EUROMINES
ANNUAL REPORT 2010

SECURING SUPPLY OF RESOURCES

REDUCING FOOTPRINTS

Carbon
Water
Biodiversity
Land

2010
2020
2030
2050
For the European extractive industry the year 2010 was the year of the continued work on the “Raw Materials Initiative” - securing reliable and undistorted access to raw materials is increasingly becoming an important factor for the EU’s competitiveness and for Europe’s Agenda 2020.

Following the EU’s Communication on the access to raw materials the European Union issued a whole host of Communications on Industrial Policy, Innovation, Eco-efficiency and Energy Efficiency and is developing a series of Roadmaps to achieve some of these goals.

EU policy making was far from “business as usual” since the EU policy makers were trying to provide stimulus for overcoming the economic crisis of 2008 and 2009.

With regard to the raw materials issue the two working groups on “Criticality” and on “Best practices on land use planning, permitting and geological knowledge sharing” published their reports under the Spanish presidency in Madrid in June 2010 and this was followed by a new Communication in February 2011.

In 2010 Euromines and its members were closely co-operating with the Spanish and Belgian Presidencies and significantly contributed to the organisation of conferences which had one main goal: to further support the Raw Materials Initiative. 2011 and 2012 will be dominated by putting the various recommendations in place in the EU Member States.

However, many real technological breakthroughs are necessary to achieve the EU Raw Materials Initiative policy goals extending from exploration and extraction to re-use and recycling. They need significant research efforts to meet all the objectives set by the new policies, which is why in addition establishing a European Innovation Partnership on Raw Materials in 2011 will be really important to the sector.

The extractive sector has to act in close co-operation with customers if it is to maintain its competitiveness. The sector should create new mineral and material product functionality through enhanced product and customer understanding and knowledge building as well as finding new areas of application for mineral products and designing the mineral products for tomorrow.

2010 has also seen an increase in membership of Euromines and our new members are most welcome to join our efforts. In particular, the gold mining group has seen an increase in active participation.

Finally, Euromines elected a new Steering Committee in 2010 as well as re-elected me as a President of the organisation which I very much appreciate. I am looking forward to a good cooperation with the colleagues in the new Steering Committee and the overall membership in 2011 and 2012.

Thomas Drnek
President
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1 Raw materials supply for Europe – identifying the basic issues

Following the publication of the Raw Materials Communication in 2008 the European Commission established in 2009 two working groups to study the situation of the EU’s mineral supply from two aspects: the criticality of some of its supply and the legal framework conditions for the extraction of minerals in the EU.

1.1 What are critical raw materials for Europe?
Preparing the ground for the RMI

Securing reliable and undistorted access to non-energy raw materials has become a critical challenge to many resource-dependent countries all over the world. Industrialized regions of the world, like the EU, US and Japan, have explicitly recognized the challenges which the availability of certain raw materials may pose for the functioning of their economies. The conclusion of the Working Group was that Europe is in a particularly vulnerable position.

On the one hand, Europe is highly dependent on imports for many raw materials which are increasingly affected by growing demand pressure from emerging economies and by an increasing number of national policy measures that disrupt the normal operation of global markets. Moreover, the supply of many materials is concentrated in a small number of countries, e.g. more than 90% of rare earths and antimony, and more than 75% of germanium and tungsten in China, or 90% of niobium in Brazil and 77% of platinum in South-Africa. In addition, high tech metals are often by-products of mining and processing of main materials, which means that their availability is largely determined by the availability of the main material. Besides, due to its low elasticity mine production cannot adapt quickly to structural changes in demand growth pattern, which increases the risk for the occurrence of supply crises.

On the other hand, while the EU still has valuable deposits, their exploration and extraction faces increased competition from different land uses and a highly regulated environment. It is for example not unusual in the EU for 8 to 10 years to elapse between the discovery of deposits and the start of actual production.

Member States are increasingly aware of the challenges and are beginning to modernize their mining legislation and introduce lead times in the permitting process. At the same time, a significant opportunity exists for securing materials supplies by improving resource efficiency and recycling.

