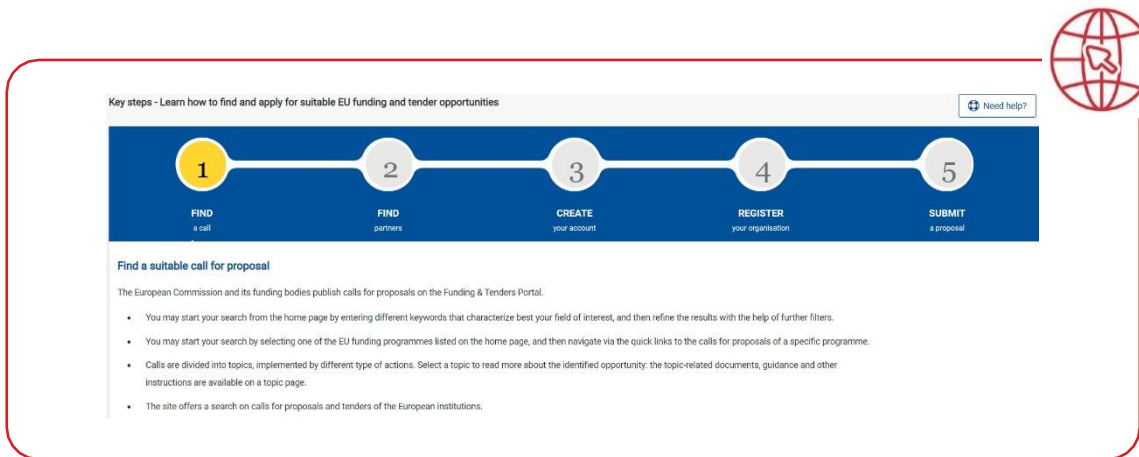
Information and assistance

How to Participate

At the “How to Participate” tab on the Funding and Tenders portal main page, interested Canadian entities are introduced to user-friendly instructions on key elements of the portal.



1. STEP-BY-STEP: GETTING STARTED



→ **Key steps:** Canadians will learn how to find and apply for tailored EU funding opportunities. In order to help participants deliver successful proposals, the European Commission has planned a 5-step-approach:

1. Find a suitable call for proposals
2. Find project partners (optional)
3. Create an EU Login account
4. Register an organization
5. Submit your grant proposal

→ **Reference documents:** This page includes reference documents of the programmes managed on the EU Funding and Tenders portal, from legal documents and Commission's work programmes, to model grant agreements and guides for specific actions.

→ **Participant register:** If Canadians want to participate in a project proposal or in a call for tenders, they must proceed through the eSubmission provided by the European Commission. The organization needs to be registered and have a 9-digit Participant Identification Code (PIC). In this section, it is possible to search for an already registered organization (PIC search) or to register a new one ("Register your organization").

