



A Guide to Canadian participation in the European Union's
Framework Programme for Research and Innovation
[2014-2020]



Horizon 2020
GUIDE FOR CANADIANS



AIM OF THE GUIDE

This guide is intended to help Canadian researchers and innovators find and take advantage of opportunities to collaborate with European colleagues in Horizon 2020, the latest Framework Programme for Research and Innovation of the European Union. It describes the program architecture, identifies specific opportunities for Canadians, explains the rules and the norms in Europe for participation and funding, how to prepare an application, negotiate grant and consortium agreements, manage a project and protect intellectual property rights.

STRUCTURE OF THE GUIDE

CHAPTER I, First Considerations provides a portrait of Canada-EU collaboration in the last Framework Programme (FP7) and introduces Horizon 2020. The chapter emphasizes elements of primary importance to Canadian researchers and innovators considering participation in Horizon 2020: the policy context and program architecture as well as the ground rules governing participation, funding and intellectual property rights.

CHAPTER II, Getting Started presents the most important on-line sources of information about Horizon 2020 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.

CHAPTER III, Step-by-Step: Excellent Science presents opportunities for Canadians to participate in the mobility, training and career development programs of Horizon 2020 as well as possibilities for collaboration on the development of future and emerging technologies. The second half of the chapter explains how to prepare a proposal, negotiate a grant agreement and manage such projects.

CHAPTER IV, Step-by-Step: Industrial Leadership and Societal Challenges focuses on the opportunities for Canadians in collaborative projects on enabling and industrial technologies as well as major societal challenges and crosscutting initiatives. As in the previous chapter, a subsection is dedicated to proposal preparation, negotiation of a grant agreement and project management.

CHAPTER V, Finding Support provides contact information for the main sources of advice available to Canadian researchers and research organizations seeking to participate in Horizon 2020 projects.

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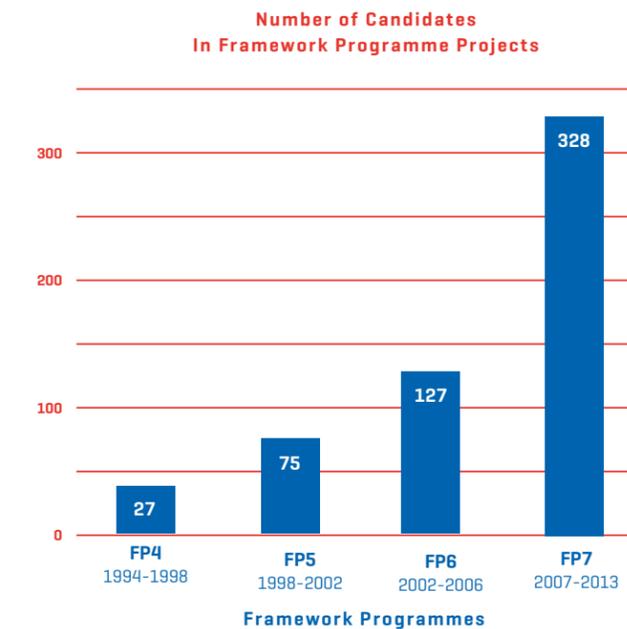
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CHAPTER I First Considerations

1. Canada-EU Research

Canadian and European cooperation in science, technology and innovation (STI) is vital to our mutual prosperity and well-being. Our shared histories, similar scientific cultures and many joint initiatives have made Canadians and Europeans each others' second leading STI partners among industrialized nations. This relationship gives us 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. It calls for "Canada to do more to encourage international collaboration in order to access the tremendous knowledge being generated elsewhere and lever the enormous potential of such initiatives as the European Union scientific framework program."¹



Since the Agreement for Scientific and Technological Cooperation between Canada and the European Community was signed in 1996, the number of Canadians participating in the EU Framework Programme has increased exponentially. More and more researchers see it as an important vehicle for addressing global challenges, working with leading international colleagues, strengthening networks, broadening capacity, leveraging resources and increasing the impact of their work. There were more Canadians in the last Framework Programme (FP7) than in all previous versions combined: 328 Canadians participated in 284 projects with 2,727 colleagues from around the world. They were engaged in every sector and nearly every province (and in 38 Canadian universities).

¹ Canada. Mobilizing Science and Technology to Canada's Advantage (Ottawa: Public Works and Government Services Canada, 2007) p. 86.



Together, Canadian researchers contributed €51 million to FP7 projects that pooled €1.4 billion in total funding while, at the same time, they received €11 million in direct financial support from the European Commission. Moreover, the success rate of Canadian applicants (25 per cent) and proposals with Canadian participants (23.5 per cent) was well above the norm (22 and 19 per cent for applicants and proposals respectively) reflecting the high quality of these partnerships and the work being done.

2. Understanding Horizon 2020 (2014-2020)

2.1 Building European and International Research

Horizon 2020 is the European Union's Common Strategic Programme for Research and Innovation. From 2014 to 2020, it will provide €80 billion for peer-reviewed research in all sectors and at all points in the value chain, from the most fundamental research, training and infrastructure, to the most experimental emerging technologies, advanced scientific developments, demonstration projects and valorization of results. It is considered the eighth in a series of Framework Programmes first launched by the European Commission in 1984.

For Canadians, Framework Programmes are significant for their size and scope and for their structuring effect on European and international research.

Horizon 2020, in particular, has been designed as a building block for the "Innovation Union," a flagship initiative of the Europe 2020 Strategy adopted by the European Union to stimulate economic growth and well-being in every Member State. As a result, it aims specifically to bring researchers and innovators together from across the continent (requiring a minimum of three organizations in three European countries in all team projects). It introduces measures to increase the participation of small and medium sized enterprises and industry while continuing to support outstanding research in academe and the public sector. Moreover, it welcomes international partnerships as a way to ensure that European research addresses global challenges and has the greatest possible impact around the world. For Canadians, it is an excellent complement to the 2014 Comprehensive Economic and Trade Agreement between Canada and Europe and the 1996 Canada-EU S&T Agreement.

Much like previous Framework Programmes, Horizon 2020 will make European research more trans-national, multi-sector and international, increasingly focused on well-defined social, economic and global challenges. It will be an important vehicle for international research, offering Canadian researchers and innovators a wide range of opportunities to work with well-funded colleagues, with similar goals, in a dynamic research environment.



CHAPTER I

2.2 Programme Architecture

Horizon 2020 is structured around three Pillars

Excellent Science		Industrial Leadership		Societal Challenges	
ERC	€13.9b	LEIT	€13.5b	Health	€7.5b
FET	€2.7b	Risk Financing	€2.8b	Food	€3.8b
MSCA	€6.1b	SME	€0.6b	Energy	€5.9b
RI	€2.5b			Transport	€6.3b
				Climate	€3.0b
				Inclusion	€1.3b
				Security	€1.7b
€ 24.4 billion		€ 17.0 billion		€ 29.6 billion	

Excellent Science focuses on four specific activities:

- + The European Research Council (ERC) grants provide flexible funding to enable exceptionally talented, top class individual researchers and their teams to pursue the most promising avenues at the frontier of science.
- + Future and Emerging Technologies (FET) supports collaborative research across disciplines on radically new, high-risk ideas to accelerate the development of the most promising emerging areas of science and technology.
- + Marie Skłodowska-Curie Actions (MSCA) provides innovative research training as well as opportunities for cross-border and cross-sectoral mobility of researchers and innovator at all stages in their careers.
- + Research Infrastructure (including e-infrastructures) supports the development of all forms of EU research infrastructures for 2020 and beyond.

Industrial Leadership focuses on the development of emerging technologies and supports innovation in European SMEs:

Leadership in enabling and industrial technologies provides dedicated support for research, development and demonstration projects related to five innovative technologies, emphasizing their interactions and convergence and their relationship to societal challenges:

- + Information and communications technology (ICT),

- + Nanotechnologies, advanced materials and production
- + Biotechnology
- + Advanced manufacturing and processing
- + Space

Access to risk finance aims to overcome possible deficits in the availability of debt and equity finance for research and development and innovation-driven companies, including SMEs.

Innovation in SMEs provides support to all forms of innovation related activities in European SMEs.

Societal Challenges focuses research and innovation from multiple sectors and disciplines on seven societal challenges for Europe and the world:

- + Health, demographic change and well-being
- + Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bio-economy
- + Secure, clean and efficient energy
- + Smart, green and integrated transport
- + Climate action, environment, resource efficiency and raw materials
- + Europe in a changing world - inclusive, innovative and reflective societies
- + Secure societies - protecting freedom and security of Europe and its citizens

Cross Cutting Priorities: In addition, the European Commission has identified a number of priority areas for research and innovation, as well as a number of unique funding instruments, that are relevant to many of the subject areas outlined above. Calls for proposals and topics related to these cross cutting priorities are searchable in the Research and Innovation Participant Portal [See below for information on the Research and Innovation Participant Portal].

Targeted Opportunities: Occasionally, the European Commission will publish calls for proposal or topics identified as areas of importance for Canada-EU cooperation in which it will specifically request proposals with Canadian partners [Please note: this does not mean that funding is available for Canadians]. Such opportunities will be promoted through the ERA-Can+ project.

See: <http://www.era-can.net/>

2.3 Work Programmes, Calls for Proposals and Topics

The three pillars reflect the European Union's policy priorities while the specific activities within each pillar reflect its more detailed policy objectives. The Commission releases a Work Programme every two years for each specific activity that sets out even more detailed objectives to be met by research and innovation projects.

Each year, it releases a number of "Calls for Proposals" for each specific activity. These reflect the priorities set out in the Work Programme and include a number of more detailed Topics for which the Commission is seeking proposals. For each Topic, the Commission indicates the objective, funding instrument, funding available, application deadline and other details.

PILLAR [Describes Horizon 2020 / Permanent]

- ↳ Specific Activity [Describes major activities in each pillar / Permanent]
 - ↳ Work Programme [Describes research and innovation objectives for each specific activity / Published every two years]
 - ↳ Call for Proposals [Describes a certain number of research and innovation Topics open for proposals / Opened each year]

2.4 Funding Instruments

A **Funding Instrument** is a type of grant [sometimes referred to as an "action"]. The Commission uses different funding instruments to support different types of projects or activities. In the pillar Excellent Science, it most often directs funding through ERC or MSCA grants. In the other two pillars, it will more commonly use Research and Innovation Actions [RIA] or Innovation Actions [IA] to support small, medium or large-scale collaborative research and innovation projects and Coordination and Support Actions [CSA] to support EU policy initiatives or pilot projects. In the pillar Industrial Leadership, it will also use Public Private Partnerships [PPP] and Contractual Public Private Partnerships [cPPP] as well as Access to Risk Financing, the SME Instrument and the Fast Track to Innovation. Please see Annex IV for a summary table of all Funding Instruments in Horizon 2020.

Because different funding instruments offer different opportunities for Canadian participation, and differ from one pillar to another, this Guide will first describe opportunities for Canadians to participate in the pillar **Excellent Science** [Chapter III] and then, in Chapter IV, introduce opportunities in the **Industrial Leadership** and **Societal Challenges** pillars. In each chapter, it will outline the steps to take for successful preparation of an application and management of a project for the relevant funding instruments.

Up-to-date information on "open", "closed" and "forthcoming" Calls for Proposals for all H2020 Work Programmes is available on the Research and Innovation Participant Portal [See below for detailed information about the Portal].

3. Ground Rules: Participation, Funding & Intellectual Property

3.1 Participation

Organizations and researchers from around the world, in all sectors, can participate in



Horizon 2020 projects. However, eligibility for funding from the European Commission differs by country:

Member States: Organizations and researchers from European Union Member States (MS) and their overseas countries and territories are fully eligible for financial support.

Associated Countries: Associated Countries (AC) are not members of the European Union but make a financial contribution to the Framework Programme equivalent to that of a Member State. Organizations and researchers from Associated Countries are fully eligible for financial support.

Third Countries: Third Countries (TC), like Canada, are not members of the European Union and do not contribute financially to the Framework Programme. They are divided into two distinct groups in Horizon 2020.

International Cooperation Partnership Countries: These are 138 developing countries whose researchers are eligible for varying levels of EC support.

Industrialized Countries: These are developed countries, like Canada, whose researchers are not eligible for EC support except in certain circumstances.

Please find a list of EU Member States, Horizon 2020 Associate Countries and Third Countries (International Cooperation Partnership Countries and Others) in Annex III.

3.1.1 Language of Participation

The European Commission has 24 official working languages and all EU citizens have the right to all EC documents in the official working language of their choice. However, to reduce costs, the EC is increasingly trying to operate in English, French or German. The majority of Framework Programme documents and web pages produced are exclusively in English.

3.2 EC Funding

The European Commission funds researchers in industrialized third countries, like Canada, in the following circumstances:

- + **Industrial Leadership and Societal Challenges: Research and Innovation Actions (RIA), Innovation Actions (IA) and Coordination and Support Actions (CSA)**
Canadians are eligible for support only if they request funding in the application (a request cannot be made after a proposal is submitted or after it receives funding) and only if the peer review committee deems their participation essential to the project's success. To make such a request, Canadians must have the approval of all 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 kind of scientific and innovative contribution. See Chapter IV for more detailed information.

In FP7, the European Commission funded 75 Canadian researchers. 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.

On rare occasions, the European Commission will also specify in the description of a particular topic that Canadians are eligible for funding.

- + **Excellent Science: European Research Council (ERC)**
Canadian researchers are eligible to hold *ERC Starting, Consolidator* or *Advanced Grants* that provide up to five years of support for outstanding researchers, and their research teams, and allow them to spend up to 50 per cent of their time outside Europe. They may also spend these funds outside Europe when that is required to advance their research. See Chapter III for more details.
- + **Excellent Science: Marie Skłodowska Curie Actions (MSCA)**
There are a number of different MSCAs presenting different opportunities for Canadian researchers and research organizations.

Individual Fellowships. There are two types. *European Fellowships* offer Canadians with a PhD full funding for advanced research training in Europe for up to two years (including travel, accommodation and salary). *Global Fellowships* offer similar support for European researchers (often postdoctoral fellows) for advanced research training at Canadian institutions. In these cases, Canadian institutions are also eligible for funding from the project coordinator (the Fellow's home institution in Europe) to cover training, consumables, management and overhead costs.

