



NATIONAL
UNIVERSITY
OF SINGAPORE
ANNUAL REPORT
2013

VISION

A leading global university centred in Asia,
influencing the future

MISSION

To transform the way people think and do things
through education, research and service

At NUS, we empower young lives
to shape their own destinies, and to
contribute meaningfully to the community.
Our transformative education seeks to open
minds and nurture well-rounded individuals.
Our high-impact research provides novel
insights and new pathways to discovery
and innovation. Because at NUS, we have
the feel of Asia and the pulse of the world.

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- 1 Conferment of Honorary Degree of Doctor of Laws on Mr Lee Kuan Yew
- 2/3 NUS Commencement 2013
- 4/5 NUS Board of Trustees visit to Yong Loo Lin School of Medicine



YOU ARE THE LEADERS OF THE FUTURE

CHAIRMAN'S STATEMENT

With the world becoming more interconnected through technology, global issues affecting one part of the world are likely to have ripple effects on another. Therefore, a new breed of future leaders will be needed to meet the global, social, political, and economic challenges. In shaping education for the future, merely imparting knowledge is insufficient. The key focus should be on a borderless education, one that cuts across traditional boundaries and avenues to shape minds and develop characters. Students ought to be prepared to take their educational experience beyond the confines of their own disciplines and specialities to be ready for the opportunities and challenges of globalisation. We should attempt at nurturing them to be visionary, able to think critically and holistically, and adopt creativity and innovation in solving complex and interconnected issues. Yet at the same time, be deeply rooted in good values, ethical behaviour and sincerity. NUS' multiple-pathway approach to education as well as a wide spectrum of programmes provides an excellent platform for them to be developed into well-rounded leaders of the future.

In pioneering educational innovations, several bold and transformative initiatives were launched including the new Aerospace Systems initiative by the Faculty of Engineering where engineers are groomed for the aerospace industry. Efforts have also been made to encourage researchers from multiple faculties to collaborate and work together to achieve significant breakthroughs and high impact discoveries. The University recently announced that researchers from the engineering and science faculties and medical school collaboratively developed a novel method of treating deep cancer using nanoparticles for non-invasive photodynamic therapy. Recognising the importance of developing a holistic educational experience, the Edusports Complex, which houses

a range of sports, educational and performing arts facilities, was completed at the University Town this year. The complex aims to promote a lively intellectual, social and cultural environment in the University. It was subsequently renamed the Stephen Riady Centre.

In advancing the frontiers of research, several integrated and multidisciplinary initiatives were launched together with strategic industry partners, including the University's first overseas research institute in Suzhou Industrial Park, whose primary objective is to reinforce the cooperation between China and Singapore in technology and education, and promote international research, training and commercialisation.

Finally, the University's success and progress are the achievements of the entire University community. The Board, benefactors, management, staff, students and alumni each plays a part in making NUS what it is today and what it will be in the future.

On behalf of the Board, I welcome four new members: Ms Chan Chia Lin, Dr Cheong Koon Hean, Dr Noeleen Heyzer and Mr Neo Kian Hong. These new members, who are respected leaders in their own fields, bring a wealth of diverse experiences and enriching perspectives to help steer NUS to become a leading global university. I also wish to record my sincere appreciation to Mr Hiew Yoon Khong, Mr Sunny Verghese and Ms Yeoh Chee Yan, who stepped down from the Board this year, for their dedicated service and contributions to the University.

WONG NGIT LIONG

Chairman, Board of Trustees



- 1 NUS Commencement 2013
- 2 Conferment of Honorary Degree of Doctor of Laws on Mr Lee Kuan Yew
- 3 International Alliance of Research Universities Presidents' Meeting
- 4 NUS Open Day 2013
- 5 Groundbreaking ceremony of the Lee Kong Chian Natural History Museum



WE ENDEAVOUR TO TRANSFORM

PRESIDENT'S MESSAGE

I am pleased to report that over the past year, the University has continued to make strong progress as a highly-ranked, leading global centre of education and research. We have further grown our pool of talented faculty, staff and students, and enhanced the academic environment and support to enable them to do their best work. Through the expansion of financial aid for needy Singaporean students, I am happy that we could support more students in their studies and to facilitate their access to NUS' full suite of learning and academic opportunities.

Our focus on transformative education will receive a powerful boost when the inaugural class of the Yale-NUS College commences their term. This group of 155 highly accomplished students was selected from a pool of 11,400 applications. This overwhelming interest underscores the tremendous potential of the Yale-NUS College to re-imagine liberal arts education and collegiate experience for the 21st century, by bringing into conversation the intellectual traditions, cultures and contexts of the West and Asia.

The Yale-NUS College will use interim facilities in NUS' University Town, which itself is providing many exciting new opportunities for NUS students, ranging from residential college learning to an expanded menu of experiential learning programmes. We see University Town as an example of how world-class physical spaces and facilities can inspire innovative learning and co-curricular experiences. Beyond University Town, we continue to enhance and develop our campus infrastructure. For example, the revamped Alice Lee Plaza, to be ready in the third quarter of 2013, will open new shared spaces for programmes, events and activities, as well as link up the different buildings that make up our Art, Culture and Heritage Hub.

In the arena of research, we marked many new milestones. The quality and impact of NUS' research has continued on its steep trajectory of growth. In several areas, such as quantum information, materials research, computer science, engineering and water research, we are recognised as among the leaders in the world. Our integrative research clusters, which bring the best faculty across NUS together, focus on critical and complex research challenges such as ageing, finance and risk management, sustainability and health.

As we reflect on the progress that we have made, I applaud the passion, dedication and hard work of our students, faculty, and staff that have made it all possible, together with the strong support and encouragement of our alumni, benefactors and friends. Together, as a community committed to excellence and innovation, our efforts have raised the global reputation and standing of NUS, and position us well to further advance as a leading global university centred in Asia.

TAN CHORH CHUAN
President

BOARD OF TRUSTEES



WONG NGIT LIONG

Chairman, Board of Trustees
Chairman & Chief Executive Officer, Venture Corporation Limited
Appointed on 28 March 2006

Mr Wong is a member of the Singapore Research, Innovation and Enterprise Council under the Prime Minister's Office. He is currently the Chairman and Chief Executive Officer of Venture Corporation Limited, a leading global provider of technology services, products and solutions. He holds a First Class (Honours) degree in Electrical Engineering from the University of Malaya and a Master's degree in Electronics Engineering from the University of California, Berkeley where he was a Fulbright Scholar. He also holds a Master of Business Administration degree with distinction from McGill University under the Canadian Commonwealth Fellowship.



HANS-DIETER BOTT

Former Managing Director, Siemens Pte Ltd
Former President, Singaporean-German Chamber of Industry and Commerce
Appointed on 1 April 2009

Mr Bott has served on the boards of the Singapore Symphonia Company Limited, Sma Services Pte Ltd, Intellectual Property Office of Singapore and Exploit Technologies Pte Ltd. He holds a diploma in Business Administration from the Chamber of Commerce Nuremberg, Germany.

BOARD OF TRUSTEES



CHAN CHIA LIN

Former Chief Investment Officer, Fullerton Fund Management
Appointed on 1 April 2013

Ms Chan was Executive Director and Chief Investment Officer of Fullerton Fund Management. She is Vice President of the Economic Society of Singapore and Board Member of the National Council of Social Services. Ms Chan holds an Honours degree in Philosophy, Politics and Economics from Oxford University and a Master's degree in Public Administration from Harvard University.



DR CHEONG KOON HEAN

Chief Executive Officer, Housing & Development Board
Deputy Secretary (Special Duties), Ministry of National Development
Appointed on 1 April 2013

Dr Cheong is on the boards of the Housing & Development Board, Jurong Port Pte Ltd, the international Urban Land Institute and the International Federation for Housing and Planning. She was formerly Chief Executive Officer of the Urban Redevelopment Authority. She serves on several international advisory panels advising on sustainability and strategic planning issues and is a nominating committee member of the Lee Kuan Yew World City Prize. A Colombo Plan scholar, she holds a First Class (Honours) degree and University Gold Medal in Architecture and a Doctor of Architecture *honoris causa* from the University of Newcastle; as well as a Master's degree in Urban Development Planning from University College London.



AMBASSADOR CHAN HENG CHEE

Ambassador-at-Large, Ministry of Foreign Affairs
Appointed on 1 April 2012

Ambassador Chan is Chairman of the Lee Kuan Yew Centre for Innovative Cities in the Singapore University of Technology and Design and Chair of World Economic Forum Global Agenda Council on Urban Development. She is a member of the Presidential Council on Minority Rights. She was Singapore's Ambassador to the United States, Singapore's Permanent Representative to the United Nations, High Commissioner to Canada, Ambassador to Mexico, and Director of the Institute of Southeast Asian Studies. She holds a Bachelor of Arts (First Class Honours) in Political Science, a Master of Arts in Political Science from Cornell University and a PhD in Political Science from the University of Singapore.

**CHONG SIAK CHING**

Chief Executive Officer, National Art Gallery
Appointed on 1 April 2011

Ms Chong sits on the boards of Singapore Press Holdings and Jurong Health Services. She is Deputy Chairman of SPRING Singapore and a Governing Board Member of Yale-NUS College. Ms Chong holds an honours degree in Estate Management and a Master's degree in Business Administration from the National University of Singapore.

**LUCAS CHOW WING KEUNG**

Chief Executive Officer & Managing Director, Far East Orchard Limited
 Executive Director, Far East Organization
Appointed on 1 April 2006

Mr Chow is the Chief Executive Officer and Managing Director of Far East Orchard Limited, a listed company under Far East Organization. Concurrently, he is the Executive Director of Far East Organization. He joined the Organization from MediaCorp where he was Chief Executive Officer. Mr Chow also chairs Singapore's Health Promotion Board. Mr Chow graduated with a Bachelor of Science (Honours) from the University of Aston, United Kingdom.

**EDWARD ALEC D'SILVA**

Senior Advisor, SAA Architects Pte Ltd
Appointed on 1 April 2006

Mr D'Silva is a Board Member of the Public Service Commission, Presidential Council for Religious Harmony, National Institute of Education as well as a Councillor for Central Singapore Community Development Council. He is also the Chairman of the Singapore Youth Award Panel and the Publications Consultative Committee (Media Development Authority). He is a Director of NIE International Pte Ltd, member of the Strata Titles Board, English Language Institute of Singapore, and the Public Hygiene Council, as well as a Justice of the Peace. He holds a Bachelor of Architecture degree from the University of Singapore.

**GOH YEW LIN**

Managing Director, G.K. Goh Holdings Ltd
Appointed on 1 April 2008

Mr Goh serves on the boards of various companies including Temasek Holdings (Private) Limited, Trailblazer Foundation Ltd and CIMB Southeast Asia Research Sdn Bhd. He is also Chairman of Seatown Holdings Pte Ltd, Yong Siew Toh Conservatory of Music and Singapore Symphonia Company Limited. Mr Goh holds a Bachelor of Science (Economics) degree from the University of Pennsylvania.

**HAN FOOK KWANG**

Managing Editor, English and Malay Newspapers Division
 Singapore Press Holdings Ltd
Appointed on 1 April 2008

Mr Han is a Board Member of the National Environment Agency and Building and Construction Authority. He is Chairman of The Straits Times School Pocket Money Fund which provides financial assistance to needy students. Mr Han graduated from the University of Leeds in Mechanical Engineering and holds a Master's degree in Public Administration from Harvard University.

**DR NOELEEN HEYZER**

Under-Secretary-General of the United Nations, Executive Secretary of the Economic and Social Commission for Asia and the Pacific (ESCAP), and Special Adviser of the United Nations Secretary-General for Timor-Leste
Appointed on 1 August 2013

Dr Heyzer was appointed by United Nations Secretary-General Ban Ki-Moon as Under-Secretary-General of the United Nations, as well as the first woman Executive Secretary of the Economic and Social Commission for Asia and the Pacific (ESCAP) since its founding in 1947, and most recently also as his Special Adviser for Timor-Leste. She was previously the head of the United Nations Development Fund for Women (UNIFEM). She holds a Bachelor of Arts and a Master of Science from the University of Singapore, as well as a Doctorate in social sciences from Cambridge University.

**PETER HO HAK EAN**

Senior Advisor, Centre for Strategic Futures
Senior Fellow, Civil Service College
Appointed on 1 April 2011

Mr Ho is the Senior Advisor to the Centre for Strategic Futures. He is also a Senior Fellow in the Civil Service College. He is also Chairman of the Urban Redevelopment Authority of Singapore, Chairman of the Singapore Centre on Environmental Life Sciences Engineering and Director of Lee Kuan Yew Exchange Fellowship. He was Head of Civil Service, Permanent Secretary (Foreign Affairs), and Permanent Secretary (Defence). He was the founding Chairman of the Maritime and Port Authority of Singapore. Mr Ho holds a Bachelor of Arts (Honours) in the Engineering Tripos and a Master of Arts from the University of Cambridge. He is a Fellow of the Academy of Engineering Singapore.

**PROFESSOR OLAF KÜBLER**

President Emeritus, ETH Zurich
Appointed on 1 April 2006

Professor Kübler is a member of the German Council of Science and Humanities (Wissenschaftsrat). He serves on the President's International Advisory Council of King Abdullah University of Science and Technology (KAUST) and on the Board of the Institute of Science and Technology Austria (IST Austria). He is a partner of Robert Bosch Industrietreuhand KG and also serves on its Supervisory Council. Professor Kübler holds undergraduate and graduate degrees in theoretical physics from TU Karlsruhe and ETH Zurich respectively, and obtained his doctorate from the University of Heidelberg.

**KAY KUOK OON KWONG**

Executive Chairman, Shangri-La Hotel Limited
Appointed on 1 April 2008

Mdm Kuok is the Managing Director of Shangri-La Hotels (M) Berhad and Director of Allgreen Properties Limited and Kuok (Singapore) Limited. She is also the Chairman of the board of National Healthcare Group, Chairman of the Yale-NUS College Governing Board, President of the Singapore Hotels Association, Director of the Wildlife Reserves Singapore Conservation Fund and sits on the National Youth Achievement Award Council. She is a Barrister-at-Law from Gray's Inn London.

**MICHAEL LIEN JOWN LEAM**

Executive Chairman, Wah Hin and Company
Appointed on 1 April 2009

Mr Lien is Executive Chairman of Wah Hin and Company. He is a Board Member of Temasek Holdings (Private) Limited. Mr Lien was a UOB Bank Board Director from 2005 to 2009. He was a Managing Director of Morgan Stanley and headed its Singapore corporate finance business up to 2002. Mr Lien was a Colombo Plan Scholar and holds a Bachelor of Economics (First Class Honours) degree, with majors in Finance and Econometrics from Monash University, Australia.

**ANDREW LIM MING-HUI**

Partner, Allen & Gledhill LLP
Appointed on 1 April 2012

Mr Lim is Co-Head of Corporate Mergers & Acquisitions at Allen & Gledhill. He is currently a Director of Jurong Engineering Limited and serves on the board of the Council for Private Education of Singapore. Mr Lim graduated from the National University of Singapore with a Bachelor of Laws (Honours) degree and a Master of Laws degree.

**PAUL MA KAH WOH**

Chairman, Mapletree Logistics Trust Management Ltd
Appointed on 1 April 2006

Mr Ma holds directorships in Mapletree Investments Pte Ltd, CapitaLand China Development Fund Pte Ltd, CapitaLand China Development Fund II Ltd, Nucleus Connect Pte Ltd, Keppel Infrastructure Fund Management Pte Ltd, National Heritage Board and NRF Holdings Pte Ltd. He is a Fellow of the Institute of Chartered Accountants in England and Wales and a Member of the Institute of Certified Public Accountants of Singapore.

**NEO KIAN HONG**

Permanent Secretary (Education Development), Ministry of Education
Appointed on 1 August 2013

Mr Neo was former Chief of Defence Force in the Singapore Armed Forces. He has served on the boards of Jurong Town Corporation, Singapore Technologies Engineering Ltd and DSTA. Mr Neo holds a Bachelor of Engineering (Honours) (Electrical & Electronic) from the University of London, UK, as well as a Master of Science (Management of Technology) from the Massachusetts Institute of Technology, USA.

