

Raw Materials *are the future*

Annual Report 2011



Contents

President of Euromines:

- » Dr. Thomas Drnek

Steering Committee members:

- » Mr. Göran BACKBLOM
LKAB
- » Dr. Thomas DRNEK
RHI AG
- » Mr. Nicolas GANGUTIA
Magnesitas Navarras
- » Dr. John GROOM
Anglo American
- » Mr. Ingmar HAGA
FinMin
- » Mr. Pierre HEEROMA
SveMin
- » Mr. Henryk KARAS
KGHM Polska Miedz
- » Mr. Vasili NICOLETOPOULOS
Natural Resources GP/Grecian Magnesite
- » Mr. Mark RACHOVIDES
European Goldfields
- » Dr. Norbert SCHÄCHTER
Vereinigung Rohstoffe und Bergbau

| | | | |
|-----------|---|-------|----|
| 1. | Employing raw materials - a wealth of “services” we provide | ..... | 6 |
| 1.1 | Assets and wealth | ..... | 8 |
| 1.2 | Lifestyle | ..... | 10 |
| 1.3 | Jobs, skills and communities | ..... | 12 |
| 2. | Economy, Competitiveness and Innovation | ..... | 14 |
| 2.1 | Access to new Resources Access to new Resources in the EU | ..... | 16 |
| 2.2 | Access to resources from non-EU countries | ..... | 18 |
| 2.3 | Energy – a driver of competitiveness | ..... | 20 |
| 2.4 | Research and Innovation – drivers of competitiveness | ..... | 22 |
| 3. | Resources productivity and efficiency | ..... | 26 |
| 3.1 | Implementing technical best practice | ..... | 28 |
| 3.2 | Integrating resource productivity and social aspects | ..... | 29 |
| 3.3 | Resource efficiency | ..... | 31 |
| 4. | Environmental “foot print” | ..... | 32 |
| 4.1 | Waste management | ..... | 34 |
| 4.2 | Chemicals management | ..... | 35 |
| 4.3 | Implementation of the EU Water Framework Directive | ..... | 36 |
| 4.4 | Responsible mining | ..... | 37 |
| 5. | Health & Safety | ..... | 38 |
| 5.1 | Respirable Crystalline Silica activities | ..... | 40 |
| 6. | Our relationship with the society | ..... | 42 |
| 6.1 | Implementing Communication Strategy | ..... | 44 |
| 6.2 | New Euromines website | ..... | 45 |
| 7. | Outlook | ..... | 46 |

Foreword

For European mining the year 2011 was a good one, but the industry still faced challenges due to the uncertain economic climate. The extractive industry exists for the effective transformation of natural resources into working assets. It is therefore right that European citizens should understand how their minerals industries contribute to their basic needs and maintain their quality of life.

In February 2011, Euromines welcomed the issuing of the EU's new Communication on "Tackling the challenges in commodity markets and on raw materials". In particular the sector welcomed the acknowledgement of the importance of raw materials for the growth of the European economy.

While significant progress has been made in implementing the Raw Materials Initiative (RMI), further actions are necessary. An integrated approach based on the three pillars is essential, as each contributes to the objective of ensuring a fair and sustainable supply of raw materials to the EU. The European extractive sector will continue to support the Commission's initiative and is welcoming the Member States' active involvement in tackling the challenges outlined.



The year 2011 has also seen the start of the Horizon 2020 initiative that brings together all EU research and innovation funding under a single programme and aims to secure Europe's global competitiveness. Euromines supports the Horizon 2020 proposal which explicitly mentions Raw Materials as one of its top priorities.

In this context, Euromines focussed mainly on the implementation of best practice across the sector and successfully co-organised two internation-

al conferences during 2011. The first event - "Standards and Best Practices in the EU Extractive Industry" organised under the Hungarian Presidency - took place in March in Budapest. Integrating resource productivity and social aspects were the main themes of the second conference organised in the second half of the year under the Polish Presidency in Wroclaw.

These days, more than ever before, the European extractive industry needs a unified and widely supported approach to the many issues that influence mining in Europe. Euromines members recognise this and in February 2011 Euromines established its Communication Committee and a new Policy Committee. Members agreed to create the Communication Strategy for the sector which should help to further improve its communication in Brussels and with the assistance of national federations and companies within the whole of Europe. The Policy Committee brought the sector to common views on the use of Life Cycle Assessment in pursuit of a Resource Efficient Europe via two dedicated member workshops in March and November.

Especially the large quantity of information, number of events and publications that Euromines has been producing puts pressure on the relatively small staff. The Euromines team was therefore very pleased to welcome Mr. Emmanuel Katrakis in September 2011, whose work will focus on issues related to gold mining and environmental legislation.

I would like to thank all our members who actively contributed to the work of Euromines committees and to all our colleagues that supported the efforts briefly described in this Annual Report. I hope you will find our 2011 Annual Report an inspirational read.

Dr. Thomas Drnek
President

A handwritten signature in blue ink, appearing to read 'T. Drnek', written in a cursive style.

Minerals and metals represent the basis for our lives and any industrial production process. They provide everyday products and new solutions for modern infrastructure and technologies.