Through participation in the *Research and Innovation Staff Exchanges (RISE)* scheme and the *Innovative Training Network (ITN)* scheme, Canadian research institutions may also host Europeans, and receive funding from the project coordinator, on the basis of a bilateral partnership agreement, for costs associated with particular activities or events such as distance learning, field research, workshops, conferences and summer schools. See Chapter III for more detailed information on MSCAs.

Eligible expenses: Most Horizon 2020 funding instruments include support for direct costs including actual personnel costs (for eligible researchers, innovators and staff) and other direct costs (for travel, subsistence, equipment and materials) as well as a contribution towards indirect costs calculated as 25 per cent of all direct costs (personnel and other).

Payments are made exclusively in Euros. Canadian participants may choose to calculate the **exchange rate** on all eligible expenditures using the rate published by the European Central Bank on the day that they occurred or on the day following each reporting period.

3.3 Canadian Funding

In most cases, Canadians will participate in Horizon 2020 projects without receiving funding from the European Commission. They must cover their own personnel costs and other expenses from Canadian funds. The EC is not concerned with the source of

Canadian funds. Peer review committees will assume that such funding is secured or will be secured prior to the start of a project whether this is established or not. As a result, Canadian participation adds to the quality of a proposal.

However, as full partners in a project, Canadians not receiving EC funding will nonetheless be required to sign the project's **Grant Agreement** with the European Commission. In these cases, Canadians must insist that the Commission, coordinator and other beneficiaries insert the appropriate texts [indicated below] in the following Articles of the Grant Agreement so that they are exempt from certain legal and financial obligations.

Article 9: 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. See Annex V for legal text.

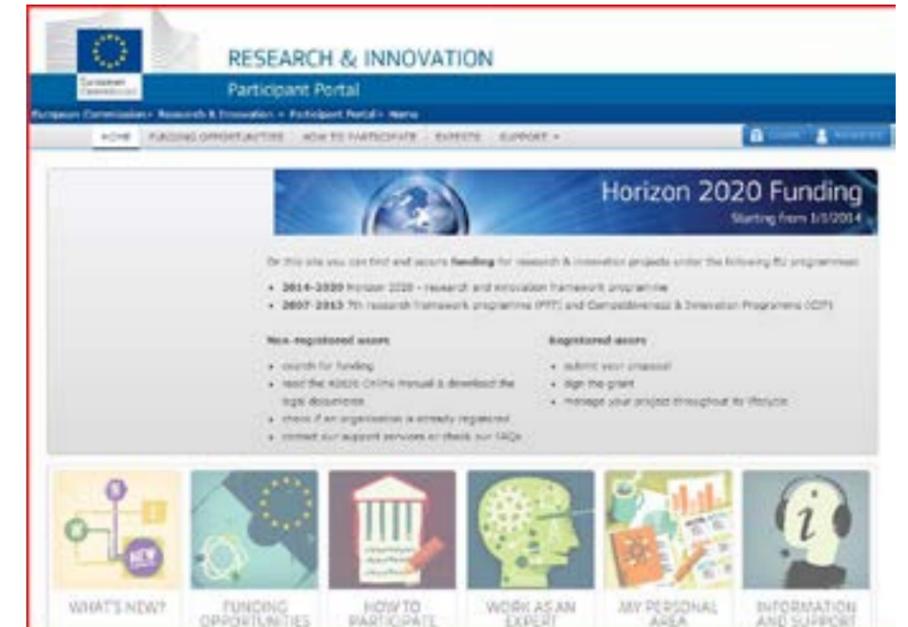
Article 57.2: Inclusion of the appropriate text will exempt entities in third countries that do not receive an EC financial contribution and cannot, for reasons of domestic law, be subject to foreign courts, from the jurisdiction of the General Court or the Court of Justice of the European Union. Most often, this applies only to Government of Canada entities. See Annex VI for legal text.

3.4 Intellectual Property Rights

The General Grant Agreement for Horizon 2020 projects sets out minimum requirements governing the management of intellectual property. It asserts 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 separate Consortium Agreement, between themselves [excluding the EC], 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, must negotiate and abide by the Consortium Agreement.

For more information on the management of intellectual property and the Consortium Agreement, please see page 61 and pages 66-68.

1. Finding Key Information



1.1 Research and Innovation Participant Portal

<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

The Research and Innovation Participant Portal is the main gateway to Horizon 2020, where researchers and innovators can find opportunities for funding, support services, reference documents and the “H2020 Online Manual.” It is a user-friendly platform for everything from finding partners and projects to preparing, submitting and managing projects. It has both public and secure sections. In the public section you will find:

- + **Funding Opportunities:** Find all Horizon 2020 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 Programme and other information for applicants. Topics/open calls are searchable by status [open or closed or forthcoming], title [keyword], research area, publication date and deadline date as well as by the cross cutting priorities addressed.
- + **How to Participate:** Access the comprehensive **H2020 Online Manual** that describes how to find a call, find a partner, create an account, register an organization, prepare and submit a proposal.
- + **Reference Documents:** Download all or sections of the Model Grant Agreement, **H2020 Grants Manual**, as well as all official documents establishing and governing the Framework Programme.



- + **Beneficiary Register:** Find organizations participating in Horizon 2020 or register an organization before joining a project proposal.
- + **Expert Database:** Register as an expert evaluator for Horizon 2020
- + **Support:** Find links to the Horizon 2020 Helpdesk, the IT Helpdesk, a Glossary of terms and FAQs as well as links to support organizations such as Horizon 2020 National Contact Points (NCPs) and the Enterprise Europe Network (EEN). For more information on NCP and EEN see pages 22-23 and pages 69-73 below.

The secure area of the Participant Portal is where organizations establish their accounts with the European Commission [see section 2.1 below], where they register, where they can submit proposals and where projects are managed (from submission forms to scientific and financial reports, everything is submitted electronically). The first step towards participating in a Horizon 2020 project is to open an account and ensure that your organization is registered.

1.2 Horizon 2020 Website

<http://ec.europa.eu/programmes/horizon2020/en>

The Horizon 2020 website describes the policies and programme architecture shaping Horizon 2020:

- + **Programme Information:** A unique feature of the website. Find information on EU policy priorities as well as the program architecture and objectives of each Pillar. See all official documents creating Horizon 2020.
- + **Find your area:** A unique feature of the website. See how each thematic research area is addressed in the Horizon 2020 programme architecture.
- + **Events:** Find information on research conferences and networking opportunities.
- + **News:** Find Programme updates and articles about Horizon 2020 research

1.3 CORDIS Website

http://cordis.europa.eu/home_en.html

The “Community of research and development information system” (CORDIS) website provides access to news and information on all European Framework Programmes. Most importantly, it is a gateway to:

- + **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 variables. Find grant details, funding, participants, publications and summaries.
- + **Research Partners:** A unique feature of the website. Follow this tab to a



CHAPTER II

searchable database of thousands of European and international researchers seeking partners. Canadians can submit their own profiles too. The database is searchable by area of expertise, country and call for proposal.

- + **Events:** Find information on research conferences and networking opportunities.
- + **News:** Find Programme updates and articles about Horizon 2020 research.

2. Using the Research and Innovation Participant Portal

2.1 Information and Assistance

2.1.1 How to Participate

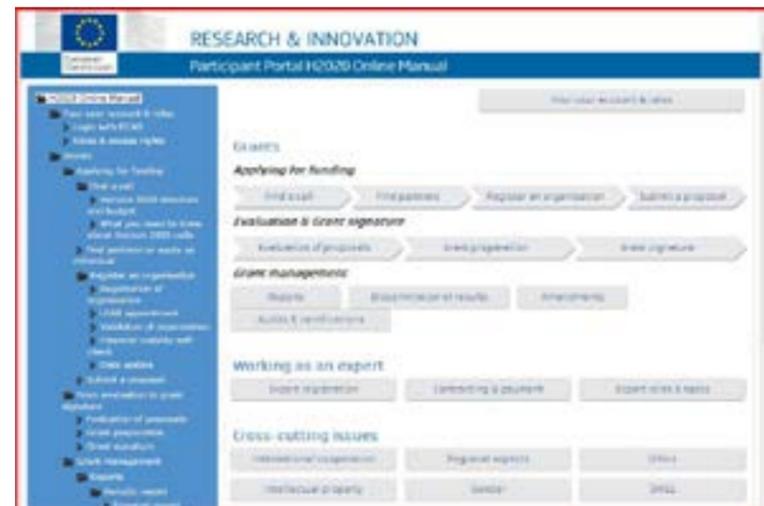
By selecting the “How to Participate” tab on the Participate Portal “Home” page, researchers and innovators are directed to a page that provides easy access and instructions for using key parts of the portal [see screen shot]:

- + Create an Account
- + Register an Organization
- + Find Partners
- + Find a Call for Proposals
- + Submit a Proposal



2.1.2 Online Manual and Reference Documents

From the page below, researchers and innovators can access the comprehensive user-friendly Online Manual (see screen shot below) and reference documents for all parts of Horizon 2020.



2.1.3 Support

The “Support” tab on the Participant Portal “Home” page, provides access to the Horizon 2020 Helpdesk, the IT Helpdesk, a Glossary of terms and FAQs as well as links to support organizations such as Horizon 2020 National Contact Points (NCPs) and the Enterprise Europe Network (EEN). For more information on NCP and EEN see Chapter V, 69–73 below.

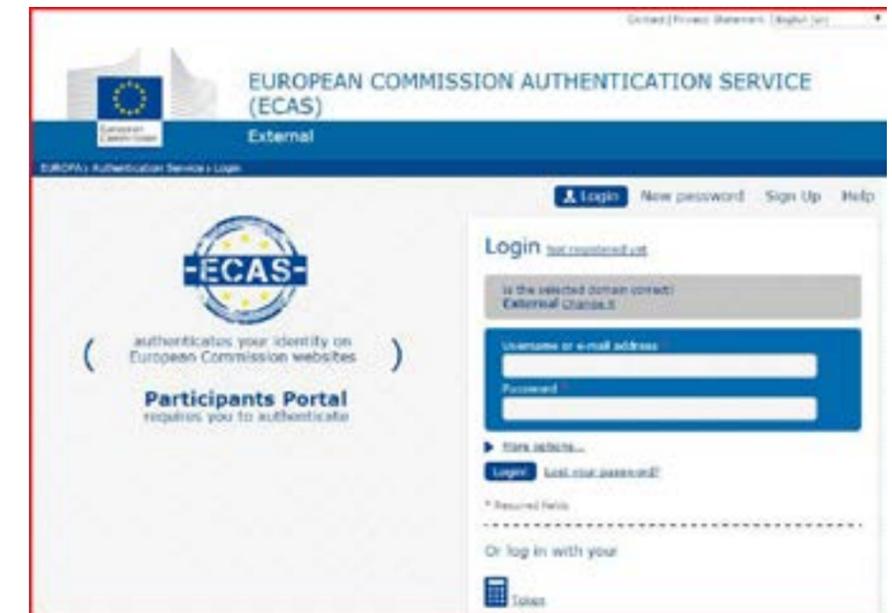
2.2. Opening an Account

2.2.1 Individuals: European Commission Authentication Service (ECAS)

<https://webgate.ec.europa.eu/cas/eim/external/register.cgi>

To enter the secure area in the Participant Portal, a person must first open an account with the European Commission Authentication Service (ECAS). The service acts as a firewall for the Participant Portal. Anyone may establish an account with ECAS and enter the Participant Portal. There is no limit on 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 Participant Portal (see screen shot above) and enter 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 Participant Portal and select “Login.” You will be directed to the page in the screen shot 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 Participant Portal. This is the main gateway for registered people and organizations to the Portal.



Once logged into the Participant Portal, one should complete the user account by identifying the organizations and/or proposals and projects with which they are associated and then establishing their role or roles in these.

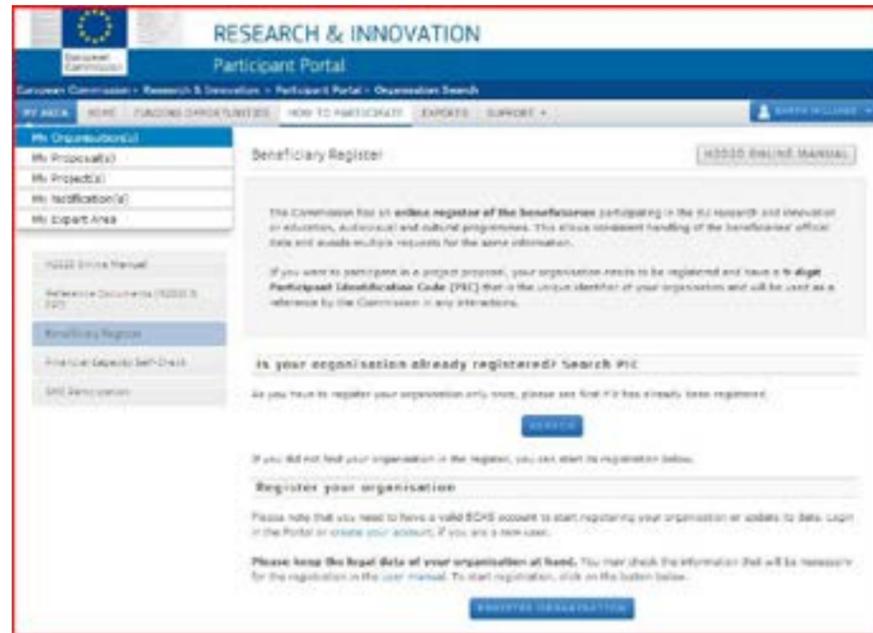
2.2.2 Registering an Organization (Legal Entity)

2.2.2.1 Participant Information Code (PIC)

https://ec.europa.eu/research/participants/portal4/desktop/en/organisations/register_sec.html

To participate in a Horizon 2020 project, a researcher must be associated with a particular organization or legal entity that is registered with the European Commission. Once registered, **organizations 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 organization and associated researchers.

