

Universitas 21 Annual Network Meeting and Presidential Symposium 2017
University of Nottingham

“**21st** Century Global Anchor Institutions: universities, cities and the international talent economy”

Symposium Overview

Higher education has, for centuries, been at the vanguard of globalism – with academics and students swapping ideas and spreading innovation long before the current system of economic globalisation emerged. **From the ‘wandering scholars’ of ancient India, via the development of the first formal European University in Bologna in the 11th Century, to the explosion of modern global higher education – universities are, by their very nature, institutions that enrich the human capital of nations.**

Today, “Human Capital” is a theory at the height of its prominence in the thoughts and actions of global economists, businesses and policymakers. There is broad international consensus that long-term economic prosperity lies in a race-to-the-top, and that nations should pursue policies that drive greater education, encourage innovation and retain talent.

In most OECD countries economic growth is now driven to a higher degree by intangible assets than by traditional capital such as machinery or equipment. Knowledge, data, patents and human capital are the new sources of growth. And innovation in these intellectual assets will spur growth to take off again. The quantity and quality of intellectual innovation will not only determine when and how countries will find the way out of the recession, but also the post-recession new global economic order.

Universities across the *Universitas 21* Group and beyond have a long and established track-record of driving economic growth and socio-cultural prosperity in their host cities and regions. They act as anchor institutions for these communities, providing a stabilising, long-term presence in an era of fluctuating investment in both public and private sectors.



Source: Professor Richard Florida's Spiky Worlds, Atlantic Magazine

However, as the 21st Century becomes ever more dominated by the emergence of highly-interdependent international knowledge economies, the nature of this “anchor” relationship between universities and cities is changing. Talent, resources and opportunities are increasingly clustered within urban areas – **with these agglomeration effects creating ‘spiky worlds’, where cities are superseding nations on many indicators.**

Universities are now perfectly placed to navigate the seas of global talent, ideas and opportunities – translating and transporting benefits to the communities and economies in which they are anchored. Equally, universities are becoming increasingly innovative and effective in connecting places – providing a bridge between nations, cultures and economies – across which talent and communication flows in both directions.

Symposium Programme– Thursday 4th May 2017, East Midlands Conference Centre, University of Nottingham

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| 09:00 – 09:10 | Welcome to Nottingham, overview of the Symposium Professor Sir David Greenaway |
| 09:10 – 09:45 | Keynote Speaker – Sir Andrew Witty, CEO GlaxoSmithKline (until March 31 st 2017), Chancellor of the University of Nottingham |
| 09:45 – 11:00 | Global University-City collaboration showcase Presentation of six case studies showcasing examples from members of University-City collaborative activity. |
| 11.00 – 11.30 | <i>Coffee and networking</i> |
| 11.30 – 12.10 | Global University- City collaboration showcase (cont’d) |
| 12.10 – 12.45 | Panel Discussion |

The University-City collaboration concept – bringing civic leaders to the UK and Nottingham

University Presidents and Civic Leaders will participate in the University-City collaboration showcase. This entails delivery of a session by a University Representative with involvement from Civic Leader(s) who are working closely, detailing how this takes place within their own national and local context.

KEYNOTE SPEAKER - SIR ANDREW WITTY



Andrew served as Chief Executive Officer of GlaxoSmithKline plc between 2008 and 2017. He was a member of the Board and Corporate Executive Team.

Andrew joined Glaxo in 1985 and has held a variety of Sales and Marketing roles in the UK and abroad, including working in the Company's **International New Products group in the Respiratory and HIV/Infectious Disease therapy areas**. Andrew has worked in South Africa, the USA and **Singapore, the latter being where he led the Group's operations as Senior Vice President, Asia Pacific**. While in Singapore Andrew was also a Board Member of the Singapore Economic Development Board and the Singapore Land Authority. In 2003 he was awarded the Public Service Medal by the Government of Singapore and then in August 2012 was awarded the Public Service Star. He continues to be a member of the EDB International Advisory Council.

Andrew has served in numerous advisory roles to governments around the world including **South Africa, Guangzhou China and the UK, where he was a member of the Prime Minister's Business Advisory Group from 2010 - 2015**. In 2012 Andrew was awarded a knighthood for services to the economy and the UK pharmaceutical industry. In 2014, he was appointed as a Business Ambassador for the UK Government and in 2015 Andrew became a Member of the Advisory Council for the China-Britain Business Council.

Andrew was President of the European Federation of Pharmaceutical Industries and Associations from 2010 to 2013. From 2013 to 2015 he was the only pharmaceutical industry representative in the UNAIDS-Lancet Commission for Defeating AIDS and Advancing Global Health. In November 2015 Andrew was appointed as a Member of the UN High-Level Panel on Access to Medicines. In May 2016, Andrew became a Visiting Professor at the Institute of Global Health Innovation at Imperial College, London.

Andrew is Chancellor of the University of Nottingham, a position he took up on 1 January 2013. In 2016 he was invited by HRH The Prince of Wales to become an ambassador for Industrial Cadets, a national work experience programme for young people in the UK.

Andrew has a Joint Honours BA in Economics from the University of Nottingham.

OVERVIEW OF CASE STUDIES

Six case studies will be presented from partner Universities; summaries of each are attached. *Universitas 21* universities were asked to include contributions from their civic partners to each case study. While it has not been possible for all partners to attend in person, universities have sought to include their contributions by a variety of means.