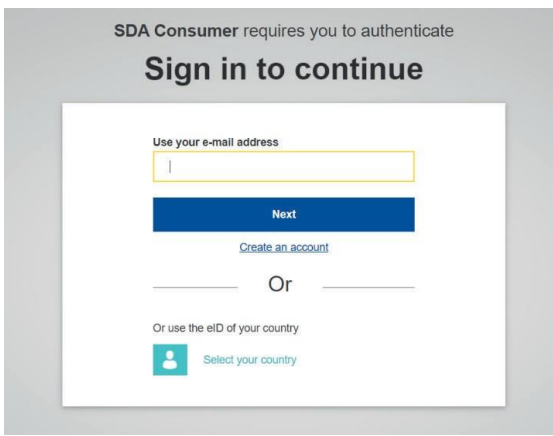
1. STEP-BY-STEP: GETTING STARTED

Opening an Account

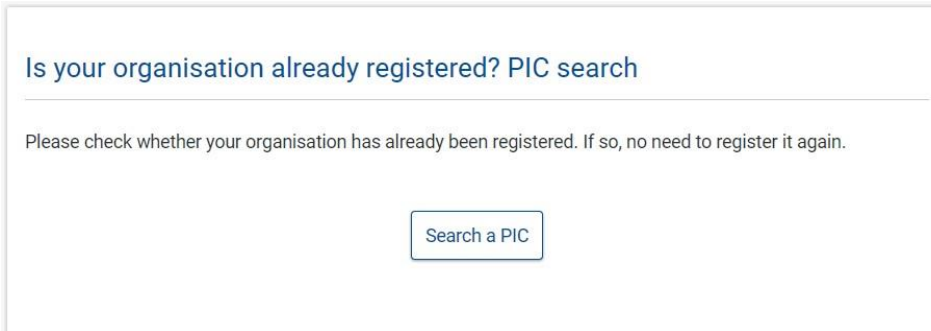
Individuals: European Commission Authentication Service (ECAS)

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 to the number of individual accounts that can be affiliated with a given organization.

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.



The screenshot shows a login page titled "SDA Consumer requires you to authenticate" with the heading "Sign in to continue". It features a form with a text input field labeled "Use your e-mail address" containing a cursor. Below the input is a blue "Next" button and a link "Create an account". A horizontal separator with "Or" in the center is followed by the text "Or use the eID of your country" and a button with a person icon labeled "Select your country". A red globe icon with a cursor is positioned to the right of the screenshot.



The screenshot shows a page titled "Is your organisation already registered? PIC search". Below the title is a horizontal line and the text "Please check whether your organisation has already been registered. If so, no need to register it again." At the bottom center is a button labeled "Search a PIC". A red globe icon with a cursor is positioned to the right of the screenshot.

1. STEP-BY-STEP: GETTING STARTED

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



Find a registered organisation

You may enter a (complete or partial) organisation name (e.g. "Oxford" or "University of Oxford") and optionally select a country.
You cannot search by country only. Organisation names are in English or in the national language.

Name*: Country:

Advanced search

Results: 4

STATUS	COUNTRY	CITY	LEGAL NAME	BUSINESS NAME	PIC	VAT	ERASMUS CODE	REG NUMBER	ACTIONS
DECLARED	CA	Montréal	mcgill school of physical and occupational therapy						<input type="button" value="Actions"/>
DECLARED	CA	Montréal	McGill University Goodman Cancer Research Centre						<input type="button" value="Actions"/>
DECLARED	CA	Saint-Jacques	McGill University-Macdonald Campus						<input type="button" value="Actions"/>

If an organization 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 organization”. To complete the registration, information regarding the legal status and finances of the organization 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 Organization” in the Funding and Tenders Portal. Once complete, a provisional PIC will be provided electronically within 48 hours.

Please note the Commission will proceed with the validation of all information in the Organization Register, and provide a definitive PIC, only for successful proposals. Once validated, the organization will be required to designate a person to serve as its “Legal Entity Appointed Representative” (LEAR) who is authorized to sign legal documents for the organization. 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 organization.



1. STEP-BY-STEP: GETTING STARTED

Designating a Legal Entity Appointed Representative (LEAR)

Once an organization 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 on the organization, manage the access rights of others in the organization, and appoint representatives to electronically sign grant agreements or financial statements on behalf of the organization 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 organization 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. uploaded in the Participant Register). Upon receipt of approved documents, the Commission will confirm the appointment by electronically providing the LEAR a PIN Code.

