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Reducing the EU's dependency on raw materials: European Innovation Partnership launched

European Commission Vice-President Antonio Tajani, responsible for Industry and Entrepreneurship, launched today, together with his colleagues Maire Geoghegan Quinn European Commissioner for Research, Innovation and Science, and Janez Potočnik European Commissioner for the Environment, the European Innovation Partnership (EIP) on raw materials, bringing together Member States and other stakeholders to help make Europe a world leader in raw materials exploration, extraction, processing, recycling and substitution by 2020. To this end, the Commission proposes concrete targets to be achieved by 2020 to reduce Europe's dependency on imported raw materials, to replace rare materials with substitutes and to set up innovative pilot actions, e.g. pilot plants for exploration, mining, processing, collecting and recycling. Raw materials are the lifeblood of EU industry: at least 30 million jobs in the EU depend upon access to them. But much of Europe's industry is heavily dependent on international markets to secure the raw materials it requires. To turn this trend and to reduce cost for raw materials, today's initiative is part of the European Commission industry strategy launched in autumn 2012 to make Europe an attractive place for industry investment.

Why do we need an EIP? What are the EIP's objectives?

The aim is to address weaknesses, bottlenecks and obstacles in the European research and innovation system that prevent or slow down good ideas being developed and brought to market. The European Innovation Partnership brings together Member States and other stakeholders (companies, NGOs, researchers etc) to develop joint strategies, pull together capital and human resources and ensure the implementation and dissemination of innovative solutions to our challenges in the field of raw materials.

The key objectives of the EIP on raw materials are:

- **Reduction of import dependency by improving supply conditions from EU and other sources and providing resource efficiency and alternatives in supply.**
- Bringing **Europe to the forefront in raw materials sectors** and mitigating their negative environmental and social impacts.

The scope of the Partnership covers non-energy, non-agricultural raw materials - metals and minerals, as well as other industrial raw materials such as natural rubber, paper and wood. It will target innovation in both technology-focused and non-technology policy areas, as well as international cooperation.

The EIP will help to ensure more sustainable access for European industry to raw materials by creating better linkages between existing policy instruments, reinforcing Member State co-ordination in the field of raw materials and promoting the development of integrated value chains in the private sector.

What does the EIP propose?

The Commission has proposed concrete targets to be achieved by 2020 for each area of focus:

- Up to 10 **innovative pilot actions**, e.g. 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 that would provide stable and competitive supply from EU sources and will be supported by standards and/or voluntary certification schemes for EU mining operations;
- **Network of Research, Education and Training Centres** on sustainable raw materials management organised as a Knowledge and Innovation Community (KIC);
- **Raw materials knowledge base with raw materials flows and trends**, using standardised instruments for the survey of resources/reserves and an industrially relevant raw materials map covering primary and secondary raw materials;
- **Enhanced efficiency in material use and in waste prevention**, re-use and recycling, with a specific focus on flows that are common to many product life-cycles and have potentially negative impact on the environment; and identified opportunities and new ideas for innovative raw materials and products with market potential;
- **Pro-active international cooperation strategy of EU at bilateral and multilateral level**, such as the US, Japan, Australia, Canada in the different areas covered by the EIP.