The case studies that will be presented are:

University of Amsterdam: IXAnext: Amsterdam Action Plan Talent for Innovation 2016-2020
Presenter: *Professor Karen Maex, Rector Magnificus, University of Amsterdam*

University of Glasgow: Kelvin Hall: a civic and national partnership
Presenter: *Professor Murray Pittock, Pro Vice-Principal, University of Glasgow*
Co-Presenters: *Jill Miller OBE, Glasgow Life & Dr John Scally, National Library of Scotland*

University of Johannesburg: **A 'teaching school' and its community at the University of Johannesburg**
Presenter: *Professor Sarah Gravett, Dean, Faculty of Education, University of Johannesburg*

University of Maryland: The University of Maryland (UMD) as the catalyst for transforming the surrounding community (the City of College Park and the Greater Washington, D.C. region) and creating an ecosystem of innovation and economic development.
Presenter: *Dr Wallace Loh, President, University of Maryland*
Co-Presenter: *Omar Blaik, CEO, U3 Advisors*

The University of Queensland: Developing Port Growth – The University of Queensland and Port of Brisbane Pty Ltd Research Partnership
Presenter: *Professor Peter Høj, President, The University of Queensland*

Tecnológico de Monterrey: DistritoTec: the place to live among great ideas
Presenter: *José Antonio Torre, Director of Citizen-Centred Urbanism, Tecnológico de Monterrey*

Biographies of presenters are attached for delegates' information.

UNIVERSITY OF AMSTERDAM

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| U21 University | University of Amsterdam |
| Title of Case Study | IXAnext: Amsterdam Action Plan Talent for Innovation 2016-2020 |
| Name of Partner Organisation(s) for Case Study | City of Amsterdam |
| Name of Presenter from U21 University | Professor Karen Maex, Rector Magnificus |
| <p>Summary of case study and its objectives and timeframe</p> <p>Amsterdam has been selected European Capital of Innovation 2016-2017 by the European Commission in April 2016. The high quality and large scale of research undertaken by Amsterdam based universities and research institutes largely contributed to this achievement. That said, recent studies, including research performed by Biggar in 2014 on the Amsterdam research landscape, demonstrate that there is still room for improvement in the area of furthering knowledge impact, for example by facilitating demand-driven collaborations between science and industry, including the establishment of spin-offs and start-ups. That is why a consortium of Amsterdam based HEI's and research institutes joined forces with the City Council and developed the IXAnext programme.</p> <p>IXAnext is the Action Plan focusing on enhancing knowledge impact of Higher Education Institutions and Research Institutes based within the City of Amsterdam: the University of Amsterdam, VU University, Amsterdam University of Applied Sciences, the Academic Medical Centre, VU Medical Centre, and the Research Council Institutes Nikhef and AMOLF. IXAnext is a five year project that will run from 2016 – 2020.</p> <p>IXAnext will implement two main lines of action: 'Go to Science' and 'Go to Market'. Go to Science aims at bridging the existing 'valorisation gaps' between science and industry. Key instruments in doing so are the APRIL Physics on Demand lab and R&D Footholds. Go to Market focuses on 'entrepreneurial learning' and aims at providing students and researchers with basic skills sets in entrepreneurship.</p> <p>Key partners Amsterdam Medical Centre Amsterdam University of Applied Sciences FOM AMOLF Institute for Atomic and Molecular Physics Nikhef Dutch National Institute for Subatomic Physics VU University VU University Medical Centre</p> <p>Reported outcomes IXAnext is committed to delivering:</p> <ul style="list-style-type: none"> • 140 start-up companies in 4 different areas (involving alumni of participating partners); • APRIL will generate contracts with industry (incl SME's) with an overall value of 10M€; • 30% increase in student enrolment in study programmes in the field of Entrepreneurship <p>Impact to date IXAnext acts as a one-stop-shop in brokering the knowledge and expertise of the consortium to all partners involved, access will shortly be facilitated by a newly designed IXAnext webportal</p> | |

Biography



Professor Karen Maex,
Rector Magnificus, University of Amsterdam

Karen Maex obtained a PhD in 1987 from KU Leuven. She became a professor at KU Leuven in 1998, teaching Materials Physics and Nanoelectronics. Her research took place in strong collaboration with the Micro-electronic research center IMEC.

She was Vice Rector for Science, Engineering and Technology at KU Leuven, from 2005 to 2013. Professor Maex was dean of the Faculty of Science at the University of Amsterdam and at the Faculty of Sciences and the Faculty of Earth and Life Sciences at the VU University in Amsterdam from January 2014 until June 2016.

Since June 2016 Professor Maex is Rector Magnificus University of Amsterdam and member of the Executive Board University of Amsterdam and University of Applied Sciences. She served on the Governing Board of the European Institute for Innovation and Technology (EIT) 2008 until 2014 and is member of the Governing Board of EFER since 2014.