The objective of the work was to develop a methodology to assess criticality and then apply this methodology to a selection of raw materials. The work was facilitated by technical input by the Fraunhofer ISI and Bio Intelligence.

The Report clearly stated that the criticality of raw materials was not caused by scarcity or geological unavailability of the resources.
Given that only a few percent of the Earth’s surface and subsurface have been explored in detail, the potential for discovering new mineral deposits is vast and the geological availability is indefinite. In such a context, the main issue concerns exploration and technological developments that will allow for a sustainable exploitation of resources.

As illustrated schematically the undiscovered resources and identified resources, including reserve, reserve base and resource, represent very different quantities of a mineral with associated major differences in the likelihood of their economic extraction.

Current reserves represent only a small portion of the mineral resources remaining in the earth’s crust. Additional reserves are continually identified at existing mines and known deposits, and through the discovery of previously unknown deposits. Completely new deposit styles may be recognised thus opening up new exploration potential in such terrains.
The methodology applied to 41 selected raw materials assessed the minerals importance to the EU’s economy in terms of GDP and the supply structure, their sourcing and the political stability of their host countries. As a result a number of raw materials were assessed as critical.

The expert group agreed that other raw materials should be screened and that this exercise was a snapshot in time that needed to be repeated at regular intervals.

As a follow-up of this an EU Research project started to illustrate the availability of identified critical raw materials in the EU.
1.2 The European Minerals Conference
Madrid, June 2010

Under the Spanish Presidency in June 2010 the third European Minerals Conference took place in Madrid to further support the Raw Materials Initiative. Organised by the Spanish Ministry for Industry, Tourism and Commerce as an official conference of the EU Spanish Presidency with the support of the extractive industry representatives both at European and at Spanish level, this conference highlighted the strategic importance of the European mining industry and European raw material supply and demand. The great significance of the raw materials industry for Europe was underlined: 30 million jobs and added value of 1,300 billion euros are dependent on this industry.

In total more than 350 participants from over 30 countries attended this event.

The final concluding speeches were given by the Spanish Minister of Industry, Tourism and Commerce, Miguel Sebastián, together with the Vice-President of the European Commission and Commissioner for Industry and Entrepreneurship, Antonio Tajani.


Commissioner Antonio Tajani:
“...the theme of raw materials is now an integral part of the European Union’s policy. This subject is addressed several times in the EU2020 Strategy, which seeks to define the orientation of the Union’s policies for the next decade.”
The Madrid Declaration:

At European level, a Raw Materials Policy needs to be promoted, defining the strategy to ensure that Europe in future will have sufficient supplies of imported raw materials and sufficient access to indigenous raw materials.

- There is a need to develop corresponding Raw Materials Policies at national, regional and local levels to ensure good present and future access to the raw materials geologically present.

- There is a need to develop associated Land-Use Planning Policies, to ensure that land-use development for minerals extraction around these geologically-present resources is preferentially treated.

- There is a need to adopt best practices in Permitting Procedures following good examples from other Member States, to ensure permits are granted in a timely and efficient manner and for durations that justify the significant capital investments involved.

The Minerals Industry recommends that the Raw Materials Initiative adopts these proposals and incorporates them in the final Communication on the Initiative to be published in February 2011. Because of the ongoing importance of the issue of access to raw material resources, the Industry also suggests that the Initiative be followed up by regular reviews over the next 5 years and also be part of the Commission’s 2020 Agenda and Strategy.
1.3 Preparing the international dialogue

USA and Japan: bilateral and trilateral dialogues

In October 2010 the EU, USA and Japan held a first roundtable on Rare Earths in America.

This was followed by a dedicated EU-US workshop including Japanese invited guests on 3 December 2010 at the MIT, Boston, USA, under the hospices of the EU-EU Energy Council addressing RTD and innovation topics.

Co-operation with Africa

In June 2010, based on African Mining Vision and EU Raw Materials Initiative, the African Union and the European Union met in Addis Ababa and concluded an agreement for a bilateral co-operation in three areas:

- Governance;
- Infrastructure / investment;
- Geological knowledge / skills.

