



Raw materials in Societal Challenge 5 and Focus Area Waste

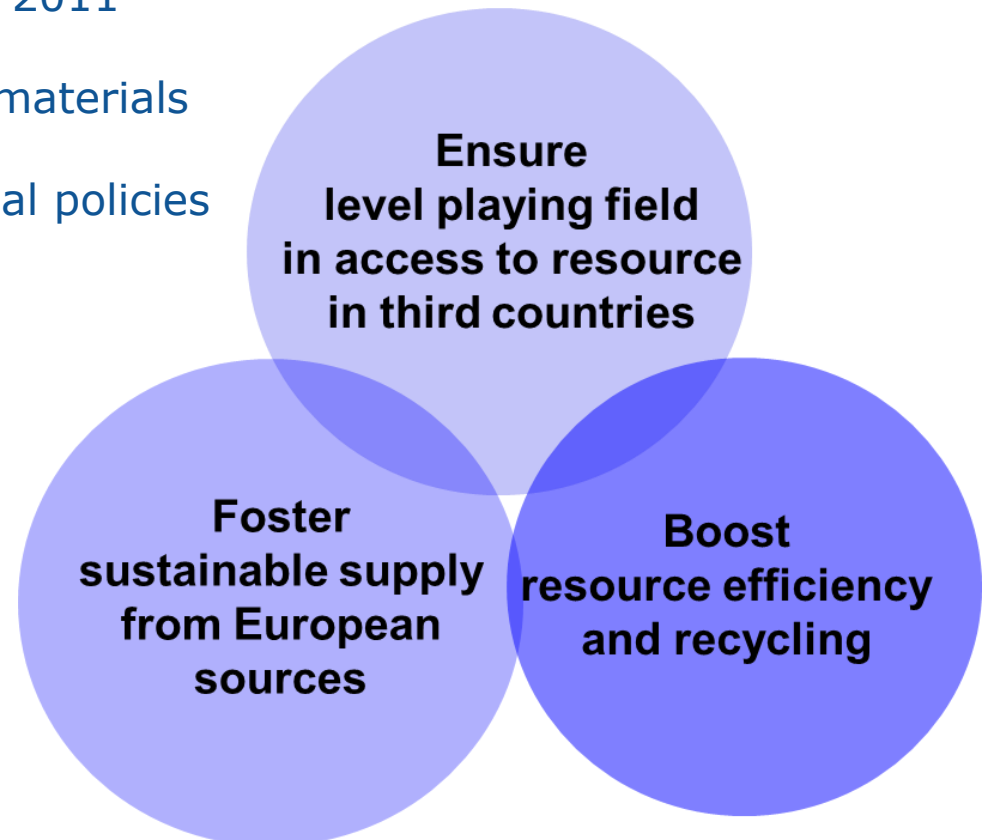
HORIZON 2020

HORIZON 2020 Raw Materials InfoDay
Lisbon, 23 January 2014

Milan GROHOL
Raw Materials, Metals, Minerals, and Forest-based Industries

Directorate-General Enterprise and Industry
European Commission

- 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)



Overall objective:

Contribute to the 2020 objectives of the EU Industrial Policy (to increase the share of industry in GDP to 20%), the Innovation Union and the Resource Efficiency 'flagships'

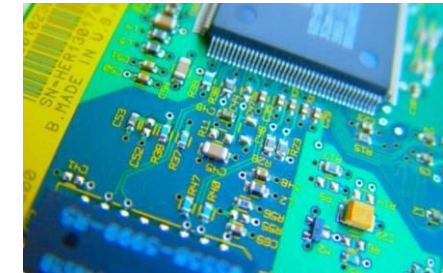


Specific objectives:

- Reduce import dependency
- Improve supply conditions from European and other sources
- Push Europe to the forefront in raw materials sectors
- Provide alternatives in supply
- Mitigate negative environmental and social impacts



- **I. Technology Pillar**
 - 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. Non-Technology Policy Pillar**
 - 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 Pillar**
 - III.1 Technology
 - III.2 Global Raw Materials Governance and Dialogues
 - III.3 Health, Safety and Environment
 - III.4 Skills, Education and Knowledge
 - III.5 Investment activities



A central part of the European Innovation Partnership approach!