For more information:

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

Serving as an Expert

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)

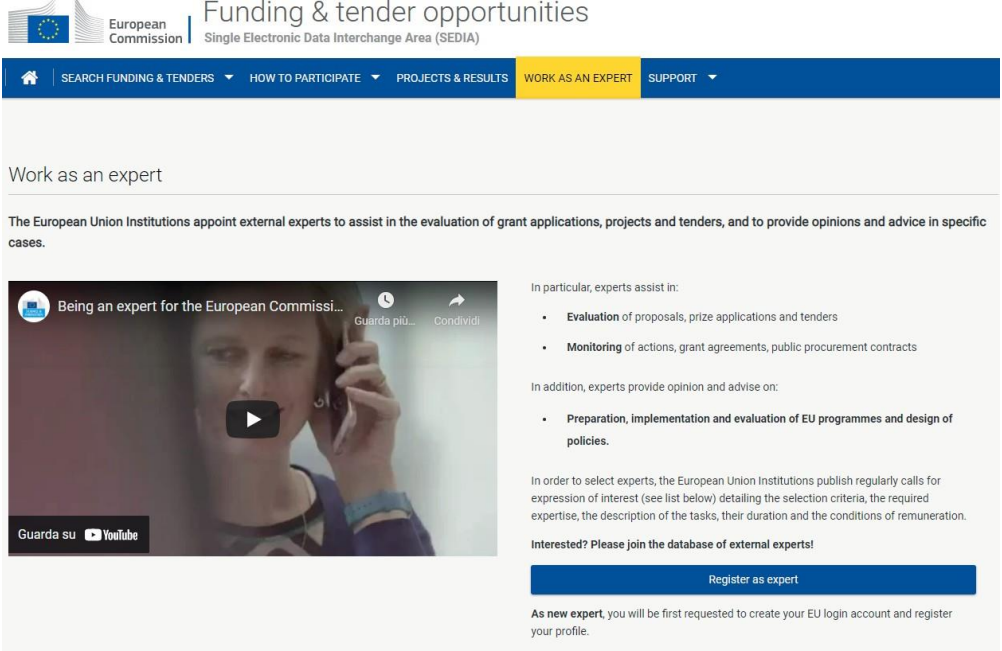


1. STEP-BY-STEP: GETTING STARTED

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 at 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).



European Commission | Funding & tender opportunities
Single Electronic Data Interchange Area (SEDIA)

SEARCH FUNDING & TENDERS | HOW TO PARTICIPATE | PROJECTS & RESULTS | **WORK AS AN EXPERT** | SUPPORT

Work as an expert

The European Union Institutions appoint external experts to assist in the evaluation of grant applications, projects and tenders, and to provide opinions and advice in specific cases.

In particular, experts assist in:

- **Evaluation** of proposals, prize applications and tenders
- **Monitoring** of actions, grant agreements, public procurement contracts

In addition, experts provide opinion and advise on:

- **Preparation, implementation and evaluation of EU programmes and design of policies.**

In order to select experts, the European Union Institutions publish regularly calls for expression of interest (see list below) detailing the selection criteria, the required expertise, the description of the tasks, their duration and the conditions of remuneration.

Interested? Please join the database of external experts!

[Register as expert](#)

As new expert, you will be first requested to create your EU login account and register your profile.

1. STEP-BY-STEP: GETTING STARTED

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 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 Countries, and Calls for Proposals 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.** It is 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.** Those 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, theme, project title, and other criteria.

↪ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon>



1. STEP-BY-STEP: GETTING STARTED

→ **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 “BrokerageEvents”, designed specifically to bring together researchers and innovators interested in particular calls. Information on these events is available on the CORDIS website.

↪ <https://cordis.europa.eu/news/en>

→ **National Contact Points (NCP).** NCPs 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, since the 6th Framework Programme. See following link for more information on Canada’s NCPs.

Canadian NCP network:

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

→ **Enterprise Europe Network (EEN).** It 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 EENmember organizations at: ↪ <http://een.ec.europa.eu/>



1. STEP-BY-STEP: GETTING STARTED

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/>

For more information see [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.