Equally the EC is continuing its dialogue with a number of countries through its Industrial Dialogue Committees, be it with Brazil, Russia, or others.

OECD and BIAC meetings on Trade and industrial policy issues have been equally important to address issues of sustainable supply of raw materials for the future.

Euromines was involved in some (not all) of these activities.
2 Innovation in Europe’s raw material supply

The Europe 2020 Agenda put forward three mutually reinforcing priorities:

- **Smart growth**: developing an economy based on knowledge and innovation;
- **Sustainable growth**: promoting a more resource efficient, greener and more competitive economy;
- **Inclusive growth**: fostering a high-employment economy delivering social and territorial cohesion.

The RMI responds to all three objectives particularly through its 2nd pillar with an emphasis on increasing the EU’s knowledge base, fostering RTD and providing innovation tools.

Without improving the knowledge base of mineral deposits within the EU, without encouraging new exploration and data gathering with new methods and better networking between the national geological surveys the expected gap between production and demand of many commodities cannot be tackled. Good geological information and active exploration are pre-requisites for meeting tomorrow’s demands.

The legal framework for the extractive industry needs to be transformed into a more investment friendly framework in which investors find incentives and long-term stability.

The past years of continued change and additional requirements for operations in the EU has not created confidence with investors that would like to see their investments materialise into profits over a longer period of time.

Efforts in the area of reuse and recycling will reduce the gap between expected demand and mine production, but given the current forecasts and the life-time of many products (e.g. steel, copper, etc.) there are limits to the return rate of these materials. Ill-conceived recycling targets jeopardise the resource efficient use of materials by artificially shortening product life-spans.

Hence, extraction of primary raw materials will remain a must and the industry is striving to perform this function with the highest efficiency possible.

Research and innovation in the sector and the supply chain will be required and support from the European Commission and Member States is highly appreciated.
Figure 6: Global GDP (Real at 2005). Source: IMF World Economic Outlook Database 2009.

Figure 7: Risk that copper supply gap will widen. Source: BHP Billiton; McKinsey analysis.

Figure 8: Smelter grade alumina demand. Source: CRU, James King.
Various EU projects were launched in 2009 and 2010 which begin to address a number of these issues in a systematic way.

For exploration and investment

**PROMINE**

Nano-particle products from new mineral resources in Europe 2009–2013

- Pan-European mineral resource potential modelling;
- 4D modelling of mineralised belts.

The philosophy behind ProMine is to stimulate the extractive industry to deliver new products to manufacturing industry. ProMine kick-starts a process of renewal whose momentum will carry over into the coming decades.

Main objectives of the project:

- To develop the first pan-European GIS-based database containing the known and predicted metalliferous and non-metalliferous resources, which together define the strategic reserves (including secondary resources) of the EU;
- To calculate the volumes of potentially strategic metals (e.g. cobalt, niobium, vanadium, antimony, platinum group elements and REE) and minerals that are currently not extracted in Europe;
- To develop five new, high value, mineral-based (nano) products;
- To enlarge the number of profitable potential targets in Europe;
- To establish a new, cross-platform information group between the European Technology Platform on Sustainable Mineral Resources (ETP-SMR) and other platforms.

The ProMine consortium led by Geological Survey of Finland (GTK) includes 27 partners from 11 EU member states. Industry partners in the ProMine consortium produce more than 70% of metals in the EU, so implementation of results from the project will translate into direct and significant economic benefits.

**AEGOS**

African-European Georesources Observation System

AEGOS is a support action (2008-2011) of the European Union 7th Research & Technological Development Framework

Main objectives of AEGOS are as following:

- Design a pan-African infrastructure of interoperable data and user-oriented services to strengthen the sustainable use of geo-resources in Africa;
- Contribute to the Global Earth Observation System of Systems (GEOSS) through the setting-up of a Solid Earth observation system in Africa;
- Elaborate common strategies for capacity building and training programmes;
- Support geo-scientific communities and institutional decision-makers for setting up sustainable development research and public policies.
EO-Miners
Earth Observation for Monitoring and Observing Environmental and Societal Impacts of Mineral Resources Exploration and Exploitation

EO-MINERS, as the name suggests, uses current knowledge and data, along with existing and new technological and scientific earth observation-based methods and tools, to monitor mineral resources exploration and mining from concept to closure and observe, monitor and provide information to manage its impacts on the environment and society. Importantly, the project initiates a sound triadogue of industry, government and civil society. Outputs and findings will provide this triadogue with the ability to make reliable, objective and informative decisions when balancing the social and economic benefits of minerals supply with the impacts on society.

