에시재 시대와 함께하는 집
미래를 창조하는 인재 양성

Innovation:Reinvigorating University-Industry-Government Partnerships by Triple Helix Model

Nam-Joon Cho, Ph.D.

Nanyang Technological University

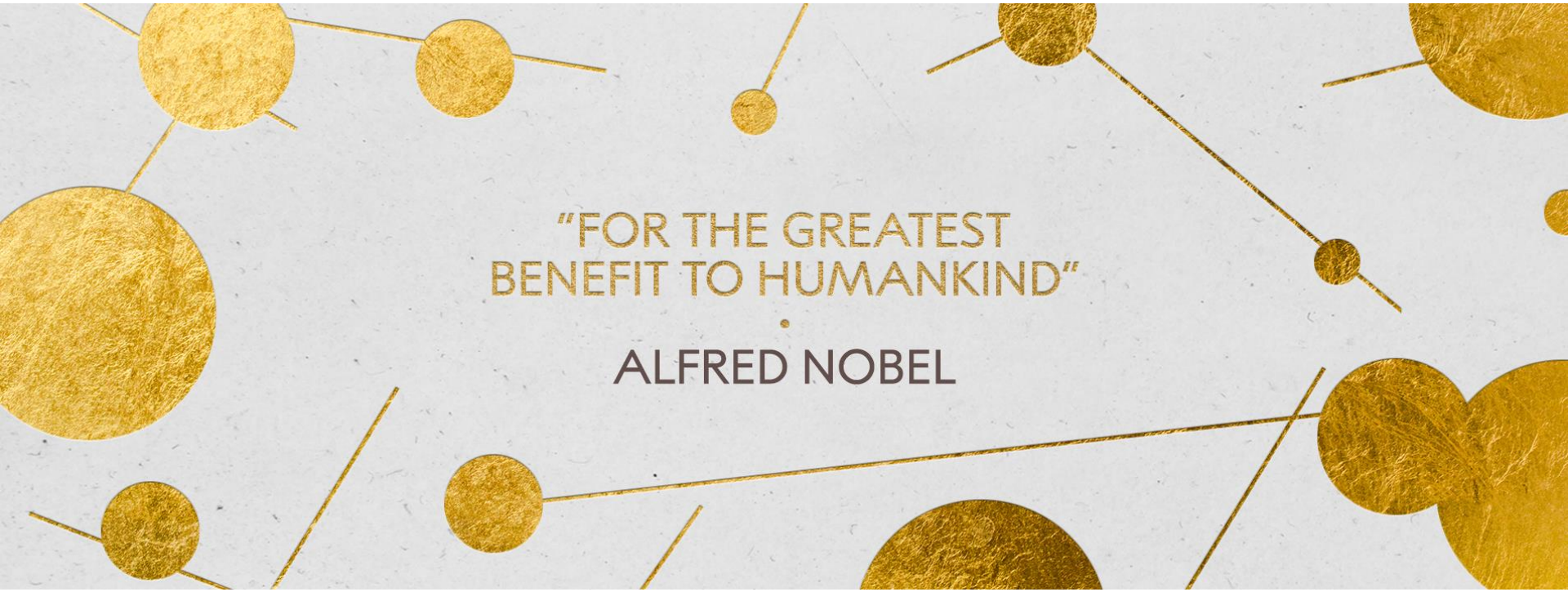
May 16th, 2019

“There are two types of research: applied, and not-yet-applied".

Research & Innovation

Professor Sir George Porter (1920 -2002)
President of the Royal Society

For the Greatest Benefit to Humankind



1.	Swedish and foreign members of the Royal Swedish Academy of Sciences;
2.	Members of the Nobel Committee for Physics;
3.	Nobel Laureates in Physics;
4.	Tenured professors in the Physical sciences at the universities and institutes of technology of Sweden, Denmark, Finland, Iceland and Norway, and Karolinska Institutet, Stockholm;
5.	Holders of corresponding chairs in at least six universities or university colleges (normally, hundreds of universities) selected by the Academy of Sciences with a view to ensuring the appropriate distribution over the different countries and their seats of learning; and
6.	Other scientists from whom the Academy may see fit to invite proposals.

Nothing more than Network

Credit: Nobelprize.org

The Nomination Database

The Nomination Database

The database is not yet complete. Currently, data until 1966 is included for nominations to all Nobel Prizes except the Nobel Prize in Physiology or Medicine, that only contains data until 1953. Note also that names of the nominees and other information about the nominations cannot be revealed until 50 years later. See the manual for more details.

Number of nominations in Physics from 1901 to 1966:	2777
Number of nominations in Chemistry from 1901 to 1966:	2931
Number of nominations in Physiology or Medicine from 1901 to 1953:	5110
Number of nominations in Literature from 1901 to 1966:	3104
Number of nominations in Peace from 1901 to 1967:	4425
Total:	18347

Qualification of Nominators

The right to submit proposals for the award of a Nobel Prize in Physics shall, by statute, be enjoyed by:

1.	Swedish and foreign members of the Royal Swedish Academy of Sciences;
2.	Members of the Nobel Committee for Physics;
3.	Nobel Laureates in Physics;
4.	Tenured professors in the Physical sciences at the universities and institutes of technology of Sweden, Denmark, Finland, Iceland and Norway, and Karolinska Institutet, Stockholm;
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6.	Other scientists from whom the Academy may see fit to invite proposals.

