

Gouvernement du Canada Service des délégués commerciau: Canadä^{*}

Horizon Europe and Canada

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

Overview

- Canada EU STI, overview of Horizon Europe
- Canadian participation and association
- Horizon Europe Pillar II: who, what, when, where, why and how
- Q&A and next steps

#HorizonEU #HorizonEurope #CanadaEU #Canada #Innovation #Research #StrongerTogether @HorizonEU @Canada2EU @Aslin_Unlusoy



Canada EU STI Summary

- Canada and the EU: strategic, close, like-minded partners
- Excellent cooperation in many areas: health, ocean, aviation, smart cities, bioeconomy, raw materials, agriculture, and researcher mobility
- 1996 Canada-EU Agreement for Scientific and Technological Cooperation
 - flow of information and people but no dedicated funds



Horizon Europe Overview & Canadian Participation

- The EU's and world's largest Research & Innovation Funding Program
- C\$140 billion budget for 2021-2027; 35% climate change mitigation
- Canada 3rd most active after US & China (24 non-associated members)
- Participation 59% in Pillar 1 & 36% in Pillar 2: Health, Food, Transport, Climate



Horizon Europe and Canada – Association to Pillar II

- Canada seen as a trusted, reliable partner, strong innovator, easy to collaborate with
- Canadians considered "associate country participants" Pillar II as of Dec 5, 2023
- Direct EC funding, a core partner, retain IPR, can lead and host research in Canada
- Pillar II 2024 project calls, close date on/after Dec 5, 2023, evaluated as beneficiaries to receive grants DIRECTLY from the EC once provisional application begins
- APPLY NOW to be considered as process can take 8 months from deadline
- Eligible: researchers, businesses, institutions, universities, associations, org., etc.



Horizon Europe Pillar I – Excellent Science

- Research Grants: European Research Council's Synergy Grants
 - Bold scientific challenges in any field of research (max C\$14.5m, 6 years)
- Research Infrastructures (Canada has existing agreements)
 - Integrated/interconnected world class research infrastructures
- Researcher Mobility: Marie Skłodowska-Curie Actions C\$9.6 billion
 - Hosting researchers across borders in top institutions



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 the EU (or PIII associated country)
- June 2023, 51 deeptech cos, 17 countries, shared C\$380 million in funding
- Next <u>deadline</u>: March 13, 2024



Horizon Europe Pillar II – 5Ws

* Direct EC funding, a core partner, retain IPR, can lead and host research in Canada *

What: importance, ~ C\$10 billion a year, six clusters – EC DG Innovation

Why & Who: capabilities, 3-5 yrs to develop, connect w markets & clients – Spain

How & When: process, networks, published project calls, timelines - UK

Support: NCPs, research offices, facilitate collaboration w Europeans – Germany

Best Practices: Canadian success stories WINNER and FlexSNG

Next Steps: Canadian NCPs, online material, regional/sectoral webinars – ISED & GAC

HORIZON EUROPE

EURATOM

SPECIFIC PROGRAMME: **EUROPEAN** DEFENCE **FUND**

Exclusive focus on defence research & development

> Research actions

Development actions

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT*

Exclusive focus on civil applications



European Research Council

Marie Skłodowska-Curie

Research Infrastructures



Pillar II **GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS**

- Health
- Culture, Creativity & Clusters **Inclusive Society**

Environment

- Civil Security for Society
- · Digital, Industry & Space Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture &

Joint Research Centre



European Innovation Council

European Innovation Ecosystems

European Institute of Innovation & Technology*

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

Fusion

Fission

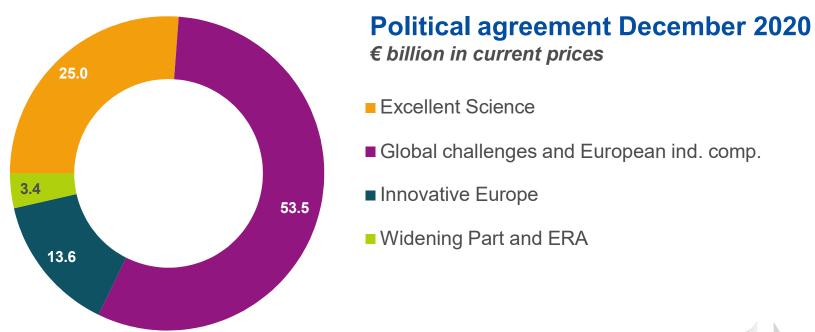
Joint Research Center



^{*} The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

Horizon Europe Budget: €95.5 billion (2021-2027)

