

10 REASONS TO CELEBRATE 2021
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NUS continues to be on a strong trajectory in 2021. From bold, strategic planning for an uncertain future, the implementation of innovative initiatives, to managing the complex, operational issues arising from a dynamic COVID-19 pandemic situation, the University has earned a strong reputation as a trusted and forward-looking institution.

As the year draws to a close, I am delighted to share my reflections on an eventful 2021 and 10 reasons we can celebrate, take pride in, and press forward together as an institution.

1. NUS – A Highly Regarded Institution with a Strong Reputation for Excellence

NUS' international stature continues to grow. NUS rose four places to emerge 21st in the latest Times Higher Education World University Rankings 2022. This has been the best showing by NUS since the rankings started in 2010. NUS also retained the position as the third best university in Asia. In the Quacquarelli Symonds (QS) 2022 World's Top University Rankings, NUS emerged as 11th in the world and Asia's top university. Additionally, of the 37 subjects that NUS was ranked by QS, 16 were placed among the top 10, and 28 subjects were ranked within the top 20. NUS graduates were also regarded as the ninth most employable in the world, according to the 2021 edition of the Global Employability University Ranking and Survey.

NUS' progress and achievements have also been validated by the Ministry of Education's **Quality Assurance Framework for Universities External Review Panel** (QAFU ERP), who visited NUS in March 2021. The ERP commended NUS for its excellent performance as a leading global university while remaining cognisant of its role as Singapore's national university. The panel recognised that NUS has embarked on a series of visionary and courageous changes in teaching and learning; as well as the excellence of the institution's research performance across nearly every field.

2. College of Humanities and Sciences

NUS has made significant strides in reforming our education offerings to provide a solid education which prepares our students well for the future. We have implemented **flexible academic pathways, interdisciplinary education**, as well as a **common curriculum** for most of our undergraduate degree programmes.

The **College of Humanities and Sciences (CHS)**, launched in December 2020, marks a deeper emphasis on an ***interdisciplinary, student-led learning experience***. In addition to reading CHS Common Curriculum modules that impart essential skills and intellectual foundations, CHS students have ***unparalleled flexibility and choice*** to build breadth and depth in skills and knowledge. CHS offers three cross-disciplinary programmes, 28 primary majors, over 50 minors, a wide array of specialisations, and around 1,000 modules in each academic year.

In AY2021/22, CHS attracted a strong applicant pool, and the College admitted its ***inaugural cohort of more than 2,300 students***.

CHS will continue to widen and enhance the suite of academic offerings. Planned programmes include second majors in Global Studies, Pharmaceutical Sciences, and Nutrition, a minor in Data Analytics, and new CHS core modules. Students can also look forward to opportunities to participate in ***interdisciplinary research activities*** from the newly established research centres.

3. College of Design and Engineering

In 2021, NUS had also announced the establishment of the **NUS College of Design and Engineering (CDE)**. CDE will begin in January 2022 and it represents a merger of the School of Design & Environment (SDE) and Faculty of Engineering (FOE). CDE will welcome its inaugural undergraduate cohort of around 1,600 students in August 2022 under a ***new common admissions framework***.

At the forefront of CDE's educational offerings is a ***new student-centric curriculum structure*** which empowers students to choose their own path through their CDE journey. A ***new common curriculum*** was implemented for all 14 undergraduate CDE degree programmes from AY2021/22. CDE students will also have ***unprecedented flexibility*** to go deep in their chosen area, or to go broad and pick up complementary skills. We expect that most CDE students will choose to add a second major, minor, or specialisation to their degree.

Along with the formation of CDE comes two new educational programmes, a ***Bachelor of Engineering degree in Infrastructure and Project Management (IPM)***, and a ***new interdisciplinary second major in Sustainable Urban Development (SUD)***.

On the research front, CDE will build on the depth of technical expertise to advance both specialist and interdisciplinary research while exploring emerging areas such as Digital Twins – virtual replicas of physical devices or systems. Education and research activities will be further enriched by 'living labs' such as our award-winning buildings

SDE1 and **SDE4**, which have been recognised for their ground-breaking sustainability solutions, and **E7**, which will house initiatives aimed at the development of breakthrough medical technologies.



SDE1



E7

4. New College

In 2021, NUS announced another pivotal development to deliver flexible, interdisciplinary education at greater scale. The best features of two outstanding programmes – the University Scholars Programme (USP) and Yale-NUS College (Yale-NUS) – will be brought together to form a New College. Keeping alive the legacies of both programmes, the New College will set forth from a position of strength – as an ***undergraduate honours college*** of NUS – to offer immersive and interdisciplinary education through a deeper integration with NUS.

Students of the New College will be drawn from across the University and given a ***distinctive platform to acquire knowledge, experiences and perspectives to complement their chosen major***. This will be possible through a broad, interdisciplinary curriculum delivered through small group teaching, residential experience, global exposure, and a supportive, inclusive community.