**PROFESSOR SAW SWEE HOCK**

Professorial Fellow, Institute of Southeast Asian Studies
Appointed on 1 April 2006

Professor Saw is NUS President's Honorary Professor of Statistics. He is an Honorary Professor of Statistics in the University of Hong Kong, Honorary Professor in Xiamen University, and Honorary Fellow of the London School of Economics. He is the benefactor of the NUS Saw Swee Hock School of Public Health and the Saw Swee Hock Student Centre in the London School of Economics. He holds a Master of Arts degree from the University of Malaya in Singapore and a doctorate in Statistics from the London School of Economics.

**DAVINDER SINGH**

Senior Counsel and Chief Executive Officer, Drew & Napier LLC
Appointed on 1 April 2012

Mr Singh is a Director of Petra Foods Limited, PSA International Pte Ltd, Singapore Technologies Engineering Ltd and Singapore Exchange Limited. He graduated from the National University of Singapore with a Bachelor of Laws (Honours) degree.

**PROFESSOR TAN CHORH CHUAN**

President, National University of Singapore
Appointed on 1 April 2006

Professor Tan is the Chairman of National University Health System, Deputy Chairman of Singapore's Agency for Science, Technology and Research, Director of Monetary Authority of Singapore and Board Member of the National University Hospital (Singapore) Pte Ltd. He obtained his MBBS, Master of Medicine (Internal Medicine) and PhD from the National University of Singapore and MRCP (UK) from the Royal College of Physicians.

**PHILLIP TAN ENG SEONG**

Director, EQ Insurance Company Ltd
Appointed on 1 April 2008

Mr Tan is a Director of EQ Insurance Company Ltd and is currently serving on the boards and the Audit, Finance and Investment committees of a number of statutory and charitable bodies. He is a Fellow of the Institute of Chartered Accountants in England and Wales, and a Fellow of the Institute of Certified Public Accountants of Singapore.

**ABDULLAH TARMUGI**

Member of the Presidential Council for Minority Rights
 and Former Speaker of Parliament
Appointed on 1 April 2012

Mr Tarmugi is a member of the Presidential Council for Minority Rights and former Speaker of Parliament, Singapore, and former Minister of Community Development and Sports. He is also an Independent Director for Devotion Energy Group Ltd, the Islamic Bank of Asia, GuocoLand Ltd, Goodhope Asia Holdings Ltd and Pacific Insurance Bhd. He holds an honours degree in Social Science from the University of Singapore and a postgraduate diploma (Merit) in Urban Studies from the University of London under the Commonwealth Scholarship.

**DR TEH KOK PENG**

Chairman, Ascendas Pte Ltd
Appointed on 1 April 2011

Dr Teh is Chairman of Ascendas Pte Ltd and a Board Member of Overseas Chinese Banking Corporation, Sembcorp Industries Ltd, China International Capital Corporation, and a member of the Trilateral Commission. Dr Teh obtained First Class Honours in Economics at La Trobe University, Melbourne, and a PhD in Economics at Nuffield College, Oxford University.

**YEOH CHEE YAN**

Permanent Secretary, Ministry of Culture, Community & Youth
Appointed from 14 July 2008 to 31 July 2013

Ms Yeoh is Chairman of the National Library Board and the Singapore Sports School. She holds a Bachelor of Arts (Honours) degree in Philosophy and Psychology from the University of London and a Master of Science degree in Social Psychology (with Distinction) from the London School of Economics and Political Science, University of London.

SENIOR MANAGEMENT



PROFESSOR TAN CHORH CHUAN
President



PROFESSOR TAN ENG CHYE
Deputy President (Academic Affairs)
and Provost



PROFESSOR BARRY HALLIWELL
Deputy President (Research and Technology)
and Tan Chin Tuan Centennial Professor



JOSEPH P MULLINIX
Deputy President (Administration)



DR LILY CHAN
Chief Executive Officer, NUS Enterprise



ASSOCIATE PROFESSOR BENJAMIN ONG
Senior Vice President (Health Affairs)



PROFESSOR LILY KONG (Provost's Chair)
Vice President (University and
Global Relations) and Vice Provost
(Academic Personnel)



PROFESSOR YONG KWET YEW
Vice President (Campus Infrastructure)



WEE SIN THO
Vice President (Endowment
and Institutional Development)

SENIOR MANAGEMENT



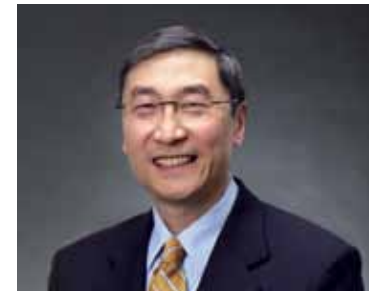
PROFESSOR HO TECK HUA
Vice President (Research Strategy)
and Tan Chin Tuan Centennial Professor



AILEEN TAN
Vice President (Human Resources)



PROFESSOR TAN TAI YONG
Vice Provost (Student Life)



PROFESSOR JOHN WONG EU LI
Vice Provost (Academic Medicine) and
Isabel Chan Professor in Medical Sciences



**PROFESSOR BERNARD
TAN CHENG YIAN**
Vice Provost (Education)

CALENDAR OF EVENTS

(1 AUG 2012 TO 31 JUL 2013)

AUG 2012

1 Themed "EXcandescent", the NUS Rag Day 2012 featured some 14 artistically created floats, all built from recycled materials in keeping with NUS' commitment to green values. Flag Day 2012 also saw some 5,000 freshmen, senior students, staff and alumni raising over S\$460,000 for 20 beneficiaries.

SEP 2012

2 The NUS Department of Social Work celebrated its 60th anniversary with former Singapore President and NUS Chancellor Mr S R Nathan, students, faculty members, alumni and representatives from the social work community. A series of activities was held as part of the celebration, including a symposium on social work education and practice; the launch of the S R Nathan Professorship in Social Work to promote social work education and encourage research on social development, poverty and asset building; and the unveiling of the commemorative book *Ebb and Flow: 60 years of Social Work Education in Singapore*.

3 As part of the Tropical Marine Science Institute's 10th anniversary celebration, some 200 visitors were treated to a close encounter with marine life at its laboratory on St John's Island. The event showcased varied research work on marine life such as algae, coral and giant clams, and included lectures on marine bacteria.

OCT 2012

4 Over 500 international and local delegates from government, industry, educational and research institutions attended the first Singapore International Public Health Conference, jointly organised by NUS' Saw Swee Hock School of Public Health (SSHSPH) and the Chapter of Public Health and Occupational Physicians, Academy of Medicine, Singapore. The event also saw the signing of a Memorandum of Understanding between SSHSPH and Singapore's Health Sciences Authority to exchange knowledge and pave the way for joint projects in public health.

5 The Bukit Timah Campus was among the five conservation sites presented with the Architectural Heritage Awards 2012 by the Urban Redevelopment Authority of Singapore. The award recognised the campus' efforts in adhering to the quality restoration principles of maximum retention, sensitive restoration and careful repair of its buildings that are listed as national monuments.

6 Former Secretary-General of the United Nations Mr Kofi Annan shared his insights into the many international issues and crises around the world at the NUS Lee Kuan Yew School of Public Policy Distinguished Dialogue session. The 2001 Nobel Peace Prize laureate also talked about his book *Interventions: A Life in War and Peace*, which documented his 40 years at the United Nations, and emphasised the need for interventions by the international community to ensure healthy societies around the world.





NOV 2012

7 The Logistics Institute – Asia Pacific and the Kühne Foundation, a public-benefit organisation based in Switzerland, jointly established the Kühne Foundation – NUS Education Centre for Humanitarian Logistics Asia Pacific, a first in Asia. Based in Singapore, the Centre will conduct standardised and advanced supply chain management courses and research into best practices and perspectives in a humanitarian context.

DEC 2012

8 Singapore Prime Minister Mr Lee Hsien Loong visited the Duke-NUS Graduate Medical School Singapore, where he toured its Emerging Infectious Diseases research laboratories and was updated on the School's progress. He was accompanied by Singapore Minister for Health Mr Gan Kim Yong, Minister for Education Mr Heng Swee Keat, and Second Minister for Home Affairs and Trade and Industry Mr S Iswaran.

JAN 2013

9 The Lee Kong Chian Natural History Museum held its groundbreaking ceremony graced by Guest-of-Honour Prof Tommy Koh, Singapore's Ambassador-at-Large and Honorary Chairman of Singapore's National Heritage Board. When completed in 2014, the S\$46-million museum will house one of the largest Southeast Asian collections of biodiversity in the region together with three almost-complete dinosaur fossils. The seven-storey building will have a "prehistoric" façade and its 8,500-square-metre museum space will be used for exhibition, research, education and controlled storage of specimens.



10 The Singapore-Delft Water Alliance and NUSDeltares hosted a visit by Her Majesty Queen Beatrix* of the Netherlands, the Prince of Orange His Royal Highness Willem-Alexander, Her Royal Highness Princess Máxima and a high-level Dutch delegation. The visit showcased key innovative projects on urban water management and water-sensitive urban design, as well as techniques for evaluating the chemical contaminants in mangrove systems.

**Queen Beatrix abdicated on 30 April 2013 in favour of her son, the Prince of Orange His Royal Highness Willem-Alexander.*

MAR 2013

11 The Stephen Riady Centre at University Town was officially opened by Singapore Minister for Education Mr Heng Swee Keat. The three-storey complex houses teaching and learning spaces as well as performing arts and athletic recreation facilities with the aim to promote active learning, support students' varied interests and develop their talents.

APR 2013

12 The NUS New Delhi Alumni Chapter celebrated its 10th anniversary and Holi, the Festival of Colours, with a reunion dinner graced by Her Excellency Karen Tan, Singapore's High Commissioner to India. NUS President Prof Tan Chorh Chuan attended the event together with over 70 alumni and some members from the Singapore High Commission. On a separate occasion, the 17th NUS overseas alumni chapter was established in Toronto, making it the second chapter in Canada, after Vancouver.



13 NUS hosted the annual International Alliance of Research Universities (IARU) Presidents' Meeting which saw over 25 Presidents, Vice Chancellors and senior representatives from IARU member universities discussing technology-enhanced learning and the changing role of Asia in the world. The participants also deliberated on the strategic directions, provided updates and offered guidance on IARU's current initiatives.

14 The first Asian World Health Summit, jointly hosted by NUS, MOH Holdings and the M8 Alliance, was officially opened by Singapore Prime Minister Mr Lee Hsien Loong. Addressing complex issues in Asia's public health under the theme "Health for Sustainable Development in Asia", the Summit had some 900 delegates from 46 countries, comprising representatives from the government, academia, industry, civil society and media.



MAY 2013

15 Singapore President Dr Tony Tan Keng Yam paid his first visit to the Yong Loo Lin School of Medicine in his capacity as NUS Chancellor to gain an insight into the University's medical education and research. The visit included a tour of the Cancer Science Institute of Singapore, and the Centre for Healthcare Simulation, one of the region's largest and most comprehensive simulation centres for clinical education and practice, housed at the Centre for Translational Medicine.

16 The NUS (Suzhou) Research Institute (NUSRI), a collaboration between NUS and the Suzhou Industrial Park Administrative Committee (SIPAC), inaugurated its facilities in Suzhou, China, at an official opening ceremony attended by Singapore Education Minister Mr Heng Swee Keat; NUS President Professor Tan Chorh Chuan; Mr Jiang Hongkun, Member of



the Standing Committee, CPC Jiangsu Provincial Committee, and Party Secretary of Suzhou Municipal Committee; Mr Wang Hongsheng, Vice Mayor of Suzhou City; Mr Wang Xiang, Party Secretary of Suzhou Industrial Park; Mr Yang Zhiping, SIPAC Director; and scholars, among other guests. NUSRI is NUS' first overseas research institute and also the first research institute in China that is set up independently by a foreign university.

JUN 2013

17 Mr Lee Kuan Yew, Singapore's founding Prime Minister, was conferred the NUS Honorary Degree of Doctor of Laws by Singapore President and NUS Chancellor Dr Tony Tan Keng Yam. The conferment was in recognition of Mr Lee's widely admired leadership; his vision, commitment and countless contributions to the economic and societal advancement of the nation; as well as his strong affiliation and contributions to the University.



18 NUS welcomed His Serene Highness Hereditary Prince Alois von und zu Liechtenstein and his delegation during their three-day visit to Singapore. Prince Alois gave a lecture where he shared with the NUS community the opportunities and challenges faced by Liechtenstein. He also addressed questions on how Singapore and Liechtenstein can collaborate and how institutions from the two countries can have exchange programmes at the university level.



EDUCATION

Our myriad of modules tells only half the story. At NUS, we don't just provide rigorous education that boldly explores across disciplines. We create opportunities and encourage our students to take learning beyond the classroom and use knowledge beyond traditional boundaries.

EDUCATION

(1 AUG 2012 TO 31 JUL 2013)

At NUS, our selection of modules opens up a myriad of academic and educational possibilities for our students – but this is only half the story. Beyond a rigorous education that boldly cuts across the traditional boundaries of the different disciplines, we create opportunities and encourage our students to take their learning beyond the conventional confines of their particular fields. We believe that a transformative education is one that challenges our students and encourages them to think critically.

In line with our goal to deliver transformative education, we continually review our curriculum and other offerings to ensure that our students have the necessary tools to become valued members of society, locally and globally. We believe in helping our students reach their full potential and become global citizens who are highly adaptive and flexible in a diverse and evolving world.

EXCELLING IN THE INTERNATIONAL ARENA

In the 2013 Quacquarelli Symonds (QS) University Rankings: Asia, NUS was among the top two Asian universities, and remained among the top five universities in Asia across all disciplines measured. We chalked up improvements in the fields of Engineering and Technology, and Life Sciences and Medicine. NUS was also ranked first in employer reputation and second in both academic reputation and citations per paper in Asia.

In the 2013 QS World University Rankings by Subject, we emerged as the best performing university in Asia. With 12 subjects ranked among the top 10, NUS secured the 8th position among universities globally in this subject ranking. The 12 subjects included Statistics; Mathematics; Material Sciences; Pharmacy and Pharmacology; Computer Science and Information Systems; Communication and Media Studies; Geography; Chemical Engineering; Electrical and Electronic Engineering; Mechanical, Aeronautical and Manufacturing Engineering; Politics and International Studies; and Modern Languages.

Similarly, we emerged second in Asia in the Times Higher Education (THE) Asia University Rankings. In the 2013 World Reputation Rankings also published by THE, NUS advanced one spot to secure the 22nd position.

The NUS MBA programme was once again placed among the top 20 outside the United States by the Princeton Review in its annual guidebook, *The Best 296 Business Schools: 2013 Edition*. NUS Business School continues to be the only Singapore institution to be included in the list of Best Business School (International) for MBA programmes.

In its inaugural Executive Master of Business Administration Rankings published on 18 July 2013, *The Economist* placed NUS' double-degree programme with the University of California, Los Angeles in the third spot among other global competitors.

ENRICHING EDUCATIONAL EXPERIENCE

In Academic Year (AY) 2012/2013, we continued to enrich our students' educational experience through several joint initiatives with various world-class institutions across the globe.

Addressing the need to enhance the healthcare teaching environment and raise standards in healthcare education, Duke-NUS Graduate Medical School (Duke-NUS) officially launched the Academic Medicine Education Institute in September 2012, a joint initiative between Duke-NUS and SingHealth. The Institute aims to build a pool of clinician educators who are passionate about developing the next generation of healthcare professionals. Tailored to the needs of clinician educators of all levels, it offers an impressive menu of faculty development programmes.

AY2012/2013 saw the launch of a joint Doctor of Philosophy (PhD) programme between King's College London's School of Biomedical Sciences, and NUS Faculty of Science. The new PhD programme, which admitted its first cohort of students in August 2012, focuses on the increasingly important and exciting field of biophysical sciences.

Also in August 2012, the Faculty of Arts and Social Sciences (FASS) signed a Memorandum of Understanding (MoU) with the University of Washington's (UW) College of Arts & Sciences to collaborate in research as well as student exchange programmes. The MoU paves the way for FASS students to go on exchange at UW and new opportunities for joint teaching by faculty from both schools.

In April 2013, an MoU was signed between the School of Computing and NUS Business School, IBM, and Singapore's Economic Development Board to set up the NUS Centre for Business Analytics. The Centre aims to help students and mid-career professionals gain the latest skills in business analytics and prepare for high-value jobs in the future. Combining NUS' research capabilities with IBM's industry expertise, the School of Computing will offer a new Master of Science degree programme in Business Analytics from August 2013. It will also introduce a Bachelor of Science (Business Analytics) course.