UNIVERSITY OF GLASGOW

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| U21 University | University of Glasgow |
| Title of Case Study | Kelvin Hall: a civic and national partnership |
| Name of Partner Organisation(s) for Case Study | Glasgow Life National Library of Scotland |
| Name of Presenter from U21 University and Partner Organisations | Professor Murray Pittock, University of Glasgow Jill Miller OBE, Director of Cultural Services, Glasgow Life Dr John Scally, national Librarian and chief Executive, National Library of Scotland |
| <p>Summary of case study and its objectives and timeframe</p> <p>The Kelvin Hall Development (http://kelvinhall.org.uk/) is a unique partnership in two phases. It is the first facility which combines University, national and civic collections and facilities under one roof in a building with the largest roof span in Scotland. KH offers Collections based research, teaching, and conservation practice combined with the complete Moving Image Archive of the National; Library of Scotland, covering Scottish film back to 1896, with the only access to the National Library's digital collections outside Edinburgh under the terms of the 2012 Act, and with state of the art dance and exercise studios, including the city's largest gym. On the one hand, Kelvin Hall will foster Collections driven research based on one of the first Enlightenment collections (1.5 million objects and specimens of The Hunterian Collection, amongst the largest university museums in the UK); on the other it is the first facility to conjoin the Health and Wellbeing agenda linked to sport and exercise with the growing evidence of the significant gains provided by cultural activity to health outcomes (see https://museumsandwellbeingalliance.files.wordpress.com/2015/07/museums-forhealth-and-wellbeing.pdf), an area in which Glasgow Life has been at the forefront, with its exceptional and proven ability to attract new audiences to cultural venues. The project has created the most extensive Collections Study Centre in the HE sector, consolidating The Hunterian's collections into a single storage facility connected to a purpose designed suite of research, teaching, digitisation and conservation studios and a small conference centre. There are just over 200 postgraduate taught students currently being taught on courses utilizing the collections, including more than 160 from overseas, while the Scottish Graduate School of Arts and Humanities (http://www.sgsah.ac.uk/), with 16 HEI members, has made it the hub for its Scotland wide Material Cultures: the Stuff of Research training programme. The programmes are supported by an online portal 'Open Collections', which enables the cross searching of multiple university, civic and national library collections, a first for any city in the UK. The significance of the development was recognized by a CMS Select Committee visit during the 'Countries of Culture' enquiry in July 2016. In its first 6 months of operation, Kelvin Hall has attracted 800 000 visitors.</p> <p>International research partners for the KH development include the Smithsonian and Christies Education, while the Mellon Centre for British Art at Yale is partnering the Hunterian Tercentenary celebrations in 2018. The 6th Re: Enlightenment exchange was held at Kelvin Hall in October 2016 (http://www.reenlightenment.org/), and a succession of international conferences and visits with museums and universities from Harvard to Konstanz is in progress.</p> | |

UNIVERSITY OF GLASGOW

Phase 2 of the Kelvin Hall project (of which the first part is currently in process) will involve moving the entire Hunterian Museum and Art Gallery displays to an on street facility, together with providing facilities for collections/exhibitions from the National Galleries of Scotland and the Royal Highland Fusiliers. It will meet the priorities of **the Glasgow City Council's Tourism strategy, in particular by creating a single Charles Rennie Mackintosh exhibition and display facility.** The University and the **City will thus mutually support each other's goals in international tourism, knowledge exchange and research, utilizing the most visited collections in the UK outside London, and this will form the basis for a wider context of mutual support, where the University's £1bn campus development to the south with its stress on the coproduction of knowledge will complement the opening up of the city north of the river in Glasgow's City Deal plans. A partners' research strategy has been agreed** between the University of Glasgow, Glasgow Museums, the National Galleries and the National Library of Scotland, and this and the full partnership was presented to the First Minister of Scotland in November 2016. A research officer to support and develop funding through the research strategy has now been appointed jointly by the University and Glasgow Life, while the National Library is developing a digital research strategy for Kelvin Hall to engage with its strategic agenda of digitizing 1/3rd of its 25 million holdings by 2025 which will include an agreed template for the coproduction of knowledge with HE research strategies.

Timeframe

Kelvin Hall Phase 1 (2010-16) was completed in summer 2016, and opened on 11 November by Nicola Sturgeon, the First Minister (http://www.gla.ac.uk/news/headline_498976_en.html). It was a £35M capital project funded by the University of Glasgow, Glasgow City Council, the Heritage Lottery Fund, Historic Scotland and the Scottish Government.

The Phase 2 roof project is underway in 2017-18. It is funded by £2M from the Scottish Government and £6M from Glasgow City Council, and involves restoring the roof of the eastern half of KH and carrying out limited works on the surrounding environment. Fundraising for University engagement in Phase 2 is scheduled for 2017-20 and if successful further on site development will take place from 2020 onwards.

Other Key Partners (not participating)

National Galleries: Sir John Leighton, Director-General; Royal Highland Fusiliers: Lt.-Col. Sandy Fitzpatrick. Smithsonian: Dr Michelle Delaney, Head of History and Culture.

Key Themes

Knowledge Exchange, Health and Well Being, New Audiences, Provenance

Biographies



Professor Murray Pittock FRSE
Pro Vice-Principal, University of Glasgow

Murray Pittock FRSE is Pro Vice-Principal of the University of Glasgow, with responsibility for range of institutional developments and external partnerships, including the Kelvin Hall **partnership, the University's Early Career Development Programme and space planning** for academic provision on the new £1bn Western Infirmary campus development. He also has a strong input into the development of the Equalities agenda at Glasgow. He was previously Vice-Principal and Head of the College of Arts (2010-15) and Dean and Research Dean (2008-10), and has also held leadership positions at the universities of Manchester, Edinburgh and Strathclyde. Outside the University, Murray is Scottish History advisor to the National Trust for Scotland and an advisor to the National Galleries as well as the Scottish Battlefields Trust. He has strong international links including standing assessor roles on overseas research councils and has worked closely with government, including being a national champion for the Curriculum for Excellence in Scotland. He has held visiting appointments in History, English, Languages, Celtic, Equality and Diversity and Irish Studies at Yale, New York University, Notre Dame, Trinity College, Dublin, Charles University, Prague, South Carolina and other institutions. Murray has made around 1400 media appearances in 55 countries on culture, politics, history and society and remains fully research active: *Material Culture and Sedition* (2013) was shortlisted for Saltire research book of the year while *Culloden* was one of *History Today's* top ten History books of 2016.



