



“EIT Raw Materials: 1st Greek Raw Materials Community Dialogue”

«GMEA: 90 YEARS OF EXPERIENCE IN THE MINING INDUSTRY. CHALLENGES AND ACTIONS»

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«GMEA: 90 YEARS OF EXPERIENCE IN THE MINING INDUSTRY. CHALLENGES AND ACTIONS»



The precursor figure of Greek Mining Enterprises Association “GMEA” , “Union of Mining and Metallurgical Enterprises of Greece”, was established in 1924, by Ferdinando Serpieri and other famous entrepreneurs and representatives of big mining companies

- ▶ At the first Issue of the Association’s Article, recognized by the Decision N. 1358/1924 of the Court, among the fundamental Union’s objectives, was the following:

Enlighten each Government on the appropriate setting of the Mining and Metallurgical Policy of the State (Greek Mineral’s Policy) and for this purpose to take legislative or other, measures

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- The long history of the Association is characterized by strong commitment to small and bigger goals and perseverance, sometimes for decades, in order to achieve the desired result
- Something very typical is the well - known need for a unique and targeted National Mining Policy which comes as a pursuit from 1924-2012 (when it was announced)

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GMEA, after continuous efforts, managed to achieve solutions in many issues of the extractive/mining/metallurgical sector:

- + Development issues**
- + Trade and Labor issues**
- + Production and export restrictions**
- + Land Use Planning issues**
- + Intervention of modifications of laws opposing the operations of Greek Extractive Industry**

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It took several times:

- **To face the devastating Occupation of Greece during the Second World War and afterwards to enhance the efforts of reconstructing the Sector**
- **To deal with limited interest of the competent authorities and the political hierarchy, fact that appears frequently, especially at the last 30 years**
- **To ask and succeed in gaining incentives for the development of sector's exports**
- **To always promote the importance of extractive industry for Greek Economy**
- **To require and suggest/provide solutions in many issues of the Sector**
- **To stand for and demand Minerals Policy which will function as the fundamental basis of problem-solving and offer the chance of development**

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GMEA supports the Sector in increasing its competitiveness, the last decades. Member companies respond to that, through:

- ❖ The relentless change in organization and production procedures of Member Companies of GMEA**
- ❖ The flexibility in operations and the availability of absorbing and implementing new legal obligations & restrictions**
- ❖ The implementation of technological innovation**
- ❖ The development and research in new products and**
- ❖ The implementation of continuous educational and training methods for their working staff**

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Typical examples of predictions of GMEA and of the quickest adjustment of Member Companies, is the fact that from 2000 and now then, new social demands are emerging for Sustainable Development and new models of business functions are required

In relation to that, a past chairman of GMEA, at a Conference in 2005, stated the following:

- “We are in a continuous effort not only to convince our competent authorities to give us the permission to operate, especially in new extractive activities, but mainly to earn license, convincing local communities that our operations comply with their common living standards and on the contrary, most of the times are an “agent of positive change”
- After decades of continuous efforts GMEA, managed to convince political leadership to announce the National Policy for the exploitation of Mineral Resources which was held at a Conference on 29/2/2012

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As it was mentioned by the Minister of Environment, Energy and Climate Change, in that specific Conference:

- ▶ “In cooperation with the State, the society and the enterprises of the extractive sector, we lay down an integrated National Mining Policy with the objective to develop an economy that shall utilize, while respecting the national resources of the country thus contributing to upgrading the quality of life of the local communities”**

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► GMEA- MEMBER ENTERPRISES – TODAY'S FIGURES AND CHARACTERISTICS

The Member Companies of GMEA's control over 85% of the total annual industry production

Mapping of the Member Companies according to the turnover

- ❑ 6 groups are over $100/10^6$ euros annually
- ❑ 3 groups are between 50×10^6 - 100×10^6 euros annually,
- ❑ 5 companies are between 10×10^6 - 50×10^6 euros annually
- ❑ 14 companies are less than 10×10^6 euros annually

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▶ GMEA- MEMBER ENTERPRISES – TODAY’S FIGURES AND CHARACTERISTICS

Mapping of the Member Companies according to the importance of the product (1)

