



**THE MINISTER OF HIGHER EDUCATION, SCIENCE AND INNOVATION, DR BLADE NZIMANDE ADDRESS ON THE OCCASION OF THE DEPARTMENT OF SCIENCE AND INNOVATION HANDING OVER OF THE SCIENCE AND INNOVATION LEARNING TOOLS AT THE JABULA COMBINED SCHOOL HALL AT LIDGETTON WEST – PIETERMARITZBURG**

Programme Director: Prof A Msomi;

Executive Mayor UMngeni Municipality, Cllr Sizwe Sokhela;

uMgungundlovu Municipality Chief Whip, Cllr Dan Ndlela;

MUT Executive Director in the office of the Vice Chancellor, Mr G Govender;

Department of Science and Innovation HCSP Chief Director, Dr Sibusiso Manzini;

KZN Department of Basic Education uMgungundlovu District Director, Mr Mabinza;

The Principals of all the beneficiary schools, Ms Phungula, Ms Ngubane, Ms Khanyile and Mr Shange;

Educators and learners;

Distinguished guests;

Members of the media;

Ladies and gentlemen

## Introduction

It gives me great pleasure to be here today as we officially hand over the the Science and Innovation learning tools to the four identified schools of Crystal Springs Primary School, Jabula Combined School, Asithuthuke Combined School and Ingelosi Primary School.

Congratulations to you all.

Ngithemba ukuthi niyoyiqcina esimeni esihle le ngqalasizinda esiyethula kini namuhla.

As you might be aware, you were identified in 2019 as part of our celebration of Nelson Mandela day as the Post School Education and Training sector.

It is an open secret that Nelson Mandela was fond of young people and the role of education in their development. Madiba never minced his word when speaking about the importance of education, particularly for a black child.

He always said that no country can really develop unless its citizens are educated.

Let me quote one of his well-known quote on the importance of education.

***“Education is the great engine of personal development. It is through education that the daughter of a peasant can become a doctor, that the son of a mine worker can become the head of the***

***mine, that a child of farm workers can become the president of a great nation. It is what we make out of what we have, not what we are given, that separates one person from another.”***

I agree and subscribe to Madiba’s convictions on the provision of education and its role in the society.

This is the reason that both my Departments of Higher Education and Training and Science and Innovation remain true to this statement, not only through talk, but by allocating both financial and human resources capacity to develop, well-educated and skilled citizens. Such individuals must be able to compete in a sustainable, diversified and knowledge intensive domestic and global economy, that contributes towards the attainment of our developmental goals.

Our new emergent landscape of higher education, science and innovation (HESI) also brought about by the President’s decision to place the Departments of Higher Education and Training (DHET) and that of the Department of Science and Innovation (DSI) under one Ministry, further opens up the opportunities for both these sectors to contribute towards skills development, science and innovation.

This new landscape has now brought under one umbrella five very crucial funding agencies in driving the new HESI landscape and our economic growth and development agenda:

- The National Research Foundation;
- The National Student Financial Aid Scheme;
- The Sector Education and Training Authorities;

- The Technology Innovation Agency; and
- The National Skills Fund.

These provide us with huge opportunities to fund our objectives and the HESI system in a synergised manner, thus significantly boosting our role and place in the 4IR space.

This is to ensure that collaboration such as these continue to benefit all the deserving students.

Ladies and gentlemen

## **Background**

In 2014, my Department of Science and Innovation approved a framework for supporting basic education.

To create an enabling environment for the implementation of this framework, we started a process to enter into collaboration agreements with individual provincial departments of Education.

The intention of these collaboration agreements is to enable the DSI to support mathematics, science and technology education (MSTE).

This will be done through the implementation of school-level interventions to build the science, technology, engineering and mathematics (STEM) human capital development pipeline.

The support that we provide to schools entails interventions that seek to:

- improve learners' attitude towards Mathematics and Science subjects; especially given the fact that currently there is a decline of interest in these subjects;
- create opportunities for learners to physically and mentally engage in science, technology and innovation. Research shows that for learners to realise the purpose of learning mathematics and science, they need to be exposed to problem-solving and other initiatives that stimulate curiosity in scientific investigation;
- familiarise learners with intellectual property management and the innovation value chain. Some of the science projects in which learners participate result in creative and innovative ideas, which, if carefully followed through, can be commercialised.

In order to help learners to protect such brilliant ideas and take them to next levels, they need to be familiarised with the instruments that government has put in place to protect them.

