

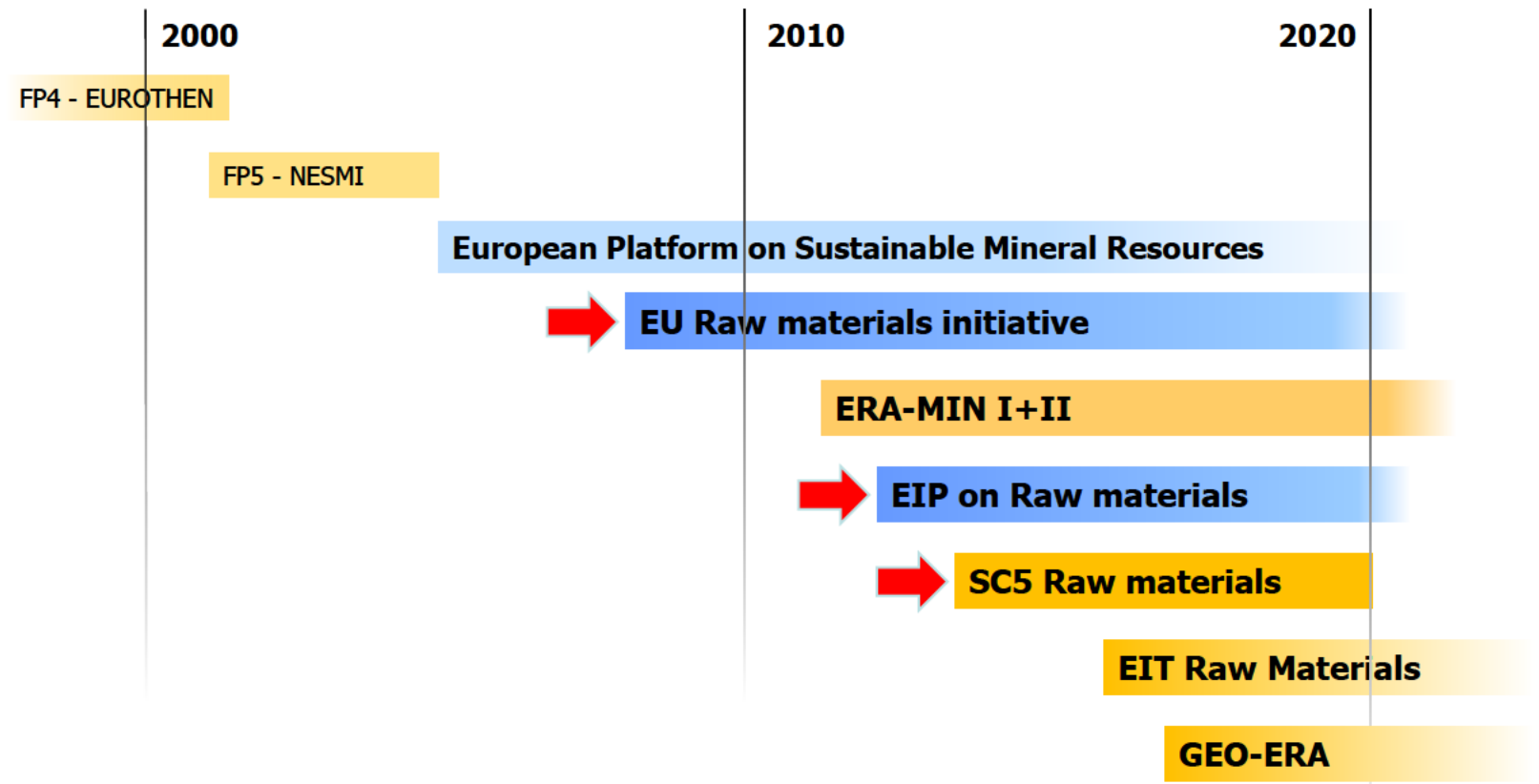
# EU research and innovation priorities and programs of relevance to the mining sector

