DEBATE

Mining in a changing world...

by Anders Bülow

Anders Bülow, president of the Swedish base metal mining company Boliden argues that the challenges which the mining and metals industry has to deal with in the coming ten years differ from those faced by other types of business. He specifically analyses three different aspects: new environmental requirements, the more open mining legislation and the long-term weakening in demand for metals in the West combined with a growing demand in Newly Industrialised Countries (NIC).
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All industrial operations are in a continuous state of change, and that is the way it should be. The mining and metals industry is no exception. But the challenges which this industry has to deal with differ from those faced by other types of business in certain specific respects.

Three areas will radically affect the mining and metals industry's conditions over the next ten years.

Firstly, most mining and metals companies have already adopted a more active environmental approach. But how are new environmental requirements going to affect us in the future?

Secondly, mining legislation has been amended in a great many countries – that is to say it has become more open. What does this mean in the long run?

Thirdly, and perhaps most important, we are currently seeing a long-term weakening in demand for metals in the West. At the same time, there is growing demand in NIC countries in various parts of the world. How will this affect the mining industry?

The environment

Environmental authorities, non-governmental/voluntary organizations with an environmental orientation and, in some cases, environmental organizations supported by industry are continually calling for higher environmental standards. This is a good thing, and there is no real difference of opinion on this matter. We all share a common environment and demands for minimal environmental impact in our production and most producers are already actively involved in this. In some countries, for example Sweden or Canada, this process started almost twenty years ago, and we have made considerable progress. In Eastern Europe and Latin America, the trend is quite recent. But there is considerable awareness of the problem and the new environmental legislation which is being introduced in many of the "new" mining countries is very stringent these days. This is also commendable. Environmental conservation must be regarded as a global project. It is not enough to keep your own back yard tidy.

Increasing demands are now being made regarding the products – that is to say metals – and their impact on nature and on human health. But this discussion is a pseudo-debate, in which professional gurus present their personal views rather than the facts. The debate is dominated by the NTE spirit, in which "No To Eve-

Underground in the Renström mine, Sweden.

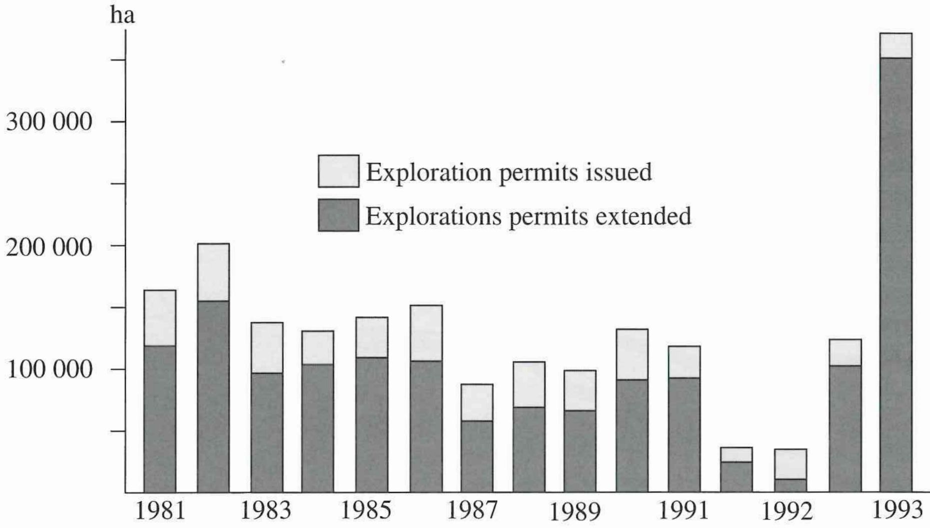
rything" groups are free to put forward highly subjective arguments.

The mining inustry should take it´s responsibility here, as an industry. It must raise the level of debate to achieve a more objective discussion, based on facts. This is where the international industry associations, particularly the ICME (International Council on Metals and the Environment), but also the ICA (International Copper Association) and ILZRO (International Lead and Zinc Study Group), should concentrate their efforts. The mining industry must inject factual information into the debate. If it utilizes the data produced by the research programs of the industry, it will be able to counter misinformation.

At the moment the industry associations are largely focusing on "marketing" products – the Euro Copper Plumbing Campaign is a typical example. This kind of work should be carried out by professional marketing people and that industry associations should devote their energies to more long-term projects – one of the more important projects concerns the environmental impact of our products.

