WELCOME BACK
Agenda

Session II: Responsible Mineral Raw Material Production in Europe - The Importance of the Regional Ecosystems and Clusters

13:00 – 13:20 Keynote speech
   Green Deal Industrial Plan for Net-Zero Age

13:00 – 13:20 Roundtable Dialogue
   Putting the Green Deal Industrial Plan into practice in the regional concept

14:30 – 14:40 Concluding remarks

14:45 – 17:00 Matchmaking

15:00 – 17:00 Policy Roundtable

18:00 – 21:00 Taste from East and Nort Finland Green Transition Gala 2023
Session II: Responsible Mineral Raw Production in Europe – The importance of the Regional Ecosystem and Clusters

Facilitator: Jukka Teräs, CEO Norrum Oy

Keynote speech – Green Deal Industrial Plan for the Net-Zero Age: ensuring secure and sustainable supply chains for EU’s green and digital future

- Jakub Boratynski, Director Networks & Governance, DG GROW, European Commission

Roundtable dialogue – putting the Green Deal Industrial Plan into practice in the regional context:

- Sari Tasa, Senior Advisor, Ministry of Economic Affairs and Employment, Finland
- Luís Martins, President of the Board, Cluster Portugal Mineral Resources, Portugal
- Dessislava Chalamova, Programme Director, Industrial Cluster Srednogorie, Bulgaria
- Jakub Boratynski, Director Networks & Governance, DG GROW, European Commission
Keynote speech

Green Deal Industrial Plan for the Net-Zero Age: ensuring secure and sustainable supply chains for EU’s green and digital future

Jakub BORATYNSKI
Director Networks & Governance
DG GROW, European Commission
# Critical Raw Materials & EU climate ambitions

## Non-regulatory actions


## Calls for stronger actions


## Green Deal Industrial Plan

| Net-Zero Industry Act | Critical Raw Materials Act |

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**European Green Deal**

- **Become climate-neutral by 2050**
- **Protect human life, animals and plants, by cutting pollution**
- **Help companies become world leaders in clean products and technologies**
- **Help ensure a just and inclusive transition**
Critical Raw Materials & EU industrial policy

EUROPEAN INDUSTRIAL STRATEGY (March 2020)
- Raw materials identified as essential for the green transition
- Set-up of European Raw Materials Alliance announced

EU INDUSTRIAL STRATEGY UPDATED (May 2021)
- Supporting Europe’s Open Strategic Autonomy through dealing with dependencies, including raw materials
- Various actions to support raw material projects identified: IPCEI, RRF, Horizon Europe, Strategic Partnerships, etc.

INDUSTRIAL FORUM
- Thematic workshops on strategic dependencies, including raw materials
- Securing the access to CRM must be a key priority if we wish to achieve green transition
- Security of CRM supply will rely on diversification of the supply chains including through strategic partnerships with likeminded partner countries
Why CRITICAL Raw Materials?

- paramount to achieve the green & digital transitions of EU industry
- essential to enhance EU long-term competitiveness
- key to ensure an EU open strategic autonomy
An inconvenient truth...

Projected increase in global demand:

<table>
<thead>
<tr>
<th>Metal</th>
<th>Projected Increase</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare Earths (wind turbines)</td>
<td>x5.5 by 2050</td>
<td></td>
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<tr>
<td>Nickel (batteries)</td>
<td>x15 by 2040</td>
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<tr>
<td>Lithium (electrical vehicles)</td>
<td>x57 by 2050</td>
<td></td>
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<tr>
<td>Platinum Group Metals (hydrogen fuel cells)</td>
<td>x970 by 2050</td>
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European Critical Raw Materials Act

Ensuring a secure and sustainable supply of critical raw materials for the Union

- Strengthen all stages of the European CRM value chain
- Improve EU capacity to monitor and mitigate risks of disruption to CRM supply
- Diversify EU CRM imports to reduce strategic dependencies
- Improve CRM circularity and sustainability
CRMA: setting 2030 benchmarks for raw materials

**EU EXTRACTION**
At least **10%** of the EU’s annual consumption for extraction

**EU PROCESSING**
At least **40%** of the EU’s annual consumption for processing

**EU RECYCLING**
At least **15%** of the EU’s annual consumption for recycling

**EXTERNAL SOURCES**
Not more than **65%** of the EU’s annual consumption of each strategic raw material at any relevant stage of processing from a single third country
Critical & Strategic Raw Materials: who are they?

34 raw materials defined as critical by their high economic importance and supply risk, based on a regular assessment of available data in an established methodology.

