



# European Innovation Partnership on Raw Materials

***ProMine Final Conference with Mineral Marketplace***  
*23.4.2013 - 25.4.2013 at Levi, Finland*

***Milan Grohol***

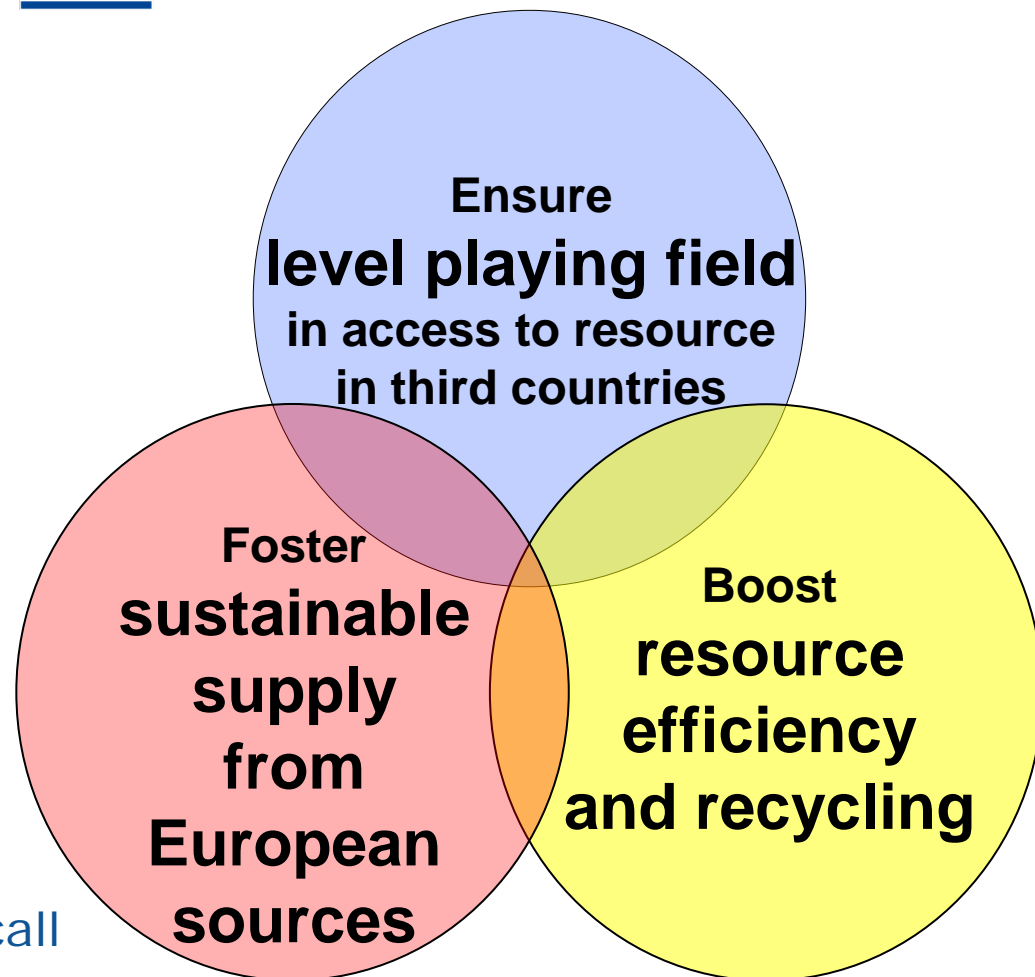
*European Commission, DG Enterprise and Industry*

*Unit-F3 «Raw Materials, Metals, Minerals and Forest-based Industries»*



## Integrated strategy

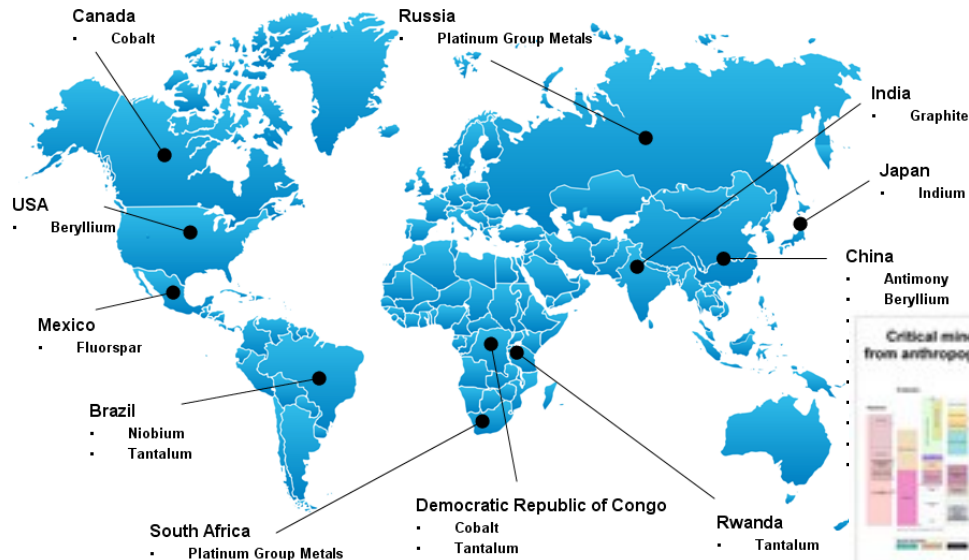
- based on three pillars
  - area of non-energy, non-agricultural raw materials
  - connecting EU external and internal policies
  - launched Nov. 2008
  - reinforced Feb. 2011
- » 2008 1<sup>st</sup> FP7 Raw materials call
- » **2009 PROMINE born**