❖ IMERYS HELLAS:

- ✓ 2nd producer in bentonite globally
- ✓ 1st producer in perlite globally

❖ PUBLIC POWER CORPORATION:

- ✓ 2nd producer in EU

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► GMEA- MEMBER ENTERPRISES – TODAY'S FIGURES AND CHARACTERISTICS

Mapping of the Member Companies according to the importance of the product (2)

- ❖ **GRECIAN MAGNESITE:** 1st exporter of caustic magnesia in EU
- ❖ **LARCO SA:** covers 7% of the total needs of EU in ferronickel
- ❖ **WHITE MINERALS:** 1st producer in huntite globally
- ❖ **ALUMINIUM OF GREECE:** 4th producer of Aluminium in EU, the only integrated producer of the chain bauxite-alumina-aluminium in EU
- ❖ **LAVA:** one of the greatest producers of pumice

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GMEA- MEMBER ENTERPRISES – TODAY'S FIGURES AND CHARACTERISTICS

Member companies are highly experienced, advanced, innovative and well progressed in:

- ❑ Hard rock and soft rock extraction technologies
- ❑ Underground and open cast mining
- ❑ Extended use of wire saw machines and innovative marble extraction (ex. Underground)
- ❑ Innovative methods of enrichment of ores
- ❑ Specialized and innovative Metallurgical processing

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GMEA- MEMBER ENTERPRISES – TODAY'S FIGURES AND CHARACTERISTICS

Member companies also:

- ✓ have experienced, high level scientific and technical personnel with managerial skills, operating in the largest industrial groups and companies of Greece, highly specialized and well trained workers in modern up to date extractive practices & technologies
- ✓ Are export oriented
- ✓ Since 2006, have adopted a Code of Principles for Sustainable Development and special indicators, reported annually, describing their performance. GMEA publishes once per year the cumulative results in a form of scoreboard , expressing the total picture of the sustainability of its members

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Examples of Sustainable Development Indicators:

Investments, R&D costs, environmental protection and rehabilitation costs (2009-2015)

➤ Investments which include :

- ✓ New projects
- ✓ New constructions
- ✓ Equipment
- ✓ Installations
- ✓ Machineries

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Examples of Sustainable Development Indicators in the years of economic and financial crisis (2009-2015):

Investments, R&D costs, environmental protection and rehabilitation costs

Investments which include :

- ✓ Renovation of equipment and installations
- ✓ New systems
- ✓ New methods and organization of production and extractive operations
- ✓ New ways and methods of waste management
- ✓ Development of by-products etc

All above are estimated as more than 2,2 bil. €

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Examples of Sustainable Development Indicators in the years of economic and financial crisis (2009-2015)

Investments, R&D costs, environmental protection and rehabilitation costs (2009-2015)

- **The environmental protection and the rehabilitation costs**, which also include systems of recycling or neutralizing wastes, of recycling water, of reducing energy consumption, and management of wastes and wastes' disposal, **are totally estimated more than 135.000.000€**
- **Exploration – R&D costs**: only the members - companies of Greek Mining Enterprises Association and the groups associated with him (Aluminium of Greece and cement groups) have spent for new deposits' exploration, products' improvement, new products and uses, over **150.000.000 €**
- **Total annual number of training hours: 993.000**
- **Resources available to the local and wider community (infrastructure, unions, support, awards, etc (million €)): 4.367**

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Examples of Sustainable Development Indicators in the years of economic and financial crisis (2009-2015)

Investments, R&D costs, environmental protection and rehabilitation costs (2009-2015)

- Number of planted trees and plants for the end of the calendar year (**million €**): **2.146**
- Waste deriving from extractive activities used for backfilling or the production of secondary materials: **3.064.534 (10³ tons)**
- The employment in the extractive industry **approached 16.200 full time equivalents in 2015 (FTSs)**

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Nowadays potential of Greek Extractive Industry

The mining industry

- ▶ The extraction of mineral raw materials is a particularly significant economic activity for Greece, as it has a strong export orientation while utilizing domestic resources. In addition, mining provides mineral raw materials that facilitate other significant domestic economic activities, such as electricity generation, manufacturing of basic metals, cement production and construction, providing a further boost to the Greek economy.