1

Employing raw materials - a wealth of "services" we provide

1.1

Assets and wealth

The unique properties of minerals make them constant providers of essential, even irreplaceable services.

Demand for minerals will increase with world population growth and as developing countries embrace new technologies and erect new infrastructure. The first “value-adding” step that takes place in our societies is turning geological raw materials into service-providers, tools and usable products. It is bringing those raw materials into our service that has made our life-styles, our living standard, our well-being possible.

Without these minerals we would not have shelter or mobility, no healthcare, no communications or education. Without them few people would have work and none would have job security.

Most mineral products have a long service-life as in infrastructure and housing. Aggregates, stones, bricks, cement, steel, aluminium, copper, etc. have long service-lives and are finally either reused in other applications or are recycled. In terms of quantities, the minerals that get discarded after a short service-life are relatively insignificant. The “services” these raw materials provide to us are immense.



A vast array of raw materials, including minerals and metals, play a key role in the development of industrial applications and advanced consumer products.

We have become very dependent on highly specialised metals and alloys. Some are relatively rare metals, yet essential in the manufacture of advanced technological products, including circuit boards, semiconductors, coatings, magnets, mobile phones, computers, home electronics, solar panels, wind power plants and electric cars.

Other minerals have become so essential for our day-to-day life, our health and well-being, that we do not even notice them anymore: salt, zinc, sand and gravel, bricks, paper, glass, etc. We take them for granted and only notice them when they are absent.

Maintaining, developing and improving our life-styles is only possible through new innovations and new and better applications.

1.2

Lifestyle





1.3

Jobs, skills and communities

As well as direct wealth creation from mining and value-adding to mineral products, the minerals sector has a much broader impact on society through employment in services and infrastructure development.

In active mining regions in Europe, the extractive industry can have a strong impact on the development of the area by providing growth, prosperity and by creating well-paid jobs which lead to increased tax revenues and further diversification of regional economies.

European mining regions and their companies also have a significant impact on the global extractive industries through the development and production of modern mining technologies, machinery, equipment and services.

The people of these regions feel proud to be providing the raw materials for countless downstream manufacturing sectors in Europe.

Europe has the world's highest net imports of resources per person, and its open economy relies heavily on imported raw materials and energy.

2

*Economy,
Competitiveness
and Innovation*

2.1



Access to new Resources in the EU

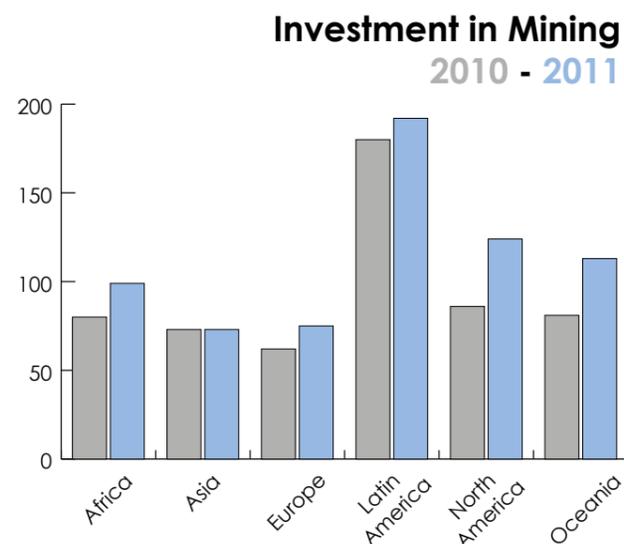
In the Raw Materials Initiative strategy document published on 2 February 2011, the Commission proposed a number of targeted measures seen as particularly important for promoting investment in extractive industries in Europe.

Changes of National Minerals policies

With regard to many critical metals and minerals, Europe is heavily or fully reliant on imports, so that disruptions in availability and supply can pose a significant risk to EU livelihoods. The EU has begun to address this issue by encouraging the EU Member States to implement the Raw Material Initiative since 2008, in particular the second pillar. A number of related measures have been launched since then, including the attempt to establish a more comprehensive minerals policy for the EU. Hence, in addition to EU policy measures, national strategies are required to secure resources and to promote the minerals sector. Finland, France and Germany already expressed their strong support for the initiative and presented its new or revised Minerals Strategies. A large majority of the other EU Member States are currently in the process of revising their strategies and a whole range of publications are expected for 2012.

Criticality

In 2008 The European Commission has listed so-called critical metals and minerals, for those commodities that are highly important to industry and society, and whose availability is subject to trade risk and uncertainty. Since then the European Commission has looked into addressing the potential supply risk through trade negotiations and interventions at WTO against export bans on raw materials. DG Research is supporting research into the eventual substitution of some of these critical raw materials.