Jill Miller OBE
Director of Cultural Services, Glasgow Life

Jill provides leadership for Arts & Music, Museums and Collections and leads on key initiatives such as Volunteering and Equalities. She **also plays a lead role for the city's arts sector, focusing** on building partnerships and enabling artists and arts organisations to develop and realise their **ambitions. Jill is passionate about connecting the international quality of Glasgow's arts and** music practice with local communities and individuals – bringing real opportunities that enrich lives.

She leads the strategic direction of Glasgow's public library network – the biggest in Scotland – and the work of our Community and Learning Teams, as they create new opportunities for every citizen. As well as enhancing our library offer, Jill is also the city lead in digital inclusion, breaking down barriers to access and encouraging everyone to get online.

As Head of the Cultural Programme for the Glasgow 2014 Commonwealth Games, Jill helped **showcase the city's international quality arts organisations as well as providing points of access** for everyone. Jill is a passionate advocate for the creative legacy achieved which pitches Glasgow as a centre for people-focussed practice.

Jill is playing a leading role in developing Glasgow's Museums, including The Burrell Collection, Kelvingrove and the Riverside Museum (European Museum of the Year in 2013), as well as leading on Glasgow's Concert Halls, Unesco City of Music and events such as Celtic Connections and developments, such as the refurbishment of Glasgow's iconic Kelvin Hall. Jill led on the creation of the Easterhouse Cultural Campus, the development of Trongate 103 and the refurbishment of the City Halls and Old Fruitmarket and enhancing Tramway's role as a centre for contemporary art and performance, this culminated in Tramway being the first Scottish host of the Turner Prize in 2015.

Jill comes from a creative background which has provided extensive public and voluntary sector experience graduating from the Scottish College of Textiles she worked as a freelance community artist, facilitator and trainer before joining Fife Council as an Arts and Disability Officer in 1990. Jill Miller has been Director of Cultural Services for Glasgow Life since 2009 and **held equivalent posts in Glasgow City Council's Cultural and Leisure Services Department from 1999.** Prior to this Jill worked in Fife Council from 1997.

Jill is a graduate of the Scottish School of Textiles at Heriot Watt University, where she gained a BA (Hons) in Textile Design and a Diploma in Industrial Administration. Jill was recently made an OBE in the 2017 New Year's Honours List for Services to Culture.



Dr John Scally
National Librarian and Chief Executive, National Library of Scotland

Dr Scally started his career at the National Library of Scotland in 1993 as a curator in the British Antiquarian Division and left the Library as Deputy Head of Rare Books in 2003. Dr Scally moved to the University of Edinburgh to take up the post of Director of University Collections and during his time at the University progressed to the post of Director of Library and University Collections.

Dr Scally returned to the National Library of Scotland in September 2014 as National Librarian and Chief Executive.

Dr Scally holds a BA (Hons) in English and Modern History from the University of Strathclyde, a PhD in History from the University of Cambridge and a Diploma in Information and Library Studies from Aberystwyth University.

UNIVERSITY OF JOHANNESBURG

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| U21 University | University of Johannesburg |
| Title of Case Study | A 'teaching school' and its community at the University of Johannesburg |
| Name of Partner Organisation(s) for Case Study | Partner network: UJ Faculty of Education (staff and students), Gauteng Department of Education (GDE), Funda UJabule School, J S Mpanza Primary School, Entandweni Primary School, Winnie Ngekwazi Primary School, Naturena Primary School No 2, Numeric, Soweto Theatre |
| Name of Presenter from U21 University | Professor Sarah Gravett, Dean, Faculty of Education, University of Johannesburg |
| <p>Summary of case study and its objectives and timeframe</p> <p>This case describes a teacher education/development/research network in Soweto, South Africa, comprising the Faculty of Education at the University of Johannesburg (UJ), four public primary schools, community partners, with the university-affiliated 'teaching/research school', the Funda UJabule School (FUJS), serving as anchor institution.</p> <p>The FUJS was established through an agreement between UJ and the provincial department of education. The objectives were: developing a learning site to enable practice-based and research-oriented primary school teacher education; enabling child development studies and research on the school curriculum; and serving as a development hub for schools in Soweto, while also educating Soweto children.</p> <p>The civic-institutional network is motivated by UJ's drive to contribute to the South African school system's welfare by educating competent primary school teachers, conducting teacher professional development, collaborating with organizations which pursue similar goals and conducting research with local and international partners such as the universities of Duisburg-Essen, Helsinki and Harvard.</p> <p>In 2010, the network started with the teaching school and an elementary teacher education programme. This served as the basis for the development of an innovative model for primary school teacher education. From the onset, the teacher education curriculum integrated service learning at the FUJS and in the Soweto community (e.g. story telling festivals). Subsequently, the network has expanded. From 2012 a partner, Numeric, provides mathematics tutor training to UJ students who serve Soweto primary schools. In 2015, four Soweto schools entered into a partnership with the Faculty. Leadership development for school management teams and early mathematics cognition training for teachers were the first initiatives. 2016 saw a partnership with the Soweto Theatre and a Soweto orphanage.</p> <p>In 2011 the teacher education model spawned commissioned research by the National Department of Higher Education and Training on how the model could be replicated. Also in 2011, research on children's early number development resulted in teacher materials (<i>#taximaths</i>), first piloted in the FUJS. Recent outcomes are the publication of a diagnostics numeracy test for Grade 1 in four South African languages and materials on early science concept development (<i>#taxiscience</i>). All of these resulted in the awarding of a National Research Foundation Research Chair in the area of Integrated Studies of Learning Language, Mathematics and Science in the Primary School.</p> <p>The FUJS is (partially) supported by the provincial department of education. Relationships with donors resulted in funding for a school development practitioner to drive the development work and other items e.g music equipment and a gardening project.</p> <p>The following key themes arise from the case: a) research-based curriculum development for integrating service learning into teacher education; b) crystallisation of the design principles for establishing an educational network around an anchor institution; c) the process of consolidating a teacher education model using a teaching school as an "education laboratory"; d) the integration of a coherent programme of teacher education, development and research, involving international collaborators and funders.</p> | |

