



EASME

Executive Agency for Small and Medium-sized Enterprises

Raw materials in Horizon 2020 (and beyond)

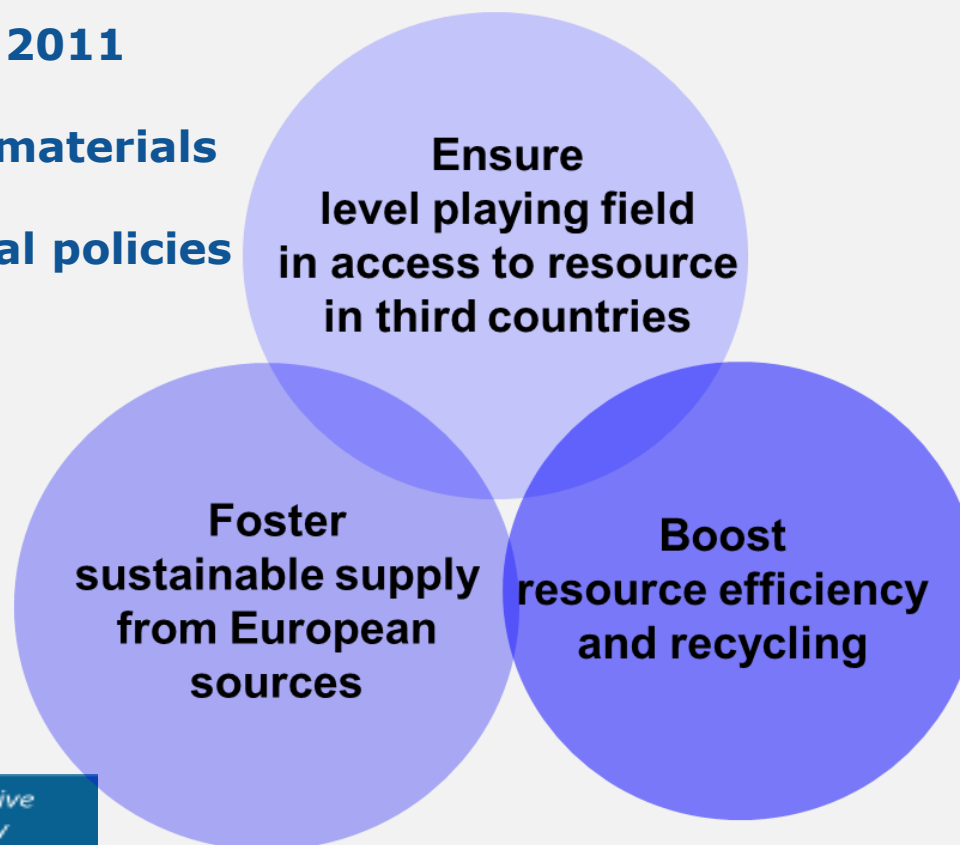
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UNEXMIN final conference
25 September 2019, Brussels