In July 2013, NUS and The Hebrew University of Jerusalem (HUJ) inked an agreement to further the study of biomedical science. The PhD degree programme, rolled out in August 2013, is a collaboration between the Yong Loo Lin School of Medicine and Faculty of Science at NUS, and the Faculties of Medicine and Science at HUJ. The two universities will each select two to three students for the programme over the next four years.

CARVING OUT NEW FRONTIERS

In the year in review, NUS launched a slew of groundbreaking initiatives and programmes that opened up new avenues of learning opportunities for our students – at both the undergraduate and graduate levels.

In AY2012/2013, Duke-NUS' revolutionary flipped classroom teaching approach continued to draw the attention of the global medical fraternity. It successfully employed the flipped classroom pedagogy in its TeamLEAD (Learn, Engage, Apply and Develop) approach. TeamLEAD creates a more effective learning environment suited to the way healthcare providers work today, namely in collaborative teams to create the best outcomes. The classroom is "flipped" because there are no in-class didactic lectures. Instead, students prepare beforehand for in-class activities that focus on understanding, applying principles, problem solving and strengthening creative thinking skills.

TeamLEAD's signature education programme was featured by the Association of American Medical Colleges as a case study. In addition, more than 170 delegations from 28 countries have come to learn about the TeamLEAD programme and pedagogical approach.

At the Faculty of Engineering, students in the Design-Centric Programme (DCP) made further strides in their respective fields. Engineering-in-Medicine, which comes under the DCP umbrella, launched a new module in August 2012 to a pioneer batch of

15 second-year students. The module answers the call for more trained engineers familiar with clinical environments, given the growing importance of medical technology and engineering in the field of rehabilitation medicine. Taught by a multidisciplinary team from the Faculty of Engineering and the Singapore General Hospital, the students gain hands-on experience in a hospital setting and on-the-ground interaction with healthcare professionals and patients.

The DCP also equips students with the ability to pit their skills and knowledge against their counterparts from other renowned institutes. Two DCP students were invited to represent NUS at the 2012 Engineering Festival Capstone Design Fair, held in Korea in November. The duo presented their work on designing an international transport system.

In November 2012, the Yong Siew Toh Conservatory of Music together with the Newcastle Conservatorium (Australia), Ars Electronica and Bruckner University (Austria) and Central Conservatory of Music (China), held a performance in these global locations simultaneously in real time at the International Space Time Concerto Competition. The event embraced the use of the latest digital technology, via videoconferencing, in ensemble performance. Subsequently in January 2013, the Conservatory organised Net-Music 2013, an international multi-site telematic conference, in association with the Peabody Institute of The Johns Hopkins University.

In the second semester of AY2012/2013, FASS launched a new Global Studies major. The programme aims to develop and create a multidisciplinary approach to complex global issues, while creating an awareness of emerging and current global affairs.

In January 2013, the Faculty of Law established the new Centre for Law & Business to succeed the former Centre for Commercial Law Studies. The Centre aims to enhance and promote research and educational opportunities for faculty, students, legal practitioners and business executives who share a common interest in the fields of law, business and economics. It will also engage in appropriate research projects commissioned by industry in various areas such as business organisations and competition law and policy.

In February 2013, NUS became the first Singapore higher education institution to join Coursera, a leading massive open online course (MOOC) platform. Coursera, based in Stanford University, has more than four million registered students and 84 university partners. Through this platform, our faculty will be able to deliver new forms of technology enhanced education that will augment our students' learning experiences. Using the MOOC platform, coupled with NUS' wireless setup – the largest in Southeast Asia, our students will enjoy and benefit from an efficient and seamless learning environment and experience.

In the year in review, Yale-NUS College (Yale-NUS) geared up to welcome its inaugural intake of students. It appointed 50 educators and researchers from a pool of 2,500 applicants to form its inaugural faculty, who bring with them decades of liberal arts teaching experience and impressive research profiles. Tapping into their rich teaching and research experience, they designed and developed Yale-NUS curriculum and pedagogy that seek to draw on the strengths of established liberal arts traditions, while introducing students to the diverse intellectual traditions and cultures of Asia and the world. Two faculty were appointed inaugural holders of named Professorships, in recognition of their teaching and research excellence.

With faculty and curriculum in place, Yale-NUS was well prepared for the pioneering batch of 155 students from 26 countries that matriculated in July 2013. These students, who were selected from 11,400 applicants from over 130 countries, embarked on a three-week summer immersion at Yale University before starting classes in Singapore in August 2013.

OPENING DOORS TO THE WORLD

NUS' Student Exchange Programme (SEP) reflects our commitment to prepare our students to be global citizens. It enables our undergraduates to spend time at an overseas partner university and earn credits towards their NUS degree, while immersing themselves in a different culture and learning environment.

In the period under review, NUS had 176 university-wide and 219 faculty-level SEP university partners. In all, 330 distinct universities had exchange partnerships with NUS. We sent out 1,922 students and played host to 1,792 students on exchange.

We established SEP partnerships with four new partner universities – Scotland's oldest university, University of St Andrews; Boğaziçi University, Turkey; Management Centre Innsbruck, Austria; and University of Georgia, United States. NUS and long-standing partner Duke University reinforced ties further, through a five-year agreement signed in 2012. For the Fall 2012 semester, NUS sent five Pre-Med students to Duke University and hosted nine Duke students and a faculty member in the 2013 Duke-run summer programme at NUS.

Overall, NUS offers over 90 international summer programmes, research attachments and internships in 25 countries to over 700 NUS students. International internships surged in AY2012/2013, with some 100 students embarking on internships in more than 15 countries.

The rapid growth was a result of close collaborations with local government agencies and international chambers of commerce. These collaborations paved

the way for new exciting internship opportunities with renowned companies such as Infosys, Ascendas and Singapore Airport Terminal Services Ltd. NUS students also had the opportunity to gain experience in the non-profit sector with non-governmental organisations, including Singapore International Foundation and Vietnam's Centre for Social Initiatives Promotion.

GEARING UP FOR THE REAL WORLD

It is important to groom and prepare students for the job market when they graduate and the NUS Career Centre plays an important role in career preparation in collaboration with faculties and departments.

In AY2012/2013, the NUS Career Centre launched the HeadStart and StepUp modules to help our students develop their soft skills. The HeadStart module is specially designed for freshmen to acquire skills to market themselves successfully for projects, scholarships, overseas exchange programmes, internships and jobs after graduation. The StepUp module helps graduating students to identify the careers that best align with their profiles and interests, equipping them with the skills needed to differentiate themselves and transit successfully into their first jobs.

Among some of the initiatives to provide our students with networking opportunities, the NUS Law Alumni Mentor Programme, a collaboration between the NUS Career Centre and the Law Alumni Office, links first- and second-year law students with recent alumni who pledge their time to provide mentorship, and share their experiences and insights on the legal profession.

Additionally, the NUS Career Centre together with the Computer Centre, developed an integrated Career Portal Management System called NUS TalentConnect. This portal provides one-stop access for students, employers and administrators to facilitate and track the offering of career opportunities, programmes, services and statistics.

In the first semester of AY2012/2013, the NUSS-UTown Mentorship Programme was launched for undergraduates residing at University Town's residential colleges. A total of 15 National University of Singapore Society (NUSS) mentors and 35 student mentees participated in the initial launch of the mentorship programme. The programme connects selected members of NUSS with students from various disciplines to provide personalised career guidance and support. Student mentees have found the programme useful as they benefited from career and personal development advice from their mentors, and networking with individuals from the various industries.

NEW PROGRAMMES FOR THE ACADEMIC YEAR 2012/2013

- Doctor of Philosophy, NUS-King's College London Joint Degree Programme
- Master of Science and Doctor of Philosophy in Public Health Programmes (Saw Swee Hock School of Public Health)
- Master of Urban Planning Programme (School of Design and Environment)
- Doctor of Philosophy in Environmental Life Sciences Engineering Programme (Singapore Centre on Environmental Life Sciences Engineering)

A close-up photograph of a hand holding a clear petri dish. The dish is held against a bright, warm light source, creating a soft glow. Inside the dish, the text "WE FIND NEW WAYS TO ACHIEVE IMPACT" is written in a bold, sans-serif font. The text is colored in a gradient of dark blue and orange. The background is a blurred, warm-toned surface.

**WE FIND
NEW WAYS
TO ACHIEVE
IMPACT**

RESEARCH

We are a leading research-intensive university in Asia. We have a team of world-renowned researchers who actively unravel the mysteries in science, humanities and technology among other areas of impact. Our many research collaborations result in clinical advancement and commercial application while improving lives.

RESEARCH

(1 AUG 2012 TO 31 JUL 2013)

NUS is cutting a wide swathe across a whole host of disciplinary and cross-disciplinary research fields. As a leading research-intensive university in Asia, NUS engages in strategic, high-calibre and high-impact research. We provide a conducive atmosphere and actively cultivate a robust research culture so that our talented faculty can explore and freely synergise their efforts to create new advances in their chosen fields, and positively change the world that we live in.

Much of our research is integrated and multi-disciplinary in nature. We place particular emphasis on themes such as integrated sustainability solutions for energy, water and the environment, ageing populations, biomedical sciences and translational medicine, global-Asian studies, finance and risk management, and materials science. As a result, NUS has been and will continue to be at the forefront of major scientific and medical breakthroughs as well as provide deeper and more profound insight into socio-economic patterns and behaviours.

MAXIMISING IMPACT

NUS continued to make significant strides in research in the year of review, resulting in a significant growth in our research output. In 2012, our researchers published a total of 7,158¹ papers in international journals. In Financial Year (FY) 2012, some 9,302² new projects were launched and 950² were completed. Over the same period, NUS signed 263³ research collaborative agreements. Of these, 38 were with other universities, 83 with industry, 86 with research institutions, and 56 with government agencies and statutory boards.

In line with our commitment to grow and maintain a strong research culture, we ensure that our researchers receive the appropriate funding to achieve their quest for research excellence in their respective fields. In FY2012, NUS researchers received close to \$579 million³ in research funds from the Ministry of Education, National Research Foundation, the Agency for Science, Technology and Research (A*STAR) and other granting agencies – an almost 33 per cent growth over the previous financial year.

¹ Calendar Year 2012 (1 Jan 2012 – 31 Dec 2012). Data extracted from SCOPUS online database on 19 Jun 2013 and represents document types Article, Conference Paper and Review..

² Figures reflect number of new projects that commenced and those completed respectively in FY2012 (1 Apr 2012 – 31 Mar 2013). Figures derived from SAP PS as at 20 Jun 2013.

³ FY2012 (1 Apr 2012 – 31 Mar 2013). Updated as at Apr 2013.

ACHIEVING MAJOR BREAKTHROUGHS

NUS scientists and researchers from across different disciplines come together to uncover new and exciting discoveries that make local and global impact.

- Quantum entanglement has long been considered the central resource for the advantage of quantum computers. Yet, entanglement is highly fragile, and can only be generated under near ideal laboratory conditions. This creates a major obstacle for the realisation of quantum technology that cannot yet be overcome. Quantum discord is an alternative to entanglement that has been postulated to potentially side-step this hurdle, but no firm evidence that establishes quantum discord as a resource has been discovered.

Dr Gu Mile, Professor Vlatko Vedral (Centre for Quantum Technologies and the Faculty of Science) organised an international collaboration that proposed and experimentally demonstrated a breakthrough protocol that confirms discord as quantum resource. The results, published in *Nature Physics* on 5 August 2012, showed that a quantum processor could perform tasks which classical processors cannot when supplied with quantum discord.

- Prof Zhang Yong (Faculty of Engineering) has developed novel upconversion nanoparticles that can be used as a light nanotransducer for near-infrared (NIR) photodynamic therapy (PDT) to treat large or deep-seated tumours. While PDT has proven to be an effective treatment for several different types of cancer, its full therapeutic potential has not been realised.

At present, most photosensitisers used in conventional PDT can only be activated by visible light which cannot pass through thick tissue. Their application is limited to treating tumours on or just under the skin, or on the lining of internal organs or cavities. It becomes less effective in treating large or deep-seated tumours. Using NIR light in PDT, rather than visible light, will enable deeper penetration. NIR is also less harmful to cells and tissues.

Prof Zhang's nanoparticles convert NIR light to higher-energy, shorter visible wavelengths to match the activation absorption spectrum of photosensitisers at depth. His research was reported in *Nature Medicine* on 16 September 2012 and paves the way for non-invasive deep cancer therapy.

- A team led by Prof Saw Seang Mei (Saw Swee Hock School of Public Health) in collaboration with Dr Jimmy Liu from the Institute for Infocomm Research, has designed a new and more efficient screening system that will help reduce blindness caused by severe myopia. The programme is based on early and rapid detection of peripapillary atrophy (PPA), and can be used as a quick and automatic screening tool in hospitals. The most common disc finding associated with high myopia in Singapore adults is PPA, a degeneration of the retinal tissue.

Called Pathological Myopia Detection through Peripapillary Atrophy (PAMELA), this novel automatic computer-assisted system can be used in retinal screening to detect the crescent-shaped PPA and other pathologic myopia entities in high-risk older adults with severe myopia. The early detection of PPA and other lesions will prevent

further visual morbidity as the patient can be referred for medical, surgical treatments and visual rehabilitation programmes. The prevalence of pathologic myopia is expected to increase with age. As Asia's population ages, PAMELA will be at the forefront of early detection to address the expected rise in pathologic myopia among the populace. The researchers' work was published in the *Transactions on Medical Imaging* journal in September 2012.

- In sensing applications such as fluorescence bio-imaging, separating optical signals from autofluorescence of tissue and cells can be extremely difficult if the signal and the autofluorescence background occur at the same wavelength. A non-linear optical process, upconversion, solves this dilemma elegantly by converting two lower energy photons of an incident beam into a single photon of higher energy, which then can be easily distinguished from the background.

Researchers led by Assoc Prof Liu Xiaogang (Faculty of Science) showed that the epitaxial growth of an optically inert NaYF₄ layer on NaGdF₄@NaGdF₄ core-shell nanoparticles gives access to unprecedented and tunable optical properties for a broad range of activators. This study, published in *Journal of the American Chemical Society* on 4 December 2012, should have important implications for advanced bioimaging as it highlights the possibility of constructing novel luminescent nanoparticles with high designability and tunability.

- Assoc Prof Lim Sun Sun (Faculty of Arts and Social Sciences) has conducted groundbreaking research on how social media can impact youths-at-risk and juvenile delinquents. The first comprehensive study which focuses on this marginalised, hard-to-access and understudied population, her findings have been published in the January 2013 issue of *Computers in Human Behavior*. Prior research in such communication had focused primarily on mainstream youth.

Assoc Prof Lim found that like many mainstream youths, Facebook was these marginalised youths' principal tool of online peer interaction. However, given their particular circumstances, online social networking presents issues that may compromise efforts to rehabilitate them. Currently, Internet safety education tends to be geared towards teaching young people to deal with threats from external entities. This study, however, highlights the potent risks from within one's personal social networks and the need for youths-at-risk to understand this threat to their well-being.

- Patients suffering from the most common form of liver cancer, hepatocellular carcinoma (HCC), could have better chances of survival, thanks to an international team of researchers led by Prof Daniel Tenen (Cancer Science Institute of Singapore) (CSI). The researchers found that the SALL4 gene can be used as a prognostic marker and a therapeutic target for HCC. Since the expression of SALL4 is linked to a more aggressive subgroup of HCC, patients with a

higher expression should be considered for more aggressive treatment regimen where feasible. The researchers also determined SALL4's role in liver tumour formation. By suppressing the gene, the liver cancer cells can be killed or their tumour-forming capability blocked.

Their findings, published in the *New England Journal of Medicine* on 13 June 2013, could contribute towards targeted therapy for HCC. The research could also help in the treatment of ovarian, endometrial, gastric, breast and lung cancers, as well as leukaemia. Two patent applications have been filed on this breakthrough work.

PUSHING THE BOUNDARIES

In AY2012/2013, NUS joined forces with various strategic partners to launch several initiatives aiming for significant breakthroughs in an extensive range of research fields. The University pursues actively such strategic collaborations to maximise the impact of our research in both the Singapore and global arenas.

The new Integrated Translational Oncology Network was launched in January 2013 to enhance R&D collaborations in the fight against the growing cancer burden in the Asia Pacific. The network is the result of a collaboration between Bayer HealthCare in Singapore and CSI, NUS, Duke-NUS, National University Cancer Institute Singapore, National Cancer Centre Singapore, Singapore General Hospital and Agency for Science, Technology and Research (A*STAR)'s Singapore Bioimaging Consortium. Its establishment was supported and facilitated by the Singapore Economic Development Board.

