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## EIT RawMaterials position paper in support of a strong EU Framework Programme with a strengthened focus on raw materials, including the role of raw materials in securing industrial leadership and sustainable development.

EIT RawMaterials is a Knowledge and Innovation Community (KIC) and the world's largest consortium in mineral raw materials. The KIC has 115 members from higher education, research and industry across 22 European countries. EIT RawMaterials firmly supports the three-pillar structure of Horizon 2020: *excellent science, industrial leadership and societal challenges*. EIT RawMaterials strongly encourages a next EU Framework Programme, FP9, to further strengthen the focus on raw materials and support the transition towards a circular economy and Europe's 2030 Agenda. The programme must also continue to ensure long-term impact by securing a strong industrial participation.

### *Towards sustainable development and a circular economy:*

The EU Member States are strongly committed to implementing the *2030 Agenda for Sustainable Development* and the goals set out in COP21 in order to achieve sustainable development in three dimensions – economic, social and environmental. These dimensions are laid out in the *Proposal for a new European Consensus on Development Our World, our Dignity, our Future*, published November 2016.

Of particular importance in this context are the calls for protecting the environment, for sustainable management of natural resources and for tackling climate change. These have sustainable availability of natural resources and the move towards increased resource circularity at their core, and are closely aligned with the EU raw materials policy strategy, the *Raw Materials Initiative*.

### *Current challenges concerning raw materials:*

The overall goal of the European Raw Materials Initiative is to ensure the sustainable supply of raw materials to the European economy. The initiative has three pillars, 1) Fair and sustainable supply of raw materials from global markets, 2) Fostering sustainable supply within the EU, 3) Boosting resource efficiency and promoting recycling.

Innovation and entrepreneurship and supplying the necessary human capital are essential elements of these pillars. While previous and current Framework Programme activities are addressing these and working towards the overall goal, the impact is not yet satisfactory. This is likely related to the dynamics of the field, which is constantly adapting to new trends and developments, and importantly, to the timescale for impact in the raw materials sector.

The European Innovation Partnership for Raw Materials published a Scoreboard in 2016. This sets out a methodology for evaluating Framework Programme activities and their impact. Although the fields of

primary and secondary raw materials have been supported by a number of initiatives, EU raw material self-sufficiency is still inadequate for almost all metals (less than 5% of the world trade of mineral raw materials). This is related to the following issues:

- There is a lack of awareness about the need for mineral resources. This negatively affects the social license to operate and land-use management frameworks. Consequently, European mineral resources are underexplored and the exploitation of construction materials, metals and industrial minerals impeded.
- Criticality, scarcity and supply risks are highly dynamic. The critical minerals for the EU have changed and since 2010, and their numbers have increased.
- There is an unresolved conundrum in that primary raw materials are commonly/nationally owned, while the exploitation of them is largely dependent on market conditions. The current administrative and economic framework regulating both primary and secondary raw materials is heterogeneous and inadequate for sustainable exploitation of the resources.
- Instruments to forecast the dynamics of the European raw materials consumption are inadequate.
- Materials flows and leakages in the circular economy system for raw materials are poorly understood, resulting in a low exploitation rate for secondary raw materials in Europe.

#### *The next European Framework Programme:*

The EU should continue to prioritize research, education, innovation, investment and entrepreneurship. This will ensure both access to and stewardship of primary and secondary raw materials, which are of paramount importance for the development and prosperity of the EU. EIT RawMaterials calls for a Framework Programme that will continue to have a strong focus on primary and secondary raw materials, and that will support and maintain:

- Activities to enhance the European expertise covering the entire value chain for raw materials, including expertise in mineral exploration technologies and mining adapted for the densely developed parts of Europe
- Activities that raise awareness and provide solutions for the transition towards a green economy with its key pillars of renewable energies and e-mobility. This brings with it a large demand for metals, many of which are critical
- Activities that promote increased process efficiency in the raw materials sector
- Activities that promote improved recycling techniques and reduce the need for rare (critical) metals by looking for alternative materials
- Activities that analyse pathways and barriers for innovation in the raw materials sector, and identify solutions

- Activities and instruments (legal and financial) that support the regulatory, policy and economic framework for primary and secondary raw materials
- Activities and instruments to ensure that the knowledge gained in previous years is utilized and data is made widely and efficiently available to relevant stakeholders
- Activities to (i) identify leakages in the raw materials flow with the aim of closing loops, (ii) identify, characterize, and quantify anthropogenic secondary resources, and (iii) collect and exploit data, define standards and harmonize materials flows
- Activities related to raw materials that guarantee the future competitiveness of the European manufacturing industry
- Activities that promotes increased educational efforts among higher education institutes in cooperation with industry in the raw materials sector. This is needed to secure the long term talent pipeline for the sector

*Summary:*

It is of utmost importance for the EU to continue prioritizing raw materials and strengthen the activity level in the next Framework Programme. This, together with strong industry participation, will ensure that the impact envisioned in the Raw Materials Initiative and in the 2030 Agenda for Sustainable Development is achieved. It is important that the scope of the Framework Programme for raw materials addresses both primary and secondary raw materials, as well as the need to move towards a circular economy across all parts of the raw materials value chain from resource assessment and mining to recycling, re-use and substitution.

[For additional information about the EIT RawMaterials KIC and our position on the importance of including raw materials in the FP9 agenda, please contact:](#)

Dr. Karen Hanghøj,  
CEO, Managing Director, EIT RawMaterials

Dr. Andreas Klossek,  
COO, Managing Director, EIT RawMaterials

Katerina C. Thomas,  
Head of Communications, EIT RawMaterials