Executive
Agency
for SMEs

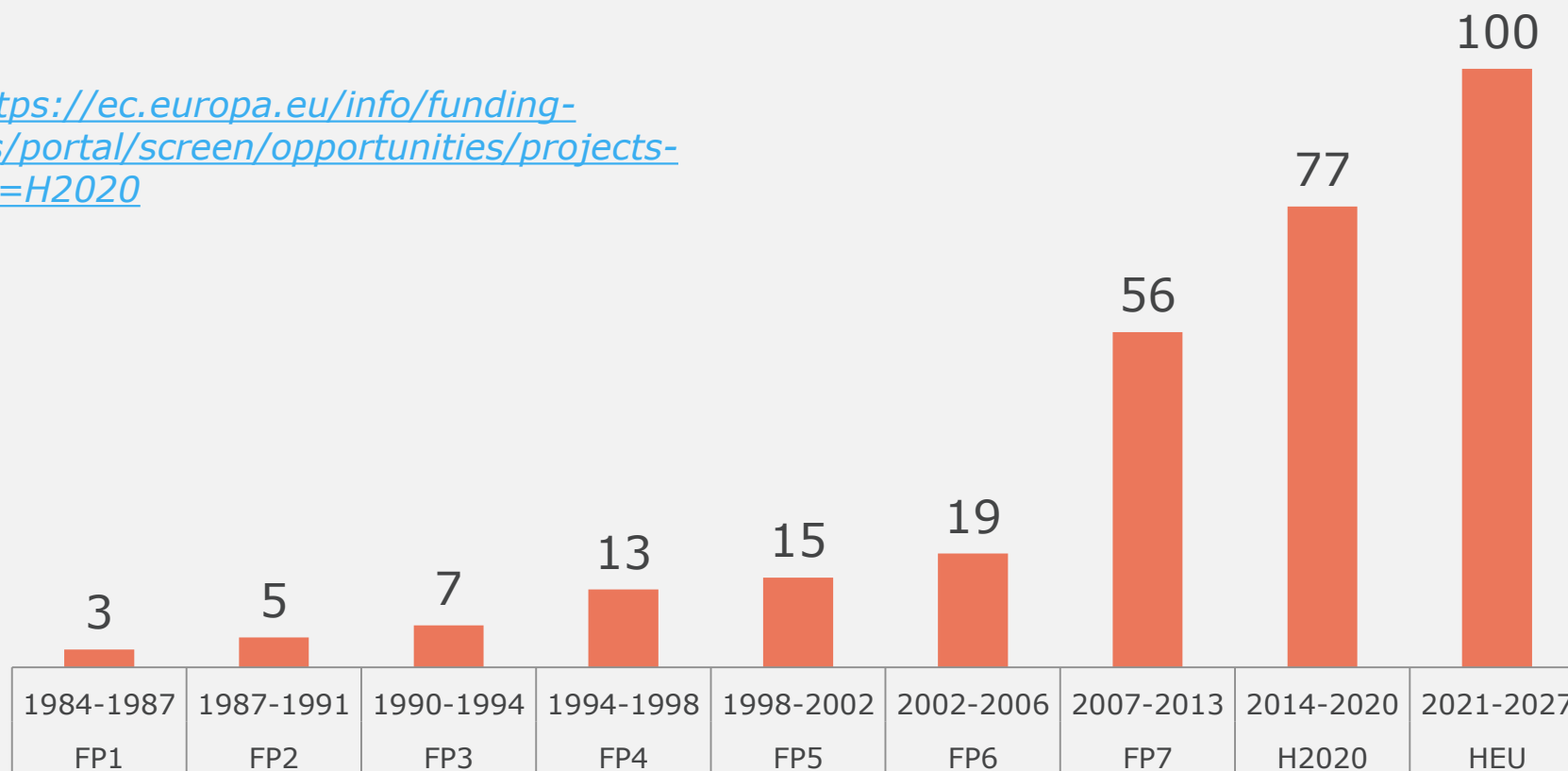
EU Policy - “Raw Materials Initiative”

- **Aim: securing sustainable supplies of raw materials**
- **Launched in 2008, consolidated in 2011**
- **Non-energy, non-agricultural raw materials**
- **Connecting EU external and internal policies**
- **Integrated strategy (3 pillars)**
- **Introduced list of 14 Critical Raw Materials (CRM) in 2010, updated 20 CRMs in 2014, updated 27 CRMs in 2017**



EU Research & Innovation 1984-2027

Projects & results: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/projects-results;programCode=H2020>



