

Message from NSTF Executive Director

This month's message focuses on energy, water, skills development, and holding our government responsible

"Civil society is finding not only its protest voice, but its legal muscle", concludes a recent article in the Engineering News. When it comes to crucial issues like water and energy, we all have an interest in getting involved and insisting that Government listens to experts as well as those affected by its actions or inaction. Make use of civil society organisations like NSTF to let Government know what the science, engineering and technology (SET) and innovation community thinks. Read more...



NSTF News

Skills Drought in the Water sector Discussion Forum

The NSTF hosted a Discussion Forum on "The Skills Drought in the Water Sector", on 26-27 September, organised under the auspices of the Science Councils and Statutory Bodies membership sector of the NSTF, and in collaboration with the Water Research Commission. The emphasis was on future skills. Not only do we have a 'skills drought' in relation to currently defined jobs, but it is anticipated that innovations will be introduced in the water sector, for which totally different skills sets will be required. In future, 'high-level' skills such as analytical thinking, problem solving and creativity will be increasingly important, as challenges mushroom out of all proportion due to climate change. Sophisticated IT skills will be in high demand as systems become increasingly automated. For more information, read the media release and see the programme and videos of the presentations of the expert speakers, and watch the website for the comprehensive proceedings.

Highlights of the 2015/2016 NSTF-South32 Awards Gala Dinner

A video capturing the highlights of the <u>2015/2016 NSTF-South32 Awards</u> gala evening is now available. Readers who were unable to attend the event are urged to watch this – we hope to see you there next year!

Getting to know the work of the 2015/2016 NSTF-South32 Award winners: Professor Bhekisipho Twala

Prof Bhekisipho Twala's research looks at making decisions with incomplete information, using artificial intelligence techniques for predicting outcomes and classification. Director of the Institute for Intelligent Systems and Professor of Artificial Intelligence and Statistical Sciences at the University of Johannesburg, Prof Twala won the TW Kambule-NSTF Award for research and its outputs over a period of up to 15 years after award of a PhD or equivalent by an individual. Read an <a href="https://article.com

Brilliants 2015/2016: Meet our future innovators

This month we introduce you to <u>Doreen Davies</u> from North West Province, who is studying multimedia at the University of Pretoria, and the Eastern Cape's <u>Fabian Ferreira</u>, a chemical engineering student at the University of Stellenbosch. Both Doreen and Fabian were recognised under the NSTF <u>Brilliants Programme</u> who had received top marks in mathematics and physical science in the National Senior Certificate Examinations last year and went on to study in SET.

Share 'n Dare programme update: Engaging youth and communities through science

The NSTF <u>Share 'n Dare programme</u> forms part of the <u>NSTF-South32 Awards</u> and provides a platform for award winners to act as role models and ambassadors for SET and innovation. <u>Click here</u> to view past and upcoming activities that took place during September and coming up in October.



Featured SET policy: Intellectual Property Consultative Framework 2016

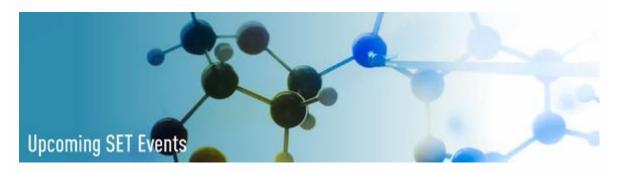
The purpose of this document is to state the Department of Trade and Industry's (the dti's) perspective on intellectual property (IP) in a consultative instrument to facilitate continuous engagement with government partners and society at large. The extent of public engagement, government capacity and the degree of government coordination are key factors in national IP policy formulation and the dti aims to ensure that the development of South Africa's IP policy takes into account these fundamental principles. The IP Consultative Framework will serve as a tool in pursuing this approach. Read more

Other SET-related policies currently open for public comment

<u>National Health Act: National Health Research Ethics Council members:</u>
 Applications invited (Deadline: 4 Nov 2016)