If an organization has previously signed an FP7 Grant Agreement, then it already has a PIC. If this is the case, then a researcher should contact the appropriate person or office within the organization [e.g. Office of Research Services, Office of International Research] to obtain the PIC. Alternatively, they can query the online PIC database by selecting the “Beneficiary Register” in the Participant Portal (highlighted in blue on the left side in the screen shot below) or by following the link above.



If an organization does not have a PIC, it must obtain one by registering in the Organization Register. It is hosted within the Participant Portal and can be accessed by selecting “Beneficiary Register.” 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 Organizations” in the Participant Portal (highlighted in dark blue on the left side in the screenshot above). Once complete, a provisional PIC will be provided electronically within 48 hours.

Please note that, only if a proposal is successful, will the Commission proceed with the validation of all information in the Organization Register, and provide a definitive PIC. 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. Please see chapter IV, page 58 for more information.

2.2.2.2 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 about 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 Participant 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.

An organization may start the process of appointing a LEAR as soon as the Commission Validation Services have requested the necessary documents. These must be duly completed by the LEAR, authorized by the organization and hard copies sent to:

European Commission
Research Executive Agency
H2020 Support (A1)
COV2 13/132
B-1049 Brussels
Belgium

Upon receipt of approved documents, the Commission will confirm the appointment by electronically providing the LEAR with a PIN Code.

2.2.2.3 Other Organizational and Project Roles

In the *My Organization* section of the Participant Portal (see below), the LEAR may appoint and remove individuals to and from specific roles in (a) the organization or (b) a project.

(a) Organizational roles:

- + Self-Registrant: The first person to register an organization. Their role is revoked when a LEAR is named.
- + Account Administrator: An individual designated by the LEAR to carry out the tasks of the LEAR. Unlimited number.
- + Legal Signatory (LSIGN): An individual designated by the LEAR or Account Administrator to sign legal documents. They may be assigned to a particular project (PLSIGN). Unlimited number.
- + Financial Signatory (FSIGN) An individual designated by the LEAR or Account Administrator to sign financial documents. They may be assigned to a particular project (PFSIGN). Unlimited number.

(b) Project roles:

- + Primary Coordinator Contact (PCoCo): The individual who is the main point of contact between a consortium and the Commission. They are usually the project initiator. One per project.
- + Coordinator Contact (CoCo): An individual appointed by the Primary Coordinator Contact to carry out some or all of their tasks. Unlimited number.
- + Participant Contact (PaCo): The individual who is the main point of contact for an organization in a given project. They may appoint LPSIGN and FPSIGN for their project. Unlimited number.
- + Task Manager (TaMa): An individual assigned to work on specific tasks in a project. Unlimited number.
- + Team Member (TeMe): An individual who can access project information (read-only).

2.3 Serving as an Expert (Peer Review / Project Monitoring)

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 2020 Advisory Groups]. 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.

Experts are entitled to a fee of approximately €450 for each full day worked and to the reimbursement of travel and subsistence costs, if needed. 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 "My Expert Area" in the Participant Portal [on the left side in the screen shot above].

2.4 Finding Partners / Being Found [Partner Search]

Participating in a Horizon 2020 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 2020 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 2020 projects.

But because most Horizon 2020 projects require at least three European partners from three different Member States or Associated Countries, 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. See: <https://cordis.europa.eu/partners/web/guest/home>
- + **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 CORDIS 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 variables. See: http://cordis.europa.eu/projects/home_en.html
- + **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. In formation on these events is available on the CORDIS website at: http://cordis.europa.eu/home_en.html

- + **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 and can be contacted directly by Canadian researchers seeking potential partners. See the searchable database of NCP at: https://ec.europa.eu/research/participants/portal4/desktop/en/support/national_contact_points.html

Thematic NCP networks across Europe also maintain searchable and quality controlled subject specific databases, with dedicated information and support services, in the following fields:

Biotechnology: <http://biocircle-project.eu/partner-search.aspx>

Health: <http://www.fitforhealth.eu/>

ICT: <http://www.ideal-ist.eu/partner-search/pssearch>

Nanotechnologies: <https://www.nmp-partnersearch.eu/index.php>

Pharmaceuticals: <https://cloud.imi.europa.eu/web/eimi-pst>

Environment: <http://www.irc.ee/envncp/?page=search>

Transport: <http://www.transport-ncps.net/services/partner-search.html>

SSH: <http://net4society.eu/public/pss.php>

Space: <http://www.fp7-space.eu/fp7-space-info-16.phtm>

Security: <http://www.seren-project.eu/index.php/partner-search-support>

Canada has NCPs in the following areas. For contact information, see pages 70-72 below.

- Biotechnology
- Information and Communications Technologies
- Health
- Space
- Training and Career Development

- + **Enterprise Europe Network (EEN)** brings together almost 600 business support organizations in more than 50 countries – including Canada – to assist any company that wants to apply for Horizon 2020 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/>

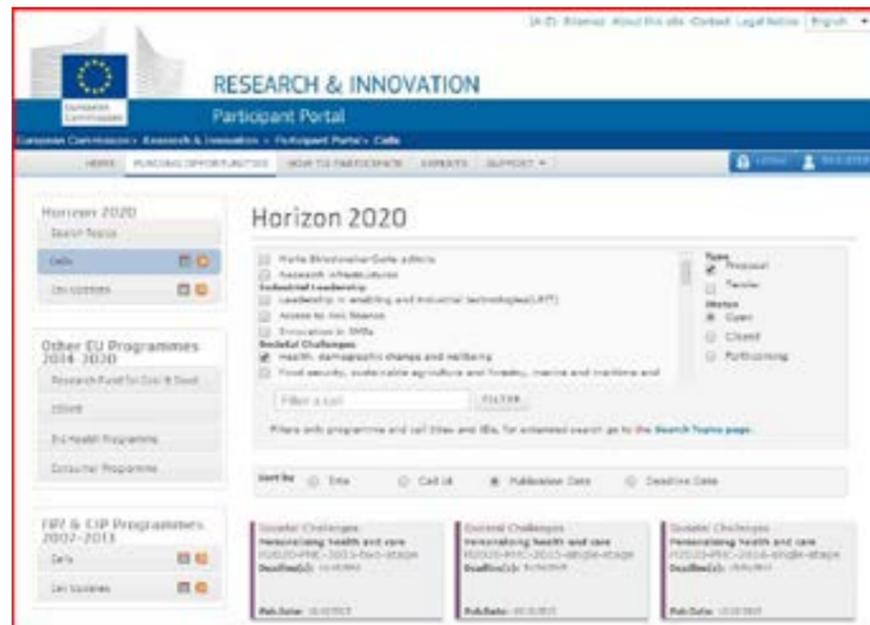
EEN maintains searchable and quality controlled profiles of international companies and research organisations available for business, innovation and technology cooperation. See: <http://een.ec.europa.eu/services/going-international>

Canadian Manufacturers and Exporters is the EEN member in Canada. For more information see EEN-Canada at: <http://www.een-canada.ca/>

2.5 Finding a Call for Proposals / Research Topic

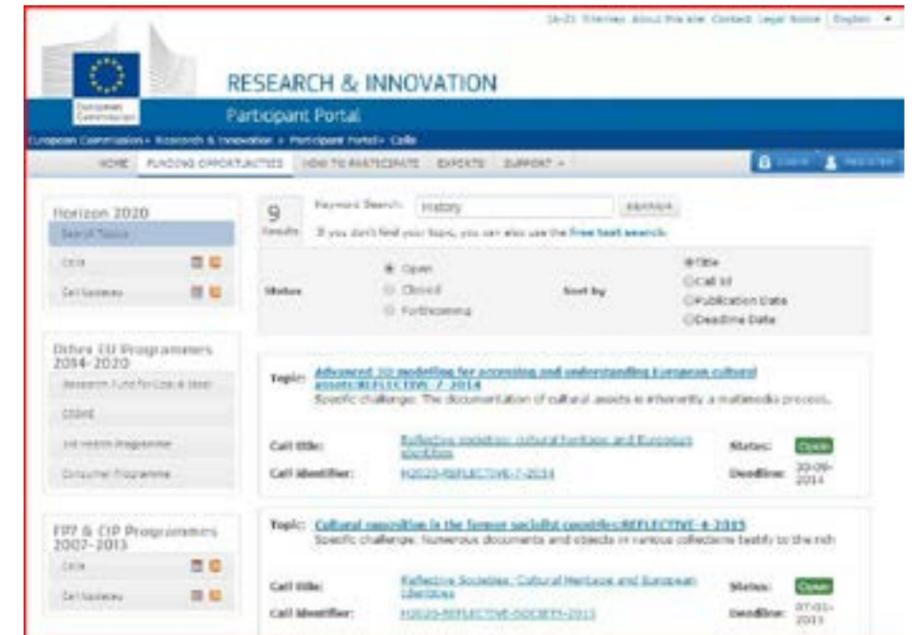
The Research and Innovation Participant Portal, provides two ways for researchers and innovators to find Calls for Proposals and Topics of interest.

2.5.1 Search Calls for Proposals



In the tab, "Funding Opportunities," researchers and innovators can select "Calls" [highlighted in blue on the left in the screen shot above]. In the example above, a researcher has asked for "open" calls in the specific activity for "Health, Demographic Change and Well-Being." Three Calls are identified at the bottom of the screen shot. By clicking on the Call for Proposals, the researcher is taken to a page that lists all of the Topics in that Call for Proposals.

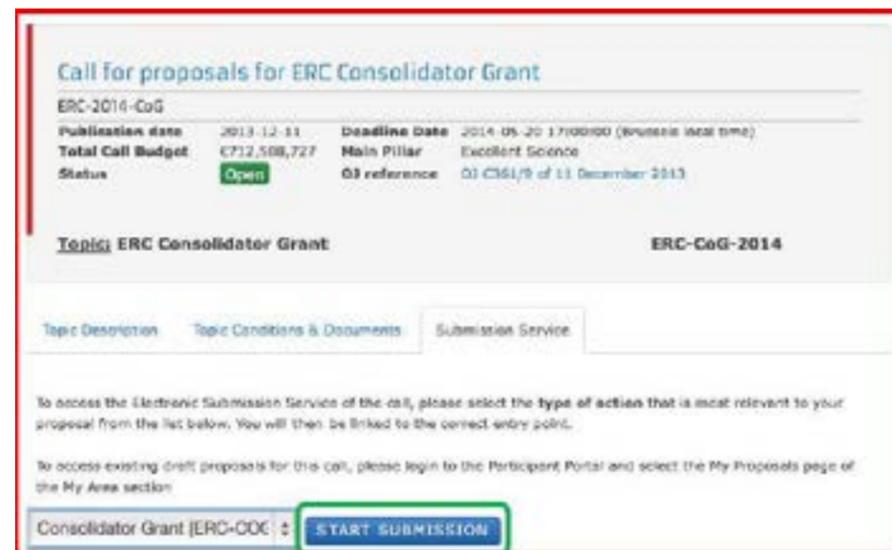
2.5.2 Search Topics



In the tab, "Funding Opportunities," researchers and innovators can also select "Search Topics" [highlighted in blue on the left in the screen shot above]. In the example above, a researcher has entered the keyword "history" and found nine relevant Topics. By clicking on the Topic, the researcher is taken to a page that includes three tabs:

- + Topic Description
 - Specific Challenge
 - Scope
 - Expected Impact
 - Type of Action [Funding Instrument]
- + Topic Conditions and Documents
 - Eligibility
 - Evaluation
 - Timetable
 - **Provisions, Proposal Templates and Evaluation Forms** for the Types of Actions [Funding Instruments] used for this Topic. *For Marie Skłodowska-Curie Actions, this section is replaced by a **Guide for Applicants**.*
- + Submission Service
 - A direct link to the electronic application system for this Topic.

2.6.1 Electronic Submission System



All proposals for H2020 projects must be submitted through the Electronic Submission System in the Research and Innovation Participant Portal. Proposals for a given Topic can only be opened in the system by the proposal coordinator (or the sole applicant for ERC and certain MSCA grants) and only through a link in the tab “Submission Service” within the Topic description [See the screen shot above].

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 Research and Innovation Participant Portal [see below].

The Electronic Submission System guides applicants through the preparation of a proposal. As the preparation and evaluation of Horizon 2020 grants varies with the type of funding instrument employed, these topics will be addressed in the subsequent chapters.

2.7.1 My Organizations

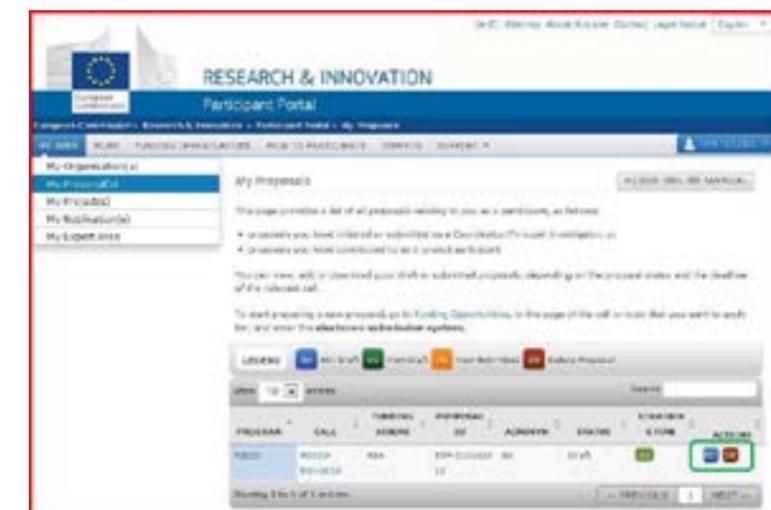


By selecting “My Organizations” in the Participant Portal, researchers and innovators will be able to use the coloured buttons [see screen shot above] to view and modify organization information, see the roles of individuals associated with their organization as well as all the proposals and projects in which the organization is involved.

2.7.2 My Proposals

Reference: User Guide to the Electronic Submission Service

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



By selecting “My Proposals” in the Participant Portal, researchers and innovators will be able to use the coloured buttons [see screen shot above] to edit and view draft proposals, view submitted proposals and delete proposals in the Electronic Submission Service. Please see chapters III and IV for more information regarding the preparation and evaluation of proposals.