(including €5.4 billion from NGEU – Next Generation Europe – programme of EU for Recovery from COVID-19 crisis)

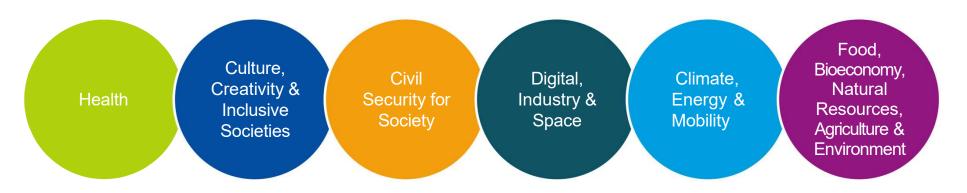




Pillar II - Clusters

GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS:

boosting **key technologies** and solutions underpinning **EU policies & Sustainable Development Goals** (6 clusters and JRC – non-nuclear direct actions)



€53.5 billion



Pillar II

Budget for clusters & for JRC

in current prices

| Cluster 1 | Health | €8.246 billion (including €1.35 billion from NGEU) |
|-----------|---|---|
| Cluster 2 | Culture, Creativity & Inclusive Societies | €2.280 billion |
| Cluster 3 | Civil Security for Society | €1.596 billion |
| Cluster 4 | Digital, Industry & Space | €15.349 billion (including €1.35 billion from NGEU) |
| Cluster 5 | Climate, Energy & Mobility | €15.123 billion (including €1.35 billion from NGEU) |
| Cluster 6 | Food, Bioeconomy, Natural Resources, Agriculture & Environment | €8.952 billion |
| | JRC (non-nuclear direct actions) | €1.970 billion |

Clusters are including a budget for Partnerships and Missions NGEU is Next Generation EU programme – Recovery Fund



About the Horizon Europe Work Programmes

The Work Programmes are the key documents for potential participants.

They list all the topics where proposals are invited (Calls for Proposals), as well as providing the descriptions of what is expected (scope), expected budget and eligibility criteria.

- WP 2021 2023 CLOSED
- WP 2023- 2024 CURRENT
- WP 2025 UPCOMING (Spring 2025)
- WP 2026-2027 UPCOMING



Consortium Composition

Unless otherwise provided for in the specific call conditions, consortia submitting a proposal must include <u>as beneficiaries</u> (ie receiving EU funding) at LEAST three legal entities independent from one another and each established in a different country as follows:

- at least one in an EU Member State
- at least 2 other independent legal entities, each established in a different MS or Associated Country





Why make the effort to participate in HE?...

✓ Enlarging knowledge your and/or technological capabilities

✓ But also for networking

✓ Influencing the programme and its initiatives!





SPANISH PRESIDENCY

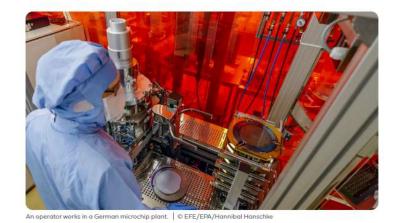


Who can participate?

News ∨ Events Programme ∨ Presidency ∨ Media ∨ Q (§ EN

Spanish Presidency of the Council of the European Union > Programme

Open Strategic Autonomy for a competitive and resilient EU



The Open Strategic Autonomy was one of the main topics of the informal meeting of EU heads of state or government in Granada. The aim is to move towards a more competitive and resilient EU in the face of global technological and geopolitical transformations.

All sort of ENTITIES can participate to HE calls but there are **limitations**:

- ✓ Security sensitive research
- ✓ European Strategic Autonomy



https://spanish-presidency.consilium.europa.eu/en/programme/open-strategic-autonomy-spanish-presidency-eu-council-resilient-eu2030/

Keys for success in Horizon Europe:

- Anticipation
- ☐ short-mid-long term planning → Results in 3-5 years
- ☐ **Networking** a EU/International level

And for that, you have support at:

- ✓ National level → National delegates & National Contact Points (NCPs), your office in Brussels, ...
- ✓ **European** level → EU bodies (EC, Agencies,...), EU technology platforms and associations ...





