

## **Minister Pandor's speech at the ASSAf awards dinner 2017**

Department of Science and Technology

Wednesday, 11 October 2017

18:00

Leriba Lodge, 245 End Street, Clubview, Centurion, Pretoria

What do we need for a successful research and innovation system? The key requirements are a skilled workforce, a strong research base in a fertile environment for innovation, and a central place for science and technology (engineering) in business.

Skilled scientists, engineers and mathematicians are the key to learning-based activities. School pupils need to be able to study biology, chemistry, physics and mathematics, taught by specialist teachers, and progress to further and higher education courses funded at levels that sustain their quality.

Research and innovation are driving forces for future growth. Scientists need enhanced, protected and sustainable funding. They produce rapid benefits through developing innovative new products and services that improve our quality of life. The investment of private companies and charities in research and development are supported through various mechanisms, such as a favourable tax system, a strong research base and a culture of collaboration.

Science and engineering are central to government. All government departments need to commission research, assess evidence and use expert advice to advance and evaluate their policies.

It's only in the last decade that these three requirements have begun to spread through leading African countries.

South Africa is committed to the development of science and technology on the African continent.

Through the promotion of bilateral scientific cooperation – specifically in the form of joint research and development activities – South Africa makes significant contributions to the strengthening of relations with key partners both in high-income and in low-income countries.

In the DST we have more than 60 formal bilateral and multi-lateral relations.

Regional and multi-national institutions need to place African higher education on their programme agenda. UNESCO, the AU, SADC and other regional bodies need to do much more to support universities and to create conditions that allow scholarly activities to flourish.

Initiatives supported by the regional association of Vice Chancellors (SARUA) have led to regional collaboration among SADC universities and to well designed research development programmes.

South African universities are playing a positive role in ensuring young people from all over Africa enjoy access to graduate studies in non-traditional disciplines. For example, our nanotechnology centre at the CSIR hosts masters and doctoral students from several African countries. The SKA radio

telescope project also has students from all parts of the continent who are involved in a globally competitive and innovative project.

University R&D has the potential to transform Africa from a resource-exporting continent into one with a larger industrial base. Policy makers, industry and intellectuals are working together more closely to ensure that these early signs of higher education renewal in Africa are sustained, resourced and expanded.

We know that breakthrough or frontier science takes a long time and that those breakthroughs are immensely difficult to predict. It's all about getting the right balance between funding basic or frontier science and focusing on particular fields of science in which we know that we want to build new industries.

That is why we have invested so strongly in astronomy.

That is why we have invested so strongly in space science.

That is why we are going to invest more in renewable energy.

This is where science academies like ASSAf have a crucial role to play. Science is collaborative by nature and South African science has become more internationally collaborative in the last decade. If you look at the sheer number of international collaborations that each of our universities has, you will see a major increase over the last decade.

ASSAf plays a major role in representing South African science abroad. Since June 2005, ASSAf has been an intense partner

in the United States National Academies of Science (USNAS)-funded African Science Academies Development Initiative (ASADI). Through this significant programme, ASSAf established firm linkages with other African and overseas science academies, ensuring that ASSAf is positioned to play a global role.

ASSAf is widely regarded as the strongest and most productive national science academy on the African continent, a position it greatly values and wishes to uphold. It is an important and respected voice in the international and African community of science academies (it is one of the 'G8 + 5' science academies).

ASSAf is widely sought after as a partner for activities initiated by both other African science academies and by academies of the developed world who are seeking to extend their influence in Africa. It has embarked on a major initiative to strengthen and initiate science academies in the Southern African Development Community (SADC) region and as such has the potential to contribute significantly to Science and Technology (S&T) development in the SADC region.

A well-functioning national science academy, which is the aspiration of a country's most distinguished scientists, serves as one of the most powerful incentives for the enhancement of performance and innovation.

We continue to invest in established researchers, despite recent news from the NRF, to assure South Africa's international competitiveness in research and innovation. We want to attract

and retain the best minds, to undertake cutting edge research in such areas as astronomy (SALT and SKA) and paleosciences, while also helping to solve some of the country's problems such as the pursuit of clean energy or reducing the burden of disease (HIV or TB).

I have left the best for last.

It gives me great pleasure to congratulate 41 new ASSAf members - a steep increase from the 15 in 2011 - and the Gold Medal awardee in recognition of his outstanding contribution to South African science.

Tonight is the beginning of exciting times for you all.

I take it for granted that the new members will enhance the Academy's intellectual depth and breadth.

I thank you.