



science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



HSRC  
Human Sciences  
Research Council

CeSTII  
Centre for Science, Technology  
& Innovation Indicators

## INVITATION AND PROGRAMME HSRC Policy Dialogue

# R&D and innovation in South African SOEs: Trends, case studies, indicators



**Tuesday 11 October 2022 | 10h00 – 12h30 (SAST)**

This is a hybrid event: Please RSVP by 10 October 2022.

### IN-PERSON PARTICIPATION – RSVP BY 10 OCTOBER 2022

Please RSVP to: [mmpya@hsrc.ac.za](mailto:mmpya@hsrc.ac.za)  
Virtual Conference Centre (VCC)  
Human Sciences Research Council  
134 Pretorius Street  
Pretoria

### VIRTUAL PARTICIPATION – RSVP BY 10 OCTOBER 2022

Please RSVP at: [https://zoom.us/webinar/register/WN\\_mPjoD\\_wUQvS97-loHlk7fQ](https://zoom.us/webinar/register/WN_mPjoD_wUQvS97-loHlk7fQ)

## WHY THIS DIALOGUE, NOW

State-owned enterprises (SOEs) are vital national assets with a mandate to contribute to sustainable economic growth and South Africa's broad developmental goals. In March 2019, the Department of Science and Innovation (DSI) published the White Paper on Science, Technology and Innovation. This recognised the need to revitalise SOEs to play a meaningful role in South Africa's science, technology, innovation and economic development. As key institutions for human capital development and international and national knowledge sharing, the White Paper also aimed to position SOEs as innovation-driven for the knowledge economy. But to what extent and how are South African state-owned enterprises geared to perform R&D and innovation? How can progress towards the revitalised role be measured? What new indicators can contribute to public management and governance of SOE R&D and innovation?

The roundtable interrogates evidence from in-depth case study research with three SOEs—SANEDI, ATNS and SAFCOL—as well as analysis of the academic literature, conducted by the Human Sciences Research Council's Centre for Science Technology and Innovation Indicators (CeSTII). Five dimensions key to effective R&D and innovation 'gearing' by these SOEs were identified, including: human capabilities; technological capabilities; networks; research infrastructure; and governance. Based on this research, indicators of R&D and innovation are proposed, to monitor change over time. These can guide national policy discussion on the future contribution of SOEs in South Africa.

This HSRC Policy Dialogue event will bring together researchers, SOE executives, senior officials, and other interested role-players for reflective discussion on the key indicators of R&D and innovation performance and capabilities in SOEs.

### EVENT CONTACTS

Gerard Ralphs [gralphs@hsrc.ac.za](mailto:gralphs@hsrc.ac.za)

Mahlatse Mpya [mmpya@hsrc.ac.za](mailto:mmpya@hsrc.ac.za)

# PROGRAMME

- ▶ Programme Director – **Ms Tshidi Lekala**, Director: Science and Technology Indicators, Department of Science and Innovation

## 10h00 About the HSRC Policy Dialogue series

- ▶ **Dr Palesa Sekhejane**, Director: Strategic Partnerships Unit, Impact Centre, Human Sciences Research Council

## 10h05 Welcome remarks

- ▶ **Dr Mmboneni Muofhe**, Deputy Director-General: Socio-Economic Innovation Partnerships, Department of Science and Innovation

## 10h15 Setting the scene

- ▶ **Dr Glenda Kruss**, Executive Head: Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council

## 10h30 Research presentations – R&D and innovation profiles of three South African SOEs

- ▶ **Dr Nazeem Mustapha**, Trends in SOE R&D and innovation data: Towards a new indicator framework for R&D and innovation
- ▶ **Gerard Ralphs** and **Jerry Mathekga**, R&D and innovation profiles of three SOEs: ATNS, SANEDI, SAFCOL

## 11h00 BREAK

## 11h15 Panel discussion:

*How can R&D and innovation contribute to revitalise SOEs in South Africa to respond to key developmental challenges? How should this be measured?*

- ▶ **Moderator:**
  - **Christel Wolmarans**, Director: Private Sector R&D Promotions at the Department of Science and Innovation
- ▶ **Panelists:**
  - **Nokuthula Phakathi**, Senior Manager: Infrastructure Research and Management, ATNS
  - **Dr Thokozane Simelane**, Research Director, Africa Institute of South Africa: Human Sciences Research Council

## 12h15 Summary closing remarks

- ▶ **Dr Glenda Kruss**, Executive Head: Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council

## 12h30 END

Speakers subject to change.

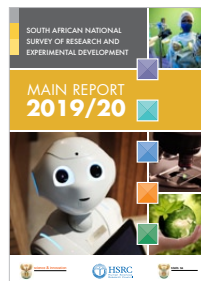
# RESEARCH INFORMING THIS DIALOGUE

## South African R&D Survey, 2019/20

▶ [R&D Survey Statistical Report, 2019/20](#)

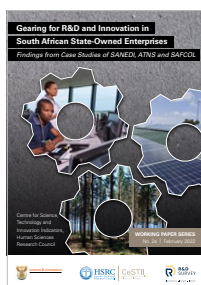


▶ [R&D Survey Main Report, 2019/20](#)



## R&D and Innovation Capabilities in State-Owned Enterprises

▶ [CeSTII Working Paper 2a \(February 2022\): Gearing for R&D and Innovation in South African State-Owned Enterprises: Findings from Case Studies of ATNS, SANEDI and SAFCOL.](#)



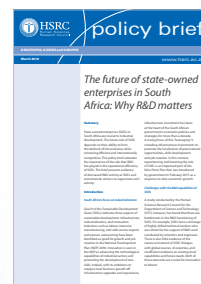
▶ [CeSTII Working Paper 2d \(February 2022\): R&D and Innovation Capabilities in South African State-Owned Enterprises: The Case of South African Forestry Company SOC Ltd \(SAFCOL\).](#)



