

The EU Initiatives related to Knowledge Base: the place for MICA

The Kick-off Meeting of MICA project
GEUS, Copenhagen, Denmark,
February 3, 2016



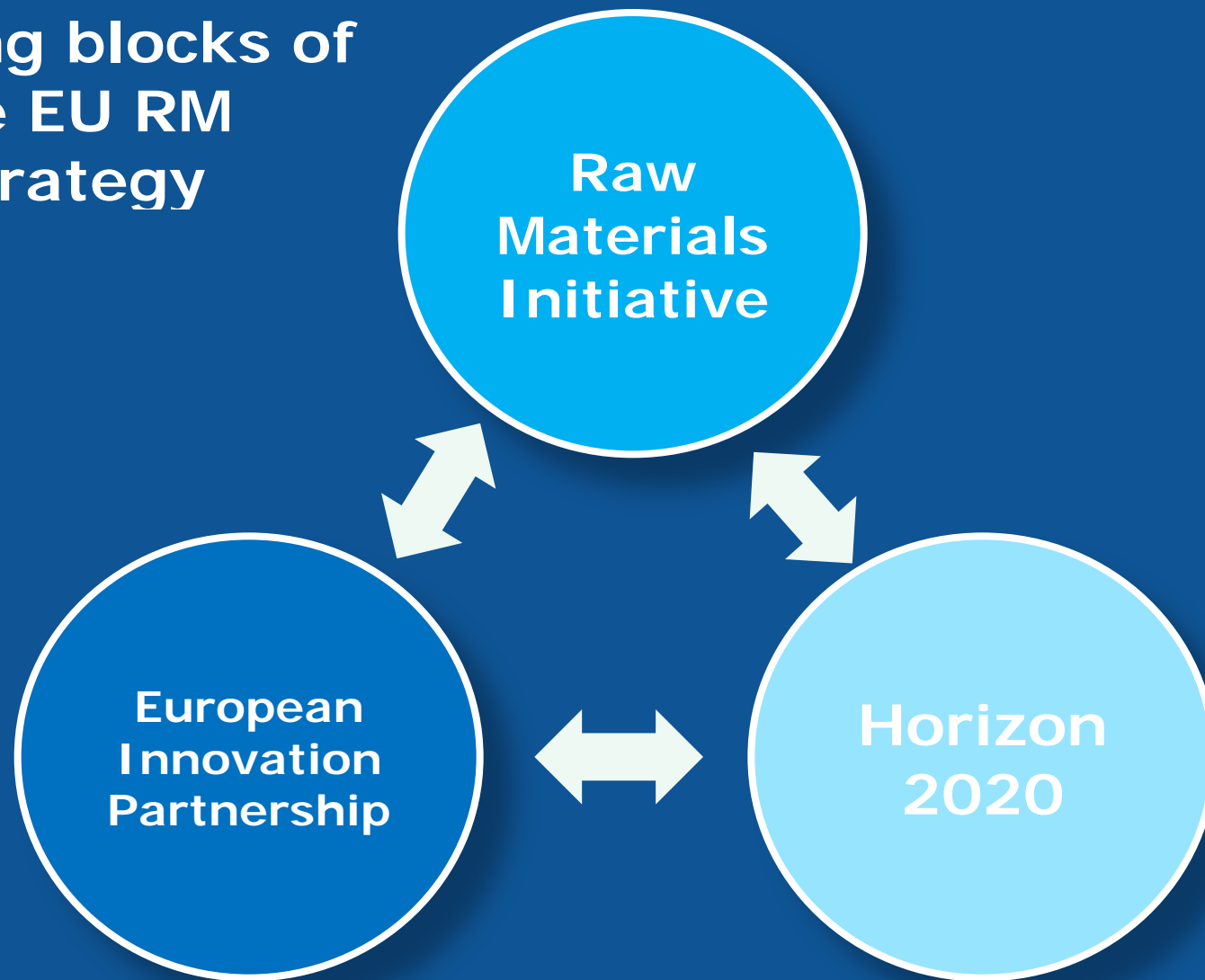
Slavko Solar
*European Commission, DG Growth,
Resource Efficiency and Raw Materials*