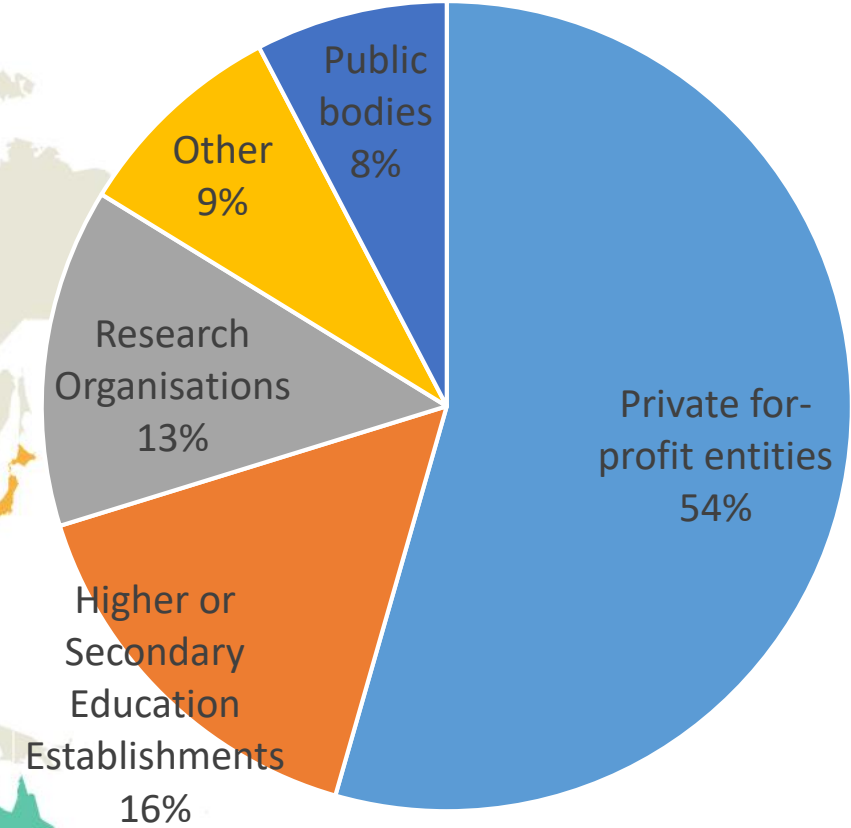
Evolution of investment in EU R&I (billion € current prices)

Open to the world

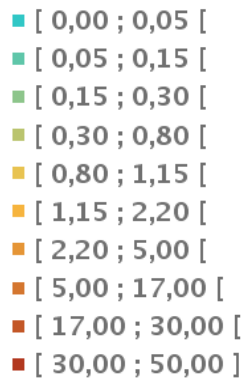
66 projects with 365 million € EU funding