Few tips and ideas...

- ✓ <u>Value</u> your contacts
- ✓ Who is doing what → through the "Participant Portal", CORDIS...





- ✓ **Become** an **evaluator or expert** → EC Advisory Boards
- ✓ Answer public consultations!
- **✓** Attend forums and events of your sector, and other sectors!
- ✓ Stay updated → eg. Politico, Science Business, Science Europe, Guild

Horizon Europe and Canada

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Horizon Europe - Welcome for Canada

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25 January 2025





THE NEXT EU RESEARCH & INNOVATION PROGRAMME (2021 – 2027)

Where can I find 'my' €0.5m in this €95,500m bucket?







WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system



Horizon Europe Competition Structure

Horizon Europe

Innovate UK

```
L Pillar
L Cluster
L Destination
L Call for Proposals
L Topic
```

- 'Topic' is the level at which proposals are submitted against a specified scope for a share of a specified budget, i.e. the competition happens here
- Topic Identifier 'code' is [PROGRAMME]-[YEAR]-[CLUSTER]-[CALL]-[TOPIC]
 - e.g. HORIZON-2024-CL5-01-01 (reading backwards) is the first Topic in the first Call for Proposals in Cluster 5 in 2024 in Horizon Europe

Funding rates and main types of Action

Research and Innovation Action (RIA)

- Typically, low(ish) Technology Readiness Level
- Consortium of at least three different legal entities from three different eligible countries (all UK and Canadian legal entities are classed as eligible). At least one consortium member must be from a Member State (MS)
- All participants receive 100% of eligible direct costs plus 25% for indirect costs

Innovation Action (IA)

- Typically, high(er) Technology Readiness Level
- Consortium of at least three different legal entities from three different eligible countries. At least one must be from a MS
- All not-for-profit participants receive 100% of eligible direct costs plus 25% for indirect costs
- All for-profit participants receive 70% (60% for some co-programmed partnership Topics) of eligible direct costs plus 25% for indirect costs

Coordination and Support Action (CSA)

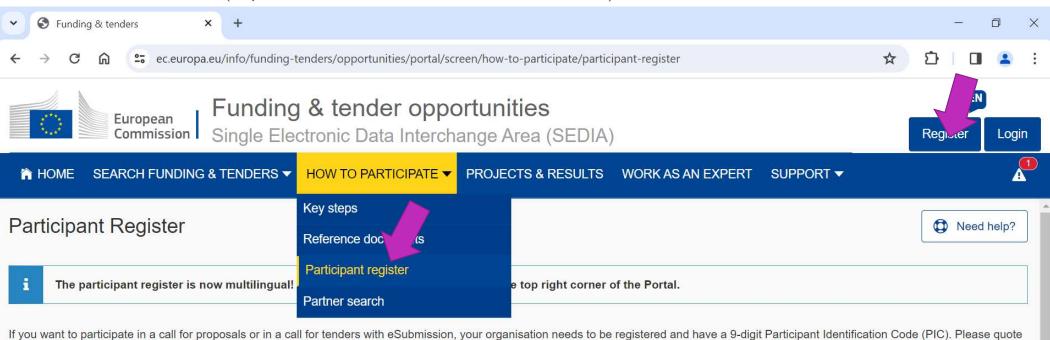
- As name suggests, for coordinating and supporting activities such as working groups, networking, regulation review, communications, organising EU conferences, etc
- Formally do not need a collaborative approach but often do to meet the scope. Must have at least one partner from a MS
- All participants receive 100% of eligible direct costs plus 25% for indirect costs

EU Funding and Tender Opportunities Portal

your PIC in all correspondence with the Commission.

