



## July/August 2018 NSTF Share 'n Dare events

**From 30-31 July 2018, CEO of The Platinum Incubator (TPI) Ms Sibongile Purity Shongwe spoke to learners at the Penreach Shalamuka Science Centre, Nelspruit, Mpumalanga.**

Ms Shongwe, TPI CEO and 2017/2018 winner of the [NSTF-South32 Awards NGO category](#) gave a total of six talks. This meant she spoke to a total of 195 learners.



Ms Shongwe started her talks with a photograph of a baby incubator. She explained that TPI is a business incubator. She spoke about metals, including the applications of precious metals. She also encouraged learners to start thinking about unique business ideas and to go to a business incubator. There are about 150 business incubators in South Africa, in different sectors.

**From 1-2 August 2018, Prof Mmantsae Diale and Dr Musa Manzi spoke to learners at the Mondi Science Centre, Mkhondo (Piet Retief), Mpumalanga.**

Prof Mmantsae Diale is the 2017/2018 winner of the [NSTF-South32 Awards Engineering Research Capacity Development category](#). Dr Musa Manzi is the 2017/2018 winner of the [NSTF-South32 Awards Emerging Researcher category](#). They each gave 12 talks to the learners. There were about 610 learners in total.



Prof Diale encouraged learners to study hard and focus. She explained what a physicist does ie her work.

Dr Manzi shared his incredible success story. He grew up being called dark and ugly. He wanted to be a doctor but there was no maths, science and biology teacher at his school. Out of determination, he told his principal that he will teach maths, science and biology, and so he did. Dr Manzi taught himself and his peers and got 100% in all those subjects. When he got to varsity, he couldn't speak a word of English. He also didn't have a place to stay and would sleep on the streets, at the Johannesburg park station and in the university labs. He really struggled when his mother died. He was still at university and failed computer science and chemistry during this time. Then his sister died, leaving his two young nieces in his custody. He took them to Johannesburg with him, where he had no place to stay. They would sleep in university labs and wash their clothes in the university bathroom basins. He then met a white family that adopted him and his nieces.



Dr Musa Manzi also spoke on SAFM on 8 August 2018 – The Talking Point with Bongsi Gwala. Click [here](#) to listen to the interview.

**On 1 August 2018, Dr Xolani Humphrey Mkhwanazi gave a talk at the Ncsa Visitor Centre, Hartebeespoort, North West.** There were about 400 learners.

Dr Xolani Humphrey Mkhwanazi is the recipient of the first [NSTF-South32 Ukhozi Award](#). Dr Mkhwanazi is a physicist that matriculated in rural KZN. He urged the youth to stay focused on their schooling and to work together and help each other to realise their dreams.



**On 1 August 2018, Prof Keolebogile Motaung spoke to learners at the Anglo-American Science Centre, Witbank, Mpumalanga.** Prof Motaung, the 2017/2018 winner of the [NSTF-South32 Innovation Award: Corporate category](#), gave two talks. There were about 76 learners.

Prof Motaung spoke to the learners about turning their science into a business. She spoke about passion and how you use passion to drive you. She also emphasised the importance of entrepreneurship. Prof Motaung showed learners visuals of the product that she developed. She explained the impact of the product in the research and science field and the impact of the product in the commercial industry. She told the learners the story of her life and why she pursued her career. She advised students on how to tackle assignments and tasks that are given at school from high school until they reach university.



**On 4 August 2018, Prof Malik Maaza spoke to learners and the public at the iThemba LABS, Cape Town, Western Cape.** Prof Maaza is the 2017/2018 winner of the [NSTF-South32 Awards GreenMatter category](#). There were about 150 people in the audience.

Prof Maaza's talk began with him showing the importance and significance of Africa. His talk was on the greenhouse effect on climate change. There is 15% less rain everywhere, 31% land desertification, and acid acidification. The solution is minimising fossil fuel, as well as science, technology, innovation and materials design. The dynamics and context for the nano-timeline started at the coal industry, nuclear era, semiconductor technology, biotechnology, and then nanotechnology. Data storage went from IBM, to CD, micro SD, nano, and now Tera is getting into the market. The nanoscale moved from macro (human hair), to micro (red blood cell) and then to nano (DNA strand).



**On 7 August 2018, Ms Selloane Nyaredi from The Platinum Institute (TPI) spoke to learners and the public at the JNF Walter Sisulu Environmental Centre, Mamelodi, Gauteng.**

Ms Selloane Nyaredi is an Administrative Assistant at the TPI's Atteridgeville branch. The TPI is the 2017/2018 winner of the [NSTF-South32 Awards NGO category](#). Ms Nyaredi gave a talk to 60 girls and mothers. Her talk was the same as the one that TPI CEO Ms Shongwe gave in Nelspruit.



**From 22-23 August 2018, Prof Resia Pretorius spoke to learners from the KZN Science Centre Career Jamboree, Umkhanyakude District, Kwazulu-Natal.** Prof Pretorius is the 2017/2018 winner of the [NSTF-South21 Awards researcher category](#). The career jamboree was organised by the KZN Science Centre and it involved going to secondary schools. This involved around 218 learners.

Prof Pretorius took the learners through her journey to becoming a scientist, starting with coming from a small village in the Western Cape where she was poor. She was helped by a man who paid for her university because of her good (but not great) marks – 60% average.

She loved Biology in school and knew that she wanted to study in the field. Prof Pretorius showed the device she developed. It uses small sensors that determine the possibility of disease in a patient ie early detection of disease. The aim is for the devices to be used in mobile clinics in rural areas.

She also spoke about the difference between college and university, saying that university is not for everyone. It is for people that are more theory orientated and college is more for people that are more practically orientated. She told learners not to feel ashamed of colleges and to think deeply about where they should be.