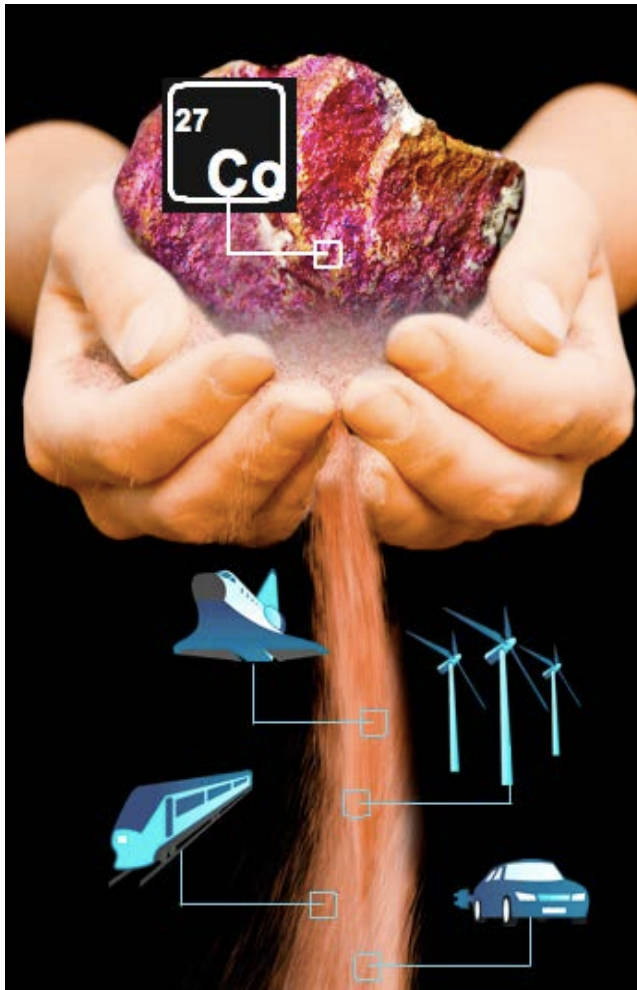


Content

Raw Materials Initiative
European Innovation Partnership
Studies and projects
H2020 calls 2016/17