Scientific and technical objectives

The social acceptability of a mining project, from exploration to closure, is among the major key issues to be dealt with. EO-MINERS scientific and technical objectives are to:

- Assess policy requirements at macro (public) and micro (mining companies) levels and define environmental, socio-economic, societal and sustainable development criteria and indicators to be possibly dealt using Earth and diagramatic satellites Earth Observation (EO);
- Use existing EO knowledge and carry out new developments on demonstration sites to demonstrate the capabilities of integrated EO-based methods and tools in monitoring, managing and contributing reducing the environmental and societal footprints of the extractive industry during all phases of a mining project;
- Contribute making available reliable and objective information about affected ecosystems, populations and societies, to serve as a basis for a sound "trialogue" between industrialists, governmental organisations and stakeholder.

SARMa
Sustainable aggregates resource management

The main objective of the project is to develop a common approach to sustainable aggregate resource management (SARMa) and sustainable supply mix (SSM) planning, at three scales: regional, national and transnational.

The two main objectives are: to develop a common approach to SARMa across SEE (SEE countries are rich in aggregates, but supply is not coordinated within or across the area), and ensure a SSM in SEE based on fair distribution of costs and benefits of aggregate production, use, waste disposal and recycling, so as to enhance resource and energy efficiency and quality of life.

Objectives comprise: coordination in managing aggregate resources, increasing the transfer of know-how, and supporting capacity building in firms, government and civil society; develop a unified information infrastructure and common understanding of aggregates based on EU guidelines and directives, including those in protected areas, potential secondary supply, transnational transportation networks; and to prepare for Regional Centre on SARMa & SSM. Activities connect institutional actors, decision makers, policy implementers, economic sector, quarry operators, civil society, and NGOs through workshops and targeted results.
OneGeology-Europe aims to create dynamic digital geological map data for Europe. It makes a significant contribution to the progress of INSPIRE - i.e. develop systems and protocols to better enable the discovery, viewing, downloading and sharing of core European spatial geological data.

OneGeology-Europe makes geological spatial data held by European geological surveys both discoverable and accessible.

The results of the project are:

- an interoperable geology spatial dataset at 1:1 million scale for all EU;
- a scientific and informatics specification for the harmonisation of geological data and significant progress towards a harmonised dataset;
- a view service providing access to best practice high resolution geological spatial data services for 6 Member States;
- 2-4 case studies on cross-border delivery of harmonised high resolution data access;
- multilingual discovery metadata for all data provider participants’ geological and applied map data;
- a robust data model, schema and mark-up language for the geosciences, which is OGC compliant;
- a web portal providing easy multilingual access to the above data and examples of user-focused web services;
- best practice examples of the delivery of geological data to a range of users;
- guidance and proposed code of practice on licensing and clearing arrangements facilitating re-use of geological spatial data;
- exchange of science, technology, informatics and communication skills and experience across the EU and globally.

Figure 9: Main mineral deposits of Europe. Source: BRGM.
EU’s commitment to research on raw materials

The EU Council decided in 10 March 2011 to invite the “Commission to further promote innovation and research and development efforts in the raw materials value chain, including exploration, extraction, processing, recycling, ecodesign, resource-efficient production and substitution, to assess the case for launching a European Innovation Partnership (EIP) on raw materials and to come forward with proposals for this as appropriate, whilst fully respecting the principle of subsidiarity.”