The Network takes Bayer HealthCare's on-going pre-clinical and clinical collaborations with these partners to the next level. It aims to comprehensively tackle drug discovery and development challenges for prevalent Asian cancers and deliver novel therapies from bench to bedside through collaborative projects and trials. The partners will also organise joint activities, such as annual meetings, workshops and lectures, linking their network and activities to other leading centres in Asia Pacific.

In March 2013, NUS launched the Centre for Aerospace Engineering (CAE) in collaboration with DSO National Laboratories and two industry partners, SIA Engineering and ST Aerospace. Hosted at the Department of Mechanical Engineering, CAE is designed for aerospace-focused research, education and outreach activities. It serves as an effective bridge between industry and academia, where industry can tap on the expertise of NUS academics and budding researchers. The Centre is uniquely positioned to contribute significantly to both Singapore's aerospace industry and its economy.

With an initial funding of S\$1 million over three years, it will carry out cutting-edge research with its industry partners as well as equip students with the skills and knowledge needed to pursue careers in the field. With the aeronautical specialisation, the students will be able to read modules such as aircraft structures, aeroelasticity and experimental methods in fluid mechanics. At steady state, the Department will admit around 50 aerospace engineering students per year.

The Singapore-Delft Water Alliance (SDWA) continued to make waves in the year in review. A S\$4 million coastal water monitoring system, developed jointly by the National Environment Agency and SDWA was deployed in March 2013. Called Neptune, it is the world's first real-time round-island coastal water monitoring system.

Neptune comprises a monitoring system which detects changes in a range of water quality indicators, and an advanced computer modelling system that provides continuous forecasts of flow conditions and calculates the status of more 70 water quality parameters. It will track and send live updates of ocean conditions for processing to an operational management system located on mainland Singapore. It thus allows the authorities to respond rapidly to water pollution incidents and anticipate potential pollution hotspots and helps maintain a safe and high-quality maritime environment in Singapore.

Under the two-year collaboration, SDWA will provide the full specification for the monitoring system and has developed the complete forecast framework consisting of a range of computer models of flow and water quality plus the operational management system.

In May 2013, the University officially opened our first overseas research institute at the Suzhou Industrial Park. A partnership between NUS and the Suzhou Industrial Park Administrative Committee, the NUS (Suzhou) Research Institute (NUSRI) is the first such institute in China to be managed by a foreign university. NUSRI allows the University to expand our scope of research into new areas while benefiting Singapore students through immersion programmes and internships. In addition, it helps to extend the research ecosystem and entrepreneurial landscape with an incubator that supports both NUS and Singapore start-ups for their businesses in China.

Its research efforts span diverse disciplines, namely advanced electronic devices, biomedical science and engineering, energy and environment technology, agricultural and food science and technology, interactive multimedia and software development, and nano materials and applications. Eleven research projects headed by NUS investigators have been set up. NUSRI will also focus on creating stimulating and strong education programmes for students in China, such as seminars and workshops for business executives.

NUMBER OF PAPERS
PUBLISHED IN INTERNATIONAL
JOURNALS IN CY2012¹

7,158

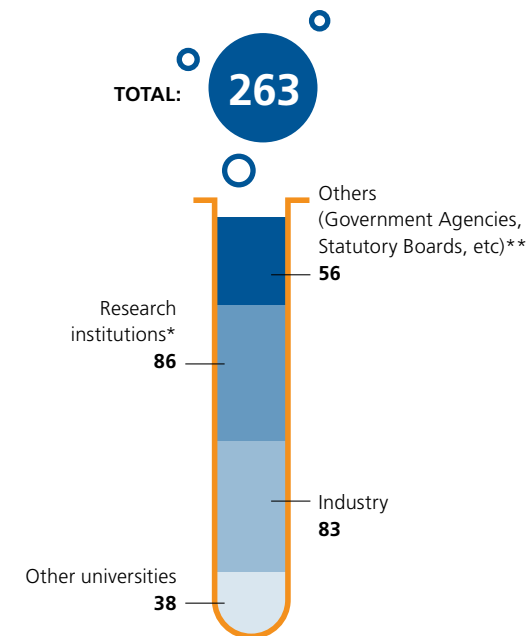
NUMBER OF NEW PROJECTS
THAT WERE LAUNCHED
IN THE YEAR²

9,302

NUMBER OF PROJECTS
THAT WERE COMPLETED
IN THE YEAR²

950

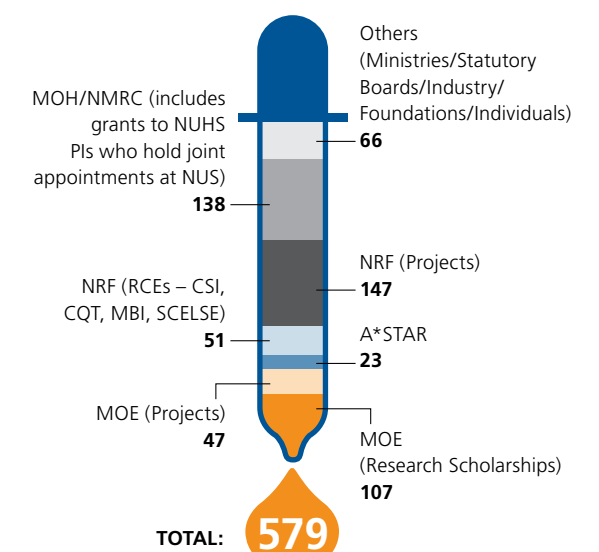
NEW RESEARCH COLLABORATIVE AGREEMENTS THAT TOOK OFF IN FY2012³



* Includes A*STAR Research Institutes and Centres

** Includes local public/restructured hospitals

TOTAL PROJECT VALUE AWARDED BY EXTERNAL SOURCES (S\$MILLION)³



The figure for FY2012 also includes funding for Research Centres of Excellence, Centre for Quantum Technologies of \$15.8 million (based on total award of \$158 million over 10 years), Cancer Science Institute of Singapore of \$17.2 million (based on total award of \$172 million over 10 years), Mechanobiology Institute of \$15 million (based on total award of \$150 million over 10 years) and the Singapore Centre on Environmental Life Sciences Engineering of \$3 million (based on 25% funding of total award of \$120m over 10 years).

¹ Calendar Year 2012. Data extracted from SCOPUS online database on 19 June 2013 and represents document types Article, Conference Paper and Review.

² Figures reflect number of new projects that commenced and those completed respectively in FY2012. Figures derived from SAP PS as at 20 Jun 2013.

³ FY2012 figures updated as at Apr 2013.



WE BRING IDEAS TO LIFE

ENTREPRENEURSHIP

Innovation and entrepreneurship power Singapore's economic growth. We promote the spirit of enterprise through experiential education and industry engagement. With an NUS education, our students can write a new chapter in the success story of our nation and thrive in a globally competitive economy.

ENTREPRENEURSHIP

(1 AUG 2012 TO 31 JUL 2013)

The University's commitment to fuelling the entrepreneurial spirit among our students and faculty remains undiminished, in line with our long-term goal to ignite the spirit of enterprise among the NUS community.

Building on our firm foundation of enterprise and innovation, we create a strong entrepreneurial culture through teaching, training, internship, and the nurturing of start-up enterprises. We help transform the ideas of our students and faculty into reality through experiential education, industry engagement and partnerships, and entrepreneurship support. We provide the optimal environment for fledgling ideas to turn into functional reality and generate significant benefits to Singapore and the region.

Hence, with the continuous regeneration of new and innovative initiatives, our entrepreneurial spirit remains alive and vibrant.

As transforming ideas into commercial and functional reality remains a long-term goal for us, our enterprise arm, NUS Enterprise (ETP), provides an entrepreneurial and innovative dimension to the University's core research and educational activities. It nurtures future entrepreneurial leaders and provides partnering opportunities for success so that the innovations formulated by our students, faculty and alumni can have a positive impact on Singapore and far beyond. In Academic Year (AY) 2012/2013, we continued to actively help bring ideas to life through an array of events, initiatives and programmes.

HOSTING THE EVENT

Our annual InnovFest conference, now in its fourth year, has become an iconic event for Singapore's entrepreneurial community who gather each year to share new areas and meet potential collaborators. The three-day event served up an extensive and comprehensive menu of innovation and entrepreneurship-related activities. It pulled together all facets of the innovation spectrum, further entrenching its branding as *the* event for entrepreneurs and their collaborators.

InnovFest 2013 saw the launch of the NUS Living Lab project. This strategic initiative will transform the University into a major test-bed for new interactive digital media or info-communication solutions, which can then be rolled out in Singapore and international markets. Ultimately, it will provide a platform for pilots and trials at an unprecedented scale. Fifteen start-ups and several local and global major corporations including M1, Starhub, MediaCorp and Microsoft have already signed up.

InnovFest 2013 also shone a spotlight on the best and brightest ideas and their creators. At the Innovation & Enterprise Awards, the Promising NUS Start-up Award was presented to AWAK Technologies, which developed the world's first wearable, artificial kidney based on sorbent regenerative technology. The Outstanding NUS Innovator Award was presented to Dr Pete Kellock from the NUS School of Computing for his role in developing a novel video production product targeted at consumers.

In addition, the conference provided a platform for nine NUS technologies to be showcased to potential industry partners and investors. At the National Technology Pitching sessions, NUS researchers in the fields of medical devices, diagnostic and research reagents had the opportunity to receive feedback from industry experts. Several received inquiries for possible licensing or collaboration agreements.

Particular focus was given to five technology tracks. Among them, the water panel received strong support from government agencies SPRING and PUB, which acknowledged the link between university research and a vibrant industry landscape in Singapore. The panel encouraged our local companies to tune in to needs and trends to stay competitive, highlighting how public-funded university research could enable companies to differentiate their business and products.

GROOMING TOMORROW'S ENTREPRENEURS

Through diverse programmes and initiatives, NUS is actively growing the next generation of entrepreneurs. We nurture an entrepreneurial mindset among our students and help them develop the relevant skill sets for commercial success. We immerse them in the local and global entrepreneurial scenes, equipping them with a macro perspective that hones their competitive edge in successfully starting and running entrepreneurial ventures.

In AY2012/2013, 182 students took part in our two major grooming initiatives – the NUS Overseas Colleges (NOC) and the *innovative* Local Enterprise Achiever Development (iLEAD) programmes. They emerged with an entrepreneurial mindset, achieving

great success at competitions and embarking on entrepreneurial ventures.

Among our shining performers was NOC Silicon Valley alumnus Apoorv Agrawal. He and his team came out tops at the Google Singapore Challenge 2012, weathering stiff competition from 20 teams from NUS and other local universities.

Another alumni start-up Burpple was voted one of Asia's top 10 start-ups at the Open Web Asia conference in December 2012. It beat nearly 100 other nominees from China, Hong Kong, India, Indonesia, Korea, Malaysia, Philippines, Thailand and Vietnam.

Jublia proved to be another winner. The brainchild of NOC alumni (Stockholm) – Chinab Chugh, Tan Kuan Yan and Errol Lim – provides a platform for event organisers to maximise the network potential of their events. In January 2013, Jublia clinched the top prize in the international category of the IGNITE Business Plan Competition 2012 held in Brunei.

The annual national-level Start-Up@Singapore (S@S) Business Plan Competition is yet another programme designed to groom aspiring entrepreneurs. Now in its 14th year, S@S 2012/13 soared to new heights, attracting a record-breaking 467 entries and 1,310 participants. The award ceremony for the event was dubbed by Channel NewsAsia as Singapore's "biggest entrepreneurship challenge".

We are seeing the fruits of this initiative to groom entrepreneurs in turning their ideas into reality. Avetics, the previous winner of S@S Open Category Prize, went on to secure the first prize of US\$15,000 in the Computing 2020 category of the Intel Global Challenge at the University of the California, Berkeley in November 2012.

NUS Enterprise Incubatee, Sorgen Pte Ltd, was one of the joint winners in the Biz Venture Open category in the 14th S@S. Sorgen focuses on creating assistive innovations to better the lives of the elderly and the physically disabled. Founder Serene Tan, from NUS Business School, created the gliding walker frame for the elderly, which has been commercialised in April 2013.

Both Sorgen and Jublia were also beneficiaries of the Innovation and Entrepreneurship Practicum Grant by ETP. We also see more Practicum Grant projects receiving either government grants or private investment to further develop their product and forming new start-ups. These include Saught, Carousell and Sustainable Living Lab.

FORGING INDUSTRY PARTNERSHIPS

The University, through the NUS Industry Liaison Office (ILO), continues to actively engage the industry, sourcing for projects and inventions as well as licensing opportunities with spin-off potential. In the year of review, ILO handled 246 industry and research collaborations. In all, 476 patents were filed and 40 patents granted. NUS also received 293 invention disclosures.

Several NUS projects have been translated into useful and beneficial solutions. For instance, NUS spin-off Medad Technologies, established in 2012, is working to meet urban needs sustainably through the Adsorption Desalination and Cooling (ADC) technology. Pioneered by Prof Ng Kim Choon from the

Department of Mechanical Engineering in 2001, the ADC technology utilises low-grade heat to produce pure water and is being used in Singapore, Saudi Arabia, Poland and South Korea. It will be further developed in China. This technology, when hybridised with Multi Effect Distillation also known as MED+AD, is able to desalinate seawater or brackish water at half the cost of existing technologies.

In June 2013, NUS and Sumitomo Chemical Company, Japan (SCC) signed a landmark IP Pipeline Agreement which will allow SCC to commercialise intellectual property developed by NUS Organic Nano Device Laboratory in the fields of polymer organic-light-emitting diodes (OLEDs) and organic solar cells. SCC will provide a substantial amount of funding to encourage research in the field, with an option to license any Intellectual Property (IP) arising from the agreement. The petrochemical giant will also provide a large IP management fee and take on the entire patenting bill if the IP falls within the defined field. Our interactions with SCC, a world leader in developing polymer OLED applications, will further raise the international profile of NUS and Singapore in this field.

In December 2012, ETP completed a year-long study commissioned by the Intellectual Property Office of Singapore on global trends in Digital Convergence. This study will contribute to policy recommendations for positioning Singapore as a hub for IP creation and management activities in the ICT, software and creative content industries.

NURTURING START-UPS

Through its incubator ecosystem, ETP provides both the hard and soft infrastructure to nurture start-ups into viable companies, including provision of physical space, mentoring, matchmaking with angel investors and venture capitalists, start-up funding schemes and IP advisory services. There are now over 100 NUS Enterprise portfolio companies.

Several NUS start-ups have done well. In March 2013, Clearbridge BioMedics, which commercialises NUS bioengineering research to develop cancer diagnostic devices, received financing of S\$9 million. Among the first products of the company is the ClearCell System, a device that can detect, isolate and retrieve wholly intact Circulating Tumour Cells from small quantities of patient blood samples. The company also won the first prize at the inaugural Asia Entrepreneurship Challenge held in Tokyo in May 2012.

A few social ventures incubated under the Grameen Creative Lab@NUS (GCL@NUS) initiative received follow-on funding. One of these, BagoSphere, a social venture that provides affordable and effective call centre training programmes for rural youths in the Philippines, raised S\$100,000. Saught, another social venture which creates products from war remnants to generate jobs in post-conflict countries, was one of the first recipients of the One Young World Social Business Fund. One Young World is a London-based charity that gathers together young people

from around the world, to help them make lasting connections to create positive change. One Young World Social Business Fund offers promising social businesses with low or no-interest loans. Saught received a €20,000 loan that will help the business expand beyond Singapore.

March 2013 saw the launch of PGP5 Incubation Centre, the first entrepreneurial co-working location on campus which caters to entrepreneurs at the ideation or validation phase. Besides meeting facilities and mentoring services, budding entrepreneurs can tap on ideas and trade strategies with like-minded and passionate individuals.

In addition, the Validation Programme was introduced to provide assistance to early stage start-ups. Through the three-month programme, participants gain a deeper understanding on improving their ideas through iterations and testing of their various initial assumptions. A total of 16 projects went through the first pilot run, held from March to June 2013.

Plug-In@Blk71 continues to help start-ups access needed business and advisory services as well as introduces them to potential partners and investors. Home to fledgling start-ups like Burpple, Milaap and Carousell, the incubator organises business clinics, TechMeetups, networking sessions, Investor Day, and Technical User Groups to provide a convenient platform for developers to connect with each other and meet incubating start-ups and entrepreneurs.