Nobel Prize by Country

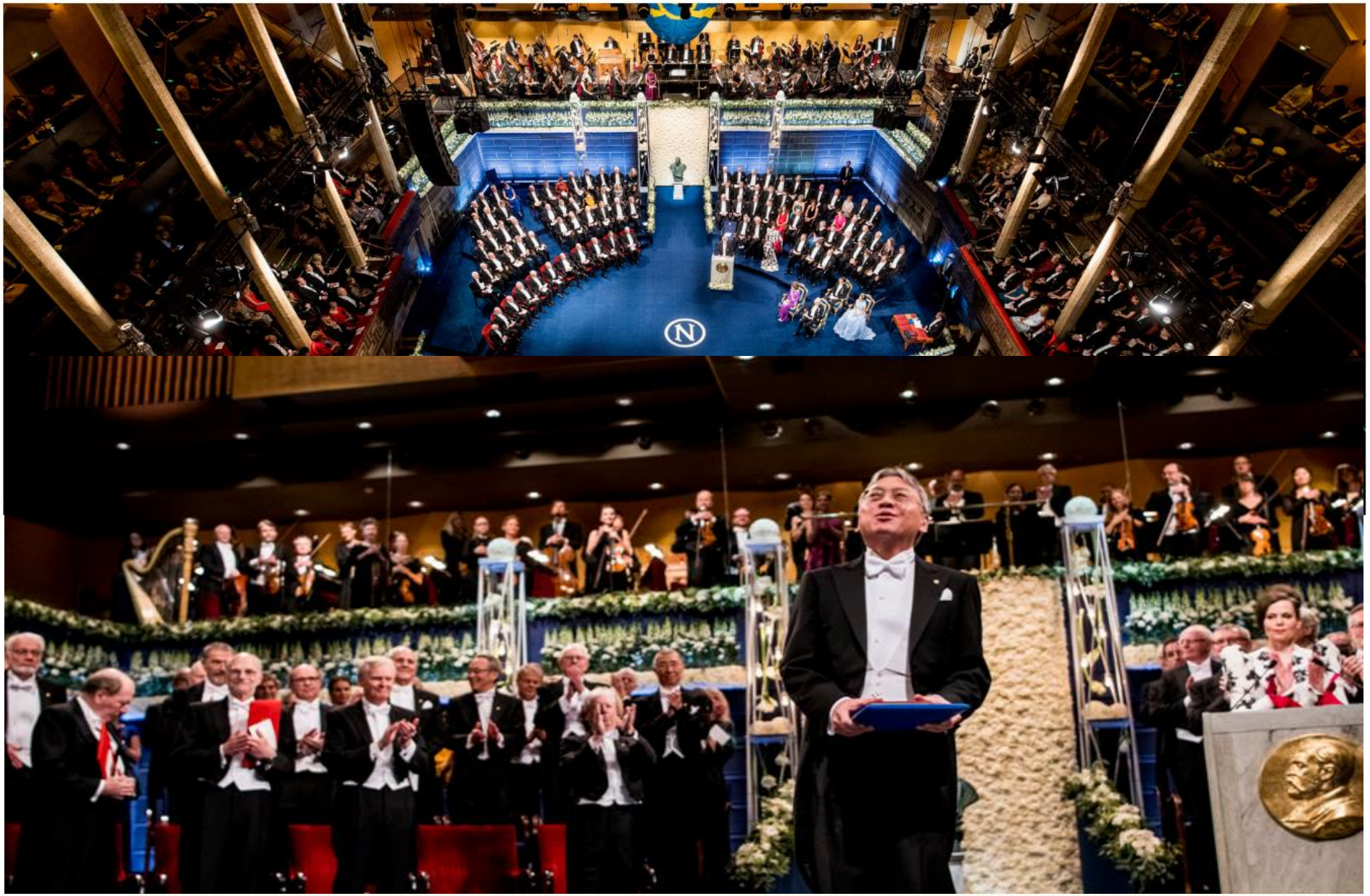
USA leads the way in the Nobel Prize

The Top 10 Nobel Prize Winners by Country of Birth

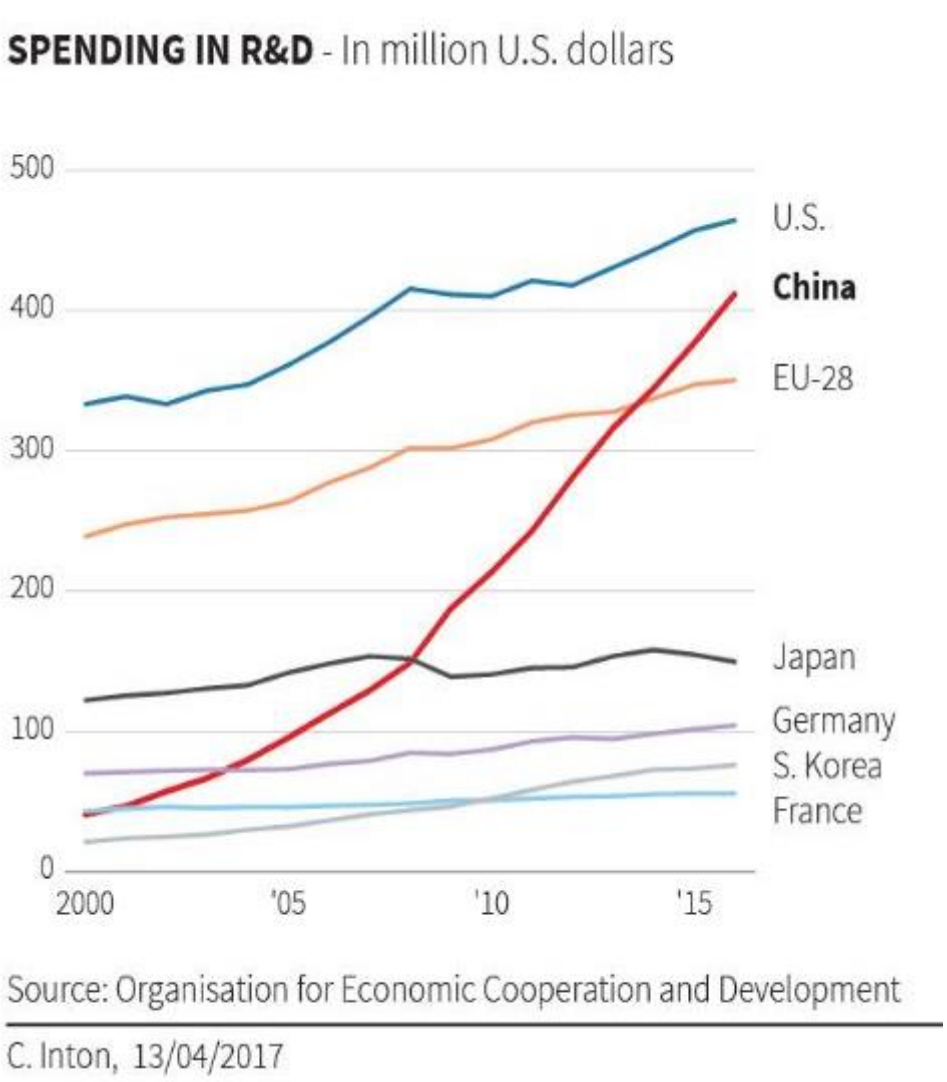
 Source: Nobel Foundation

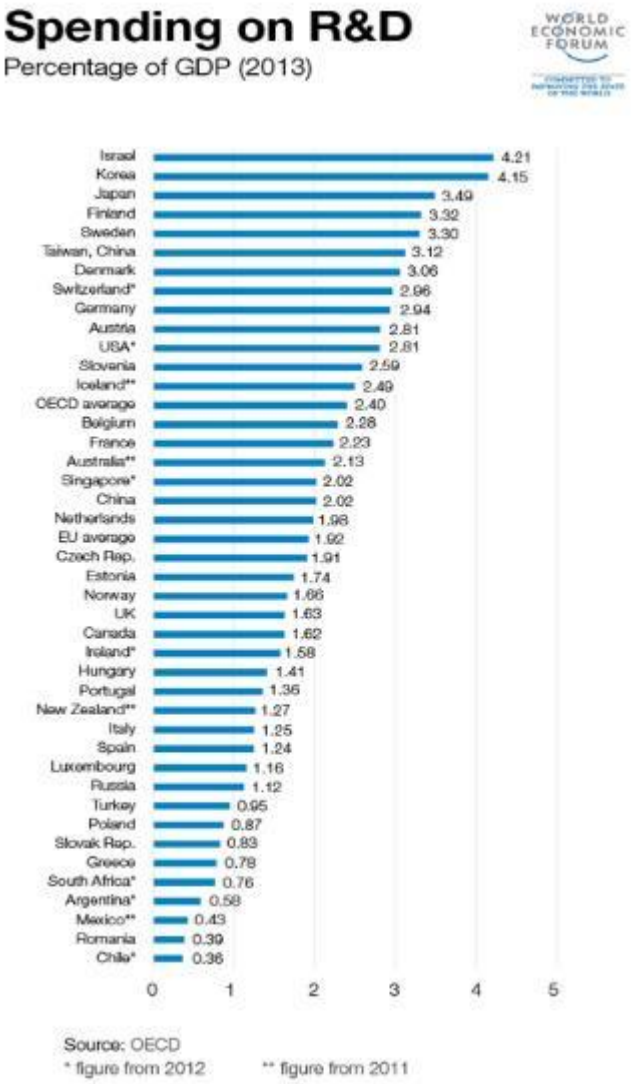
statista

Ceremonies Archive



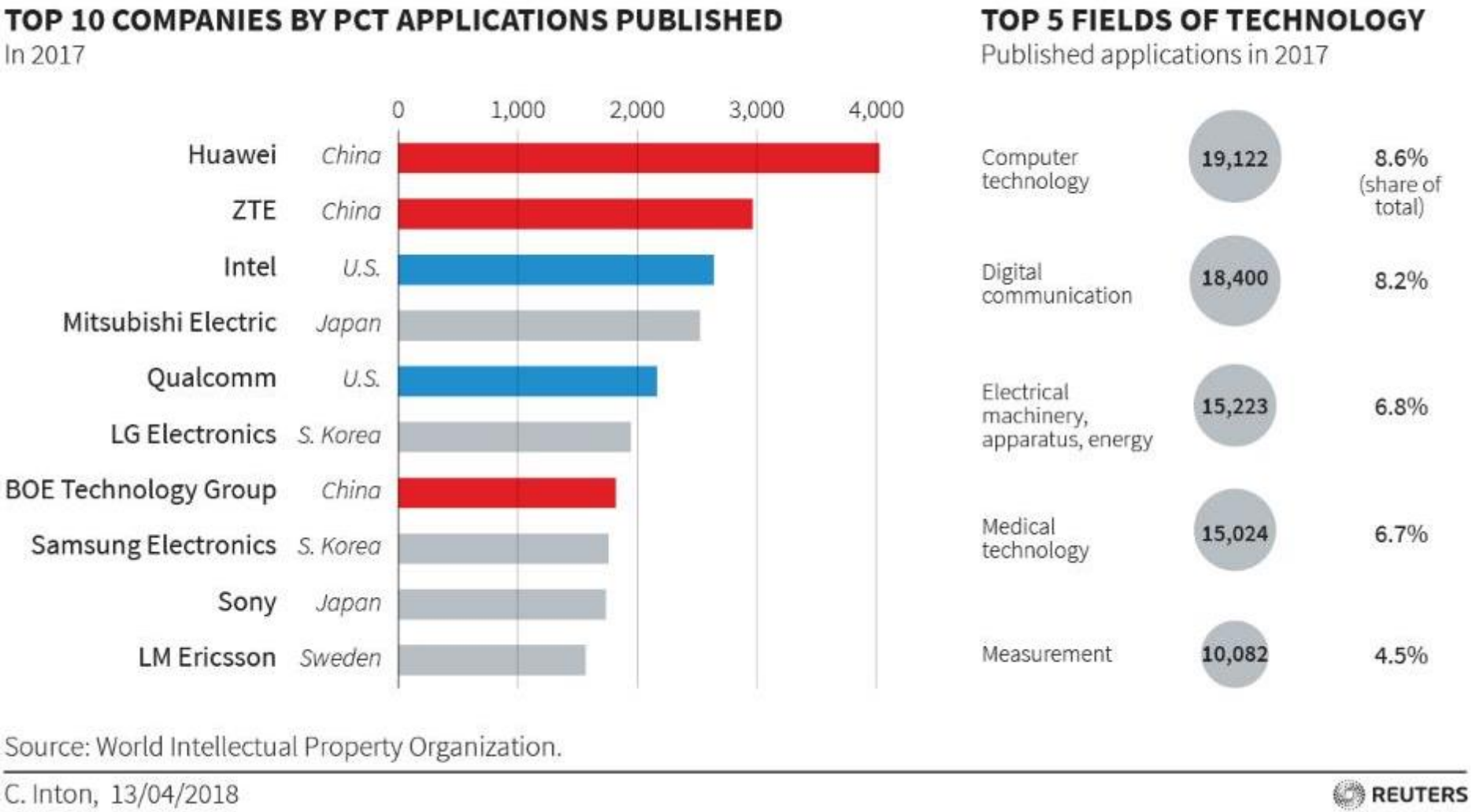
Research & Development Budget





Credit: World Economic Forum

Company R&D PCT Application

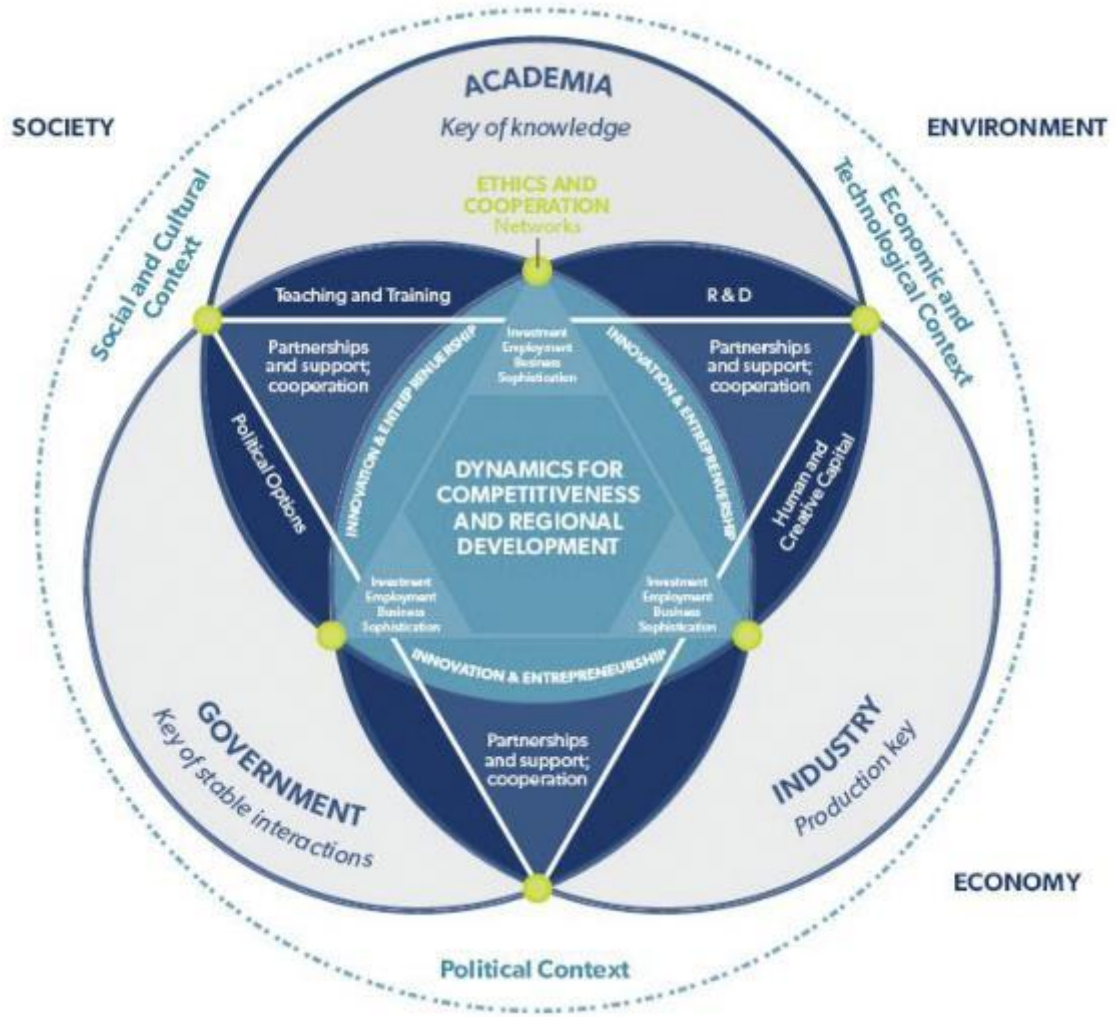


Source: World Intellectual Property Organization.