The European Technology Platform on Sustainable Mineral Resources (ETP SMR), established in 2006, aims to:

- reshape a ‘traditional’ industry from a resource-driven to a knowledge-driven industry;
- foster new and better jobs, particularly at SME level and in the New Member States;
- supply and secure the mineral resources needed by the EU economy, while minimizing the related environmental footprint (decoupling);
- strengthen world leadership and competitiveness in minerals sector technology;
- add value for customers and society.

“As a matter of principle, innovation is the cornerstone of the European economic strategy. The whole strategy is based on the idea that we have to compete in the global economy. The only way we can compete and succeed is if we are better. Quality matters, technology matters. How do we achieve that? Quality and technology through innovation. Therefore innovation is really the key for Europe’s economic future. That is embedded in the Lisbon Strategy, the European Strategy for Growth and Jobs.”

DG Enterprise and Industry, EU Commission.

ETP SMR

The ETP SMR ever since its creation views itself as a partner in the proposed way forward and in the creation of a European Innovation Partnership on Raw Materials for a Modern Society, an idea which was launched in November 2010.

The ETP SMR prepared and coordinated inputs from several technology platforms, associations, universities and industries and other stakeholders and is strongly committed to contribute to the decision process as well as the future success of the EIP.

European Innovation Partnership

The important aspects of an EIP will consist of

- Joining up efforts by encouraging cooperation based on a shared vision and common targets, fostering synergies and avoiding overlaps, to achieve results that respond better to citizens’ needs;
- Bridging the gaps between public and private actions and instruments by addressing the lack of support on innovation to considerably reduce the time-to-market of research and innovation breakthroughs;
- Facilitating scaling up of results by reducing complexity, overcoming fragmentation and enabling different approaches to converge;
- Improving the framework conditions by removing bottlenecks and anticipating common regulatory and other needs for all stages of the innovation chain to achieve critical mass.

Six key elements will therefore have to be included in the roadmap of such an EIP:

- Minerals policies and implementation of existing EU and national legislation – identification of gaps and closing them;
- Refinement of existing legislation – anticipating change and adjustment;
- Support through standards and best practices in the industry and authorities;
- Research and innovation; EIP;
- Capacity building in industry and authorities;
- Investment in education and training.

The objective will be to ensure a secure supply and achieve efficient and sustainable management and use of raw materials along the entire value chain in Europe. The EIP will have to be characterised by

- A strong research component;
- Demonstration, pilots and large scale trials;
- Supported by EU and national instruments such as structural funds, European Investment Bank and national or European innovation funds;
- Bringing together and forging an active and sustained commitment of all Europe’s major players concerned.
3 Corporate social responsibility – work places and communities

3.1 Successful NEPSI reporting 2010

Implementing the so-called NEPSI agreement on protection from respirable crystalline silica at the workplace has been an important topic in 2010 due to the fact that the first full reporting on implementation was due that year.

Throughout all the industrial sectors that signed up for the Social Dialogue agreement member companies reported on the concerned workplaces and their efforts to make these safer.

For Euromines the reporting showed a much wider coverage of installations than in the first trial reporting in 2008. This is due to the continued information efforts undertaken.

Some important results from the reporting in 2010 (extract)

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<th>General Information</th>
<th>2008</th>
<th>2010</th>
<th>Change</th>
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<tbody>
<tr>
<td>Number of Sites:</td>
<td>124</td>
<td>216</td>
<td>74.19%</td>
</tr>
<tr>
<td>Number of Reported Sites:</td>
<td>120</td>
<td>176</td>
<td>46.67%</td>
</tr>
<tr>
<td>% of Reported Sites:</td>
<td>96.77%</td>
<td>81.48%</td>
<td>-15.29%</td>
</tr>
<tr>
<td>Number of Reported Employees:</td>
<td>26,041</td>
<td>52,139</td>
<td>100.22%</td>
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</table>