A person is wearing a white t-shirt. On the left side of the chest, there are three pins: a white pin with a blue and green shield logo and the text 'NUSSU SAVE Students Against Violation of the Earth', a white pin with a red heart logo and the text 'NUS STUDENTS' COMMUNITY SERVICE CLUB', and a red pin with the text 'NUS FIGHTS CLIMATE CHANGE'. On the right side of the chest, there are two pins: an orange pin with a gear logo and the text 'I.VOLUNTEER BE THE GEARS OF CHANGE', and a white pin with a green tree logo and the text 'CAMPUS IN A TROPICAL RAINFOREST'. Large orange text is printed across the center of the t-shirt.

WE GIVE BACK TO THE COMMUNITY

COMMUNITY

We are a premier tertiary institution not just because of academic and research excellence. Social dimension plays a big role as well. We groom our students to serve the society and to make a difference. This is how we see education: self-betterment encompassing the head, the heart and the hands.

COMMUNITY

(1 AUG 2012 TO 31 JUL 2013)

At NUS, our undergraduates receive a high-quality and globally-oriented education which builds on their inherent strengths and spurs them to give of themselves. We provide them with a plethora of opportunities to realise their full potential and enhance their capabilities through programmes and activities beyond the formal curriculum.

Besides enriching their campus life, these programmes seek to cultivate and nurture their leadership abilities so that they can apply their innate sense of responsibility and commitment, passion and ethics to everything that they do. And when our students graduate, they emerge from NUS as mature and discerning individuals who can think critically and articulate clearly their views, while remaining sensitive to the needs of the wider community and are highly adaptable to the ever-evolving local, regional and global landscapes.

KEEPING THE COMMUNITY SPIRIT ALIVE

NUS students continued to demonstrate their deep sense of commitment and dedication to the wider community. Through a host of programmes and activities, they proactively engaged and assisted various communities in need by raising funds as well as undertaking voluntary work and projects.

In Academic Year (AY) 2012/2013, NUS' extensive array of student-initiated projects raised more than S\$518,000.

The largest amount of S\$460,000 was raised at the annual Flag Day, held on 7 August 2012 and administered by the National University of Singapore Students' Union (NUSU). The proceeds from the event aided 20 beneficiaries under the Community Chest.

Over the past decade, our students have raised more than S\$4.3 million for Community Chest through this event and they have been receiving the Community Chest Special Events Award each year since 2003. In 2012, due to their tireless efforts, the University received the Community Chest Special Events Gold Award.

Another major student-initiated fund-raising programme organised by the NUS Students' Community Service Club (CSC) is the Signature Love Project (SLP). Its goal is to not just raise funds but also awareness for its beneficiary groups, which vary from year to year. In the year of review, CSC's beneficiary for SLP X was the Patient Care Centre of the Tan Tock Seng Hospital Community Charity Fund, which received S\$14,600.

COMMUNITY

The NUS Rotaract Club organised its first Waves of Hope Swimathon in July 2012. This swimming event with a heart was organised for the Children's Cancer Foundation and Singapore Children's Society. With its motto "For Children, by Children", the event attracted 270 participants and raised a total of S\$20,710 for the two beneficiaries.

At University Town's (UTown) Tembusu College, the Tembusu Globe Trekkers raised S\$25,000 for The Straits Times (ST) School Pocket Money Fund by participating in and completing one of the world's toughest endurance footraces, the Gobi March, in June 2013. The group of seven students and one faculty covered 200km of desert terrain in support of less privileged children and youths in our society.

Our students at the Halls of Residence continued to remain engaged in and committed to various Overseas Community Involvement Programmes (OCIP).

The Raffles Hall Volunteer Corps kicked off its first OCIP with two projects in Chiang Rai, Thailand from May to June 2013. Through a successful collaboration with The Green Volunteers, a local non-governmental organisation, the students built a much-needed communal hall for Bann Aka Srivichian village and reconstructed a well for the Mae La Oop Karen village.

A team from Eusoff Hall continued their work in Project Kaleido-scope. During their trip to Baray Keat, Cambodia, the students helped to construct 47 toilets, re-patched four houses, distributed water filters and deworming tablets as well as taught children basic English and numerical skills. Prior to

this two-week trip in May 2013, the team organised a project where Singapore primary school students tie-dyed T-shirts and made cards for their Cambodian counterparts. The art-and-craft project served to educate schoolchildren here about community service beyond Singapore's shores.

In May 2013, Temasek Hall embarked on Project Smile (Project NuCử'oi) to impart educational knowledge to the children at Phu My village, Vietnam. They conducted lessons and educational activities for the village children, and helped improve their physical environment by building a playground and refurbishing their classroom to make it more interactive.

PURSuing A HIGHER CALLING

Apart from raising funds, our students also organised several activities and programmes that sought to inspire their peers to take up the banner for various worthy causes.

The Chua Thian Poh Community Leadership Programme, the University Scholars Programme, Tembusu College and local non-governmental organisation EmancipAsia co-organised the symposium *Human Trafficking – Be Informed, Be the Change* to raise awareness about human trafficking. Held at the Chua Thian Poh Hall at Cinnamon College in September 2012, key media experts, local and international activists, and social entrepreneurs came together to inspire 180 NUS students and other participants to take the first step towards combating this global crime.

In January 2013, the NUS CSC held its annual CSC Day with a *Once Upon A Kampung* theme at the Central Forum, where over 100 student volunteers engaged and bonded with the elderly, the intellectually disabled as well as children and youths-at-risk from 98 beneficiaries. The elderly shared their rich tapestry of experiences with the young as they reminisced about the *kampung* days when the community spirit of unity and *gotong royong* (mutual helpfulness) was alive and strong.

Eusoff Hall held its third run of the Eusoff Fiesta/Funfair in March 2013, a fundraising event for fellow Eusoffians which also helps to foster a sense of camaraderie among Hall residents. The event raised S\$11,666, with all proceeds channelled to the Eusoff Bursary Fund for financially needy students.

Students from the College of Alice and Peter Tan (CAPT) and Tembusu College held a photo exhibition, *Life in Singapore through Migrants' Eyes* in April 2013. By showcasing photos taken by foreign workers, the students sought to promote a better understanding of this marginalised community and highlight their contributions to Singapore.

CAPT's largest student group, Active Community Engagement (ACE) Wing, organised various activities including visits to Professor Brawn Café, a social enterprise which employs people with special needs, and a sharing session with Care Singapore on youths-at-risk. Through these activities, ACE hopes that more students will become meaningfully engaged in society and contribute to building an inclusive community.

GROOMING TOMORROW'S LEADERS

The NUSLEAD programme, offered by the NUS Career Centre, is both a leadership as well as a community service initiative. Its goal is to realise fully the leadership potential of NUS students and galvanise their strengths to address key global challenges effectively in the years ahead.

In AY2012/2013, a total of 47 scholars and student leaders participated in NUSLEAD. Seven community service projects, which made a significant positive impact on 600 beneficiaries, were successfully implemented.

Among the projects was *Build Your Dream*, which offered moral support to children suffering from illnesses, and increased public awareness of diabetes and renal failure among children. In March 2013, children from the National University Hospital and Kandang Kerbau Women's and Children's Hospital were separately treated by 45 NUS volunteers to a fun day in the sun at East Coast Park. This project will be extended beyond the NUSLEAD programme, with funding from the two hospitals, the National Youth Council and Medtronic Singapore.

The Chua Thian Poh Community Leadership Programme helps students to leverage on the skills, knowledge and experiences learnt in the classroom to launch innovative initiatives, which help organisations tackle complex social challenges. One of the organisations which benefited from this programme was social enterprise Bizlink Centre, which was able to gauge the fairness of its wage appraisal system and plan for an ageing workforce through the work done by a second-year Economics student.

This leadership programme actively seeks out students who are keen to channel their academic knowledge and expertise towards doing good for society.

At CAPT, selected senior students can also undertake the Capstone Experience, a UTown module which requires students to work with community partners to address challenging issues, allowing for an authentic and practical interdisciplinary learning experience. In AY2012/2013, students engaged in four projects which revolved around mentoring, youths and elderly, and health and nutrition.

GREENING FOR SUSTAINABILITY

The NUS community seeks to enhance the environmental sustainability of our campus. As a shining testimony to our efforts, three new buildings within our campus – Ventus and medical blocks MD9 and MD4/4A – attained the BCA Green Mark Platinum rating, the Building Construction Authority (BCA)'s highest green certification.

This eco passion resonates strongly among our students, who are ardent green advocates. The NUSSU Students Against Violation of the Earth (SAVE) actively promotes environmental awareness and action on campus. Its Climate Action Day is held annually to raise environmental awareness and translate this awareness into action.

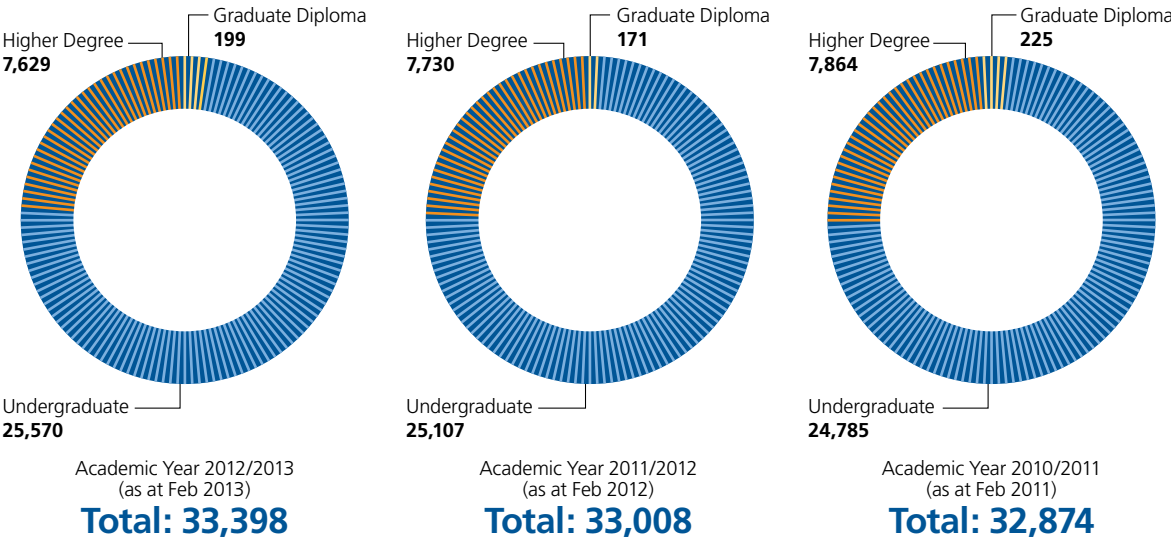
Climate Action Day 2012 encouraged the NUS community to switch from travelling by cars and buses to walking and cycling to get around the campus. Bikes were available for free at various stations on campus to promote eco-friendly ways to commute. Some 500

students and staff took part in this cycling exercise.

To promote the sharing of best practices on campus sustainability, NUS co-organised the 7th International Sustainable Campus Network (ISCN) Conference in June 2013. The Conference brought together some 100 participants from universities around the world to discuss how we can further develop holistic sustainability programmes that will balance sustainability and growth, and make an impact beyond campus boundaries.

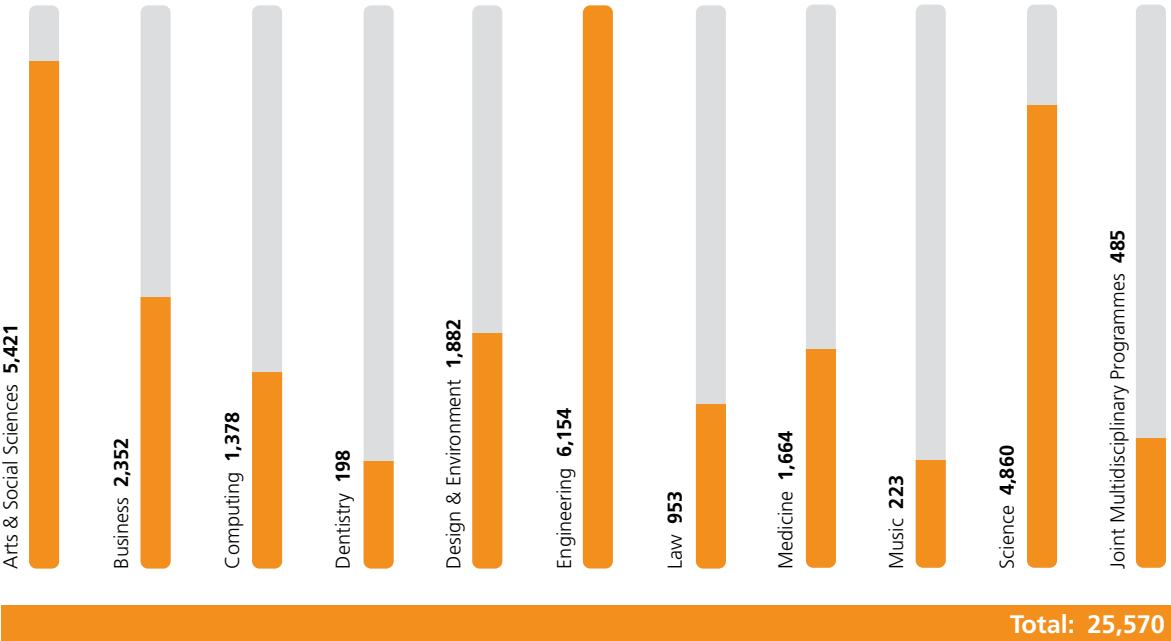
ACADEMIC YEAR IN REVIEW

PROFILE OF STUDENTS

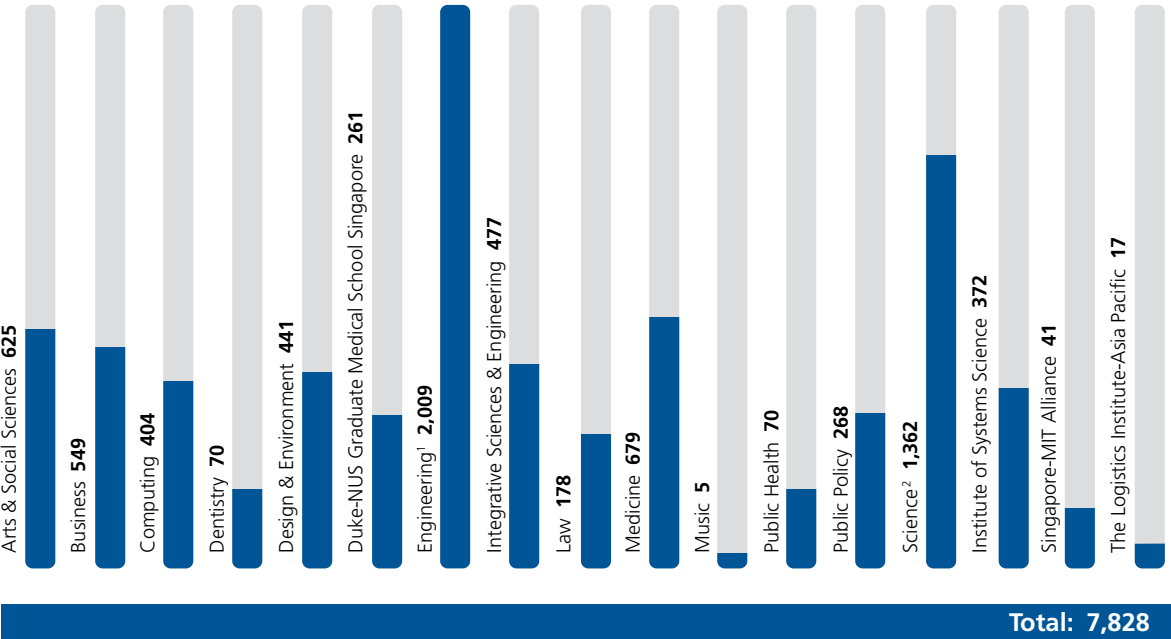


ACADEMIC YEAR IN REVIEW

UNDERGRADUATE ENROLMENT 2012/2013 (as at February 2013)



GRADUATE STUDENT ENROLMENT 2012/2013 (as at February 2013)