Biography



Professor Sarah Gravett
Dean of the Faculty of Education, University of Johannesburg

Sarah Gravett is dean of the Faculty of Education at the University of Johannesburg (UJ) and professor of teacher education. She served as chair of the Department of Educational Sciences at the former Rand Afrikaans University (RAU) and as deputy dean of the Faculty of Education from April 2004 (first at the RAU and later at UJ) until her appointment as Dean in 2007. Her initial postdoctoral research included transformative learning, dialogic teaching and the design of learning environments in higher education. Later her research focus shifted to teacher education and she has published widely in this field. She views her involvement in establishing **a school at UJ's Soweto campus as the most gratifying achievement of her academic career.** The school was established to serve the education needs of young children in close proximity to the UJ Soweto campus, to serve as a learning site for the education of teachers and as an education laboratory. Research emanating from this initiative includes innovative **work in developing a teacher education model, incorporating a "teaching school".** In addition, she serves as guardian for a secondary school attached to UJ. Apart from her role as faculty dean she serves education more broadly in South Africa. She chairs the Education Deans Forum in the country, and represents teacher education institutions at the National Teacher Education and Development Committee, which involves all role players in education. She also chairs the Education UNESCO committee in South Africa (a ministerial appointment).

UNIVERSITY OF MARYLAND

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| U21 University | University of Maryland |
| Title of Case Study | The University of Maryland (UMD) as the catalyst for transforming the surrounding community (the City of College Park and the Greater Washington, D.C. region) and creating an ecosystem of innovation and economic development. |
| Name of Partner Organisation(s) for Case Study | U3 Advisors of Philadelphia |
| Name of Presenter from U21 University and Partner Organisations | Wallace Loh, President of the University of Maryland Omar Blaik, founder/CEO of U3 Advisors of Philadelphia |
| <p>Summary of case study and its objectives and timeframe</p> <p>University of Maryland (UMD) is the State's flagship institution with 38,000 students and 12,000 faculty and staff, located in the City of College Park, about 8 miles outside of Washington, D.C. Despite UMD's scale, academic reputation (among the top 15 public research universities in the U.S.), \$560 million yearly in externally funded research, and enthusiastic allegiance of faculty, students and alumni, College Park itself has none of the qualities of vibrant city life that would attract faculty and other staff to live there, or to keep our graduates from leaving the area or the state to launch elsewhere their careers and start-up companies.</p> <p>Historically, UMD had an inwardly-oriented vision of itself as an oasis in an undeveloped region with a large population of racial minorities. Town and gown were separate worlds, often in tension. Since 2012, UMD has reached out to the surrounding community to become good neighbours and partners. UMD attracted \$1 billion in state and private funding for state-of-the-art research facilities and innovation incubators. It then leveraged this development on campus for another \$1 billion in private investment to create a more vibrant community around the campus – the vision of "Greater College Park," a work-in-progress made possible by the partnership between government, the private sector, and UMD as the anchor.</p> <p>Highlights of this transformation include: (1) Expanding the UMD police and launching a UMD-affiliated, high-tech public school, because public safety and access to pre-university education influence where people choose to live and work. (2) Introduction of a new light rail that connects UMD with the entire region, thereby stimulating transit-oriented economic development. (3) Redevelopment of downtown College Park with new hotels, retail amenities, mixed-used housing, and public spaces; (4) Redevelopment of UMD's research park, integrated with the community, that attracts and retains start-ups, entrepreneurs, and Federal research facilities.</p> <p>Any other key partners Elected officials of College Park City and Prince Georges County; the State of Maryland's Department of Commerce; the Governor's office and State Legislature leaders; Federal Government science agencies with R&D facilities in the region; the private sector (real estate developers, retail industry [hotels, restaurants, stores, entertainment, etc.], start-up companies, large corporations, and non-profits.</p> | |

UNIVERSITY OF MARYLAND

Reported outcomes

- 30 real estate development projects
- \$2 billion in public private investment
- 2,500 new residential units
- 1.5 million square feet of development
- 475 students enrolled in grades 6-12

Impact to date

- Record number of applications for student enrolment

Influx of start-up businesses locating in College Park

Biographies



Wallace D. Loh
President, University of Maryland

The University of Maryland is the state's flagship and land-grant institution with 37,500 students in 12 schools and colleges, 9,000 faculty and staff, and a \$1.9B annual operating budget, including \$500M in external research funding. It is a member of the Association of American Universities.