**EU-Canada Bilateral Dialogue on Raw Materials**  
16 November 2018, Brussels



---

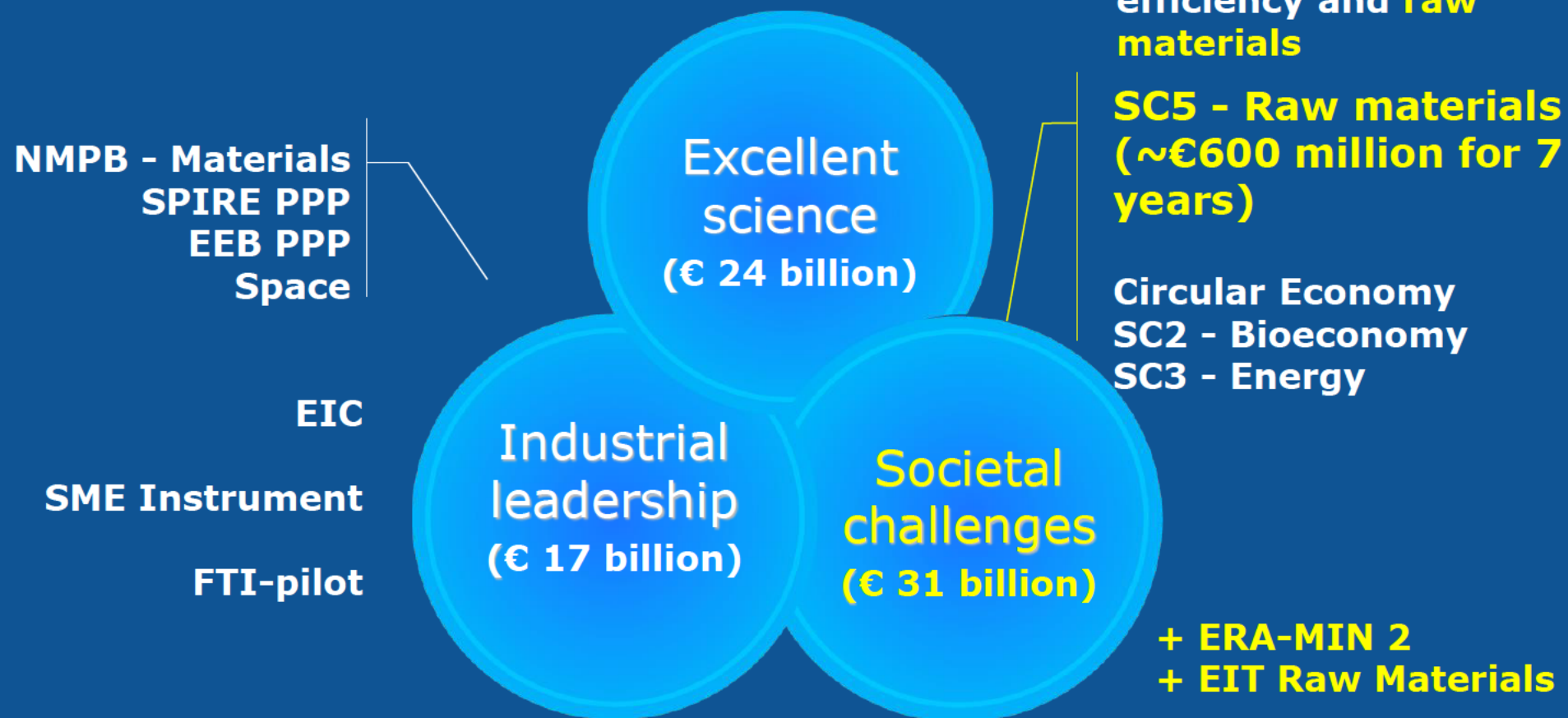
*European Commission. Directorate-General for  
Internal Market, Industry, Entrepreneurship and  
SME's (DG GROW).  
Unit C2 - «Resource Efficiency and Raw Materials»*



# Horizon 2020

## Context and overview

### Topics relevant to raw materials



### Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

#### Horizon 2020. WP 2018-2020. Raw Materials

- Near 240 million available under SC5 (plus FTI, SME Inst).
- Actions covering the entire EU raw materials value chain, following the logic of SIP and **supporting the targets and objectives of the EIP on Raw Materials.**
- 64% of the budget to Innovation Actions + 28% to RIAs
- Specific attention to CRMs, Circular economy, Production.
- Involving all relevant actors at EU level as well as strategic international partners ([international cooperation is encouraged](#)).
- Clustering with other relevant projects is encouraged.
- Pursuing collaboration and synergies with other parts of H2020.
- "Bridge" to Post-2020 "FP9".

## Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

### Raw materials: Objectives

- deliver **pilot actions** demonstrating sustainable production of primary and secondary raw materials, particularly CRM or other scarce high-tech metals
- deliver **breakthrough research concepts**, as basis of tomorrow's innovations
- contribute to building **EU knowledge base** of primary and secondary raw materials for solid decision making; further development of EC Raw Materials Information System – **RMIS**
- respond to the **Circular Economy Action Plan** and objectives of Strategic Implementation Plan of the **EIP on Raw Materials**
- improve **framework conditions** for sustainable development of and investment in innovative solutions for raw materials in the EU
- In the long term, positive impact on: downstream industries' access to raw materials; **employment in and competitiveness** of EU raw materials and related manufacturing industries, including SMEs; **environmental and social performance** of the sector; improved public **awareness**, acceptance and trust; EU endeavours to **implement the SDGs**, notably SDG 12

### SC5-Call "Greening the economy in line with the Sustainable Development Goals (SDGs)"

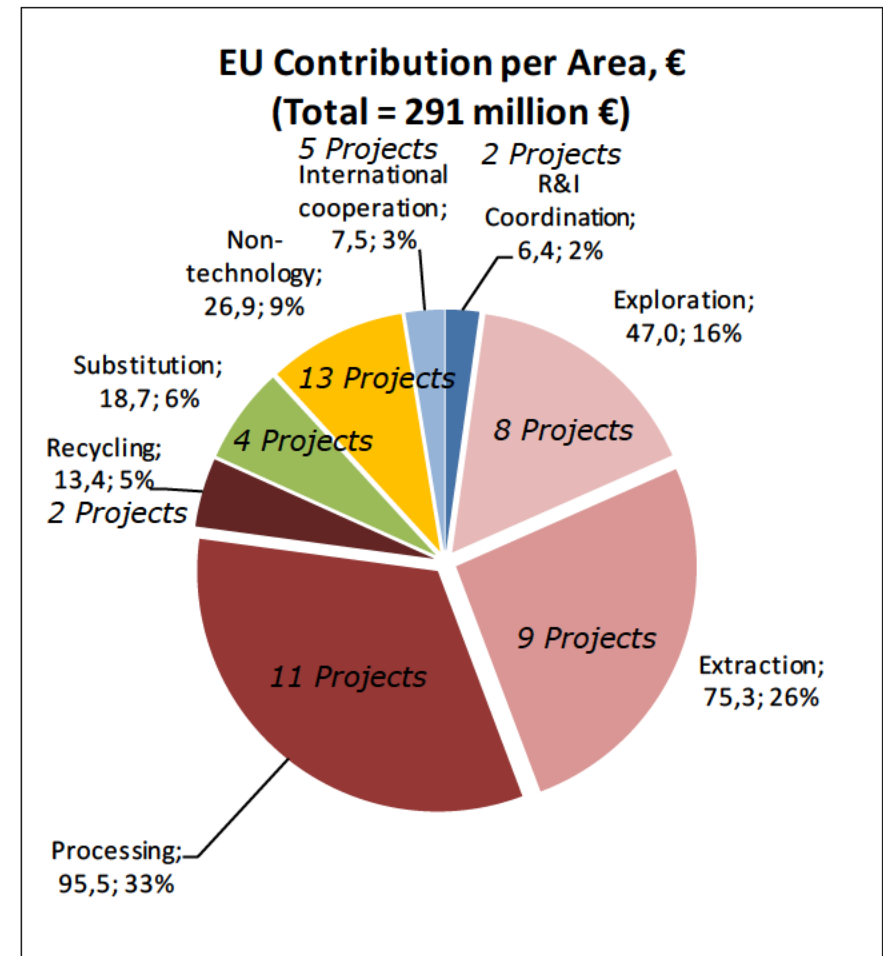
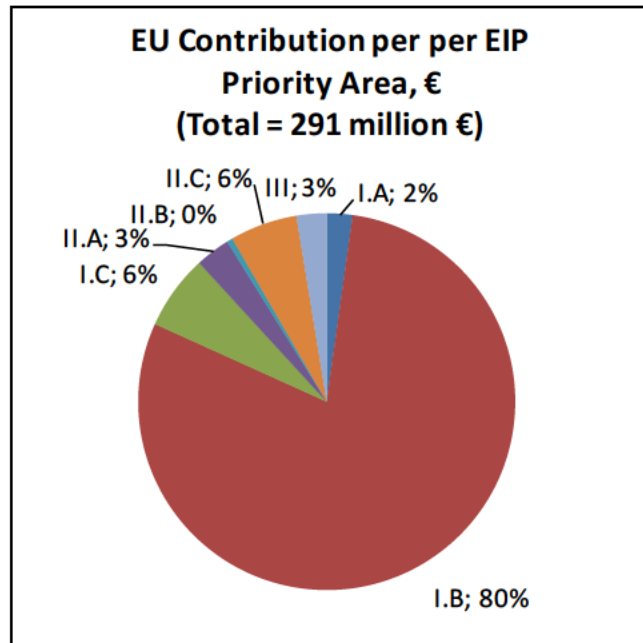
#### Raw materials, WP 2019