2.7.3 My Projects



By selecting “My Projects” in the Participant Portal, researchers and innovators will be able to use the coloured buttons [see screen shot above] to see their own roles in the project and link to partner organizations; access “negotiation” of the Grant Agreement with the European Commission and any Amendments; manage the project, submit and view reports and deliverables; and submit and review periodic, financial and final reports. Please see Chapter IV for more information regarding project management in Horizon 2020.

1. Fundamental Research and Innovation

Excellent Science, the first pillar of Horizon 2020, aims to reinforce and extend the excellence of European research and innovation by investing in four 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, the development of future and emerging technologies 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 has established specific programs, each with a number of different funding instruments, to support these four 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. Future and Emerging Technologies (FET) supports collaborative research across disciplines on radically new, high-risk ideas and accelerate development of the most promising emerging areas of science and technology.
3. Marie Skłodowska-Curie Actions (MSCA) provides innovative research training as well as opportunities for cross-border and cross-sector mobility.
4. Research Infrastructure (including e-infrastructures) aims at further developing European research infrastructure for 2020 and beyond.

The deliberate internationalization of these activities, and the commitment to supporting investigator-driven research throughout, makes them particularly flexible and accessible vehicles for Canada-EU collaboration.

2. Opportunities for Canadians

2.1 European Research Council (ERC)

Budget: €13.095 billion (2014-20)

Website: <http://erc.europa.eu/>

The ERC supports investigator-driven frontier research in all fields on the basis of scientific excellence alone.¹ It funds outstanding individuals and supports them in establishing research teams that advance frontier research in their field. The Council awards four types of grants (covering 100 per cent of direct costs and 25 per cent of indirect costs to the maximum allowed):

¹ The ERC has established the following indicative percentage budgets for each of the three main research domains: physical sciences and engineering – 44 per cent; life sciences – 39 per cent; social sciences and humanities – 17 per cent.



ERC Starting Grant: Top early-career researchers [2-7 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 €500,000 to cover start up costs. Approximately 375 awards annually.

ERC Consolidator Grant: Excellent independent researchers [7-12 years after PhD] are eligible for up to €2.75 million for a period of 5 years. Researchers coming from outside Europe may request an additional €750,000 to cover start up costs. Approximately 400 awards annually.

ERC Advanced Grant: Senior researchers with significant achievements in the last 10 years are eligible for up to €3.5 million for a period of 5 years. Researchers coming from outside Europe may request an additional €1 million to cover start up costs. Approximately 450 awards annually.



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 anywhere in the world.
- + Principal investigators are required only to spend a minimum of 50 per cent of their work time on the project and a minimum of 50 per cent of their work time in a EU Member State or Associated Country. They can spend the other half of their 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.

2.2 Future and Emerging Technologies (FET)

Budget: €2.696 billion (2014-20)

Website: <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/future-and-emerging-technologies>

The Future and Emerging Technologies specific programme supports research projects and coordination activities on radically new, high-risk ideas that accelerate development of the most promising emerging areas in science and technology. It includes three complementary funding opportunities that address different methodologies, scales and stages of research, from new ideas to long-term challenges. Each provides funding through a combination of research and innovation actions (RIA) and coordination and support actions (CSA). These funding instruments are described in detail in Chapter IV, Section 1.1, pages 40-41.

FET Open: Supports early-stage research on novel ideas for radically new technologies.



CHAPTER III

It represents 40 per cent of the overall FET budget.

FET Proactive: Supports and structures research communities around promising exploratory research themes. The 2014-15 Work Programme focuses on:

- + *Global Systems Science (GSS)*, to help integrate data on social, economic, financial, technological and ecological systems and elaborate societal responses across policy domains and authorities
- + *Knowing, doing and being: cognition beyond problem solving*, to establish new foundations for future robotics and other artificial cognitive systems
- + *Quantum simulation*, to contribute to problem solving in fundamental and applied science using new tools based on quantum physics and quantum technologies
- + *Towards exascale high-performance computing (HPC)*, to deliver a broad spectrum of extreme scale HPC systems and develop a sustainable European HPC Ecosystem

FET Flagships: Support ambitious, large-scale, long-term, science-driven, goal-oriented, roadmap-based research initiatives tackling grand challenges in science and technology. They are expected to provide transformational impact, lead to novel innovation clusters and facilitate the alignment of national and regional research efforts. The 2014-15 Work Programme will support Flagships in 'Graphene'² and the 'Human Brain Project'³ (HBP).



Opportunities for Canadians: Canadians are welcome to participate in FET projects on a self-funded basis. They are eligible for EC support only if they request funding in the application 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 [See Chapter I, Section 3.3 and/or Chapter IV, Section 2, page 42].

2.3 Marie Skłodowska-Curie Actions (MSCA)

Budget: €6.162 billion (2014-20)

Website: <http://ec.europa.eu/research/mariecurieactions/>

Marie Skłodowska-Curie Actions (MSCA) support initial and long-term training as well as career development for researchers, with a focus on innovation skills, in all scientific disciplines through worldwide and cross-sector mobility. They include grants for individual researchers at all stages of their careers and for organizations in all sectors providing advanced research and innovation training. There are four specific funding

² <http://www.graphene-flagship.eu/>

³ <https://www.humanbrainproject.eu/>

2.3.1 Individual Fellowships (IF):

Individual Fellowships (IF) support experienced researchers moving between Member States, Associated Countries and Third Countries (like Canada) or between sectors for advanced research and innovation skills training. **Experienced researchers** are those holding a doctoral degree or four years of full-time research experience after obtaining a degree that would allow them to enter a PhD programme (usually a Master's degree, in Canada). The researcher must not have resided, worked or studied in the country of the host organisation for more than 12 months in the 3 years immediately prior to the deadline for submission of proposals. Compulsory national service and/or short stays such as holidays are not taken into account. IF are divided into two types: European Fellowships and Global Fellowships.

European Fellowships are open to experienced researchers from any country. They support advanced "training-through-research" for periods from 12 to 24 months at qualified European host organizations (either academic or non-academic). Researchers write their proposals in consultation with their supervisors at their host institutions in Europe. But it is the supervisor who will formally submit the application online and, if successful, will become the project coordinator. The Fellowships provide monthly living (€4,650), mobility (€600) and family (€500) allowances for the researcher and monthly compensation for their host institution for training and networking costs (€800) as well as management and indirect costs (€650).

Global Fellowships function in the same way but include support for an initial 12 to 24 month secondment for training at a "partner organization" outside Europe followed by a mandatory 12 month training period at the European host organization

Opportunities for Canadians: European Fellowships may be attractive for postdoctoral or more senior Canadian researchers seeking positions and advanced research and/or innovation training in Europe.⁴ 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 Europe.⁵

Global Fellowships may be attractive for Canadian institutions as they provide full funding (salary, travel and accommodation) for postdoctoral or more senior European researchers to receive training and conduct research for one to two years in Canada. Moreover, Canadian institutions are not required

Global Fellowships may be attractive for Canadian institutions as they provide full funding (salary, travel and accommodation) for postdoctoral or more senior European researchers to receive training and conduct research for one

⁴ Please note that European 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).

⁵ 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.

to two years in Canada. Moreover, Canadian institutions are not required to submit a proposal, sign a grant agreement or administer the award yet 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," detailing financial and training provisions, with the European "host" institution.

2.3.2 Innovative Training Networks (ITN)

Innovative Training Networks (ITN) support joint research training and/or doctoral programmes implemented by partnerships of academic and non-academic organizations.⁶ They include **European Training Networks** that provide innovative research training that includes experience outside academe; **European Industrial Doctorates**, in which non-academic organisations and universities have equal roles in training and supervising candidates; and **European Joint Doctorates** delivered by several universities from Europe and around the world.

The size of the network and the award depend on the nature and scope of the training activities involved. Grants are awarded for periods of 3-36 months and provide three or more European organizations (in three or more Member States/Associated Countries) with funding for the salary of *early-stage researchers* (those having completed a degree making them eligible for a doctoral programme: €37,320 per year with a mobility or housing allowance (€600 per month with an additional €500 per month for those with families). They also include a management allowance (€1,200 per researcher per month) and a research, training and networking allowance (€1,800 per researcher per month) for the "host" European institutions.

Opportunities for Canadians: Canadian institutions may participate as additional "partner" organizations in all ITN grants. They do not sign the Grant Agreement, do not receive funding from the Commission and are not eligible to recruit doctoral students. However, their role is specified in the training plan and they are required to submit a "letter of commitment" with the proposal. They serve on the project's governing board and are eligible to receive funding from their European partners to cover the cost of delivering training modules in Canada (such as summer schools, workshops or distance training). European doctoral students in the network will be funded to participate in these activities that can also be open to Canadian students at "partner" organizations.

⁶ Academic organizations include: universities, public sector research institutions and others whose core business is research and research training. Non-academic organizations either do not have research as a core business or cannot issue a degree (including SMEs).

2.3.3 Research and Innovation Staff Exchanges (RISE)

Research and Innovation Staff Exchanges (RISE) aim to strengthen international and inter-sector cooperation by supporting the development of research and innovation partnerships through a coordinated programme of short-term secondments of staff between academic and non-academic organisations in and outside Europe. “Staff” may be at any stage in their careers, from the most junior (post-graduate) to the most senior (management), including administrative, management and technical personnel. In international partnerships, exchanges may occur between sectors or exclusively between universities.

The size of the award depends on the number and duration of the exchanges (up to a maximum of 540 person months per project, individual secondments can last up to 12 months). Grants are made for periods up to 48 months and provide funding for European organizations in partnerships that must include a minimum of two European and one international organization. It is expected that all organizations will continue to pay staff salaries during the exchanges. The Grant will cover top-up funds for staff on secondment (€2,000 per person per month) as well as a management allowance (€700 per person per month) and a research, training and networking allowance (€1,800 per person per month) for European organizations.



Opportunities for Canadians: Canadian institutions may participate as “partner” organizations in RISE Grants. They do not sign the Grant Agreement and do not receive funding from the Commission. However, they are required to submit a “letter of commitment” with the proposal and serve on the governing board. By participating they have an opportunity to develop new or existing partnerships and to host fully funded European research and innovation staff for work on common projects. They must provide funding for travel and subsistence of Canadian staff seconded to European organizations.

2.3.4 EURAXESS

EURAXESS is a pan-European initiative, managed through a unique Web Portal (<http://ec.europa.eu/euraxess/>), that 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. These are highlighted for Europeans in the EURAXESS “Links North America” section. See: <http://ec.europa.eu/euraxess/index.cfm/link>

2.4 European Research Infrastructures including e-Infrastructures

Budget: €2.488 billion euro (2014-20)

Website: <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/european-research-infrastructures-including-e-infrastructures>

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 Innovation (ESFRI) roadmap, considerable progress has been made towards integrating and opening national research facilities and developing e-infrastructures underpinning a digital European Research Area.

Horizon 2020 continues these efforts with funding for activities that aim at:

- + Developing European Research Infrastructures for 2020 and Beyond
- + 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 posted on the Participant Portal.



3. Proposal Preparation and Evaluation / Grant Preparation and Management

Electronic Submission System

Reference: User Guide to the Submission Service:

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

All proposals for H2020 projects must be submitted through the Electronic Submission System in the Research and Innovation Participant Portal. Proposals for a given Topic can only be opened in the system by the project coordinator [or the sole applicant for ERC and certain MSCA grants] and only through a link in the tab “Submission Service” within the Topic description [See chapter II, page 25].

Once the proposal is opened, the coordinator can add partners to the proposal by entering their PIC number [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 Research and Innovation Participant Portal [see chapter II, pages 26-27].

The Electronic Submission System guides applicants through the preparation of a proposal. As the preparation and evaluation of Horizon 2020 grants varies with the type of funding instrument employed, this chapter will focus on the processes implementing the funding instruments used by the European Research Council and the Marie Skłodowska Curie Actions. The funding instruments used by the Future and Emerging Technologies and Research Infrastructures are similar to those employed by the specific programmes in the Industrial Leadership and Societal Challenges pillars explained in Chapter IV.

3.1 European Research Council (ERC)

Proposal Preparation

Starting, Consolidator and Advanced Grant proposals are prepared and submitted by the Principal Investigator in association 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: 15 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 high-level panel of 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 50. 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.

- + *At step one* [1] the extended synopsis and the Principal Investigator’s track record and CV will be assessed [not the full scientific proposal].
- + *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 Brussels 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 taken into account 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 groundbreaking or “frontier” research however 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 groundbreaking 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 2020 grants and is described in Chapter IV below [except that no Consortium Agreement is required]. See pages 50-54 and 57-60. Please note, however, that the ERC employs a unique Grant Agreement, that differs in certain respects, from the Model Grant Agreement for Horizon 2020.

The ERC Grant Agreement for multi-beneficiary and mono-beneficiary projects are located at: http://ec.europa.eu/research/participants/data/ref/h2020/mga/erc/h2020-mga-erc-multi_en.pdf
http://ec.europa.eu/research/participants/data/ref/h2020/mga/erc/h2020-mga-erc-mono_en.pdf

3.2 Marie Skłodowska-Curie Actions (MSCA)

Proposal Preparation

- + Proposals for *Individual Fellowships* – both *European Fellowships* and *Global Fellowships* – are prepared and submitted by a designated supervisor at the intended European host institution in liaison with the experienced researcher seeking the Fellowship. The supervisor is a scientist appointed by the institution to oversee the researcher throughout the project. She or he is the main contact person for the European Commission.
- + *ITN* and *RISE* applications are prepared by all project partners and must be submitted by a coordinator employed at a Member State or Associate Country institution.
- + 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 Research and Innovation Participants Portal. 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:

Proposal Part A:

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 RISE applications].

Note: For IF and ITN proposals, the application system will automatically calculate an indicative budget based on the information provided.

Proposal Part B:

List of participants

1. Summary
2. Excellence
3. Impact
4. Implementation
5. CV of the experienced researcher [IF]; References [ITN]; [not required for RISE applications]
6. Capacities of the participating organisations
7. Ethical aspects
8. Letters of commitment of partner organisations

Note: For IF proposals, space is limited to ten pages for sections 1-4. For ITN and RISE proposals, space is limited to 30 pages for sections 1-4.