All Topics (competitions) are published on the EU's Funding and Tender Opportunities Portal

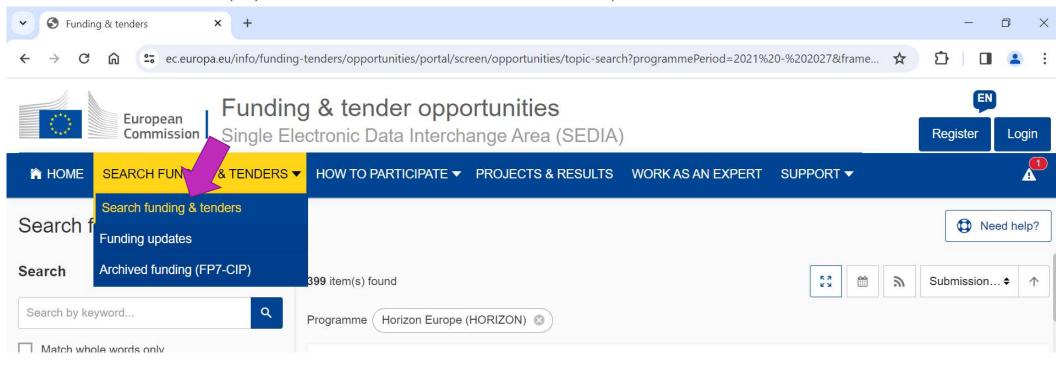
- Create a personal login (top right) then 'Register your organisation' (in 'How to participate') to get a Participant Identification Code (PIC)
- Each Topic (competition) has its own webpage (in 'Search Funding & Tenders') with everything you need to know read it all (expand the sections to see the More Info...)



EU Funding and Tender Opportunities Portal

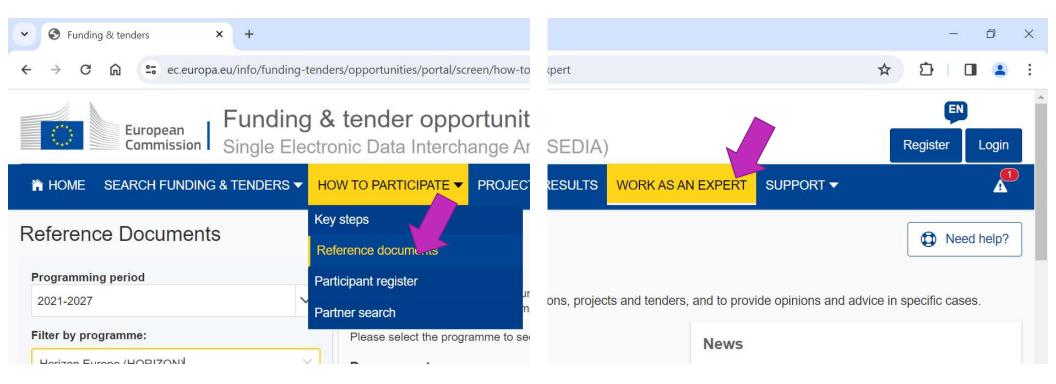
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EU Funding and Tender Opportunities Portal – Top Tips

- Reference Documents section in How to Participate contain the PDF version of all the Work Programmes (competitions) – much easier to read and includes individual budgets, etc. Read both PDF and the Topic webpage as latter has links to other documents
- Register as an Expert these are the proposal Evaluators and evaluating other people's proposals gives you
 great insight into the process and what the evaluators are told to look for



Useful sources of Information

- EU Science and Innovation <u>YouTube Channel</u>
 - Funding and tender opportunities portal for beginners
 - How to appoint a LEAR Legal Entity Appointed Representative
 - How to prepare a successful proposal for Horizon Europe
- CORDIS every research and innovation project ever funded by EC
 - Search using keywords to find already funded projects and their participants (link with 'Horizon Europe' and 'Project' <u>filters pre-applied</u>)
 - Ideal way to find potential partners (with a proven track record of success) for consortium forming





Thank you

Twitter X: @UK_Mobility_NCP

Email: NCP-Mobility@iuk.ukri.org

Newsletter Subscription: https://eufunding.ukri.org/subscribe



Advice for participating in Horizon Europe



Take a strategic approach when planning your participation (Why? With whom? When?)



Build a network: make yourself visible and engage in stakeholder platforms etc.



Take enough time for preparation, read the call text carefully (details might be crucial)



Participate as expert evaluator, in advisory groups, etc.



Ask for advice and support!











