The mining industry of the future

The European Innovation Partnership on Raw Materials

Annual Conference of the Norwegian Mining and Quarrying Industries
Mark Rachovides, President Euromines
Trondheim, 17 – 18 October 2013
Outline

• Who we are

• What we do

• Euromines current issues

• The European Innovation Partnership on Raw Materials

• Euromines’ Forward Vision
Who we are

MEMBERSHIP:
COUNTRIES REPRESENTED
- Austria
- Bulgaria
- Czech Republic
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- the Netherlands
- Norway
- Poland
- Portugal
- Romania
- Russia
- Slovakia
- Spain
- Sweden
- Turkey
- United Kingdom

Non-European countries:
- Canada
- Kazakhstan
Euromines – who we are

• Recognized representative of the European mining industry;

• Service provider to its members with regard to EU policy;

• Network for cooperation and for the exchange of information throughout the sector within Europe;

• Link to contacts with the mining community throughout the world.
Minerals represented in Euromines

- Percentage shares of different minerals represented in Euromines members:

Euromines represents large and small companies and their subsidiaries in Europe and in other parts of the world which provide jobs to more than 350,000 people.

Their activities and operations produce more than 42 different metals and minerals.
Euromines Representativity

Metals

Euromines Representativity in Metals Mining
in % of EU production

- Bauxite: 100%
- Chromium: 100%
- Gold: 100%
- Iron Ore: 100%
- Silver: 100%
- Titanium: 100%
- Copper: 95%
- Tungsten: 85%
- Nickel: 80%
- Zinc: 75%
- Lead: 55%
- Bismuth: 53%
Euromines Representativity in Industrial Minerals

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barytes</td>
<td>100%</td>
</tr>
<tr>
<td>Potash</td>
<td>100%</td>
</tr>
<tr>
<td>Magnesite</td>
<td>95%</td>
</tr>
<tr>
<td>Bentonite</td>
<td>85%</td>
</tr>
<tr>
<td>Sulphur</td>
<td>72%</td>
</tr>
<tr>
<td>Talc</td>
<td>54%</td>
</tr>
<tr>
<td>Graphite</td>
<td>50%</td>
</tr>
<tr>
<td>Mica</td>
<td>40%</td>
</tr>
<tr>
<td>Salt</td>
<td>33%</td>
</tr>
<tr>
<td>Feldspar</td>
<td>14%</td>
</tr>
<tr>
<td>Kaolin</td>
<td>13%</td>
</tr>
<tr>
<td>Diatomite</td>
<td>12%</td>
</tr>
</tbody>
</table>
Norwegian Mining and Quarrying Industries Association

≡ Founded in 2008
≡ Euromines member since 2010

≡ We are proud of the Norwegian achievements:
  = Contribution to the creation of the new Mineral Act, presented by the Norwegian Government in 2009.
  = Leading initiative in the process of creation of Norwegian Mineral Strategy (started in 2009 as a follow up of the EU Raw Materials Strategy).
  = In March 2013 the Norwegian Mineral Strategy was officially presented by the Norwegian Minister of Industry Mr. Trond Giske

Celebrates in 2013 its 5th birthday Congratulations!
What we do
Euromines – what we do

• Define common industry positions and actions.

• Establish constructive dialogue with governmental institutions to ensure early consultation on areas of EU policy affecting the industry, and assert the industry's views and positions.

• Advocate for the industry by promoting the benefits and societal value of both its activities and its products.
Our Key Messages

RESOURCES
• We strongly believe that Europe has a viable resource base

DEMAND
• The demand for raw materials is continuously increasing

STANDARDS
• The EU should maintain an enabling environment that provides for achievement of the highest standards in the extractive industries
Euromines as formal platform

- Euromines provides a formal platform where members can evaluate the impact of European and International policies & legislation on the industry and define common positions & actions.

- **Euromines Committees:**
  - Policy
  - Environment
  - Health & Safety
  - ETS/Energy Committee
  - Communication
  - Gold Mining Assembly
  - Magnesite Producers Assembly
Euromines current issues
• **European Innovation Partnership (EIP) on raw materials**
  - Strategic Implementation Plan for the EIP on raw materials
  - Competitiveness study, Critical raw materials study

• **Innovation/Research & Technical Development**
  - Horizon 2020
  - Extractive industry as a major contributor to innovation in EU raw materials supply

• **Communication**
  - Improve the image of the industry as more environmentally friendly, trustworthy and innovative
  - Establish and maintain good relationships with target audiences
  - Share Knowledge
  - Further strengthen Euromines as the voice for its membership and for the extractive industry in Europe
**Environment**
- Biodiversity
- Chemicals Management
- IED Directive (The Industrial Emissions Directive)
- Mine Waste Directive
- Resource Efficiency Indicators
- Water Framework Directive

