Canada EU
STI Opportunities

S&T Counsellor Aslin Unlusoy
Mission of Canada to the European Union
Overview

• Canada EU STI

• EU Programmes: Horizon Europe and Eureka

• Funding

• Networks, Support, Tools
Canada EU STI Summary

• The EU is an STI priority partner for Canada.

• Share a strong history of STI cooperation, and strive to do more.

• Priorities include: aerospace, ag, Arctic, ICT, health, and researcher mobility.
EU–Canada Cooperation: Open to Doing More!

Dr Martin Penny
Global approach to research & innovation

Europe’s strategy for international cooperation in a changing world*

*COM(2021) 252

WHAT IS THE AIM OF THE GLOBAL APPROACH TO RESEARCH AND INNOVATION (R&I)?

To preserve openness in research and innovation international cooperation while promoting a level playing field and reciprocity underpinned by fundamental values.

To strengthen multilateral partnerships to deliver new solutions to green, digital, health and innovation challenges.

HOW WILL THIS BE ACHIEVED?

Modulating bilateral cooperation in line with European interests and values and EU’s open strategic autonomy.

Accelerating sustainable and inclusive development, and the transition to resilient, knowledge-based societies and economies in low and middle-income countries.

Using a Team Europe approach, with actions by the EU, its financial institutions and Member States.
Long and successful history of EU-Canada cooperation

EU-Canada S&T Cooperation Agreement since 1996

Excellent cooperation in many areas, including health, ocean research, aviation, smart cities, bioeconomy, raw materials, agriculture, researcher mobility actions

Co-funding available through NFRF

Potential for more cooperation – future association (negotiations underway)

But in the meantime, we encourage more Canadians to apply!
Horizon Europe programme is implemented through **multi-annual work programmes** adopted by the Commission.

**Horizon Europe Programme 2021 - 2027**

- **Strategic Plan 2021-2024**
  - EU priorities
  - Key strategic Orientations and Impact areas
  - Expected impacts (32)

- **Work Programme 2023-2024**
  - Destinations (34)
  - Topics (642)
Canada EU STI Cooperation

• Project calls: Canada very active participant in EU’s (and world’s) two largest R&D programs: Horizon Europe & Eureka

• Funding programs

• Networks, partners, tools/resources
Horizon Europe Overview & Canadian Participation

• The EU’s and world’s largest Research & Innovation Funding Program

• €95.5 billion budget for 2021-2027; 35% climate change mitigation

• Canada 3rd most active after US & China (24 non-associated members)

• Canadian participation 59% in Pillar 1 and 36% in Pillar 2; 90% researchers
Horizon Europe Pillar I – Excellent Science

• Research Grants: European Research Council’s Synergy Grants
  • Bold scientific challenges in any field of research (max €10m, 6 years)

• Research Infrastructures
  • Integrated/interconnected world class research infrastructures

• Researcher Mobility: Marie Skłodowska-Curie Actions €6.6 billion
  • Hosting researchers across borders in top institutions
About Mitacs

Funded by the federal government, one territory and all provincial governments.

49 agreements with international partners in 25 countries and regions.

8,000+ industrial partner organizations.

$708M in federal funding.

85,000 internships over 5 years.

97 agreements with partners in the Canadian innovation ecosystem.

$885+ million CAD invested over the last 10 years.
Mitacs & Pillar I: MSCA Staff Exchange

Through a co-funding arrangement with MSCA, Mitacs provides the matching funds to support a stronger participation of institutions from Canada (or researchers from those institutions) in MSCA projects. That mechanism may:

- Help organisations to benefit from the structuring effect and good practices of MSCA.

- Promote talent development of staff from TC organisations in Europe and contribute to more ambitious cooperative research initiatives. MSCA projects like Staff Exchanges may be the starting point for closer links among organisations and boost the involvement in projects in other parts of Horizon Europe.

- Favour more structural partnerships for doctoral education, allowing TC organisations to host doctoral candidates and to integrate them as part of a collaborative doctoral networks with academic and non-academic organisations, including joint doctorates / industrial doctorates.