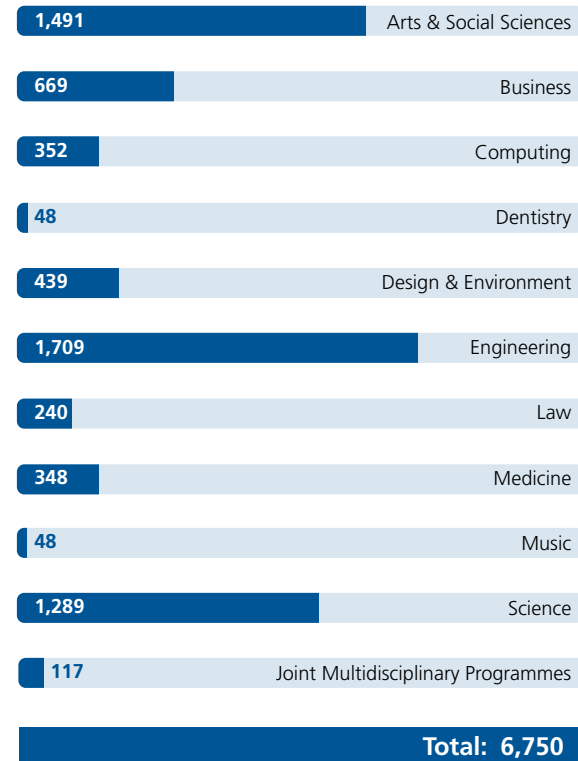


¹ Includes Temasek Defence Systems Institute figures

² Includes Risk Management Institute figures

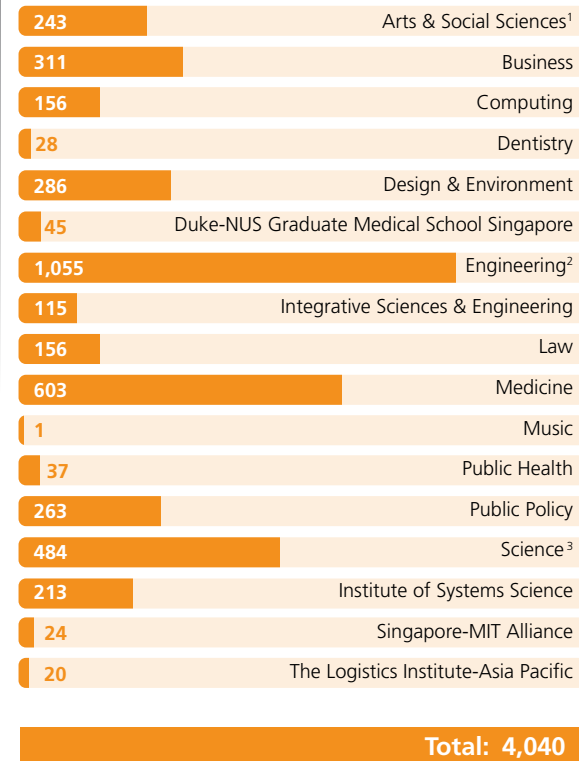
FIGURES SHOWN ON PGS 50–51 ARE IN FULL TIME EQUIVALENT

PROFILE OF CLASS OF 2013 (FIRST DEGREE GRADUATES)*



* Figures correct as at 17 July 2013 and are based on degrees conferred between 1 July 2012 and 30 June 2013. Double degree graduates are counted towards both their home and second faculties.

PROFILE OF CLASS OF 2013 (HIGHER DEGREE & GRADUATE DIPLOMA GRADUATES)*



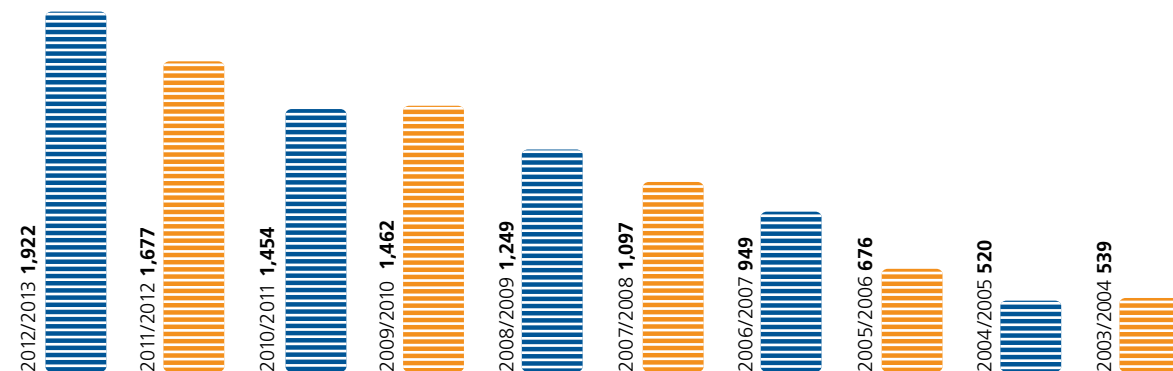
* Figures correct as at 17 July 2012 and are based on degrees conferred and graduate diplomas awarded between 1 July 2012 and 30 June 2013.

¹ Includes Regional Language Centre figures

² Includes Temasek Defence Systems Institute figures

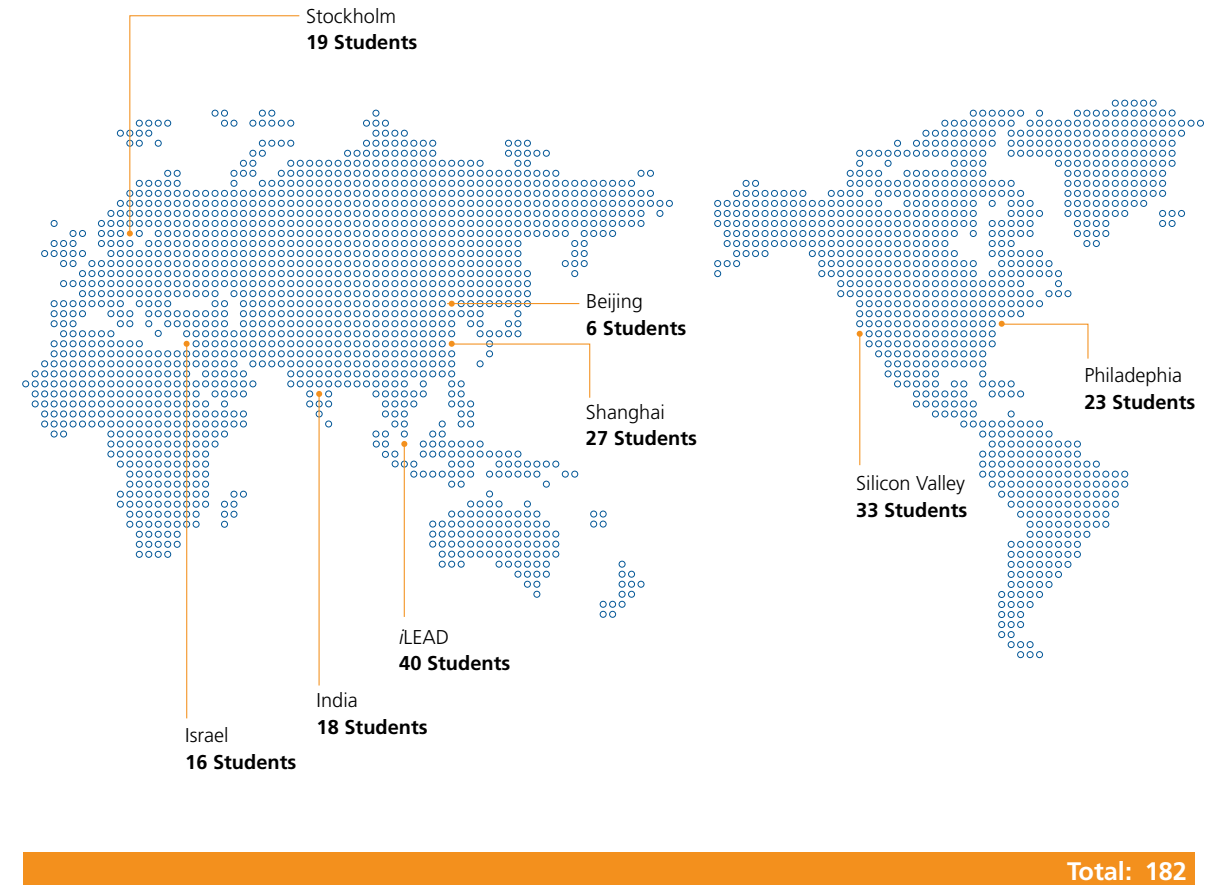
³ Includes Risk Management Institute figures

NUS STUDENTS ON STUDENT EXCHANGE*



* Undergraduate students on student exchange with overseas partner universities

STUDENTS AT THE NUS OVERSEAS COLLEGES FOR ACADEMIC YEAR 2012/2013 (as at July 2013)



PROFILE OF FACULTY AND STAFF (as at June 2013)



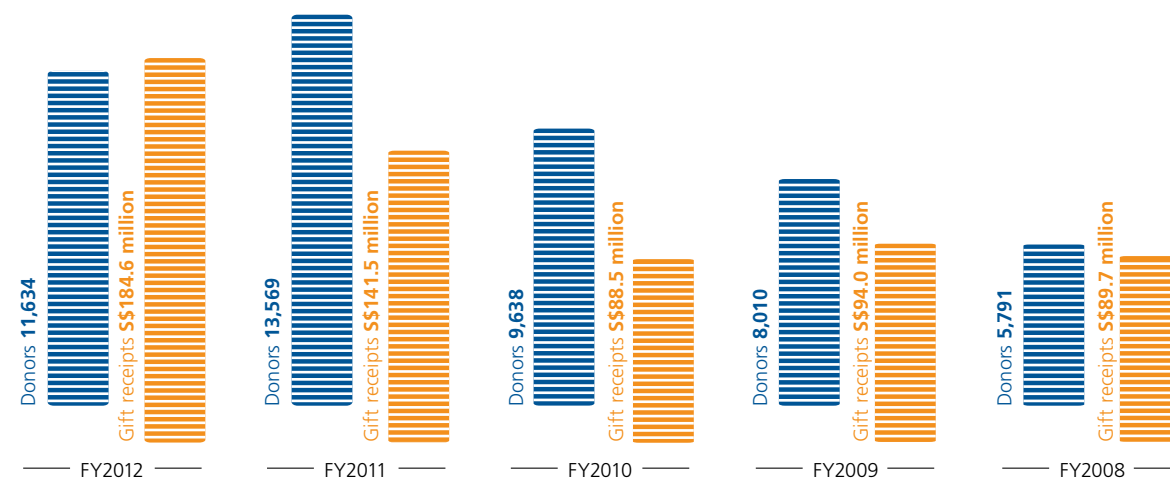
* Faculty include tenurable faculty and other teaching staff.

FIGURES SHOWN ARE IN FULL TIME EQUIVALENT AND EXCLUDE STAFF ON HONORARY APPOINTMENTS.

BENEFACTIONS

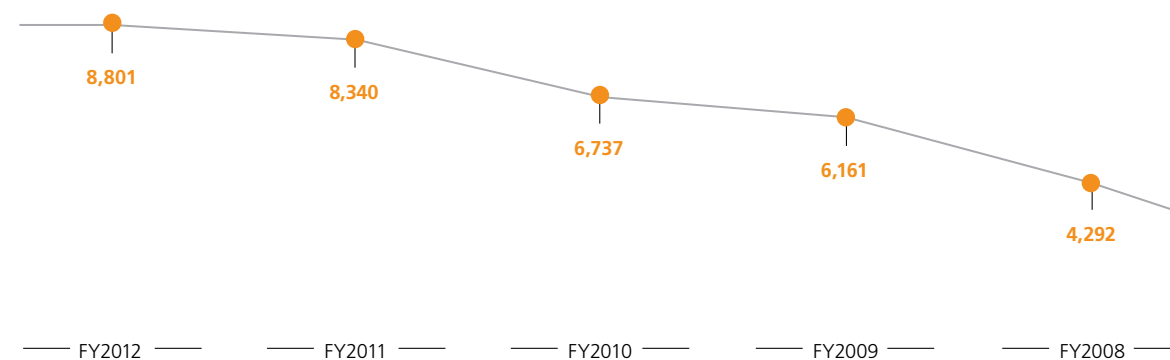
The University is grateful to our 11,634 donors for their philanthropic support of S\$184.6 million in gifts in FY2012 (1 April 2012 to 31 March 2013).

DONORS AND GIFTS



ALUMNI DONORS

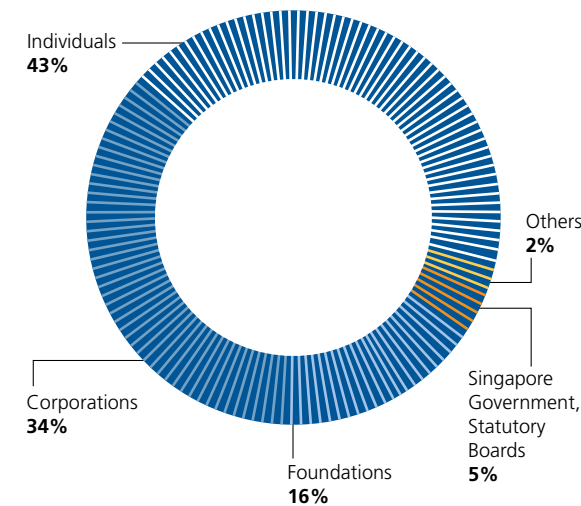
In FY2012, the number of alumni donors increased by 5.5 percent compared to FY2011 and they gave a total of S\$13.5 million.



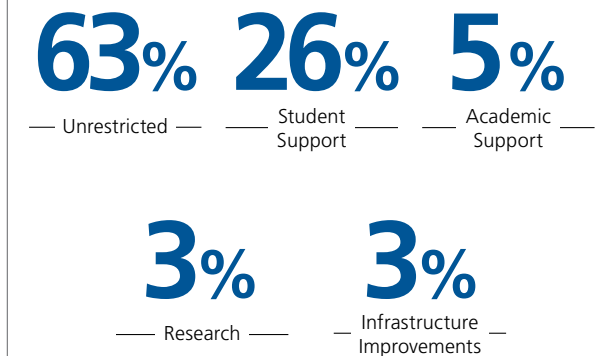
AT THE TIME OF PUBLICATION, THE FIGURES INCLUDED IN THIS REPORT ARE UNAUDITED NUMBERS.

BENEFACTIONS

GIVING BY SOURCE FY2012 (in value)

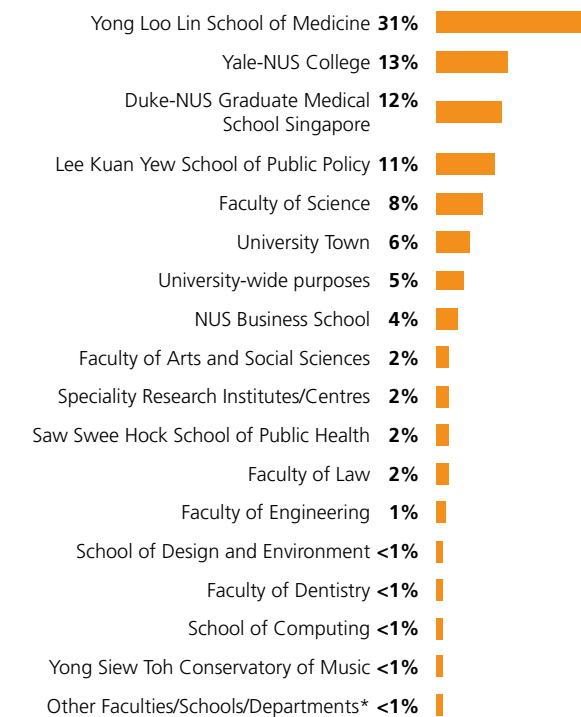


GIVING BY PURPOSE



Your gifts are making an impact across the entire University.

GIVING BY DESIGNATION FY2012 (in value)



* Other Faculties/Schools/Departments include the Centre for English Language Communication, Halls of Residence, NUS Museum, NUS Centre For the Arts, NUS Graduate School for Integrative Sciences and Engineering and University Scholars Programme.