<table>
<thead>
<tr>
<th>Key Performance Indicators</th>
<th>2008</th>
<th>2010</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Employees potentially exposed to respirable crystalline silica:</td>
<td>30.40%</td>
<td>23.60%</td>
<td>-22.36%</td>
</tr>
<tr>
<td>% covered by risk assessment:</td>
<td>97.31%</td>
<td>96.42%</td>
<td>-0.92%</td>
</tr>
<tr>
<td>% covered by exposure monitoring:</td>
<td>84.32%</td>
<td>82.22%</td>
<td>-2.49%</td>
</tr>
<tr>
<td>% with risk assessment requiring Health Surveillance Protocol for Silicosis:</td>
<td>24.00%</td>
<td>47.10%</td>
<td>96.24%</td>
</tr>
<tr>
<td>% covered by generic health surveillance:</td>
<td>98.55%</td>
<td>97.65%</td>
<td>-0.91%</td>
</tr>
<tr>
<td>% covered by Health Surveillance Protocol for Silicosis:</td>
<td>23.97%</td>
<td>45.06%</td>
<td>87.97%</td>
</tr>
<tr>
<td>% covered by information, instruction and training on General Principle:</td>
<td>95.16%</td>
<td>90.52%</td>
<td>-4.88%</td>
</tr>
<tr>
<td>% covered by information, instruction and training on Task Sheets:</td>
<td>83.86%</td>
<td>76.91%</td>
<td>-8.29%</td>
</tr>
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</table>

Euromines has doubled the number of reported employers and reported sites. Most other indicators show a positive trend, which is encouraging.

These results will be followed up in 2011 with additional seminars to increase the reporting even further. The next reporting will be in 2012.
3.2 Young workers and contractors

In 2010 the Social Dialogue Committee for the extractive industry decided to carry out with the support of the European Commission a study on the situation with regard to young (inexperienced) workers and contractors. A consultant carried out an assessment of the situation of these two employee groups in the sector and the recommendations that could be made.

The consultant’s work provided valuable insight into a series of difficulties:

- The definition of contractors raised difficulties because of linguistic problems;
- The original definition of young workers had to be revised to “inexperienced workers” (less than 3 years) practice. Most Member States accident statistics do not separate specific groups of workers within their scope. Most companies do not separate out such statistics;
- A comprehensive statistical analysis of the situation of both target groups across the whole of the extractive industry in all 27 Member States was an impossible task given the time and financial constraints;
- The assumption that the situation with regard to contractual work in the extractive industry in Eastern and Western Europe would be similar was proven wrong. Contracting of work in Eastern Europe is far less frequent than in Western Europe.

This was the result of pilot questionnaires (questionnaires in 5 countries) which could provide a punctual insight, a qualified assessment, but no European wide statistically valid assessment of the total situation.

Overall, and on the contrary to what had been simulated by the study in the first place, the examined sites presented an accident frequency rate among young people and newly hired workers that was below their average frequency rate.

Two conferences identified a selection of best practices on how to address safety issues for the two target groups.

As a conclusion a number of recommendations were made with regard to the

- Awareness raising;
- Harmonisation of definitions and terminology;
- Harmonisation and suitability of statistics;
- Contractors;
- Important elements of good Health and Safety Management in the Extractive industry.

The Social dialogue Committee will consider to including these findings and recommendations into a revised joined declaration on H & S in 2011.
4 Resource efficiency from the whole value chain

The European Commission has reviewed the progress of various raw-materials, resources and waste policies during 2010. It has now produced the EU2020 Strategy, made up of seven Flagship Initiatives. Key to the mining sector, are the Industrial Policy, Resource Efficiency and Innovation Flagships – each of which takes up its part of the EU’s Raw-Materials Initiative.

Euromines members view Resource Efficiency as the policy that should yield optimum solutions to the trade-offs between different environmental objectives and between the environmental, social and economic imperatives of Sustainable Development. It must be based on a holistic picture of trends and the different trade-offs that exist.

If contributions to Resource Efficiency are sought from all partners in the value chain, the economic resilience of the EU will be increased and the result should be a European economy that optimises its use of resources.

4.1 Shouldering our responsibilities: raw-materials supply

The EU working groups, which under the Raw-Materials Initiative analysed the criticality of raw materials for EU manufacturing and best practices in land-planning, published their reports in June 2010. Together with the European Commission’s new Resource Efficiency Flagship, this work can place the EU as the “international partner of choice” for mineral resource management including sustainable development of primary and secondary mineral resources.