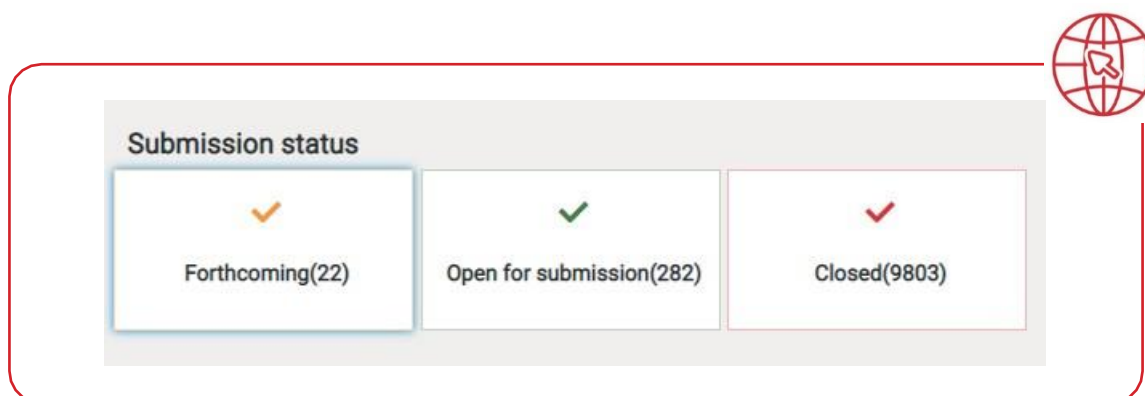


Search Calls for Proposal by keyword

A simple search: type in the keywords for a particular call or field of action to get the complete list of related Calls for Proposals, sorted by Grants or Tenders.

Search for status and topic

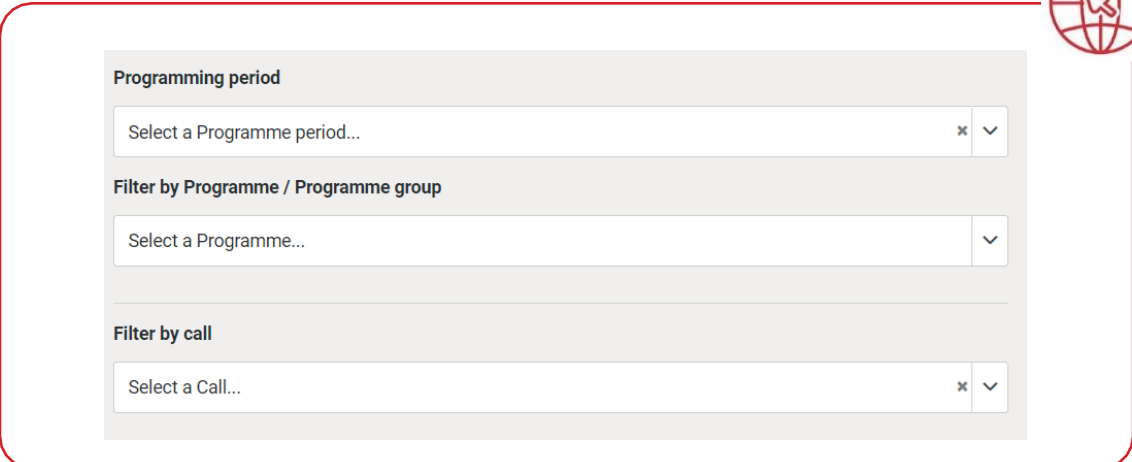
The second method to gain access to EU's Calls for Proposals under Horizon Europe is the search by status and topics. Just under keywords bar, one can filter Horizon's opportunities by submission status, sorted by:



1. STEP-BY-STEP: GETTING STARTED

- **Forthcoming.** Calls for Proposals 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. The closed calls for proposals however may be an ideal place to start as they can provide a general overview of what Canadians can expect from Horizon's Calls of Proposals and how to prepare for future opportunities.

