

Trevor Manuel urges engineers to plan for change

South Africa's engineering community has an important role to play in the implementation of the change that is necessary to improve skills, upgrade infrastructure and enhance the nation's innovative capacity. During the annual Hendrik van der Bijl Memorial Lecture, Minister Trevor Manuel, Minister in the Presidency for National Planning and Chairperson of the National Planning Commission (NPC), identified some of the challenges that need to be addressed to eliminate poverty and reduce inequality by 2030.



→ Minister Manuel emphasises that the ownership of the implementation of change should be shared by government and the private sector.

The Hendrik van der Bijl Memorial Lecture is an annual event that is presented jointly by the University's Faculty of Engineering, Built Environment and Information Technology and the South African Academy of Engineering (SAAE). It is delivered by a prominent personality under the general theme of the role of engineering in society. This lecture is of particular significance to both the University of Pretoria and the SAAE as Dr Van der Bijl was the Chancellor of UP from 1934 to 1948 and he made a huge contribution to the industrial and scientific development of South Africa. The first Hendrik van der Bijl Memorial Lecture was delivered in 1963 by Dr MS Louw (who represented Sanlam), and ever since, these lectures have been delivered by eminent persons who have made their mark in South Africa.

The most recent lecture, which was presented on 1 August 2012, was attended by more than 100 academics, students, engineers and alumni of the Faculty of Engineering, Built Environment and Information Technology. Other distinguished guests included Prof Cheryl de la Rey,

Vice-Chancellor and Principal of UP, Bob Pullen, Chairperson of the SAAE, and Prof Roelf Sandenbergh, Dean of the Faculty of Engineering, Built Environment and Information Technology.

In the lecture of Minister Trevor Manuel, entitled *The role of the National Planning Commission as catalyst for the development of South Africa*, he elaborated on the NPC's responsibilities. These include developing a long-term vision and strategic plan for South Africa. The Commission also plays an advisory role in policy implementation.

The overarching goal of the National Development Plan, which was presented to President Jacob Zuma on 11 November 2011, is to eliminate poverty and reduce inequality by 2030. Some of the main challenges identified in the plan are poverty and inequality, division, resources and education, social protection and community safety. In the same way that Hendrik van der Bijl faced various challenges to effect development years ago, South Africa has to deal with a number of issues to facilitate development in all

spheres of society in order to achieve the abovementioned goals.

The two most critical issues that should be addressed in order to reach these goals are to increase employment and improve the quality of education. A capabilities approach is needed, which entails enabling people and giving them the capability to find employment and improve themselves through education. This can only be done by upgrading skills and infrastructure. Minister Manuel emphasised that these were necessities.

South Africa has enormous skills deficits, and the basis of upgrading skills is education. The five basic themes around which the improvement of education, and thus skills, will be built are the following:

- Lay a solid foundation for higher education, which means prioritising early childhood education.
- Build a properly qualified,

professional, competent and committed teaching, academic, research and public service core. Educators should update their skills and qualifications regularly.

- Build a strong and coherent set of institutions for delivering quality education, science and technology innovation, training and skills development. Schools should adhere to infrastructure standards.
- Expand the production of highly skilled professionals and enhance the nation's innovative capacity.
- Create an educational and national science system that serves the needs of society. A stronger emphasis should be placed on the teaching of literacy, mathematics and science, and increasing the numbers of African and female postgraduates.

Infrastructure promotes inclusive growth and is essential for development, which means that the basic systems (water, electricity and telecommunications) must be improved. More specific infrastructure

developments proposed in the National Development Plan and mentioned by Minister Manuel are the upgrading of informal settlements on suitable land, the extension of the rail network and coal lines, the development of new water schemes and a water conservation plan, the development of renewable energy and the responsible exploitation of natural gas for energy purposes, the decommissioning of coal power stations and the installation of fibre-optic networks.

In conclusion, Minister Manuel remarked that experimentation was fundamental to finding solutions. Every country and situation have unique circumstances and textbook solutions cannot be simply applied to all similar situations. It is imperative that everyone is involved in the development of the country, and that public-private partnerships drive the process. The involvement of engineers would be to plan for effecting change. ➔

More on Hendrik van der Bijl

Hendrik van der Bijl was born in Pretoria in 1887 and studied at the Victoria College (which would become the University of Stellenbosch). He continued his studies overseas, specialising in electronics. In 1920, he joined the South African government as Technical Advisor, and laid the foundations for the development of South African industry. He established and became the Chairperson of Eskom, Iscor and the Industrial Development Corporation.

The foundations for the industrial development of South Africa were laid by Hendrik van der Bijl, the scientist, industrial leader, engineer and entrepreneur. His achievements have been recognised locally and internationally.



➔ At the annual Hendrik van der Bijl Memorial Lecture were (from left): Prof Roelf Sandenbergh (Dean: Faculty of Engineering, Built Environment and Information Technology), Prof Cheryl de la Rey (Vice-Chancellor and Principal), Bob Pullen (Chairperson: South African Academy of Engineering) and Minister Trevor Manuel.