



The EU is rethinking its economic growth fostering strategy with a greater emphasis on sustainable development. However, as *Christophe Sykes* of IMA-Europe explains, to achieve growth provision must be made for mineral extraction.

Minerals key to a competitive Europe

APART FROM THOSE in industry, very few people know that industrial minerals are used as raw materials or functional additives in a wide range of manufacturing and other industries. Industrial minerals have a broad range of applications including: paint, electronics, metal casting and foundry, paper, plastics, glass, ceramics, detergents, drugs and cosmetics, and construction materials, to mention just a few. In most, if not all of these uses, industrial minerals are essential and play a fundamental role in underpinning economic growth. Their availability is of strategic importance; however, the general lack of knowledge of this fact is frustrating and heavily weighs against the interests of our industry.

A new strategy

At the European Council of 22-23 March 2005, European Union (EU) leaders relaunched the Lisbon Strategy with growth and employment as the main priorities. This strategy's primary objective, set at the March 2000 Lisbon Summit, was for the EU to become the "most competitive and knowledge-based economy in the world by 2010". However, this ambitious target has now been dropped as the EU heads of state and

government agreed that only limited progress has been made in economic reform.

The new Lisbon Strategy is based on a three-year cycle. Member states (MS) will develop "national reform programmes" which need to foster growth; not by compromising environmental protection but equally by taking into account the social and economical pillars of Sustainable Development (SD).

The industrial minerals industry is facing a growing number of challenges such as public perception, limited land access, skill shortage, and growing environmental legislation such as: the EU's Greenhouse Gas Emission Trading Scheme¹ (EU ETS) or the forthcoming Mining Waste Directive², Groundwater Directive³, the new chemical policy⁴, and the possible inclusion of industrial minerals operations in the EU's Pollutant Release and Transfer Registers⁵. Industry is really concerned about the cumulative impact these varied constraints may have on future operating options.

With ever expanding urban zones and lack of awareness of the importance of industrial minerals comes limited access to resources. Minerals extraction occupies approximately 0.02%

of the EU land area and industry has no option but to operate where resources are found. Other sectors are major land users and it is now estimated that agriculture occupies more than 30% of the EU's surface area.

In December 2004, the European Commission (EC) established the largest ever list of protected areas in the EU. It has decided to include more than 7,000 nature sites in Natura 2000, the EU's network of protected nature sites. Stavros Dimas, the EC Environment Commissioner declared: "By establishing Natura 2000, the EU strives towards reaching its objective of halting the decline of biodiversity by 2010. With the adoption of the list, the Natura 2000 network becomes the largest coherent network of protected areas in the world and the EU's most efficient operational tool to protect its fauna and flora".

Based on EC data, it is estimated that 20% of the EU is now covered by environmental protection. Even though the FFH-Directive⁶ stipulates that its main objective is the preservation of biodiversity while taking economic, social and regional needs into consideration, Natura 2000 areas strongly compete with the European raw material industry because deposits are often found in undeveloped, mostly natural areas.

Natura 2000 classification means that MS must take all the necessary measures to guarantee conservation and avoid deterioration of protected sites. This does not exclude all economic activities in these areas, but MS must ensure that such activities are compatible with environmental conservation. Nevertheless, this explicit option given to competent authorities is not usually selected and, generally speaking, all extractive operations in these sites are banned.

The EC is already planning the development of the Natura 2000 network and the protection of more sites particularly in the new MS. It states that extending protection to the wider countryside requires a deeper and effective integration of environment and biodiversity into agriculture, landscape and forestry coupled with new initiatives, for example the development of the EC's Soil Thematic Strategy.

Land restoration

Industrial minerals extraction inevitably impacts on the environment. However, mineral operations should be considered as temporary and high quality land restoration is to be expected. In Greece, for example, S&B Industrial Minerals⁷ has been extracting bentonite, bauxite and perlite since 1934. Over the past 24 years, the company has restored 450 hectares solely on Milos Island and in Fokis mainland prefecture. As a rule, up to 2,000 local varieties of bushes and shrubs are planted per hectares. These are grown in the company's nurseries which can produce up to 100,000 plants a year. Such a restoration process allows the operator to restore the site to virtually its original topographic state and often in a short time frame. Moreover, the company often continues to maintain the restored sites after its obligations have ceased.

In the UK, industry (Imerys⁸ and Goonvean⁹), regional authorities (Cornwall County Council) and national government (English Nature) have come together to carry out two of the biggest European post-mining projects. The Cornwall Heathland Project was carried out between 1997 and 2004 and has led to the restoration of 750 hectares of heathland on former china clay waste tips. This contributed over 12.5% to the targets for the UK Government

Biodiversity Action Plan for heathland re-creation. This is an important project because overall 60% of heathland, a high biodiversity-value habitat, has been lost in England since 1945. The project involves other stakeholders such as local farmers and the local communities. The second project being delivered over the next five years in this part of England entails the restoration and re-creation of 800 hectares of native broadleaf forest.

These are just three examples where industry is helping to restore biodiversity and cultural landscapes. It goes to show that well planned and well executed extraction operations can make serious contributions to biodiversity targets and the wider SD challenge when high quality restoration is carried out.

A balancing act

It is up to the planning system to balance competing demands for land use. Generally speaking competent authorities are experienced at assessing the environmental impacts of extractive operation proposals, but mostly ignore the social and economic benefits these could bring to local communities and the wider effects on downstream industries and the national economy.