Building blocks of the EU RM Strategy

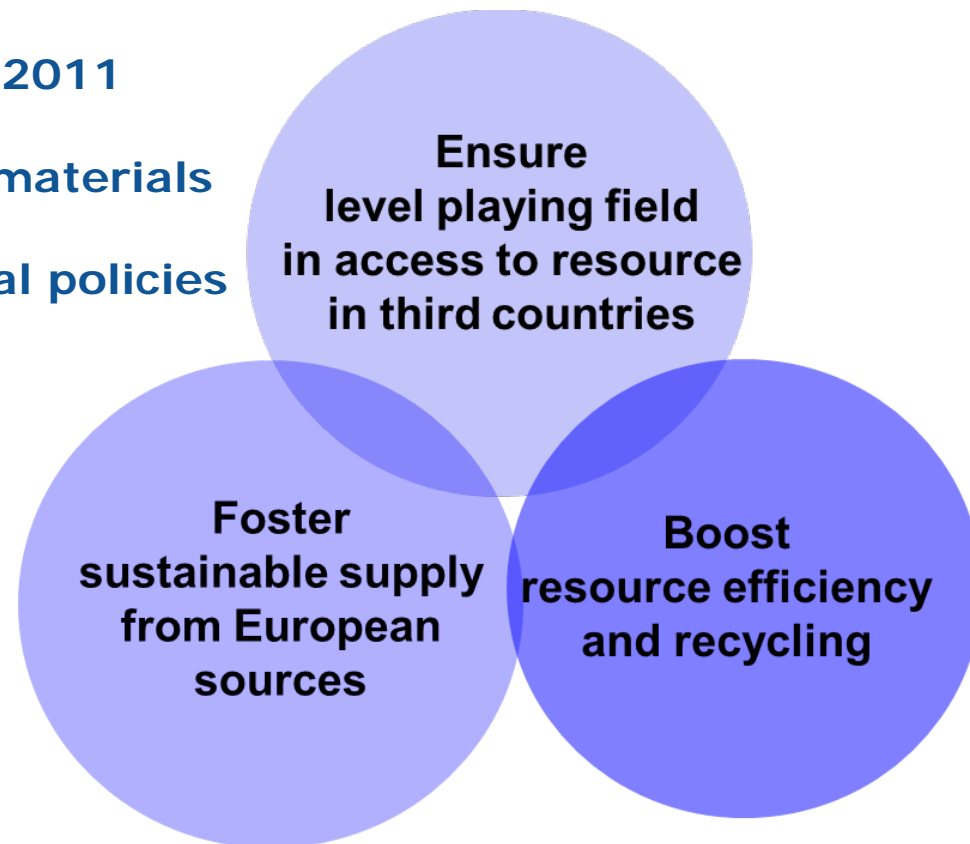




- ✓ **integrated strategy to respond to the different challenges related to access to non-energy and non-agricultural raw materials**

EU “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 Critical Raw Materials (CRM) in 2011 and 2014**



Fair and sustainable supply of raw materials from global markets (1st Pillar)

- EU trade strategy for raw materials
- Raw materials diplomacy
- Assistance to developing countries

Fostering sustainable supply within the EU (2nd Pillar)

- Exchange of good practice between EU Member States
- **Enhancing EU knowledge base**
- Promoting research and skills

Boosting resource efficiency and promoting recycling (3rd Pillar)

- Better implementation and smarter EU waste legislation promoting resource-efficiency & recycling
- Strengthen the enforcement of the EU Waste Shipment Regulation

Cross-cutting issues

- Sector-specific criticality analyses
- European Rare Earth Competency Network (ERECON)
- Markets and stockpiling
- European Innovation Partnership on Raw Materials
- Research