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Nowadays potential of Greek Extractive Industry

Key figures

- ❑ Total turnover of the mineral industry in Greece stood **2,42 billion € in 2015** in comparison with the turnover of **2009 (beginning of crisis)**, which was **€ 2.310 billion**, even though the drastic reduction in cement production, in aggregates and energy minerals (because of the crisis), has slightly increased due to the production of:
 - ✓ marbles,
 - ✓ basic metals
 - ✓ some industrial minerals: pumice, perlite, bentonite and concentrates of mixed sulfur compounds
- ❑ Total **contribution of the extractive industry to GDP estimated € 4,1 billion (2,2% of GDP)**

Taken into account electricity generation with lignite (which would be impossible without the support of the domestic mining sector), **contribution to GDP stands at € 6,2 billion (3,4% of GDP)**

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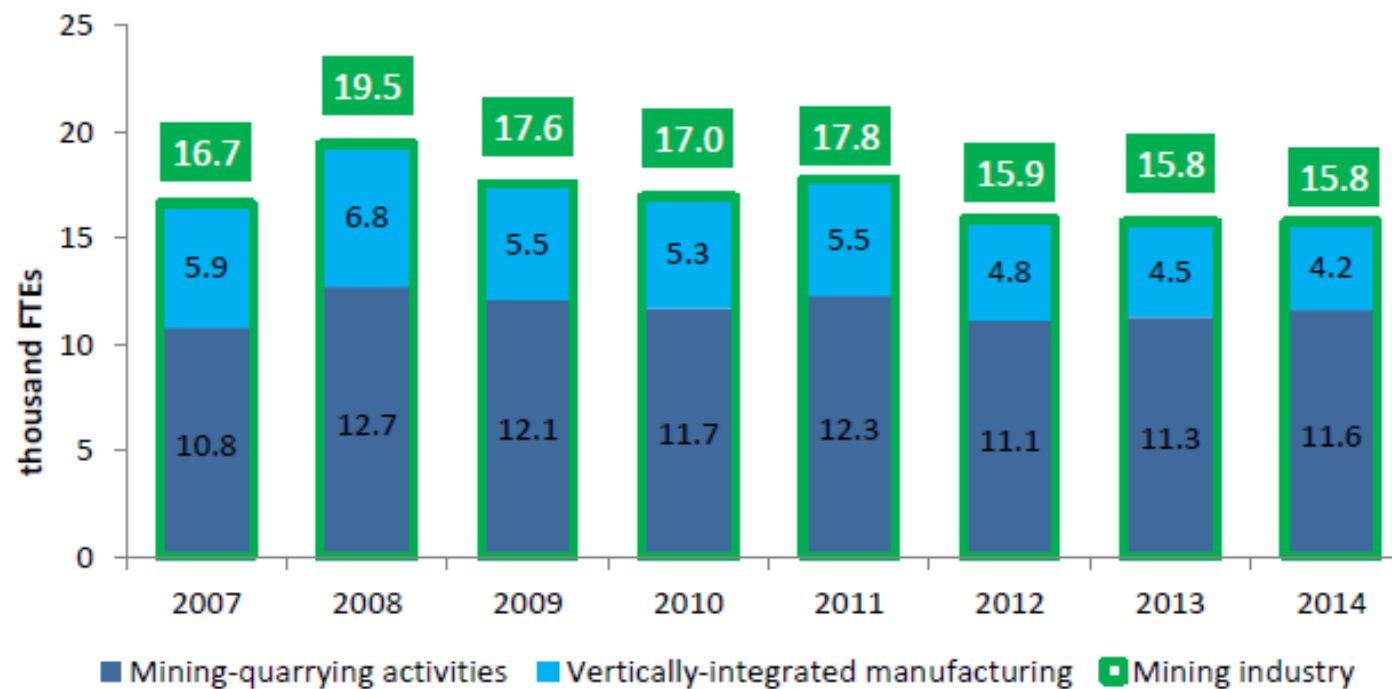
EMPLOYMENT

