Minister Pandor's acceptance speech on the award of an honorary doctorate from the University of Lisbon

Department of Science and Technology

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University of Lisbon, Portugal

Relations between Portugal and South Africa have traditionally been close and pragmatic due to historical and cultural ties that go back to the seafarers Bartholomew Dias and Vasco da Gama in the fifteenth century but more specifically to the emigration of Portuguese into South Africa after the independence of Mozambique and Angola in 1975.

South Africa now has the third largest Portuguese population outside Portugal, approximately 600 000 in number. The Portuguese community contributes to promoting good relations between us, economic development and job creation in our country, it also plays a key role in strengthening our bilateral relations.

I was pleased and honoured to welcome the Portuguese Minister of Education and Science, Mr Nuno Crato, to our shores in August 2015. Minister Crato paid a brief but important working visit to South Africa, and we signed a long-awaited science and technology agreement. We are ready to start implementing science and technology projects. We are further encouraged by Portugal's turnaround strategy for the use of renewable energy to curb the effects of climate change.

Last year, we resumed our structured bilateral engagement and a successful senior officials meeting was held in South Africa.

We have five "grand challenges" – identified in South Africa's Ten Year Innovation Plan – adopted in 2008.

The grand challenges relate to, one, our investment in bio-sciences for public health and food security; two, better understanding and mitigating the impact of global change; three, achieving energy security; four, using science and technology to fight poverty and exclusion in our society in transition; five, optimally exploiting the potential of space science and technology, and astronomy.

With regard to the bio-sciences, South African scientists have for years been at the forefront of the fight against infectious diseases such as HIV-Aids, malaria and tuberculosis. Internationally acclaimed work underway includes the development of a malaria drug, an HIV-Aids vaccine and a microbicide gel to prevent HIV-Aids infection.

In the area of global change, South African scientists are making important contributions to global work, for example, by the International Panel on Climate Change. South Africa contributes to many international observation systems. We are also well placed to leverage the opportunities of the so-called green economy, with exciting plans for example in the field of waste research and innovation.

Energy security is high on the world’s political, economic and environmental, but also scientific agenda. Our hydrogen and fuel cell programme, a branch of which is run from here at UWC, is showing promise. It's an excellent example of the beneficiation of our raw materials through science and technology. We are expanding our work in the renewable energy field, especially solar, and are well placed to become an important player in the lucrative lithium-ion battery market – as a result of smart investments.

South African programmes to lift people out of poverty especially in remote rural areas through science- and technology-based interventions have attracted huge international interest from respected partners, such as the Bill and Melinda Gates Foundation.

South Africa is recognised as a space nation, but more pertinently as a nation successful investing in space science to improve the quality of life. This is, for example, achieved through making data and information products obtained from space platforms available to improve decision-making in managing disasters.

The jewel in our scientific crown lies in the field of radio astronomy. Economically, the SKA represents the largest science-based capital injection into Africa by far. The estimated initial investment is in the order of €1.5 billion or R15 billion. This investment will result in a number of immediate and long term socio-economic benefits accruing to the entire continent.

In addition to the immediate or short-term benefits, there are numerous long-term benefits accruable to the general community at large. Because of the scientific nature of the project, the biggest benefit will be the improvement of the skills base and access to top international research facilities and networks which will in turn boost our output of scientific publications.

The study of science and technology is not just beneficial to our students in and of itself – because to be a doctor or an engineer carries a high status. The study of science and technology is primarily about finding solutions to real problems that we face, particularly in the fields of nutrition and health care.

South Africa spends less than 1% of GDP on research and development. Yet South Africa leads research on the African continent. A concerted African effort is required to generate a greater investment in science and technology. In Africa many scientists train in our scientific and research academies, but are then lost to high-income countries.

We are encouraging new linkages and activities in the African diaspora.

South Africa places great value in forging mutually beneficial partnerships with other governments across the world.

Our collaboration with Portugal is among our most valued partnerships, and we would like to see it grow from strength to strength.

Innovation and investment in new knowledge have been strong foundations for economic growth and societal change in many emerging economies in Asia and Europe.

New technologies provide huge commercial and economic payoffs, and extend to global commerce and advances in energy, health, transportation, and many other sectors.

The current affluence of developed countries is largely the outcome of their investment in new knowledge and the resulting spread of information and communication technologies, both through the use of modern transportation technologies, and virtual movement through the Internet and other global communication networks.

It's imperative for Africa’s scientists to work in Africa, to support development on the continent, to play a role in smooth technology transfer, and to drive innovation.

Big-science astronomy infrastructure like the SKA presents a massive leap forward in terms of Africa’s integration into global science networks.