

# RMI Implementation and progress so far

MIN WIN-WIN: ESTABLISHING EUROPE-WIDE MINERALS REPORTING STANDARDS – THE KEY TO REDUCING RISK AND INCREASING OPPORTUNITY

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### **Content**

Raw Materials Initiative



## European Innovation Partnership H2020 call 2014/2015

## Setting the scene



## For a European Industrial Renaissance

- Goal: industry's share of GDP to be 20%
- Key priorities:
  - A more business friendly framework;
  - Financial resources to make the industrial renaissance happen;
  - Easier access to critical production inputs (finance, raw materials, energy);
  - Maximise the potential of the Internal Market;



### **Raw Materials Initiative**



## Background, aim and structure



## Raw Materials Initiative

### 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 2010

## State of play - overview



## Raw Materials Initiative

Annual report on the implementation of the Raw Materials Initiative – 24.06.2013

### 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 (2<sup>nd</sup> 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

## Critical Raw Materials



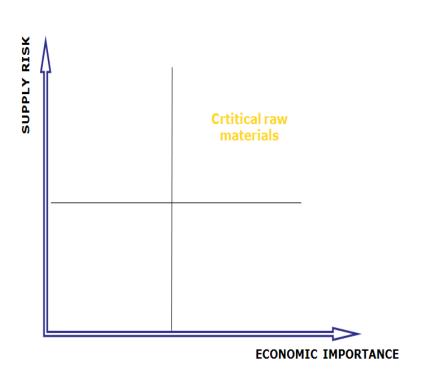
## Approach and assessment components

## **Economic importance**

 Importance of a raw material per economic sector & importance of the sector in the EU economy

### **Supply risk**

- Political and economic stability
- Level of production concentration
- Potential for substitution
- Recycling rate



### **Outcome 2014**





Economic importance

ENTR F

Supply risk

### Results source Fraunhofer



- Already in the old CRM list (2010)
  - Antimony, beryllium, cobalt, fluorspar, gallium, germanium, HREE, indium, LREE, magnesium, natural graphite, niobium, platinum group metals, tungsten
  - All except tantalum,
  - In the old candidate list but new to CRM list 2013
  - Borate, chromium, magnesite
- New to candidate list (and CRM list) 2013 (published in 2014)
  - Coking coal, phosphate rock, silicon
- CRM list 2013 is larger than in 2010
  - 20 raw materials classified as "critical" → extended fiches
  - 40% of the candidates classified as "critical"  $\rightarrow$  higher than 2010 ( $\approx$  1/3)

### Use of CRM list



### Critical raw materials list as a policy tool:

- Contribute to the implementation of the EU industrial policy
- Incentivise the European production of critical raw materials and facilitate the launching of new mining activities
- Monitor issues of critical raw materials to identify priority actions (trade, legislation, research)
- Policy actions not limited to critical raw materials exclusively

### **European Partnership on Raw materials**

#### **Horizon 2020**

- Mining and processing
- Recycling
- Substitution



## Raw Materials Initiative I. pillar





### Based on:

- dialogues where EU and partner countries collaborate with higher mutual benefit
- dialogues established by Letters of Intent

Foreseen 4 events to take place in 2013 - 2015

Letters of intent signed by VP Tajani with: Argentina, Uruguay, Colombia, Mexico, Chile, Peru, Greenland, Morocco, Tunisia, Myanmar.



### **EU – US - Japan workshop on Criticality 2 December 2013**

EU - Latin American dialogue on Raw Materials, Lima, Peru, 10-11 March 2014

Workshop: best practices on mining policies & technologies, Brussels, 12-13 June 2014

EU - African Union workshop March 2015 Brussels



## Raw Materials Initiative II. pillar



## Raw Materials Initiative II. Pilar – Supply from EU



### MINERAL POLICY FRAMEMWORK

- Reactivation of the RMI AHWG 2 Recommendations based on
  - Report on National Minerals Policy Indicators
  - Evaluation and Exchange of Good Practices for the Sustainable Supply of Raw Materials within the EU

### EU KNOWLEDGE BASE

- Competitiveness of the EU Mineral Raw Material Sector
- Study on Data Inventory for a Raw Material System Analysis
- Minventory EU Statistics on Reserves and Resources
- Knowledge Base Architecture Overview

## **National Minerals Policy Indicators Report**



### Input:

- Indicators questionnaire campaign through RMSG email list and to the EU 28 and 9 more countries
- Replies: 18 Member States, Norway and Turkey: some replies on regional level (2) and 4 replies from the industry

### Indicator's pyramid

- Legal framework
- Information framework
- Land use planning
- Authorisation and permitting

### Interpretation of results

- Answers in three reply classes
- Overall evaluation gives equal weight to all indicator groups
- Only Member States' replies were evaluated and ranked.