WINNER: Wireless World Initiative New Radio



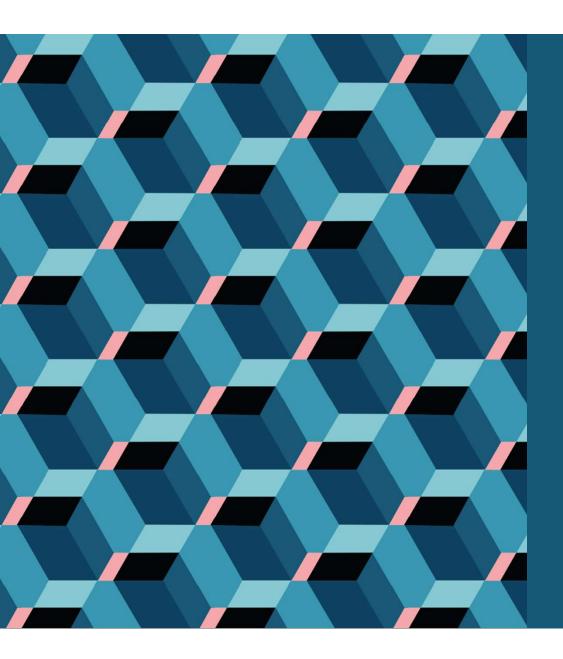
The WINNER Experience → A Winning Experience

WINNER: The world's largest collaborative research project in the ICT (information and communications technologies) area

- 01 Jan 2004 31 Dec 2007 (48 months) (Framework Programme 6)
- 40 partner organizations (academia and industry)
 38 from Europe + 1 from China + 1 from Canada (Carleton University)
 ~200 researchers across several work packages
- Total cost: € 43,462,522 (→ € 100M)
- Carleton's support: NSERC SRO (Special Research Opportunities) Fund
- Outcome: WINNER → 4G LTE (the most successful mobile standard)

The WINNER experience: "The whole is greater than the sum of its parts"

- Working together in large-scale collaborative research projects towards a coherent whole
- Culture | management | decision making
- Reporting



FlexSNG – Flexible Production of **Synthetic Natural Gas and Biochar via Gasification of Biomass and Waste Feedstocks**

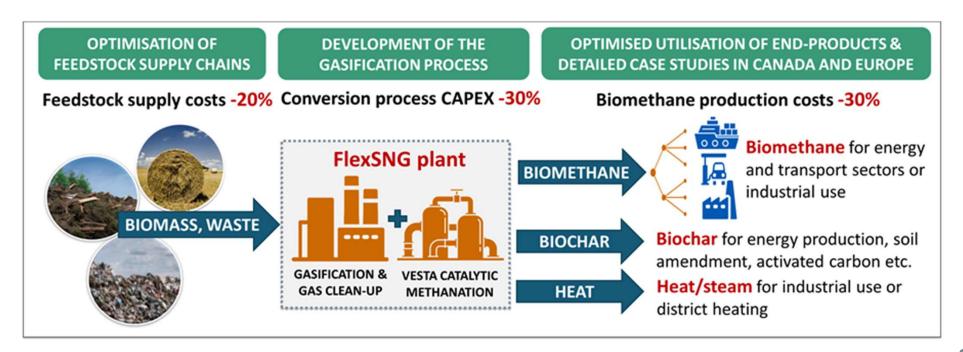
Project overview and experience



project has received funding the European Union's Horizon 2020 research and innovation programme under grant agreement No 32 101022432.

FlexSNG Project

Our vision is to develop and validate (TRL5) a **flexible and cost-effective gasification-based process** for the production of **pipeline-quality biomethane**, **high-value biochar** and **renewable heat** from a wide variety of **low-quality biomass residues and biogenic waste feedstocks**.