- Support symmetric flows of researchers and a more balanced cooperation (more TC researchers joining MSCA).
Impact story: MSCA-Mitacs

Research collaboration between the University of British Columbia and the University of Groningen under MSCA-Mitacs partnership:

The team studied and present genomic information to obtain a set of genomes to measure the impact of industrial whaling on the remaining baleen whales. The output of this project will help us understand the genetic consequences of intense harvesting in marine mammals, providing baseline information for future protection efforts to these endangered species.
Horizon Europe Pillar III – Innovative Europe - Pathfinder

- Open to Canadians, supports early-stage projects (TRL 1-4)
- Explore bold ideas for radically new technologies
- Canadians can participate as part of a consortia
- Canadians not eligible for funding unless specifically stated, or deemed essential
Horizon Europe Pillar III – Innovative Europe - Accelerator

• Innovative Start-ups/SMEs ready to scale up TRL 6 to 9

• Selected Canadians would have to relocate to MS or Associated country
Horizon Europe Pillar II – Global challenges

- Societal Challenges, with over 50% budget (35% climate change)

- Six clusters (themes), with an emphasis on Digital, Climate, Food and Health

- Canadian participation: Health, Food, Transport and Climate (TO CONFIRM)

- Direct EC funding if TRULY unique, if not, Canadian funding available
Horizon Europe Pillar II – Global challenges - Clusters

4. Digital, Industry & Space  €15.3 b
5. Climate, Energy & Mobility  €15.1 b
6. Food, Bioeconomy, Natural Resources, Ag & Envmt  €8.9 b
1. Health  €8.2 b
2. Culture, Creativity & Inclusive Societies  €2.3 b
3. Civil Security for Society  €1.6 b
## Horizon Europe Pillar II – Global challenges - Clusters

### International cooperation in Horizon Europe Work Programme 2023-24

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Topics total</th>
<th>Topics (ex Other Actions)</th>
<th>International cooperation encouraged</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cluster 1: Health</td>
<td>53</td>
<td>44</td>
<td>7</td>
<td>16%</td>
</tr>
<tr>
<td>Cluster 2: Culture, creativity and inclusive society</td>
<td>66</td>
<td>56</td>
<td>15</td>
<td>27%</td>
</tr>
<tr>
<td>Cluster 3: Civil Security for Society</td>
<td>44</td>
<td>42</td>
<td>9</td>
<td>21%</td>
</tr>
<tr>
<td>Cluster 4: Digital Industry and Space</td>
<td>159</td>
<td>130</td>
<td>22</td>
<td>17%</td>
</tr>
<tr>
<td>Cluster 5: Climate, Energy and Mobility</td>
<td>219</td>
<td>191</td>
<td>38</td>
<td>20%</td>
</tr>
<tr>
<td>Cluster 6: Food, Bioeconomy, Natural resources, agriculture, and environment</td>
<td>189</td>
<td>179</td>
<td>51</td>
<td>28%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>790</strong></td>
<td><strong>642</strong></td>
<td><strong>141</strong></td>
<td><strong>22%</strong></td>
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</table>
Horizon Europe Pillar II – Project Calls 2023-2024
Mandat et Institutes des IRSC

Les IRSC visent à transformer la recherche en santé au Canada:

• En finançant la recherche libre et la recherche priorisée
• En renforçant les capacités de recherche dans des secteurs sous-développés et en formant la prochaine generation de chercheurs en santé
• En mettant l’accent sur l’application des connaissances qui facilite l’utilisation des résultats de la recherche et la transformation de ces résultats en politiques, pratiques, procedures, produits et services.
• Fournir des conseils au minister de la Santé et faire progresser les orientations stratégiques des IRSC au sein du gouvernement du Canada (c.-à-d. Comité de coordination de la recherche au Canada)
Participation des IRSC aux consortiums européens

8 partenariats public-public actifs

- Projets de recherche et d’innovation ambitieux
- Relevez les défis mondiaux avec d’excellents scientifiques européens et internationales
- Accès à des infrastructures de recherche de classe mondiale
- Mobilité vers l’Europe
- Accès à de nouveaux réseaux et alliances
- Financement de la recherche
### Horizon Europe: 2021-2027

#### Health Cluster
- health throughout the life course
- environmental and social determinants
- non-communicable and rare diseases
- Infectious diseases including poverty-related and neglected diseases
- tools, technologies and digital solutions for health and care including personalized medicine
- Health care systems

#### Research & Innovation Missions
- Cancer
- Climate-neutral & smart cities
- Adaptation to climate change including societal transformation
- Soil health & food
- Healthy oceans, seas, coastal & inland waters

#### European Partnerships (examples)
- brain health research
- one health antimicrobial resistance
- personalised medicine
- rare diseases
- transforming health and care systems
How can you participate in a collaborative project?

