

**Keynote address by the Deputy Minister of Science and Technology, Derek Hanekom,
at the fifth anniversary of the Institute of Economic Research on Innovation (IERI),
Tshwane University of Technology, Pretoria**

6 May 2010

Dr Errol Tyobeka, Vice Chancellor

Distinguished guests

Ladies and gentlemen

Let me start by congratulating the Institute for Economic Research on Innovation on its fifth anniversary, an important milestone if one considers that, in business terms, passing the three and a half year mark mean that you have made it beyond start-up. This is no mean feat.

I'm particularly pleased to be celebrating with you today because I was here when IERI opened five years ago. Then, as now, we needed more entrepreneurs, more innovators and more inventors in South Africa and the research your institute is doing is helping to show us the way.

Our higher education system is still undergoing the challenging process of social and institutional transformation. We are seeking to redefine the role of universities of technology in South Africa, to make them more responsive to industry, more aware of the importance of improving their research profiles, more closely linked to regional economies. I believe that IERI has a crucial role to play in this regard.

Let me tell you something you already know. South Africa's gross investment in research and development increased from R16 billion in 2006 to R18 billion in 2007. However, research and development investment as a proportion of gross domestic product (GDP) has declined slightly from 0,95 percent in 2006 to 0,93 percent in 2007. This figure is an indication of future growth, so we are not happy about the decline.

When the relevant statistics are finalised, we may well find that we achieved our target of one percent of GDP in 2008, not because we invested more, we know industry and business cut back on research and development, but because our GDP declined as a result of the recession.

Many countries maintained a strong focus on promoting research and development investment. Even during the global economic crisis. Now, with early signs of a recovery in most sectors of the economy, South Africa needs to use the strengths and experience of its research institutions and universities, business and industry and international partnerships to position South Africa as one of the leaders of innovation among middle income countries.

Ministers responsible for research councils and universities know this and plan together with other departments and in government clusters. You will have seen in Business Day yesterday that the Cabinet's Economic Cluster has set itself a target of attracting R115 billion in foreign and local investment over the next three years and this target has been fixed in its performance agreement with the president. Much of this funding is going to come from companies that have a strong technical component.

It is important that we fully understand why we place such emphasis on the level of investment in research and development. We appreciate the difference between "consumptive" and "productive" spending by

government. Expenditure on research and development is productive spending; the results are better products, processes, systems and most importantly, more educated and solutions driven people.

Unfortunately like most African countries, in fact most countries (Canada have been exporting scientists to the United States of America for decades), we struggle to keep our scientists and scholars. Yet our region has natural attractions for scholars and scientists, our biodiversity, our traditional strengths in the geosciences and palaeo science, our clinical research facilities.

Are we doing enough to exploit our advantages? Is it enough to just provide funds and trust that we will achieve our objectives? Could we intervene more to steer the research base and accelerate the pace at which it grows and generates social and economic returns?

We have just set up the Technology Innovation Agency (TIA) to build on the achievements of the Innovation Fund. TIA will focus on funding innovation and facilitating innovation diffusion. This will be particularly important in the development of our bio-economy, renewable energy technologies and space industry.

We have learned that South Africa's investments can leverage very large international investments for mega science projects, which offer opportunities for developing infrastructure, growing the scientific research workforce, and providing jobs for those who build the facilities.

Mega science projects like the Square Kilometre Array (SKA), which Africa is making a bid to host, are the nursery for the next generation of physicists, mathematicians, computer scientists and other specialists. The SKA astronomy infrastructure will also make a massive contribution in terms of information and communication technology infrastructure, bringing enhanced high speed connectivity and computing capability to Africa.

South Africa's unique paleontological heritage and the recent fossil finds have also sparked international interest in our country and we hope this will enable us to leverage more foreign investment for science.

To return to IERI, Professor Muchie is attached to your institute as the holder of a research chair under the Department of Science and Technology's flagship South African Research Chairs initiative. Our target is to establish 210 university research chairs as soon as possible. At the moment the chairs are going mostly to traditional universities. It is institutes like yours that have to make the case for more chairs being awarded to universities of technology.

One of the Department of Science and Technology's key deliverables is to develop the innovation capacity of the science system, thus contributing to socio-economic development. IERI's research into systems of innovation, science and technology policy and local economic development is well aligned to this goal and we hope that it will continue to contribute to the national system of innovation for many years to come.

Thank you.

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