# Critical raw materials

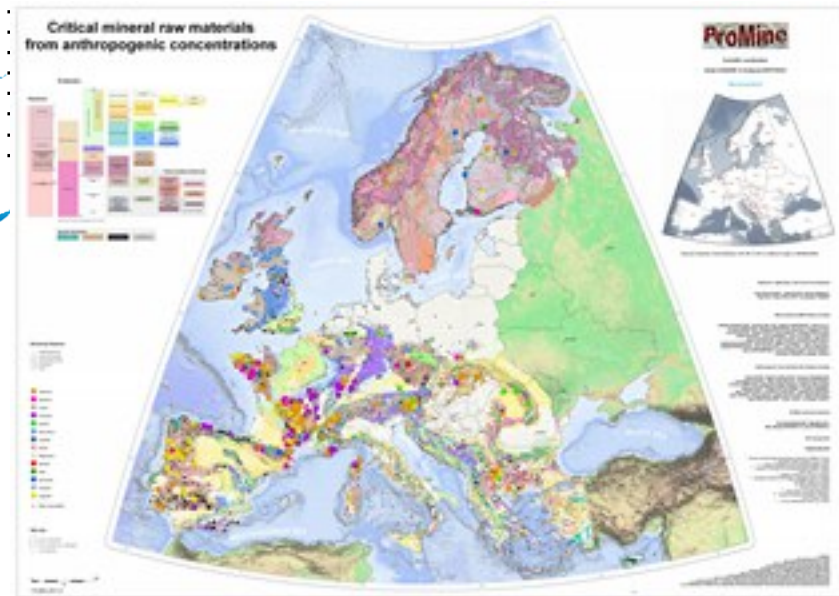


## Production concentration of critical raw mineral materials



EC published the list of critical raw materials in 2010 and will review it at least every 3 years

» **PROMINE** responded...





Proposal - COM(2012) 82 final - 29 February 2012

## Objectives

The overall objective of the EIP on Raw materials is to contribute to the 2020 objectives of the EU Industrial Policy to increase the share of industry on GDP to 20%, the Innovation Union flagship initiative, and the Resource Efficiency Policy by ensuring the sustainable supply of raw materials to European economy and society.

Specific:

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

# EIP targets 2020



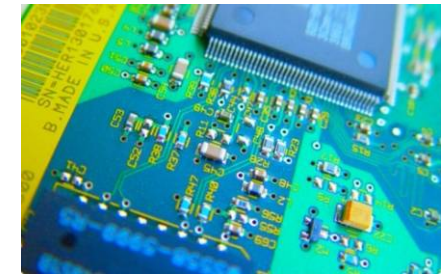
- Up to **10 innovative pilot actions** e.g. demonstration pilot plants for exploration, mining, processing, collecting and recycling
- **Substitutes for at least 3 applications** of critical raw materials
- **Regulatory framework for primary raw materials**
- **Raw materials network** of Research, Education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



# Work packages - Operational Groups



- **Technology-focused policy areas**
  - WP1 - Exploration, extraction, processing, recycling ...
  - WP2 - Substitution, alternative functionalities and materials
- **Non Technology policy areas**
  - WP3 - Improving Europe's raw materials regulatory framework conditions, knowledge base and infrastructure
  - WP4 - Improving Europe's recycling regulatory framework conditions and excellence
- **WP5 - International cooperation**
  - Promoting appropriate international cooperation





# Progress on the European Innovation Partnership

# EIP Timetable 2013



## Indicative Timetable and Deliverables –European Innovation Partnership on raw materials

2013													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Council</b>								Report					Comp Council - 2-3/12
<b>EIP Groups Meetings</b>	High level steering group		12 Feb					17 July					
	Sherpa group	23 Jan			19 April		5 June						
	Operational groups (5)		20-21 Feb		18 April					3 <sup>rd</sup> meetings (tbd)			
<b>External stakeholders involvement</b>					<b>19 April Related initiatives meeting</b>	24-26 May Minerals days	17 June RMSG Webpages ver. 1		Webpages ver. 2	<b>EIP Call for Commitments</b>		<b>EIP Conference</b>	
<b>Horizon 2020</b>					SC 5 19 April Stakeholders meeting	Advisory Group meeting	Advisory Group meeting						
<b>Deliverables</b>					<b>1. Draft SIP</b>			<b>SIP approved by HLSG</b>		Monitoring scheme			<b>EC Communication on EIP SIP</b>