Further degrees of sorting



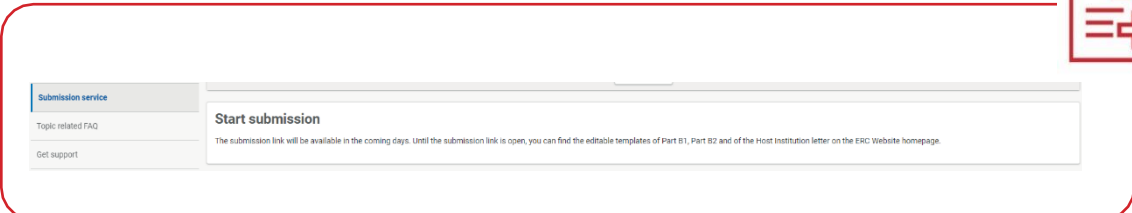
The screenshot shows a filtering interface with three sections, each with a dropdown menu:

- Programming period:** Select a Programme period... (with a clear 'x' button and a dropdown arrow)
- Filter by Programme / Programme group:** Select a Programme... (with a dropdown arrow)
- Filter by call:** Select a Call... (with a clear 'x' button and a dropdown arrow)

A red globe icon with a cursor is positioned in the top right corner of the interface.

Submitting a proposal

Electronic Submission System



The screenshot shows the Electronic Submission System interface. On the left, there is a sidebar with links for 'Submission service', 'Topic related FAQ', and 'Get support'. The main content area features a 'Start submission' button and a message: 'The submission link will be available in the coming days. Until the submission link is open, you can find the editable templates of Part B1, Part B2 and of the Host Institution letter on the ERC Website homepage.'

A red document icon with an arrow is positioned in the top right corner of the interface.

1. STEP-BY-STEP: GETTING STARTED

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 (typically a European partner), 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 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.



PILLAR I (Excellent Science)

EUROPEAN RESEARCH COUNCIL

MARIA SKŁODOWSKA-CURIE ACTIONS

RESEARCH INFRASTRUCTURES

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.



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

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 Skłodowska-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.

The deliberate internationalization of these activities, and the commitment to support investigator-driven 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 types of grants (covering 100% of direct cost and 25% of indirect costs to the maximum allowed), plus one complementary scheme: 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 an 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.



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

Synergy Grant. Starting in 2022 a group of two to maximum four Principal Investigators (PIs) work together and bring 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 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 to bridge the gap between the researchers' past ideas to market.

**OPPORTUNITIES FOR CANADIANS:**

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

- They are open to researchers from all around the world.
- Principal investigators are required 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)². 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.

² Canada association agreement still under negotiation



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:

- **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)



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

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 physical sciences and engineering, nine in the life sciences, and six in social sciences and humanities. A full list of the panels is available in the ERC Work Programme³ 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 up to three specific persons who 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” the extended synopsis and the Principal Investigator’s track record and CV will be assessed (not the full scientific proposal).
- At “step two” 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” may be invited for an interview in Brussels⁴, to present their project to the evaluation panel.

³ https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021/wp_horizon-erc-2021_en.pdf

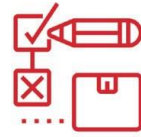
⁴ According to COVID-19 European Union disposals.



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

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 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 three 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:



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

- I. https://erc.europa.eu/sites/default/files/document/file/ERC_StG_2021_B1_FINA_L.docx
- II. https://erc.europa.eu/sites/default/files/document/file/ERC_StG_2021_B2_FINA_L.doc
- III. https://erc.europa.eu/sites/default/files/document/file/ERC_HI_letter_2021_FIN_AL.doc

2.2 Marie Skłodowska-Curie Actions (MSCA)



Budget: € 6,603,000,000 (2021-2027)

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 instruments at EU-level for attracting researchers from Third Countries (i.e. countries that are not associated or EU member country) 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.



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



There are three 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 Canada⁵) 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 organization 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 of 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 leave⁶), will not be taken into account.

Postdoctoral Fellowships either can take place in Europe (i.e. in an EU Member State or a HorizonEurope Associated Country) or in a Third Country:

→ **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.