▶ [CeSTII Working Paper 2b \(February 2022\): R&D and Innovation Capabilities in South African State-Owned Enterprises: The Case of the South African National Energy Development Institute \(SANEDI\).](#)



▶ [HSRC Policy Brief \(March 2018\): The Future of State-owned Enterprises in South Africa: Why R&D Matters](#)



▶ [CeSTII Working Paper 2c \(February 2022\): R&D and Innovation Capabilities in South African State-Owned Enterprises: The Case of Air Traffic & Navigation Services SOC Ltd.](#)



## BRIEF SPEAKER PROFILES\*

\*In order of the programme speakers



▶ **Ms Tshidi Lekala**, Director: Science and Technology Indicators, Department of Science and Innovation

Ms Tshidi Lekala: Director: Science and Technology Indicators, Department of Science and Innovation. She holds a MBA degree from the Tshwane University of Technology. She is responsible for overseeing the production of the South African National Survey of Research and Experimental Development.



▶ **Dr Palesa Sekhejane**, Director: Strategic Partnerships Unit, Impact Centre, Human Sciences Research Council

Dr Palesa Sekhejane holds an MTech and a DTech in health sciences from the University of Johannesburg. She is a medical technologist who specialised in biophotonics, which is the application of light-based (laser) medicine to a biological system, in a simulated diabetic model for example, as well as photodynamic therapy for cancer treatment. Sekhejane is Director: Strategic Partnerships Unit within the Human Sciences Research Council's Impact Centre.



▶ **Dr Mmboneni Muofhe**, Deputy Director-General: Socio-Economic Innovation Partnerships, Department of Science and Innovation

Dr. Mmboneni Muofhe is the Deputy Director-General (DDG) for Socio-Economic Innovation Partnership at the Department of Science and Innovation in South Africa. Dr Muofhe was previously the Deputy Director-General for Technology Innovation (2013-2022) and Deputy Director-General for International Cooperation and Resources (2012-2013) in the Department. Dr Muofhe is experienced in science, technology and innovation policy development and implementation. Dr. Muofhe holds a PhD in Management of Technology and Innovation, Master of Business Administration and Master of Science. Dr Muofhe is currently leading the pilot implementation of the recently established Innovation Fund which aims at bridging the funding gap between research, technology development and translation of research outputs into products and services addressing socio-economic challenges.



▶ **Dr Glenda Kruss**, Executive Head: Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council

Dr Glenda Kruss is the Executive Head of the Centre for Science, Technology and Innovation Indicators at the Human Sciences Research Council. Her research is oriented towards more contextually appropriate measures of science, technology and innovation for inclusive and sustainable development in sub-Saharan Africa.



▶ **Dr Nazeem Mustapha**, Chief Research Specialist: Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council

Dr Nazeem Mustapha, Chief Research Specialist, currently leads the R&D measurement and analysis programme within the Centre for Science, Technology and Innovation Indicators (CeSTII) of the Human sciences Research Council in South Africa. He has also led new areas of measurement and research on the innovation capabilities of State-Owned Enterprises, intellectual property and technology transfer in publicly funded institutions, and innovation in the informal sector.



▶ **Jerry Mathekga**, Senior Researcher: Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council

Jerry Mathekga is Senior Researcher, Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council. He leads the business sector within the South African National Survey of Research and Experimental Development Inputs.



▶ **Gerard Ralphs**, Policy Analyst: Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council

Gerard Ralphs is Policy Analyst and Programme Manager, Centre for Science, Technology and Innovation Indicators, Human Sciences Research Council, where he leads a project on Centre advocacy. He is also a doctoral candidate in public management and governance with a specialisation in innovation at the University of Johannesburg.



▶ **Christel Wolmarans**, Director: Private Sector R&D Promotions at the Department of Science and Innovation

Christel is the Director: Private Sector R&D Promotions at the Department of Science and Innovation. She holds a B.Eng(Electrical) degree from the University of Pretoria and an LLB from Unisa. Past employers include the University of Pretoria, Eskom and Wits Enterprise. She has also worked as a patent attorney for about 15 years, both in South Africa and Australia.



▶ **Nokuthula Phakathi**, Senior Manager: Infrastructure Research and Management, ATNS

Nokuthula is currently responsible for ATNS Innovation (Research & Development) as well as aviation Infrastructure (CAPEX) Investment planning provision within South Africa (SA); represent SA in various Technical committee meetings including International Civil Aviation Organization (ICAO) Technical Panels, Air Navigation Commission (ANC), AFCAC meetings, CAC - SADC Technical meetings; ICAO AFI Region and ICAO Technical projects. She has more than fifteen 15 years' working experience in Telecommunication, Defence and Aviation Industry; and is conversant on the areas and project management of Communication, Navigation and Surveillance (CNS) systems, Innovation/Research, Aviation Industry, Telecommunication Industry, Information Technology (IT), Defence, Supply Chain Management, Security, CAPEX and OPEX, including a keen interest in Cyber Resilience/Safety, Innovation and 4IR activities.



▶ **Dr Thokozane Simelane**, Research Director, Africa Institute of South Africa: Human Sciences Research Council

Dr Thokozani Simelane, PhD and D. Eng (Industrial Engineering), is Research Director at the Human Sciences Research Council's Africa Institute of South Africa, where he is Principal Investigator of South Africa's Food and Nutrition Security Survey. Dr Simelane served as a member of the Standing Advisory Committee on Intellectual Property Right of South Africa from 2002-2017, and has worked with the South African Bureau of Standards (SABS) as well as various SOEs in developing and implementing their Africa Market Strategies.