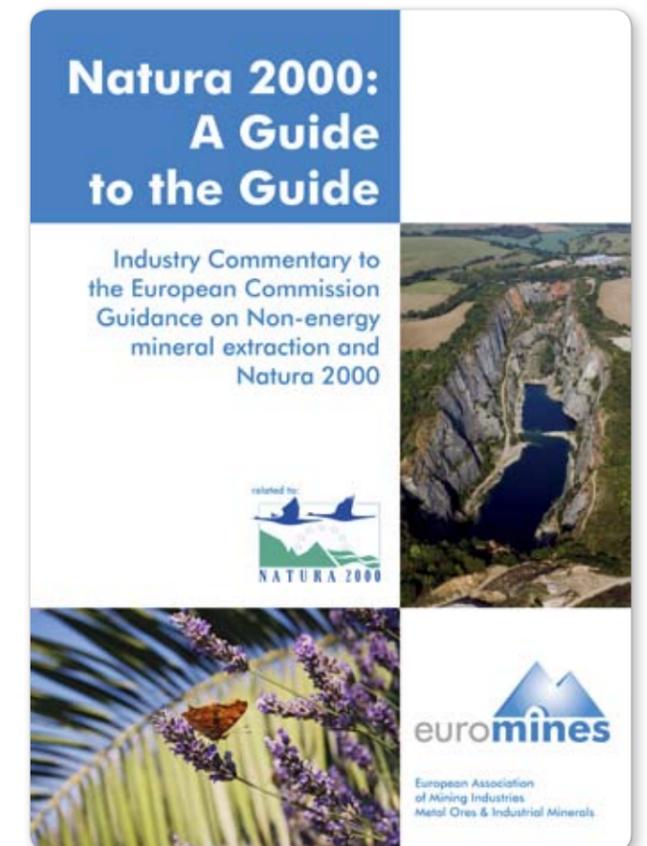
Euromines highlighted the shortcomings of the current analysis and the lack of assessment of other policy options at this stage. As a first step Euromines Commissioned an additional analysis of gold with a detailed overview of the properties of gold, its significant and diverse economic importance as well as the high level of dependency of the European Union on imports. Issues specific to gold, such as its use as an investment instrument, were ignored by the quantitative methodology used in the initial report on critical raw materials.

For 2013, the European Commission will revise its assessment and therefore is revisiting its first findings.

Land-planning policies

One of the key issues in access to resources in the EU is the land-planning process. Following the Commission's and Member States' report on the current practices, Euromines took the initiative to develop a document addressing best-practice principles and procedures in land-planning ensuring continued access to minerals in the EU.

In addition, the Commission published Guidance on non-energy mineral extraction and Natura 2000 explicitly stating that each is compatible with the other. Euromines published its short guide to the Guide to facilitate implementation in the Member States and industry.



2.2

Access to resources from non-EU countries

On 26 October 2011 Euromines with the support of a number of EU Member States organised an investors' forum on „Investment Opportunities and the Economic Future of Afghanistan“.

Representatives of leading companies in the extractive industry and other related international business sectors, came together with top representatives of the Government of Afghanistan to discuss the country's economic potential as well as reforms needed to make the country attractive for foreign investment. Afghan Minister of Finance Dr. Omar Zakhilwal, Minister of Mines Wahidullah Shahrani, and Minister of Economy Abdul Hadi Arghandiwal spoke at the forum on Afghanistan's economic potential, particularly mineral deposits estimated as worth as much as \$3 billion. Conference participants included the representatives from 20 countries and of more than 40 international companies.



Mrs Merkel stated at the International Afghanistan Conference in Bonn in December 2011 *“The private investors' engagement in Afghanistan is of course of highest importance. The European mining industry - encouraged by the European Union and Germany – has decided to build as soon as possible partnerships, always in the spirit of assistance to self-development. Afghanistan should benefit from its own resources and should be able to develop. This is the main objective.”*

EU-Africa Partnership on Raw Materials

The Joint Africa-EU Strategy (JAES) published in 2010/2011 defines the long-term policy orientations between the two continents, based on a shared vision and common principles. It is the overall political framework defining the relations between Africa and the EU. Its four main objectives are:

- » Improving the Africa-EU political partnership
- » Promoting:
 - peace, security, democratic governance and human rights;
 - basic freedoms, gender equality;
 - sustainable economic development, including industrialisation;
 - regional and continental integration;
 - ensuring that all the Millennium Development Goals are met in all African countries by 2015;
- » Effective multilateralism;
- » A people-centred partnership;
- » Part of the cooperation is the African Mining Vision.

In January 2012 the European Commission and the African Union Commission convened a High Level Meeting on the Africa-EU partnership in Brussels. As one of the pillars of the Joint Africa-EU Strategy, issues raised (i.e good governance, infrastructure and investment and geological surveys and skills) reflected common priorities.

Working with the private sector, in particular with large mining companies, will be important. Another pressing challenge is the use of minerals to foster African industrialisation. Addressing governance issues, infrastructure and investment and geological knowledge is important, but it is only a first step. Implementation of the African Mining Vision and its translation at the various national levels will require combined efforts between African countries, all its partners and the private sector.

Energy – a driver of competitiveness

2011 saw a whole series of decisions and new EU strategy papers on energy and climate change issues, such as the decision on the ETS allocation of CO₂ rights, the first proposal of the Revision of the EU Energy Taxation Directive, the proposal for an Energy Efficiency Directive, as well as the Roadmap for a Low Carbon Economy 2050 and a Roadmap 2050 for an Energy Policy 2050.