⁵ At the current state of negotiations between EU and Canada Association Agreement.

⁶ 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.



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

→ **Global Postdoctoral Fellowships** are open to European nationals or long-term residents who wish to engage in Research & Innovation (R&I) projects with organizations outside EU Member States and Horizon Europe Associated Countries. These fellowships require an outgoing phase of maximum 24 months in a Third Country (like Canada), and a mandatory 12-month return phase to a host organization 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 5,080), Mobility allowance (EUR 600), Family allowance if applicable (EUR 660), Research, training and networking contribution (EUR 1,000), 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 Europe⁷. 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 Europe⁸. Global Fellowships may be

⁷ 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).

⁸ 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.



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

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 supervisor 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).

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 mindset.

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 'Third Country partners'. Third Country partners are entities who 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.

Third Country partners must include a letter of commitment in the proposal to ensure their real and active participation in the action. The involvement of any Third Country 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 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.



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

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 person- months 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 organizations 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 “Third Country partners” (entities who participate in the action, but have no 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 organization, which is

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

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. The submission of the proposal and other actions that follow this procedure (such as withdrawal) fall however under the final responsibility of the host organization 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 [Guide for Applicants](#) 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 organizations (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 (2021-2027)



https://rea.ec.europa.eu/funding-and-grants/horizon-europe-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 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 are 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)

CLUSTER

- 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 a Third Country participant Canadian researchers could get access to European funding if deemed appropriate by the peer review panel, and if the participation of the Canadian participant is deemed essential to the success of the project. Proper justification for such must be provided in the proposal at the application stage.

Canadians could also find financial support from the Canadian Federal government or Provinces using the funds listed in [Chapter 6](#).



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.



Destinations⁹:

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

⁹ 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.



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 the EU and its citizens from terrorism, organized crime (including cyber threats) and from the negative externalities stemming from natural and man-made disasters. For the EU, Associated countries and Third Country partners, security is a top-tier priority and the latter needs to be tackled adopting effective policies, through the help of latest technologies. In this context, security research provides the resources to be able to adequately counter current and emerging 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 aim is to support digitalization and transformation of European industries, contributing to securing industrial leadership in key sectors and sovereignty regarding technologies and resources. Nonetheless, this does not mean a Europe- first approach: the contribution and the participation of Third Countries will be deemed necessary for fostering international cooperation in digital, industrial and space sectors, and developing win-win partnerships that will deliver solutions at the global level.



Destinations:

1. Climate neutral, circular and digitized 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-centered 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 improve 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 and Environment will contribute to restoring polluted bio-systems, tackling and reducing biodiversity, improving natural risk disaster management, and creating sustainable and circular use of land and sea. The circularity of raw materials will play a pivotal role, as well as 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; and prioritizing the behavioral side of people.

Furthermore, a number of activities will help to develop vibrant rural and coastal areas and establish governance models for the transition towards sustainability. In this Cluster, great importance will be given to fostering circularity of a climate-neutral economy, in compliance with the European Green Deal, the Paris Agreement on Climate Change and the Sustainable Development Goals (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 may 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.

3.2 Innovation and Support Actions

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 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, and testing and validation on a small-scale prototype in a laboratory or simulated environment. Projects may include limited demonstration or pilot activities that show technical feasibility in a near to operational environment.

- RIA 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. The Commission however expects RIA proposals to request on average €2 to 5 million for projects that last from 36 to 48 months. Typically, consortia include five to twenty-five different organizations.

Eligible expenses:

- Direct Costs (personnel costs (including benefits) and other direct costs such as travel, 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. The Commission however expects IA proposals to request on average €2 to 5 million for projects that last from 30 to 36 months. Typically, consortia include five to twenty-five different organizations.