Evaluation Procedure

Each MSCA proposal is peer reviewed by a panel of experts in one of eight major areas of research: Chemistry [CHE]; Economic Sciences [ECO], Information Science and Engineering [ENG]; Environment and Geo-Sciences [ENV]; Life Sciences [LIF]; Mathematics [MAT]; Physics [PHY]; Social Sciences and Humanities [SOC]. Applicants chose the panel to which their proposal is submitted and provide keywords to identify the most appropriate disciplinary experts in each area to review their proposal. There is no predefined budget allocation among the panels. The budget for each action will be distributed across the subject areas based on the proportion of eligible proposals received.

Peer review is conducted in two phases. At the first stage, the European Commission will select at least three experts from the appropriate panel to review and score each proposal. At the second stage, the full expert panel will rank the proposals for funding.

Evaluation Criteria

At each stage in the evaluation process, MSCA proposals are assessed on the basis of three criteria: excellence (50 per cent), impact (30 per cent) and implementation (20 per cent). Applications must achieve a minimum score for each criteria and a minimum total score of 70 per cent in order to be approved at each stage.

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 coordinator will also negotiate an *Employment Contract* with the Fellow. These processes may require an additional two months. It is expected that work will begin within two to three months of completion of these agreements.

Management of a MSCA *Grant Agreement* is similar to that for other Horizon 2020 projects and is described in Chapter IV below. See pages 50-54 and 57-60.

Please note, however, that MSCA employs a unique Grant Agreement that differs in certain respects from the Model Grant Agreement for Horizon 2020. The MSCA Grant Agreement for Individual Fellowships is available at: http://ec.europa.eu/research/participants/data/ref/h2020/mga/msca/h2020-mga-msca-if-mono_en.pdf MSCA Grant Agreements for other MSCA actions are available on the Horizon 2020 Participant Portal.

CHAPTER IV STEP-BY-STEP: INDUSTRIAL LEADERSHIP AND SOCIETAL CHALLENGES

1. Policy-Driven Research and Innovation

Industrial Leadership and Societal Challenges, the second and third pillars of Horizon 2020, share a common **approach to research and innovation funding that is driven by the policy objectives of the European Union** set out in the “Innovation Union” flagship initiative of the “Europe 2020 Strategy” for economic growth and well-being.

These policy objectives are reflected in specific activities included in each pillar. A Work Programme, released every two years for each specific activity, sets out more detailed objectives. A number of “Calls for Proposals,” each including detailed **topics** for research corresponding to these objectives, are released each year for each specific activity.

1.1 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.

In the Industrial Leadership and Societal Challenges pillars, such instruments are most often Research and Innovation Actions (RIA) or Innovation Actions (IA) that both support collaborative projects or smaller scale Coordination and Support Actions (CSA) that support policy, community building or developmental initiatives.

1.1.1 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.
- + 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. 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%.
- + **Indirect Costs** or overhead costs. Funding Rate: The Commission will contribute 25 per cent of all direct costs (personnel and other) to indirect costs.

1.1.2 Innovation Actions (IA)

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.

1.1.3 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. 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.

2. Opportunities for Canadians

RIA, IA and CSA projects in both the Industrial Leadership and Societal Challenges pillars present two sorts of opportunities for Canadians.

Participation in International Research: First and foremost, Horizon 2020 is an 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 national, provincial, institutional and private sector sources to participate in any activity within Horizon 2020.

- + **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 funding is available for Canadians 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. Targeted opportunities for Canadians will be promoted through the ERA-Can+ project and prominently positioned on the project website. See: <http://www.era-can.net/>

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 FP7, the European Commission funded 63 Canadian researchers. 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.

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

2.1 Industrial Leadership

Industrial Leadership, the second pillar of Horizon 2020, is distinguished by its overarching aim to speed up the development of technologies and innovations that will underpin businesses in the future and help small and medium sized enterprises grow into international organizations. More than in any other part of the Framework Programme, activities engage businesses in setting and delivering the research and



innovation agenda. Activities are organized around three specific objectives:

- + **Leadership in enabling and industrial technologies (LEIT)** provides dedicated support for research, development and demonstration and, where appropriate, for standardization and certification, on information and communications technology (ICT), nanotechnology, advanced materials, biotechnology, advanced manufacturing and processing and space. Emphasis is placed on interactions and convergence across and between the different technologies and their relations to societal challenges. User needs are taken into account in all these fields.
- + **Access to risk finance** aims to overcome deficits in the availability of debt and equity finance for R&D and innovation-driven companies and projects at all stages of development. Together with the equity instrument of the Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME) [2014-2020] it supports the development of EU-level venture capital.
- + **Innovation in SMEs** provides SME-tailored support to stimulate all forms of innovation in SMEs, targeting those with the potential to grow and internationalize across the single market and beyond.

2.1.1 Leadership in Enabling and Industrial Technologies (LEIT)

Budget: €13.557 billion (2014-20)

Activities in the Leadership in Enabling and Industrial Technologies (LEIT) section will focus on the development of technologies underpinning innovation across a range of sectors:

- + **Information and Communications Technologies (ICT)**
- + **Key Enabling Technologies (KET)**
- + **Space.**

The Work Programmes for each sector have been developed with reference to relevant industrial roadmaps and seek the active engagement of industrial partners. Projects will be outcome oriented, developing key technology building blocks, bringing solutions closer to the market and paving the way for industrial and commercial implementation. A number of funding instruments beyond RIA, IA and CSA will be used to implement LEIT:

- + **Public Private Partnerships:** Public Private Partnerships (PPP) will be implemented through two distinct vehicles. The first, joint undertakings engaging public and private sector organizations, known as *Joint Technology Initiatives (JTI)*, have their own governance structures through which they pool public and private sector funds, **develop their own work plans and implement them through their own funding instruments.** At the launch of Horizon 2020, there are two JTI planned:
 - The Joint Technology Initiative on *Electronic Components and Systems for European Leadership (ECSEL)*. It will replace the two existing Joint Undertakings on embedded computing systems (ARTEMIS) and nano-electronics (ENIAC) set up under FP7.
 - A new JTI on *Bio-based Industries* will also be established.



The second vehicle, known as *Contractual Public-Private Partnerships (cPPP)*, will come together in response to dedicated calls for proposals. The ICT Work Programme will implement cPPP in [1] Robotics, [2] Photonics and [3] Advanced 5G Network Infrastructures while [4] Factories of the Future, [5] Energy Efficient Buildings and [6] Sustainable Process Industries (SPIRE) are found throughout a number of Work Programmes.

2.1.1.1 Information and Communications Technology (ICT)

The ICT-LEIT Work Programme focuses research and innovation activities in six main areas:

- + A new generation of components and systems
- + Advanced Computing
- + Future Internet
- + Content technologies and information management
- + Robotics
- + Micro- and nano-electronic technologies, Photonics

In addition, the Work Programme features several cross cutting topics: cyber-security, Internet of Things and research on a Human-centric Digital Age. All activities call for collaborative research and innovation projects (RIA) and are complemented with support for innovation and take-up, international cooperation and a dedicated action for SMEs.

2.1.1.2 Key Emerging Technologies (KET)

The Work Programme for Key Emerging Technologies (KET) will focus on developing European industrial capabilities in four sectors:

- + Nanotechnology
- + Advanced Materials
- + Advanced Manufacturing and Processing
- + Biotechnology

Activities of the work programme will be based on research and innovation agendas defined by industry and business, together with the research community, and have a strong focus on leveraging private sector investment. In addition, there will be a strong focus on the contribution of Key Enabling Technologies to societal challenges.

Contractual Public-Private Partnerships (cPPP) will also be used extensively for implementation of the KET Work Programme to allow industry direct participation in the definition and implementation of research and innovation priorities. Three cPPP figure prominently in the Work Programme:

- + Energy-efficient Buildings (EeB)
- + Factories of the Future (FoF)
- + Sustainable Process Industries (SPIRE)



2.1.1.3 Space

The Space Work Programme supports the development and application of innovative technologies, operational concepts and space data. Actions are carried out in conjunction with research activities of the Member States and European Space Agency (ESA) in order to build complementarity and increase coordination among different actors.

The Work Programme:

- + Prioritizes the research and innovation activities of the two existing EU Space flagship initiatives: *European Global Navigation Satellite System (EGNSS)* and *Earth Observation*
- + Ensures support for the third priority of EU space policy: the protection of space infrastructure and, in particular, the development and implementation of a *Space Surveillance and Tracking system (SST)* at the European level
- + Ensures that support to EU industry meets the objectives of the Commission communication on Space Industrial Policy
- + Ensures that Europe's investments made in space infrastructure are exploited for the benefit of citizens and space science
- + Enhances Europe's standing as an attractive partner for international partnerships in space science and exploration.

2.1.2 Access to Risk Finance

Budget: €2.842 billion (2014-20)

This section includes a number of instruments to help companies and other organizations engaged in research and innovation to gain easier access, via specific financial instruments and the engagement of financial institutions, to loans, guarantees, counter-guarantees and hybrid, mezzanine and equity financing.

Canadian organizations are not eligible to participate in "Access to Risk Finance" initiatives.

2.1.3 Innovation in SMEs

Budget: €616 million (2014-20)

The goal of the actions bundled under the specific objective *Innovation in SMEs* is to build innovation capacity for small and medium sized enterprises in Europe by providing both direct (financial) and indirect (management) support through a dedicated **SME Instrument**:

- + Direct financial support will be available to internationally oriented SMEs in three phases:
 - Phase I – Feasibility Study: Up to €50,000 for a six month feasibility study of the technical and commercial potential for a new innovation.
 - Phase II – Innovation Project: Between €500,000 and €2.0 million for activities over one to two years that will help bring an innovation to investment and market readiness (e.g. prototyping, demonstration, pilot)
 - Phase III – Commercialization: Support from the Enterprise Europe Network (EEN) for further development, linking with private investors and customers, assistance in applying for risk financing and other services.



- Indirect management support in the form of free business coaching (e.g. innovation management capacity building, IPR management, networking) will be provided throughout phases I and II by the EEN.

In addition, *Innovation for SMEs* will provide direct support for:

- + The *Enterprise Europe Network (EEN)* that facilitates SME access to funding and business partnerships
- + The *Competitiveness of SME (COSME)* programme that supports entrepreneurship, internationalization and market access
- + The *EUREKA/Eurostars Joint Programme Initiative* that supports market oriented trans-national research and innovation projects.



Opportunities for Canadians: The SME Instrument will only fund European SMEs. However, it will allow them to organize projects to suite their own business needs. As a result, sub-contracting is allowed in these projects and a European SME can subcontract for services provided by a Canadian company.

2.2 Societal Challenges

In the Societal Challenges pillar, Horizon 2020 addresses major concerns shared by citizens in Europe and around the world. A challenge-based approach brings together resources and knowledge across different fields, technologies and disciplines, including the social sciences and humanities. Funding will focus on the following seven challenges:

- + Health, Demographic Change and Well-Being
- + Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research, and the Bio-Economy
- + Secure, Clean and Efficient Energy
- + Smart, Green and Integrated Transport
- + Climate Action, Environment, Resource Efficiency and Raw Materials
- + Europe in a Changing World - Inclusive, Innovative and Reflective Societies
- + Secure Societies - Protecting Freedom and Security of Europe and its Citizens

2.2.1 Health, Demographic Change and Well-Being

Budget: €7.472 billion (2014-20)

In its first two years, the Work Programme for the Health, Demographic Change and Well-Being' challenge will focus research and innovation activities on personalizing health and care as well as a number of large-scale coordination and other activities. Funding will be directed towards:

Personalizing health and care

- + Understanding health, aging and disease



- + Effective health promotion, disease prevention, preparedness and screening
- + Improving diagnosis
- + Innovative treatments and technologies
- + Advancing active and healthy aging
- + Integrated, sustainable, citizen-centred care
- + Improving health information and evidence for health policies and regulation

Coordination Activities

- + European Innovation Partnership on Active and Healthy Ageing,
- + Global Alliance for Chronic Diseases,
- + Joint Programming Initiative “More Years, Better Lives - the Challenges and

Opportunities of Demographic Change”

- + Joint Programming on Neurodegenerative Diseases Research [JPND].
- + ERA-Net Rare Disease
- + ERA-Net Antimicrobial Resistance

Other Initiatives

- + *Innovative Medicines Initiative [IMI]*
- + *Active and Assisted Living Programme [AAL]*

2.2.2 Food Security, Sustainable Agriculture and Forestry, Marine and Maritime and Inland Water Research, and the Bio-Economy

Budget: €3.851 billion [2014-20]

In the Work Programme for 2014-15, the Commission will focus research and innovation activities on the following subjects:

Sustainable Food Security

- + Sustainable Food Production Systems
- + Safe Foods and Healthy Diets and Sustainable Consumption
- + Global Drivers of Food Security

Blue Growth: Unlocking the Potential of Seas and Oceans

- + Sustainably Exploiting the Diversity of Marine Life
- + New Off-Shore Challenges
- + Ocean Observation Technology/Systems
- + Horizontal Aspects, Socio-Economic Sciences

Innovative, Sustainable and Inclusive Bioeconomy

- + Sustainable Agriculture and Forestry
- + Sustainable and Competitive Bio-Based Industries
- + Cross Cutting Actions

**2.2.3 Secure, Clean and Efficient Energy**

Budget: €5.931 billion [2014-20]

The Energy Challenge is structured around seven specific objectives and research areas:

- + Reducing energy consumption and carbon footprint
- + Low-cost, low-carbon electricity supply
- + Alternative fuels and mobile energy sources
- + A single, smart European electricity grid
- + New knowledge and technologies
- + Robust decision making and public engagement
- + Market uptake of energy and ICT innovation

2.2.4 Smart, Green and Integrated Transport

Budget: €6.339 billion

The Transport Challenge will focus research and innovation activities on four key objectives:

- + Resource efficient transport that respects the environment by making aircraft, vehicles and vessels cleaner and quieter by developing smart equipment, infrastructures and services and by improving transport and mobility in urban areas
- + Better mobility, less congestion, more safety and security for people and freight
- + Global leadership for the European transport industry by reinforcing the competitiveness and performance of European transport manufacturing industries
- + Socio-economic and behavioural research for policy making.