C. Inton, 13/04/2018

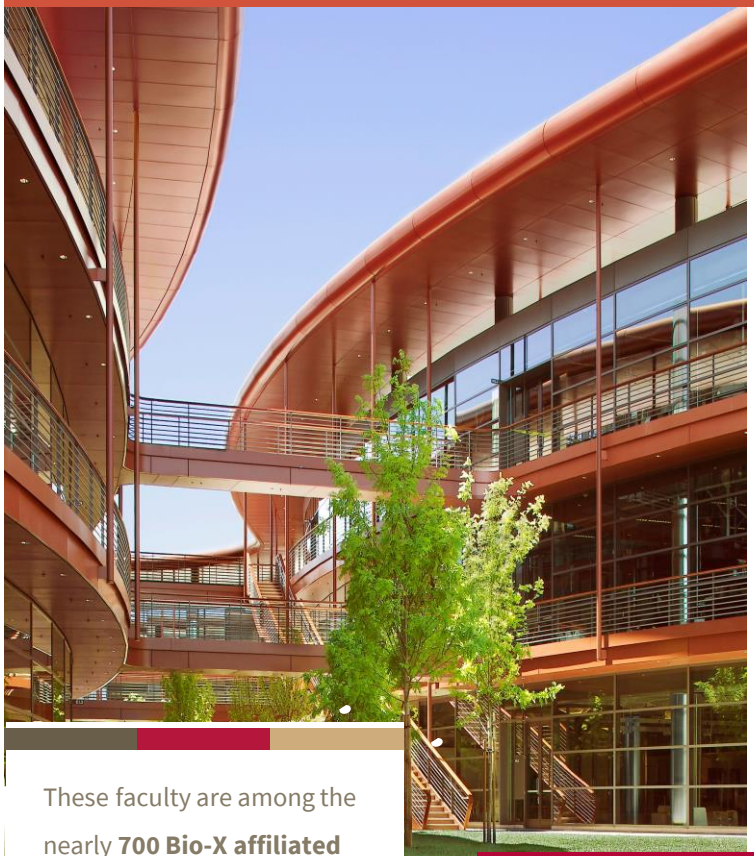
REUTERS

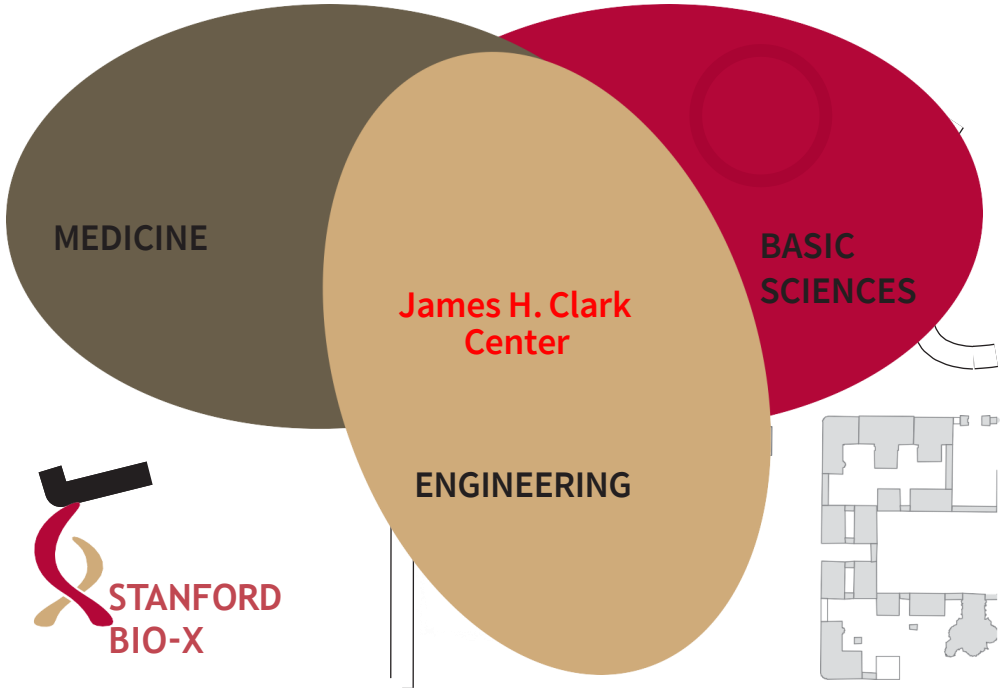
The Triple Helix Model



Beyond the double helix new approaches to model and foster innovation are needed, involving multi parties, as it is proposed in [the triple helix model](). Credit: Farinha & Ferreira- 2013

Stanford Bio-X





These faculty are among the nearly **700 Bio-X affiliated scholars** who span the campus and come together at the **Clark Center**, generating collaborations in the biosciences.

STANFORD BIO-X

Other institutions offer interdisciplinary research. What makes Stanford Bio-X so special is its extraordinary faculty and students, culture of collaboration, and can-do, entrepreneurial spirit that encourages risk-taking and delivers phenomenal results.

KATHLEEN LAVIDGE, '74
CHAIR, STANFORD BIO-X ADVISORY COUNCIL

SPARK PROGRAM @ Stanford Medicine

SPARK Mission

Partnership between the university and local biopharma community to:

- **Educate** faculty, post-doctoral fellows, and medical and graduate students in drug and diagnostic discovery and development
- **Advance promising research** discoveries to the clinic as drugs, biologics, or diagnostics
- **Innovate** efficient, and cost-effective approaches to discovery and development

School of Medicine program that brings together:

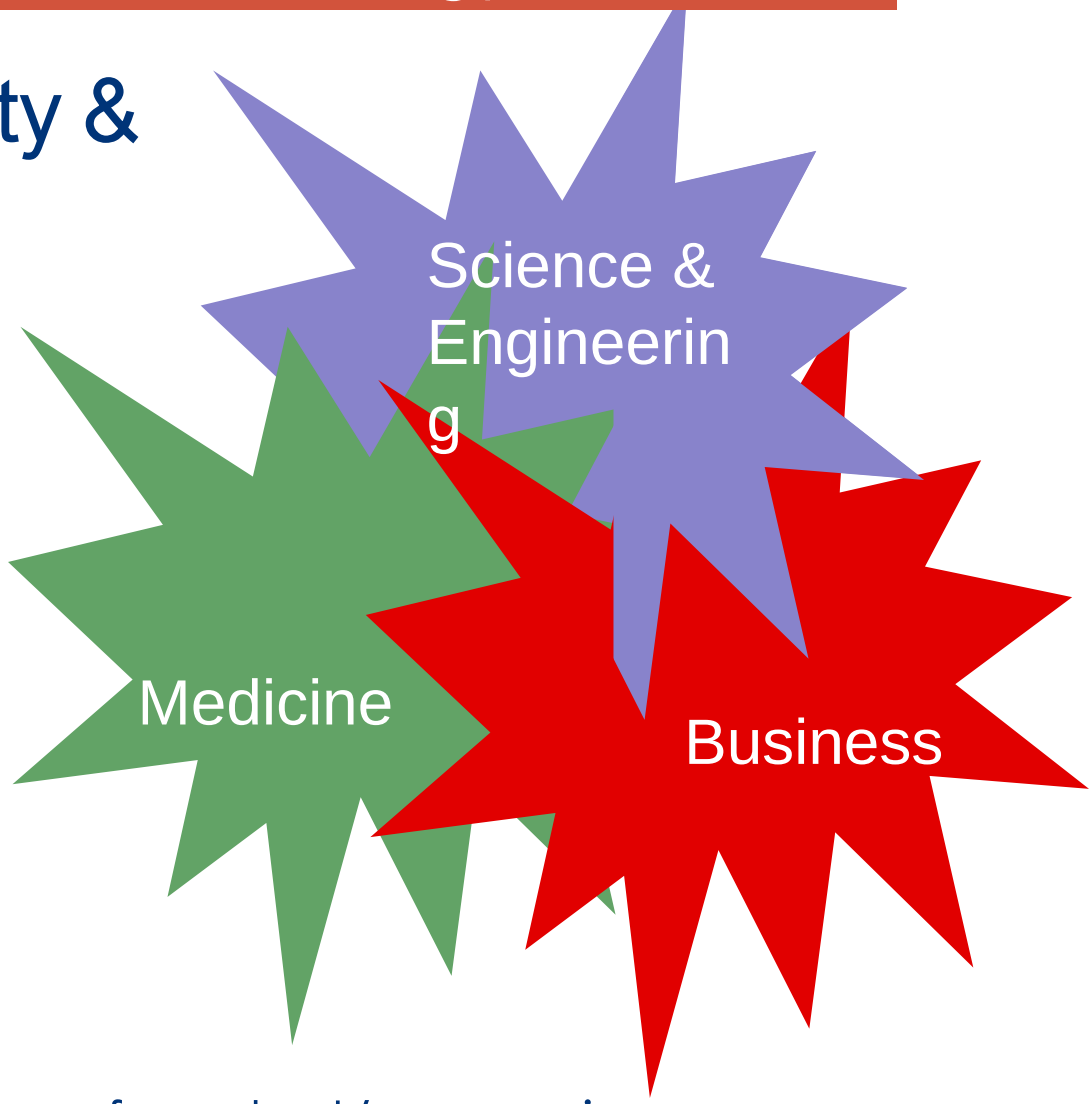
SPARK PROGRAM @ Stanford Medicine

- Low number of new drugs/biologics approved by FDA each year despite large expenditures
- Reduction in discovery efforts by pharmaceutical industry
- "Valley of Death" – gap between academic discovery and commercial interest
- Faculty career advancement misaligned with applied research
- Funding gap

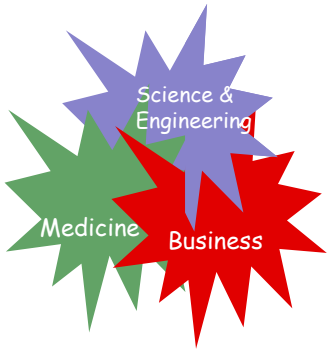
MIT-Harvard Division of Health Sciences and Technology

Innovation* Community & Culture

- People
- Programs
- Organizational structure



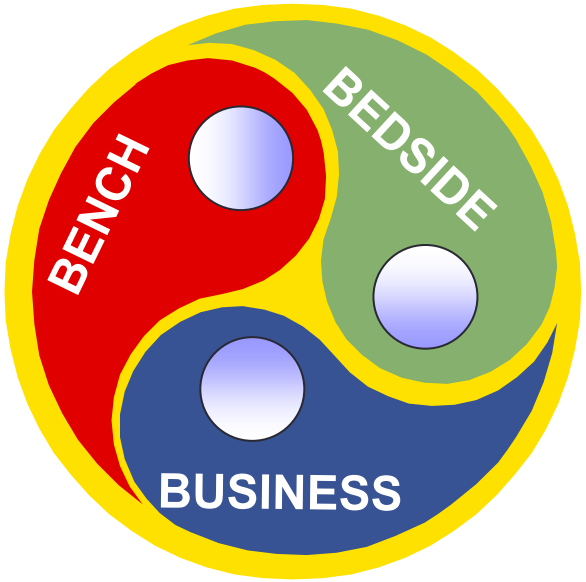
*Innovation = Discovery/invention of product/process in use that changes peoples' lives



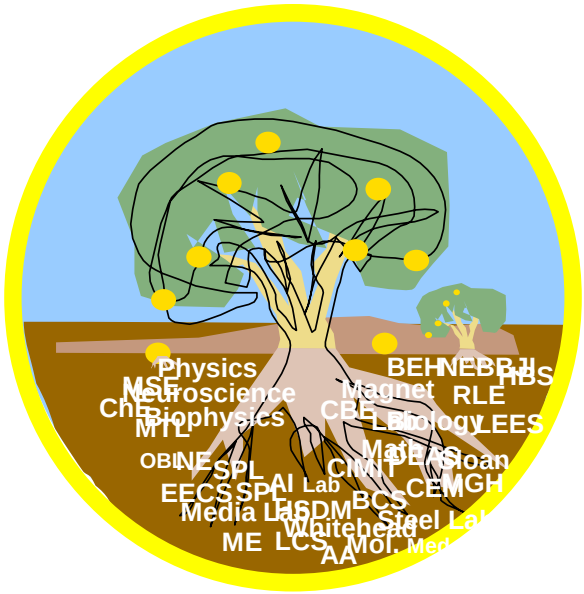
HST Paradigm

principled strategy to establish an innovation community

Equal Footing: Multidisciplinary



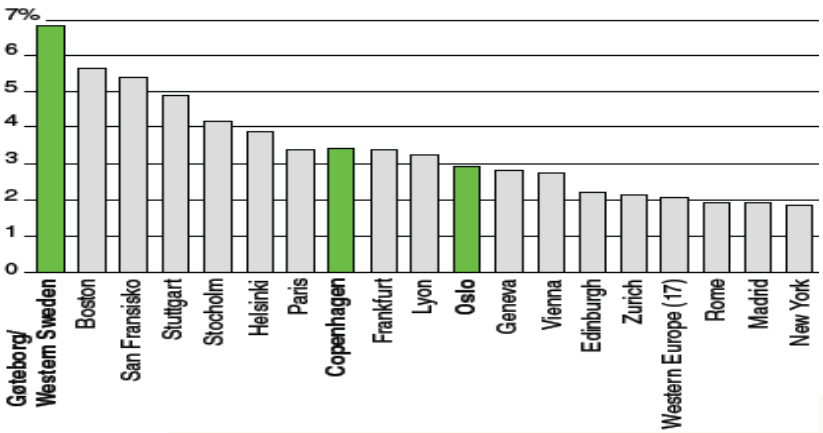
Multicultural/ Multiprofessional: Bench to Bedside