There are three ways to participate:

1. **“Beneficiary”** i.e., receiving funding in exceptional cases directly from Horizon Europe

2. **“Associated partner”** i.e., bringing his/her own funding and linked to one (or more) beneficiaries

3. **“Affiliated entities”** i.e., receiving funding from the beneficiary, either via subcontract or legal link, who was funded directly from Horizon Europe

Limited Canadian dedicated funding exists for some coordinated calls under Partnerships!

- CIHR will fund the Canadian component of the joint transnational teams
- European Commission will fund the other 3 entities from 3 different countries of the EU or from Countries Associated to Horizon 2020
National Contact Points

CIHR is the NCP for Health, services include:

• Distribution of information and documentation regarding Horizon Europe under the health cluster in Pillar II
• Guidance on choosing relevant Horizon Europe topics and types of action
• Advice on administrative procedures and contractual issues
• Assistance in partner search

Main structure to provide guidance, practical information and assistance on all aspects of participation in Horizon Europe
The NFRF 2022 Horizon Global Platform competition will provide support for Canadian researchers who are partners on successful projects funded through Research and Innovation Action calls under Horizon Europe’s Pillar II with a deadline before September 30, 2023.
2022 Horizon Global Platform

To be eligible to apply, the Canadian researcher(s) must be an integral part of the larger Horizon Europe team that was awarded a grant and a signing partner on the Consortium Agreement for the Horizon Europe project.
Eligibility and Project Team

• If more than one eligible researcher is named on the same Horizon Europe-funded project, they may each apply to this funding opportunity as a nominated principal investigator (NPI).

• Alternatively, a single application may be submitted involving an NPI and co-principal investigators (co-PIs).

• The NPI and Co-PIs must be considered independent researchers at their primary affiliation, which must be a Canadian institution holding full eligibility with CIHR, NSERC or SSHRC.
Value and Duration

The maximum budget for the direct costs of the research project is $200,000 per year, for up to two years.

• For applicants to a Horizon Europe call with a deadline after January 1, 2023 only one year of funding is available.

Applicants may, in addition, request up to 25% of the value of the direct costs of research to cover indirect costs.
## Funding Pillar II – Other Federal & Provincial STI Funding

<table>
<thead>
<tr>
<th>Program</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Institutes of Health Research: Project Grant Program</td>
<td>Designed to advance health-related fundamental or applied knowledge, supports research projects conducted by individual or group researchers.</td>
<td>$650 million - total amount for Fall 2022 and Spring 2023 Competitions. $16.25M to large grants $14.95M to Indigenous health research focus</td>
</tr>
<tr>
<td>Canadian Institutes of Health Research</td>
<td>Research calls for proposal under public partnership; proposal from Canadian researchers (under institutions) launched under the EU framework programme.</td>
<td>$200,000 to $900,000 for up to 3 years</td>
</tr>
</tbody>
</table>
STI Networks

• **Enterprise Europe Network (EEN).** World’s largest support network with a database of over 4000 profiles from 60+ countries.

• **European-Canadian Centre for Innovation and Research (ECCIR).** Coordinates and supports Canadian access to EEN’s database.

• **EURAXESS.** Platform MSCA and ERC applicants can search for host institutions, and connect Canadians with Europe based NCPs as needed
STI Networks

• **COST Actions.** Encourages the creation of research networks on specific projects

• **NGI Enrichers.** Funds EU researchers to collaborate in Canada, for 3-6 months

• **TCS.** Share global opps, connect you to qualified contacts, prep for intl markets
Industrial Research Assistance Program • NRC IRAP

- SERVE OVER 8,000 CLIENTS ANNUALLY (advisory services + funding) across all industry sectors and fund over 3,000 clients
- PROVIDE ADVICE, CONNECTIONS, AND FUNDING to help Canadian small and medium-sized businesses increase their innovation capacity and take ideas to market
- LINK INNOVATIVE CANADIAN SMEs TO GLOBAL VALUE CHAINS and support their growth by providing access to current technology and business market intelligence on priority industry sectors
- SUPPORT YOUTH with employment programs
Leading platform for international cooperation