2.2.5 Climate Action, Environment, Resource Efficiency and Raw Materials

Budget: €3.081 billion

This Challenge funds research and innovation to achieve a resource – and water – efficient and climate change resistant economy and society; to protect and sustain natural resources and ecosystems; and ensure the sustainable supply and use of raw materials. To that end, the Work Programme will cover the following broad lines of activities:

- + Fighting and adapting to climate change
- + Protecting the environment, sustainably managing natural resources, water, biodiversity and ecosystems
- + Ensuring the sustainable supply of non-energy and non-agricultural raw materials



- + Enabling the transition towards a green economy and society through eco-innovation
- + Developing comprehensive and sustained global environmental observation and information systems
- + Cultural heritage

2.2.6 Europe in a Changing World - Inclusive, Innovative & Reflective Societies

Budget: €1.309 billion

This Societal Challenge aims to support research and innovation activities that will foster a greater understanding of Europe, by providing solutions and supporting inclusive, innovative and reflective European societies with an innovative public sector in a context shaped by unprecedented transformations and growing global interdependencies. With that in mind, the 2014-15 Work Programme focuses on:

- + New ideas, strategies and governance structures for overcoming the crisis in Europe [resilient economic and monetary Union, EU growth agenda, EU social policies, the future of European integration, emerging technologies in the public sector]
- + The young generation in an innovative, inclusive and sustainable Europe [job insecurity, youth mobility, adult education, social and political engagement of young people, modernization of public administrations]
- + Reflective societies: transmission of European cultural heritage, uses of the past, 3D modelling for accessing EU cultural assets
- + Europe as a global actor: focusing research and innovation cooperation with third countries, new geopolitical order in the Mediterranean, EU eastern partnership and other third countries
- + New forms of innovation in the public sector, open government, business model innovation, social innovation community, ICT for learning and inclusion

2.2.7 Secure Societies - Protecting Freedom and Security of Europe and its Citizens

Budget: €1.695 billion

The primary aim of the Secure Societies Challenge is to support research and innovation activities that will help to:

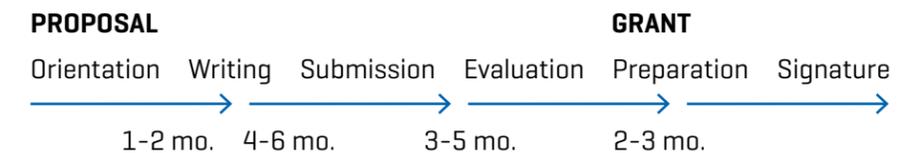
- + Enhance the resilience of our society against natural and man-made disasters, ranging from the development of new crisis management tools to communication interoperability, and to develop novel solutions for the protection of critical infrastructure
- + Fight crime and terrorism ranging from new forensic tools to protection against explosives
- + Improve border security, ranging from improved maritime border protection to supply chain security and to support the Union's external security policies



- including through conflict prevention and peace building
- + Provide enhanced cyber-security, ranging from secure information sharing to new assurance models

3. Proposal Preparation and Evaluation / Grant Preparation and Management

3.1 The Project Cycle



The life cycle of a Horizon 2020 project is marked by a number of distinct phases. Initially, researchers and innovators go through an orientation phase of one to two months during which time they learn about an opportunity to work on a specific topic, assess that opportunity and find partners, then make a decision to go forward, open an account and register an organization with the Commission in order to submit a proposal. Writing the proposal may take several months' work, with partners exchanging draft copies of the proposal and budget, entering and updating them in the Participant Portal, before making the formal submission.

It takes the Commission approximately five months to complete the evaluation phase for RIA and IA projects before – hopefully – inviting the consortium to prepare and sign a Grant Agreement [GA]. During the evaluation and preparation phases, the Commission conducts an ethics 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 all project participants are invited to sign ascension documents to formally join the project. 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.

GRANT MANAGEMENT





Once the GA is signed, the Commission makes 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.

3.2 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 2020 project (similar to a “principal investigator” in ERC and many Canadian granting programmes). Most often, the coordinator will organize the consortium, prepare the proposal and manage the project. The coordinator signs the Grant Agreement for his or her 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 forgo 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 includes the names of previous beneficiaries in a searchable database. See: http://cordis.europa.eu/projects/home_en.html

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 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: 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, 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 9: 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. See Annex V for legal text.
Article 57.2: Inclusion of the appropriate text will exempt entities in third countries that do not receive an EC financial contribution and cannot, for reasons of domestic law, be subject to foreign courts, from the jurisdiction of the General Court or the Court of Justice of the European Union. Most often, this applies only to Government of Canada entities. See Annex VI for legal text.
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 I, pages 10–11.) In these cases, Canadians are subject to the same reporting requirements as all beneficiaries receiving funding from the Commission.

¹ Please note that beneficiaries are not jointly and severally liable for the project. Liability to the European Commission is covered by a mandated Guarantee Fund (see page 64 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 (see page 61 below).

² Please see Chapter III 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. 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
- + Carrying out part of the work as subcontractor or third party linked to a beneficiary. Please 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 to 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 a proposal.

European Commission: Throughout the life of a Horizon 2020 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.

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

- + *Administrative or Legal Officer:* This person oversees the administrative and legal aspects of the project and plays an important role in preparing the GA. He or she verifies the beneficiaries’ legal status, the Grant Preparation Forms and the Grant Agreement. He or she 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.

3.3 Preparing a Proposal

The preparation and evaluation of Horizon 2020 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 principal funding instruments used in the Industrial Leadership and Societal Challenges pillars. They are also used extensively in the specific activities “Future and Emerging Technologies” and “Research Infrastructures” in the Excellent Science pillar.

3.3.1 Opening a Proposal: Electronic Submission System

Reference: User Guide to the Submission Service:

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

Like all proposals for H2020 grants, those submitted for RIA, IA and CSA grants must be submitted through the Electronic Submission System in the Research and Innovation Participant 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 II, page 25].

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 Research and Innovation Participant Portal. See chapter II, pages 26-27].

3.3.2 Proposal Preparation

Reference: Guide to the Submission and Evaluation Process:

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/pse/h2020-guide-pse_en.pdf

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 the “Topic Conditions and Documents” tab within the Topic description [see Chapter II, page 24 above] to prepare the Technical Annex or Description of Work [DOW]. 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
- + Ethics 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 *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.

While the consortium is preparing Part B, [Description of Work], it is strongly recommended that coordinators upload each draft version to 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 (by pressing the “validate” button and correcting for any errors) and formally submitting the proposal electronically. Once submitted, the coordinator will receive 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.

3.4 Evaluation of a Proposal

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

- + *Phase 1: Individual Evaluation:* Three experts are chosen 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. On occasion, the Commission may organize hearings with the applicants as part of the panel deliberations. Call documents will indicate if hearings will be held. Hearings are usually held in Brussels, but may also be conducted by a written procedure, via telephone, or by video-conference.

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.

3.4.1 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. Otherwise, the process at each stage is similar.

3.4.2 Evaluation Criteria and Scoring

Horizon 2020 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.

3.4.3 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 Participant Portal [“formal notifications box”].
- (b) The coordinator must, within 30 days of receiving the rejection letter, file a 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.

3.5 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.

3.5.1. 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 facilities available on the *My Projects* page for the coordinator and each participant in the Research and Innovation Participant Portal [see Chapter II, page 27].

Using these facilities, 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 following 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 2020 Grant Agreement [a contract] and Grant Agreements signed with Canadian granting agencies [i.e. grants].



3.5.2 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) validation of its financial capacity.

(a) To validate the legal entity, an organization will be asked to submit *supporting documents* through the My Organization page [Chapter II, page 26], to establish its:

- + Legal name
- + Legal form of the organization [e.g. public body, business, other]
- + Legal address
- + VAT [GST] number or exempt status

To assist organizations in determining if they qualify as “small or medium sized businesses,” they are asked to complete a web-based questionnaire. If they qualify, they will be asked to validate that status by providing the Commission [Validation Services] with a balance sheet, profit and loss accounts, staff head count or other documentation that establishes an organization as engaged in economic activity.

(b) To ensure that funds are managed properly, the Commission will validate the financial capacity of all organizations coordinating projects receiving more than €500,000 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 Participant Portal to validate their own financial capacity [see: <https://ec.europa.eu/research/participants/urflfvSimulation.do>]

3.5.3 Signing the Grant Agreement: Process and Implications

Following preparation of the Grant Agreement, the European Commission and the Coordinator will electronically sign the GA. Other partners then accede to the GA by electronically signing Form 3a, “Accession to the Grant Agreement,” which becomes Annex III to the Grant Agreement. [See below].

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 the project 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; although, in this case, the consortium can 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

⁴ Please note that beneficiaries are not jointly and severally liable for the project. Liability to the European Commission is covered by a mandated Guarantee Fund [see page 64] 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 [see page 61].

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.



3.5.4 Model Grant Agreement

Reference Document: Annotated Model Grant Agreement: See: http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf

Horizon 2020 uses the same *Model Grant Agreement* for all projects and all funding instruments except ERC and MSCA grants. It is composed of a Core Agreement and several Annexes [from I to VII]. These two parts are, respectively, similar to Part A and Part B of the proposal. The Core Agreement cannot be modified, except with the inclusion of standard [invariable] texts to specific articles [See Annex V] and includes:

- Chapter 1: General [subject of the agreement]
- Chapter 2: Action [description, duration, budget]
- Chapter 3: Grant [amount, reimbursement rates, eligible costs]
- Chapter 4: Rights and Obligations [payments, reporting, intellectual property]
- Chapter 5: Division of Roles [internal arrangements]
- Chapter 6: Rejection, Reduction, Penalties, Termination, Etc.
- Chapter 7: Final Provisions
[ascension, entry into force, amendments, applicable law]

The Annexes are templates or forms for use in the administration and management of the project. In Horizon 2020, all will be completed and submitted online using the *My Project* section of the Participant Portal. They include:

- Annex I: Description of Work [DOW]
- Annex II: Estimated Budget
- Annex III: Ascension Forms [3a and 3b]
- Annex IV: Financial Statements [Form C]
- Annex V: Certificate on the Financial Statement
- Annex VI: Certificate on the Methodology

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

Annex I: Description of Work [DOW]: 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.



3.5.5 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 month.⁶ One “person-month” is commonly calculated as 145 working hours [after deducting time for holidays, sick leave, training and office meetings] although this will vary from one organization and one country to another. As a result, Canadian participants must estimate [at the proposal and GA preparation stages] the number of hours each person will work on a project.

During the project, beneficiaries must record and report the number of hours 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 This is set at €4,650 per month based on 143 working hours per month or a unit cost of €32.52 per hour. This amount must be multiplied by a country coefficient established every two years in the MSCA Work Programme to determine the rate to be used in financial reporting.

In non-profit legal entities [universities, public research centres], a “bonus” payment, up to a maximum of €8,000 annually, made to an employee for additional work or expertise spent on the project, beyond the expertise compensated by their salary, is an eligible cost. For example, a bonus can be paid to a researcher for assuming the role of Principal Investigator on an ERC Grant.

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 funding 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 in a IA project.

Please see below, in the sections on Project Management, for details regarding other sections of the Model Grant Agreement.

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.



3.6 Preparing a Consortium Agreement

Reference: DESCA 2020 Model Consortium Agreement

See: <http://www.desca-2020.eu/>

Almost all Horizon 2020 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) or the Consortium Agreement follows the Grant Agreement and is signed retroactive 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 Participant Portal. As a result, various European organizations have developed model Consortium Agreements that are widely used. In the academic community, the standard is the DESCA (Development of a Simplified Consortium Agreement) Consortium Agreement available at the Web address above.

- (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 Guarantee Fund covers all 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 wilful 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.



3.7 Managing a Project

3.7.1 Periodic and Financial Reports

The Grant Agreement functions like a contract (with payment approvals contingent upon successful completion of work). So, 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 the Participant Portal (see Chapter II, page 27):

- + **Deliverables** identified in Annex I (Description of Work) 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 Participant Portal and be uploaded in *My Projects*. 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 Participant Portal. A compilation, reviewed by the coordinator, is automatically submitted to the Commission.
- + **Explanation of the Use of Resources:** Each beneficiary must provide an explanation of their major cost expenditures, and any deviations from the budget, along with the Form C (above). The explanation is entered and submitted through *My Projects*.

The project coordinator should take the lead in preparing the Periodic Report in collaboration with the other beneficiaries and ensure that all Deliverables, Financial Statements and Explanation of the Use of Resources 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. The EC does not provide templates of its own. Canadians should request these documents from their project coordinator at the outset to facilitate records keeping and reporting.

3.7.2 Deviations

Deviations from the Description of Work may be technical (e.g. timing of project activities, quality/quantity of results, responsibilities) or financial (e.g. budget transfers among cost categories/activities/beneficiaries, personnel). They must be reported

⁸ or 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.



in the Periodic Report and reflected in the Financial Statement and Explanation of the Use of Resources. If, in the opinion of the Project Officer, there is no major impact on the Grant Agreement or Annex I [Description of Work], then no other steps are required.

3.7.3 Amendments

A major change to the Core of the GA or to Annex I [Description of Work] 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.

Other changes that do not constitute an amendment [because they do not depend on the parties' agreement] can still affect the GA. These include, for example, changes to a beneficiary's legal name and address/legal status/method of calculation of indirect costs, or universal transfer of rights and obligations. These must be reported to the Consortium and the Commission without delay.

3.7.4 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. It must be submitted within 60 days and include:

- + Publishable Summary
- + Plan for the Use and Dissemination of Foreground
- + Report on Societal Implications [in the form of a Questionnaire]

3.8 Managing Project Finances

Because the Grant Agreement works like a contract, beneficiaries receive payments as they complete stages of the work. But 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] per cent in a Guarantee Fund for the beneficiaries].
2. The Commission will retain ten [10] per cent of its contribution until successful completion of the project.