Extensive Root System: Capitalize on Environment

Gothenburg – situated in the middle of a European ”mega-region”

- 8 million out of Scandinavia´s 19 million people live in the corridor between Oslo and Copenhagen
  - 29 universities and university colleges
  - 260 000 university students
  - 14 000 researchers
  - 22 science parks/incubators
  - 44 000 new businesses annually
- Very high research expenditures
  - One of the world’s most innovative regions



“Mega-regions are large-scale economic units of multiple large cities and their surrounding suburbs”

Richard Florida, ”The Rise of the Creative Class”

CHALMERS University of Technology

- 2007 Chalmers with U Gothenburg became on of five keyactor projects (professionalizing utilization and collaboration)
- 2008 Chalmers became responsible to start “Innovation Office West” (one of eight offices in Sweden)
- 2009 The application “Gothenburg Schools of Entrepreneurship” was ranked number one by government





Fastest-Growing Research-Intensive Universities In the World

Nanyang Technological University

Talent is Everything

오늘 방한 베르틸 안데르손 노벨 평의회 이사

'자유롭게 생각하는 사람' 넘칠 때 노벨상 나와

(Free Thinker)

이원호 기자 lhh@joongang.co.kr

"노벨상"은 한국인의 꿈이다. 고 김대중 대통령이 평화상을 받은 것을 제외하고 학문 분야에서 한국인 노벨상 수상자는 없다. 지구촌 석학들도 해마다 10월이면 스웨덴에서 들려오는 노벨상 수상자 발표에 촉각을 곤두세운다. 스웨덴 노르웨이 출신 노벨재단 평의회 이사 9명이 수상자를 마지막으로 점지한다. 그중 한 사람인 베르틸 안데르손(63) 노벨재단 평의회 이사이자 스웨덴 왕립아카데미 위원이 19일부터 사흘간 한국을 찾는다. 남덕우 전 국무총리, 이주호 교육과학기술부 장관, 김병철 고려대 총장 등 경제·과학·교육계 인사와 만나 현안을 논의한다. 지난해 싱가포르 국립공과대학교(NTU·난양대) 총장에 취임한 그는 올해 아시아에선 처음으로 노벨재단 후원의 '세계 청소년 노벨상 프로젝트'와 스탠퍼드 후원의 '아시아 대학생 창의력 교육 프로그램'을 추진한다. 방한을 앞둔 17일 그와 e-메일 인터뷰를 했다.

-한국 방문의 목적은.

"한국의 주수 대학들과 노벨재단·NTU의 교류 협력사업을 추진하기 위해서다. 19일 방한 첫날 남덕우 전 국무총리, 송자 전 연세대 총장, 조예제 서울디지털대학 총장 등의 환영만찬을 시작으로 서울대·고려대·한양대 등 학계와 협력사업을 논의한다. 이주호 교과부 장관에게는 교육정책을 자문한다."

-20년 넘게 일한 노벨재단은 무엇 하나.

"가장 큰 일은 노벨상 수상자를 선정하는 일이지만 학술회의도 연다. 주로 스웨덴에서 진행됐지만 앞으론 아시아 각국과 연대할 필요가 있다고 본다. 최근 노벨재단 산하 프린티어재단이 아시아 본부를 NTU에 차렸다. 첫 사업으로 4월에 노벨상 수상자와 저명 과학자들이 아시아 고교생들과 교류하는 국제 심포지엄을 연다."

-어떤 국제 청소년 심포지엄인가.

"스웨덴에서 주로 미국·유럽 청소년을 대상

Featured in Jung-Ang Il-bo in Feb. 2012

Top Recruitment

30 Eminent Faculty (Big Elephants) From Top Universities

Kerry Sieh (Caltech) | Staffan Kjellberg (UNSW) | Stephen Schuster (Penn State Uni) | Stephen Smith (Imperial College London) | Nikolay Zheludev (Univ Southampton) | Bernd Schmitt (Columbia Business School) | Hong Ying-Yi (UIUC)

Lee Kong Chian School of Medicine

Per-Olof Berggren *Visiting Professor* (Karolinska Institutet) | Bernhard Boehm (Uni of Ulm) | Daniela Rhodes, FRS *SRS Faculty* (MRC Laboratory of Molecular Biology) | Philip Ingham, FRS (Uni of Sheffield) | David Becker (University College London) | Walter Wahli *Visiting Professor* (Uni of Lausanne)

Top Recruitment

Outstanding Young Scientists

>40 outstanding young researchers (gazelles)

- NTU: Preferred Host Institution for NRF Research Fellows
- 26 Nanyang Assistant Professorships awarded: NTU's own premier recruitment programme (from >2,500 applications worldwide)

Eugene Makeyev From Harvard Medical School | Gao Yongqui From Cambridge U | Himi Volkan Demir From Bilkent University | Christos Panagopoulos From CambridgeU | Cho Nam Joon From Stanford U | Edith Elkind From U. Southampton | Kimberly Kline From UWashington StLouis | Ling XingYi From UC Berkeley

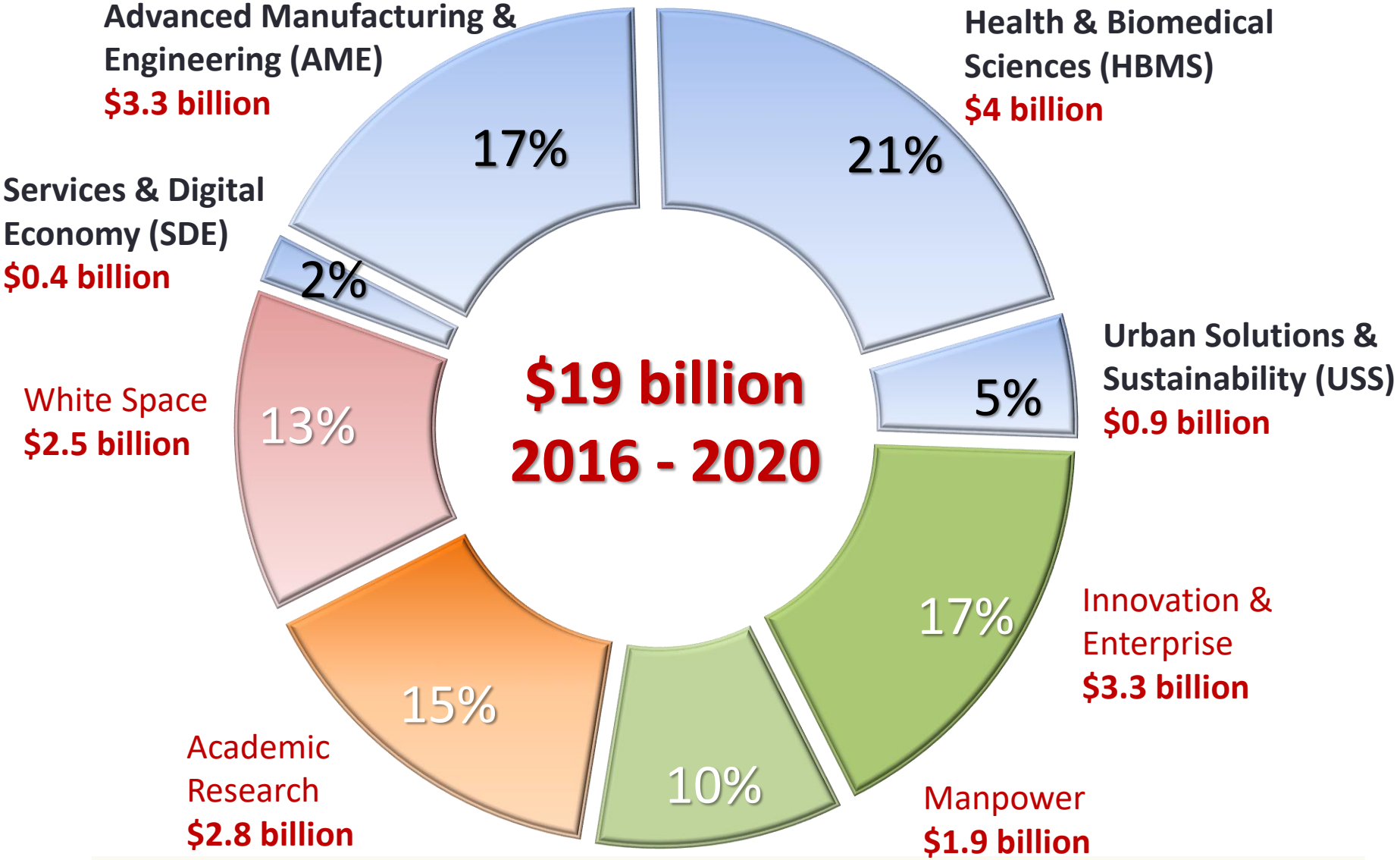
Ali Miserez From EPFL | Xiong Qihua From Harvard U | Chi Yongqi From UC Berkeley | Naohiko Yoshida From University of Tokyo | Adam Switzer From Uni Hong Kong | Frederique Oggier From EPFL | Emma Hill From Harvard-Smithsonian Center for Astrophysics | Nathalie Goodkin From Hong Kong U

NTU – Steps to Becoming an International Top University

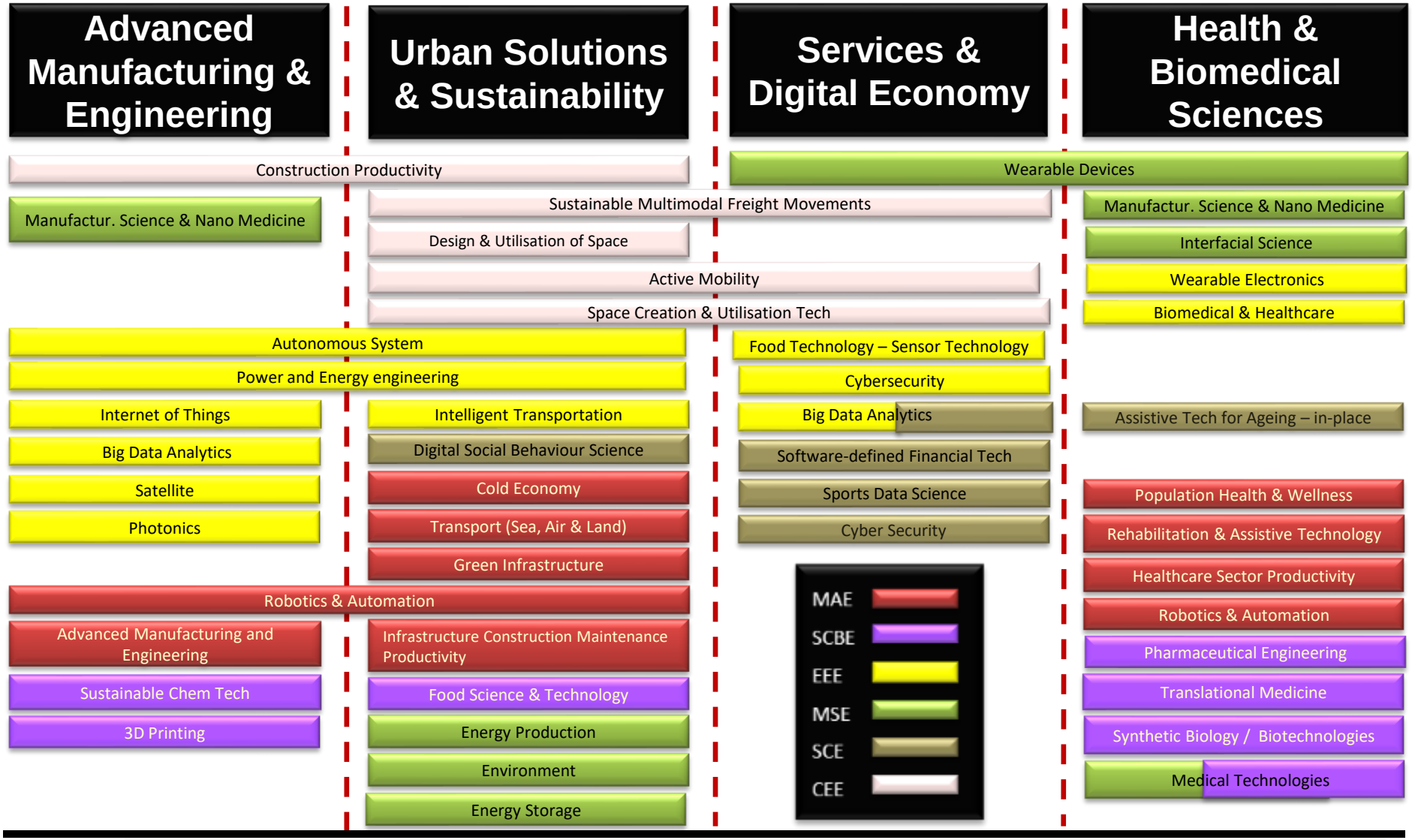
- **Top international recruitment**
- **Partnering foreign institutions in Singapore**
- **Collaborations with multi-national industry**
- **International research collaborations**
- **Joint degrees programmes**
- **Student exchange programmes**