- **CE-SC5-07-2018-2019-2020: Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes (IA)**
  - a) Sustainable processing and refining of primary and/or secondary raw materials
  - b) Recycling of raw materials from end-of-life products
  - c) Recycling of raw materials from buildings
  - d) Advanced sorting systems for high-performance recycling of complex end-of-life products
- **CE-SC5-08-2018-2019-2020: Raw materials policy support actions for the circular economy (CSA)**
  - c) **Responsible sourcing of raw materials in global value chains (2019)**
- **SC5-09-2018-2019: New solutions for the sustainable production of raw materials (RIA)**
  - b) **Digital mine (2019)**
  - c) Recovery of metals and minerals from sea resources (2019)
- **SC5-10-2019-2020: Raw materials innovation actions: exploration and Earth observation in support of sustainable mining**
  - a) **Integrated exploration solutions (2019)**
  - b) **Services and products for the extractive industries life cycle (2019)**
- **Budget WP 2018**

€83 million
- **Deadlines for WP 2018** (Open 14 November 2018)

**19 Febr 2019** (CSA and First stage of RIA, IA)  
4 Sep 2019 (Second stage of RIA, IA)

# Thematic coverage of ongoing H2020 projects on raw materials

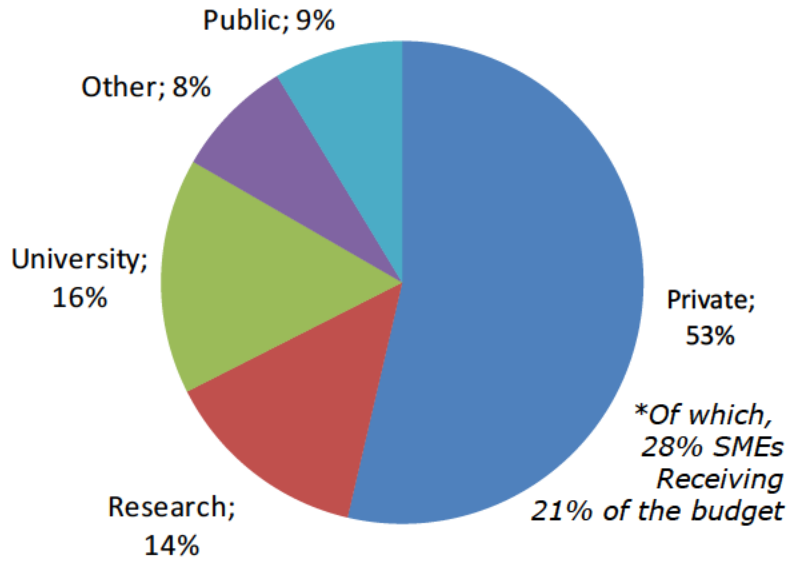


- I.A Raw materials research and innovation coordination
- I.B Technologies for primary and secondary raw materials production
- I.C Substitution of raw materials
- II.A Improving Europe's raw materials framework conditions
- II.B Improving Europe's waste management framework conditions and excellence
- II.C Knowledge, skills and raw materials flows
- III International cooperation

