

# Can South Africa move into the next phase of economic development?

by Prof Tinus Pretorius

The global competitiveness of a nation is always an important indicator for economic policy-makers in determining the way forward for sustainable economic growth. Competitiveness tells one much about the innovativeness and efficiency of products and processes, level of skilled labour, efficiency of infrastructure (including education and training institutions), and so forth, of a nation.

The World Economic Forum identified three major phases any country has to go through in the continuous development of an economy. In the first, factor-driven phase, a country has to develop a base of available labour and natural resources. This is followed by a second phase where the labour and natural resources are developed for utilisation in an efficiency-driven product and production environment. Important factors in the second phase are, for example, higher education and training and the efficient use of appropriate technologies. The third phase of development is an innovation-driven stage where competitiveness is built on the successful global commercialisation of new technologies and new products and services. It is not surprising that the continuous measurement of the competitiveness of nations attracts attention from policy-makers around the globe. The World Economic Forum rates South Africa in the second phase of economic development, and we are thus in

the process of developing efficient products and process environments. The question is how well are we doing in mastering this second phase?

The 2009 edition of the *World Competitiveness Yearbook*, published by the Institute for Management Development (IMD) World Competitiveness Centre in Switzerland, ranked South Africa in 48<sup>th</sup> position out of 57 countries on competitiveness, which is not that good. We were ranked in position 53 in 2008, coming from position 37 five years ago (thus a very negative trend). A very disturbing fact is that South Africa is ranked in position 54 out of the 57 countries for infrastructure efficiency. Over the last five years, our ranking for infrastructure varied between positions 49 and 55. Infrastructure includes basic infrastructure (such as water resources and energy infrastructure), technology infrastructure (such as mobile telephone costs and Internet bandwidth speed), scientific infrastructure (such as



total expenditure on research and development (R&D) and physical science in schools), health and environment infrastructure (such as healthy life expectancy and quality of life) and education (such as the educational system and qualified engineers). Looking at the chosen examples of factors, we do not have to wonder why our ranking is so low. The total ranking of South Africa by the IMD is in line with the competitiveness ranking done by the World Economic Forum in their 2009 Africa Competitiveness Report. This report pointed to 'an inadequately educated workforce' as the most problematic factor for doing business with South Africa.

Much is said in the media about the inefficiency of the current school educational system in South Africa, especially in the fields of physical science and mathematics. This low efficiency directly impacts on the successful education of engineers and scientists at our universities. On top of this, South African universities face a serious shortage of skilled academics and researchers, as well as a shortage of research funding. Again we can ask the question: how well are we mastering the second phase of economic development? How long will it take to enter the third phase where our economic growth will be innovation-driven and our competitiveness position will increase substantially?

Perhaps the future is not that bleak. According to the South African

Innovation Survey, done by the Human Sciences Research Council, more than half of South African companies engage in innovative activities, developing and improving products and processes. This compares very well with the average level of innovativeness of countries in Europe. Although the type of innovation in South African companies points more to so-called incremental innovation, where improvements of existing technologies, products and processes are characteristic, it is still an indication that our scarce skilled labour resources are quite productive. South African companies seem to be successful in developing business strategies whereby the utilisation of the scarce skilled labour and limited R&D funding, in combination with the utilisation of efficient local and global knowledge networks, deliver the required innovations to sustain their businesses.

However, South Africa needs much more of these if we want to improve our competitive position on a global ranking scale and if we want to progress to the third phase of economic development. The findings of the regular global competitiveness surveys clearly indicate in which areas we should focus our improvement efforts. From a science and technology point of view, the message is very clear: get the infrastructure in terms of educational systems in place! This is the minimum requirement for innovation and the sustainable development of our economy, but also for our future quality of life. 🌐



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