Research Innovation Enterprise (RIE) 2020: Funding

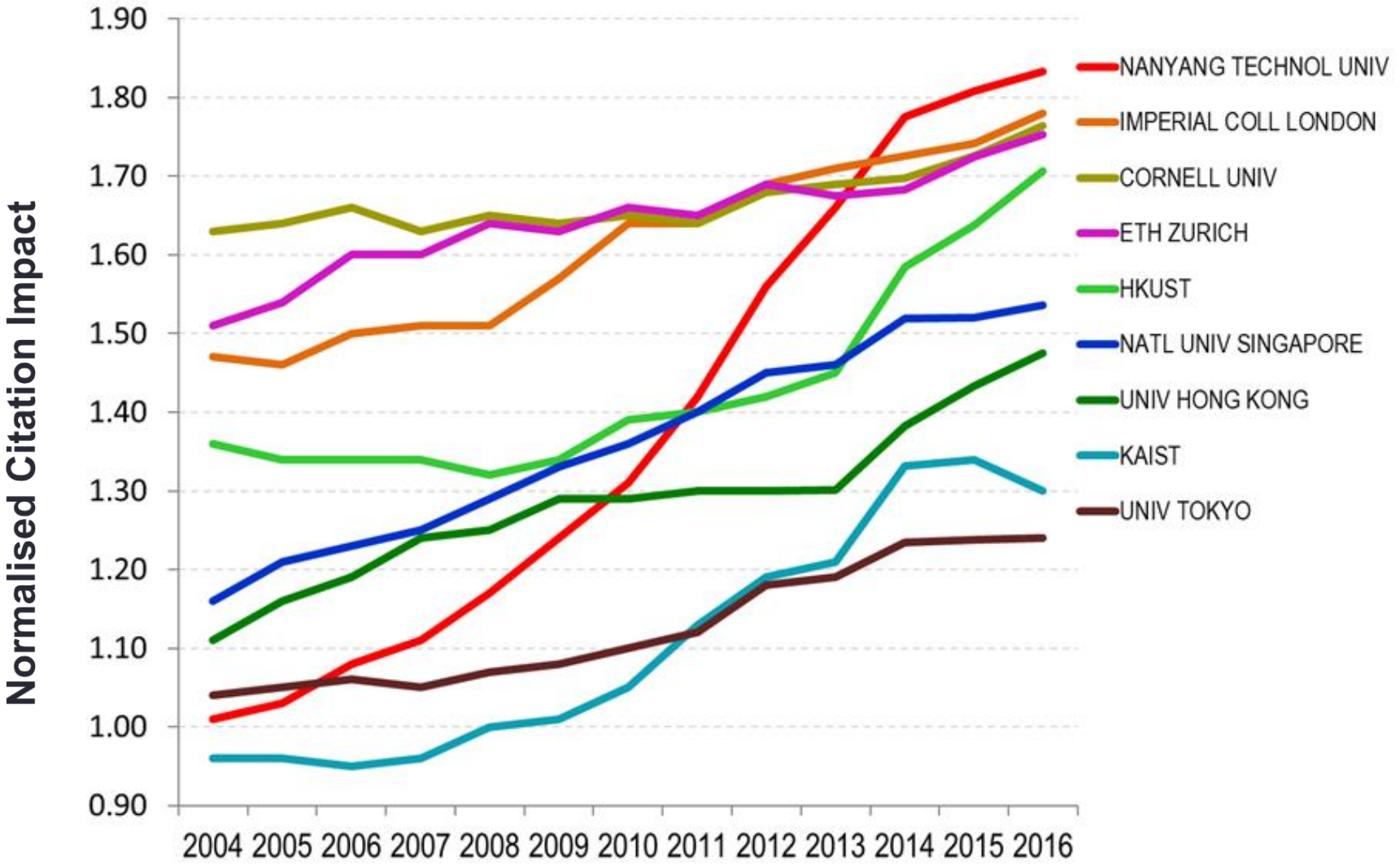
Resource Reprioritization ● Market Discipline ● Reward Best Teams



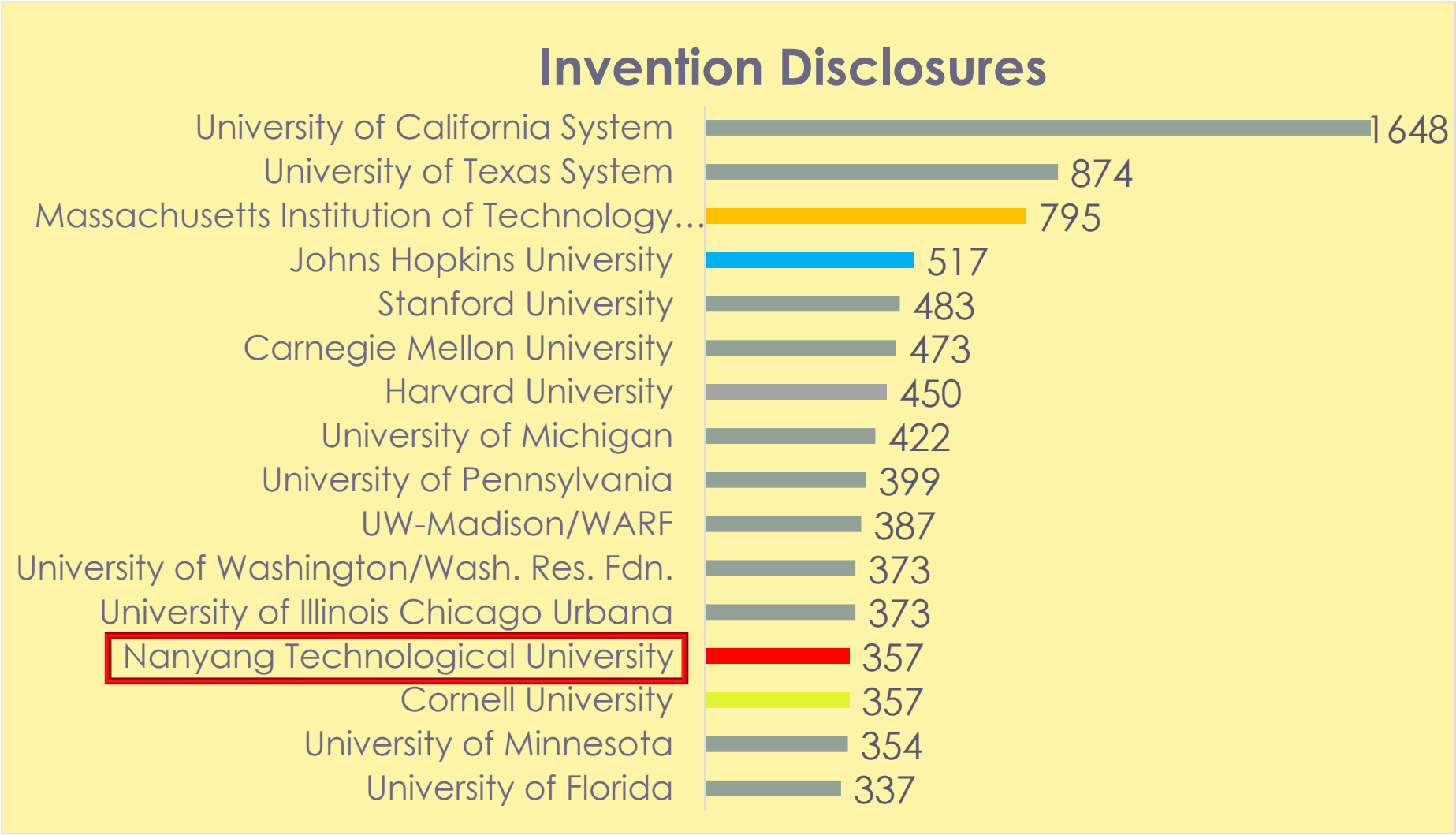
College of Engineering Mapped to RIE2020



International Impact:
'Use Inspired Basic Research'

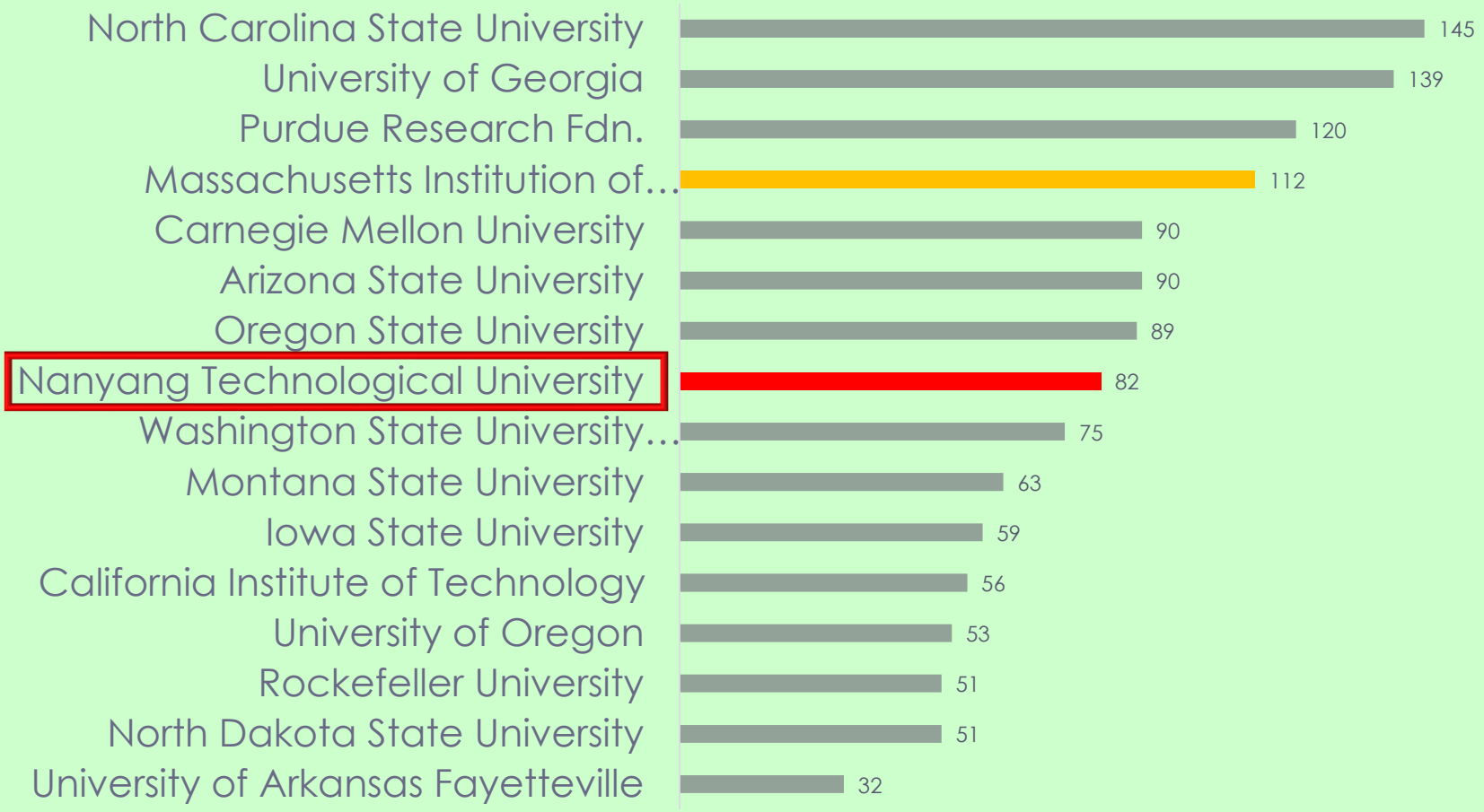


NTU Innovation Performance (2015)