Upcoming actions/events



Pillar I

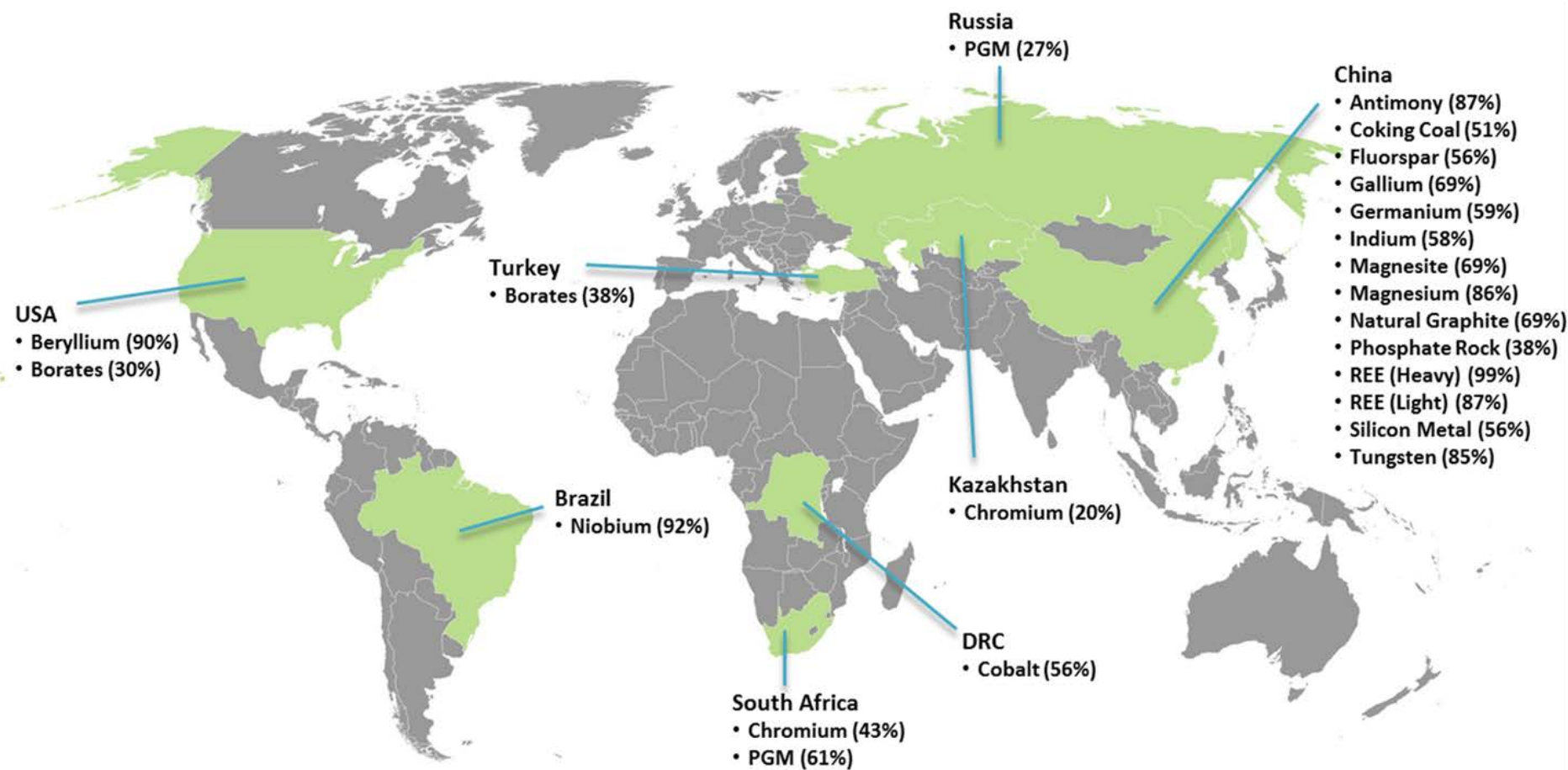
- EU-Latin America dialogue (April 25-26, Chile)
- Raw Materials Diplomacy Event with advanced mining and technology countries (June 28-29 Brussels)

Pillar II

- University Days as stand-alone events or supported by KIC Raw Materials
- Roundtables (5, one in Sweden in October)
- Permitting study, H2020 projects
- Natura2000 REFIT

Pillar III

- Circular Economy (Waste Framework Directive referring to Critical Raw Materials)



* Communication on the review of the list of critical raw materials for the EU and the implementation of the Raw Materials Initiative - COM(2014) 297, 26.5.2014



- ✓ ...ensuring the sustainable supply of raw materials to the European economy...



- Up to **10 innovative pilot actions** e.g. demonstration pilot plants for exploration, mining, processing, collecting and recycling
- **Substitutes for at least 3 applications** of critical raw materials
- **Regulatory framework for primary raw materials**
- **Regulatory framework for secondary raw materials**
- **Raw materials knowledge base** with raw materials flows and trends
- **Raw materials network** of Research, Education and Training Centres
- **Pro-active international cooperation strategy** of EU at bilateral and multilateral level



New Call for Raw Materials Commitments (RMC) was launched at the end of 2015

DEADLINE March 1, 2016



- **The Raw Materials Commitment could have multiple positive effects such as:**
 - Promoting ideas in the area of raw materials,
 - Attracting useful suggestions or additional partners,
 - A higher rate of success in Horizon 2020, a higher chance of funding under the EU structural funds (even though the European Innovation Partnership as such is not a funding instrument),
 - Possibility to influence policy, and several others ...