European Trading Scheme on CO₂ Emissions

Continuing from the previous year, the EU Emission Trading Scheme remained a key issue for Euromines members in 2011. In April 2011 the Commission adopted the decision on “how free emission allowances should be allocated from 2013 to industrial installations” covered by the EU Emissions Trading System (EU ETS). Having achieved a number of allocations for various subsectors of the minerals industry it is still questionable whether the competitiveness of the extractive and mineral processing sectors is not damaged in the longer term since worldwide competitors still do not have to implement comparable measures. Growth of the sectors and increased production as intended under the Raw Materials Initiative is certainly constrained.

In November 2011 the parallel discussion of making the allocations of free allowances compatible with the EU state aid law came to preliminary conclusions with DG Competition's publication of the first draft guidelines on “State Aid” in order to support energy intensive industries facing

higher electricity price. Euromines developed its position paper on behalf of the concerned sub-sectors in order to establish these as sectors as eligible for free allowances. A final decision is expected for 2012 which could of course have impact on the sectors' competitiveness.



Energy Taxation

In order to link energy efficiency and CO₂ reduction targets, the Commission also launched the revision of the EU Energy Taxation Directive (ETD) for those sectors that are not covered by ETS. The important difference to the old version of the ETD is the fact that it includes also a CO₂ tax specific to the energy carrier in addition to the tax on the energy consumption - thus favouring certain energy carriers over others.



Energy efficiency

The Commission presented the legislative proposal for an EU Directive on Energy Efficiency which builds upon the existing EU Directives for Cogeneration and Energy Services and merges them into one comprehensive legal instrument addressing energy efficiency in energy supply and in final energy consumption.

By 2020, the EU wants to cut energy consumption by 20%. The Directive also foresees that the Commission will make an assessment in 2014 of the progress made towards the EU's 20% energy efficiency objective for 2020 and, if necessary, bring forward a further legislative proposal to set mandatory national energy efficiency targets.

Roadmap 2050 for an Energy Policy 2050 and the Roadmap for a Low Carbon Economy 2050

These roadmaps for energy policy and low carbon economies will have substantial consequences for the industrial landscape in Europe. They offer opportunities for those industries that are in the position to change their fuels and feed stocks. They provide incentives for research and future developments, but they will certainly also result in impacts on the competitiveness of individual companies and regions in Europe.

Euromines and its members are still assessing the threats and opportunities and will continue to work on the issues in 2012.

Research and Innovation – drivers of competitiveness

Innovation is the indispensable and fundamental basis of the Europe 2020 strategy for smart, sustainable and inclusive growth. The Union's strategy for innovation is explained in the 'Innovation Union' flagship initiative, proposed by the European Commission in October 2010. It covers the whole research and innovation cycle, from

support of basic science and major research infrastructures to the promotion of open markets for new innovative products, making full use of regulations, standards, public procurement and intellectual property protection.

Embarking on Innovation

Horizon 2020

On November 30, 2011 the European Commission presented a package of measures to boost research, innovation and competitiveness in Europe. Running from 2014 to 2020 with an €80 billion budget, it brings together for the first time all EU research and innovation funding under a single programme.

Presenting Horizon 2020, Commissioner for Research, Innovation and Science Máire Geoghegan-Quinn said: "We need a new vision for European research and innovation in a dramatically changed economic environment. Horizon 2020 provides direct stimulus to the economy and secures our science and technology base and industrial competitiveness for the future, promising a smarter, more sustainable and more inclusive society."

Horizon 2020 will focus funds on three key objectives. It will support the EU's position as a world leader in science with a dedicated budget of €24.6 billion. It will help secure industrial leadership in innovation with a budget of €17.9 billion. This includes a major investment of €13.7 billion in key technologies, as well as greater access to capital and support for SMEs. Finally, €31.7 billion will go towards addressing major concerns shared by all Europeans, across six key themes:



- » Health, demographic change and well-being;
- » Food security, sustainable agriculture, marine and maritime research and the bio-economy;
- » Secure, clean and efficient energy;
- » Smart, green and integrated transport;
- » Climate action, resource efficiency and raw materials;
- » Inclusive, innovative and secure societies.



Euromines supports the Horizon 2020 proposal which explicitly mentions Raw Materials as one priority. Securing reliable and undistorted access to raw materials is increasingly becoming an important factor for the EU's competitiveness and Horizon 2020 initiative which aims at securing Europe's global competitiveness is warmly welcomed by the extractive industry.

The non-energy extractive industry (NEEI) is a significant contributor to the economy of the EU providing metaliferous and non-metalliferous mineral resources to the society providing direct and indirect employment as well as world technology leaders in the related machinery and technology. For the past years the industry has been involved in new technological research and innovation to maintain this leadership.

2011 has seen a continuation and the launch of new projects. One of the most prominent is PROMINE. The purpose of the EU funded project ProMine is to stimulate the extractive industry to deliver new resources and new products to the manufacturing industry.

The main objectives of the project are

- » 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 existing, but 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.