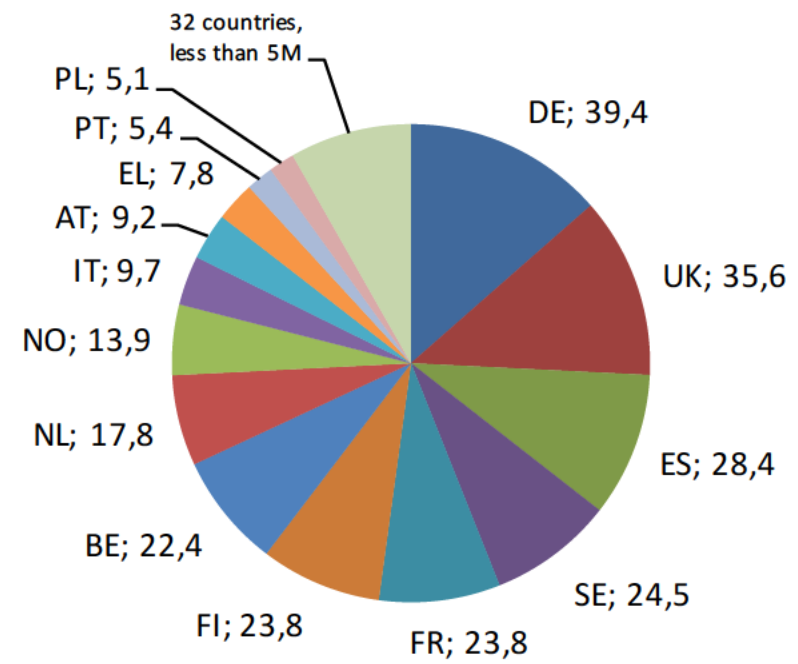


## Building up the raw materials community. 2014-2017: 54 projects, 565 distinct participants (156 SMEs) from 46 countries, EU contribution of €291 million

Participations per Participant type.  
Distinct participants

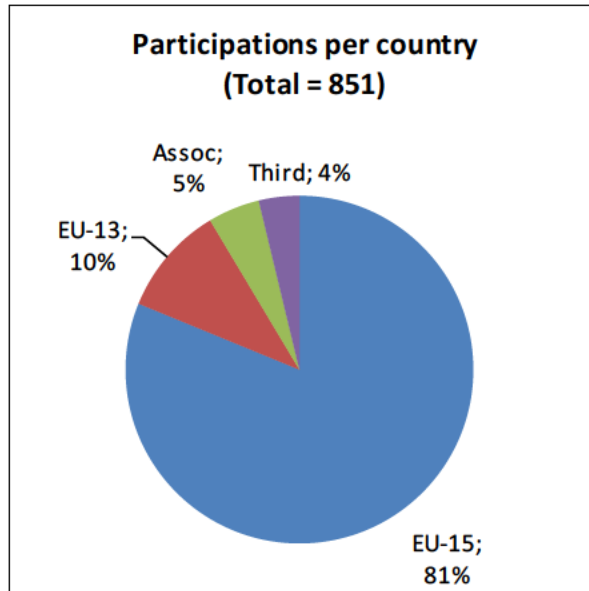


EU Contribution per Country, M €  
(Total = 291 million €)





# Participation from Canada in H2020



- So far, throughout whole H2020 Programme: 208 participations of Canadian stakeholders, 80 unique participants, 4.66 M EU contribution (source: [H2020 Dashboard](#))
- **Only one partner from Canada in a project selected under the raw materials topics of SC5: STILLWATER CANADA INC** in "PACIFIC", a RIA on Exploration technologies.
- Additionally, **Quebec has joined the second Call of** the ERA-Net on Raw Materials **ERA-Min 2.**

## Join consortia!:

- All **topics on raw materials** under SC5 **encourage Intl. Cooperation.**
- **Canadian stakeholders can team up with European partners** to develop H2020 projects. In principle Canadian partners should bring **their own funding.**
- \*Co-funding: **Researchers from Quebec may receive support** through a provincial support programme for international cooperation (PSR).