FlexSNG Financial Support

- "Flexible Production of Synthetic Natural Gas and Biochar via Gasification of Biomass and Waste Feedstocks"
- Type of action: Research and Innovation
- Duration: 36 months (1 June 2021 31 May 2024)
- EU funding: ~ 4.5 M€
- 12 partners from 8 countries (Finland, Greece, Italy, Denmark, Sweden, Germany, UK, Canada)



















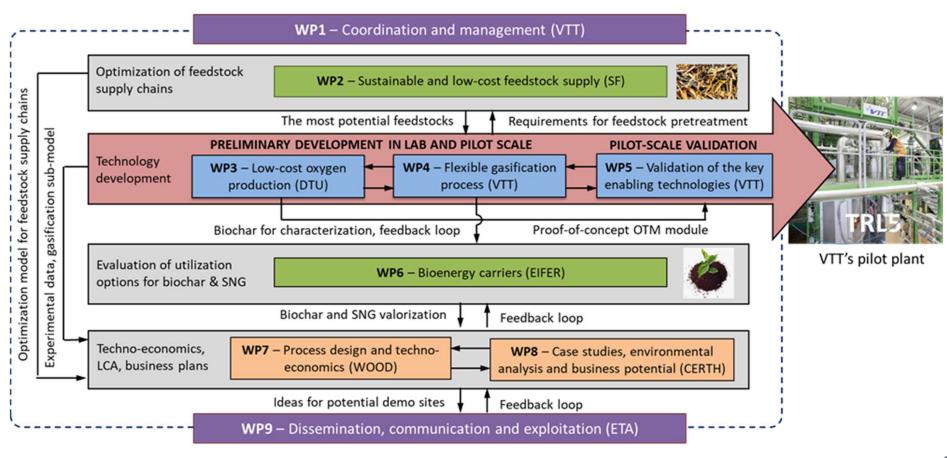


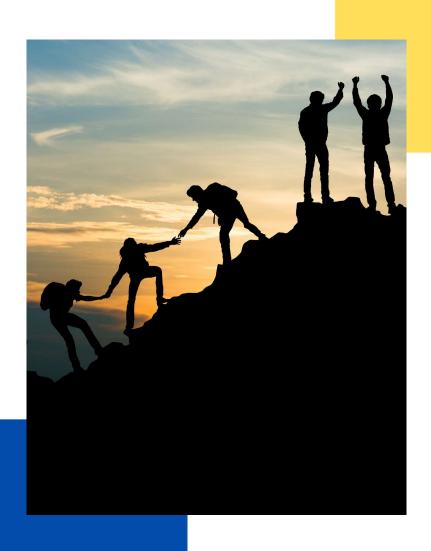


Call topic: "International cooperation with Canada on advanced biofuels and bioenergy"

Specific challenge: Optimisation of advanced biomass supply chains and overcoming specific conversion technology barriers are needed to improve the market up-take of sustainable advanced biofuels and bioenergy and accelerate their deployment for replacing the use of fossil fuels in the transport, power and heating sectors.

FlexSNG work package structure





HORIZON EUROPE IN CANADA

- Treaty approval process
- National Contact Point (NCP) network
- Efforts to raise awareness.

NCP ROLES AND **RESPONSIBILITIES**







Notifying and Cooperation



NEXT STEPS

- Applications will be reviewed by the European Commission
- Additional engagement is planned in the coming weeks and months
- NCPs will be announced shortly





RESOURCES FOR CANADIANS

Website: https://ised-

isde.canada.ca/site/ised/en/horizon-europe

Email: Horizon.Europe@ised-isde.gc.ca

Additional info to be shared in the coming weeks:

- Detailed Qs and As
- Updated version of GAC's Horizon Europe for Canadians
- NCP names and contact information
- HE Award Criteria

TCS Products & Tools

- Horizon Europe Guide for Canadian
- STI Funding Programs for Canadians
- How to protect your Intellectual property in Europe
- 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



Horizon Europe Pillar II – Key Points

- All entities are eligible; have operational & financial capacity to carry out proposal
- Actions: low/high TRL 100% direct + 25% indirect costs (high TRL, profit, 60% direct)
- Costs incurred only during project period, see Model Grant Agreement, Chapter 3, A.6
- Consortia: min 3, avg 8-12 partners with complementary skills & perspectives
- Peer-review of project proposals for quality and science excellence
- Extra marks for having gender balanced consortia
- Projects can run on average 2-4 years
- Open science: non-sensitive calls publish and share data
- Intellectual property rights (IPR) are shared among consortia members
- Location is not limited to Europe research can be done in Canada
- GoC researchers: TBS rules on funding and expenditures; ISED guidelines to follow