

**ADDRESS BY THE MINISTER OF SCIENCE, TECHNOLOGY AND  
INNOVATION, PROF BLADE NZIMANDE ON THE OCCASION OF THE  
DEPARTMENT OF SCIENCE AND INNOVATION BUDGET VOTE  
DEBATE, 23 JULY 2024**

Honourable Chairperson;

Honourable Members;

Deputy Minister of Science, Technology, and Innovation, Honourable  
Nomalungelo Gina;

Members of the Portfolio Committee on Science, Technology and  
Innovation;

Acting Director-General of the Department of Science and Innovation, Mr  
Daan Du Toit;

Deputy Directors General;

Chairpersons and CEOs of our entities;

Officials of the Department of Science and Innovation;

My dear wife, Phumelele Nzimande and my special guests:

Ladies and Gentlemen:

I am honoured to be delivering the first Budget Vote of the Department of Science and Innovation, under the 7th administration, in the same year that we are celebrating 30 years of democracy.

In these 30 years, our country has made tremendous strides in science, technology, and innovation. We promulgated the White Paper on Science and Technology (1996), which emphasises the alignment of science, technology, and innovation (STI) policy to democratic goals.

We also created new entities with specialised mandates such as the Technology Innovation Agency (TIA), the South African National Space Agency (SANSA), the National Research Foundation (NRF) and the Academy of Science of South Africa (ASSAf), and repositioning of other entities such as the CSIR and the HSRC.

Resulting from these and other interventions by the democratic government, our country began to gradually raise the scale of its STI capabilities, in the period from 1996 to 2024, increasing our share of global research output to 0,98%.

In the third decade of democracy, Government focused on pivoting the NSI to pursue transformative change in our economy and society. These measures are detailed in the White Paper on STI of 2019 and our country's Decadal Plan (2022-2032).

Our Decadal Plan commits to increased STI investment to tackle three societal grand challenges of climate change and environment sustainability, the future of education, skills and work, and the future of society. Deputy Minister Gina will provide more detail on this.

I now wish to draw your attention to some of the groundbreaking achievements of the DSI during the 6th administration which have laid a strong foundation for deepening our work in the 7th Administration.

We have adopted a new Vaccine Manufacturing Strategy (VIMS) to promote domestic design, development and production of vaccines. Through VIMS, we are targeting vaccine development at the following high-priority afflictions:

- The first is Rift Valley Fever (RVF): an emerging transboundary, mosquito-borne, zoonotic viral disease causing high morbidity and mortality in both human and ruminant populations;
- The second is the Human Papillomavirus virus (HPV): a major contributor to cervical cancer in women in South Africa;
- The third is the Respiratory Syncytial virus (RSV): a major cause of respiratory illness and death in young infants, particularly in low- and middle-income countries; and

- The fourth is the Hepatitis B (Hep B) virus: This is endemic in SA with the highest rates in adults, and prevalence is 5 times higher in people who are co-infected with HIV.

Working with the World Health Organisation (WHO) we have also set up capacity for the local development of mRNA vaccines in response to future Corona virus threats.

The DSI Budget Vote directly responds to the Programme of Action outlined by the President in his speech during the Opening of Parliament.

The hydrogen economy, which was specifically referenced by the President is an example of that.

The DSI is leading major innovations to promote the transition to green hydrogen as an alternative source of energy to fuel our economy and to facilitate a net-zero energy future. To ensure whole-of-government coordination and unity of purpose, the President created an Inter-Ministerial Committee on Hydrogen led by the Deputy President.

In March, we did the second demonstration at Kelvin Power Station of a new technology, CoalCO<sub>2</sub>-X, to convert carbon emissions into sulphuric acid, a key ingredient in the production of phosphate fertilizers for the agricultural sector at Kelvin Power Station. This is an example on how we decarbonize our economy, whilst adding new value and jobs to our economy.

We are also establishing a national solar research facility to promote technology transfer and localisation in support of the Renewable Energy Masterplan and the Cannabis Industrialisation Masterplan.