Website:

<https://ec.europa.eu/growth/tools-databases/eip-raw-materials/en/content/2015-call-commitments>

Strategic Implementation Plan



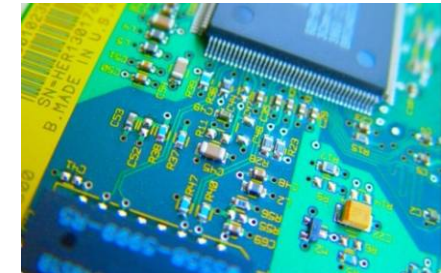
•I. Technology Pillar

- 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



EU Raw Materials Knowledge Base

Actions:

- 1) Appropriate conditions to provide a service
- 2) Organize relevant data input (studies, projects)
- 3) Raw materials intelligence
- 4) Reporting
- 5) Collaboration
- 6) Improvement of data collection



2nd pillar of RMI



EU Raw Materials knowledge base

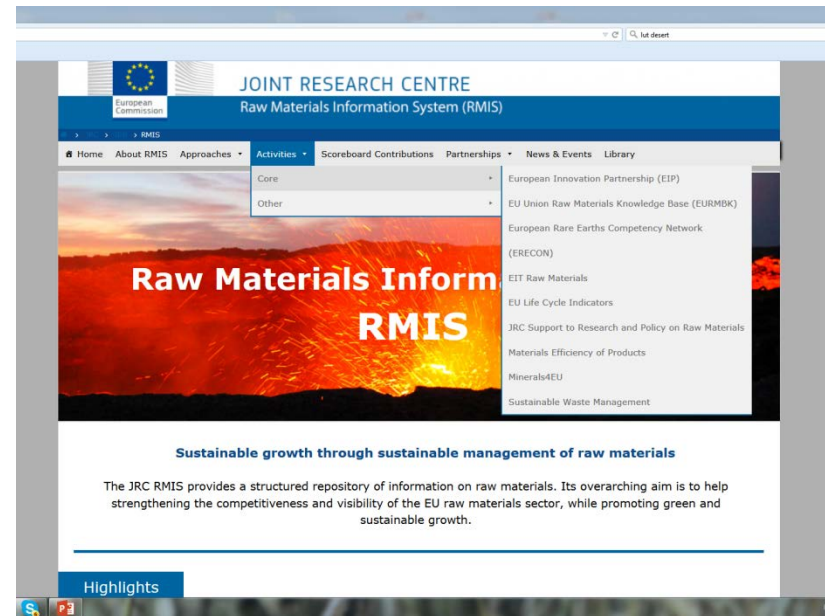
DG Joint Research Centre



EUROSTAT

- 11th DATA CENTRE on Raw Materials

European Environmental Agency



Study on Data Inventory for the Raw Material System Analysis: Roadmap and test of the Fully Operational **MSA** for Raw Materials (2014-2015)

Studies DG GROW



- **Minventory** - (2013-2014)
- Study on Data Needs for a Full Raw **Materials Flow Analysis** (2012)
- Study on Data Inventory for the Raw Material System Analysis: Roadmap and test of the Fully Operational **MSA** for Raw Materials (2014-2015)
- Knowledge Base Architecture – **KBA** (2014-2015)



DG Joint Research Centre

JRC Ispra

- RMIS
- Life Cycle Assessment data
- Critical raw materials
- INSPIRE

JRC Petten

- Materials Information System - SETIS
- CRM for energy sector / technologies

JRC Sevilla

- C&D Waste



EUROSTAT

- **11th DATA CENTRE on Raw Materials**
(10 existing Data Centres /waste, products, natural resources, land use, soil, forest, chemicals)
- **Official EU level statistics**

