



ADDRESS BY THE MINISTER OF HIGHER EDUCATION, SCIENCE AND INNOVATION, DR BLADE NZIMANDE, ON THE OCCASION OF THE HYBRID 5th NATIONAL SKILLS CONFERENCE

28 September 2021

Programme Director

Deputy Minister of Higher Education, Science and Innovation, Mr Buti Manamela;

Chairperson and Members of the Parliamentary Portfolio Committee on Higher Education, Science and Innovation;

Chairperson and Members of the National Skills Authority (NSA);

Acting Director-General of the Department of Higher Education and Training;

The Departments of Higher Education and Training, Science and Innovation, Ministry Staff and other Government Departments;

Leaders from the Provinces and the Provincial Skills Development Forums;

Leaders and representatives of organised Business;

Leaders of organised Labour;

Leaders of the community constituency;

Providers of Education and Training, both public and private;

Quality Councils and Research organisations;

Other key role players in Education and Training; and

Ladies & gentlemen.

Good Morning

I wish to start by thanking the Chairperson of the National Skills Authority (NSA), Dr Charles Nwaila and the entire Authority for having organised this important conference with all our skills development and post school education and training stakeholders.

I also thank the Acting Director-General of the Department of Higher Education and Training (DHET), Dr Phil Mjwara for his role in the important preparatory work of the National Skills Authority (NSA) and the NSA teams which tirelessly prepared for this successful Conference.

This conference is taking place under the theme “**Promoting innovation and digitalization in the skills development ecosystem and contributing towards a responsive future of inclusive growth**”. This is absolutely relevant and in line with the technological realities globally and in our own country.

Skills development conference within the context of our Human Resources strategy

We are holding this Skills Development conference soon after the holding of our Human Resources Development Summit, which emerged with very

concrete proposals and suggestions on, amongst others, the kind of social compact we need to advance our Human Resources Development goals.

I am a bit concerned that we are holding this conference in a manner that is parallel and not properly aligned to the recent HRD Summit. To be concrete, the HRD Summit identified the need to better align the provincial Human Resources development strategies with the national HRD strategic goals.

The NSA also operates in interaction with provincial skills development forums.

A key question that you will need to answer is what is the relationship between the HRD Council and its provincial counterparts AND the Skills Development Conference/NSA and the provincial skills development forums.

Surely it can't be that the HRD Council has its Summit and the NSA convenes its own national conference as separate processes that do not talk to each other.

South Africa's Human Resource Development Strategy towards 2030 speaks of increasing productivity and promoting the human resource development needs to transform our country. How do our skills development initiatives being discussed at this conference contribute to and advance our HRD Strategy towards 2030?

I am however very pleased to note that you will discuss the issue of the relationship between provincial skills development forums and the district development model (DDM).

The implications of the DDM are that we should work towards producing a skills profile and skills plan for each district in our country.

By now, we all should know that South Africa requires skills to enable citizens to participate in the new world of work and to support the economic recovery efforts to make the economy more dynamic in tackling inequality, unemployment and poverty in the 21st century, and also in the wake of the negative impact of Covid 19.

The NDP sets us the following human resource development tasks:

- We must reduce income inequality and discrimination substantially by 2030;
- The number of SMMEs and the variety of businesses must be expanded;
- Skilled artisans should be produced in increased numbers especially in scarce skills domains.

All these targets require us to establish partnerships between industry and colleges, between innovation hubs and our universities, colleges and

community colleges and strategic use of research to design these partnerships.

Now more than ever we need conversations about how to promote innovation and digitisation towards a responsive future of inclusive growth for the betterment of our society.

The new HESI landscape and opportunities for promoting innovation in skills development

It would also be important for this conference to reflect upon the opportunities created by the new emergent landscape of higher education, science and innovation (HESI) 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.

For instance, I have been recently struck by how this new government 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 landscape will go a long way to help us best rationalise and allocate our resources better in the realisation of our innovative and digitalised skills development trajectory.

Lessons from Covid 19 and curriculum transformation

Through our national system of innovation which is led by the Department of Science and Innovation and its entities, guided by the 2019 White Paper on STI and the STI Decadal Plan, we begun adapting approaches and established cross-cutting innovation instruments and solution-oriented capabilities to deal with the realities of Covid 19.

This capacity has been acutely demonstrated through our scientific response to the COVID-19 pandemic.

As a country, we have learnt extensively about this pandemic and have made strong inroads into turning the tide against the virus.

We have allocated substantial financial resources to fund COVID-19 projects, including epidemiological studies and genomic surveillance that placed South African scientists on the international map, working with other countries to find solutions to the pandemic.

Through the KwaZulu-Natal Research Innovation and Sequencing Platform (KRISP) we also identified the coronavirus beta variant.

The KRISP team's genome sequencing demonstrated South Africa's leadership in this area on a world stage, and contributed to the understanding of emerging variants and their effect on the efficacy of COVID-19 vaccines.

This work informed government decision-making on which vaccines to procure, with genomic surveillance becoming a critical component of a targeted response to the epidemic throughout the country.

KRISP's research has been used to inform the planning and responses of other countries too.

I must say that today we know much more about the virus and this has allowed us to respond more efficiently and effectively.

The key question that arise out of this is what lessons can we learn from this on the potential we have for innovation and digitalisation in the skills development system?