These international industry associations can also operate as a know-how bank to promote an exchange of experience. There are considerable differences between the environmental efforts made in different countries. In Sweden, there is considerable discussion prior to major decisions about questions such as the granting of mineral permits and concessions, whereas the EPA in the United States has more of a policing function.

Figure 1. Area of claim certificates and exploration permits issued or extended in Sweden



The quality of environmental efforts often rises to new heights if the industry work together.

The Ecocycle concept is gaining increasingly widespread acceptance, throughout the world. As a result, the recycling of metals will be of key importance in the future. Recycling can also be one of the answers to the public debate about product impact. In Sweden, for example, there is a virtually closed system for the recycling of car batteries, where almost 100 per cent of the lead is recycled and returned to the battery manufacturers. This results in a minimal environmental impact. Processing 3.5–4 million batteries a year means that only the modest figure of x units have any effect on our water and air resources. There will gradually be a spinoff effect on other metals. Raw materials – that is to say scrap – will also be increasingly derived from new sources, for example from industrial, demolition and building industry waste.

More liberal legislation

In recent years a marked liberalization of mining legislation all over the world can be noted. The trend has been towards a reduction in government controls, and we are now moving towards a more or less open market situation. Legislation has been significantly liberalized in some 70 countries in the past few years.

This liberalization is due to the ability of the mining industry – and other industries based on natural resources – to rapidly create affluence and growth in countries operating under market conditions. Developments in Latin America are an excellent example. Last autumn the last South American country opened its doors to foreign ownership when the Brazilian Congress decided to relax state control of mining assets. At the same time, it was also decided to alleviate a number of other tax and economic regulations. This offers an enormous potential.

The Brazilian government is hoping for fantastic total investment by the year 2010 of 4 000 MSEK in exploration and 13 000 MSEK in production facilities.

This kind of liberalization changes the rules of the game in many cases.

Mining companies no longer have such strong local ties, and competition becomes keener when new professional actors start to operate in the domestic market. In Sweden, liberalization of mining legislation has clearly resulted in increased activity. A number of small and foreign mining companies have set up operations, and more money is spent on exploration activities (Figures 1 and 2).

The opportunities to set up shop in countries which used to be "off limits" is also resulting in a greater emphasis on large-scale operations. In an industry in which the main competitive tool is low costs, large-scale operations and efficient production are becoming increasingly important, as can be seen from the substantial number of gigantic projects announced in recent years. Projects of this size call for enormous injections of capital, and this is something which only major international companies can handle.