Aim: Mobilise the European raw materials community

- **Launched on 31 October and closing on 31 January 2014**
<https://ec.europa.eu/eip/raw-materials/en/content/call-commitments>
- **Next calls in 2015, 2017 and 2019**



HORIZON 2020



- **EU research and innovation funding programme** (2014-2020) with a budget over €70 billion (79 billion in current prices including inflation)
- A **single programme** bringing together three separate programmes/initiatives*
- **Coupling research to innovation** – from research to retail, all forms of innovation
- **Focus on societal challenges** facing EU society, e.g. health, clean energy and transport, **raw materials**
- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond

* The 7th Research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)

1. A single set of rules for all funding under Horizon 2020

- Fewer, more flexible, funding instruments

2. Simpler reimbursement: 1 project = 1 funding rate

- 100% of the total eligible costs (70% for innovation actions)
- Non-profit legal entities can also receive 100% in innovation actions
- Single flat rate for indirect costs (25% of eligible costs)

3. Faster time to grant

- Within 8 months of call deadline



4. Fewer, better targeted controls and audits

5. Coherent implementation

- Through dedicated agencies
- Single IT system

6. Simplification in grant agreements





STANDARD AWARD CRITERIA

EXCELLENCE

IMPACT

**QUALITY &
EFFICIENCY
OF THE ACTION**

- ✓ **ERC** frontier Research actions >> only EXCELLENCE
- ✓ **Innovation actions** >> higher weighting for "IMPACT"

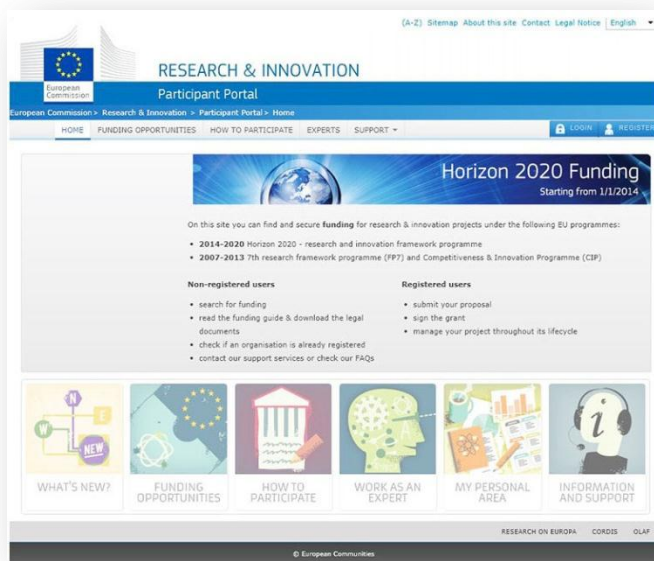
**Proposal evaluated by the experts "as it is"
and not as "what could be" = no need for negotiation**