Loh assumed the position in 2010. Previously, he was Executive Vice President and Provost, The University of Iowa; Dean, College of Arts & Sciences, Seattle University; Director, Executive Policy Office and chief policy adviser to Governor Gary Locke, State of Washington; Vice Chancellor for Academic Affairs and Dean of Faculties, University of Colorado-Boulder; Dean, University of Washington Law School.

At Maryland, he is Professor of Public Policy. Previously, he was Professor of Law at Washington, Colorado-Boulder, and Iowa; Visiting Professor of Law at Cornell, Peking University (China), Emory, University of Texas at Austin, University of Houston, and Vanderbilt. His scholarship and teaching are in the areas of law and social change and in criminal justice reform.

Fellow, American Academy of Arts and Sciences; board of directors, American Council of Education; advisory board, U.S. Comptroller General; former advisory board chair, U.S. Department of Homeland Security; "Influential Marylander" (*Daily Record*); "Power 100" (*Washington Business Journal*); "Immigrant Achievement Award" (American Immigration Council); former President, Association of American Law Schools; "Trailblazer Award," National Asian-Pacific American Bar Association; recipient of three honorary degrees.

Born in China, Loh moved with his family to Peru. After high school, he immigrated to the United States and became a naturalized citizen.

Education: Grinnell College, B.A.; Cornell University, M.A.; Universiteit te Leuven (Belgium), graduate study; The University of Michigan, Ph.D.; Yale Law School, J.D.



Omar Blaik
CEO, U3 Advisors

Omar Blaik is CEO of U3 Advisors. **Omar founded U3 Ventures LLC, a predecessor of today's** firm, in 2006 with the belief that anchor institutions hold the key to sustainable community and economic development in many cities across the country. Omar leads the advisory and development efforts of U3 Advisors, working with university leaders, city and state governments, non-profit foundations, and real estate developers to provide expertise on institutional anchor strategy, campus edge planning, local economic development, and place-based real estate strategy. He has had the privilege of advising senior leadership from foundations such as the Kresge Foundation and the John S. and James L. Knight Foundation, and from institutions such as the University of Maryland College Park and the University of Chicago, creating strategies around real estate, community engagement, and economic development.

Prior to forming U3 Ventures, Omar was the Senior Vice President of Facilities and Real Estate at the University of Pennsylvania. During his tenure at Penn, Omar led the creation of a vibrant and engaging built environment in which students, faculty, and staff could learn, live, work, and play. Under his management, Penn embarked on more than \$2.0 billion of construction and real estate developments that transformed both the campus and the surrounding community.

Omar came to Penn from Coopers and Lybrand, where he led a team of consultants providing advisory services to Presidents, CEOs, and Executive Vice Presidents in the areas of facilities planning, real estate, and capital programs to corporate and institutional clients. Omar received his Bachelor of Science degree from Cairo University, his Master of Science degree in Civil Engineering from the University of Southern California, and his MBA from New York **University's** Leonard Stern School of Business.

THE UNIVERSITY OF QUEENSLAND

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| U21 University | The University of Queensland |
| Title of Case Study | Developing Port Growth – The University of Queensland and Port of Brisbane Pty Ltd Research Partnership |
| Name of Partner Organisation(s) for Case Study | Port of Brisbane Pty Ltd. (PBPL) |
| Name of Presenter from U21 University | Professor Peter Høj, Vice-Chancellor and President, The University of Queensland |
| <p>Summary of case study and its objectives and timeframe</p> <p>Australia is an island nation with a predominately coastal, urban population and ports are critical to both its economy and societal wellbeing. However, modern day ports face an increasingly competitive global trade environment and require highly innovative solutions to maintain their competitive edge. At the same time, higher education institutions within Australia are under increasing pressure to diversify their funding streams as well as provide their students with a rich education experience. Recognising the potential for significant and synergistic outcomes, The University of Queensland (UQ) and the Port of Brisbane Pty Ltd (PBPL) entered into a formal research partnership in April 2015.</p> <p>The primary purpose of this \$2M partnership is to <i>provide PBPL with answers to strategic questions and innovative solutions that are key to future-proofing its position as one of Queensland's major economic trade facilitators</i>. The research themes currently being addressed are important challenges facing many ports regionally and globally and include:</p> <ul style="list-style-type: none"> • Economic analyses (e.g., supply and logistic chain optimisation; options for improving economic, social and environmental reporting); • Dredging and dredge material management (e.g., dredging interaction with megafauna in Moreton Bay); • Air quality management (e.g., identify economically efficient ways to reduce air pollution); • Sediment and storm water management (e.g., understanding the sediment transport in Moreton Bay and the lower Brisbane River); and • Flora and Fauna management (e.g., factors impacting mangrove growth). <p>While many similar endeavours have failed to endure past a short period, this alliance is healthy, robust and durable due to the mutual benefits that both partners are receiving. For industry, this partnership provides the PBPL with cutting edge research outputs to maintain its competitive edge. From UQ's perspective, it offers an alternative funding model and a unique opportunity to enrich the education experience of its students by gaining access to a world-class port facility, and exposing them to practical issues. Importantly, the research spans <i>multiple disciplines</i> across both the Faculty of Engineering, Architecture and Information Technology and the Faculty of Business, Economics and Law, as well as <i>multiple levels</i> (including senior researchers, post-docs and graduate and undergraduate students).</p> <p>Ultimately this partnership allows research to directly inform a key civic leader in the region, ensuring business growth occurs in a sustainable yet competitive way, and enhancing the long term economic prosperity of Queensland. Other key themes emerging from this partnership include:</p> <ul style="list-style-type: none"> • <i>High levels of communication and trust</i> between both parties with UQ research staff and students directly accessing PBPL personnel and facilities; | |