- **3.1 Technology Pillar**

- 3.1.1 Priority Area: Raw materials research coordination (WP1&2)
- **3.1.2 Priority Area: Technologies for primary and secondary raw materials production (WP1)**
- 3.1.3 Priority Area: Substitution of raw materials (WP2)

- **3.2 Non-Technology Policy Pillar**

- 3.2.1 Priority Area: Improving Europe's raw materials regulatory framework, knowledge base and infrastructure (WP 3)
- 3.2.2 Priority Area: Improving Europe's waste management regulatory framework conditions and excellence (WP4)
- **3.2.3 Priority Area: Knowledge and skills on raw materials (WP 3 & 4)**

- **3.3 International Cooperation Pillar (WP5)**

- 3.3.1 Priority area – Strategic international dialogues
- 3.3.2 Priority area – Technology-related international cooperation
- 3.3.3 Priority area – International dialogues on trade-related matters

**Disclaimer: VERSION 0 – DRAFT OF 27/03/2013 - This document is the first compilation of the ideas for actions from the Operational Groups of the EIP, not prejudging further changes.**



## 3.2.3 Priority Area: Knowledge and skills on raw materials (WP 3 & 4)

### • **EU Knowledge Base**

- An EU knowledge base on raw materials should serve both industry and policy making and create an added value at the EU as well as at the data source level.
- It should be organised as a service (permanent body) containing the raw materials information infrastructure and intelligence. (Going beyond sharing of information/ infrastructure)
- Should cover primary and secondary raw materials and also their flows,
- Raw materials intelligence should use all relevant methods and tools, among others the following methods in particular: statistics, LCA, MFA, 2-4 D modelling, forecasting trends.



## 3.1.2 Priority Area: Technologies for primary and secondary raw materials production (WP1)

### Exploration:

- Deep exploration
  - to enable finding and defining new industrially relevant mineral deposits on the continent and in the sea-bed
  - by developing new cost-effective exploration technologies providing high resolution 3D geo-data and their interpretation down to 200-4000 meters depth
  - to be used for the non-energy extractive industry investment decisions.



- **Processing**

- Metallurgical Processing of complex and/or low grade resources
  - to develop and demonstrate a new holistic metallurgical system with higher technical, economic and environmental performance for processing and recovery of metals from low grade and/or complex feeds with changing composition.
- Flexible and mobile processing plants for industrial minerals and aggregates
  - to develop and demonstrate flexible, when appropriate mobile or modular, "zero waste" processing plants able to process different industrial minerals and aggregates.



**COMMISSION PROPOSAL COM(2011) 809 final:**

### **5. CLIMATE ACTION, RESOURCE EFFICIENCY AND RAW MATERIALS**

- The aim is to improve the knowledge base on raw materials and develop innovative solutions for the cost-effective and environmentally friendly exploration, extraction, processing, recycling and recovery of raw materials and for their substitution by economically attractive alternatives with a lower environmental impact.
- Activities shall focus on: improving the knowledge base on the availability of raw materials; promoting the sustainable supply and use of raw materials; finding alternatives for critical raw materials; and improving societal awareness and skills on raw materials.

# References



- EU raw materials webpage:

[http://ec.europa.eu/enterprise/non\\_energy\\_extractive\\_industries/raw\\_materials.htm](http://ec.europa.eu/enterprise/non_energy_extractive_industries/raw_materials.htm)

- European Innovation Partnership on Raw Materials:

[http://ec.europa.eu/enterprise/policies/raw-materials/innovation-partnership/index\\_en.htm](http://ec.europa.eu/enterprise/policies/raw-materials/innovation-partnership/index_en.htm)

- Report on critical raw materials:

[http://ec.europa.eu/enterprise/policies/raw-materials/critical/index\\_en.htm](http://ec.europa.eu/enterprise/policies/raw-materials/critical/index_en.htm)

- Report on best practices in area of land use planning, permitting and geological knowledge:

[http://ec.europa.eu/enterprise/policies/raw-materials/sustainable-supply/index\\_en.htm](http://ec.europa.eu/enterprise/policies/raw-materials/sustainable-supply/index_en.htm)

- Natura 2000 guidelines:

[http://ec.europa.eu/environment/nature/natura2000/management/guidance\\_en.htm](http://ec.europa.eu/environment/nature/natura2000/management/guidance_en.htm)

- Trade raw materials activity report 2012:

[http://trade.ec.europa.eu/doclib/docs/2012/may/tradoc\\_149515.pdf](http://trade.ec.europa.eu/doclib/docs/2012/may/tradoc_149515.pdf)

- 2011 JRC report on critical metals and energy technologies:

<http://setis.ec.europa.eu/system/files/CriticalMetalsinStrategicEnergyTechnologies-def.pdf>



**THANK YOU!**