How NTU climbed the rankings

University’s stunning rise up the charts didn’t come overnight, says its ‘talent magnet’

Nanyang Technological University’s (NTU) stunning rise up the international ranking charts evokes a range of reactions – depending on who you talk to – says its president Bertil Andersson.

University leaders from around the world ask him: How did a 26-year-old institution manage to make such impressive leaps?

People in Singapore ask: How did you game the system?

“I tell these people that if they know how to game the rankings, please let me know,” says Professor Andersson.

NTU has created waves under his watch. It even overtook the flagship National University of Singapore (NUS) in the Quacquarelli Symonds (QS) World University Rankings released in June.

It achieved the highest ranking any Aston university has ever reached at 11th position, surpassing NUS which was placed 15th.

But what was remarkable was that NTU had climbed 63 places on the QS world rankings since 2010.

NTU’s success did not come overnight, says the 66-year-old Swedish biochemist who will be passing the baton to another American, Professor Subra Suresh next year.

In fact, the push to make NTU into a world-class research and teaching institution started more than 10 years ago.

University leaders identified areas where NTU had inherent strengths, such as water and energy sustainability, and set out to draw in academic talents who would help the university shoot for the stars in these areas.

Bringing in Prof Andersson as provost in 2007 was part of the increased investments in research of the European Science Foundation and chaired the chemistry committee of the Nobel Foundation. He was well connected in the research community and expected to be a “talent magnet” for NTU.

The plan worked. He recruited several star professors into NTU in a short time.

These included geneticist Stephen Schuster, who is famous for his work in unravelling the genome sequence of the woolly mammoth, and biologist Daniela Rhodes, who heads an interdisciplinary research team that last year clinched a research grant worth $23.8 million to study telomeres, the structure that cap the ends of human chromosomes.

NTU also started its own scheme in 2007 called the Nanyang Assistant Professorship scheme to attract young research stars. The university has so far received almost 4,000 applications worldwide and given out 62 assistant professorships.

It also helped that NTU’s “hyper-drive” in research coincided with the Singapore Government’s increased investments in research and innovation.

“We seized the opportunity to ride the wave,” Prof Andersson says, giving the example of how NTU leveraged on the National Research Foundation, set up in 2006 to transform Singapore into a knowledge-intensive economy.

Besides making available more funds for universities to tap, NRF also works closely with them to help university researchers search for new areas of research and right for training and research grants.

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We are now seeing the fruits of our labour after having invested in and ramped up research in the last few years,” says Prof Andersson.

He adds with pride: “Today, young and up-and-coming scientists make up 8 per cent of our 4,000-strong faculty, but they account for almost 40 per cent of our publications and 30 per cent of all research journals. And citation counts are key to doing well in international rankings.”

But he is eager to list NTU’s achievements outside of research as well – its expansion into disciplines beyond engineering and business, and its innovations in teaching and learning.

A fellow of Imperial College London, Prof Andersson spearheaded the establishment of NTU’s joint medical school with Imperial College, whose first batch of medical students will graduate in July next year.

In teaching and learning, he points to NTU’s efforts to 2020, to convert half of the degree courses to the flipped classroom model, where students access course content on their own before class sessions.

The next-generation professor is Professor iPad or Professor Smartphone. Digital devices and online resources have changed the way we work, not only in academic institutions, but across the world. And research collaboration is increasingly being conducted online. And universities have no choice but to reinvent our learning experience,” says Prof Andersson.

The cornerstone of the university’s new learning initiative is the Hive, designed by UK designer Thomas Heatherwick, the man behind the London Olympic Cauldron.

The building, which opened two years ago, has done away with traditional classroom layouts. Instead, there are 66 circular, smart classrooms, with flexible, clustered seating, multiple LCD screens and wireless communication tools to facilitate group discussions.

“This is a university building like no other. It defines the norms of traditional university buildings and redefines them with its iconic shape and internal space,” says Prof Andersson.

“Here lies the future of learning in Singapore,” says Prof Andersson, adding that a second learning hub with more smart classrooms is being built and will be ready in a few months’ time.

Also, in a few months, he will hand over the baton to Professor Subra Suresh, who takes over on Jan 1.

Prof Andersson says he is likely to spend his time in Sweden, Israel and London where he will take on various advisory roles. Other than that, he will always be in Singapore, a home he loves.

He gives his successor – who he says has the right profile – a vote of confidence: “He is going to have a very strong leadership for the future.”

He says of the eminent American scientist who was picked by former US president Barack Obama to head the US National Science Foundation from 2010 to 2013.

Prof Andersson notes the fact that he shares his birthday with Prof Suresh – May 30.

“You see, we have the stars aligned,” he says, predicting that NTU is destined to go from good to great.

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PROFESSORBERTIL ANDERSSON,
president of Nanyang Technological University, on why he is leaving.