NTU Innovation Performance (2015)

Licenses / Options (w/o med school)

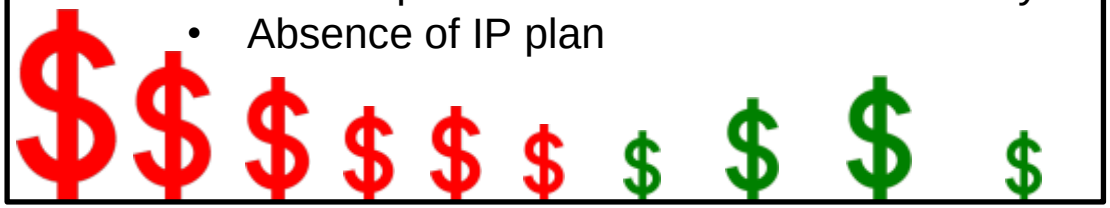


Pre-Planning: University-Company Partnerships

Creative Collaboration

Ad hoc Governance

- Unfettered basic research
- Limited private sector-market needs analysis
- Absence of IP plan



Unproven Technology

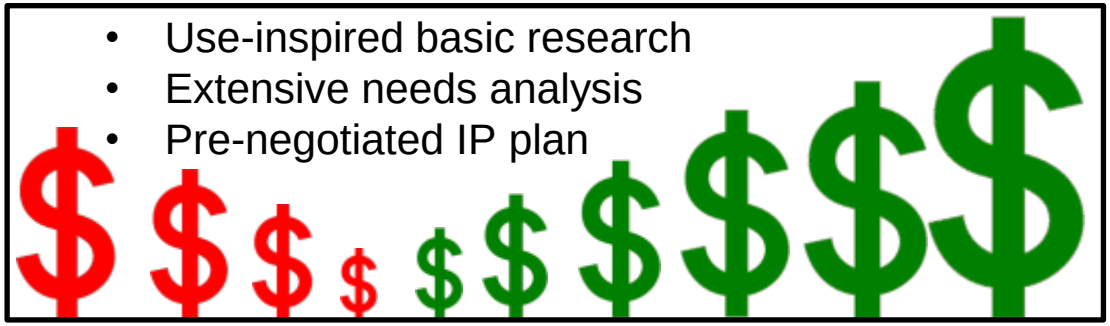
TRL 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8 → 9

Discovery • Innovation • Enterprise • Value

Constructive Collaboration

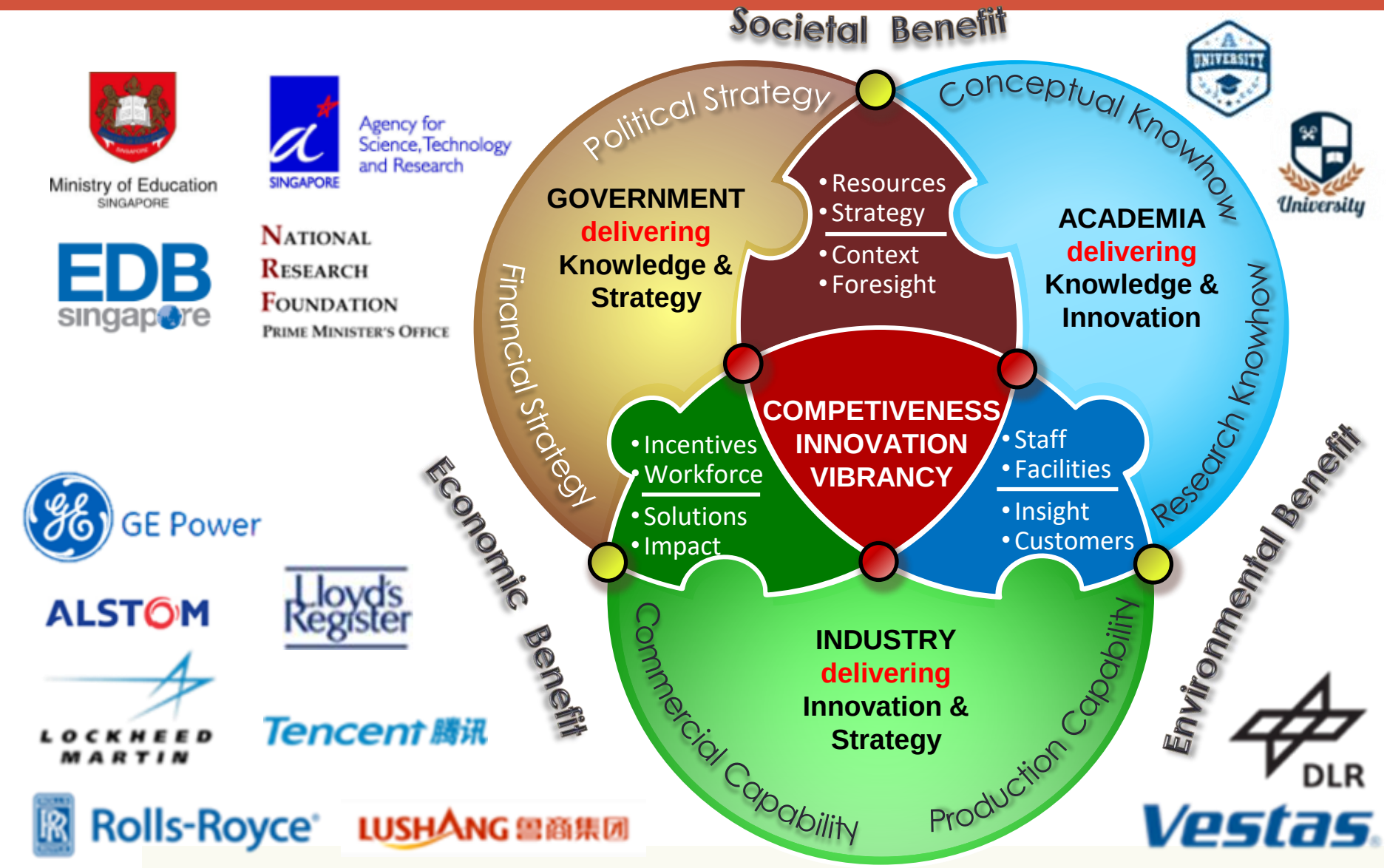
Joint Governance

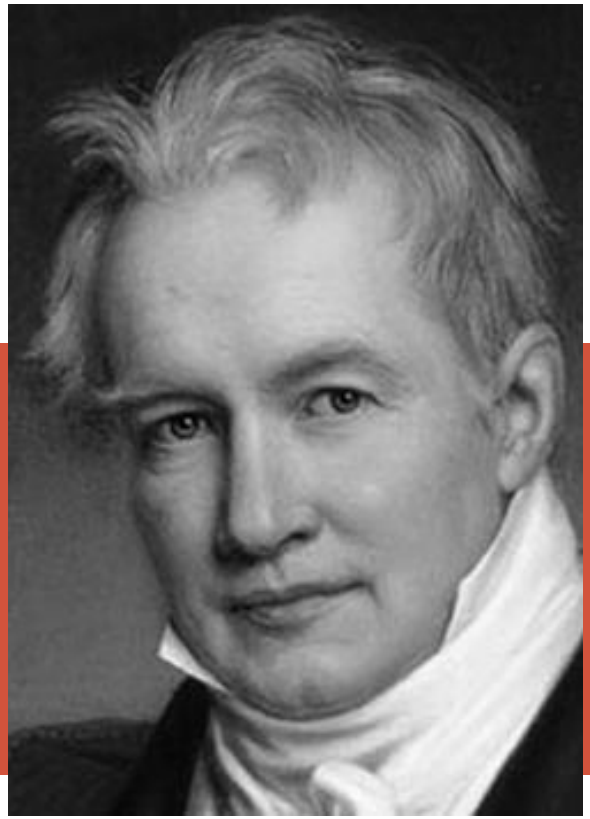
- Use-inspired basic research
- Extensive needs analysis
- Pre-negotiated IP plan



Proven Technology

The Triple Helix:
NTU – Industry - Government Innovation in Action





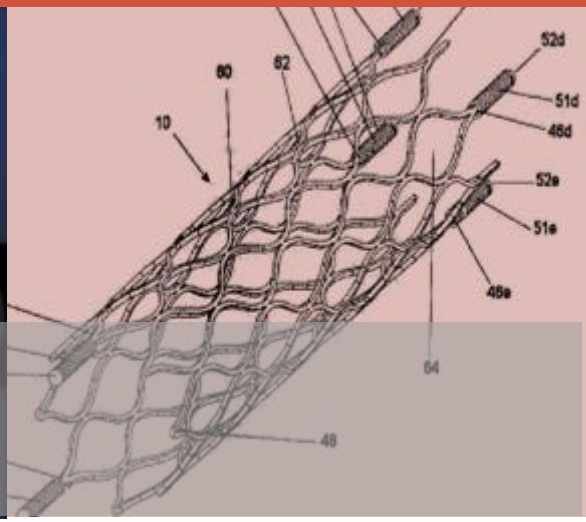
"I saw with regret, (and all scientific men have shared this feeling) that whilst the number of accurate instruments was daily increasing, we were still ignorant".

Partnership & Collaboration

Alexander von Humboldt (1769-1859)
Naturalist and explorer

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

Partnership Mode 1:
Pan-University Institutes



HealthTec NTU

NTU Institute for Health Technologies

- Interdisciplinary research institute harnessing scientific, clinical and engineering expertise to solve major health and medical challenges
- Coordinates PhD programme with Imperial College London and significant interactions with University of California-Berkeley and University of California-San Diego, Stanford University and Karolinska Institute in Sweden in engineering-medicine interface
- More than 200 existing projects identified, active collaboration with Singapore General Hospital and Tan Tock Seng Hospital

Market Responsive Research Ecosystem

Partnership Mode 2:
Research Centres of Excellence

Singapore Centre on Environmental Life Sciences Engineering

- Established genomic infrastructure and analytical capabilities used by prime collaborators in Singapore (A*STAR, NUS, SERI, SGH, NEA, PUB-EWI etc).
- SCELSE genomics is now expanding into NTU genomics, space in Experimental Medicine Building (EMB), to be integrated into NIMBELS.

Partnership Mode 3:
Campus for Research Excellence & Technological Enterprise (CREATE)

TUM CREATE

WITH TU MUENCHEN

Wide ranging electromobility research program including electrochemistry, battery storage, modelling & optimisation and testbedding

BEARS

WITH UC BERKELEY

Two research programmes* on sustainable buildings, materials and energy systems.

*SinBeRise, SinBErBest

ETH zürich (FRS) FUTURE RESILIENT SYSTEMS 未来韧性系统

WITH ETH

Investigate critical infrastructure systems and explore novel approaches to make them more robust and resilient.