### Raw Materials Evaluation and Exchange of Good Practice Project

### Recommendations

- Good practice identification
  - 25 cases should be recognized good practice
  - Opportunity should be taken to up-date and extend them to cover other issues and themes
  - Based on an assessment of performance
  - Encouragement of the use of reporting frameworks, on a voluntary basis

### Policy scope

- 'Governance' should be a policy theme
- Possibly 'training and human resource development'

### Report 2014

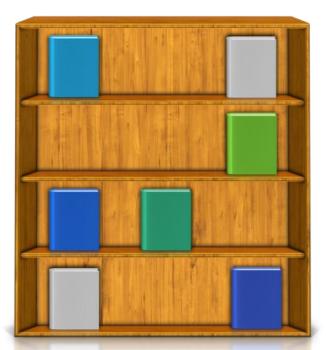


## Recommendations on the framework conditions for the extraction of non-energy raw materials in the European Union

Ad Hoc Working Group on Exchange of best practices on minerals policy and legal framework, information framework, land-use planning and permitting (AHWG)

### Structure

- Policy and legal framework
- Information framework
- Land use planning
- Permitting





## Raw Materials Initiative III. pillar



### 3<sup>rd</sup> Pillar



### Promoting resource efficiency and recycling

#### Better implementation and smarter EU waste legislation

- Review of waste management targets
- 'Fitness check' of waste stream directives
- Review of Eco-design Directive for energy-related products

#### Strengthen the enforcement of the Waste Shipment Regulation

- Strengthening inspections through risk-based planning
- Feasibility study of global certification scheme for recycling facilities



## **European Innovation Partnership on Raw Materials**



### SIP



### **Strategic Implementation Plan** published on 25 September 2013

### • 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.AImproving Europe's raw materials framework conditions
- •II.BImproving Europe's waste management framework conditions and excellence
- •II.CKnowledge, skills and raw materials flows

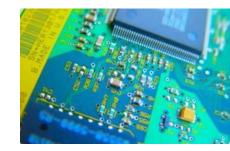
#### • III. International Cooperation Pillar

- •III.1 Technology
- •III.2 Global Raw Materials Governance and Dialogues

ENTR F.3

- •III.3 Health, Safety and Environment
- 22III.4 Skills, Education and Knowledge
- •III.5 Investment activities







## **Call for Commitments**



- First Call for Commitments launched on 31
   October 2013 (closed on 7 February 2014)
- 80 Raw Materials Commitments endorsed
- Approx. 800 partners
- Relative deficit from EU-13 group
- Higher number of **technology** commitments
- Higher number of technology commitments for primary production than secondary
- **Scope** of raw materials covered representative (i.e. metals, industrial, forest-based materials)



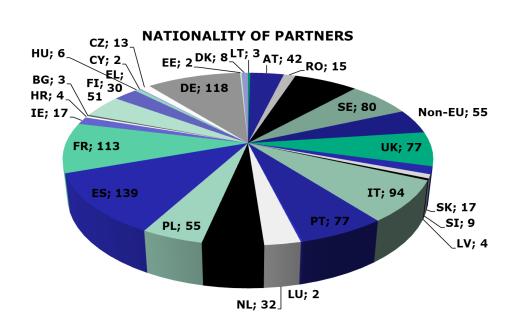




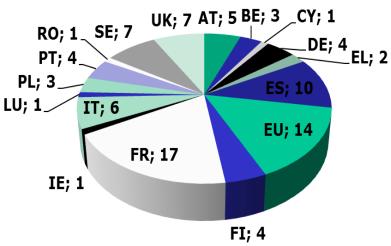
## **Call for Commitments**



## **Results of the Call for Commitments: Distribution** of partners by nationality







• **Next calls** in 2015, 2017 and 2019

## EIP Implementation Progress so far

- Annual Conference on 5 December 2013
- First Horizon 2020 Calls
- Review of waste legislation to include ideas from SIP
- Ad-hoc Working Group on Framework Conditions for Mining
  - Report adopted last Thursday
- Identification on regions with raw materials as a priority in their smart specialisation strategy (ongoing)
- EU knowledge base
  - Past, on-going and future studies/projects