Simpler access through Participant Portal

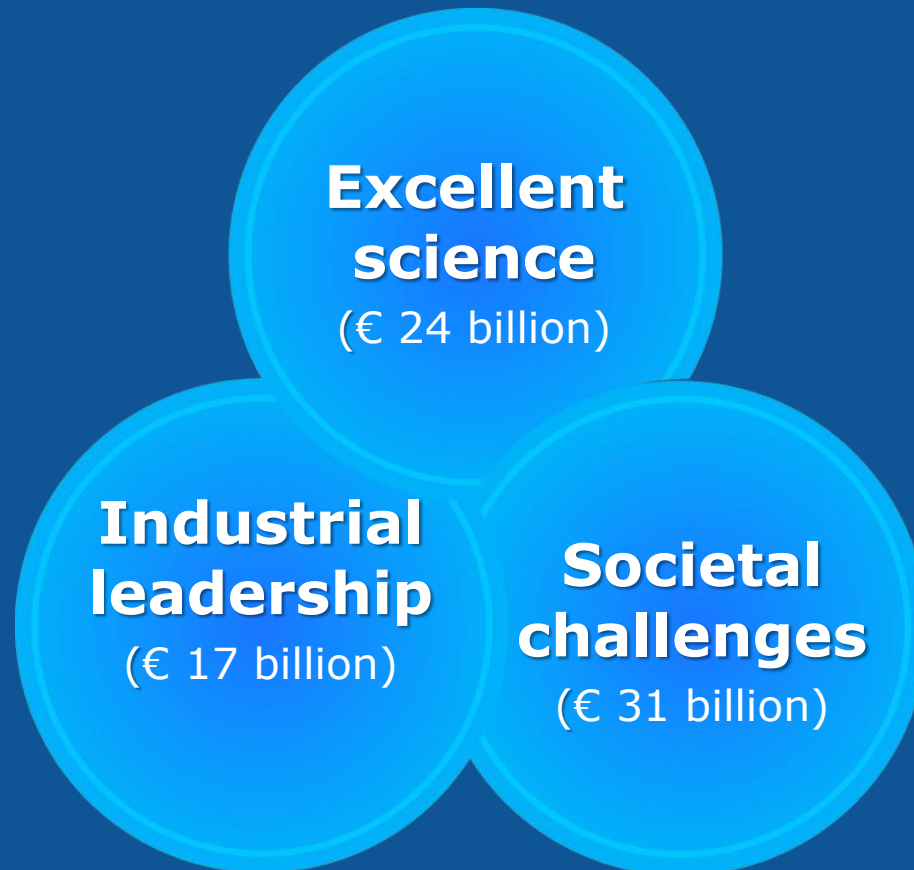


Horizon 2020

- Single entry point from calls to electronic submission of proposals
- New tools for smart searches for the benefit of users, including newcomers to the programme.



Horizon 2020 structure



* All funding figures in this presentation are subject to the pending Multiannual Financial Framework Regulation by the EP and the Council

<p><i>European Research Council (ERC)</i> Frontier research by the best individual teams</p>	13 095
<p><i>Future and Emerging Technologies</i> Collaborative research to open new fields of innovation</p>	2 696
<p><i>Marie Skłodowska-Curie actions (MSCA)</i> Opportunities for training and career development</p>	6 162
<p><i>Research infrastructures (including e-infrastructure)</i> Ensuring access to world-class facilities</p>	2 488

* All funding figures (€ million, 2014-2020) in this presentation are subject to the pending Multiannual Financial Framework Regulation by the EP and the Council



<p><i>Leadership in enabling and industrial technologies (LEITs)</i> (ICT, nanotechnologies, materials, biotechnology, manufacturing, space)</p>	<p>13 557</p>
<p><i>Access to risk finance</i> Leveraging private finance and venture capital for research and innovation</p>	<p>2 842</p>
<p><i>Innovation in SMEs</i> Fostering all forms of innovation in all types of SMEs</p>	<p>616 + complemented by expected 20% of budget of societal challenges + LEITs and 'Access to risk finance' with strong SME focus</p>

* All funding figures (€ million, 2014-2020) in this presentation are subject to the pending Multiannual Financial Framework Regulation by the EP and the Council

1. Health, demographic change and wellbeing	7 472
2. Food security, sustainable agriculture, marine and maritime research & the Bioeconomy	3 851
3. Secure, clean and efficient energy *	5 931
4. Smart, green and integrated transport	6 339
5. Climate action, resource efficiency and raw materials	3 081
6. Inclusive and reflective societies	1 309
7. Secure societies	1 695
<i>Science with and for society</i>	<i>462</i>
<i>Spreading excellence and widening participation</i>	<i>816</i>

* Additional funding for nuclear safety and security from the Euratom Treaty activities (2014-2018)