3.8.1 Pre-Financing

The Commission will make a one-time "Pre-Financing" payment to the Coordinator



within 45 days of entry into force of the GA.⁹ The Coordinator has 30 days to distribute the pre-financing:

- + Once the minimum number of beneficiaries, as required by the Call for Proposals, have signed and uploaded Form 3a [Accession Form]
- + Only to those beneficiaries who have signed and uploaded Form 3a

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. However, as a general rule:

- + For projects with more than two reporting periods, it will be equal to 160 per cent of the average EC contribution per period;
- + For projects with two reporting periods or less, it will be between 60 and 80 per cent of the total EC contribution. Most consortia request and receive the maximum pre-financing payment.

3.8.2 Guarantee Fund

The EC will take a sum equal to five [5] per cent of its total contribution to the project from the Pre-Financing Payment and deposit that amount in a Guarantee Fund 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.

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

At the end of a project, beneficiaries will recover their contribution. However, if at the time of payment the interest is less than the Commission's losses, the Commission will make a deduction – not exceeding one [1] per cent of the total EC contribution – before the beneficiaries recover their funds. This deduction does not apply to public bodies or legal entities if a National Government or higher education establishment has guaranteed their participation.

Of course, Canadian beneficiaries who do not receive EC contributions do not contribute to the Guarantee Fund.

3.8.3 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 85 per cent of the maximum EC contribution [as a result of the 10 per cent retained until successful completion of the project and 5 per cent held in the Guarantee Fund]. As a result, some interim payments may be lower to respect this limit.

3.8.4 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

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



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 Guarantee Fund (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€)

3.8.5 Project Receipts

It is a fundamental principle of the Framework Programme that beneficiaries should not generate a profit from their participation. Consequently, beneficiaries must report any “receipts” from the project (see below for definition). The final EC contribution will be reduced by an amount equivalent to any receipts generated or received by the project.

A receipt is a contribution from a third party to the project, such as:

- + Financial transfers or their equivalent to the beneficiary from third parties
- + Contributions in kind from third parties
- + Income generated by the project

In the first two cases the contribution should be specifically allocated to the project and there should not be a full reimbursement by the beneficiary to the third party.

Please note: Funding from Canadian sources, to support the participation of Canadian beneficiaries, are not considered receipts if the Canadian beneficiary receives no funding from the European Commission and is clearly identified within Article 9 of the Grant Agreement.¹⁰

Transfers from one beneficiary to another within the same project are not considered receipts.

3.8.6 Currency

All Commission payments, and all financial reports to the Commission, must be made in Euros. To convert expenses incurred in Canadian dollars, beneficiaries may either use the exchange rate established by the European Central Bank (ECB) on the day

¹⁰ Should Canadian beneficiaries receive funding from both the European Commission AND Canadian sources then the Commission will consider the Canadian funding as a receipt. When a Canadian beneficiary receives funding from the Commission, it cannot be exempted from financial reporting (with Article 9) and must report its expenditures to the Commission like all other beneficiaries.



following the end of the reporting period or the ECB rate on the day they incur each expense. The Commission will not accept the ECB exchange rate on the day beneficiaries actually convert the funds. Currency exchange losses are not eligible expenses.

As a result, Canadians may wish to establish a euro bank account in order to mitigate the risk associated with currency fluctuations. Usually, Canadians must do this through the foreign exchange office of a major Canadian bank. Generally, no interest is paid on such accounts.

3.8.7 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 €325,000 in a given project. It may request an audit up to two years after the final payment is made.

3.9 Managing Intellectual Property

Intellectual property (IP) management has important implications in any Horizon 2020 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.

- + “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.

3.9.1 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.

According to the Model Grant Agreement, 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).

	Access to background	Access to foreground
Project implementation	Royalty-free, unless otherwise agreed before acceding to the Grant Agreement.	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

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 in 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 after either the end of the project or the termination of the participation of the owner of the foreground or background concerned.

3.9.2 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 beneficiaries concerned 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.

Should a beneficiary wish to **transfer ownership of foreground**, it shall also pass on its obligations therewith [regarding access rights or confidentiality, for instance] to the assignee. In principle, within a specific period [generally 45 days before the foreseen transfer], the other beneficiaries must receive notice of the transfer, since they may object if the transfer would adversely affect their access rights.

Beneficiaries shall use the foreground that they own or ensure that it is used either for commercial activities [such as marketing a product] or for further research activities.

3.9.3 Dissemination

There is an obligation to disseminate foreground as swiftly as possible, 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].

The other beneficiaries should be informed [with at least 45 days prior notice] of the dissemination. They may object to the dissemination if their legitimate interests in relation to their foreground could suffer great harm.

3.9.4 Eligibility of IPR Costs

Costs associated with IP 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.



CHAPTER V FINDING 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 2020. Each initiative offers a range of services for different types of organizations.

1. ERA-Can+

Website: <http://www.era-can.net>

ERA-Can+ promotes cooperation between the European Union and Canada in science, technology and innovation by enriching the government-to-government policy dialogue; facilitating coordination between program owners (granting agencies), sector leaders and networks in Canada and Europe; and by providing Canadian and European researchers in all sectors with a broad range of services to support their participation in Horizon 2020 and Canadian programs. Services include:

Information and Training Sessions

- + Web Seminars on Special Issues
- + Promotion of Calls for Proposals and Targeted Opportunities
- + Online Events Calendar
- + Programme Guides
- + Electronic Newsletters
- + An Online Helpdesk

The project is a joint initiative of the European Commission and the Government of Canada. It is coordinated by the Agenzia per la Promozione della Ricerca Europea (APRE, Italy) in cooperation with Foreign Affairs, Trade and Development Canada (DFATD, Canada) and includes experts in European and Canadian research and innovation programmes at the Association of Universities and Colleges of Canada (AUCC), Centre National de la Recherche Scientifique (CNRS, France), Projektrager im Deutschen Zentrum für Luft und Raumfahrt (DLR, Germany), Public Policy Forum (PPF, Canada) and Zentrum für Soziale Innovation (ZSI, Austria).

2. National Contact Points (NCPs)

Website: 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 and Associated Countries and many Third Countries around the world to provide researchers in all sectors, and all subject areas, with guidance, practical information and assistance regarding Horizon 2020.

All NCPs have a deep knowledge of the research community in their field within their country. They understand the research, know the researchers and research institutions, and are familiar with national funding agencies and programs. They work in government agencies and research institutions. Often, more than one person fulfills this role in each country to ensure they provide the best possible 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 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 program 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 link also shows contacts for Canadian NCPs, including the National coordinator.

3. Enterprise Europe Network – Canada

Website: <http://www.een-canada.ca/>

The Enterprise Europe Network (EEN) brings together 570 business support organizations, with over 3,000 advisors, from 58 countries around the world to help businesses find international partners, source new technologies, secure funding and expand globally. There are currently more than 2.5 million small and medium sized enterprises using EEN worldwide. EEN offers two core services:

- + It serves as a quality-controlled clearinghouse for businesses seeking or offering opportunities as suppliers, distributors or developers of new technologies.
- + It also serves as a key source of market intelligence and international business support.

In science, technology and innovation, EEN partners serve as advisors to businesses world wide seeking opportunities to work with partners in Europe and around the world on projects supported by Horizon 2020.



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EEN-Canada is a project of the Canadian Manufacturers and Exporters (CME) that operates with support from the Department of Foreign Affairs, Trade and Development (DFATD), Export Development Canada (EDC), Industry Canada (IC), HSBC Bank of Canada (HSBC) and the Canadian Manufacturers Coalition (CMC). It makes EEN services available to Canadian businesses, helping them expand their businesses and research activities in Europe and around the world.

For more information, please visit the website above or contact:
general.eencanada@cme-mec.ca

4. EUREKA!

Website: <https://www.nrc-cnrc.gc.ca/eng/about/global/eureka.html>

EUREKA is an international network of national public and private funding organizations that support market-driven industrial research and development in all technology sectors. Initially a European intergovernmental network, EUREKA has expanded to include Israel, South Korea and Canada. To date, EUREKA has resulted in 4,000 projects, 10 billion euro in public funding, 19 billion euro in private investment and 378,000 jobs created or safeguarded

EUREKA brings together small and medium sized enterprises, large companies, research centres, universities and other innovators to work together on defining market-driven industrial R&D projects. EUREKA then simplifies the funding process by coordinating national financial support. Businesses decide the way projects come together and evolve.

Projects fall into one of three categories: Individual, Cluster or Eurostar. The European Commission supports Eurostar as a Horizon 2020 Joint Programming Initiative (JPI). But all categories have similar characteristics:

- + Require only a minimum of two partners from two member countries
- + Cover all civilian technological areas where there is market potential
- + Planned under thematic networks in specific areas of business or technology
- + Bottom-up approach with free choice in topics, partners and timeframes
- + Not bound to a country's research program or national call for proposals
- + Only necessary reporting requirements
- + Participants retain IP ownership and negotiate IPR amongst themselves on a project-by-project basis

NRC houses and manages Canada's EUREKA National Office and provides Canadian companies with a first contact point for the EUREKA global network. NRC and its partners in the network connect Canadian organizations with potential partners in member countries and funding opportunities. NRC's Industrial Research Assistance Program (IRAP) can provide funding for EUREKA projects to eligible Canadian SMEs.

For more information, please contact:

Melanie Cullins, National Project Coordinator



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Bill Dobson, National Project Coordinator (for Canadian SMEs)

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Email: william.dobson@nrc-cnrc.gc.ca

5. Horizon 2020 Helpdesk

Accessible through the Participant Portal

Website: <http://ec.europa.eu/research/index.cfm?pg=enquiries>

The Horizon 2020 Helpdesk responds to questions regarding all aspects of the Framework Programme. Researchers must submit an electronic contact form when submitting an inquiry. Please submit all questions regarding specific proposals at least two weeks before the deadline to ensure they are answered in time.

Also accessible through the Participant Portal are helpdesks responsible for responding to questions on the following subjects:

- + Ethics Helpdesk
- + European IPR Helpdesk

6. Horizon 2020 IT Helpdesk

Accessible through the Participant Portal

Website: <http://ec.europa.eu/research/participants/api//contact/index.htm>

Please direct all IT-related questions regarding the Participant Portal to the IT Helpdesk.

7. Horizon 2020 Online Manual

Accessible through the Participant Portal

Website: http://ec.europa.eu/research/participants/docs/h2020-funding-guide/index_en.htm

The H2020 Online Manual offers an overview and brief description of all steps required for the electronic management of proposals and grants. It includes links and references to guidance notes, templates, other user manuals and "frequently asked questions"



8. Horizon 2020 Reference Documents

Accessible through the Participant Portal

Website: http://ec.europa.eu/research/participants/portal/desktop/en/funding/reference_docs.html

This page on the Participant Portal includes all reference documents for Horizon 2020 and FP7 starting with legal documents and work programmes up to model grant agreements and guides for specific actions and horizontal issues.



AC	Associated Country
Beneficiary	Participant or Partner in a funded Horizon 2020 project
Call	Call for Proposals
CA	Consortium Agreement
CFS	Certificate on the Financial Statement [Audit]
Coordinator	Organization or individual [representing the organization] leading an application or project
CORDIS	Community Research and Development Information Service
cPPP	Contractual Public-Private Partnerships
CR	Consensus Report
CSA	Coordination and Support Action
DG	Directorate General [a “department” within the European Commission]
DOW	Description of Work [Annex I of Grant Agreement]
ECAS	European Commission Authentication Service [secure website access]
EEN	Enterprise Europe Network
ERA	European Research Area
ERC	European Research Council
ESR	Evaluation Summary Report
FET	Future and Emerging Technology
FP	Framework Programme for Research and Innovation
FP7	Seventh Framework Programme [2007-13]
FTI	Fast Track to Innovation
GA	Grant Agreement
H2020	Horizon 2020
IA	Innovation Action
ICPC	International Cooperation Partner Country
ICT	Information and Communications Technology
IER	Individual Evaluation Report
IF	Individual Fellowship [MSCA]
IPR	Intellectual Property Rights
ITN	Innovation Training Network
JTI	Joint Technology Initiative [a PPP]
KET	Key Enabling Technology
LEAR	Legal Entity Appointed Representative
LEIT	Leadership in Enabling and Industrial Technologies
MSCA	Marie Skłodowska Curie Action [formerly Marie Curie Action]
MS	Member State
NCP	National Contact Point
Partner	Participant in a Horizon 2020 application [not a funded project]
PIC	Participant Identification Code
PPP	Public Private Partnership [includes Joint Technology Initiatives]

RI	Research Infrastructure
RIA	Research and Innovation Action
RISE	Research and Innovation Staff Exchanges [MSCA]
STI	Science, Technology and Innovation
TC	Third Country
VAT	Value Added Tax [i.e. GST]
WP	Work Programme

ANNEX II Funding Instruments & Canadian Eligibility

Funding Instrument	Objectives	Minimum Participation	Funding Rate
Research and Innovation Action (RIA)	Collaborative research projects	3 Legal Entities from 3 MS/AC	100%
Innovation Action (IA)	Plans for new products/ services	3 Legal Entities from 3 MS/AC	100% for universities and research centers 70% all other types of organisations
Coordination and Support Actions (CSA)	Research and policy development	1 Legal Entity	100%
MSCA Individual European Fellowship (IF/EF)	Mobility in Europe for experienced researchers (post-doctoral) to obtain advanced training	1 Legal Entity from MS/AC and 1 Researcher or Innovator from anywhere	Researcher: - €4,650/mo living - €600/mo mobility - €500/mo family Legal Entity: - €800/mo training - €650/mo. indirect
MSCA Individual Global Fellowship (IF/GF)	Mobility outside Europe for experienced researchers (post-doctoral) to obtain advanced training	1 Legal Entity from MS/AC; 1 Legal Entity from outside Europe (partner organization); 1 Researcher or Innovator from Europe	Researcher: - €4,650/mo living - €600/mo mobility - €500/mo family Partner: - €800/mo training Legal Entity: - €650/mo. Indirect
MSCA RISE	Joint programmes of short-term exchanges between staff at all levels for training purposes.	2 Legal Entities from MS/AC 1 Legal Entity from outside Europe. Staff at all levels (professors, technicians, managers)	Staff: - €2,000/mo living Legal Entities in MS/ AC: - €1,800/mo training - €700/mo. indirect

Typical Duration	Average Award	Canadian Eligibility
36-48 months	€2.0-5.0 million	Open to Canadians. European Commission funding for Canadians only with partner approval, request made in proposal and if essential for overall project success.
30-36 months	€2.0-5.0 million	Open to Canadians. European Commission funding for Canadians only with partner approval, request made in proposal and if essential for overall project success..
12-36 months	€0.5-2.0 million	Open to Canadians. European Commission funding for Canadians only with partner approval, request made in proposal and if essential for overall project success.
12-24 months	Variable	Open to experienced Canadian researchers (with PhD) seeking positions for training in Europe (not sabbaticals). Special provisions for European nationals returning to Europe.
12-24 months outside Europe and 12-24 months in Europe	Variable	Open to Canadian "Partner Organizations" that host fully funded European post-doctoral and other experienced researchers and innovators. Do not sign GA. Receive funding as "Partner Organizations" from European "host" institutions.
12-48 months	Variable	Open to Canadian institutions. Do sign GA. Host fully funded colleagues to provide training through work on research projects. Fund own secondments to Europe.



