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IN his budget vote speech last month, Minister Blade Nzimande said: "For the financial year 2016/17, the Department has identified priority occupations, including civil engineers, construction project managers, quantity surveyors, and 13 trades, including bricklayers, millwrights, boilermakers, and riggers.

Increasing the numbers with these skills is important in realising the goals of the National Development Plan, growing and transforming the economy, creating jobs, and attracting investment."

How was this list compiled?

The process began with the National Infrastructure Plan (NIP) and its associated eighteen Strategic Integrated Projects (SIPs), which elaborate on the prescripts of chapter four of the National Development Plan and is the first major jobs driver of the New Growth Path. (See sidebar, "The 18 Strategic Integrated Projects".)

The President mandated Minister Nzimande to ensure that the skills required for the building and maintaining of these projects were available.

At a formal level he established a Special Projects Unit to find a systemic solution to the challenge.

The unit developed an electronic tool to capture the skills that are needed and are hard to find for each project.

The information was gathered from project managers intimately involved in the projects themselves. Using various statistical tools, it then derived a list of 90-odd scarce skills for all the SIPs that are detailed in its "Skills for and through SIPs" report (see <https://sip-skills.onlinecf.net>).

A subset of these skills was selected for priority attention in 2016/17, as signalled in the budget vote speech.

But once the skills were identified, it transpired that they were also needed for Phakisa and War on Leaks and other projects.

As a result, it is now appreciated that the priority occupations serve a much wider range of strategic growth strategies. The full list of 2016/7 priority occupations are:

What is the Department of Higher Education and Training (DHET) doing about the list?

Minister Nzimande said during his budget vote speech that: "The Department is identifying universities and TVET colleges to upscale training offerings in these areas." This is a multi-pronged strategy:

- For the identified professions all the universities that provide the foundational programmes were asked to work with the relevant professional bodies and employers (in what was called "occupational teams") to determine what interventions would be required to increase the number of successful graduates in the targeted areas. This exercise is now complete and funding is now being sought from the SETAs and other sources;
- For the identified trades, a large-scale project is being undertaken to identify specific TVET colleges to deliver the theory and practical component of one or more of the priority trades (thereby becoming "Centres of Specialisation"). They will partner with employers, both public and private, for the

workplace learning component. The National Skills Fund (NSF) has committed funds for the implementation of the agreed interventions required to improve their performance in the targeted trade areas; and

- For other occupations, such as service workers (eg, storekeepers), plant and machine operators (eg, crane operators) and elementary workers (eg, scaffolder) work is underway with employer groups such as the Contractors Plant Hire Association. The Construction Industry Development Board (CIBD) is working with construction employers on the elementary occupations.

This process has taken place at the same time as a range of practical projects was initiated.

These included the NSF-funded projects listed by the Minister, namely the new work-integrated learning facilities for engineers at the University of Johannesburg and the new renewable energy training facilities at the Cape Peninsula

University of Technology to train wind turbine technicians.

Many SETAs also initiated projects in support of the SIPs as did the SIP projects themselves. The Square Kilometre Array (SKA) project has been particularly pro-active in this regard.

The DHET cannot do this alone

Minister Nzimande also said: "Government cannot provide technical and vocational education alone.

Allow me to direct a few words to employers, both public and private.

Your involvement in ensuring a continuing pipeline of well-trained and skilled people across all sectors is critical to our economy.

It is arguably of even greater significance to the future of your businesses, whether you are manufacturing, repairing, retailing, or providing services.

We thank those who see post-school skills and vocational training as core to their businesses.

"And we appeal to those who are still hesitant to join in and contribute fully to upskilling."

This is a call that is supported by the national organisations of business – Business Unity South Africa (BUSA) and the Black Business Council (BBC).

They agreed to support the SIP Skills Campaign under the umbrella of the President's Business Working Group, which was initiated to enhance the relationship between business and government.

They also agreed to support a programme to address challenges faced when securing workplace learning opportunities in general and the promotion of entrepreneurship.

This is just the start. Once lessons have been learnt this time round, the methodology could well be expanded to address priority occupations needed in other areas in the years that follow.

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SKILLS

for growth and development



SPARKING SPECIALISATION: A large-scale project aims to identify specific TVET colleges to deliver the theory and practical component of one or more of the priority trades.

The 18 Strategic Integrated Projects

- SIP 1 – Unlocking the Northern Mineral Belt with Waterberg as the Catalyst
- SIP 2 – Durban- Free State–Gauteng Logistics and Industrial Corridor
- SIP 3 – South Eastern Node & Corridor Development
- SIP 4 – Unlocking the Economic Opportunities in North West Province
- SIP 5 – Saldanha-Northern Cape Development Corridor
- SIP 6 – Integrated Municipal Infrastructure Project
- SIP 7 – Integrated Urban Space and Public Transport Programme
- SIP 8 – Green Energy in Support of the South African Economy
- SIP 9 – Electricity Generation to support Socio-Economic Development
- SIP 10 – Electricity Transmission and Distribution for All
- SIP 11 – Agri-Logistics and Rural Infrastructure
- SIP 12 – Revitalisation of Public Hospitals and other Health Facilities
- SIP 13 – National School Build Programme
- SIP 14 – Higher Education Infrastructure
- SIP 15 – Expanding Access to Communication Technology
- SIP 16 – SKA and MeerKat
- SIP 17 – Regional Integration for African Cooperation and Development
- SIP 18 – Water and Sanitation Infrastructure Master Plan

PRIORITY OCCUPATIONS 2016/17

PROFESSIONS AND ASSOCIATE PROFESSIONALS

Civil engineer, civil engineer technologist, civil engineer technician, construction manager, construction project manager, quantity surveyor.

TRADES

Bricklayer, electrician, millwright, boilermaker, plumber, mechanic (including automotive mechanic), diesel mechanic, carpenter and joiner, welder, rigger, fitter and turner, mechanical fitter, pipe fitter.

ELEMENTARY AND NON-TRADE PRODUCTION WORKERS

Concrete, shutter hand, scaffolder erector, civil structure construction, constructor, civil road construction constructor, civil services construction constructor, sewer pipelayer, stormwater pipe layer, water pipe layer, sign erector.



A continuing pipeline of well-trained and skilled people across all sectors is critical to our economy and is arguably of even greater significance to the future of businesses, whether in manufacturing, repairing, retailing, or providing services.