SPEECH BY MINISTER KUBAYI-NGUBANE DURING THE RESEARCH & INNOVATION DIALOGUE OF UNIVERSITIES SOUTH AFRICA AT THE EMPERORS PALACE ON 31 MAY 2018

Chairperson, Prof Cheryl de la Rey
CEO of USAF Prof Ahmed Bawa
Vice-Chancellors of Universities
Ambassador of Switzerland and Members of the diplomatic corps
Heads of Research councils
Ladies and Gentlemen
Good Morning

I would like to thank the leadership of USAf for inviting me to speak at this Dialogue on Research and Innovation.

Chairperson, I must say I appreciate the invitation not only to address you but to participate in the critical dialogue about the “National system of innovation and future directions”. Having just recently joined the department, I had to quickly get to grips with the business of the department to a greater degree. This is because we are reviewing most of our policy documents and our science, technology and innovation institutional landscape.

Reviews have shown that our National System of Innovation has made significant progress between 1996 and 2017. We have expanded our STI institutional landscape, a three-fold increase in publications, significant growth in the participation of black people and women in the research and development workforce and a rise in doctoral graduation. In essence, we have created a solid base for research which serves as a foundation for

new ideas and discoveries. In addition to that we have managed to maintain a balance between discovery-oriented research and applied research. For this reason our funding model has been supportive to the full spectrum of research. However, we do recognize that we have funding limitations.

The level of public funding for research in South Africa has to catch up with other economically comparable countries. Our current investment in research is just over 0.7% of the GDP and it is nowhere near our set target of 1.5 %. Our observation is that oftentimes when we speak about increasing investments on research and development, the expectation is that a major portion of this investment should come from public institutions. Recently, when I was Geneva I visited the Biotechnology Institute, a research institute focusing on the brain and machine interface. It was interesting to learn that the institute which brings together a multiplicity of European universities, receives 90% of its funding from the private sector. As you would be aware South Africa's private sector participation in funding research is still very low. We are putting policies in place to ensure that the private sector starts more investing in research and development in South Africa.

In the public sector we are also exploring ways in which we can pull together our research resources so that they can be allocated more efficiently. To this end, Cabinet approved a Budget Coordination Mechanism to ensure that public funding for STI can be coordinated across government departments. The DST in collaboration with the Government Technical Advisory Centre (GTAC) has completed a baseline study to inform the design of the Budget Coordination Mechanism and STI Investment Framework. The DPME has been

approached on integrating the STI Investment Framework into the annual Budget Mandate Paper. Discussions between the Ministers of S&T and of Finance on the implementation of the STI Investment Framework are being set up. This will ensure that our research budget is distributed more equitably across our research institutions. We are also well aware that the new funding framework will also require an optimally configured institutional landscape for more effective use of resources.

The institutional landscape of public research institutions (PRIs) has remained almost stagnant in terms of its number and variety since the end of apartheid, in strong contrast to significant growth in the scope and scale of South Africa's science enterprise. This discontinuity is unsustainable. Apart from TIA, SANSA and ASSAf, no other significant post-apartheid PRIs readily come to mind, whereas numerous statistics can be hauled out to demonstrate the massive growth in the national science and innovation system. The diversification of the institutional landscape for public research (and innovation) institutions would need to consider expanding not merely the number of institutions, but would also need to consider what type of PRI should be established, because in principle a PRI can adopt a wide range of institutional models. The work around our institutional review and future plans will be elaborated in the decadal plan which NACI is currently working on.

Despite the many successes that we have recorded in our NSI since that adopted of the 1996 White, our NSI still faces challenges. The NSI is still not fully inclusive and our innovation performance, as measured in patents and products has been relatively flat. To address the first challenge, Research resources should be allocated on the basis of excellence with a recognition that transformation is a national imperative that can only

make the NSI more inclusive in terms and gender. And contrary to the narrative that is sometimes peddled excellence and transformation are not mutually exclusive. In this regard we commend the transformative manner in which Research chairs an center of excellence have been implemented in your various institutions. We need to understand that by tapping all our resources and talent that we will enrich our NSI and therefore, address the second challenge. An increased pool of diversified researchers can only improve our innovation performance.

The DST has completed the Draft 2018 White Paper for presentation to the Cabinet Committee during June 2018. The main aims of the White Paper are to:

- Increase the benefit that SA derives from STI for economic growth and development
- Respond to the risks and opportunities flowing from rapid global technological advancement for example the Fourth Industrial Revolution and other global changes taking place such as shifting of global economic power from west to east

Hence, the new white paper has introduced a number of policy shifts which include:

- Increasing the focus on transformation and inclusivity
- Enhancing innovation culture in society and government
- Supporting grassroots innovation
- Endorsing open data, Open science and Open innovation approaches

- Supporting inter- and transdisciplinary approaches to knowledge development

The shifts proposed on the white paper are an outcome of broad consultation and I am quite happy that USAf and its members provided inputs which will inform the final draft of the white paper. The White Paper will be implemented through successive STI decadal plans that will spell out the priority STI programmes, the investment required, and the institutional roles and responsibilities of the various NSI partners. The Decadal Plan will be informed by review of current STI strategies and plans, as well as by foresight, the National Development plan and the Medium-Term Strategic Framework of government.

As we strive to engender the culture of innovation, understanding that innovation is the engine of growth in a modern economy we should remember the words of the American Astrophycist, Neill Tyson Degrasse who observed that “Once you have an innovation culture, even those who are not scientists or engineers - poets, actors, journalists - they, as communities, embrace the meaning of what it is to be scientifically literate. They embrace the concept of an innovation culture. They vote in ways that promote it. They don't fight science and they don't fight technology.”

As I have already mentioned I am very excited to engage in this dialogue with you here today. This is a start of conversation that we, as a department, will be embarking upon. We will bring together academia, civil society, labour and the private sector to engage further on our NSI. So, I am saying we will be calling on yourselves to join us in this endeavor in the coming months. I wish you well in your deliberations for the next two days.

I thank you.