Societal Demand for Minerals and Metals

The “Criticality” Working Group screened 41 minerals against criticality criteria which took into consideration economic importance and supply risk factors. Meanwhile, global demand for mineral resources continues to increase exponentially. Key challenges and opportunities for the EU over the coming decades relate to meeting the minimum EU demand for metals & minerals, which includes:

- Upgrade and maintenance of infrastructure within and across the EU;
- Accommodation of ever increasing urbanisation;
- Deployment of new sustainable technologies;
- Equitable sharing of the benefits of information & communications technology;
- Re-balancing of lifestyles and employment across all Regions of the EU;
- Further de-coupling of economic growth from resource and energy use.

This will become increasingly difficult if the EU does not ensure a good supply of material from diverse sources. Under the Raw-Materials Initiative, industry has called on national governments to estimate minerals demand and supply scenarios to support regional development plans. These development plans should not a priori exclude areas with Natura 2000 or similar conservation designations.

EU Self-Sufficiency

Under the Raw-Materials Initiative, industry called for national minerals policies in Member States – to create awareness of society’s dependence on minerals; and active management of land for multiple uses (e.g., mining plus conservation). There continues to be an ever greater need for efficient and timely permitting systems.
4.2 Leading by example: process stewardship

Governance

The European Commission Strategy: “EU2020”, introduces new governance measures into its six Flagship Initiatives. A suite of indicators will be developed under the New Industrial Policy; Resource Efficiency Flagship; RMI Best Practice indicators; Biodiversity Strategy and EU Water Policy. Many of these will be based on Life Cycle Thinking and the Ecological Footprint concept. On 15 November 2011, Euromines will host a Member Workshop on Life-Cycle Assessment and Ecological Footprints to agree key industry inputs to the development of these indicators.

Land Management

2010 was the International Year of Biodiversity. The Euromines Resource-Access Committee has contributed a Biodiversity Toolkit that addresses the perceived impacts of mining on biodiversity by improved communication of existing documents, including the European Commission Guidance and an Industry “Natura 2000: Guide to the Guide” (http://www.euromines.org/publications_Natura2000_neu.html).

The draft 2020 Biodiversity strategy from the European Commission includes six targets including, e.g.,

- Further species and habitats protection within and beyond Natura 2000 areas;
- Coherence with the European Territorial Agenda;

The Commission will further develop the EU Business and Biodiversity Platform and a specific awareness campaign focusing on the Natura 2000 network.

Chemicals Management

Throughout 2010, the Euromines Environment Committee contributed to the work of the REACH Alliance, which has representation in a number of fora where the European Commission, the European Chemicals Agency and Member States discuss issues around implementation of the REACH Regulation.

Mining companies, having applied the Euromines/ICMM Guidance to Classification of Ores & Concentrates, now face the task of providing timely updates to the entries included in the European Chemicals Agency’s Classification & Labelling inventory. Workshops were held in 2010, together with Eurométaux and the ICMM, to facilitate this and discussions will continue throughout 2011.

In 2010 Euromines acted as a Secretariat for consortia which comprised of members importing and producing such chemical substances as Magnesium Hydroxide and Calcium Carbide. Regarding the REACH related activities of consortia submitting their dossier in 2010, in the course of the year several consortia meetings were held, the testing of the material was done, the appointed consultants worked on developing the dossiers. Euromines acted as a contact point for all companies which had questions on REACH. In the second half of the year the REACH dossiers were finalized and then successfully submitted to the European Chemical Agency before the deadline. After that, Euromines represented the consortia in selling Letters of Access which secured additional income for consortia.

