Written by Gys Landman Friday, 01 July 2011 02:00

This edition of the SAIMM Journal is a milestone in the sense that it is the first edition fully dedicated to discussing and opening debate on issues related to the economics of the mining industry in southern Africa. I trust that all members of the SAIMM are looking at our industry in the hope that the full potential of the current extended global commodities boom will create the maximum benefit for the region's countries and their people.

The question is, how is our mining industry preparing to reap the benefit of this boom? Southern Africa is blessed with huge geological potential and contains abundant resources of metals and minerals that are in demand by countries that are building their infrastructures. Copper, iron ore, manganese, and chrome are but a few to mention. For historical and political reasons, mining in the southern African region is constrained by underdeveloped infrastructure, legislative limitations, and uncertainties of access or tenure of assets. Should we not beneficiate our natural resources more and stimulate downstream manufacturing and its job creating potential?

But do we invest enough in technology and its development to ensure that we indeed have the best methods, techniques, systems, and practices to fulfil our goal of extracting optimal value from our minerals for southern Africa and its people? Undoubtedly organizations such as the Council for Scientific and Industrial Research (CSIR), Mintek, and statutory bodies such as the Safety in Mines Research Advisory Committee (SIMRAC) in South Africa are contributing greatly to advancing knowledge in order to better utilize our geological treasure chest. However, looking at the research landscape, we see that many institutions have closed down in the past couple of decades, with the result that nowadays there are fewer funds available for mineral related research.

Further abroad, in Australia, a leading mining country, government is investing large amounts to develop and support the mining industry. Like the CSIR, the Commonwealth Scientific and Industrial Research Organization (CSIRO) is heavily involved in mining research, and many research programmes are driven by government organizations. It is, however, most interesting to observe how Australian academia, government, and industry have built a partnership that enhances research funding for collaborative projects, the output of such work being co-owned by all stakeholders. In May 1990 the concept of Cooperative Research Centres (CRCs) was conceived, with the mining CRC currently being one of forty two such initiatives. CRCMining Australia was launched in July 2003, with A\$27 million in government funding and an additional A\$100 million from industry and university partners over a seven year period. In 2009 the programme was extended by another five years with an additional A\$12 million in funding. CRCMining incorporates a vibrant postgraduate and undergraduate education programme that involves campuses throughout Australia as well as in the USA. Avenues have also been established to enable small to medium enterprises working in the mining technology sector to participate in research or the commercialization of the technology at hand.

The development of new technology is not the only benefit arising from this partnership. It has also created a much enlarged group of qualified and experienced people that can generate and manage new mining projects, as well as enterprises in the mining supply and downstream beneficiation industries, thus increasing the capacity of the participating countries to realise an ever greater and more efficient mining and beneficiation sector.

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Is this too ambitious a goal for southern Africa? With as many as ten campuses offering mineral education in the region, intensive mineral exploration activity by the private sector, and a well established mining industry, it is not inconceivable that a similar research model can be established locally for the benefit of Africa as a whole. With the SAIMM having branches in several countries in southern Africa, our organization could play a major role in brokering such an initiative.

For the southern African economies to obtain greater and more sustainable benefits from their mining activities, the region needs to start creating new solutions for exploiting and beneficiating its mineral endowment. It would be easy to copy the recipes of others whose creativity has been rewarded with success. However, if a unique approach tailored to our region can be developed successfully, the result will be long term sustainable economic growth!