

Theme: Boom  
for Nordic  
mining

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A drilling rig is transported to the prospecting area by helicopter to protect the environment

## Transport facilities crucial to mining

Nordic politicians are waking up to the possibilities for the mining industry. On 12 October foreign ministers in the Barents Euro-Arctic Council met in the LKAB mine in Kiruna. Norway's Jonas Gahr Støre and Sweden's Carl Bildt arrived together on the ore train from Narvik.

### THEME

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TEXT: BJÖRN LINDAHL, PHOTO: SCANDINAVIAN RESOURCES, HANS LINDBERG

There are many reasons the mining industry is so hot. The most important one is China's insatiable need for raw materials to continue the country's rapid growth. But China also enjoys a virtual monopoly on the exploration of rare earth metals, which are used in high tech products like mobile telephones, wind turbines and electric cars. 97 percent of the global production of these minerals take place in China. When the country cut its production by 75 percent, the price of many rare earth metals grew by 300 percent.

That's why the EU is prioritising the hunt for alternative finds which can break China's monopoly. The most promising areas geographically for finding rare earth metals are the Arctic region and in particular Greenland. But there are also good chances for finding iron ore and other metals. The northern parts of Finland, Norway and Sweden as well as north-western Russia make up one of the world's four most ore-rich areas, along with Canada, Australia and South Africa.

EU countries use 25 to 30 percent of the global production of metals. The Union only produces three percent itself, and many important metals are not produced in Europe at all, according to Finland's mineral strategy which was presented a year ago.

### Finland the best mining country

Work to prepare for the development of the mining industry has given results. The annual World Risk Survey, where a thousand key people within the mining and oil industries answer a questionnaire from the publication Resource Stocks about which countries they think have the best conditions and lowest risks, Finland ended top as the best country for mining. Sweden came fourth.

"What makes Finland, Sweden and Norway so attractive is stable governments with predictable mining industry regulation. A lot of work has also been put into gathering data which has been made available to the industry," says Damian Hicks, chairman of Scandinavian Resources.



The company is registered on the Australian stock market, but it carries out its business in the Nordic region. It sees the possibilities which the large, established companies don't care

about. Five kilometres from Kiruna and 300 metres from the ore railway to Narvik, Scandinavian Resources have found iron ore which they want to extract in an open-pit mine.

*Damian Hicks, chairman of Scandinavian Resources and Markus Bachmann, with a drill core from prospecting*

"This is not a find which can be compared to LKAB's iron body which is world class and which has seen a billion tonnes of iron ore production. Our strategy is to combine many smaller finds of 50-100 million tonnes and through that carry on a profitable business," says Damian Hicks.

### A need for many professions

When the employment service calculate at least 3,000 new jobs in Norrland they include only those directly employed to run the mine. The classical underground miner is but many of professions needed. There main need will be for various types of engineers, but the list is long: administrators, mine workers, firemen, drivers, economists, electricians, guides, engineers, heads of logistics, mechanics, machine operators, project leaders, servicemen, physiotherapists, carpenters and developers.

According to the industry in Finland, each mining job creates another 3.5 jobs in related industries. The mining boom is also felt among businesses in Finland and Sweden that make mining equipment.

"They say when an underground mine is constructed anywhere in the world, 70-90 percent of the necessary technology comes from Finland or Sweden," says Finland's mineral strategy.

The mining industry is different from all other industries because a mine can only be run where the ore actually exists. Businesses cannot move to countries with lower salary costs, like other businesses can. But it is also possible that the mining industry isn't the powerful tool for regional development which many hope it will be. Some mines will be developed like off-shore oil fields where workers are flown in and out.

"Many new activities like mines and other raw material exploration develop like enclaves. People will live there for a set period of time, or in shift patterns like two weeks on, two weeks

off,” write the authors of the Nordic report Megatrends which looks at developments in the Arctic region.

All the Nordic countries face the common challenge of attracting enough skilled personnel to work in the mining industry. In Norway the oil industry has attracted nearly everyone with a geology education, while Finland’s and Sweden’s median age is high. One problem when trying to attract new students is that the mining industry has a reputation for harming the environment. There are now various research programmes looking at how to make the industry as environmentally friendly as possible, and there is talk about ‘invisible mines’.

The rapid expansion of mining activity also heralds a need for major investments in infrastructure.

The main advantage with Sweden compared Australia is that the three main mining companies there own the railway in the most important ore area, and there is no spare harbour capacity. The three companies want to double their production.

### Transport is key

“For iron ore transport is key. You could make a minor find or hit on a billion tonnes in Pillbara in Australia. Without transport you can still not get the ore out,” says Damian Hicks.

For his company’s finds in Kiruna there is both spare capacity on the railway to Luelå and space in the harbour.

“We also reckon we can ship smaller amounts through Narvik. It’s not for me to criticise Swedish and Norwegian authorities, but it surprises me that there are still no plans to build a double track railway between Kiruna and Narvik, despite the iron ore boom and despite the fact that there is a first class harbour in Narvik, not far from Europe’s largest mine.

“Countries with far smaller resources build railways through the African jungle. I understand this is not done overnight, with the steep fall down to sea level. But they built the Ofot railway 100 years ago with far less technical know-how. I am sure it can be done again.”

### Some of the largest mining projects in the Nordic region:

Mining company	Project	Investment, billions of SEK
LKAB	Expansion of Malberget, Sweden	27.5
Boliden	Garpenberg, Sweden	4
Northland Resources	Kaunisvaara, Sweden	5
Talvivaara Mining	Sotkamo, Finland	4.5
Ironbark	Citronen fjord, Greenland	3
London Mining	Isua, Greenland	13.5
	Total	57.5