Our response to promoting innovation and digitalization in the skills development ecosystem, requires the restructuring of our institutions of higher learning to provide new programmes in emerging interdisciplinary fields to more efficiently provide trained workers to help advance and

accelerate trans-boundary fields such as biotechnology, nanotechnology materials and Artificial Intelligence (AI).

Substantial and constant changes to the curricula of our institutions remain critical in order to allow for students to develop capacities to deal with emergent and unknown challenges of the future brought by the 4IR.

Clearly, Science, Technology, Engineering and Mathematical (STEM) subjects have a crucial role to play in equipping students in rapidly developing fields such as genomics, data science, Artificial Intelligence (AI), robotics and nanomaterials, which are all 4IR concepts.

An evolving 4IR STEM curriculum would have to reconsider the rigid disciplinary boundary framing of traditional subjects such as biology, chemistry and physics— given the integrative role of digital technologies in relation to each and their intersections in the real world.

It is also inevitable that any effective 4IR strategy should foreground the human condition: the ways in which new technologies and shifting economic power impact on people with regards to equality, human freedom and social solidarity.

It is therefore crucial that the Humanities and Social Sciences must be reinvented and strengthened to play a crucial role in shaping the discourses of science and technology to speak to the cultural, social, political and economic issues.

Both the Human Research Council (HSRC) and the National Institute of Humanities and Social Science (NIHSS) must play a leading role in this regard.

How do we combat social alienation in a world dominated by machines? How do we ensure algorithms do not engender new forms of racism and class prejudice? How do we harness the powers of the new technologies to overcome the historical questions of oppression and exploitation?

The innovation and digitalization puts a premium on adaptability and in self-directed learning and thinking. Therefore lifelong learning will be key as the shelf life of any skills development ecosystem has limitations in the present-day environment.

Placing innovation and digitalisation at the centre of the Economic Reconstruction and Recovery Programme (ERRP)

This Government, together with the social partners at NEDLAC, has adopted the ERRP as our emergency economic programme to deal with the impact of Covid 19 on our economy. However the major premise of the ERRP is that we simply do not want to return our country to the economic crisis before Covid 19, but to use this opportunity to build a new and more inclusive economy.

The ERRP has the following objectives:

1. Create jobs, primarily through aggressive infrastructure investment and mass employment programmes
2. Reindustrialise the economy focusing on growing small businesses
3. Accelerate economic reforms to unlock investment and growth
4. Fight crime and corruption; and
5. Improve the capability of the state

What is important to be reflected upon at this Conference are the Skills and Innovation strategies that were presented to Cabinet at the beginning of the year as strategies supporting the ERRP.

The innovation strategy for instance prioritises new innovations to support existing industries like agriculture and mining, and also focus on creating new industries that are for instance linked to greening the economy.

The Skills strategy emphasises the absolutely necessary imperative of strengthening and promoting work-based learning. In addition, the skills strategy places a premium on skills planning and am glad to see that this conference will discuss the issue of skills planning.

Both the skills and innovation strategies places a premium on building strong industry partnerships between our education and training institutions and the business sector. To me this is one of the most important issues that this Conference must deal with and emerge with concrete suggestions and plans to strengthen this.

For example one of the biggest weaknesses in our TVET system is the lack of partnership between our colleges and industry.

It is my intention and plan as the Minister to build and refashion our technical and vocational education system to be apprenticeship based.

Ideally every TVET college student should be apprenticed in industry or in a workplace, rather than the current system of a theoretically biased TVET system.

I expect this conference to come out with very concrete proposals in this regard. Even the very goal of promoting innovation and digitally based skills won't be achieved unless there is this close partnership with industry.

The ERRP also places youth employment very high on its agenda. Innovation and digitisation is precisely the platform upon which to skill our youth to acquire skills for the future.

We must also encourage the spirit of entrepreneurship amongst the youth so they also create new enterprises. We have also, through the Department of Higher Education and Training, introduced an entrepreneurship programmes in our university system.

The National Advisory Council on Innovation (NACI) - an agency of the Department of Science and innovation - has, on my request, just finished a study on how to promote innovation in our TVET colleges. This study is also

important in foreground innovation and entrepreneurship in our TVET college system.

We must also encourage labour, unionised and un-unionised to ensure that they participate in lifelong learning activities to safeguard their future development, employability and sustainable economic growth.

In conclusion, let me emphasise that the education, training and our science, technology and innovation (STI) systems should cater for different needs and produce highly skilled individuals.

I would also like this conference to also engage with two studies that have been undertaken by my two departments in the last couple of years, that have now been completed.

The first one is the work, conclusions and recommendations of the Ministerial Task Team on the impact of the 4IR on post school education and training.

The second study is that of the review of the entire Higher Education, Science and Technology Institutional Landscape (HESTIL).

The purpose of the latter investigation was to, amongst others, assess the efficacy and adequacy of our science institutions in responding to our national development priorities as well as to higher education and our national system of innovation.

It is also against this background that our Higher Education Science and Innovation landscape (HESI) must not just effectively respond to the 4IR developments as recipients, but must also be active innovators in themselves.

In other words, we must become centres of innovation by building upon our training methodologies the integration of theory and work-based learning.

I wish you well in your deliberations over the next two days and want to encourage you to deliberate on realistic possibilities that are concrete and implementable.

Thank you

Word Count: 2270