- ✓ The employment in extractive industry approached **16.200 full time equivalents in 2015 (FTEs)**
- ✓ **The job loss during crisis (2009-2015), relatively limited (-7%),** despite significant reduction of gross value added (-45% during the same period)
- ✓ As a result, **the share of the sector's employment in Greek Industry has increased from 2, 9% in 2007 to 4,5% in 2015**
- ✓ The contribution of extractive industry in employment terms, estimated respectively at about **84.500 full time equivalents.** With electricity generation, fueled by lignite, the impact is increasing to **118.000 FTEs (3,4% of domestic employment)**

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Figure 1: Employment in the mining industry



Source: Eurostat, National Accounts, Greek Mining Enterprises Association, Data processing: IOBE

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Nowadays potential of Greek Extractive Industry

Exports

- The value of exports reached **1,23 bil. Euros in 2015, exceeding 51%** of the total turnover in the sector
- The export orientation is particularly strong primarily in products such as :
 - ❖ Marbles
 - ❖ Industrial minerals
 - ❖ Metals

And secondarily in cement

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Nowadays potential of Greek Extractive Industry

Growth outlook

- The output of the mining industry overall is expected to be : **>13.4% in 2020** compared with 2014, provided that growth forecasts for Greece and EU are realized as planned and the investment climate in country not jeopardized further
- 25 companies members of Greek Mining Enterprises Association (GMEA), **> €1.7 billion** investment expenditure planned over the next few years, most of which scheduled for 2017-2018

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Nowadays potential of Greek Extractive Industry

► Comparative advantages of Greek Extractive Industry

- Geological Potential , growth potential, variety of minerals significant resources (Perlite, Bentonite, Bauxite, Lignite, Pumice, Attapulgitite, Huntite, Aggregates are high in international ranking)
- Geographical position of the country
- Easy access to ports
- Know-how, technology, experienced personnel to extractive activities
- Internationalization of Greek Extractive Industry, multinational corporations, joint ventures, export trade networks, openness, export oriented

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► Challenges

The Greek Extractive Industry and Metallurgy is facing an intensive global competitiveness. In order for her to keep on contributing with increasing rate in the national economy, the State has to fulfill significant prerequisites:

- ❖ Implementation of the National Minerals Policy (NPEMRRM) by Special Legal Framework and Decisions facing Policy priorities and key actions for each part of the Policy

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Actions envisaged National Minerals Policy, could be grouped in five policy priorities:

- ✓ Land Use Planning
- ✓ Licensing
- ✓ Other regulatory issues
- ✓ Education – research – knowledge diffusion
- ✓ Social License to operate

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Land use planning

- Deposit areas mapping
- Special provisions for areas with deposits of exceptional economic significance
- Provisions for land uses after the end of the exploitation period
- Revision of the regional land use frameworks
- Update of the protective area management studies

Licensing

- Simplification of procedures, based on land use plans
- Issue of guidelines and manuals
- Implementation of the obligation from law No. 4014/2011 for the operation and maintenance of digital environmental registry of projects
- Prevention of duplication and parallel tasks

Other regulatory issues

- Codification of the legislation, with immediate updates
- New law on quarrying

Research-education-knowledge diffusion

- Stronger support of the research institutions in the area of mineral raw materials
- Creation of a GIS database
- Education, training and vocational learning on the sustainable development of mineral raw materials
- Lessons on geosciences in primary and secondary education levels
- Publication of best practices

Social licence to operate

- More effective operation of the supervisory authorities
- Measures to prevent the illegal operation of quarries
- Introduction of financial guarantees
- Higher rewards to local authorities
- Rehabilitation of abandoned mining installations
- Establishment of a forum on NPEMRM

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Significant factors for a success implementation of National Mineral Policy and necessary conditions to attract investments, are:

- **Stable economic and political environment**
- **Stable and safe taxation system**
- **Provision of taxation system**
- **Regulation fitness, depletion of bureaucracy**
- **Predictable, safe and effective permitting procedures**
- **Effective public services**
- **Diminution of energy costs for the energy intensive industries**

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Facing the challenges mentioned, we estimate that Greek Extractive Industry and Metallurgy can increase, **total contribution to GDP more than 7% at the very early future**

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**THANK YOU FOR
YOUR ATTENTION**