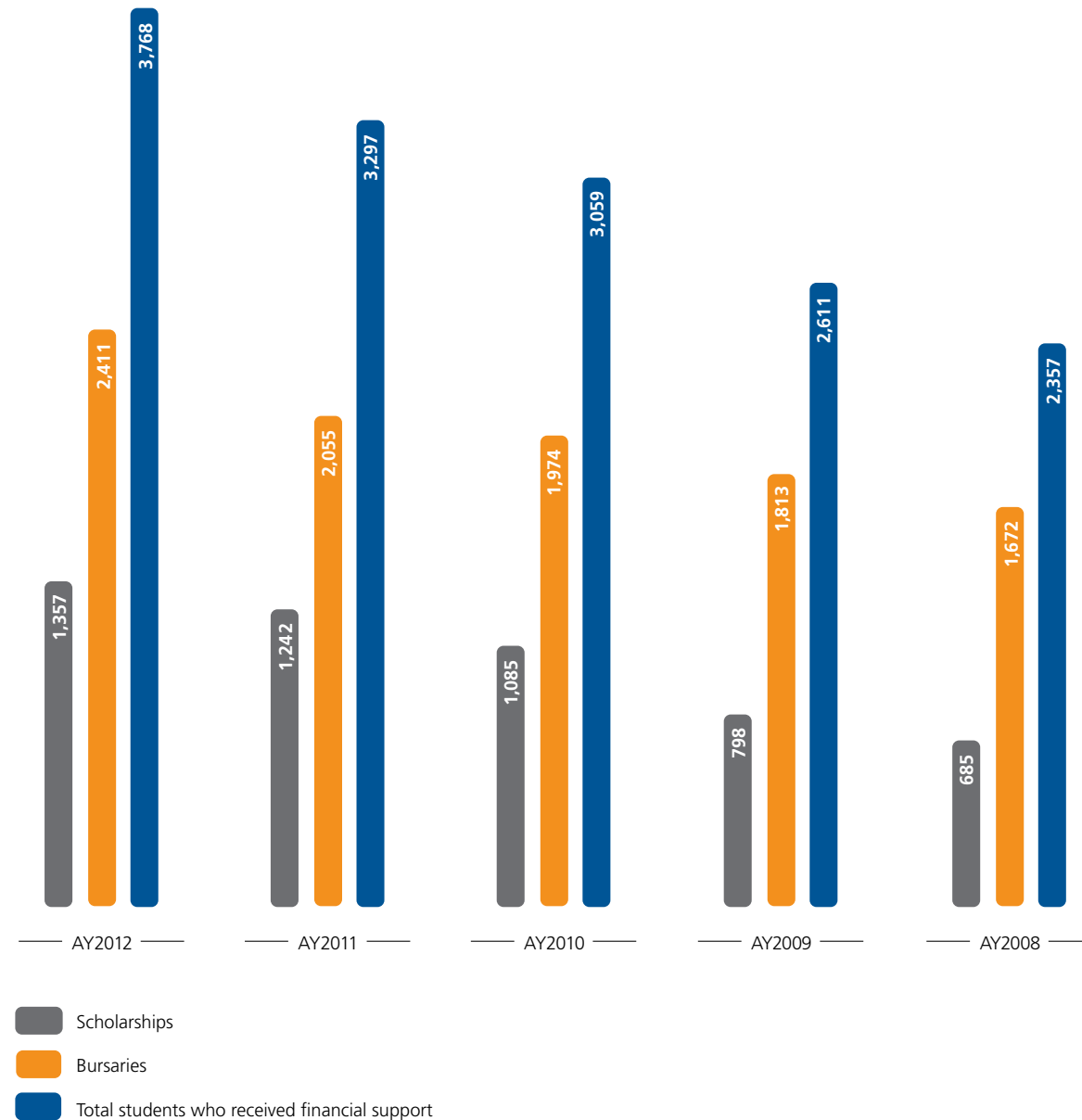
- An **Unrestricted** gift allows the University, or Faculty, the greatest flexibility to direct funds where they are needed most urgently, and allows NUS to take advantage of strategic opportunities to advance education and research.
- Gifts restricted to **Student Support** fulfil the dreams of every NUS student through:
 - Bursaries for students in financial need.
 - Student exchange programmes that take education into the field and overseas.
 - A range of scholarships and awards at every level to recognise and enable the highest achievements in learning.
- Gifts restricted to **Academic Support** enable NUS to recruit and retain the finest professors and fellows from around the globe.
- Gifts restricted to **Research** fund promising early stage research as well as provide seed funding for new faculty members at NUS. (Grants from government agencies and sponsored research that are not considered charitable gifts are not included here.)
- Gifts restricted to **Infrastructure Improvements** enable NUS to provide a conducive environment that will help keep our students and staff at the cutting edge of innovation and discovery.

REPORTED FIGURES ARE EXCLUSIVE OF UNFULFILLED PLEDGES, SINGAPORE GOVERNMENT RESEARCH GRANTS AND MATCHING GRANTS. AT THE TIME OF PUBLICATION, THE FIGURES INCLUDED IN THIS REPORT ARE UNAUDITED NUMBERS.

BURSARIES AND SCHOLARSHIPS

Year on year, NUS has been able to significantly ramp up student support thanks to private philanthropy.

UNIVERSITY-WIDE BURSARIES AND SCHOLARSHIPS AWARDED BY ACADEMIC YEAR, AUGUST TO JULY



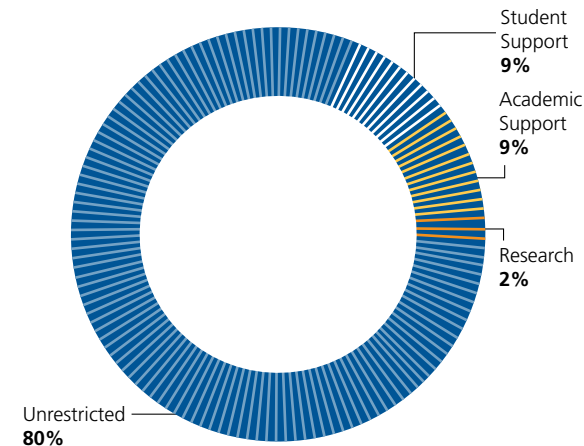
NUMBER OF RECIPIENTS OF BURSARIES AND SCHOLARSHIPS FUNDED BY ANNUAL GIVING FUNDS, DONATED NAMED FUNDS AND NUS MANAGEMENT FUNDS.

PERMANENT SOURCE OF SUPPORT

As at 31 March 2013, the unaudited market value of the University's endowment was S\$3.22 billion. The market value of the University's endowment the previous year was S\$2.73 billion.

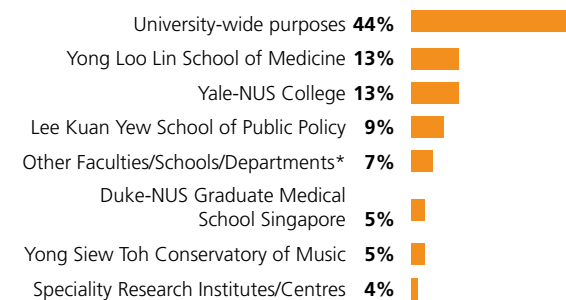
WHERE ENDOWMENT DOLLARS GO

Restricted vs Unrestricted endowment funds (as at 31 March 2013)



UNRESTRICTED FUNDS BREAKDOWN

Unrestricted funds allow the University the greatest flexibility to direct funds to where they are needed most urgently, or create the greatest impact.



* Includes Faculty of Science, Saw Swee Hock School of Public Health, NUS Business School, Faculty of Arts and Social Sciences and Faculty of Law.

REPORTED FIGURES ARE EXCLUSIVE OF UNFULFILLED PLEDGES, SINGAPORE GOVERNMENT RESEARCH GRANTS AND MATCHING GRANTS. AT THE TIME OF PUBLICATION, THE FIGURES INCLUDED IN THIS REPORT ARE UNAUDITED NUMBERS.

INVESTING IN CHANGE, FUNDING OUR FUTURE

Endowed vs Expendable Gifts

FY2012

Expendable gifts S\$70 million

Endowed gifts S\$114.6 million

FY2011

Expendable gifts S\$63.1 million

Endowed gifts S\$78.4 million

FY2010

Expendable gifts S\$55.8 million

Endowed gifts S\$32.7 million

FY2009

Expendable gifts S\$53.4 million

Endowed gifts S\$40.6 million

FY2008

Expendable gifts S\$60.6 million

Endowed gifts S\$29.1 million

ALL GIFTS MADE TO THE UNIVERSITY ARE INVESTMENTS IN NUS' FUTURE.

- Endowed gifts have a long-term impact on the future of the University. NUS will preserve the principal amount and invest it to earn returns that will support the gift purpose.
- Expendable gifts have an immediate impact. The entire amount will be spent on the intended gift purpose and will eventually be exhausted.

All eligible gifts attract a government matching grant of up to 3:1 towards the University's endowment fund.

CORPORATE GOVERNANCE

INTRODUCTION

NUS is committed to a high standard of corporate governance and has always recognised the importance of good governance as being critical to the effective performance and operation of the University. Good governance is also crucial in realising its vision of being a leading global university centred in Asia, influencing the future, excelling in teaching, research, enterprise, thought-leadership and public service. The University has accordingly put in place a corporate governance structure with comprehensive and clear lines of reporting, responsibility and accountability.

OUR GOVERNANCE EVALUATION CHECKLIST

In addition to the application of good governance practices as a corporate entity, we have as an institution of public character ("IPC"), adopted best practices in key areas of governance that are closely aligned to the principles enunciated in the Code of Governance for Charities and Institutions of a Public Character (the "Code"). In line with the disclosure requirement by the Charity Council that all IPCs are required to disclose the extent of their compliance with the Code, NUS' Governance Evaluation Checklist can be found at the Charity Portal website www.charities.gov.sg

OUR BOARD OF TRUSTEES

The NUS Board of Trustees comprises 24 members appointed by the Minister for Education, and is chaired by Mr Wong Ngit Liong. Our Board of Trustees includes respected business/industry leaders, academics, entrepreneurs, and professionals from the public and private sectors. Members are appointed on the strength of their calibre, experience, stature, ability to contribute

to the oversight and development of the University, as well as strategic networking relationships they bring which are of strategic importance to the University. Profiles of the Board members are found on page 6 to 13 of the Annual Report.

The Board of Trustees is responsible for ensuring that the University acts in the furtherance of its objectives in education and research, and properly accounts and safeguards the funds and assets of the University. The Board of Trustees works closely with the management and stakeholders of the University to shape the vision, chart the major directions, and develop programmes and initiatives to produce a strong and enduring impact for the University, and for Singapore and beyond.

To support the Board of Trustees in discharging its functions, Board committees have been formed as dictated by corporate, operational and business needs pursuant to the Articles of Association of the University. There are eight Board committees, namely, the Executive Committee, Audit Committee, Campus Planning and Development Committee, Entrepreneurship Committee, Investment Committee, Nominating Committee, Remuneration Committee, and Development Committee. These Board committees assist the Board of Trustees to provide oversight of the University and to facilitate decision making. Membership of the Board Committees is carefully selected to ensure an equitable distribution of responsibility among Board members and promote the effectiveness of each committee's focus and contribution. Where necessary, non-Board members who have expertise in their respective fields are also co-opted to enhance the deliberations and decision making process of some of the Board Committees.

The present composition of the Board Committees is as follows:

EXECUTIVE COMMITTEE

Wong Ngit Liong (*Chairman*)
Prof Tan Chorh Chuan
Lucas Chow Wing Keung
Peter Ho Hak Ean
Kay Kuok Oon Kwong
Andrew Lim Ming-Hui
Paul Ma Kah Woh
Phillip Tan Eng Seong
Dr Teh Kok Peng

REMUNERATION COMMITTEE

Wong Ngit Liong (*Chairman*)
Amb Chan Heng Chee
Edward D'Silva
Han Fook Kwang
Peter Ho Hak Ean
Prof Olaf Kubler
Davinder Singh
Neo Kian Hong

NOMINATING COMMITTEE

Wong Ngit Liong (*Chairman*)
Edward D'Silva
Michael Lien Jown Leam
Andrew Lim Ming-Hui
Prof Saw Swee Hock
Abdullah Tarmugi

DEVELOPMENT COMMITTEE

Wong Ngit Liong (*Chairman*)
Prof Tan Chorh Chuan
Goh Yew Lin
Prof Saw Swee Hock
Phillip Tan Eng Seong
Abdullah Tarmugi
Dr Noeleen Heyzer
Johnny Tan (*Co-opted*)

AUDIT COMMITTEE

Paul Ma Kah Woh (*Chairman*)
Chan Chia Lin
Dr Cheong Koon Hean
Han Fook Kwang
Davinder Singh
Phillip Tan Eng Seong
Neo Kian Hong

ENTREPRENEURSHIP COMMITTEE

Lucas Chow Wing Keung (*Chairman*)
Prof Tan Chorh Chuan
Hans-Dieter Bott
Edward D'Silva
Han Fook Kwang
Gay Chee Cheong (*Co-opted*)
Yvonne Kwek (*Co-opted*)

INVESTMENT COMMITTEE

Goh Yew Lin (*Chairman*)
Prof Tan Chorh Chuan
Chan Chia Lin
Michael Lien Jown Leam
Andrew Lim Ming-Hui
Dr Teh Kok Peng
Lee Ming San (*Co-opted*)
Adelene Tan (*Co-opted*)
Michael Dee (*Co-opted*)

CAMPUS PLANNING AND DEVELOPMENT COMMITTEE

Peter Ho Hak Ean (*Chairman*)
Prof Tan Chorh Chuan
Dr Cheong Koon Hean
Chong Siak Ching
Edward D'Silva
Prof Olaf Kubler
Lim Ee Seng (*Co-opted*)
Raymond Woo (*Co-opted*)

OUR SENIOR MANAGEMENT

Management functions and day-to-day operations of the University are led by the Senior Management of the University, headed by the President, Professor Tan Chorh Chuan. The President is the University's Chief Executive Officer. Details of the management team can be found at its website www.nus.edu.sg.

OUR POLICIES AND PROCEDURES TO MANAGE CONFLICTS OF INTEREST

Board members and staff are required in their respective capacities to act at all times in the best interest of the University. Policies and procedures are designed to prevent and address potential conflict-of-interest situations while promoting ethical business conduct of officers and staff in line with the strong focus of the University on integrity.

NUS' Articles of Association contain provisions for the management and avoidance of conflicts of interest by members of its Board of Trustees. Such provisions include (a) permitting a Board member to be interested in any transaction with NUS provided that the member has declared the nature of the interest to the Board of Trustees and abstains from participating in the Board's decision in respect of the transaction concerned, (b) permitting a Board member, or a firm associated with the member, to act in any professional capacity for the University and to be remunerated for professional services as if the Board member was not a Trustee, and

(c) permitting a Board member to be reimbursed for out-of-pocket expenses, travelling and other expenses properly incurred by the Board member in attending and returning from meetings of the Board of Trustees, any of its committees, or any general meeting of the University or otherwise in connection with the affairs of the University. NUS Articles' expressly stipulate that Board members shall not receive any remuneration for services rendered by them as members of the Board of Trustees.

In addition, the Board of Trustees has adopted the practice of requiring every Board member to annually review and refresh their independence by disclosing to the Nominating Committee whether there are any factors that will affect the member's independence in the decision making process of the Board.

The University's terms of business and code of conduct for staff include a Conflict of Interest Policy which all staff members must observe and comply with. In accordance with the current Policy, staff must ensure that their private activities and interests do not conflict with their professional obligations to the University. Where there is potential violation of a prohibition, the staff member shall make a full disclosure and may request for an exception. Approval for an exception will be at the discretion of the University. In addition, staff members must declare annually their compliance with the University's prevailing policy on conflict of interest and other related policies.

SUMMARY FINANCIAL STATEMENTS PREPARED FROM THE AUDITED FINANCIAL STATEMENTS

For the financial year ended 31 March 2013

CONTENTS

Important Note	62	Report of the Trustees	63	Independent Auditors' Report	65
Statements of Financial Position	66	Statements of Comprehensive Income	68		
Notes to the Summary Financial Statements	69				

IMPORTANT NOTE

The Summary Financial Statements as set out on pages 66 to 72 contain only a summary of the information in the full financial statements. The Summary Financial Statements do not contain sufficient information to allow for a full understanding of the results and the state of affairs of the Group and the Company.

For further information, the full financial statements and the Auditors' Report on those statements should be consulted. Readers who require a copy of the full financial statements can contact the Company's Office of Financial Services, University Hall, Tan Chin Tuan Wing #03-02, 21 Lower Kent Ridge Road, Singapore 119077, Tel: 6516 1981. The full financial report can also be viewed at the Company's website: <http://www.nus.edu.sg/annualreport/>.