Importance of raw materials to EU industry

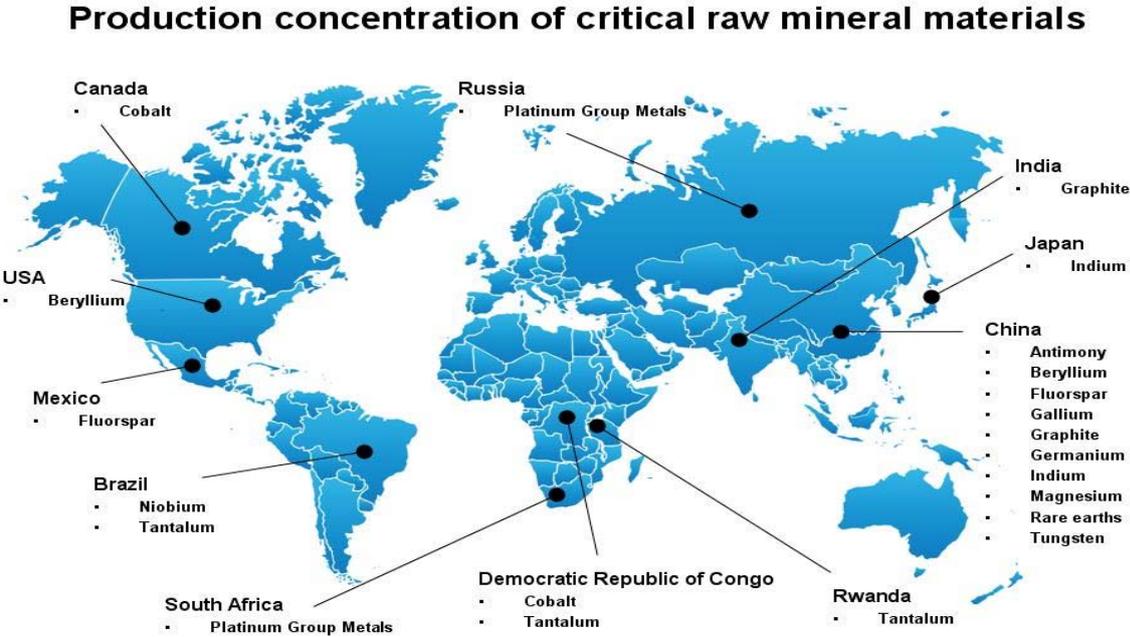
Raw material supply difficulties have a negative impact on Europe's industrial performance and its overall economic performance. In order to strengthen European industry, it is vital that industry is able to access raw material inputs on time and at a reasonable market price. Significant increases in the prices of non-EU sourced raw materials are of concern to European policy-makers and manufacturers alike, as they make European manufacturing less competitive vis-à-vis to manufacturing in emerging countries. For example, the prices of Rare earths - dysprosium and neodymium rapidly increased between 2010 and 2011, respectively from \$229/kg in 2010 to \$1454/kg in 2011, and from \$48/kg in 2010 to \$233/kg in 2011.

Current sources of Europe's raw materials

Much of Europe's industry is heavily dependent on international markets to secure the raw materials it requires. The table below (figure 1) highlights the key world producers for the metals and minerals identified as being critical to the EU's economy.

100% of the primary platinum, cobalt, rare earths and natural rubber used by European industry currently imported from outside the EU. China is an importance supplier of many materials, as well as countries such as Democratic Republic of Congo, South Africa and Brazil. Natural rubber is primarily dependent on supply from South East Asia.

Figure 1: Global Production Sources of EU Critical Raw Materials¹



The picture for some bulk metals and industrial minerals is not quite as acute, but the EU is still a large net importer for these materials (Table 1). For wood and paper, EU industry is largely self-sufficient; however, there is growing demand for these materials from other industries, including bio-energy.

Table 1: Metrics for EU Import Dependency of Raw Materials (%)²

Raw Material	Import Dependency	Raw Material	Import Dependency
Natural Rubber	100%	Bulk Metals	57%
High-Tech Metals	96%	Industrial Minerals	46%
Iron Ore	85%	Wood	15%
Critical Raw Materials*	77%	Paper	9%

* As defined by the EU. These 14 raw materials include a combination of high-tech metals, bulk metals, as well as industrial minerals