European Environmental Agency

- **Resource Efficiency and Material Flows**



Establishing a pan-European network of excellence



RawMaterials

Well-balanced
consortium with
116 partners

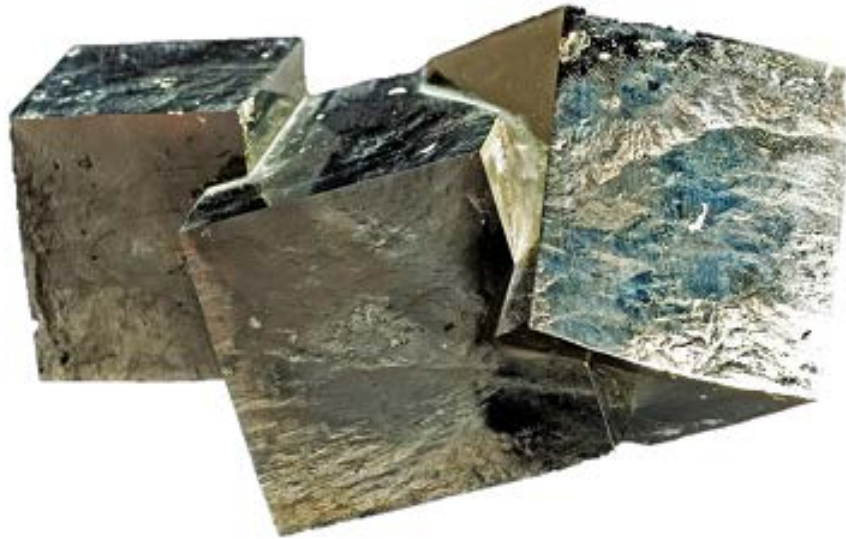
Partners in 22 EU
countries with special
focus on ESEE

Full coverage of
value chains and
commodities
(especially CRMs)

Business partners
represent
>700,000 jobs
>200 billion €
turnover

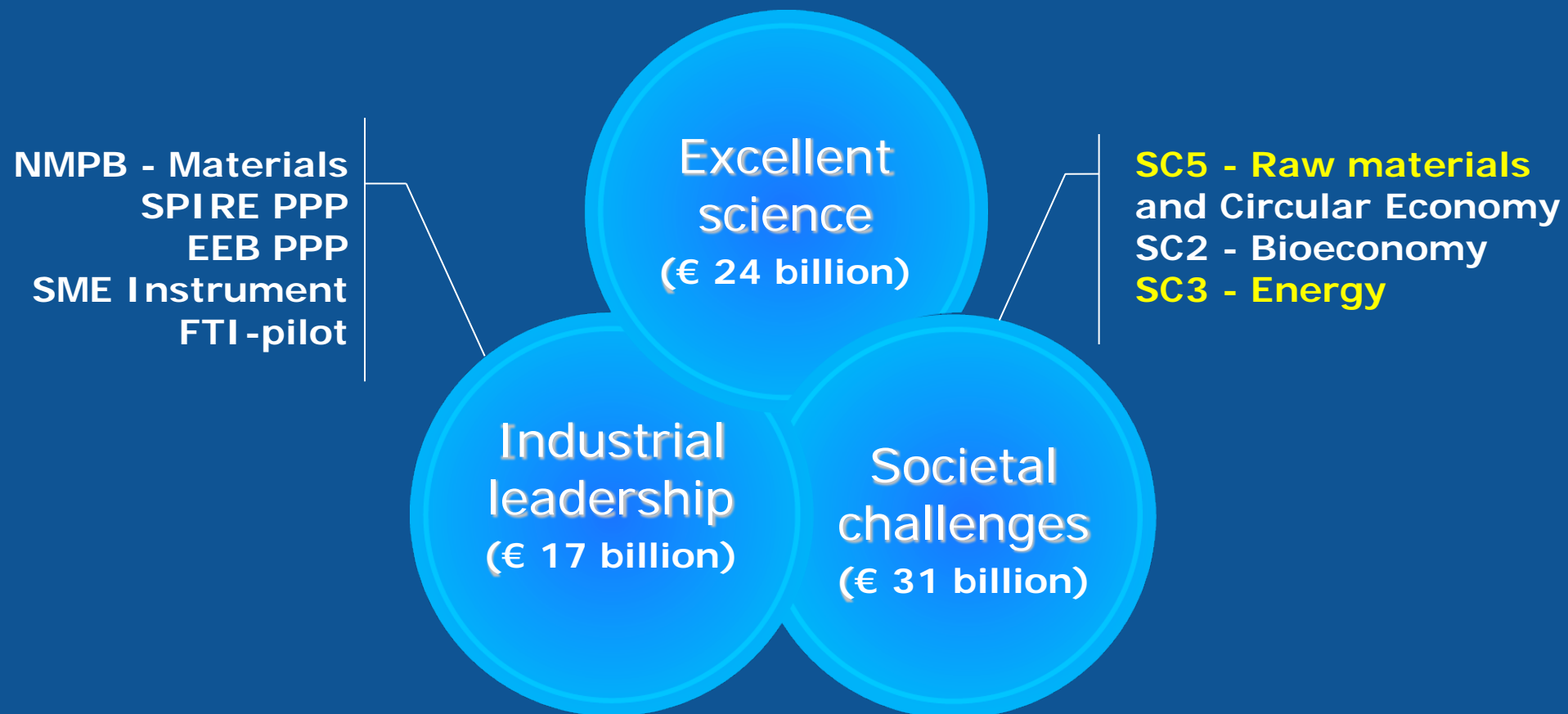
Partners' roles in EIP
RM commitments:
>75% participation
40% coordination