REPORT OF THE TRUSTEES

The Board of Trustees are pleased to present their report to the members together with the summary financial statements of the National University of Singapore ("the Company") and its subsidiaries (collectively, "the Group") which comprise statements of financial position and statements of comprehensive income of the Group and Company as of and for the financial year ended 31 March 2013.

TRUSTEES

The Trustees of the Company in office at the date of this report are:

Mr Wong Ngit Liong – Chairman	Mr Han Fook Kwang	Mr Davinder Singh
Professor Tan Chorh Chuan	Mr Peter Ho Hak Ean	Mr Phillip Tan Eng Seong
Mr Hans-Dieter Bott	Professor Olaf Kubler	Mr Abdullah Tarmugi
Ambassador Chan Heng Chee	Mdm Kay Kuok Oon Kwong	Dr Teh Kok Peng
Ms Chong Siak Ching	Mr Michael Lien Jown Leam	Ms Yeoh Chee Yan
Mr Lucas Chow Wing Keung	Mr Andrew Lim Ming-Hui	Ms Chan Chia Lin <i>(Appointed 1 April 2013)</i>
Mr Edward Alec D'Silva	Mr Paul Ma Kah Woh	Dr Cheong Koon Hean <i>(Appointed 1 April 2013)</i>
Mr Goh Yew Lin	Professor Saw Swee Hock	

ARRANGEMENTS TO ENABLE TRUSTEES TO ACQUIRE SHARES AND DEBENTURES

Neither at the end of nor at any time during the financial year was the Company a party to any arrangement whose objects are, or one of whose object is, to enable the Trustees of the Company to acquire benefits by means of the acquisition of shares or debentures of the Company or any other body corporate.

REPORT OF THE TRUSTEES

TRUSTEES' INTERESTS IN SHARES OR DEBENTURES

As the Company is a public company limited by guarantee and not having a share capital, there are no matters to be disclosed under Section 201(6)(g), Section 201(6A)(h), Section 201(11) and Section 201(12) of the Singapore Companies Act, Cap 50.

The Trustees of the Company at the end of the financial year have no interest in the share capital (including any share options) and debentures of the Company's related corporations as recorded in the register of the directors' shareholdings kept by the Company's related corporations under Section 164 of the Singapore Companies Act.

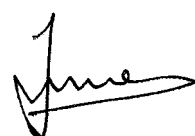
TRUSTEES CONTRACTUAL BENEFITS

Since the beginning of the financial year, no Trustee has received or become entitled to receive a benefit which is required to be disclosed under Section 201(8) of the Singapore Companies Act, by reason of a contract made by the Company or a related corporation with the Trustee or with a firm of which he/she is a member or with a company in which he/she has a substantial financial interest except for salaries, bonuses and other benefits and transactions with corporations in which certain trustees have an interest as disclosed in the financial statements.

On behalf of the Trustees



MR WONG NGIT LIONG
Trustee



PROFESSOR TAN CHORH CHUAN
Trustee

26 July 2013

INDEPENDENT AUDITORS' REPORT TO THE BOARD OF TRUSTEES OF NATIONAL UNIVERSITY OF SINGAPORE

The accompanying summary financial statements of National University of Singapore (the "Company") and its subsidiaries (the "Group"), which comprise the statements of financial position of the Group and the Company as at 31 March 2013 and the statements of comprehensive income of the Group and the Company, and related notes, are derived from the audited financial statements of the Company and its subsidiaries for the year then ended. We expressed an unmodified audit opinion on those financial statements in our report dated 26 July 2013.

The summary financial statements do not contain all the disclosures required by the Singapore Financial Reporting Standards. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of the Company and its subsidiaries.

MANAGEMENT'S RESPONSIBILITY FOR THE SUMMARY FINANCIAL STATEMENTS

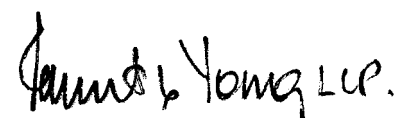
Management is responsible for the preparation of a summary of the audited financial statements derived from the annual financial statements of the Company and its subsidiaries for the year ended 31 March 2013, and be in such form and contain such information so as to be consistent with the audited financial statements.

AUDITORS' RESPONSIBILITY

Our responsibility is to express an opinion on the summary financial statements based on our procedures, which were conducted in accordance with Singapore Standard on Auditing 810, "Engagements to Report on Summary Financial Statements".

OPINION

In our opinion, the summary financial statements are consistent, in all material respects, with the audited financial statements and the Director's report of the Company and its subsidiaries for the year ended 31 March 2013 from which they are derived.



ERNST & YOUNG LLP
Public Accountants and
Chartered Accountants

Singapore
26 July 2013

STATEMENTS OF FINANCIAL POSITION
AS AT 31 MARCH 2013

	GROUP		COMPANY	
	31 March 2013	31 March 2012	31 March 2013	31 March 2012
	S\$'000	S\$'000	S\$'000	S\$'000
ACCUMULATED SURPLUS	3,016,455	2,714,451	2,955,813	2,659,734
ENDOWMENT FUNDS	2,577,359	2,223,803	2,576,961	2,223,426
FAIR VALUE RESERVE	27,955	15,072	27,945	15,062
TRANSLATION RESERVE	(43)	(81)	–	–
TOTAL EQUITY	5,621,726	4,953,245	5,560,719	4,898,222
NON-CURRENT ASSETS				
Subsidiary companies	–	–	226	200
Associated companies	24,668	21,640	500	500
Fixed assets	3,218,443	3,088,359	3,215,896	3,085,733
Intangible assets	16,874	16,152	16,736	15,913
Available-for-sale investments	58,222	51,155	53,489	46,668
Student loans (repayable after 12 months)	223,413	236,021	223,413	236,021
Long-term loan to subsidiary companies	–	–	356	250
Amounts owing by an investee company	53,351	53,351	53,351	53,351
Prepayments (to be utilised after 12 months)	3,853	14,923	3,853	14,923
Total Non-Current Assets	3,598,824	3,481,601	3,567,820	3,453,559
CURRENT ASSETS				
Student loans (repayable within 12 months)	73,618	60,430	73,618	60,430
Debtors	498,586	552,509	498,057	548,289
Consumable stores	632	892	244	358
Deposits and prepayments (to be utilised within 12 months)	81,776	119,922	81,508	119,641
Amounts owing by subsidiary companies	–	–	1,048	731
Investments at fair value through income or expenditure	4,531,682	3,793,615	4,531,681	3,793,615
Derivative financial instruments	578	767	578	767
Fixed deposits	361,707	301,968	361,707	301,968
Cash and bank balances	323,853	201,722	282,641	165,102
Total Current Assets	5,872,432	5,031,825	5,831,082	4,990,901
TOTAL ASSETS	9,471,256	8,513,426	9,398,902	8,444,460

The accompanying notes form an integral part of these financial statements.

STATEMENTS OF FINANCIAL POSITION
AS AT 31 MARCH 2013

	GROUP		COMPANY	
	31 March 2013	31 March 2012	31 March 2013	31 March 2012
	S\$'000	S\$'000	S\$'000	S\$'000
CURRENT LIABILITIES				
Creditors and accrued expenses	200,523	215,173	196,129	210,917
Provisions	68,633	62,559	68,036	62,059
Grants received in advance	313,365	314,624	307,892	308,281
Deferred tuition and other fees	59,773	45,057	59,615	45,057
Derivative financial instruments	14,171	5,322	14,171	5,322
Amounts owing to subsidiary companies	–	–	1,902	–
Total Current Liabilities	656,465	642,735	647,745	631,636
NON-CURRENT LIABILITIES				
Advances from Government for student loans	284,771	290,438	284,771	290,438
Fixed rate notes and term loan	850,000	600,000	850,000	600,000
Deferred capital grants	2,058,294	2,027,008	2,055,667	2,024,164
Total Non-Current Liabilities	3,193,065	2,917,446	3,190,438	2,914,602
TOTAL LIABILITIES	3,849,530	3,560,181	3,838,183	3,546,238
NET ASSETS	5,621,726	4,953,245	5,560,719	4,898,222

The accompanying notes form an integral part of these financial statements.

STATEMENTS OF COMPREHENSIVE INCOME

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2013

	GROUP		COMPANY	
	2013 S\$'000	2012 S\$'000	2013 S\$'000	2012 S\$'000
OPERATING INCOME				
Tuition and other fees	344,141	328,694	339,115	324,088
Other income	257,206	222,762	253,175	219,161
	601,347	551,456	592,290	543,249
OPERATING EXPENDITURE				
Expenditure on manpower	1,048,505	976,172	1,028,638	958,288
Depreciation and amortisation expenditure	302,946	282,329	302,106	281,566
Other operating expenditure	804,515	777,945	793,896	763,999
	2,155,966	2,036,446	2,124,640	2,003,853
Operating deficit	(1,554,619)	(1,484,990)	(1,532,350)	(1,460,604)
Net investment income	235,616	118,172	235,652	116,597
Share of results (net of tax) of associated companies	3,028	2,803	–	–
Deficit before Grants	(1,315,975)	(1,364,015)	(1,296,698)	(1,344,007)
GRANTS				
Operating Grants:				
Government	1,172,389	1,053,822	1,148,725	1,031,677
Agency for Science, Technology & Research	40,750	60,889	40,750	60,889
Others	123,658	119,001	122,941	118,979
Deferred capital grants amortised	281,334	242,537	280,513	241,785
	1,618,131	1,476,249	1,592,929	1,453,330
SURPLUS FOR THE YEAR BEFORE TAX	302,156	112,234	296,231	109,323
Income tax	–	–	–	–
SURPLUS FOR THE YEAR	302,156	112,234	296,231	109,323
OTHER COMPREHENSIVE INCOME:				
Exchange differences on translating foreign operations	38	(3)	–	–
Change in fair value of available-for-sale investments	12,883	13,877	12,883	14,496
OTHER COMPREHENSIVE INCOME FOR THE YEAR, NET OF TAX	12,921	13,874	12,883	14,496
TOTAL COMPREHENSIVE INCOME FOR THE YEAR	315,077	126,108	309,114	123,819

The accompanying notes form an integral part of these financial statements.

NOTES TO THE SUMMARY FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2013

1. GENERAL

The Company (Registration Number 200604346E) is incorporated in Singapore as a public company limited by guarantee and its registered office and place of business is located at 21 Lower Kent Ridge Road Singapore 119077. The financial statements are expressed in Singapore dollars.

The Company is principally engaged in the advancement and dissemination of knowledge, and the promotion of research and scholarship.

The consolidated financial statements of the Group and the statement of financial position, statement of comprehensive income and statement of changes in funds and reserves of the Company as of and for the year ended 31 March 2013 were authorised for issue in accordance with a resolution of the Board of Trustees on 26 July 2013.

2. SIGNIFICANT ACCOUNTING POLICIES

ADOPTION OF NEW AND REVISED STANDARDS – In the current financial year, the Group has adopted all the new and revised FRSs and Interpretations of FRS (“INT FRS”) that are relevant to its operations and effective for annual periods beginning on or after 1 April 2012. The adoption of these new/revised FRSs and INT FRSs does not result in changes to the Group’s and Company’s accounting policies and has no material effect on the amounts reported for the current or prior years.

The Group has not adopted the following standards that have been issued but are not yet effective:

Description	Effective for annual periods beginning on or after
FRS 113 Fair Value Measurements	1 January 2013
Revised FRS 27 Separate Financial Statements	1 January 2014
Revised FRS 28 Investments in Associates and Joint Ventures	1 January 2014
FRS 110 Consolidated Financial Statements	1 January 2014
FRS 111 Joint Arrangements	1 January 2014
FRS 112 Disclosure of Interests in Other Entities	1 January 2014
Amendments to FRS 32 – Offsetting of Financial Assets and Financial Liabilities	1 January 2014

NOTES TO THE SUMMARY FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2013

2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

At the date of authorisation of these financial statements, the management has considered and anticipated that the adoption of the FRSs, INT FRSs and amendments to FRS that were issued but not effective until future periods will have no material impact on the financial statements of the Group and the Company in the year of their initial adoption except for:

FRS 113 – Fair Value measurement

FRS 113 establishes a single source of guidance under FRS for all fair value measurements. FRS 113 does not change when an entity is required to use fair value, but rather provides guidance on how to measure fair value under FRS when fair value is required or permitted. The Group is currently assessing the impact that this standard will have on the financial position and performance. This standard becomes effective for annual periods beginning on or after 1 January 2013.

FRS 110 Consolidated Financial Statements

FRS 110 replaces the portion of FRS 27 Consolidated and Separate Financial Statements that addresses the accounting for consolidated financial statements. It also replaces INT FRS12 Consolidation – Special Purpose Entities. FRS 110 establishes a single control model that applies to all entities including 'special purpose entities'. The changes introduced by FRS 110 will require management to exercise significant judgement to determine which entities are controlled, and therefore required to be consolidated by a parent, compared with the requirements that were in FRS 27. This standard becomes effective for annual periods beginning on or after 1 January 2014. Management does not expect this amendment to have any significant impact on the Group's financial position or performance.

FRS 112 Disclosure of Interests in Other Entities

FRS 112 is effective for financial periods beginning on or after 1 January 2014.

FRS 112 is a new and comprehensive standard on disclosure requirements for all forms of interests in other entities, including joint arrangements, associates, special purpose vehicles and other off balance sheet vehicles. FRS 112 requires an entity to disclose information that helps users of its financial statements to evaluate the nature and risks associated with its interests in other entities and the effects of those interests on its financial statements. The Group is currently determining the impact of the disclosure requirements. As this is a disclosure standard, it will have no impact to the financial position and financial performance of the Group when implemented in 2014.

NOTES TO THE SUMMARY FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2013

3. RELATED PARTY TRANSACTIONS

Parties are considered to be related if one party has the ability to control the other party or exercise significant influence over the other party in making financial and operating decisions.

The Group receives grants from the Ministry of Education (MOE) to fund its operations and is subject to certain controls set by MOE. Hence, other state-controlled enterprises are considered related parties of the Group. Many of the Group's transactions and arrangements are with related parties and the effect of these on the basis determined between the parties is reflected in these financial statements. For related parties debtors and creditors balances, the terms of these balances are disclosed in the respective notes to the financial statements.

There were transactions with corporations in which certain trustees have the ability to control or exercise significant influence.

Details of significant balances and transactions between the related parties are described below:

	GROUP		COMPANY	
	2013	2012	2013	2012
	S\$'000	S\$'000	S\$'000	S\$'000
State-controlled enterprises and companies within the Group				
<u>Balances</u>				
Debtors	431,724	475,527	431,930	475,601
Amount owing by subsidiary companies	–	–	1,048	731
Long-term loan to subsidiary companies	–	–	356	250
Creditors and accrued expenses	490	4,647	490	4,647
Amount owing to subsidiary company	–	–	1,902	–
Deferred Capital Grants	2,073,339	1,599,757	2,070,722	1,596,913
Grants received in advance	312,068	252,515	307,892	245,964
<u>Transactions</u>				
Endowed donations	3,045	2,250	3,045	2,250
Non-endowed donations	22,349	5,296	22,349	7,167
Other income	20,783	18,071	22,072	19,470
Other operating expenditure	48,937	95,055	51,930	98,915
Operating/capital grants received	1,624,697	1,518,077	1,601,009	1,493,262

NOTES TO THE SUMMARY FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2013

3. RELATED PARTY TRANSACTIONS *(cont'd)*

	GROUP		COMPANY	
	2013	2012	2013	2012
	S\$'000	S\$'000	S\$'000	S\$'000
Corporations in which trustees have the ability to control or exercise significant influence (including donations received from trustees)				
<u>Balances</u>				
Debtors	43	150	43	150
Creditors and accrued expenses	1	8	1	8
<u>Transactions</u>				
Endowed donations	4,471	8,550	4,471	8,550
Non-endowed donations	104	2,864	104	2,864
Other income	246	440	246	440
Other operating expenditure	877	3,660	877	3,660
Operating/capital grants received	–	160	–	160

4. KEY MANAGEMENT PERSONNEL COMPENSATION

The compensation for twenty (2012: nineteen) key management personnel are as follows:

	GROUP AND COMPANY	
	2013	2012
	S\$'000	S\$'000
Short-term benefits	12,183	11,954
Post-employment benefits	273	267
	12,456	12,221





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