Intergovernmental network

Supporting market-oriented R&D projects

Facilitating access to finance
Eureka Network

- All sectors (civilian-)
- Typically 2-3 participants
- Funding varies per country (Canada → SMEs, grant-type)
- Decentralized evaluation
- Occasional calls (national, bilateral, multi; thematic or not)
  - Canada Eureka Network (partners from any Eureka country)
  - “Lightweighting” technologies: with Austria, Belgium, France, Luxembourg, South-Korea, Spain, Sweden, Switzerland
  - Canada-Israel
Eurostars

- All sectors (civilian-)
- Typically 2-3 participants
- >30 Eureka countries with budget; Always grant-type
- Central evaluation
- Regular calls (Spring, Fall)
  - Next deadline: 13 April 2023
- Fast decision (3-4 months)
- Favourite in many European countries
Eureka Clusters

- Typically 5-15 participants
- Funding varies per country (Canada → SMEs, grant-type, no *a priori* ceiling)
- Central evaluation – then national applications and evaluations
- Yearly (typically) or semi-annual calls
Who can participate in Eureka projects?

- SME
- Large firms
- Universities, Research Centers

![Bar chart showing participation by type and year](image)
NRC IRAP - Who do we fund?

Canadian SMEs that pursue growth through technology innovation

Small and medium-sized enterprises
- Canadian, incorporated, profit-oriented
- 500 or fewer employees
- INT projects: Preference for scale-ups

What about Non-profits, Larger firms, Universities, ...?
- Self-funded
- May be contractor for IRAP-funded SME
- Could receive funds from other program
Funding - Canada EU STI activities – TCS

- **CanExport Innovation.** TCS funding >$75k to pursue and sign collaborative R&D agreements with international partners and investors.

- **CanExport SMEs.** TCS funding >$50k to help bring solutions to new int'l markets
  - See eligibility list (eg. have at least CAD$100k revenue past fiscal year).
Create a network of international accelerators and incubators

Support start-ups in their growth and help them explore new opportunities international markets

36% of MEI head to Europe

Travel grants of $5,000

Up to 5 grants for each start-up

**Impact story: CAPSolar**, a Montreal-based startup which undertook its first MEI-supported trip to Europe in winter 2021 to develop their **solar module prototype**, in the midst of the pandemic:

“Mitacs’ support allowed us to travel to Europe in the middle of Covid and allowed us to build new strategic partnerships with companies in Belgium, France and Switzerland to develop our most advanced working prototype yet. Thanks to that, we were able to test our prototype in a pilot project with one of our clients when we came back to Montreal and we obtained our first purchase order!”

- CEO & Co-Founder of CAPSolar
Accelerate International: Connect Industrial and academic networks

**Industrial research collaboration** between Canadian & international organisations

**4-6 months** internship unit valued at **$15,000**, co-funded between Mitacs and a industry partner

**Open to all disciplines** and are open to projects of any size

**Impact story**: Research collaboration between McGill University and Bombardier Aerospace to develop new software tools for Bombardier new paradigms in their aircraft design and remain innovative

**Flexible size and timeline** to respond to R&D needs
Globalink Research Internship: Talent Development

12-week research project in Canada during the summer for senior undergraduates to conduct research in world class labs while receiving professional training, mentorship activities.

In summer 2022, Mitacs hosted 2194 students.

In June 2022, Mitacs officialised a partnership with the Ministry of Education and Science of Ukraine to support up to 600 internships for students from Ukraine to come to Canada over 3 years to pursue their academic careers and research.
Globalink Research Award: Advance Research

Academic research collaboration supported by bilateral mobility internships lasting 12 to 24 weeks with postsecondary partners; research grant of $6,000

Thematic call in September 2022:
- Advanced computing (quantum and AI)
- Clean technology
- Global health
- Scientific and social innovations

- Cooperation under the MSCA Research & Innovation Staff Exchange (RISE) program under Horizon 2020.
TCS Products & Tools

- Horizon Europe Guide for Canadian
- STI Funding Programs for Canadians
- How to protect your Intellectual property in Europe (webinar March 29, 2023)
- Canadian cybersecurity companies exporting to the EU
- The EU’s General Data Protection Regulation
- Canada2EU Trade Chats podcast
- Toolkit for Canadian women doing business with the EU
KEY CONTACTS

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STI Opportunities

SURVEY = MORE INFO & SUPPORT
https://canada-eu-sti.euevent.eu/survey/