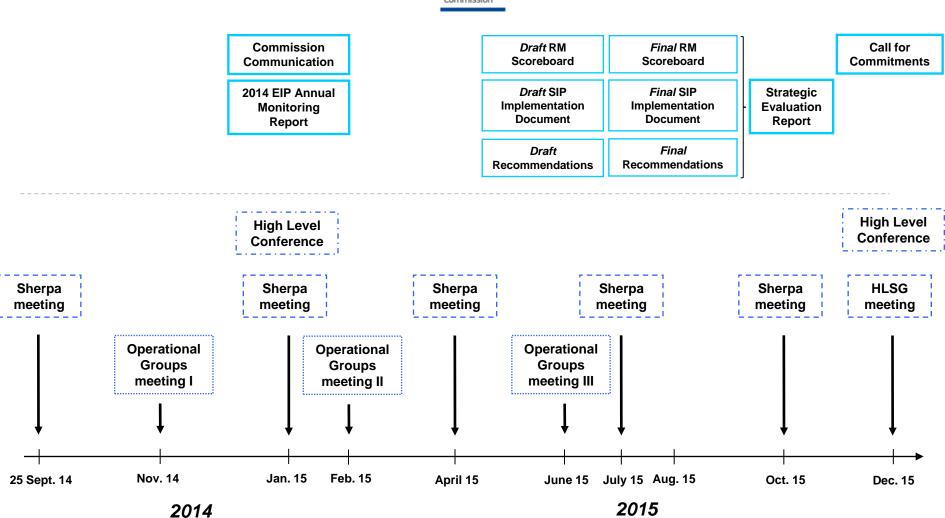




## EIP on Raw Materials

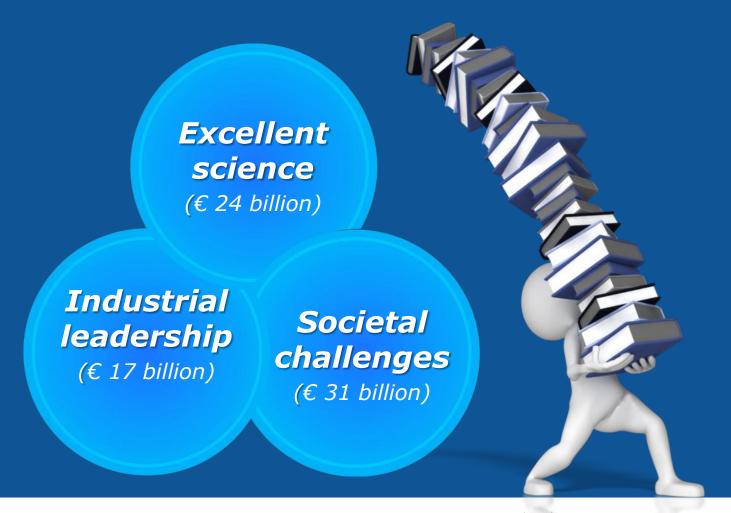


### 2014-2015 Work Plan



### Implementation phase

### **Horizon 2020**



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



### **Horizon 2020**



**Proposed Programme Cycle** 

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



Horizon 2020 Societal Challenge 5 Work Programme 2014-2015

### New solutions for sustainable production of raw materials

- Mining of small deposits and alternative mining (2014)
- Flexible processing technologies (2014)
- Recycling of raw materials from products and buildings (2014)

### Innovative and sustainable solutions leading to substitution of raw materials

Materials for electronic devices (2014)

### Coordinating and supporting raw materials research and innovation

- Mineral deposits of public importance (2014)
- Secondary raw materials inventory (2014)
- Strategic international dialogues and co-operation on raw materials with technologically advanced countries (2014)

## Raw materials topics Results 2014

12 selected proposals with over 190 partners from 20 Member States and 8 non-EU countries.

The private sector participation, including SMEs, is around 45% in terms of partners and 49% in funding.

The outreach activities in the EIP should be intensified. Particular attention should be paid to the participation of EU13 Member States, which was weak in both the EIP Commitments and the proposals of H2020.

Negotiation letters sent on 8 September 2014



Horizon 2020 Societal Challenge 5 Work Programme 2014-2015

## SC5 11 - New solutions for sustainable production of raw materials - RIA

- New exploration technologies and geomodels (2015)
- Deep mining on continent and in sea-bed (2015)
- New metallurgical systems (2015)

## SC5 12 - Innovative and sustainable solutions leading to substitution of raw materials - RIA

Materials under extreme conditions (2015)

## Waste 4 - Towards near-zero waste at European and global level - CSA

Raw materials partnerships (2015)

<sup>\*</sup> Work programme 2015 updated on 22 July 2014.

### SC5 13 - Coordinating and supporting raw materials research and innovation - CSA

- 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)
- Fast track to innovation

## Raw materials in H2020



### SPIRE 7-2015: Recovery technologies for metals and other minerals - IA

- New approaches or alternative solutions for major cost-effective improvements in the efficiency of recovery operations for metals and other minerals, leading to waste reduction and minimising the environmental impact of industrial operations.
- Innovation actions, TRL 5-7, EUR 6 and 10 million
- One stage 04/02/2015

## NMP 23 – 2015: Novel materials by design for substituting critical materials - RIA

- International cooperation, in particular with Japan and the United States of America
- Research and Innovation actions, TRL 3-4, EUR 3 and 5 million
- First stage 26/03/2015, Second stage 08/09/2015



### **LINKS**

### EU raw materials webpage:

http://ec.europa.eu/enterprise/policies/rawmaterials/index\_en.htm



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

### Horizon 2020:

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

### Thank you for your attention!