- Antimony
- Arsenic
- Bauxite
- Baryte
- Beryllium
- Bismuth
- Boron
- Cobalt
- Coking Coal
- Copper
- Feldspar
- Fluorspar
- Gallium
- Germanium
- Hafnium
- Helium
- Heavy Rare Earth Elements
- Light Rare Earth Elements
- Lithium
- Magnesium
- Manganese
- Natural Graphite
- Nickel – battery grade
- Niobium
- Phosphate rock
- Phosphorus
- Platinum Group Metals
- Scandium
- Silicon metal
- Strontium
- Tantalum
- Titanium metal
- Tungsten
- Vanadium
CRMA: strengthening the value chain through Strategic Projects

Benefits

- **Priority Status** in national + EU law: for administrative & judicial procedures
- **One-stop-shop approach**
- **Permitting - Legal time-frames**
  - Extraction: 24 months
  - Processing & Recycling: 12 months
- Provisions to facilitate and timely deliver **environmental assessments and authorisations without weakening environmental and social protection**
- **Enabling conditions to implement Strategic Projects**
  - The Critical Raw Materials Board provides coordination and advice to secure remaining financing
  - Provisions to facilitate the conclusion of off-take agreements

Identifying **Strategic projects** across the whole SRM value chain: extraction - processing - recycling

Selected by the Commission upon advice from the **European Critical Raw Materials Board** based on:

- Contribution to security of supply
- Sustainability
- Technical feasibility
- Cross-border benefits in EU/ Economic and social benefits in third countries
CRMA: risk monitoring and mitigation

- Monitor **supply risks** of CRM
- **Stress tests** by the Commission with Member States
- Alerts to MS/relevant authorities in case of risk
- **Company risk preparedness**
- **Strategic stockpiling**: information gathering and coordination
- Voluntary joint purchasing
CRMA: developing win-win partnerships with reliable partners

Critical Raw Materials Club
Establish a raw materials alliance with partners to strengthen supply chains and diversify sourcing

Strategic Partnerships on Raw Materials
Expand our network of strategic raw materials partnerships

Trade and Investment Agreements
Leverage and expand our trade agreements as regards raw materials extraction, processing and trade

Global Gateway
Support critical raw material supply projects, including on infrastructure, connectivity and sustainability

Enforcing Trade Rules
Continue to combat unfair trade practices, especially when they concern trade investment in or access to critical raw materials
CRMA: promoting a more sustainable & circular Critical Raw Material economy

- Requiring Member States to step up efforts to recover critical raw materials from waste products and mining waste
- Increasing the share of recycled critical raw materials in manufacturing
- Improving the recyclability of rare earth permanent magnets in specific products and technologies on the EU market
- Increasing efforts to mitigate any adverse impacts with respect to labour rights, human rights and environmental protection
- Recognising certification schemes to increase the sustainability of the critical raw materials placed on the EU market
Until the Critical Raw Materials Regulation is adopted...

a lot can be achieved by using the existing tools and instruments
CRM & skills: existing opportunities to seize

**EIT Raw Materials training actions**

- Introduce society as a whole to the importance and relevance of raw materials and incite interest in topics related to raw materials
- Equip talent with technical knowledge, including ESG (Environmental, Social, Governance) standards, required by the raw materials industry today
- Foster entrepreneurial and innovation skills, knowledge and attitudes needed for the entre- and intrapreneurs of tomorrow

**EU Pact for Skills**

- Aims to get public and private organisations together and encourage them to make concrete commitments to upskilling and reskilling adults
- Publics authorities and stakeholders from mining industry are welcome to join the Pact

**CRMA to launch a Raw Materials Academy**
EIT, ERMA & Raw Materials Summit

➢ set up in 2015 to advance Europe’s transition into a sustainable economy

➢ overarching mandate is to support securing the supply of critical raw materials to the European industry by driving innovation along the raw materials value chain

➢ leads and manages the European Raw Materials Alliance (ERMA)

Establish an agile and inclusive stakeholder consultation process

Support EU industrial policy to mitigate regulatory and financing bottlenecks

Set up a Raw Materials Investment Platform (RMIP) to help leverage investment in a pipeline of key projects

Foster a deeper strategic awareness, including public acceptance of and forward-looking perspective on the role of raw and advanced materials in the transition to the Green and Digital Economy

SAVE THE DATE
15 - 17 MAY 2023
THE EGG, BRUSSELS
ERMA investment cases: other value chains

(34 projects on the map)

100% European know-how
> € 12 B investment

- Ilmenite (Ti) - magnetite (Fe, V) mining
- Molybdenum mining
- Graphite mining
- LiOH production from own mine
- Battery materials (EAM and pCAM)
- Production of battery-grade graphite
- Lithium mining to produce Li carbonate
- Tin, indium, zinc and iron mining
- Recovery of metals from WEEE

- Acetylene black production
- Graphite mining

- Magnesium recovery from waste
- Lithium mining

> 100% borate
> 90% Li
> 20% Mn, Ti, Y
> 20% Ag for PV

- 50% Ni
- 60% Co
- 30% graphite

- Lithium mining
- Recovery of metals from WEEE

- EuCo sulfide refinery and pCAM
- Geothermal lithium production
- Cu, Zn, Fb and Ag mining and refining
- Recycling of Li-ion batteries

Co-funded by the European Union

European Raw Materials Alliance (ERMA)
www.clustercollaboration.eu