Figure 2. Exploration expenditure in Sweden

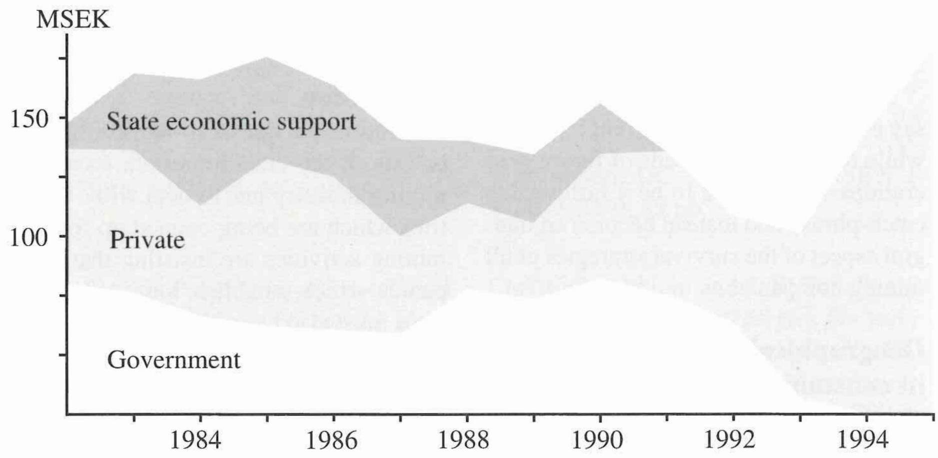
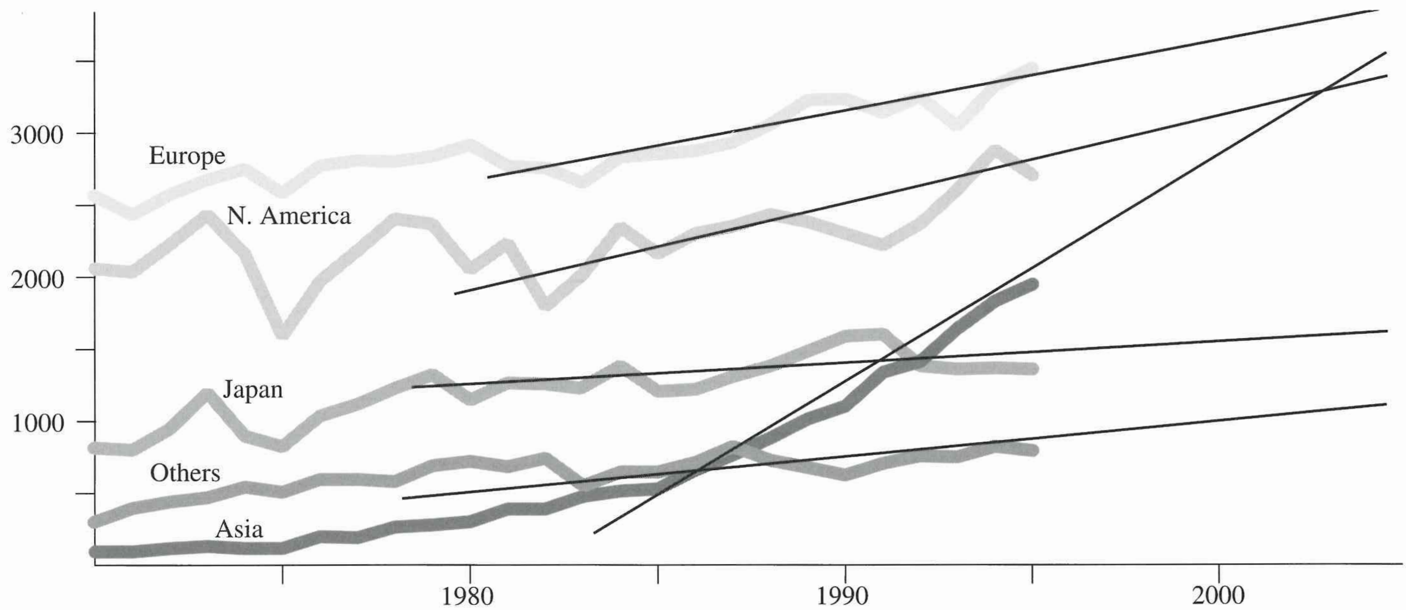


Figure 3. Growth in copper



New forms of ownership, in which several mining companies jointly defray the cost of major projects, will also become increasingly common.

The positive trend towards more open mining legislation in countries with untapped mineral resources offers several new opportunities which will promote the development of the mining industry.

But, at the same time, this development will also make demands on the way the mining industry behaves. The mining industry will be judged not only from a technical and economic perspective but also, to at least as great an extent, on the basis of its commitment to ethical and environmental issues, and to society as a whole.

Sustainable development – that is to say our ability to utilize current resources while respecting the needs of future generations – will cease to be a fashionable catch-phrase and instead become an integral aspect of the survival strategies of all mining companies.

Geographical shift in consumption

The pattern of demand for metals is changing. We are beginning to see a weakening in long-term demand in North America and Europe. At the same time, there is a steady and strong increase in demand in the NIC. At the moment this means the Far East, but in the future there will be several NICs in Latin America and Eastern Europe (Figure 3).

Proximity to these markets clearly makes it attractive to have mining operations in these countries. Latin America is sitting on enormous mineral assets – and this also applies to Eastern Europe.

So even if the demand for metals gradually stagnates in the West, there will be a healthy growth in demand for metals in other parts of the world.

Conclusion

Environmental questions will continue to be one of the most important issues the mining industry has to deal with. Countries which are being opened up for new mining activities are insisting that companies which establish local up operations must also bring their environmental know-how with them.

But the discussion is also about the environmental impact of the products. This is where the mining and metals industry should shoulder its responsibility for introducing an objective approach into the public debate.

There will be more scope for the recycling of metals, and recycling will be extended to new types of scrap, for example industrial and building industry waste.

The liberalization of mining legislation on a global scale will result in a number of changes. There will be tougher competition. Mining companies will become more international. Mining projects will be large-scale operations, which will mean fewer players, for example. And joint ownership of mining projects will be more common. The demand for metals will tend to shift from Wester countries to NIC countries in the Far East, Latin America and Eastern Europe. There will be a strong tendency for mining output to follow demand. ■