- ✓ securing the EU's supply of primary and secondary raw materials through Research and Innovation

Where to find Raw materials in Horizon 2020?



Societal Challenge 5 Call 2016

€64 million, 8 Mar 2016 (RIA, CSA, and First stage of IA)

Technology topics

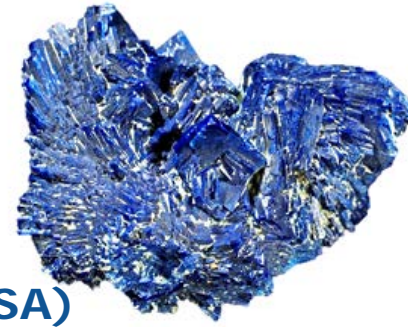


SC5-13-2016-2017: New solutions for sustainable production of raw materials (RIA)

- **2016: Sustainable selective low impact mining**
- **2016: New technologies for the enhanced recovery of by-products**
- **2017: New sensitive exploration technologies**

SC5-14-2016-2017: Raw materials Innovation actions (IA)

- **2016: Intelligent mining on land**
- **2017: Processing of lower grade and/or complex primary and/or secondary raw materials in the most sustainable ways**
- **2017: Sustainable metallurgical processes**



Policy topics

SC5-15-2016-2017: Raw materials policy support actions (CSA)

- **2016: Expert network on Critical Raw Materials**
- 2017: Good practice in waste collection systems
- 2017: Optimising collection of raw materials data in Member States
- 2017: Linking land use planning policies to national mineral policies
- 2017: EU network of mining and metallurgy regions
- 2017: EU network of regions on sustainable wood mobilisation (wood supply)

SC5-16-2016-2017: Raw materials international co-operation (CSA)

- **2016: Demand-supply forecast and raw materials flows at global level**
- **2016: Advancing the idea of a World Forum on Raw Materials**
- 2017: International network of raw materials training centres

SC5-17-2016: ERA-NET Cofund on Raw materials

Societal Challenge 3 - Secure, Clean and Efficient Energy

- * **LCE-26-2016: Cross-thematic ERA-NET on Applied Geosciences (energy materials, water, raw materials) (ERA-NET, 10 M€, 5 Apr 2016)**

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

Thank you!

EU raw materials webpage:

http://ec.europa.eu/growth/sectors/raw-materials/index_en.htm



Check the EIP website for fresh news:

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

Horizon 2020 - Raw materials webpage:

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

Horizon 2020 – EXPERTS

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