

## RSA-led venture plans a US\$1.2 billion project

**R**ichards Bay is one of the possible sites for a world-first integrated pure metals refinery plant producing titanium, zirconium, magnesium and silicon, with the respective derivative products.

Leading development funders, the National Empowerment Fund ("NEF") and the Industrial Development Corporation ("IDC"), have joined up with Magnesium and Metals Ltd, an American and Russian consortium, as well as TJTI (Pty) Ltd, a South African company, to invest at least R40 million to complete a pre-feasibility study.

Depending on the final outcome studies, the full capital cost of the project is estimated to be over US\$1.2 billion, in what is a groundbreaking venture from a South African and global perspective.

South Africa has an abundance of mineral

resources and is the world's second largest producer of titanium slag, which is a non-beneficiated mineral. Titanium, a rare metal which is difficult and expensive to produce, is used in high-technology industries such as aerospace, nuclear and chemical processes.

Thus far, in South Africa, the bulk of these specialist minerals have been mined and shipped to international markets primarily in their raw form, before further value is added during refinement. The ability to extract these metals in their pure form is capital intensive, and thus holds enormous international demand.

Access to the pure minerals furthermore creates the potential for local finished goods industries to emerge, such as production of micro-chips for computers and mobile phones, lightweight alloys for aerospace, semi-conduc-

tors, and various products for the pharmaceutical industry.

"This is a major step forward in terms of developing a strong Titanium metal beneficiation cluster which will be underpinned not only by its natural abundance in South Africa, but as a metal that is increasingly becoming a resource of choice," said Donovan Chimhandamba, RMI's Project Chairman and Head of Strategic Projects Fund at the National Empowerment Fund.

"Titanium is especially valuable for its high strength-to-weight ratio, thermal conductivity, bio-compatibility and resistance to corrosion. A downstream industry is likely to emerge as a result of the RMI project, which could lead to an improvement in global competitiveness through economies of scale and an increase in net value of export earnings," he said.

Part of the activities to be conducted by the PFS is site modelling with investigations encompassing four possible South Africa sites situated within the Industrial Development Zones.

It is envisaged that at full operational capacity, the plant will produce 50 000 tons of magnesium, 15 000 tons of titanium, 8 000 tons of silicon and 2 000 tons of zirconium annually, coupled with some derivative products.

"We expect that the project will generate at least 2,800 skilled jobs during the construction phase and in excess of 5 000 permanent jobs once the plant is fully operational in 2014. Additionally, much needed skills transfer is likely to occur through our Russian partnership, further strengthening South African's mining know-how and long term sustainability," said Chimhandamba.

*Enquiry no: 3*