1024 project participations by 668 organisations

A majority from the private sector



EU contribution in M€





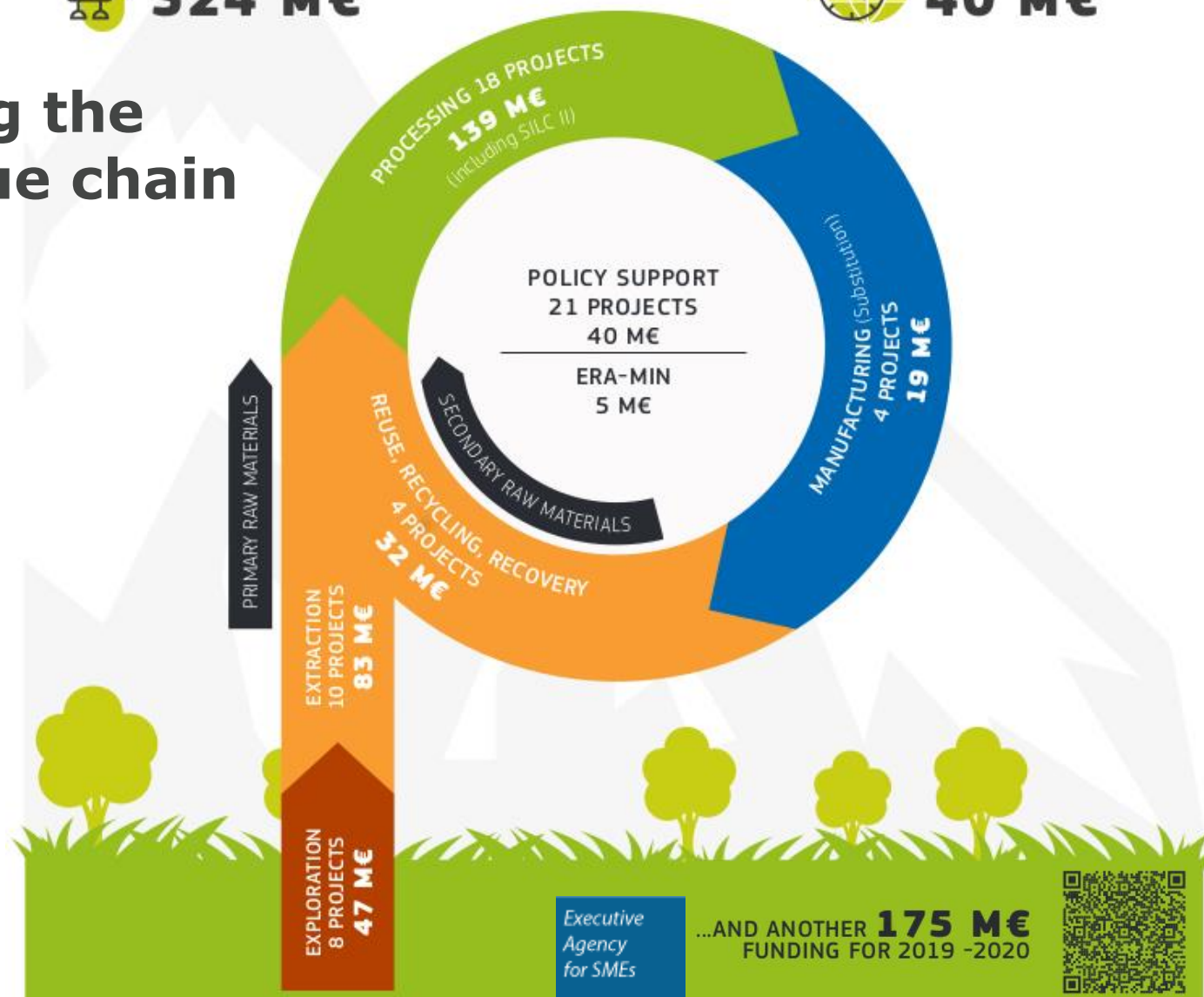
RESEARCH & INNOVATION
324 M€

European
Commission



POLICY SUPPORT
40 M€

Addressing the whole value chain



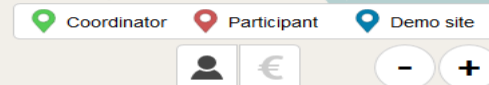


European
Commission

Horizon 2020 Environment and resources data hub



Find out more



EASME data hub: <https://sc5.easme-web.eu/?theme=green> (filter "raw materials")

Societal Challenge 5 on the EASME website: <https://ec.europa.eu/easme/en/horizon-2020-societal-challenge-climate-action-environment-resource-efficiency-and-raw-materials>

EASME on Twitter



@H2020EE • @H2020SME • @EEN_EU • @EU_ECOINNO

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“solutions developed through industrially- and user-driven multidisciplinary consortia”

(all technological topics)



Innovation Radar

A data-driven methodology to deliver intelligence about EU-funded innovations and innovators, and their market readiness

Review by means of a questionnaire around 4 main questions:

- What are the highest potential innovations in EU funded R&I projects?
- Who are the innovators behind these innovations?
- What are the 'go to market' needs of any one of these high potential innovators?
- What can the EC do offer to help getting the innovations 'out of the lab and into the market'?

*Done by independent expert
public on www.innoradar.eu*



COMMON SUPPORT SERVICES FOR DISSEMINATION, EXPLOITATION AND VALORISATION OF RESEARCH AND INNOVATION RESULTS

HOW TO APPLY?