**Energy/ETS**
- ETS Carbon Leakage List
- Energy Policy: shale gas and oil
- ETS Directive
- State Aid Guidelines

**Health & Safety**
- Strategy on Health and Safety 2013 – 2020
- Monitoring of all EU H & S legislation and lobbying

**Social Dialogue**
- Dialogue with unions on issues of common concern
Modern mining explained

Planning for Integrated Mine Closure: Toolkit

Mining in Tanzania – What future can we expect?
The Challenge of Mineral Wealth: using resource endowments to foster sustainable development

Implementing a global solution to managing a low-emissions economy
Policy on climate change

Health Impact Assessment: summary of the good practice guidance

Mining: Partnerships for Development Toolkit

Human rights in the mining and metals industry
Integrating human rights due diligence into corporate risk management processes

Ores and Concentrates
An industry approach to EJ Hazard Classification

Good Practice Guidance for Mining and Biodiversity

GUIDANCE DOCUMENT
Non-energy mineral extraction and Natura 2000

Industry Commentary to the European Commission Guidance on Non-energy mineral extraction and Natura 2000

Mineral Resources in Land Use Planning
Why Consider Minerals in LUP?
The European Innovation Partnership on Raw Materials
European Raw Materials Strategy


Europe 2020

4 Flagships Initiatives out of 7 → raw material strategy synergies

• An industrial policy for the globalisation era
• An agenda for new skills and jobs
• Resource Efficient Europe
• Innovation Union

Ensure level playing field in access to resource in third countries

Foster sustainable supply from European sources

Boost resource efficiency and recycling
European Innovation Partnership (EIP) on raw materials

- Brings together, among others, EU countries, companies, researchers and NGOs to promote innovative solutions to Europe's raw materials challenge.

**Key objectives are:**

- Reduction of import dependency by improving supply conditions from EU sources, 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 Strategic Implementation Plan (SIP)

• details actions necessary to achieve the EIP's objectives:
  • research,
  • raw materials knowledge,
  • exchange of best practices,
  • revision of selected legislations,
  • licensing steps,
  • standardisation,
  • and policy dialogues.

• targets innovation in both technology-focused and non-technology policy areas, as well as international cooperation.

The EU, Member States, industry and research community are invited to improve coordination of related industrial initiatives, collaboration between raw materials community and society and establishing EU-wide research and innovation platforms.
EIP on Raw Materials: Key components

- **Technology-focused policy areas**
  - Exploration, extraction, processing, recycling
  - Substitution

- **Non Technology policy areas**
  - Improving Europe’s raw materials regulatory framework, knowledge and infrastructure base, e.g. access to land.
  - Promotion of excellence in resource efficiency

- **International cooperation**
  - Promoting appropriate international cooperation
Resource Efficiency

• Resource Efficiency should yield optimum solutions to the trade-offs that exist between different environmental objectives and the environmental, social and economic imperatives of Sustainable Development.

• The result should be an economy that optimises its use of resources and, therefore, results in improved living conditions and reduced waste globally.
Euromines’ Forward Vision
By 2015

- EIP on Raw Materials: research into new and more resource efficient resource access and management; review of regulatory requirements
- Complete database by MS on old mine waste sites (EU Mine Waste Directive)
- EU Standard methodology for prioritisation and economic assessment of such deposits
- All Member States have new or revised Mineral Policies in place
- All MS Land-planning policies include references to extractable mineral deposits
- Revision of BAT note on mine waste management
Vision for 2020 and beyond

By 2020

- Complete modern database and economic assessment of EU primary and secondary resources
- Revised regulatory framework facilitating sustainable management of resources and uptake of innovation
- EU Leadership in technology for all aspects of resource management (exploration, extraction, processing, re-processing, reuse, recycling, recovery, design, ...)
- EU resource diversification
By 2030

- Only High tech mines in place in Europe
- Technology proven and being exported
- Optimised valorisation of available resources, i.e.
  - new technologies in place,
  - removal of legacy sites,
  - increased reuse, recovery and recycling rates,
  - material efficiency use in higher performance products
Euromines’ Forward Vision

• Achieve **100% responsible and balanced sourcing** of mineral resources for the EU

• Keep **whole value chains** present in the EU

• Let the EU be the “**international partner of choice**” for sustainable transformation of primary and secondary mineral resources

• In other words, **Lead by example** in the EU
We must shape the future of our industry in Europe

Thank you for your kind attention

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