

Advancements during a pandemic not good enough to translate into increase investment into science and innovation

By Chantel King MP – DA Shadow Minister for Higher Education, Science & Technology

Chairperson, colleagues and members in the science and innovation sector,

Scientific and technological advances have long been recognized as engines of rising prosperity and economic growth.

Whilst just over two years have passed since the start of the Covid-19 pandemic, and we moved towards a new normal, we realized the restrictions enforced during the pandemic acted as a catalyst to drive change. The way research was carried out mutated rapidly as a result of pressure placed on scientists brought on by the virus and its associated restrictions.

In the meantime, 4IR technologies has offered the possibility of ordering food and medicine online and delivering it right at your doorstep. Mobile technology and artificial intelligence integrated data collection tools that can be used for contact tracing, symptoms monitoring, detection of outbreaks and risk assessment. Instead of face-to-face teaching and learning, universities and schools moved online using various technological platforms such as Ikamva and Blackboard. Researchers continue to use Webex to organize conferences and employers relied heavily on Zoom, Google Meet and Microsoft Teams for video conferencing. Many platforms for e-commerce, video conferencing, remote working and telemedicine will continue to flourish long after the pandemic comes to an end.

South African universities collaborated with international and national governments to produce personal protective equipment and ventilators – CPUT collaborated with the Western Cape government and the Department of Trade and Industry to develop and manufacture PPE for frontline workers and the general public. The University of Johannesburg's engineering team designed and developed portable 3D-printed mechanical ventilators with a customized base plate to simultaneously treat multiple patients.

Countries with science-technology-innovation oriented global competitiveness strategies have sustainable competitiveness and long term growth. A budget of R18.1 billion coupled with 0.62% of GDP expenditure on research and development is a drop in the ocean that will not ensure South Africa reaches its competitive edge when it comes to scientific and technological outputs.

This is substantiated with the R5.1 billion allocation to programme 4 – Research development and support, once adjusted for inflation, represents a real decrease of 2.2%.

The kleptocracy in our country has seen approximately R1 billion of taxpayers' money spent on the Zondo commission to investigate lootings in State capture, estimated to have cost the country over R49 billion. Let's pause on this for a minute. Our people are faced with steep food increases – 2 litre sunflower oil costing R100; 2.5kg sugar costing R55; 2.5kg flour costing R27; and a 2.5kg maize meal costing R28. To squeeze the purse even more petrol and electricity prices has increased exponentially, making the cost of living unaffordable for those living from pay check to pay check and to ordinary citizens living below the living wage mark.

Money lost to State capture and expenditure on the Zondo commission could have been directed into research and development for food security and hydrogen, measures to mitigate and adapt to climate

change and innovative infrastructure development to relief the tight squeezed purses of our fellow countrymen.

So yes Mr President, science and technology is vital to bring about economic growth. This is achievable through foreign direct investment to promote and exchange scientific and technological knowledge and accelerate the national diffusion of imported technologies.

South Africa's brotherhood with countries in BRICS have excluded Taiwan and Israel who have shown their commitment to share their technological advancements in healthcare, tech start-ups and water and food security – all to the benefit of citizens and knowledge generation. This stance has once again shown that what's good for the citizens of our country is not necessarily good for the ANC.

All systems are in place at the DSI and its entities, it just needs a reprioritized view and stance to ensure all economic activities are science and innovation driven. How can this be done?

The national advisory council on innovation should play a pivotal role in its advice to the presidency to ensure that all government departments have synchronized priorities and measures in place to realise economic reconstruction and recovery to offset the ticking time bomb of unemployment.

Minister, there is a genuine fear that these cuts will damage the system irrevocably and that one of the most precious parts of our society will deteriorate beyond repair. This can be mitigated with investment into post graduate funding to ensure we have capable scientists making meaningful contributions. However, Minister, racialized policies and recruitment is pushing our much needed talent out of South Africa. Minister, you don't have to take my word for it, just ask Elon Musk.