If your project was funded under FP7 or H2020, we invite to express your interest via the online submission form:

https://ec.europa.eu/research/participants/data/ref/h2020/other/comm/190906_d-e-booster_en.pdf

Timeline to the future



call 2019 – under evaluation

**WP 2020 – published; submission
deadlines in Feb. 2020**

**Raw Materials week, November
18-22 2019**

Horizon Europe, 2021 - 2027

92 M€ for Raw Materials in 2020

Innovation Actions (IA)	TRL 6-7 (typical size of projects 8-13 M€)	CE-SC5-07-2018-2019-2020: Raw Material Innovation for the Circular Economy: Sustainable processing, reuse, recycling and recovery <ul style="list-style-type: none"> 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 e) Sustainable metallurgical processes
		SC5-10-2019-2020 - Raw materials innovation actions <ul style="list-style-type: none"> c) Mining pilots d) Substitution of Critical Raw Materials
Coordination & Support (CSA)	3 M€	CE-SC5-08-2018-2019-2020: Expert network on Critical Raw Materials
		SC5-26-2020: Sustainable management in extractive industries
ERA-NET		SC5-36-2020: ERA-NET on Raw Materials

Competitive, low carbon and circular industries

NMBP

1. NMBP - ERA-NET on materials, supporting the circular economy and Sustainable-Development-Goals
2. NMBP - Materials life cycle sustainability analysis (RIA)
3. SPIRE - Tapping into the potential of Industrial Symbiosis (IA)
4. SPIRE - Preserving fresh water: recycling industrial waters industry (IA)
5. SPIRE - Alternative mineral resources for high volume production (IA)

118.5 M€

SC5

6. Develop, implement and assess a circular economy oriented product information management system for complex products from cradle to cradle (IA)
7. Raw materials innovation for the circular economy (IA): processing and refining of primary and/or secondary raw materials; recycling of raw materials from end-of-life products & buildings; advanced sorting systems for high-performance recycling of complex end-of-life products, sustainable metallurgical processes
8. Raw materials policy support actions for the circular economy: Expert network on Critical Raw Materials (CSA)

58 M€

SC3

9. Low carbon industrial production using CCUS (IA)
10. Industrial (Waste) Heat-to-Power conversion (IA)

29 M€

Innovation actions (IA)

Action primarily consisting of activities directly aiming at producing plans and arrangements or designs for new, altered or improved products, processes or services.

For this purpose they may include prototyping, testing, demonstrating, piloting, large-scale product validation and market replication.

*A 'demonstration or pilot' aims to validate the technical and economic viability of a new or improved technology, product, process, service or solution in an **operational environment**, whether industrial or otherwise, involving where appropriate a larger scale prototype or demonstrator.*

Projects may include limited research and development activities.

Innovation actions (IA)

*make sure that research and innovation **end up on the market**
strengthen the competitiveness of the European raw materials industries
meet ambitious **energy and climate targets for 2030**
minimise **health & safety** as well as **environmental impacts and risks**
apply a **circular economy approach** throughout the **entire value chain**
gain the trust of EU citizens in the raw materials sector
seek additional or follow-up funding within the projects, including from relevant
regional/national schemes under the European Structural and Investment Funds
(ESIF)*

Innovation actions (IA)

*facilitate the **market uptake of solutions developed through industrially- and user-driven multidisciplinary consortia** covering the relevant value chain and should consider standardisation aspects when relevant*

*justify the **relevance of selected pilot demonstrations in different locations within the EU** (and also outside if there is a clear added value for the EU economy, industry and society)*

*include an outline of the **initial exploitation and business plans** (with indicated **CAPEX, OPEX, IRR and NPV**) with clarified management of intellectual property rights, and commitment to the first exploitation*