2.4



The EU Raw Materials Initiative recognises the importance of sustainable access to raw materials for European society. The innovation policy, which covers demand-based and supply-side measures, can play a crucial role in achieving the main policy goals set out in this strategy. The industry has not just been launching research projects it is also striving for a European Innovation Partnership on raw materials which will hopefully materialise in 2012. Two major contributors to this EIP are now operating: the ERA-MIN network of Member States and the ETP SMR including industry, research institutes and universities.

ERA-MIN

In order create an efficient long-lasting working platform to coordinate national programmes and establish eventually joint RTD programmes between the involved Member States, Euromines supported a proposal submitted and accepted in 2011 within the work programme of ERA-NET on the Industrial Handling of Raw Materials within FP7. The project - European Research Area - Network on the Industrial Handling of Raw Materials for European Industries (ERA-MIN) is specifically focused on the issues related to the three segments of the non-energy mineral resources segment of raw materials: construction minerals, industrial minerals, metallic minerals.

ERA-MIN shall also contribute to the development of the "Raw materials for a modern society" Innovation Partnership. ERA-MIN is built to contribute and support the work by developing networking between Member States as well as more between industry and research institutions (such as geological surveys and research institutes involved in materials science, ore beneficiation, metallurgy, recycling technologies).

European Technology Platform on Sustainable Mineral Resources

In 2011 the ETP SMR, an industry-driven forum of which Euromines is a member, issued a policy document on mineral resources and metals industry view on the future of innovation in Europe and the role of the European Innovation Partnership on Raw Materials for a Modern Society. The EU faces a number of major societal challenges including climate change, energy supply, availability of critical and essential raw materials from primary and secondary sources and availability of jobs, skills and technological competences. Addressing these challenges requires that the appropriate technologies, processes and products are in place, along with adequate policies to implement and stimulate the required changes.



Cross sectoral initiatives

A4M

A group of ETPs with a significant material agenda have come together to create an Alliance for Materials (A4M). The driver for this collaboration was to ensure a Value Chain coverage to improve the speed of implementation of innovations in Europe that address the Grand Societal Challenges, but with a clear attention to the competitiveness aspects too, in agreement with at least two of the pillars of Horizon 2020.



The key objectives of the MatVal proposal to be submitted in 2012 are to integrate the diversity of ideas in Materials developments across ETPs to create synergy and an integrated R&D programme for Europe and to create the conditions for a genuine collaborative and coordinating environment among different actors for the future Horizon 2020 materials-related initiatives and policies.

SPIRE

SPIRE has been launched by a group of European Technology Platforms and Associations motivated to promote resource and energy efficiency in process industries, representing more than

450 thousand enterprises, employing over 6.8 million people, generating more than 1,600 billion € turnover, representing the founding basis of the European Economy (20%) and struggling with declining global competitiveness.

- » The aim of the proposal is A reduction in fossil energy intensity of up to 30% from current levels by 2030 through a combination of, for example, cogeneration-heat-power, process intensification, introduction of novel energy-saving processes, and progressive introduction of alternative (renewable) energy sources within the process cycle.
- » By 2030, up to 20% reduction in so-called "non-renewable" primary raw material intensity versus current levels, by increasing chemical and physical transformation yields and/or using secondary and renewable raw materials. A full life cycle cost analysis is required to consider all effects of using secondary and renewable feedstocks (e.g. water usage) and to prove the sustainability advantage.

It is hoped that the proposal for a Public Private Partnership will be awarded by the Commission and Member States in 2012.



Whereas Europeans only consume half what North Americans do, Europe is still “worst in class” in terms of exploration expenditure.

3

Resource productivity
and efficiency



3.1



Implementing technical best practice

In 2011 the industry continued to work on the implementation of best practice across the sector. One of the key events was the conference under the Hungarian presidency. In March, this fourth European conference focussing on mineral resources took place in Budapest under the title "Standards and Best Practices in the EU Extractive Industry", organised by Euromines and the Hungarian Mining Association (MBSZ) under the patronage of the Hungarian Energy Office, the Ministry of National Development and the Hungarian Mining and Geological Office. The programme of the conference focused on show cases of technical, environmental and safety excellence in the European extraction of mineral resources. The Conference, recorded a significant level of participation including high-level speakers. In total, more than 120 participants from ten European countries attended this event.



3.2



Integrating resource productivity and social aspects

The second important event in the year was the Presidency's conference on "Sustainable Production and Consumption of Mineral Resources" - Integrating the EU's Social Agenda and Resources Efficiency" on 20-22 October 2011 in Wroclaw, Poland. It took place under the auspices of European Parliament President, the Minister of the Economy in Poland and the Minister of the Environment in Poland. It was organized by the Mineral and Energy Economy Research Institute of the Polish Academy of Science, the Employers' Organization of Polska Miedź and Euromines.

During the conference, opportunities for the development of an environmentally friendly, economically viable and socially acceptable mining industry were discussed, along with the priority issues of the 21st century.