5. Attracting and Nurturing Academic Talent – Reaching for Excellence

Our strategic efforts to recruit and develop top talent continues. NUS is pleased to have appointed 40 assistant professors under the ***Presidential Young Professorship scheme*** which seeks to attract and recruit talented young researchers working across different fields. In February 2021, the NUS Society of Fellows initiative was renamed as the ***Presidential Fellowship***. This initiative aims to attract promising academics at an early stage of their careers, and to support them to pursue impactful scholarship as independent researchers.

In 2020-21, we were pleased to welcome many distinguished faculty from Singapore and across the world who have chosen to join the NUS family. They include Professors Guillermo Carlos Bazan, Chen Xiaoyuan, Bello Guerra Fernando, Goh Boon Cher, Khong Pek Lan, Kelvin Low, Christian Anton Witting and Zhang Guodong, as well as Associate Professors Hao Huang and Yao Yao, among many others. NUS has also recruited top industry practitioners such as Professors Benjamin William Cashore, Khoo Teng Chye and Lim Yeow Kheng, whose deep industry experience will enrich and add value to our students' learning.

6. Strong, Upward Research Trajectory

In research, NUS is on a strong upward trajectory in output and quality. Our researchers collectively contributed to 11,580 publications, which appeared in journals, conference proceedings and books in 2020. The number of 'good ideas' and 'homeruns' has more than doubled and nearly quadrupled, respectively, from the period 2001 to 2010, to the period 2011 to 2020. In FY2020, NUS also received a **high of more than \$821 million in competitive research grant funding** from local and international agencies.



Institute for Functional Intelligent Materials



Launch of the CISCO-NUS Corporate Laboratory

New platforms are being created to address emergent needs in research and translation. We have intensified efforts to establish collaborations with industry partners across materials research, health innovation, smart nation, and sustainability. In materials research, NUS launched a novel **Institute for Functional Intelligent Materials**. In the smart nation cluster, major initiatives include the establishment of the **Asian Institute of Digital Finance, AI Singapore Phase 2** and the **Cisco-NUS Accelerated Digital Economy Corporate Laboratory**. Sustainability is also high on our agenda, and this whole-of-NUS effort is elaborated in a later section.

7. Organisational Excellence – A Continual Journey

The Organisational Excellence (OE) initiative has gained a strong momentum. Through the findings from the annual **NUS Organisational Agility Survey**, it is heartening to see that NUS staff view NUS as an agile organisation, and are responding positively to the changes brought about by the OE initiative.

OE is now actively practised across the corporate, academic, research and infrastructure clusters. In 2021, over **400 workflows** were reviewed, streamlined and improved upon. Many OE projects in 2021 have had significant organizational-wide impact, including the **uNivUS** and the recently launched **NUService Hub**.



In 2022, we can look forward to even more **Enterprise System Reforms**, such as the launch of **Finance System 2.0** and the remaining modules of **Integrated Research Information Management Suite** – these two major systems will transform work processes in financial matters and grant management. We are also developing a new end-to-end **digital procurement system** and an **enterprise contract management system**.

8. Sustainability – A Key Focus Area

Sustainability is a top priority for NUS. I am chairing the **University Sustainability and Climate Action Council**, which was formed in 2021 to integrate and build on our strengths in education, research and innovation, as well as in operations and administration, and to accelerate efforts to prepare our institution for the new low-carbon economy, and achieve truly transformational change for climate action.

Sustainability education is a feature of NUS degree programmes. NUS offers nine Master's programmes, over 10 graduate certificates and specialisations, and over 140 graduate modules and 190 undergraduate modules in sustainability themes.

NUS will also expand our capabilities and develop expertise in **Sustainability Research** relating to mitigation and adaptation of climate change. In partnership with the government, private sector and foundations, NUS established the **Sustainable Tropical Data Centre Testbed** and the **Sustainable Green Finance Institute**. Our new **Centre For Hydrogen Innovations** will be operational by 2022. The **NUS Centre for Nature-based Climate Solutions** will embark on its blue carbon ecosystems research focusing on carbon dioxide sequestration by coastal ecosystems. These developments will add to and complement existing NUS research initiatives on solar energy, energy storage, energy efficiency and waste-to-energy technologies.



An artist's impression of the Sustainable Tropical Data Centre Testbed at NUS



NUS Agritech Centre

To accelerate research translation in food sustainability, the **NUS Agritech Centre** was launched to support start-ups from growth to post-harvest, build capabilities in serving up urban farming food options, and explore market-based solutions in agriculture.