HORIZON 2020
WORK PROGRAMME 2018-2020

**Environment and Resources
Information Days**
16-17 September 2019

#InvestEUresearch

16 Sep 2019 - 17 Sep 2019
Brussels, Belgium

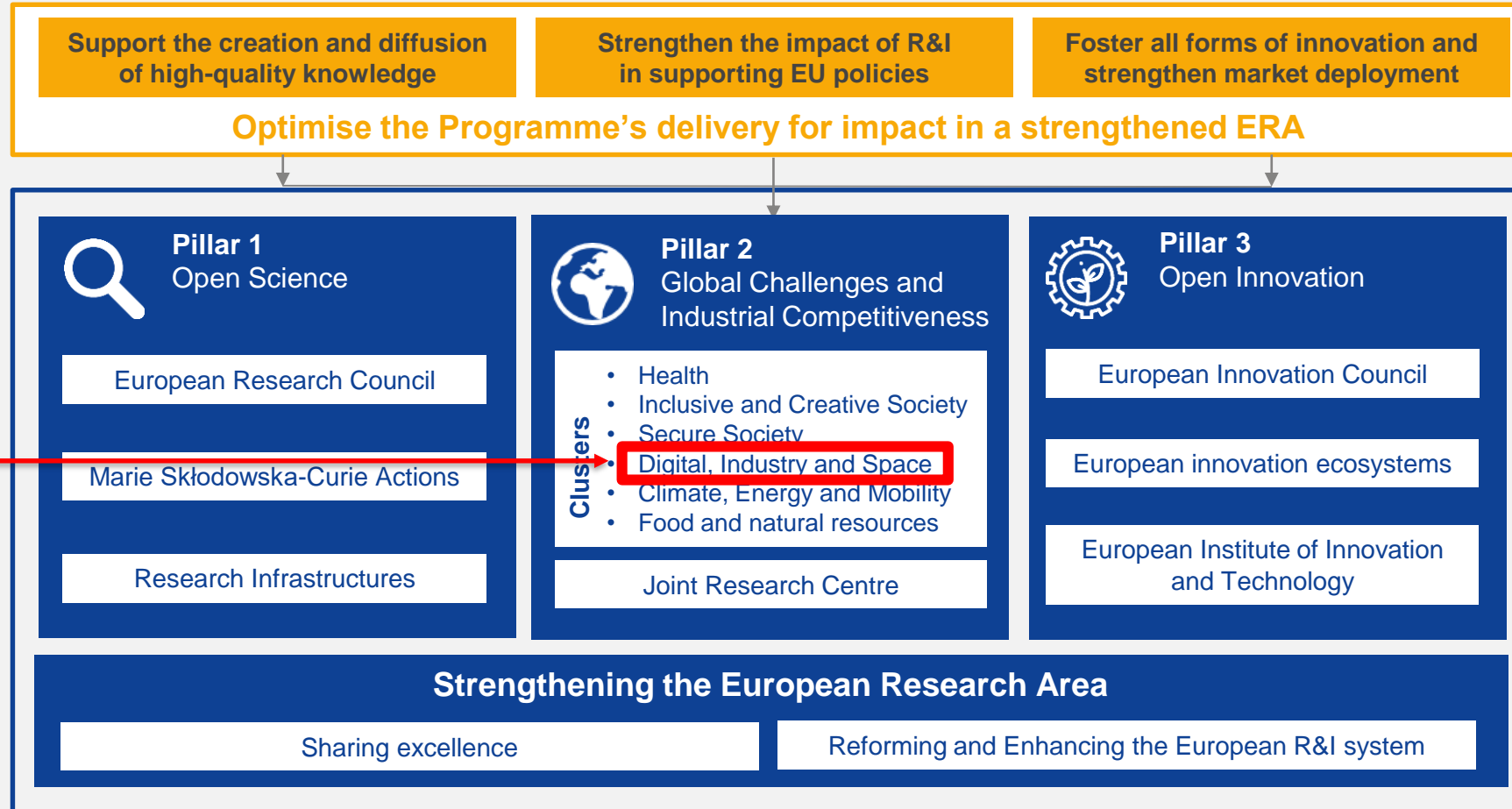
**Horizon 2020 Environment &
Resources Information days**