Funding Instrument	Objectives	Minimum Participation	Funding Rate	Typical Duration	Average Award	Canadian Eligibility
MSCA ITN	Joint research training or doctoral programs: - European Training Networks - European Industrial Doctorates - European Joint Doctorates	3 Legal Entities from 3 MS/AC; Early-stage researchers [doctoral candidates]	Doctoral student: - €3,110/mo living - €600/mo mobility - €500/mo family Legal Entity: - €1,800/mo training - €1,200/mo. indirect	3-36 months	Variable	Open to Canadian “Partner Organizations” that offer training modules (summer schools, distance training, etc.). Do not sign GA. Receive funding as “Partner Organizations” for delivery of training modules from European “host” institutions. European doctoral students are paid to attend modules. Modules open to Canadian doctoral students.
ERC Starting Grant	Excellent researchers at the beginning of their careers and their teams	1 Excellent researcher 2-7 years after PhD	100%	60 months	€2.0 million + €0.5 if from outside Europe	Open to Canadians. Researchers must spend 50% of time on project and in Europe. Canadian institutions eligible for funding from the grant if hosting researchers essential to the project.
ERC Consolidator Grant	Excellent established researchers and their teams	1 Excellent researcher 7-12 years after PhD	100%	60 months	€2.7 million + €0.75 if from outside Europe	Open to Canadians. Researchers must spend 50% of time on project and in Europe. Canadian institutions eligible for funding from the grant if hosting researchers essential to the project.
ERC Advanced Grant	Excellent senior researchers and their teams	1 Excellent senior researcher	100%	60 months	€3.5 million + €1.0 if from outside Europe	Open to Canadians. Researchers must spend 50% of time on project and in Europe. Canadian institutions eligible for funding from the grant if hosting researchers essential to the project.
SME Instrument (SME)	Demonstration activities	1 SME in MS/AC	Phase1: €50,000 / project	Phase2: €1-2.5 million/ project [1-2 yrs.]	Phase3: no funding	Not open to Canadians
Fast Track to Innovation (FTI)	Rapid development of plans for new products/ services	Maximum of 5 Legal Entities from 5 MS/AC	70% [100% for non-profits]	Variable	Up to €3.0 million	Not open to Canadians
Public-Private Partnerships (PPP)	Develop technologies in a specific sector with public and private funding	Pools public and private funds in a JTI	Topics set by JTI members	Duration set by JTI members	Funding set by JTI members	Participation determined by JTI members.
Contractual Public-Private Partnerships (cPPP)	Develop technologies in a specific sector with public and private funding	Pools public and private funds in response to a Call for Proposals	Topics set by call and cPPP members	Duration set by call and cPPP members	Funding set by call and cPPP members	Participation determined by call and cPPP members.
ERA-Nets	Coordinate national research funding	2 Legal Entities in MS/AC	33%	60 months	Variable	Open to Canadian research and innovation funding agencies

Legal entities in the following countries participate fully, and are eligible for funding, in Horizon 2020.

1. The Member States of the European Union:
Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.
2. The Overseas Countries and Territories (OCT) linked to Member States:
Anguilla, Aruba, Bonaire, British Virgin Islands, Cayman Islands, Curaçao, Falkland Islands, French Polynesia, Greenland, Montserrat, New Caledonia, Pitcairn Islands, Saba, Saint Barthélemy, Saint Helena, Saint Pierre and Miquelon, Sint Eustatius, Sint Maarten, Turks and Caicos Islands, Wallis and Futuna.
3. Associated Countries: Legal entities from Associated Countries can participate under the same conditions as legal entities from the Member States. Countries can only associate to Horizon 2020 by conclusion of a specific international agreement, which needs to be negotiated with each country that wishes to associate to Horizon 2020.¹

Albania, Bosnia and Herzegovina, Faroe Islands, Former Yugoslav Republic of Macedonia, Iceland, Israel, Moldova, Montenegro, Norway, Serbia, Turkey.

4. Automatically Eligible Countries: The list of countries eligible for automatic funding has been established based on their Gross National Income per capita and total Gross National Product. Countries above a defined threshold are excluded. Those included are:
Afghanistan, Albania, Algeria, American Samoa, Angola, Argentina, Armenia, Azerbaijan, Bangladesh, Belarus, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, Colombia, Comoros, Congo [Democratic Republic], Congo [Republic], Costa Rica, Côte d'Ivoire, Cuba, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Ethiopia, Fiji, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Indonesia, Iran, Iraq, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Korea [Democratic Republic], Kosovo, Kyrgyz Republic, Lao, Lebanon, Lesotho, Liberia, Libya, Macedonia FYR, Madagascar, Malawi, Malaysia, Maldives, Mali, Marshall Islands, Mauritania, Mauritius, Micronesia, Moldova, Mongolia,

Montenegro, Morocco, Mozambique, Myanmar/Burma, Namibia, Nepal, Nicaragua, Niger, Nigeria, Pakistan, Palau, Palestine, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Rwanda, Samoa, Sao Tome and Principe, Senegal, Serbia, Seychelles, Sierra Leone, Solomon Islands, Somalia, South Africa, South Sudan, Sri Lanka, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sudan, Suriname, Swaziland, Syrian Arab Republic, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe.

5. Third Countries: Legal entities in non-European Union countries, not associated with Horizon 2020 and not automatically eligible may be granted funding if:
 - + Funding is provided for in a bilateral scientific/technological agreement or similar arrangement between the EU and the country where the applicant is based.
 - + The call for proposals clearly states that applicants based in such countries are eligible for funding.
 - + Their participation is deemed essential for carrying out the action because it provides:
 - Outstanding competence/expertise
 - Access to research infrastructure
 - Access to particular geographical environments
 - Access to data
6. International Organizations: International organizations, the majority of whose members are Member States or associated countries, and whose principal objective is to promote scientific and technological cooperation in Europe, are automatically eligible. Other organizations may be eligible if:
 - + Funding is provided for in a bilateral scientific/technological agreement or similar arrangement between the EU and the organisation.
 - + Their participation is deemed essential for carrying out the action as outlined above.

¹ Although Switzerland was associated with FP7, as of March 2014, it has not reached an agreement with the European Union to associate with Horizon 2020. As a result, legal entities and researchers in Switzerland participate on the same conditions as researchers in other third countries. Its status will change if an agreement is reached. Please check the Participant Portal for the most up to date information.

Article 9: Beneficiaries Not Receiving EU Funding

Canadians participating in a project, but not receiving funding from the European Commission, must sign the Grant Agreement and are, therefore, considered “beneficiaries.”

In this case, **Canadians must insist** that the Commission, coordinator and other beneficiaries insert a standard [invariable] text to define Article 9 of the Grant Agreement, entitled, “Implementation of Action Tasks by Beneficiaries not receiving EU Funding.” Otherwise, this Article will be considered as “Not Applicable.”

Inserting the text ensures that Canadian beneficiaries not receiving EU funding are exempt from financial reporting, reviews and audits under the Grant Agreement. In addition, it establishes that the Canadians cannot be indebted to the Commission and ensures that the Commission will not question the eligibility rules of the funding organization supporting the work of the Canadian researcher or innovator. Finally, it protects the Canadians’ European partners by ensuring that the Canadian funding will not be deducted from the EU contribution to the project.

Please note, that Canadian beneficiaries not receiving EU funding remain subject to technical or scientific reporting requirements, reviews and audits as well as all other moral and legal obligations. None performance may result in a reduced EC contribution for European partners and exclusion, for the Canadian organization, from eligibility for all future contracts for up to five years.

Please find below the interpretation of Article 9 provided by the Commission in the Annotated Model Grant Agreement and a copy of the standard legal text to be inserted. [source: http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/amga/h2020-amga_en.pdf].

EC Interpretation: Annotated Model Grant Agreement, page 90-91.

1. Beneficiaries not receiving EU funding

This Article is an option that will be inserted in the GA only if one of the beneficiaries does not receive EU funding.

Even if they do not receive EU funding, these entities carry out work under the action, and therefore sign the GA and are recognized as beneficiaries. Their tasks will appear in Annex 1 and their estimated costs (although not eligible) will appear in Annex 2.

2. Articles that do not apply

The rights and obligations set out in the GA will normally apply to these beneficiaries, but the GA lists a number of provisions that do not apply. These exceptions must be interpreted restrictively. Thus, these beneficiaries will, for instance, not be subject to **financial** checks, reviews and audits, but they may be subject to **technical** checks, reviews or audits of their work under the action [see Article 22].

In case of breach of any of their obligations, beneficiaries not receiving EU funding will generally be treated as all other beneficiaries, i.e. their participation may be terminated and any of the other measures of Chapter 6 may be applied.

Example: A non-EU beneficiary that does not receive EU funding does not carry out

the tasks attributed to it in Annex 1 [DOW] and, at the end of the action, only part of the action is implemented. The Commission may, at the payment of the balance, if the action tasks were not properly implemented, reduce the grant awarded in accordance with Article 43. In addition, if the non-EU beneficiary has breached fundamental ethical principles, it may be excluded from all contracts or grants financed by the EU or Euratom for a maximum period of five years [see Article 45.2].

The costs of the beneficiary not receiving EU funding itself cannot be rejected. Given that no payment is due to the beneficiary, conversely it may not have either a debt towards the Commission or Agency.

ARTICLE 9 – IMPLEMENTATION OF ACTION TASKS BY BENEFICIARIES NOT RECEIVING EU FUNDING

9.1 Rules for the implementation of action tasks by beneficiaries not receiving EU funding.

OPTION: Beneficiaries not receiving EU funding must implement the action tasks attributed to them in Annex 1 according to Article 7.1.”

Their costs are estimated in Annex 2 but:

- will not be reimbursed and
- will not be taken into account for the calculation of the grant [see Articles 5.2, 5.3 and 5.4, and 21].

Chapter 3, Articles 10 to 15, 18.1.2, 20.3(b), 20.4(b), 20.6, 21, 26.4, 28.1 [OPTION: with the exception of additional exploitation obligations], 28.2, 30.3, 31.5, 40, 42, 43, 44, 47 and 48 do not apply to these beneficiaries.

They will not be subject to financial checks, reviews and audits under Article 22. Beneficiaries not receiving EU funding may provide in-kind contributions to another beneficiary. In this case, they will be considered as a third party for the purpose of Articles 11 and 12.

OPTION: Not applicable.

9.2 Consequences of non-compliance

OPTION: If a beneficiary not receiving EU funding breaches any of its obligations under this Article, its participation of the Agreement may be terminated (see Article 50).

Such breaches may also lead to any of the other measures described in Chapter 6 that are applicable to it.

OPTION: Not applicable

Article 57.2: Dispute Settlement

Canadian organizations participating in a project, but not receiving funding from the European Commission, must sign the Grant Agreement and are, therefore, considered “beneficiaries.” If a dispute regarding the Grant Agreement cannot be settled amicably, the “General Court” or, on appeal, the “Court of Justice of the European Union” has sole jurisdiction.

Government of Canada agencies and other Canadian beneficiaries that cannot be subject to the authority of the General Court of the Court of Justice of the European Union must insist that the Commission, coordinator and other beneficiaries insert the appropriate standard [invariable] text below to define Article 57.2, “Dispute Settlement.” Otherwise they will be subject to the General Court and the Court of Justice of the European Union.

Inserting the appropriate text ensures that the Permanent Court of Arbitration, Optional Rules for Arbitration Involving International Organisations and States, will apply. Please refer to the text from the Model Grant Agreement, page 105-106. Source: http://ec.europa.eu/research/participants/data/ref/h2020/mga/gga/h2020-mga-gga-multi_en.pdf

57.2 Dispute Settlement

If a dispute concerning the interpretation, application or validity of the Agreement cannot be settled amicably, the General Court — or, on appeal, the Court of Justice of the European Union — has sole jurisdiction. Such actions must be brought under Article 272 of the Treaty on the Functioning of the EU (TFEU).

OPTION for non-EU beneficiaries [except beneficiaries established in an associated country with an association agreement to Horizon 2020 that stipulates sole jurisdiction of the European Court of Justice]:

As an exception, if such a dispute is between the [Commission][Agency] and [insert non-EU beneficiary(ies) name(s)], the competent Belgian courts have sole jurisdiction.

If a dispute concerns offsetting or an enforceable decision under Article 299 TFEU [see Articles 44, 45 and 46], the beneficiaries must bring action before the General Court — or, on appeal, the Court of Justice of the European Union — under Article 263 TFEU.

OPTION for beneficiaries that are international organisations and for beneficiaries not receiving EU funding, established in a non-EU or associated country and which according to their national law cannot be subject to the jurisdiction of the European Court of Justice:

For the following beneficiaries:

- + [insert name of international organisation or beneficiary not receiving EU funding]
- + [same for other beneficiaries that are international organisations or beneficiary not receiving EU funding]

Disputes with the [Commission][Agency] relating to the Agreement must — if they cannot be settled amicably — be referred to arbitration.

The Permanent Court of Arbitration Optional Rules for Arbitration Involving International Organisations and States in force at the date of entry into force of the Agreement will apply.

The appointing authority will be the Secretary-General of the Permanent Court of Arbitration following a written request submitted by either party.

The arbitration proceedings must take place in Brussels and the language used in the arbitral proceedings will be English.

The arbitral award will be binding on all parties and will not be subject to appeal.