- *Rapid feedback* via a flexible and responsive governance structure to ensure partnership activities are progressing satisfactorily for all parties;
- *Demonstration of impact* beyond traditional research output;
- *Marketing opportunities* to attract the highest calibre academics and students;
- *Additional collaboration opportunities* outside of the partnership activities, including short term consultancies and leveraging national competitive grant schemes.

In summary, this novel and effective research partnership connects Queensland's premier multi-cargo port with one of Australia's leading research and teaching institutions. In the two years since inception, UQ and PBPL have grown a strong and successful industry-academic alliance that has benefitted the port, many students and researchers across a number of disciplines, and the local and larger economies in which the organisations operate. Significantly, the partnership is healthy and robust and continues to grow in scope through an ever-increasing range of benefits to both UQ and PBPL. The success of this alliance bears testimony to the strategic approach that underpins the objectives of its research projects, and the ability over time to target the specific needs and goals of both partners.

Any other key partners

Given the scope of work within the partnership there have been many opportunities to partner in developing additional activities to support the research program. For example, Australian Research Council (ARC) Linkage funding was awarded to further investigate the PBPL land reclamation process with international partners from Hohai University and China and Ju-Hui Technology Pty Ltd. Healthy Land & Water is a community-focused and science-based waterway and natural asset management organisation in the South East Queensland region and it is a key partner in supporting both the catchment and coastal sediment monitoring programs. These programs will be of critical importance in helping Healthy Land & Water realise its vision of "A sustainable future for our community through management of our natural environmental assets."

Reported outcomes

Most of the projects under this partnerships are work in progress.

Academic outcomes include conference presentations at major international conferences (e.g. ASLO 2017, Hawaii) and high impact journal publications (e.g. Lockington et al 2016, Marine Pollution Bulletin). Five PhD students have commenced already and more than 60 undergraduate students have participated in volunteer or curricular studies.

Impact to date

Results for completed projects have already benefited the PBPL to inform management strategy as well as day to day operations. PBPL is leading a key regional initiative in Offsite Stormwater Treatment which aims to reduce catchment soil loss during flood events and the recently documented massive expansion in mud occurring in receiving coastal embayment greatly supports this strategic initiative.

An example for the expected impact of our research work will be the outcome of a project which currently investigates the potential demand for coastal (non-bulk) freight shipping on the Brisbane – Townsville (northern Queensland) corridor. The understanding about the potential demand for coastal freight shipping in Queensland is important as it will provide the basis for decisions about port infrastructure investment (in Brisbane and Townsville) as well as decisions about public infrastructure planning (e.g., road system upgrade).

The opportunity for undergraduate students to engage in applied research programs has enhanced their education experience. For example, Nathaniel Deering, an undergraduate engineering student, said, **"Through working on projects with the Port of Brisbane, I have gained an understanding of how to work through and solve problems in an active and ever changing environment and it has expanded my knowledge of the field of civil engineering, outside of the scope taught in courses."**

Biography



Professor Peter Høj MSc PhD DUniv (honoris causa), FTSE
Vice-Chancellor and President, The University of Queensland

Professor Peter Høj commenced as Vice Chancellor and President of The University of Queensland on 8 October 2012. Prior to this appointment Professor Høj was Vice-Chancellor and President of the University of South Australia from 1 June 2007. Before that, he was Chief Executive Officer of the Australian Research Council (2004-2007) and Managing Director of the Australian Wine Research Institute (1997-2004).

He was educated at the University of Copenhagen, majoring in biochemistry and chemistry, and has a Master of Science degree in biochemistry and genetics, a PhD in photosynthesis, an Honorary Doctorate from the University of Copenhagen and an Honorary Doctorate from the University of South Australia.

Professor Høj is the chair of the Board of Group of Eight (Go8) Universities in 2017, a member of the Medical Research Future Fund Advisory Board, a member of the STEM Males Champions **of Change, a member of SUSTech President's International Advisory Council from 2017 and in 2014** was appointed as a senior consultant to Hanban in the Oceania Region.

He served as Co-Deputy Chair of the Strengthened Export Controls Steering Group 2012-2016, a member of the edX University Advisory Board 2014-2017, the CSIRO Board 2011-2014 and was Deputy Chair of Universities Australia Board 2011-2013. He served as a private member of **the Prime Minister's Science Engineering and Innovation Council (PMSEIC)** from 1999-2004, and as an ex-officio member from 2006-2007.

He is a Fellow of the Australian Academy of Technological Sciences and Engineering and a Foreign Member (Natural Sciences Class) of The Royal Danish Academy of Sciences and Letters.