European Commission

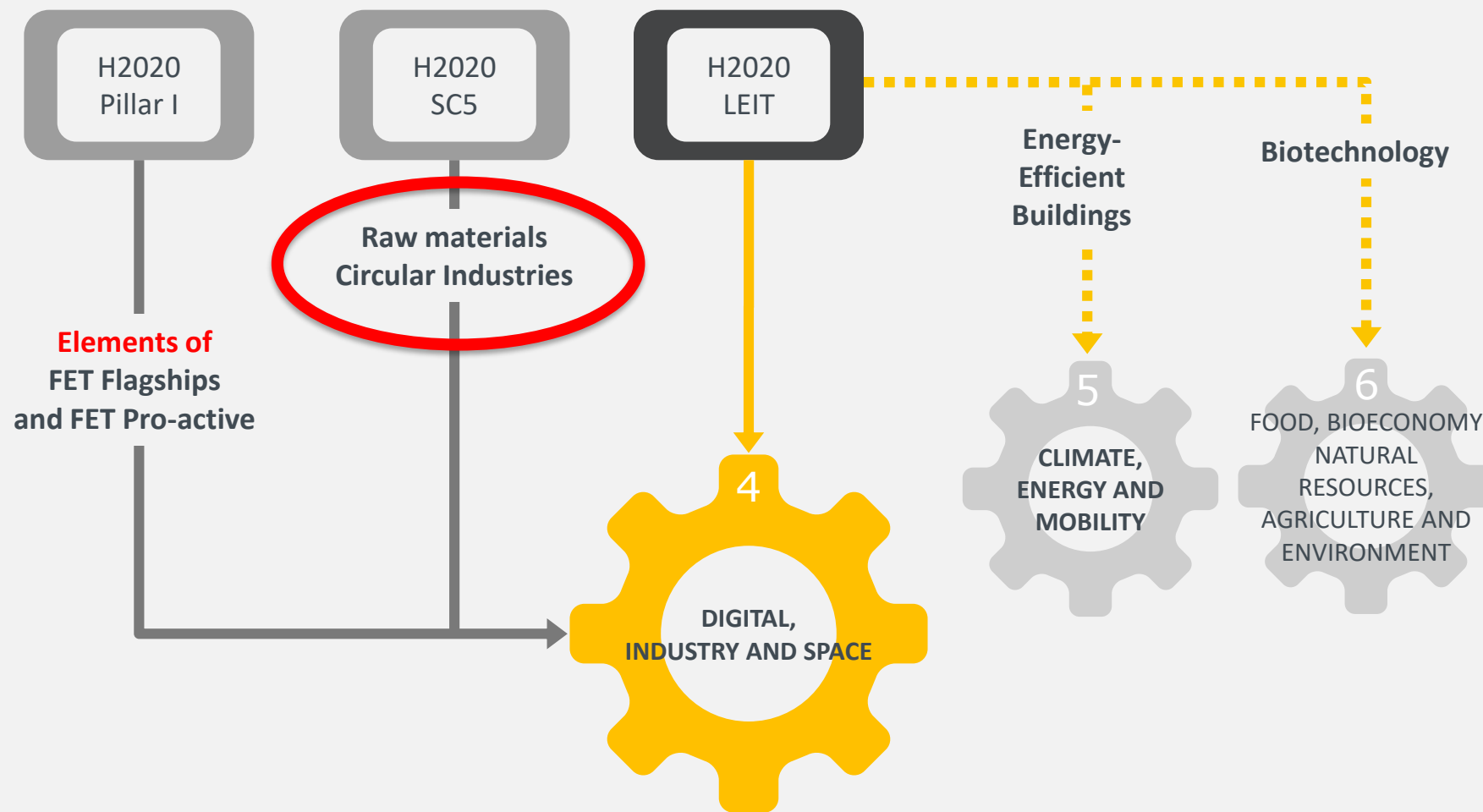
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<https://ec.europa.eu/easme/en/section/horizon-2020-environment-and-resources/2019-information-days-calls-2020>

Raw Materials in Horizon Europe



CLUSTER 4



Circular industries, broad lines:

- Industrial symbiosis;
- Valorisation and life-cycle assessment of materials and product streams;
- Eco-designed products, services and business models for enhanced life-cycle performance;
- Effective recycling;
- elimination (or safe handling) of substances of concern;
- sustainable supply of raw materials.

be an expert evaluator !!!



Funding and Tenders Portal

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