Conference topics were devoted to the following issues:

- » The availability of mineral resources to EU countries;
- » Appropriate framework conditions within the EU to ensure stable access to raw materials from European sources;
- » Opportunities for the development of the European mining industry in the light of international competitiveness and globalization;

- » Corporate Social Responsibility (CSR) – the trends in EU policy, the role of CSR in the strategies of large, medium and small mining companies;
- » Health and safety in mining activities – exchange of experience;
- » Promoting the efficient use of resources and recycling to reduce the consumption of primary raw materials in the EU and to reduce the relative dependence on imports;
- » Delivering low carbon solutions, which can contribute towards meeting the EU targets;
- » Promoting eco-innovation in the mining industry – new trends and practical solutions, new sources of raw material resources (e.g waste).

3.2



A significant number of participants (300) attended the conference. Among them there were Members of the European Parliament, representatives of the European Commission and the high level political representation of Polish government. Academia and industry representations were also present.

The Wroclaw declaration was presented at the end of the second day of the conference. Support for the implementation of RMI was strongly stressed. The declaration focused on the issues to be considered in the Member States' mineral resources policies and can be summarized as follows:

- » Extraction of mineral deposits is vital for everyday life;
- » European mineral raw material security requires stronger financial and institutional engagement;
- » Access to mineral deposits for extraction should be possible through reasonable land use planning;
- » Strong recommendation for using "United Nations Framework Classification of Resources" (UNFC) adopted by UNECE as standardized mode for common dialogue between stakeholders of mineral resources data;
- » Protection of nature and current land-use planning limit the access to mineral deposits;
- » Promotion of CSR;
- » EU Resource Efficiency flagship initiative should not be limited to "using less", it should promote "using better";
- » Recommendation to the EC and Member States to announce the EIP program on raw materials during the earliest Council meeting;
- » The complete appeals taken by the participants of the international conference can be downloaded from Euromines website.



Resource efficiency

Triggered by the analysis of the EU's raw materials supply situation, the Commission released its Roadmap on Resource Efficiency on 20 September 2011. The Council adopted two sets of Conclusions – the latest on 19 December 2011. The European Parliament organised workshops and will respond with an own initiative report in 2012.

The Euromines Policy Committee prepared a position brochure and a 1-page critique of the Commission's proposal. Issues of concern include EU-wide reduction of material inputs, policy indicators to be adopted as early as 2013, and the use of resource taxes to implement such a policy.

In addition to the political discussion, Euromines held its internal workshop of the use of Life Cycle Assessments for measuring resource efficiency and developing resource efficiency indicators. The data situation with regard to the extraction of minerals is incomplete and under no circumstances today allows for a solid comparison of the sustainability and the efficiency of extraction and processing around the globe. The question therefore arises how the policy maker wishes to assess resources efficiency at this stage of the value chain. The sustainability of resources imported in products is an even more complex issue that will need careful attention in the future.

3.3



Position on Resource Efficiency



euromines
European Association of Mining Industries
Metal Ores & Industrial Minerals
www.euromines.org

Mines occupy no more than a fraction of 1% of the land surface.

4

*Environmental
“footprint”*

4.1



Waste Management

Having been subjected to a series of EU legislation over the past years, the focus of efforts by authorities and industry during 2011 was on implementation.

It is in this framework that the European Commission undertook a study titled "Establishment of guidelines for the inspection of the mining waste facilities, inventory and rehabilitation of the abandoned facilities and review of the reference document on the best available techniques."

The objectives of the study are to provide information to prepare guidance on inspection as required under Article 22 (d) of the Mine Waste Directive; to review rehabilitation methods for closed and abandoned facilities; and to assess the opportunity to launch a revision of the BAT Document on mine waste management. The Euromines Environment Committee has and will continue to be actively involved in this consultation process.



4.2



Chemicals Management

Seveso Directive – Review

The Seveso Directive was under review in 2011 in order to account for the new EU Classification & Labelling Regulation (CLP). Since this could have substantial impact on the sector by bringing mining operations under the scope of the Directive, Euromines has been actively providing detailed technical information to Commission and Member States as well as the European Parliament.

CLP Regulation – Adaptation to Technical Progress

Following the Chemicals Legislation (REACH), the EU is now in the process of implementing the Classification, Labelling and Packaging legislation through a 2nd technical adaptation. Manufacturers and importers of minerals, ores and concentrates are legally required to submit updated classifications to ECHA before 1 December 2012. Industry overall is developing studies and guidance to facilitate the implementation.

United Nations Mercury Treaty

UNEP has agreed to put in place a UN Mercury Treaty by 2013. It is now accepted that it will include emissions to air, water and land – including non-ferrous metals mining, smelting and production facilities; facilities for the

disposal of mercury-containing wastes; and sites contaminated by mercury. Meanwhile, the expected EU disposal standards for liquid mercury appear to be heading towards a requirement to sequester the mercury prior to disposal underground.

UNEP has commissioned studies to examine emissions from specific sources and the best options for abatement. The Euromines Environment Committee will continue in 2012 to contribute to the negotiation process together with the ICMM.