CAMBRIDGE CARES

WITH CAMBRIDGE UNI

Carbon reduction research program. Assessing and reducing the carbon footprint of industrial petro-chemical plants in Singapore and beyond

Partnership Mode 4:
National Laboratory Partnerships

Visit by Mr. Stanislaw Tillich, President of the German Federal Council (Bundesrat) and Prime Minister of the Free State of Saxony, Germany, 30 April 2017

New Funding $23M for 5 Years

Fraunhofer SIT

Institute for Secure Information Technology (SIT)

Fraunhofer IKTS

Institute for Ceramic Technologies and Systems (IKTS)

Fraunhofer Singapore @ NTU

Fraunhofer IGD

Institute for Computer Graphics Research (IGD)

- Fraunhofer's first interactive digital media research institute outside of Europe and the United States.
- Co-funded with NTU including $14M for 5 years from NRF (2011-2016)

Principal areas in Visual Computing: Real-time Rendering, Virtual & Augmented Reality, Visual Analytics, Visual Haptics and Human-Computer Interaction.

Partnership Mode 5:
International Research Institutes

Approximately RMB 240m (USD 50M) in initial funding

- Next Generation EV and Intelligent Urban Transportation System
- Nutritious and Safe Food Development in South China
- Large Public Buildings and Sustainable Urban Development
- Pollution Control and Environmental Restoration
- **Biomedical Materials and Medical Instruments**

Nanyang Technological University, Singapore

Sino-Singapore Guangzhou Knowledge City Investment & Development Co

South China University of Technology, Guangzhou, China

광저우 지식도시 설계 및 운영

(1) 지식도시의 총체적인 설계를 류타이커(Liu Thai Ker, 劉太格) 박사에게 맡김. 그는 "싱가포르 발전계획의 아버지"라 불리는 싱가포르의 국가 총설계사이며 2008년 베이징 올림픽 건축설계 배심위원회 위원장 임

(2) 친환경 경제운영

- 히타치 그룹의 환경경영조직, 환경관리조직 체제를 본보기로 기업들을 운영함

(3) 광저우 지식도시의 사회 통치

- 싱가포르 직총(職總) 과 합작으로 노사관리와 사회관리서비스체제 메커니즘의 개혁을 추진

(4) 높은 수준의 지역사회를 형성

Partnership Mode 6:
Joint Industry Laboratories

Mr Volker Bouffier, Minister President of Hesse and ex-President of the Federal Council of the Federal Republic of Germany, 29 June 2015

BMW Future Mobility

First for BMW Group in Asia & within BMW's university network of 8 universities, including MIT, TUM, Georgia Tech among others

Research on future transportation:

- battery materials for electric vehicles
- human-machine interfaces
- mobility patterns & concepts

Accommodates:

- 8 leading researchers
- 10 PhD students
- 27 UG students

Partnership Mode 7:
Corporate Laboratories

DELTA ELECTRONICS

Delta Electronics:

Power Electronics and Energy Management manufacturer based in Taiwan

Focus Areas:

- Cyber physical systems (CPS) design,
- Analytics and fortifying resilience,
- Developing Smart Living, Smart Learning & Smart Manufacturing solutions

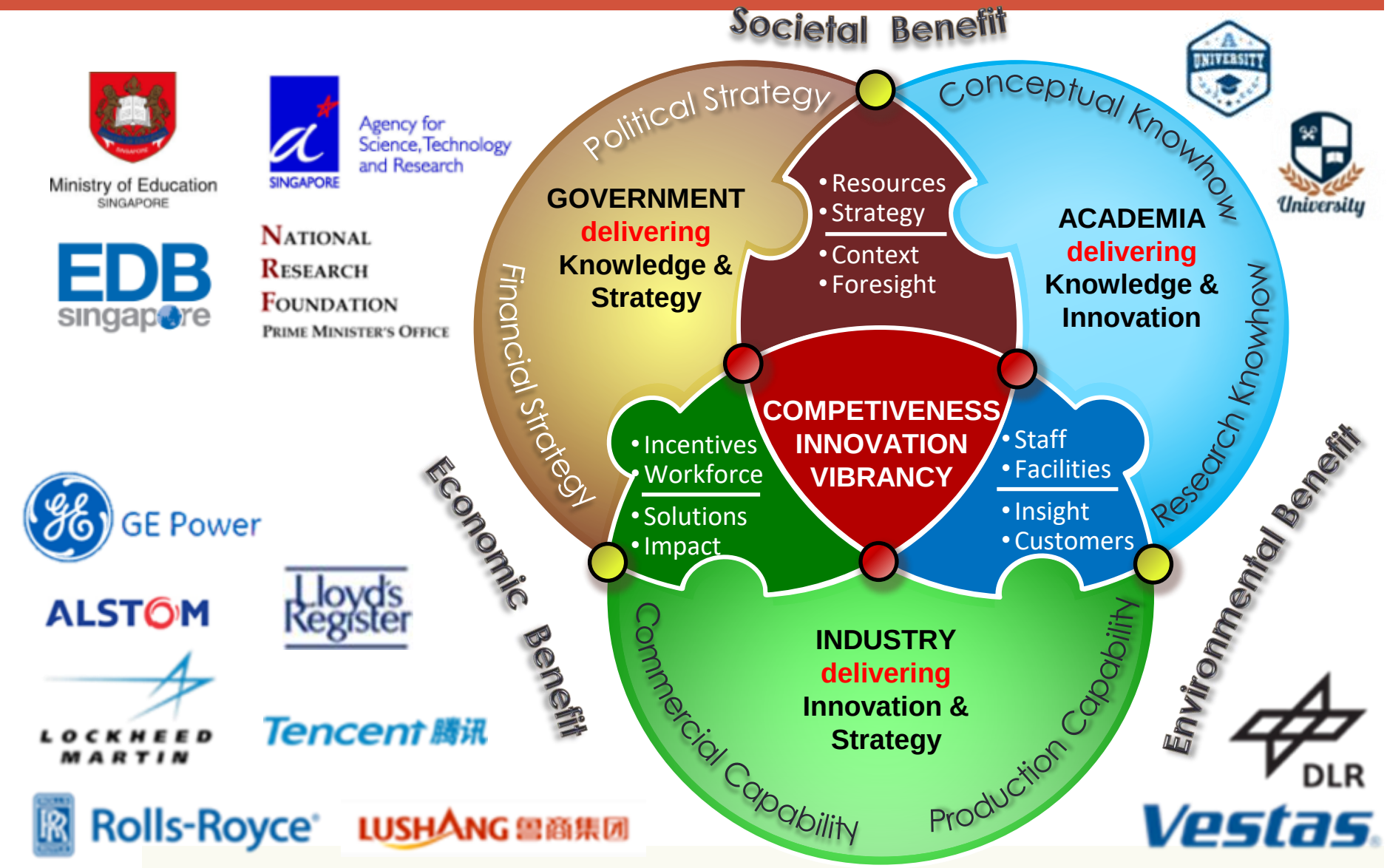
Accommodates:

- 32 Research Fellows,
- 20 Delta research staff and engineers,
- 50 PhD Students/ Research Associates

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

DELTA

The Triple Helix:
NTU – Industry - Government Innovation in Action



IQ EQ DQ®

Digital Intelligence Quotient

Discussion Document for the DQ Institute

Case for Change #1:

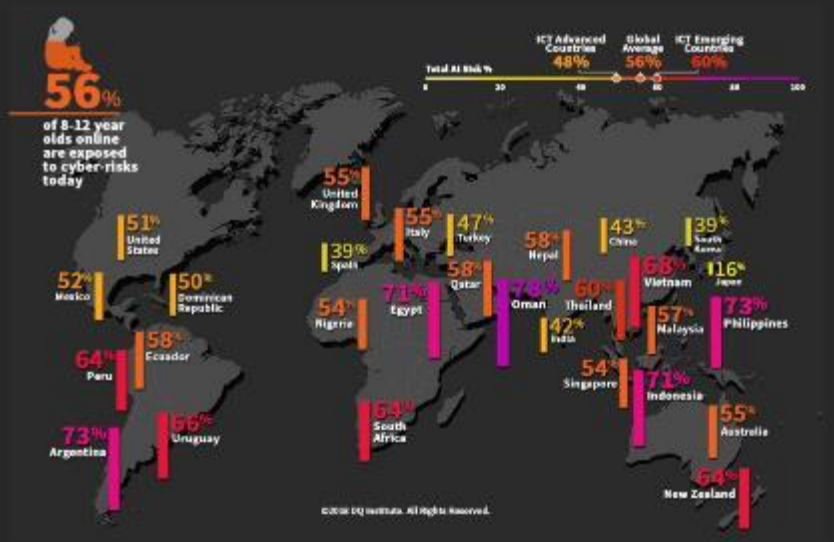
The rapid expansion of internet usage means children are becoming increasingly exposed to cyber-risks.

Cyber-risks affect large proportion of children in the world and the number is growing.

56% of 8 -12 year olds around the world are exposed to key cyber-security risks (bullying, addiction, grooming and sexual behaviour)

The number of children exposed to cyber-risks will grow 10-20% by 2020.

725 million children will be online by 2020; >90% will be from emerging ICT countries who are exposed 1.3x more than peers in advanced countries.



Cyber safety has become a critical concern for governments, schools and parents.

theguardian

Social media firms failing to protect young people… *the mental health of young people is severely affected by online abuse (2018)*

FINANCIAL TIMES

UK policy to launch new internet safety campaign *to tackle disturbing rise of online sexual exploitation (2019)*

The Telegraph

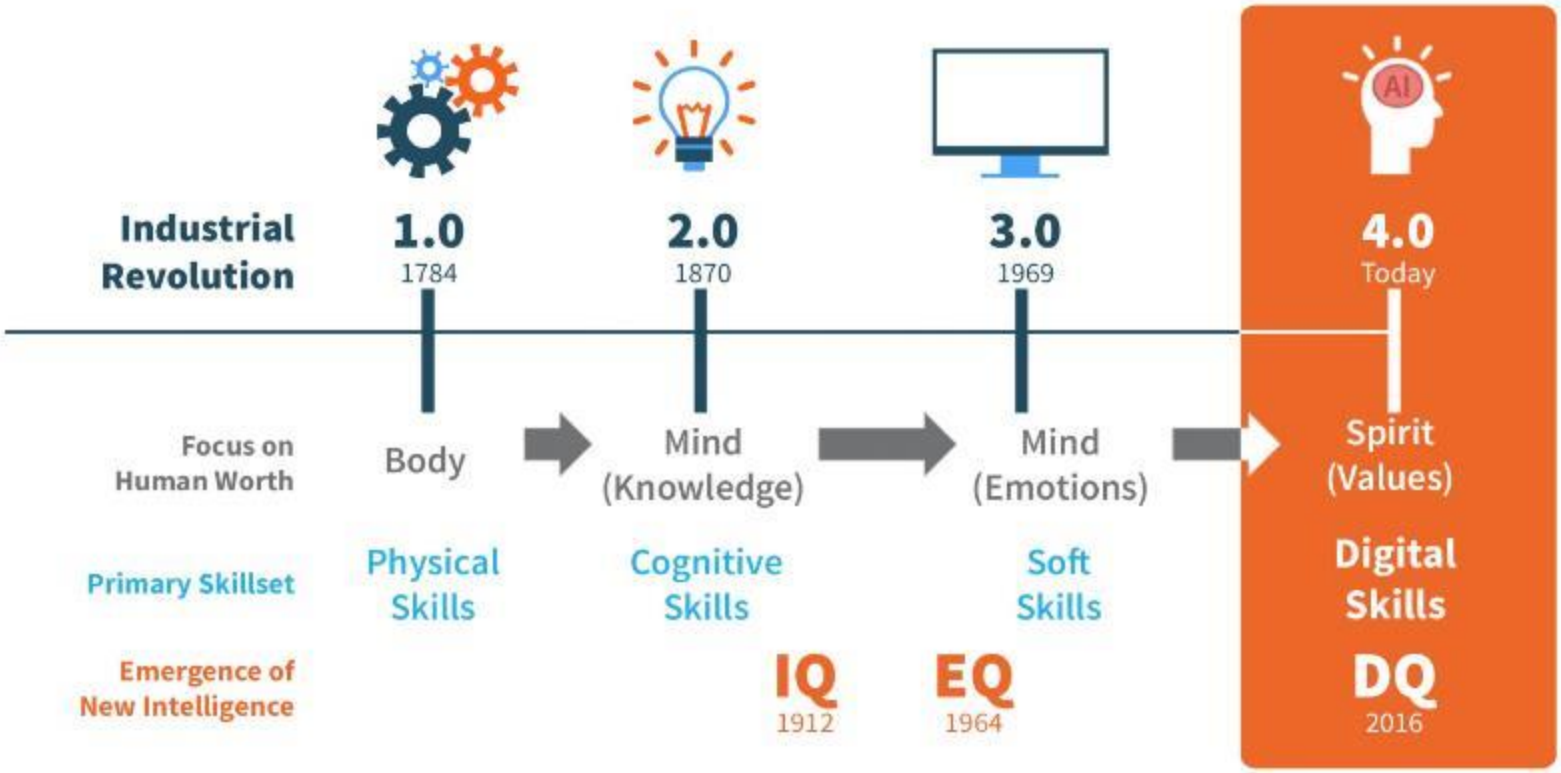
Give children the same protection online as they get offline, *says information commissioner (2018)*

