Innovation, a catalyst for development

South Africa was a participant at the World Economic Forum (WEF), which took place in Davos Switzerland. WEF is uniquely placed to offer South Africa a chance to position itself and communicate its value proposition to international decision makers.

By Albert van Jaarsveld 27 Jan 2015

Importantly, WEF presents the South African delegation with an opportunity to learn from other countries a from the many research reports WEF produces. One such report is the 2014-2015 Global Competitivene Report, which indicated that South Africa's ranking had dropped by three points from 53 to 56. The major contributors to the drop are four points declines in the following areas: market efficiency for goods and services (28 to 32); financial market development (3 to 7); technological readiness (62 to 66); Innovation (to 43).

A drop in innovation

While the four areas in which South Africa has dropped are important, from my vantage point the drop in innovation is particularly relevant. Far from being a parochial interest of researchers and innovators, innovation has to be a societal concern. From this century onwards, innovation capability will determine the relative wealth of nations and is the future gold for South Africa. In short, innovation is a catalyst for development! This point is, appropriately, acknowledge in the National Development Plan which states "*South Africa's prospects for improved competitiveness and economic growth rely, to a great degree, c science and technology... innovation derived from science and technology and knowledge creation is the primary driver of technological growth and driver of higher living standards*".

Even though South Africa experienced a drop in innovation, the report notes improvement in the quality of South Africa's research institutions. This is borne out by the 2013 National Advisory Council on Innovation' report on South African Science and Technology, which showed that the South Africa research system wa performing better than all of the other BRICS countries, and sometimes better than Japan, the United Kingdom and the United States in terms of a range of research effectiveness measures.

South Africa's drop in innovation is, according to the report, largely due to slides in: private sector spendin on R&D, University-Industry Collaboration in R&D and Patent Cooperation Treaty (PCT) patents applications. This means that there needs to be an assessment as to why the companies are not investing R&D despite existing tax incentive?

Secondly, greater collaboration between universities and industry needs to be encouraged. South African universities contain significant research talent that can be deployed to support the objectives of the private sector.

Lack of basic education

One, if not a major, stumbling block to our ability to unleash the power of innovation is our basic education. Innovation requires large numbers of intelligent and highly skilled tinkerers that can change the course of events, either through small backyard operations, or through focussed private sector investment. In recent cases of economic development all the countries that have achieved success have focused on improving

the quality and reach of their primary and secondary education.

Poor education at school level affects the number and quality of those who can gain tertiary qualifications and university acceptance, it also determines the level of job complexity that can be handled by someone with a matric from South Africa vs someone with an equivalent education level from another country. Answers to our basic education challenges lie not in more money but in a societal commitment. Learners must commit themselves to doing what it takes to master the material. Teachers must commit to showing u at school and in using each minute allocated to teaching the material and ensuring that the learners master Government must commit to providing the necessary resources on time and the facilities necessary for th provision of education. As a society we must commit to giving each learner the best possible opportunities for success.

In addition, the country needs to develop high-end skills necessary to sustain a future knowledge economy This not only means steering students towards Science, Technology, Engineering and Mathematics subje from school to postgraduate levels, but also supporting those who want to pursue PhDs which are critical f high-end research capabilities as well as for training a new generations of researchers.

This year's WEF will provide South Africa with an opportunity to learn from the successes of other countrie investigate ways in which these successes can be customised and implemented locally, and to start a national commitment towards improving our innovation landscape in support of the National Development Plan.

ABOUT ALBERT VAN JAARSVELD

Dr Albert van Jaarsveld is the Chief Executive Officer of the National Research Foundation.
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