International Maritime Organisation: Potential changes to shipping rules for ores and concentrates

Discussions are on-going to define criteria for the identification of "Substances Harmful to the Marine Environment" under MARPOL Annex V and for the identification of "Materials Hazardous in Bulk" under the IMSBC Code. These are likely to restrict discharge of mineral, ore and concentrate residues into the sea and possibly increase the cost of loading and unloading. Euromines will continue to monitor and contribute to the negotiations that started in 2011.

4.3



Implementation of the EU Water Framework Directive



For the implementation of the EU Water Framework Directive (2000/60/EC) the European Commission was reviewing a list of priority substances. The original suggestion to include free cyanide on the list was finally rejected due to the fact that none of the EU Member States had any monitoring data that would have justified this. The Commission is now considering the possibility of targeted monitoring to obtain better quality data. For this purpose, "Free Cyanide" may instead be placed on a "watch list", which has been proposed as part of the review of Directive 2008/105/EC.

4.4 Responsible mining

4.4



Given all this legislation under development and change, Euromines and its members are very concerned about a correct and systematic implementation and enforcement of the laws. Equally Euromines members are engaged with the communities and social partners to improve the image of the industry.

It is in this light that the sector again and again gets involved in seminars on Best practice or the EP's seminar on "Responsible mining in the EU: Best practices to overcome the raw materials crisis". Organised by Prof. Vladko Todorov Panayotov and Dr. Theodoros Skylakakis, two Members of the European Parliament, this event aimed at exploring how raw materials challenges can be turned into opportunities by focusing on the overall strong potential of mining in Europe as well as on innovative techniques to exploit mineral resources and to manage waste from extractive operations. This seminar was an opportunity to bring together policy-makers, academics and industries to discuss future policies, best practices and new technologies for a responsible mining in the European Union.



The EU extractive industry seeks continual improvement of good, safe and positive working conditions taking all protection measures necessary.

5

Health & Safety



5.1



Respirable Crystalline Silica activities

Health and Safety issues have been always high on the agenda for the sector.

2011 therefore has seen again considerable efforts in implementing BAT across the sector.

Following the successful Nepsi reporting in 2010, Euromines and its national federations were instrumental in organising several workshops in Bulgaria, the Czech Republic and Poland in 2011. The aim of such workshops was to show the members the importance of respirable crystalline silica, the need to implement best practices in monitoring and prevention of exposure as such and to motivate them to participate in the regular reporting every 2 years.

The year 2012 will be another reporting year aiming to produce in July 2012 the summary report for the EC and national authorities.



EU OELs - developments on NO/NO₂

In 2011 Euromines monitored new developments with regard to the OELs on NO and NO₂. In 2011, no decision was taken on these two so important substances. At the last SCOEL meeting, held on 14-15 September 2011, quite an extensive discussion took place on the issue.

A more clear listing of all the limitations needed to be added to the next version of the Recommendation from the SCOEL to take into account issues relevant to genotoxicity, carcinogenicity, the uncertainty factors, the importance of the length of exposure, analytical problems etc. The basis for proposing a 15min STEL (short term exposure limit) value for NO₂ will be further examined in 2012. In the light of the above-mentioned outcomes, it was decided that the recommendation would be revised and submitted to the following SCOEL meeting in 2012. As far as nitrogen monoxide was concerned, it was decided to proceed first with the revision of the NO₂ Recommendation before SCOEL would tackle the issue of NO.



Workshop on Best Practices in the Mining Industry in Tabor on the 10 November 2011

In November 2011 this seminar was hosted by the Czech Association and Euromines in Tabor (Czech Republic) on "Preventing catastrophe and fatalities". Main topics discussed by the 80 participants were:

- » How to secure a quarry and its walls against the fall of workers and machinery;
- » Health and safety during hard coal deep mining;
- » Practical experiences of health and safety from a lignite producer
- » Best Practice in Potash and Salt Mining;
- » Extreme events in mining
- » Safety culture;
- » A Personal Safety Management System at New Boliden Tara Mines.



Euromines' mission is to promote sustainable and prosperous mining in Europe through operational excellence.

6

*Our relationship
with the society*

6.1



Implementing Communication Strategy

In the context of the minerals sector, goal of sustainable development is to maximize the contribution to the well-being of the current generation in a way that ensures an equitable distribution of its costs and benefits, without reducing the potential for future generations to meet their own needs. The approach taken to achieve this has to be both comprehensive – including the whole minerals chain – and forward-looking, setting out long-term as well as short-term objectives. The extractive industry contributes to sustainable development by integrating economic growth with environmental protection, social progress and effective governance.

As the general public do not recognize the role the industry plays in society and the importance of the extractive industry to the European economies there is a need of a more pro-active communication. Therefore a well-structured communication strategy is necessary in order to achieve a number of communication objectives which are crucial to promote and protect the industry's public image.

The objective of Euromines is to promote the extractive industry towards the European society – and mainly towards the European authorities – as a key contributor to sustainable development in Europe. In 2011 Euromines members agreed to create a new Communication Strategy for the sector which should help to further improve its communication in Brussels and with the assistance of national associations and companies across the whole of Europe. The strategy should endeavour to provide a framework, which will enable the extractive industry to further improve its communication of key messages to its target audiences in a comprehensive and cost-effective manner.