Campus Sustainability initiatives are visible and active across campus. NUS successfully raised **\$300 million from its second green bond issuance** in May 2021 to fund sustainable campus infrastructure projects. NUS was recently recognised by the Building and Construction Authority with the conferment of the **Green Mark Platinum Champion Award**. The award comes after NUS achieved **50 Green Mark Gold and above certifications for building developments**. As part of its commitment for a **Carbon Neutral Campus by 2030**, NUS is embarking on the **installation of up to nine megawatt-peak of renewable solar energy capacity** across the whole campus on about 60 buildings.

9. Service to the Community Amidst COVID-19

As the COVID-19 pandemic enters its next stage into endemicity, NUS researchers continue to make important contributions to the national response. The **pandemic modelling** team at the Saw Swee Hock School of Public Health, led by Assistant

Professor Hannah Clapham and Associate Professor Alex Cook, worked closely with the Ministry of Health to model the transition. Projections on the case numbers, hospitalisations and deaths while accounting for the easing of various safe management measures, vaccination and booster roll-outs for different population groups, served as critical inputs to policy decisions. The modelling work on border control measures also played a meaningful role in informing the Government on the gradual tapering down of border restrictions.

Our students too, are shining beacons and blessings to community and society during these trying COVID-19 times. Under the **Teach Singapore** initiative, NUS students mentor underprivileged children in the community through homework coaching, confidence building and exposures to facets of academic and co-curricular learning that inspire the beneficiaries about tertiary education. Since the inception of the programme in January 2021, the Office of Student Affairs has trained and facilitated 435 students to engage 882 beneficiaries across 46 projects.

We are also extremely proud of our students from various hostels who circumvented the odds of the COVID-19 restrictions to conduct **blood donation drives**, to replenish the national blood bank at a time where public donation has dwindled. Students at Sheares Hall and Kent Ridge Hall mobilised their residents for blood donation drives on campus in October and November 2021. As 192 students came and gave generously, they inspired more hostels to follow suit with additional drives to be held in the coming months.

Our alumni have too, been actively contributing to the community. In its sixth year since inception, the **NUS Day of Service** was extended to a year-long movement with more than 2,000 participants and 7,000 beneficiaries. Our selfless contributors include *The Giving Collective*, a local initiative started by alumna Anne Neo (Pharmacy '18), which regularly collects excess perishable goods to be redistributed to the underprivileged community. Overseas, the Lee Kuan Yew School of Public Policy's Hong Kong Chapter donated much-needed laptops to low-income students in these times of remote learning.

As bursary needs have become more exigent, the **NUS Alumni Student Advancement Committee** pressed on with its altruistic mission to spearhead the NUS Alumni Bursary Fund Campaign on a voluntary basis under the leadership of Chairperson Seah Cheng San. Through the collaborative efforts of alumni, staff and students, more than \$2.14 million was raised from eight fundraising activities in 2021. This united effort of the NUS family has raised more than \$23.5 million of endowed bursary funds since its inception in 2013.

10. Celebrating Together as a Community

Even though 2021 has been a challenging year marked by Covid-19 restrictions, there have been many occasions we could celebrate together as a community, in spirit and where feasible, in person. We rejoice with all our graduates who have successfully completed their degree studies at NUS. In October 2021, **89 in-person Commencement ceremonies** were held for **10,600 graduates** from the classes of 2020 and 2021. This follows from **60 online Commencement ceremonies** that were held in June and July 2021 for **23,500 graduates** from the Classes of 2020 and 2021.

We are also very proud of our faculty who have made significant contributions to the advancement of research and knowledge in their disciplinary fields. Among our outstanding faculty are **Professor Brenda Yeoh**, who was conferred the international **Vautrin Lud Prize 2021 and Professor Lim Chwee Teck**, who was named the winner of the **Asia's Most Influential Scientist Award** by the business magazine *Fortune Times*. Another distinguished prize winner is **Professor Liu Bin**, who was awarded the prestigious **Royal Society of Chemistry's Centenary Prize** for 2021 and the **Kabiller Young Investigator's Award in Nanoscience and Nanomedicine**.

Among our administrators, **Ang Leong Boon** has been recognised as one of the top 30 senior cybersecurity executives driving business value, demonstrating leadership, and influencing rapid change in Southeast Asia and Hong Kong in the recent CSO30 ASEAN 2021 Awards ceremony.

Our **NUS Olympians** were most inspiring. Three NUS students and two alumnae represented Singapore on the world stage at the 2021 Tokyo Olympics. Undergraduates Kiria Tikanah, Adele Tan and Toh Wei Soong as well as alumnae Joan Poh and Chantal Liew did Singapore proud and they taught us so much about the human spirit.

We also celebrate with our innovative NUS start-ups as they break new ground and venture into new markets. Two of our homegrown start-ups, **Carousell and PatSnap became unicorn companies** in 2021 with market valuations of over US\$1 billion.

All in all, 2021 has been a busy and eventful year. Indeed, there is much to look forward to in 2022, as we press forward together in our journey to be a leading global university, shaping the future.