## Roadmap for EU-Canada S&T cooperation (October 2017)

[http://ec.europa.eu/research/iscp/pdf/policy/ca%20clean\\_roadmap\\_2017.pdf](http://ec.europa.eu/research/iscp/pdf/policy/ca%20clean_roadmap_2017.pdf)

...An expansion of the EU-Canada S&T cooperation can be expected as well in the existing cooperation area and into new areas:

- Aeronautics
- Marine and Arctic
- Nanosafety and Technologies for Global Health Care (safety of medical devices):
- ICT
- Health
- Researcher Mobility (Marie Skłodowska-Curie Actions (MSCA))
- Energy research
- Research Infrastructures

The Canadian government has indicated that Canadian governmental services will explore ways to expand the cooperation fields beyond the areas mentioned above. High on the cooperation agenda are topics like environment and climate change-related research as well as energy research fully in line with the existing high level dialogues between both sides in these areas....

## Agreement from 1996.

In place since 1996, not limited in time

[No L 74/26 EN Official Journal of the European Communities 22. 3. 96](#)

### AGREEMENT

for Scientific and Technological Cooperation between the European Community and Canada

THE COUNCIL OF THE EUROPEAN UNION on behalf of the European Community, of the one part, and

THE GOVERNMENT OF CANADA, of the other part, hereinafter referred to as the 'Parties';