SET-related policy news

- Grassroots innovation gets a push (IOL)
- Water dept revisiting climate-change hydropower policies (Engineering News)
- Policy environment failing SA mining Professor (Polity.org)
- <u>Decisive leadership needed to address IPP impasse and industry structure</u> (Engineering News)
- SA National Space Agency mulls future course in rapidly changing sector (Engineering News)
- <u>DoE insists nuclear management system contract part of procurement preparations</u> (Engineering News)
- Will nuclear tender 'lock in' bid price, energy expert asks (Engineering News)
- SA nuclear tender open to all, Rosatom not frontrunner (Engineering News)
- Niasa calls for local content in nuclear-energy programme (Engineering News)



- 4th International Conference on Engineering & Technology, Computer, Basic & Applied Sciences (ECBA- 2016): Cape Town, 3-4 Nov 2016
- 7th Annual Women in Engineering Convention: Gauteng, 22 24 November 2016
- UNESCO Merck Africa Research Summit (MARS 2016): Addis Ababa, Ethiopia: 28-29 Nov 2016
- 3rd IEEE International Conference on Advances in Computing and Communication Engineering:
 Durban, 28-29 Nov 2016_
- Science Forum SA: Pretoria, 8-9 December 2016
- 1st International Conference on Sustainable Materials Processing & Manufacturing: Kruger National Park, 23-25 January 2017
- Investing in African Mining Indaba: Cape Town, 6-9 Feb 2017
- The Science of Science Communication seminar with guest speaker Professor Dominique Brossard: Western Cape, Stellenbosch University, 17 November 2016 - register by sending an email to Rolene Langford (rlm@sun.ac.za) by 13 November 2016



Science

- Wits scientists predict existence of new boson (AllAfrica.com)
- Bacteria discovery may be key to so-called non-infectious diseases (bizcommunity.com)

Engineering

• Africa's shortage of engineering skills and female students will stunt its growth (Guardian)



- Amplats takes another step towards fuel-cell realisation (Engineering News)
- Controversial Karoo shale-gas exploration tackled at NMMU lecture (rnews.co.za)
- Karoo's Hera telescope gets R95m funding injection (Engineering News)
- Sky science sees University of the Western Cape beat big names in Nature ranking (Times Live)
- Mining needs disruptive digital change, Electra Mining Conference hears (Engineering News)
- Additive manufacturing has huge potential in SA (3ders.org)
- <u>UCT develops device to decrease amount of water lost through leaking pipes</u> (Engineering News)
- Funding clamp hurts top SA universities' reputations internationally (Times Live)
- Fee-free universities not feasible UCT, Maties (News24)
- SA's first photonics prototyping facility hosted at CSIR (Dataweek)
- Startup finalists ready themselves for DEMO Africa (Bizcommunity)
- Read the latest issue of the NRF-SAASTA newsletter (saasta.ac.za)
- Water research institute launched at UCT (Engineering News)
- Hybrid nuclear desalination deployment could transform SA's agricultural fortunes (Engineering News)
- <u>Drought in southern Africa today: A preview of what climate change could bring and how African farmers can adapt (AllAfrica.com)</u>



- <u>UP professor wins NRF Lifetime Achievement Award</u> (Engineering News)
- Pioneering UJ researchers win SA Women in Science Awards (Sowetan Live)
- Leading SA researchers honoured at 2016 NRF awards (dst.gov.za)

Please forward this e-mail to your colleagues, business contacts and all interested persons!

Send us your news

The NSTF invites all our members, as well as all SET and innovation role players, to send us information on meetings, conferences and activities of interest to the broader S&T community. Please send us your news by the 20th of the month, for distribution at the beginning of the following month, to enquiries@nstf.co.za

Feedback

If you have any comments or suggestions on how we can improve this newsletter, please e-mail the NSTF Secretariat at enquiries@nstf.co.za

About the NSTF

The <u>National Science and Technology Forum (NSTF)</u>, established in 1995, is a broadly-representative stakeholder body for all SET and innovation organisations in South Africa, which seeks to influence policy formulation and delivery.

The <u>NSTF Awards</u> are unique in SA, recognising the outstanding contributions of individuals and groups to SET and innovation.

The <u>science bursaries</u> page provides information on bursaries and bursary providers for science, engineering and related studies.

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