¹ European Commission (2010) , Critical Raw Materials for the EU

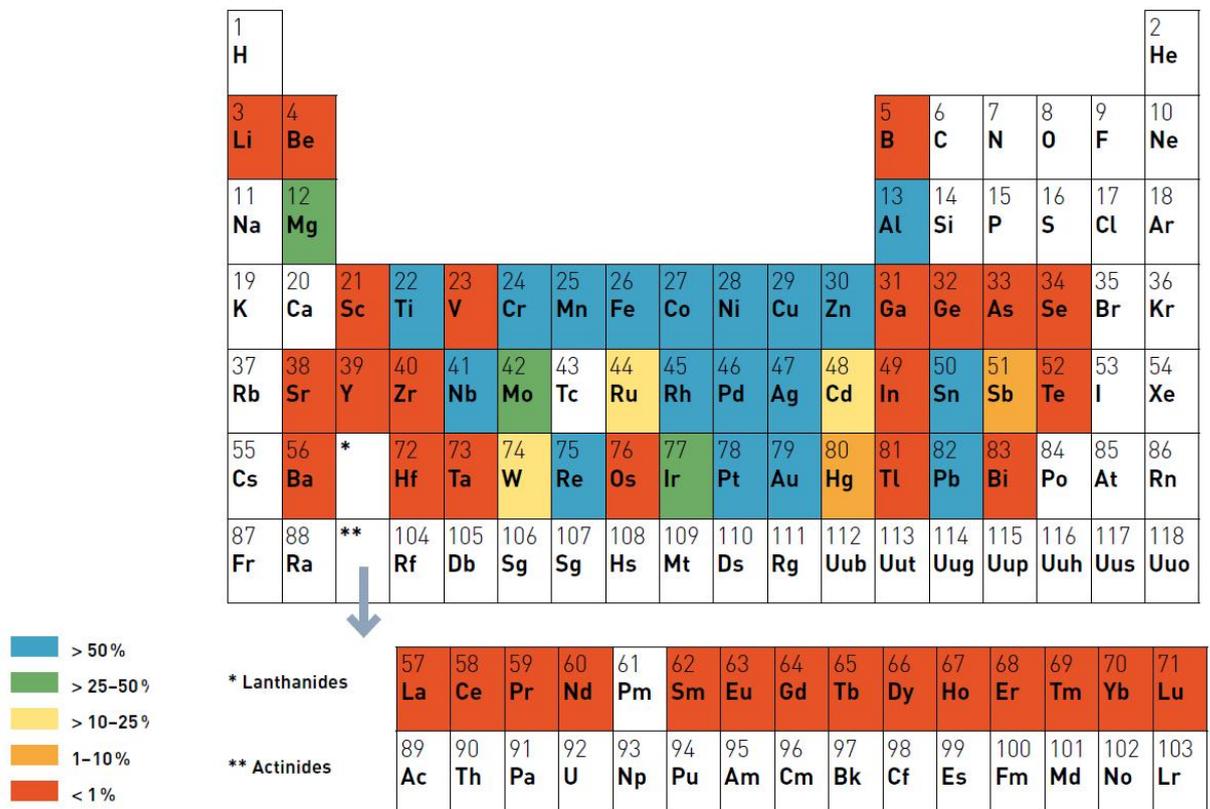
² European Commission (2010), Critical Raw Materials for the EU & some additional references

EU policies to reduce dependence on externally sourced raw materials

To reduce European industry's dependence on non-EU virgin raw materials, the European Commission promotes the following policies:

- **Mining** is a key approach to tap Europe's unexploited minerals at a depth of 500–1,500 metres, including critical raw materials, with estimated value of about €100 billion. Europe also hosts several world class mining equipment providers.
- **Recycling** is another key way for reducing European demand for non-EU raw materials. There is potential to extract sizeable quantities of raw materials from end-of-life industrial and consumer goods in Europe such as the rare earths found in computers, platinum found in car exhausts or wood contained in furniture.

Figure 2: End-of-life recycling rates for sixty metals³



³ Source: UNEP (2011), Recycling Rates of Metals: A Status Report

Europe is a world leader in technological Research and Development (R&D) in the field of **substitution** of critical raw materials. This means replacing one industrial component with a more readily raw material in the EU, whether it is a rare metal or an import dependent material such as natural rubber.

- Ensure a level playing field in **access to resources in non-EU countries**, by pursuing a proactive strategy for international cooperation of the EU in multilateral organisations and bilateral relations with key third countries including the United States, Japan and Australia.

What next for the EIP?

The EIP's 2013 agenda is dense and contains several key milestones and deliverables.

- A **Strategic Implementation Plan** will be developed and is expected to be endorsed by the High Level Steering Group on 17 July.
- The EIP plans to launch a *public Call for Commitments* in September to allow all potential stakeholders to express their concrete intention to contribute in the implementation of the EIP priorities and actions identified in the SIP.
- In October 2013, in response to the SIP the Commission plans to issue a Communication.

Plans for 2013 also include activities involving relevant external initiatives, such as the Resource efficiency panel, European technology platforms, European Public Private Partnerships, EU or national initiatives and research and development projects, and public events including the Annual EIP Conference in November. "Minerals Days" scheduled for 24th-26th May and "Universities Day" on raw materials aim at reaching students across Europe.

[More information on the EIP on Raw Materials](#)