All funding figures (€ million, 2014-2020) in this presentation are subject to the pending Multiannual Financial Framework Regulation by the EP and the Council

	<i>Proposed funding (€ million, 2014-2020)</i>
<i>European Institute of Innovation & Technology (EIT)</i> Combining research, innovation & training in knowledge and Innovation Communities (possible KIC on Raw materials)	2 711
<i>Joint Research Centre (JRC)*</i> Providing a robust, evidence base for EU policies	1 903

* Additional funding for the JRC for Euratom Treaty activities



2014	2015	2016	2017	2018	2019	2020
Strategic Programme						
Work Programme 1 (plus tentative information for 2016)		Strategic Programme				
		Work Programme 2 (plus tentative information for 2018)		Strategic Programme		
				Work Programme 3 (plus tentative information for 2020)		
						Work Programme 4

Horizon 2020: Societal Challenge 5 - Climate action, environment, resource efficiency and **raw materials**

Objective of Societal Challenge 5 : *"to achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a **sustainable supply and use of raw materials**, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems"*

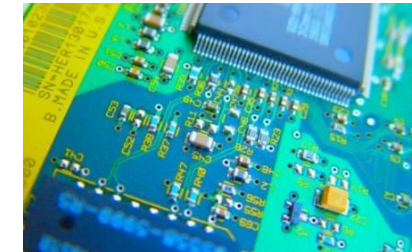
1. Fighting and adapting to climate change
2. Sustainably managing natural resources and ecosystems
- 3. Sustainable supply of non-energy and non-agricultural raw materials**
4. Transition towards a green economy through eco-innovation
5. Global environmental observation and information systems
6. Cultural heritage

+ **Focus Area Waste** (coming from Strategic Programme)



"Ensuring The Sustainable Supply Of Non-energy And Non-agricultural Raw Materials"

- New solutions for sustainable **production of raw materials**
- Innovative and sustainable solutions leading to **substitution of raw materials**
- **Coordinating and supporting** raw materials research and innovation



"Waste: A resource to recycle, reuse and recover raw materials"

- **Recycling of raw materials** from products and buildings
- Towards near-zero waste at European and global level





- **New solutions for sustainable production of raw materials**
 - Mining of small deposits and alternative mining (2014)
 - Flexible processing technologies (2014)
 - New exploration technologies and geomodels (2015)
 - Deep mining on continent and in sea-bed (2015)
 - New metallurgical systems (2015)

- **Innovative and sustainable solutions leading to substitution of raw materials**
 - Materials for electronic devices (2014)
 - Materials under extreme conditions (2015)



➤ **Coordinating and supporting raw materials research and innovation**

- Mineral deposits of public importance (2014)
 - Strategic international dialogues and co-operation on raw materials with technologically advanced countries (2014)
 - Raw materials intelligence capacity (2015)
 - Innovation friendly minerals policy framework (2015)
 - Raw materials research and innovation coordination (2015)
 - Strategic international dialogues and cooperation with raw materials producing countries and industry (2015)
-
- **Cross-challenge topics**
 - Boosting the potential of small businesses for eco-innovation and a sustainable supply of raw materials (SME Instrument)



- **Recycling of raw materials from products and buildings**
 - Recycling of raw materials from products and buildings (2014)
- **Towards near-zero waste at European and global level**
 - Secondary raw materials inventory (2014)
 - Raw materials partnerships (2015)

- **The first H2020 Call for Proposals - 11 Dec 2013**
<http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/index.html>
- **Call for experts for H2020**
(OJ of the EU, C 342, Volume 56, 22 November 2013)
<http://ec.europa.eu/research/participants/portal/desktop/en/experts/index.html>
- **National NCP SC5 support and events**
http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html



- EU raw materials webpage:

http://ec.europa.eu/enterprise/non_energy_extractive_industries/raw_materials.htm

- European Innovation Partnership on Raw Materials:

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

- Horizon 2020:

<http://ec.europa.eu/research/horizon2020/>

Thank you for your attention!