TECNOLÓGICO DE MONTERREY

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| U21 University | Tecnológico de Monterrey |
| Title of Case Study | DistritoTec: the place to live among great ideas |
| Name of Partner Organisation(s) for Case Study | DistritoTec Neighbours Council, Municipal Government of Monterrey, State Government of Nuevo León, Secretaries of Federal Government, and a network of members from other non – government organisations, and public actors. |
| Name of Presenter from U21 University | José Antonio Torre, Director of Citizen – Centred Urbanism jtorre@itesm.mx |
| <p>Summary of case study and its objectives</p> <p>DistritoTec is the place to live among great ideas. It is an urban regeneration initiative backed and promoted by Tecnológico de Monterrey and many other citizens, organizations, and authorities, who share the common goal and commitment to work for the benefit of the community.</p> <p>DistritoTec is a 452 hectares area located south of the Monterrey metropolitan area formed by twenty-four neighbourhoods and immediately surrounding the flagship campus of Tecnológico de Monterrey. From 2000 to 2010, this area lost 22% of its population; its density was far below the metropolitan area average (38 habitants per hectare vs 60), and 36% of its houses were unoccupied.</p> <p>Current and future generations and talented people need living and working spaces that provide them with opportunities and quality experiences. Given this, Tecnológico de Monterrey created a team to engage into the DistritoTec initiative in 2012. It was publicly announced in February 2014 through the presentation of the Monterrey Campus Master Plan and a call on the participation of citizens, organizations and authorities to work together and share the responsibility of transforming the area.</p> <p>These initial steps built upon the DistritoTec's transformative vision which is based on:</p> <ul style="list-style-type: none"> • An ideal setting for developing great ideas by encouraging research, innovation and entrepreneurship through productive and creative links with academia, businesses and the public sector. • Actions for Better Living that create a district that is attractive, renovated and well connected, and that offers premium talent a captivating space in which to interact, visit and live. • A New Model for Cities Based on Shared Responsibility as an urban innovation project that promotes ideas, actions and regulations to create shared value, based on a model of shared responsibility that can improve social harmony and foster development. <p>Timeframe</p> <p>After five years of hard work, DistritoTec's transformative projects are starting to take shape. The initiative is continuing on the course we charted in 2012.</p> <ul style="list-style-type: none"> • 2012 – Tecnológico de Monterrey takes a leadership role in addressing challenges in its immediate surroundings. • 2013 – A new Monterrey Campus Master Plan that builds on the original 1943 version is developed with new open concept function that is integrated with the community. • February to June 2014 –The new Monterrey Campus Master Plan is made public and is the first part of DistritoTec's initiative to motivate citizens, organizations, and authorities to work together and share responsibility. | |

TECNOLÓGICO DE MONTERREY

- June to November 2014 – DistritoTec neighbours attend the open invitation from Tecnológico de Monterrey and get together to identify and set priorities related to the area. The process of creating neighbourhood councils for DistritoTec begins.
- December 2014 to November 2015 – Experts and authorities discuss the Partial Urban Development Program and made it available for public consultation. Once approved, this legal framework gives certainty to the transformative vision of DistritoTec.
- January 2016 to today – **Encouraged by Tecnológico de Monterrey’s vision of shared responsibility, a number of projects have launched under the Partial Urban Development Program’s guidelines, and with Monterrey Campus Master Plan.**

Key partners

DistritoTec has partnered with multiple organizations, authorities, citizens and mainly neighbours. Since 2014, the initiative has worked with neighbourhoods to create a shared, comprehensive vision of development for our district. Neighbourhood representatives accompanied local authorities during the process of designing and approving the Partial Urban Development Program for DistritoTec, where the DistritoTec Neighbourhood Council was presented.

Reported outcomes

In 2017 our scope will expand to include the planning, launching and following up of multiple initiatives focused on improving our environment. Projects currently undergoing construction are: the New Library, La Carreta Pavilion, Garza Sada Traffic Circle, to mention the most important ones.

Other ongoing and future projects such as a new stadium and sports area, a research building, pocket parks developed as privately owned public spaces, reforestation, **García Roel’s Complete Street and Public Art complement these initial actions. Events and initiatives that create public meeting spaces for the community are: *Callejero, El Huerto, Picnic Cinema, GoDinner and Volunteer Program.***

Impact to date

DistritoTec was launched with an institutional decision to assign US\$500 million budget for the following 15 years. Along with the development of a stronger citizen participation mechanism, a legal framework which gives certainty to the transformative vision of DistritoTec, and multiple projects about to be inaugurated, US\$800 million real-estate investments had been identified up to June 2016.

Biography



José Antonio Torre Medina – Mora
Director of Citizen – Centred Urbanism, Tecnológico de Monterrey

José Antonio Torre Medina-**Mora holds a Bachelor's degree in Industrial and Systems Engineering,** and a M.B.A from Harvard Business School.

He started his entrepreneurial career by developing businesses in the metal-mechanical and pharmaceutical distribution sectors.

In 2008, he joined the Public Sector as Chief of Staff in ProMéxico, the Mexican institution in charge of promoting trade and investment. In 2010, he became Chief of Staff to the Minister of the Economy and in 2011, he was appointed Sub Secretary for Competitiveness and Business Regulation.

Since 2013, he is Director of Citizen – Centered Urbanism at Tecnológico de Monterrey and coordinates the DistritoTec initiative. Since then, he has been dedicated to research, design and implement better ways to plan, manage and promote the role of the city as a sustainable platform for personal, social and economic development.

Currently, he is Chairman of the Citizen Participation Council for Urban Development, and a member of the Strategic Planning Council, both of the State of Nuevo León, México.