

## Steel spurt to lift demand for critical metal niobium

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Steel production is going to have another good year, says Deutsche Bank. And that means a good year for iron ore — and particularly for those metals used in its manufacture, manganese and especially niobium.

Last year Geoscience Australia combined and averaged out all the various critical metals ratings (those done by the U.S., Britain, the European Commission and by South Korea and Japan) and found that niobium was the seventh most critical metal (after rare earths, gallium, indium, tungsten, platinum group metals and cobalt). The U.S. is 100% import-dependent on the metal.

Deutsche Bank's new steel report says that, after strong production growth in global steel of 4.3% in 2013, driven by better than expected Chinese production of about 9%, it is forecasting an even stronger year in 2014 with production growth of 4.8%. This will be driven by a rebound in European production, with a 3.5% growth, after a 2% decline in 2013. The European rebound, combined with improvements in other regions such as Brazil, Russia and India, should more than offset the slowing momentum in Chinese production growth.

You have to add only about 200 grams of niobium to 1 tonne a steel to make it stronger. This means that many steel users, particularly automobile makers, can use less steel (and therefore reduce weight) to achieve the same length level of structural strength.

The trend is niobium's friend: with demand for higher quality steels rising as a proportion of all steel demand, so the need for niobium has increased as a faster rate than steel output. Niobium demand rose 11% in 2011. China accounts for more than 25% of world demand and this proportion will rise as it moves more toward alloy steel output.

Niobium is an interesting market because it is still controlled by Brazil, which produces 63,000 tonnes of the 69,000 tonnes mined annually (2012 figures), with Canada providing another 5,000 tonnes. A Japanese-South Korean consortium and a Chinese consortium have each acquired a stake in the largest Brazilian mine, Araxa, owned Companhia Brasileira de Metalurgia e Mineração (CBMM). A subsidiary of Anglo American is the other Brazilian producer.

The third largest producer is Niobec, owned by Canada's IAMGold. Ferro-niobium, which Niobec produces, is sold directly to global steel mills and is used as an alloy to harden steel products (especially aerospace applications). The Niobec underground mine has been operating for more than 30 years, producing about 8% of global use.

But here's the amazing fact: no new niobium projects have entered production since 1976 notwithstanding the favourable price and demand situation for the metal. Outside the three existing producers, there are no new niobium projects currently financed or under construction.

But the Chinese are clearly keen to find new sources. In 2011 East China Mineral Exploration and Development Bureau took a 51% in Australia's **Globe Metals & Mining (ASX:GBE)**. Today Globe reports it has completed the bulk sampling program at its Kanyika niobium project in Tanzania and the 40 tonnes mined has now arrived in China. The company is planning a demonstration plant to be built at the Guangzhou Research Institute for Non-Ferrous Metals. Globe's project has suffered several delays in the bulk sampling, and now will experience another one as work will grind to halt as the Chinese New Year looms.

The other Tanzanian development this month will be the final scoping study completed at the Panda Hill project, owned by **Cradle Resources (ASX:CXX)**. Work has been completed on pit design and flotation tests on primary ore.

But probably the closest to getting into the game is **Alkane Resources (ASX:ALK)** which has niobium as part of its Dubbo zirconium-rare earths project in New South Wales, Australia. Six months ago the company signed a framework agreement with Austria's Treibacher Industrie for the production and marketing of ferro-niobium. Treibacher is an international metal alloy and chemical products company. Alkane is expecting by 2016 to be producing 3,000 tonnes a year of ferro-niobium (along with 16,000 tonnes of zirconium and 4,900 tonnes of rare earth oxides).

Other players include **NioCorp (TSX.V: NB)** which says it has the only known niobium project to be under development in the U.S., located near Elk Creek, Nebraska.

**Endurance Gold (TSX.V:EDG)** has the Bandito rare earth-niobium project in the Yukon, and the list of niobium hopefuls includes **Pacific Wildcat (TSX.V:PAW)** and **Commerce Resources (TSX.V:CCE)**, the latter having the tantalum-niobium deposit in British Columbia.

See more at: <http://investorintel.com/market-commentary-intel/steel-spurt-lift-demand-critical-metal-niobium/#sthash.NGEizbH2.TKeXTQpj.dpuf>