### Article 4

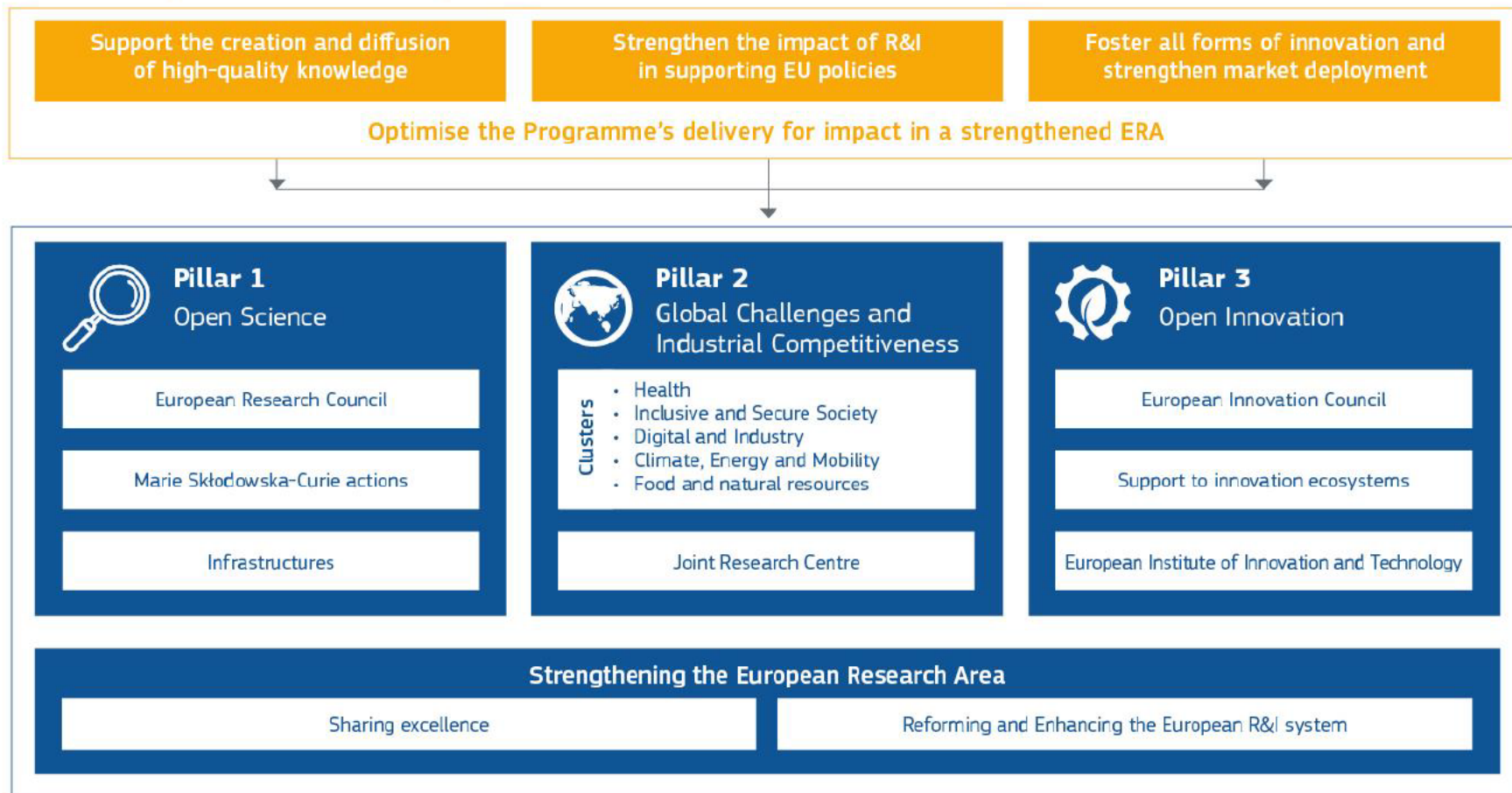
#### Areas of cooperation

(a) Cooperation may be pursued in the following areas:

1. agriculture, including fisheries;
2. medical and health research;
3. non-nuclear energy;
4. environment, including earth observation;
5. forestry;
6. information technologies;
7. communication technologies;
8. telematics for economic and social development;
9. mineral processing;

# “~~FR9~~” → Horizon Europe (2021-2027)

## Specific objectives of the Programme



[https://ec.europa.eu/commission/publications/research-and-innovation-including-horizon-europe-iter-and-euratom-legal-texts-and-factsheets\\_en](https://ec.europa.eu/commission/publications/research-and-innovation-including-horizon-europe-iter-and-euratom-legal-texts-and-factsheets_en)



## HORIZON EUROPE: €97.6 billion

### 3 Pillars:

- Open Science: €25.8 billion
- **Global challenges and Industrial Competitiveness: €52.7 billion**
  - 5 thematic **clusters**:
    - Health
    - Inclusive and Secure Society
    - Digital and Industry: €15 billion**
      - Circular Industries (inc. "Raw Materials")
      - Low-Carbon and Clean Industries
    - Climate, Energy and Mobility
    - Food and Natural Resources
- Open Innovation: €13.5 billion

## Horizon 2020 - Raw materials webpage:

<http://ec.europa.eu/programmes/horizon2020/en/area/raw-materials>

## H2020 Participant portal

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/h2020>

[http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-climate\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-climate_en.pdf)

- **Deadline Raw materials topics: 19 Feb 2019** (CSA, and First stage of RIA, IA).
- **Don't wait until last minute!!!**

## Specific information about international cooperation, EU-Canada Cooperation and H2020

[http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/international-cooperation\\_en.htm](http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/international-cooperation_en.htm)

<http://ec.europa.eu/research/iscp/index.cfm?amp;pg=canada>

[http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020\\_localsupp\\_canada\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020_localsupp_canada_en.pdf)

[http://ec.europa.eu/research/iscp/pdf/policy/ca%20clean\\_roadmap\\_2017.pdf](http://ec.europa.eu/research/iscp/pdf/policy/ca%20clean_roadmap_2017.pdf)

## National Contact Points (NCP) SC5 support and events (several NCPs in Canada):

[http://ec.europa.eu/research/participants/portal/desktop/en/support/national\\_contact\\_points.html](http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html)

## Horizon 2020 – EXPERTS:

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

## H2020 Project abstracts and description of consortia:

[https://ec.europa.eu/research/environment/pdf/research\\_and\\_innovation\\_sc5\\_projects\\_2014-2017a.pdf](https://ec.europa.eu/research/environment/pdf/research_and_innovation_sc5_projects_2014-2017a.pdf)

## EU raw materials:

[http://ec.europa.eu/growth/sectors/raw-materials/index\\_en.htm](http://ec.europa.eu/growth/sectors/raw-materials/index_en.htm)

## EIP on Raw materials:

<https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en>

## Raw materials Information System (RMIS):

<http://rmis.jrc.ec.europa.eu/>

## Second Call of ERA-Min 2 (ERA-Net on Raw Materials with participation of Quebec)

<https://www.era-min.eu/node/325>

## EIT Raw materials:

[www.eitrawmaterials.eu](http://www.eitrawmaterials.eu)



# EU research and innovation priorities and programs of relevance to the mining sector

**EU-Canada Bilateral Dialogue on Raw Materials**  
16 November 2018, Brussels



*European Commission. Directorate-General for Internal Market, Industry, Entrepreneurship and SME's (DG GROW).  
Unit C2 - «Resource Efficiency and Raw Materials»*