REACH is the Regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals. It entered into force on 1st June 2007 to streamline and improve the former legislative framework on chemicals of the European Union (EU). REACH placed greater responsibility on industry to manage the risks that chemicals may pose to the health and the environment. REACH applies to all chemicals: not only chemicals used in industrial processes but also in our day-to-day life.
Waste Management

Mine Waste Directive and standards for waste characterisation

During 2010, comments on the draft European standards for waste characterisation, which are being prepared by the European Committee for Standardisation (CEN) were far more critical than the authors had expected. The documents have been significantly re-structured and revised. Publication of the GARD Guide (www.gardguide.com) and a new MEND Manual have provided some up-to-date benchmarks for the group (http://www.abandoned-mines.org/pdfs/MENDPredictionManual-Jan05.pdf). Fifth drafts of the CEN standards will now be submitted for CEN approval by November 2011.

New Regulation on Inspections

Recommendation 2001/331/EC describes what to consider when planning environmental inspections. Similar inspection requirements are laid down in the Seveso II and Mine Waste Directives. However, Guidance under the Mine Waste Directive is still outstanding and the 2010 red-mud spill in Hungary highlighted cases where sites not regulated under either Directive may lack sufficient inspection. The European Commission is expected to publish guidance on the inspection of mine waste facilities and to transform the current inspections criteria into a legally-binding Inspections Regulation.

Water Management

During 2010, the Euromines Resource-Access Committee monitored debates around competition for water resources. In 2011, an ICMM task force will pilot a water accounting framework for the mining industry, which may be useful in future discussions around resource efficiency and ecological footprints.

Meanwhile, the Euromines Environment Committee continues to support the process of identifying Priority Substances and setting EU Environmental Surface Water Quality Standards under the Water Framework Directive.
5 Contributing to reducing the carbon footprint whilst maintaining competitiveness

Energy efficiency and reduction of CO₂ emissions has continued to be a major effort in the industry. The strive for energy efficiency is determined by continued cost cutting, particularly in times of the economic crisis and rising fuel and energy prices. However, it should also be stated that two key principles need to be acknowledged: one, that in the extractive industry the access to certain underground deposits and the resource efficient valorization of these deposits is inevitably coupled with a higher consumption of energy due to the fact that the extraction is carried out at deeper levels and the hoisting of the ores requires more energy. Secondly, that in some processing of minerals the choice of a specific energy carrier is not only determined by the need for energy, but also by the specific chemical and physical performance of the energy carrier. This is why the strive towards energy efficiency in many cases has to be seen in conjunction with resource efficiency and other environmental considerations as well as product performance and higher value added of the products.

The EU Emission Trading Scheme & Carbon Leakage

Having been adopted in the previous year the ETS Directive remained in the spotlight also in 2010. The challenge for the industry was to negotiate with the European Commission, the Member States and the Parliament the allocation of CO₂ emissions rights. Much time was spent by all parties to find the adequate models and distribution system. Towards the end of the year agreement was achieved in the Council for most products. Some however, remain difficult. The struggle to maintain competitiveness on international markets in light of the EU’s unilateral decision on such a scheme, and sometimes issues of competition in the Internal Market, make it difficult to find solutions that fulfill the objective of the policies and the directive without jeopardizing the existence and the profitability of companies and sectors. The choices between several methodologies which were under discussion, such as Product Benchmark, Heat production Benchmark, Fuel Mix Benchmark, and Grandfathering can have substantial impact.

2011 will see additional guidance on monitoring and verification of emission data.

Revision of the EU Directive on Energy Taxation

Additional pressure is expected in the future from the revision of the Energy Taxation Directive, which will try to adjust the taxation of energy products to their CO₂ emission potential.

Again, the policies threaten those that for technical reasons require certain energy carriers and cannot easily change. Their production might just vanish to other parts of the world where these constraints do not exist. The proposal was tabled at the beginning of 2011.
6 The Vision

The vision for the sector for 2020 and beyond could be perceived as a Roadmap consisting of a series of achievements over the coming years which could look like the following.

By 2012

- Launch of the 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.

By 2015

- All Member States have new or revised Mineral Policies in place;
- All MS Land-planning policies include references to extractable mineral deposits;
- Fitness-Check of BAT note on mine waste management and the possible need for guidance on reprocessing of old waste deposits.

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

- 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 efficient use in higher performance products.

Whether all of this can be achieved will have to be seen, but many of these objectives can be achieved – of this we are convinced.
Euromines Members 2010

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