In its sixth Environmental Action Programme (6th EAP), the EU states that the way land is used has a massive and lasting impact on the environment, and that poor decisions can lead to habitat loss, fragmentation of the countryside, or increased traffic pollution. The EU wants to assist competent authorities with land use planning to ensure the environment is properly considered and suggests the promotion of best practice in MS. As planning policy can be developed at national, regional and/or local level, with regard to best practices it seems clear that planning policies should take stock of local, national or even European mineral needs.

According to specialists, mineral policies should always review demand and supply prospects, the extent of permitted reserves, the issues most relevant to development control (eg. transport, restoration, and working methods), arrangements to safeguard mineral deposits for possible future use and, increasingly, the sustainable management of mineral resources. With these items in mind, competent authorities should reassess whether the existing range of planning advice on industrial minerals remains satisfactory or if changes are needed.

In 2004, the EC commissioned a review¹⁰ of European mineral planning policies. Amongst the report's conclusions, the authors stated that environmental legislation is actually becoming more important than the principal mineral legislation and that minerals are considered of low importance when it comes to land use planning. The report goes on to declare that: "The challenge is to achieve a balance between securing minerals and protecting the environment seen in the context of human social and economic welfare". In order to guarantee sustainable supply of minerals for the SD of Europe, the EU should:

- Identify its own mineral resources and, where this is the case, their absence
- Optimise sustainable resource use
- Provide an effective and stable legal framework

The study shows the need for well thought out national mineral planning policies adapted to different national endowments in mineral resources. Last but not least, it

confirms the ever increasing complexity of MS planning policy due to the growing number of regulations and competing land uses.

Another recent report entitled "Industrial minerals, issues for planning" published by the British Geological Survey (BGS) addresses the UK situation, but the generic trends described by the report can be seen as European issues. The report explains that in order to maintain its right to operate, industry continuously reduces its environmental impacts while providing the resources needed to satisfy society's material needs. R&D has led to reduced noise, vibration, and dust levels but increasingly the NIMBY (not in my backyard) syndrome impacts on the industry. Local communities are very reluctant to accept extractive operations in their neighbourhood. With this change in attitude and acceptance comes more EU legislation.

Back in June 1998, the UN Economic Commission for Europe (UNECE) adopted the Århus Convention. Public authorities are allowing individual rights to be effective and this includes:

- The right to participate in environmental decision-making, ie. to comment on project proposals affecting the environment. These comments are to be taken into account in decision-making and the final decisions are to be justified
- The right to legally challenge public decisions

Since signing the Convention, the EU has updated its existing legal provisions¹¹ in order to meet the requirements of the Århus Convention.

Staying competitive

With increased legislation comes increased bureaucracy and delays in obtaining permits for new operations or extension of existing ones. It has been reported that in some regions it takes up to 12 years for the licenses to be delivered. The question that should be raised is whether such systems are sustainable, as the associated cost that companies have to face in preparing supporting material are huge and this is particularly relevant for small and medium-sized enterprises (SMEs) which make up a major part of the European minerals industry.

While local authorities and communities may recognise society's need for raw materials, they can oppose mineral workings projects in their area (back to NIMBY). This encourages industrial minerals companies to communicate the local benefits brought by their activities, to publicise their environmental and restoration achievements, and to demonstrate their responsible behaviour.

For industrial minerals, the continuity of supply depends on the access to resources. As land use conflicts are likely to become more intense in the coming years, the perception of minerals as scarce resources will increase accordingly. For consuming industries such as glass, foundries, ceramics, paper, paint, and plastics, continuity of supply is at the core of their competitive advantage. There is little understanding amongst the competent authorities of the impact on productivity and employment growth of excessive land use restrictions.

As the demand for some industrial minerals is growing worldwide, especially in countries like China, India and Brazil, planning authorities have to recognise that some European downstream industries could become uncompetitive in a world market. These industries need to

source their raw materials in the EU. A non-competitive minerals industry may force downstream sectors to relocate, with significant economic and employment impact. Therefore, it is fundamental to the concept of sustainability that at a European level a long-term view is taken about the potential production of industrial minerals. Currently, the EC is preparing a quantitative assessment of the EU's non-energy extractive industries' competitiveness, which should be published later this year.

Even handedness

If SD is all about the environmental, social and economic pillars, the European institution should give the same level of support to the other two pillars of the European SD Strategy¹², and the minerals industry, based on its economic importance, should be given the same weight as agriculture and nature conservation. With the renewed energy being injected into the Lisbon Strategy, one might hope that a more balanced approach might be adopted in the near future. Already, more and more emphasis is being placed on wealth creation and productivity.

In its SD Charter, IMA-Europe supports the development and implementation of sound, scientifically based approaches to land use planning and conservation of biodiversity. Mineral planning policies should be based on the fact that Europe is a major consumer of minerals and so European industrial minerals production should be given a higher priority in national land use planning with areas safeguarded for mineral extraction. In order to galvanise the EU's faltering Lisbon Agenda, most of Europe's land use policies must give access to mineral resources. 

Notes

1. The scheme is based on Directive 2003/87/EC, which entered into force on 25 October 2003
2. Management of waste from the extractive industries – COM (2003)319 final
3. Protection of groundwater against pollution – COM (2003)550 final
4. Registration, Evaluation, Authorisation and restrictions of Chemicals (REACH) – COM (2003)644 final.
5. PRTRs – COM (2004)634 final
6. Conservation of Natural Habitats and wild Flora and Fauna (FFH-Directive) - 92/43/EEC
7. www.s.andb.gr
8. www.imerys.com
9. www.goonvean.co.uk
10. The study was co-ordinated by Prof. H. Wagner (University of Leoben, Austria).
11. Directive 2003/4/EC & Directive 2003/35/EC
12. COM (2001)264 final & COM (2005)37 final



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