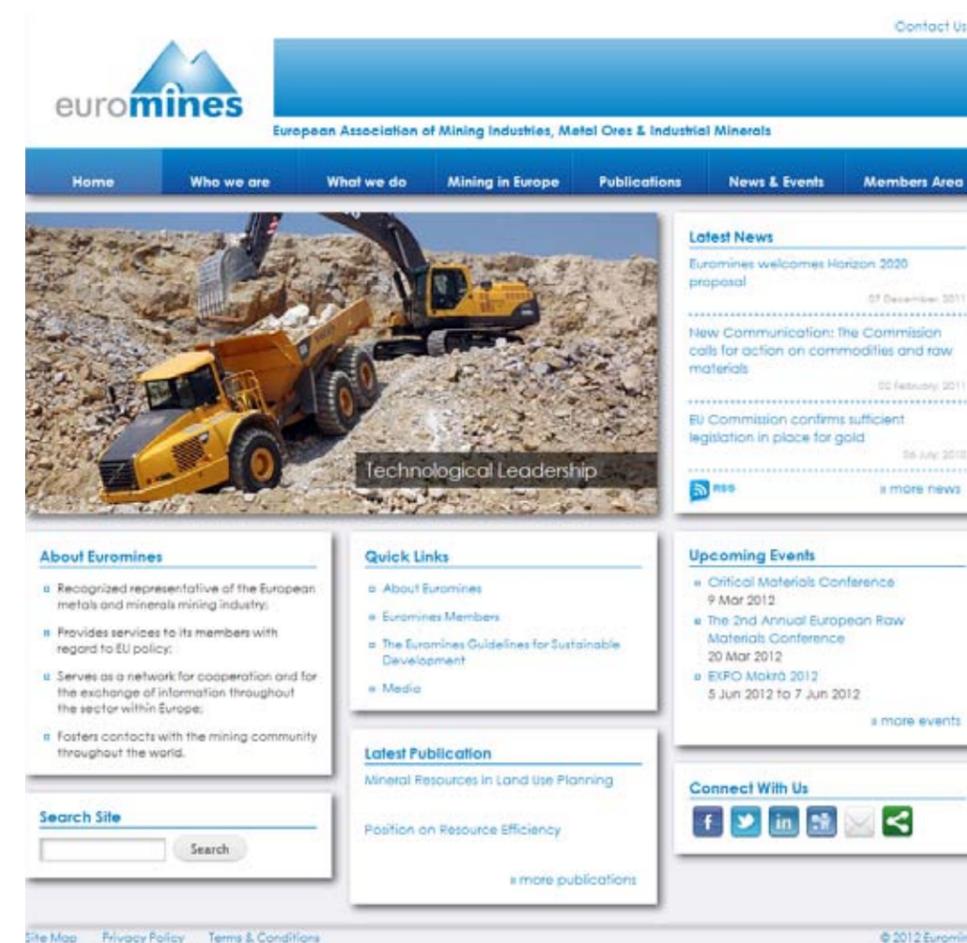
In support of this primary goal, the strategy should also aim to achieve the following goals:

- 1) Improve the image of the industry as environmentally friendly, trustworthy and innovative;
- 2) Establish and maintain good relationships with target audiences;
- 3) Share knowledge.

New Euromines website

6.2

The world is changing and “on-line” communication is crucially important. Social media have a strong voice and will have an even stronger one in the future. That is why in 2011 Euromines started to prepare a new website which will provide information for the external as well as internal users. Last but not least the new website will be linked to different social media channels.



7

Outlook

2011 was a year of recovery from the previous economic downturn in 2009/2010. The raw materials sector because of its long investment cycles did not suffer too much. The longer economic prospect due to the growth in the Asian markets as well as the EU's attention to raw materials resulted in increased exploration activities as well as investments in new processing facilities.

The world economic situation at the beginning of 2012 is very unclear. The European debt crisis still looms over the markets and the supplying industries.

Policy makers have not realised that two of the main EU policy goals will continue to de-industrialise Europe and kill more jobs than they create: The energy and climate change policies and the myth of the dematerialisation of the economy.

Without access to raw materials and energy at competitive prices, no industry in Europe can be sustained in the long term. 70% of a wind energy generator is made of steel and this comes from iron ore. And how many wind energy generators does one need to replace one coal-fired power station?

Resource and energy efficiency are very important goals, however making resources and energy expensive in order to enforce efficiency can back-fire substantially on the competitiveness of all downstream production.

Without a healthy extractive industry and without a metal and mineral processing industry in Europe many industrial sectors will suffer and our standard of living – which is already threatened - will not be maintained.

Hence, the coming years to 2020 have to be used to rebuild, to restructure and to innovate substantially our European industrial landscape. This will not be possible without energy- and material-intensive industries.





European Association of Mining Industries
Metal Ores & Industrial Minerals
12, Avenue de Broqueville
B-1150 Brussels
Belgium
www.euromines.org
Tel.: +32 2 775 63 31
Fax: +32 2 770 63 03