Arising from this, it is pleasing to report that the CSIR graduated 23 small, medium, or micro-enterprises (SMMEs) with two commercial value-added products each.

In the area of agro-processing and farmer development, in the 2023/24 period, we provided a total of 1 480 black emerging farmers with technology development support.

DSI is also leading scientific and technological advancements in the field of astronomy, specifically, in support of the construction of the Square Kilometre Array (SKA) project.

When completed, the SKA will be the biggest-ever radio telescope array in the world, costing US\$2,2 billion and offering the world of astronomical sciences over 50 years transformational science to answer the fundamental questions on cosmic origins and the evolution of galaxies and black holes.

Building on the successes of the 6<sup>th</sup> administration, we remain committed to ensuring the sustainability of existing businesses in the agricultural,

manufacturing and mining sectors and supporting the development of new growth industries.

STI is also about transforming the socio-economic conditions of working class communities in townships and rural areas.

In 2023/24, our Agricultural Bioeconomy Innovation Partnership Programme initiative funded 14 multistakeholder programmes, including wheat breeding for climate resilience, cassava and cotton plant health, an Oil and Protein Seeds Development Trust project.

We have provided R53 million as an initial investment to support a women led SMME in the hydrogen economy.

You would recall that, in his address during the opening of Parliament last week, the President again explicitly referenced mineral beneficiation. In response to this, the Mandela Mining Precinct is intensifying efforts in minerals beneficiation for further diffusion in the industrial economy.

Over the past five years, this Precinct has manufactured and tested two drill prototypes through the Isidingo Drill Challenge. Producing a critical mass of young, black and women scientists and researchers is one of the critical pillars of our STI policy objectives.

In December 2023, the President announced the Presidential PhD Programme (PPP). This Programme intends to expose some of our brightest PhD students and postdoctoral fellows to the best knowledge and innovation frontiers, laboratories, industries, and skills-development platforms abroad and in Africa.

This Programme will be supported through seed funding of R1 billion pledged from the National Skills Fund, to be leveraged to R5 billion through private sector and international development partnerships.

As part of building a capable state, we have begun with the establishment of an Earth Observation Data Centre to provide decision support tools for government in Fire and flood Mapping, Food Security Monitoring, Human Settlements Mapping, Forest Mapping, Disaster Management, Climate change and Water Resources Management.

Together with the Department of Tourism, we are now also implementing an astro-tourism strategy. There is no doubt that the SKA will offer huge economic benefits to local businesses and communities.

Our Government is committed to finding creative ways of raising gross expenditure on research and development (GERD) equal to 1,5% of gross domestic product by 2030/31. This can only be achieved if both State and Private Sector raise levels of investments into RDI.

Cabinet also approved a STI budget coordination framework to improve cross-governmental budget allocations for STI and enabling cooperative planning across government.

For the 2024/25 financial year, the Department experienced a budget cut and was adjusted to R10 562 billion from R10 874 billion in 2023/24. We are also going to deepen our international partnerships within BRICS Plus, the G20 and UNESCO.

We also look forward to hosting the International Astronomical Union General Assembly, which will be held for the first time on the continent, in Cape Town from 6 to 15 August 2024.

It also pleases me to announce that DSI, together with other government departments, will host an African Hydrogen Economy Conference as a lead up to the G20 Summit.

In conclusion, in line with our strategic objective of using science diplomacy to foster human solidarity, social justice and in support of our country's foreign policy, I wish to formally announce a new programme to enable cooperation in STI between South Africa and Palestine.

The programme will also have a special focus support for safeguarding, rebuilding, and developing Palestine's research and innovation capacities and infrastructure and will entail the following:



- Joint research projects between South African and Palestinian researchers;
- Seed funding for developing South African – Palestinian knowledge networks;
- Hosting of Palestinian scholars and students in South Africa in exchange programmes; and
- Sharing South African policy experience regarding science policy and system development.

This new programme will be implemented by our entity the NRF and will be funded from the Department's existing budget for international cooperation

Our challenges notwithstanding, we present this Budget as our commitment to transform our National System of Innovation and using science, technology, and innovation to impact the lives of our people in a transformative way.

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