- develop a culture of science as a building block of a society that is knowledgeable about science, critically engaged and scientifically literate as between 23% and 25% of the country's population resides within this system; and
- enhance the learning and teaching environment through the use of technologies.

This intervention will ensure that we increase the number of learners passing Grade 12 in mathematics and science.

This intervention will also ensure that as a department we contribute to the skills deficits that have been reported in the sectors of the economy that requires competence in mathematics and scientific skills.

The KwaZulu Natal (KZN) Department of Education is one of the seven provinces that have since signed a collaboration agreement with us.

We therefore aligned the intent of this agreement with the work Nelson Mandela projects that we are already rolling out.

I must also indicate that the support that the DSI provides to Maths, Science and Technology (MST) education largely depends on the products and capabilities that emerge from our DSI-funded initiatives in science councils and universities.

With regard to supporting the selected schools in KZN, we therefore partnered with the Mangosuthu University of Technology (MUT).

We are supporting a total of four schools in the KZN, which are Crystal Springs Primary School, Jabula Combined School, Asithuthuke Combined School and Ingelosi Primary School.

In this regard, the delivery of the project is three pronged:

1. Infrastructure development,
2. Capacitation; and

### 3. Exposure of the learners to the world of technology.

Through this project we will therefore equip these schools with proper infrastructure and equipment which will allow for a successful and potentially sustainable implementation of STEMI Projects.

We will also capacitate these schools in computer-based technology and expose the identified learners to the world of technology through various platforms and opportunities presented during their training.

This approach is based on a successful computer science project which was piloted by the MUT Institute for Rural Development and Community Engagement (IRDCE) in 2019, which yielded enormously positive results in the learners' academic performance.

We have already started rolling-out Computer Science education programmes such as Computer Programming (coding and robotics) in the schools for a minimum period of 12 months. Already classes are in session, with at least one lesson per week per school.

This is especially important in a world that is embracing digital economy in the light of the Fourth Industrial Revolution (4iR).

Coupled with this is our provision of inquiry-based learning that incorporates field visits and participation in best practice sharing engagements through conferences.

I am pleased to announce that we have set aside a total amount of R2.5 million to support this work for all these four schools.

This amount will be managed through the Mangosuthu University of Technology (MUT) as the project manager of this programme in KZN.

Let me also take this opportunity to thank the Ososayensi Education Advancement who agreed to work with us in the facilitation of the project.

Ososayensi Education Advancement is a not-for-profit Company (NPC) that runs an initiative to support the UN 2030 Sustainable Development Goals (SDGs).

Their objective is to expose young learners aged 6-18 to Science, Technology and Innovation to cultivate an interest in STEMI subjects in order to choose careers in the field and pursue them successfully.

What is more pleasing with this programme is that it will ensure that the Post School Education and Training sector, gets a number of students who would have received their basic education in STEMI subjects.

This will make it more-easier for them to be registered in courses that requires mathematics, science and innovation.

### **Reviewed plan in response to the nationwide lockdown**

Ladies and gentlemen

As a result of COVID -19, the implementing team had to review the initial plan and time lines to align with the COVID-19 regulations and alert levels.

The amended plan provided additional benefits to the schools, which included:

- (1) the creation of websites and hosting of the website for a year;
- (2) the donation of two computers per school for admin purposes relating to website content management as well as educational content;
- (3) the training and coaching of at least two (2) staff members in each school to maintain the website content;
- (4) the facilitation of the process of zero-rating the school website; and
- (5) Train the educators in basic computer literacy and equip them to create learning content (of any subject) to be shared with the learners on their school websites.

With this initiative learners were able to access the school learning materials for all subjects and catch up on lost time.

What is also critical is that learners were also able to access zero-rated universities and TVET colleges websites, to allow for free access to information.

In this regard, I can say that COVID-19 made us to be aware of the importance and urgency of using technology in our schools and homes.

## **In conclusion**

I am happy with the report that all the schools have improved their security for safe storage of equipment.

All computer equipment, projector screens and tablets have been purchased and delivered to MUT. All robotics kits have also been purchased and delivered as well to MUT.

The process of completing the networking equipment specifications took longer than expected, but with the support of MUT's IT & Networks department, the specifications have been finalised and in the final procurement stages.

As I am handing this equipment to you today, I am calling upon the school management and the School Governing Bodies (SGBs) to ensure that they take care of this equipment and always ensure its safety.

Let me assure you that I will remain close to monitor the impact of this project on the performance by all the learners through my Department of Science and Innovation.

Congratulations to all the receiving schools and participating learners!

Ngiyabonga

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