BR NEWS

BRANDSTORIES

30th ANNIVERSARY – TAKING A QUANTUM LEAP FORWARD

NSTF celebrates 30 years of advancing science and innovation

THE National Science and Technology Forum (NSTF) has a long-standing history rooted in South Africa's democratic journey. Its precursor, the National Science and Technology Initiative, was established in 1991 and took part in the Convention for a Democratic SA (Codesa).

Founded in 1995, the NSTF is a unique organisation that promotes science, engineering, technology (SET) and innovation in SA.

This year marks the 30th anniversary of the NSTF – now the largest, most long-standing and representative independent stakeholder body of its kind, with about 150 member organisations across six sectors in both the public and private sectors. The membership serves as a map of role-players in the National System of Innovation (NSI).

NSTF executive director Jansie Niehaus says, "We want to take a quantum leap forward – not only in quantum science which is our theme this year – but in every area where South African minds can make a difference."

The NSTF's ongoing activities include hosting discussion forums to share research, address SA's challenges and engage government on policy matters. At least 82 such discussion events were hosted over the years. It also promotes science, technology, engineering and mathematics (STEM) among the youth; celebrates top achievers in STEM in Grade 12; supports students with career and bursary advice; and creates a unique online learning platform to explore, discover and learn: www.stemulator.org.

NSTF executive director, Jansie Niehaus. | Supplied

The flagship programme, NSTF-South32 Awards, known as the "Science Oscars of SA", was established in 1998 to recognise outstanding contributions to SET and innovation. Now in its 10th year of partnership with South32, the awards have grown from two to 18 winners annually with categories expanding from two to 16. Nominations have surged from 54 to 217, reflecting the ever growing prestige of these awards. Over the years, 328 winners have been crowned. Of the individual winners, 38% were women, including 29 black women, while about a third of all winners were black. There were 18 recipients who later received National Orders, SA's highest honour.

Investing in people for a nature-positive future

AT the heart of South Africa's sustainability journey stands GreenMatter – a national partnership dedicated to developing the people, knowledge and leadership South Africa needs to thrive in a green economy.

South Africa is recognised globally as the sixth most megadiverse country on Earth. These diverse ecosystems do more than sustain tourism or supply raw materials – they are life support systems, intricately balanced and interconnected. Yet this natural wealth is under growing pressure from climate change, biodiversity loss and water insecurity.

We must also confront the myth that economic development and environmental protection cannot co-exist. A 2019 report by the South African National Biodiversity Institute found that more than 418 000 jobs are directly or indirectly linked to biodiversity – more than the mining sector employs. SA's Just Energy Transition could add a further 400 000 to 600 000 jobs (gross) within the next 25 years (National Business Institute, 2024).

However, true transitions go beyond solar farms and green hydrogen. They place biodiversity, water, climate and soil at the centre of a nature-positive economy – one that creates decent work while restoring the natural systems that sustain all life. Achieving this vision requires skilled and innovative people, research, and collaborative partnerships that can turn ambition into opportunity.

For more than a decade, GreenMatter has been investing in people to build this foundation. Through its fellowship, bursary and leadership programmes, GreenMatter identifies and supports talented young South Africans pursuing environmental and sustainability careers. Fellows receive financial assistance, mentoring and professional development that equips them to lead innovation and change – from conservation science and water management to policy, finance and education.

The results speak for themselves. GreenMatter alumni are driving projects that conserve biodiversity, advance renewable energy, promote climate resilience and foster sustainable livelihoods. These leaders are shaping the industries of tomorrow – proving that when we invest in people, we invest in a thriving planet.

GreenMatter invites South African businesses and institutions to partner with it in launching a collaborative transdisciplinary green bursary programme to equip the next generation of green leaders. To collaborate, contact info@greenmatter.co.za. Together, we can ensure South Africa not only protects its natural heritage, but also prospers because of it.

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Charting the path to 2030: CPUT's six pillars of research and innovation excellence

THE Cape Peninsula University of Technology (CPUT) has been on a two-decade mission to build a vibrant, impactful research and innovation culture.

Through its six research focus areas, the university boasts a research and innovation ecosystem renowned for its spirit of ingenuity and boundary pushing. It is this spirit which continues to set CPUT researchers apart and guides them towards the vision of becoming the MIT of Africa.

Aligned with the African Union's Agenda 2063, the United Nations' Sustainable Development Goals and the National Development Plan 2030 – the focus areas below ensure CPUT's research is nationally relevant, continentally responsive and globally competitive.

Bioeconomy and biotechnology

This area harnesses South Africa's biodiversity and bio-based value chains to deliver healthier lives, greener processes and competitive products. CPUT's research chair in Biotechnology, Prof Jeanine Marnewick, leads globally relevant research and innovation on rooibos and honeybush. Her work celebrates these uniquely South African products and ensures they are protected and celebrated.

Space science, engineering and technology

CPUT is embedded in South Africa's space programmes through environmental monitoring, national security and resource management. The Africa Space Innovation Centre (ASIC) designs and deploys nanosatellites for low-earth orbit and marine monitoring. The French–South African Institute of Technology (F'SATI) delivers a flagship postgraduate programme in satellite systems.

Smart energy

Smart energy integrates electrical, thermal and chemical innovations to support a sustainable energy future. CPUT's research chair in energy and head of the Energy Institute, Prof Mohammed Tariq Khan leads programmes that couple research, postgraduate training and industry-aligned innovation in power systems, substations and smart-grid automation.

Environment, climate change and sustainability

The NRF–WRC SARChI chair in governance and economics for water and sanitation sector institutions, Prof Bongani Ncube focuses on addressing water security and enabling equitable and sustainable water services.

Human, health and social dynamics

A range of research entities and technology stations are building a knowledge base on human, health and social dynamics. These range in focus from teacher education, cardiometabolic health and tourism research, to clothing and textiles innovations.

The digital society

The need for a just digital transition – from data literacy and AI tooling to entrepreneurship and digital economy skills – is more pertinent than ever. CPUT is actively working on a knowledge base to ensure that South Africa remains on par with its international counterparts in this realm.

It is evident that the research culture at CPUT reflects a community deeply committed to discovery, partnership and innovation. By generating knowledge that responds to urgent focus area challenges, the university ensures that its work resonates nationally and globally. The combination of research, teaching and innovation will continue to shape the next generation of scientists who will drive Africa's contribution to sustainability across all fronts.