



Fulufhelo Nelwamondo: NRF's idealistic new leader

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I am slightly apprehensive about my online interview with the new Chief Executive Officer of the South African National Research Foundation (NRF), Fulufhelo Nelwamondo. On 1 April 2021 he took up office at the age of 38 – the youngest person to head the NRF.

I am apprehensive because it has taken me six months of badgering the NRF media office to set up the interview, which was postponed in July on the morning it was due to take place. I see this as symptomatic of a level of dysfunctionality that I, and many of my colleagues, have come to expect of the NRF, which has been under rudderless leadership since the end of Khotso Mokhele's 10-year term in 2006. Turning the Foundation around is going to be no mean task.

But to my pleasant surprise, Nelwamondo appears bustling with energy, despite offering no explanation for his apparent lack of enthusiasm for becoming acquainted with the readers of the SAJS.

Like a disproportionately high number of prominent South Africans, Nelwamondo hails from Venda in the Limpopo Province, where he attended the Mbilwi Senior Secondary School. He registered for an electrical engineering degree at Wits in the first year of the millennium, and stayed on to complete a doctorate under the supervision of Tshilidzi Marwala, now Rector of the University of Johannesburg.

From Wits he spent a year at Harvard as a postdoctoral fellow, before returning to the CSIR, where he worked for just under 12 years, ending up in charge of 'Next Generation Enterprises and Institutions'. This involves reducing financial wastage in government; lowering access barriers to government services, thereby contributing to increased transparency and trust in public institutions; and improving the ability of government to effectively plan and monitor programmes.

So essentially a Fourth Industrial Revolution man, and a high-flyer to boot, but his experience does not lie in the agency funding sector. Does he think this matters?

He doesn't think it does, as he says there are lots of similarities between the two organizations. Both work by using their parliamentary grant to fund core infrastructure and functions; and then use this to leverage additional funding. So he has lots of experience in leveraging funding.

The NRF, for example, has a budget of about ZAR4.5 billion, only 20% of which is derived from its parliamentary grant. And its budget has been shrinking for several years, according to Nelwamondo, before the COVID crisis of 2020. So he defends the controversial action of his predecessor, Molapo Qhobela, of discontinuing most of the incentive funding which was linked to NRF rating from 2018 onwards: 'It was unsustainable because there was no money anymore.'

I was personally unsurprised by this announcement, but I thought it was implemented inappropriately: like many researchers, I was left high and dry as it occurred in the middle of my funding cycle. But he reminds me that funding is only one component of the Foundation's four-pronged mandate. They also run the national facilities, which undertake their own research.

And they are responsible for funding bursaries to postgraduate students. These had increased, he said – the number of students funded peaked at 13 599 in 2017. But in the STEM arena at least, how do you fund postgraduate students without running expenses? Not something to which Qhobela had applied his mind, it appears.

Controversially, his predecessor also decided to abolish grant-holder bursaries with effect from 2020. This means that grant awardees have to wait until the next cycle of bursary awards in order to enrol postgrads, as the two cycles are out of sync. And their preferred candidates have to apply for postgraduate funding in their own right, for which they may or may not be successful.

Again, this was not Nelwamondo's decision, but he justifies it on the grounds that it was intended to improve transformation. In the last year of the old system (2019), 76% of postgraduates funded by the NRF were black South Africans (coloured, Indian or African, to use apartheid terms); in the first year of the new system (2020), this figure has risen to 79%. White students, who comprise 22% of bachelor's graduates nationally, now comprise 14% of NRF postgraduate bursary-holders (in 2019 they comprised 15%). The remaining 7% are foreign – down from 9% in 2019, primarily reflecting a decrease in the number of doctoral students from other African countries being funded.

The NRF could not provide data for 2021, but on the face of it, is this policy achieving its transformation goal? Nelwamondo admits that he is not sure: 'We need to look at it over the next two years and say if it's not working, let's change it. If it is working, let's see what needs to be done to improve it.'

Postgraduate student training is on the face of it an area in which his predecessor had achieved at least a modicum of success: numbers of honours students supported by the NRF increased to a peak of 4930 in 2016; and those of master's and doctoral students to 5444 and 3418, respectively, both in 2017. But by 2020, honours numbers were down 13%, master's by 21%, and doctoral by 16%. Nelwamondo says the decline in 2020, at least, reflects the fact that students are better funded under the new system.

Some of the research-based universities have stepped in to bridge the gap by increasing postgraduate bursary support. But no-one appears to have come up with alternative funding for student running expenses to compensate for the decline in incentive funding from 2018 onwards.

At the time the NRF pledged to invest the savings that would 'accrue through the revised programme model in other NRF funding interventions to benefit researchers', but it has been unclear to researchers how exactly this was done. In the same year (2018) that incentive funding was radically downscaled, it slashed the budget for its competitive support for rated researchers by 14%, and that for unrated researchers by 7%; and the number of postgraduate bursaries began to decline.

Then came COVID-19. Then NRF suffered a cut of ZAR763 million (17%) in 2020, according to Nelwamondo. In 2021, previous funding levels were restored, but because most of the NRF's programmes are multi-year in duration, the effect has been significant.

All in all, an unenviable legacy for anyone to inherit. Does he have a vision for the NRF, or a particular way in which he would like to take the Foundation forward?

Well, he'd like to focus on the innovation aspects of the research enterprise, so that the economy can grow. I get a jaded feeling – I've been hearing this since I started writing regularly about South African science in late 1989. At least since the advent of democracy, it has been a stated objective of government that research should drive innovation. But the Elon Musks and the Patrick Soon-Shiongs have fled for greener pastures.

He concurs, tempering this idealism with a sense of realism: 'We are very good at plans as South Africans. You know we fail almost at all times at execution.'

How might he succeed with his plans where others have failed then? He says that part of the solution lies in having the data at your fingertips to make decisions which can accurately predict the impact of research. And this is an area in which he has experience.



Fulufhelo Nelwamondo, CEO of the National Research Foundation

He also professes to have lots of energy and asserts that he will be bold in making the changes he thinks the Foundation requires. 'I think we're all scared of change. That's human nature', he says.

I confess that I am slightly disarmed by his idealism and his energy, and rather sorry that we have met only online.