Eligible expenses:

- Direct Costs (personnel costs (including benefits) and other direct costs such as travel, events, equipment and consumables). Funding Rate: 70 per cent for companies, 100 percent 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 determined by the consortium members. The Commission however expects CSA proposals to request on average €0.5 to 2 million for projects that last from 12 to 30 months. Typically, consortia include five to fifteen different organizations.

Eligible expenses:

- Direct Costs (personnel costs (including benefits) and other direct costs such as travel, 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 for 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 automatically be 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 organizations. 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.

3.3 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 organizations, bodies with a public service remit at local, regional, national or international level, or civil society organizations including foundations and NGOs.

The aim of European partnerships with the EU and associated countries, the private sector, foundations and other stakeholders is to deliver on global challenges and modernize industry. The Horizon Europe proposal lays down the conditions and principles for establishing European Partnerships. There are three 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 European Partnerships have been or are open to Third Countries but, since Horizon 2020, Canada has been member of different partnerships, notably the Public - public partnerships (P2Ps) that give its researchers and entrepreneurs access to calls published from different partnerships.



OPPORTUNITIES FOR CANADIANS:

Canadian support to partnerships is under discussion/renewal. Please note that co-programmed partnerships usually allow participation from Third Countries.

The portfolio of European Partnerships includes 49 candidates who are at 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 is a list of all European Partnerships by theme, highlighting those in which Canada may participate:

Horizon Europe Partnerships proposal webpage:

[↪ https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/european-partnerships-horizon-europe_en#identifying-partnerships](https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/european-partnerships-horizon-europe_en#identifying-partnerships)



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) – Co-funded

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



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

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) – Co-funded
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

3.4 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, through science and technology. Missions are intended to achieve a measurable goal, within a set timeframe, 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, optimize 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, and decarbonizing 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, Canadian



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

participation is likely to be welcomed in all five proposed missions, such as health, as the European Commission specifies in the first provisions for Mission Cancer:

“This would be through a health-in-all policies approach¹⁰; 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 countries (full implementation of the mission is subject to final political confirmation).

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 identify groundbreaking solutions through the gathering of diverse innovative players, and financing high-risk/high-reward ideas to provide society with unprecedented benefits. The particularly ambitious objective of the European Commission is to find and bring to market, in the years to come, enterprises and people with the highest potential in innovation - mainly scale-up firms and global leading scientists. Only Associated Countries to the Horizon Europe programme can participate in this pillar. Canada is currently not an Associated Country. **Canadian entities can still participate in one precise scheme within this pillar:**

¹⁰ 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://cdn.who.int/media/docs/default-source/mca-documents/rmncah/health-in-all-policies-key-messages-en.pdf?sfvrsn=a4982d1_1&download=true



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 known for its unique feature of a technologic one-stop-shop for enabling inventors, innovators and investors to develop very promising ideas to be applied 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 disruptive 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 discovery of disruptive innovations. This instrument works predominantly through a bottom-up approach, but will also try to implement a top-down basis to build up its thematic portfolios of projects in most-needed sectors.

For these 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.



5. WHERE TO FIND ADDITIONAL SUPPORT

**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 three entities¹¹ from three 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.

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.

National Contact Points (NCPs)

Reference:

➔ https://research-and-innovation.ec.europa.eu/contact-us_en

The European Commission has established networks of National Contact Points

¹¹ The legal entities may for example be universities, research organizations, SMEs, start-ups or natural persons



5. WHERE TO FIND ADDITIONAL SUPPORT

(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.

NCPs provide the following services:

- **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 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 programme 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. WHERE TO FIND ADDITIONAL SUPPORT

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 the Enterprise Europe Network Canada (EEN Canada) and is coordinated by the European-Canadian Centre for Innovation and Research (ECCIR) 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.



5. WHERE TO FIND ADDITIONAL SUPPORT

- **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/>
Laura Intemann : lintemann@eccir.ca, + 1 780 492 5745

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.



5. WHERE TO FIND ADDITIONAL SUPPORT

**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/search](https://euraxess.ec.europa.eu/jobs/search)