BBC

"Mum's story of loss inspires prince to act ***– the Duke of Cambridge has launched a code of conduct to beat cyber bullying"*** *(2017)*

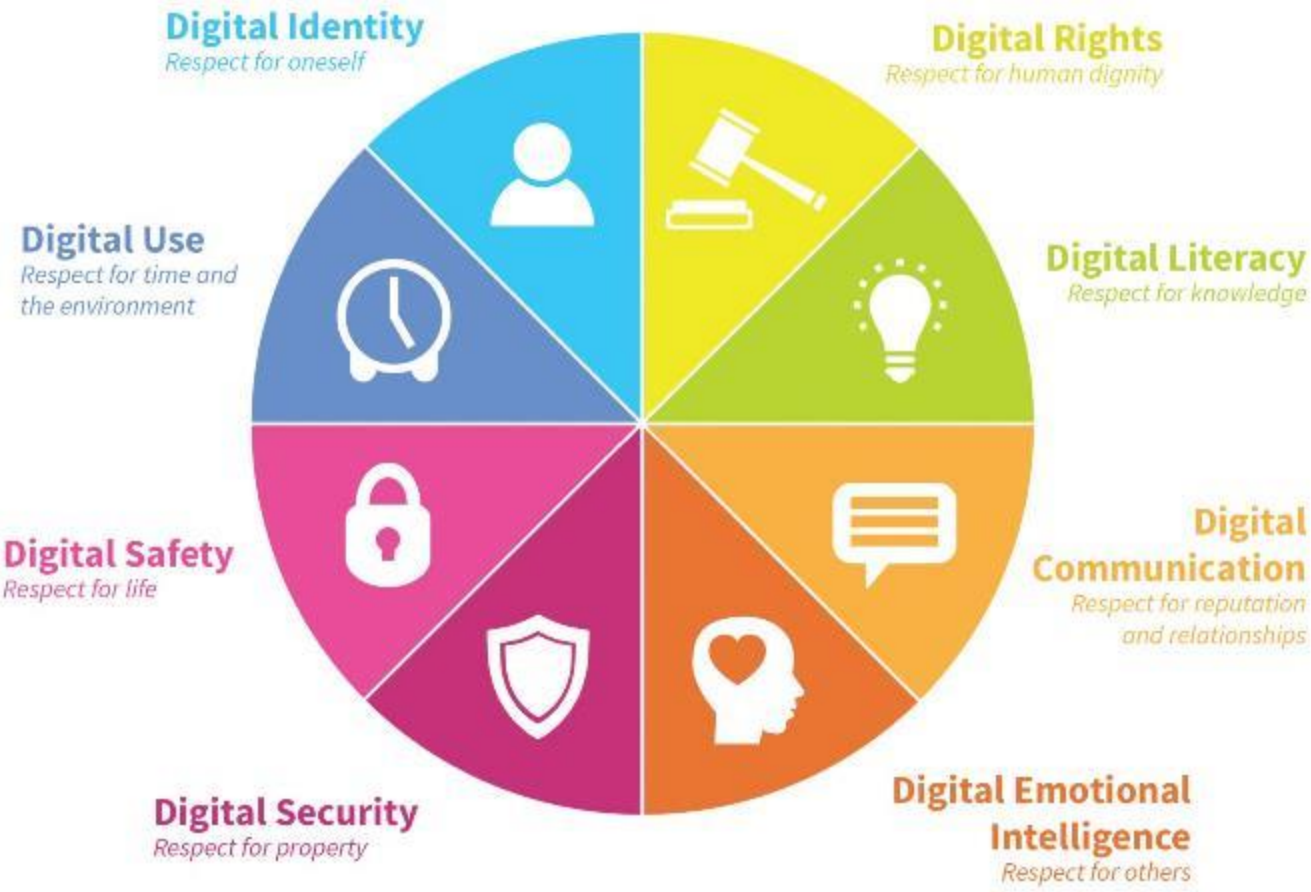
3

New Intelligence to Thrive in the 4th IR



Eight Areas of Digital Intelligence (DQ)

DQ is a new form of intelligence which is a comprehensive set of technical, cognitive, meta-cognitive, and socio-emotional competencies grounded in universal moral values* that enable individuals to adapt to the demands of digital life.



* Aligned with the moral principle of the Universal Declaration of Human Rights (UDHR)

Call to Action:

Become a co-creator to establish global standards - open to all stakeholders to achieve universal DQ:

Corporations: Participate in creating the global standards of the DQ Framework through the IEEE standardization process. Know and improve your organizational DQ.

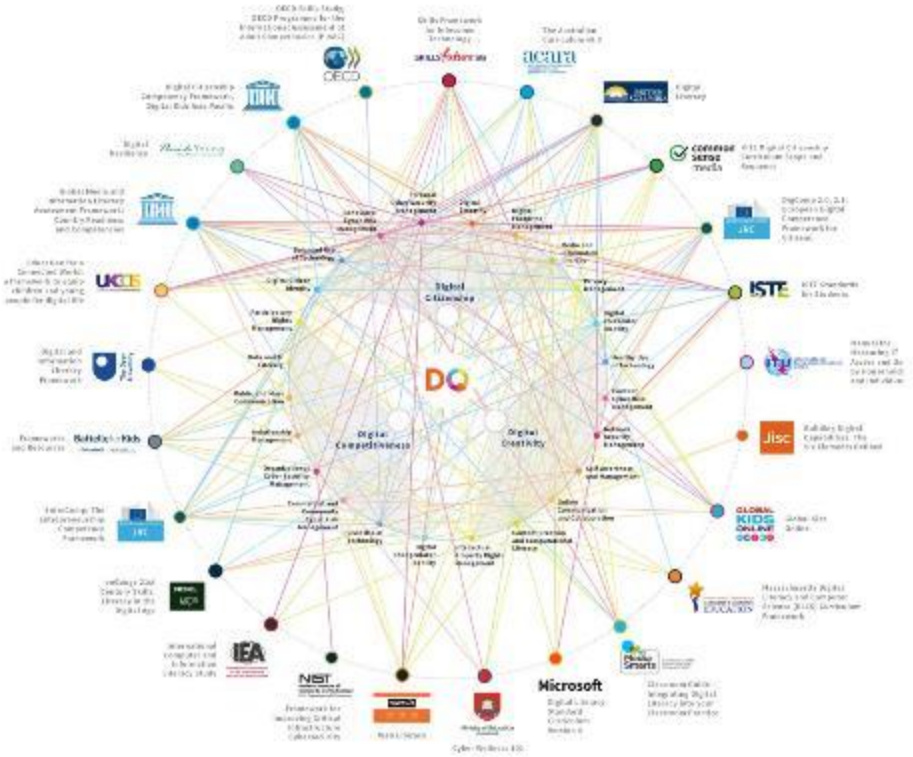
Governments: Adopt the DQ Framework as a national curriculum item and implement DQ programs.

Academic Institutions: Promote and contribute thought leadership in the development of DQ concepts, research, and educational tools as well as validate DQ as a global standard.

International Organizations and NGOs: Participate in the development and implementation of the DQ Framework.

Education/Training Providers: Adopt the DQ Framework.

Media: Convey the urgency of developing global standards based on the DQ Framework.



Our Engagement Model

Members

(Applicable to Companies, Government Agencies, Nonprofits, International Organizations)

BASIC MEMBER

- **Adopt:** Receive feedback on incorporating DQ standards into organizational practices, and be highlighted as an adopter of DQ Global Standards
- **Contribute:** Can include their education/skills training/assessment programs as part of the DQ framework, and be recognized as a contributor to DQ Global Standards.

ADVANCED MEMBER

- **Highlight:** DQ-related programs and activities at member's organization can be highlighted at least once per year in DQI communications in order to recognize best practices and emerging trends.
- **DB access**: Have access to DQI resources and databases for educational and research purposes, and can publish findings.
- **Training:** Discounted rates for digital intelligence education/training, assessment, and consultation programs.

University Alliance

(Applicable to Colleges and Universities)

World's first university partnership to set next-generation global standards for digital intelligence education, outreach, and policies:

- Public recognition as advisors on DQ Institute marketing collateral and selected media as global leaders in the higher e ducation industry.
- Invited to participate in DQ Institute activities and events and forge relations with other cross-sector partners.
- Contribute thought leadership through co-authoring articles, interviews, and development of DQI strategic initiatives.
- Internship possibilities for university students to participate in DQI educational, outreach, and policy initiatives.
- Have access to DQI resources and databases for educational and research purposes.
- DQ-related programs at alliance universities can be highlighted at least once per year in DQI communications in order to recognize best practices and emerging trends.

Strategic Sponsorship

(Applicable to Companies and Foundations)

Essential Value of Strategic Sponsorship:

- Opportunity to engage in the DQI Founding Members' Circle with benefits that increase the organization's visibility as an industry leader committed to aligning with DQ global standards, including special recognition for the firm and firm employees.
- Leverage global community network of leading, world-class partners and access to DQI's Global Partners Council members for cutting-edge research, invitations to join exclusive events, and special collaboration opportunities (e.g., co-author thought leadership articles)
- Best practices for adoption of DQ framework into business objectives and operations for storytelling.
- Annual membership benefits (various levels)

In addition, companies can partner with DQI through opt-in customized opportunities including:

Program Sponsorship

- #DQDay (October 10)
- Strategic programs that address the DQ competencies at a global scale (e.g., digital divide for African children, seniors and emerging ICT countries)

Event Sponsorship

- Women's Leadership Forum
- Digital Leadership Series

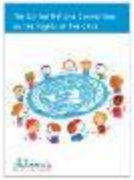
Global Network

DQ Global Standards are unique as overarching concepts that encompass the competencies of digital literacy, skills, and readiness, with a systematic structure built to enhance global agendas.

OECD's 11 Areas of Well-Being

Universal Declaration of Human Rights

UN's Convention on the Rights of the Child



UN's Sustainable Development Goals

The DQ Institute is the founding organization of the Coalition for Digital Intelligence.

- Launched at the Sustainable Development Impact Summit World Economic Forum, September 2018
- Agreed to use DQ Global Standards as the common framework for digital literacy, skills, and readiness.

World Economic Forum

IEEE Standards Association

OECD

DQ Global Standards is adopted and supported by

Digital Intelligence
Global Standards for
Digital Literacy and Skills

COALITION for DIGITAL INTELLIGENCE
In association with WORLD ECONOMIC FORUM
IEEE STANDARDS ASSOCIATION
OECD
DQ Institute

- Coalition for Digital Intelligence: https://www.weforum.org/projects/coalition-for-digital-intelligence
- 2019 DQ Global Standards Report: https://www.dqinstitute.org/wp-content/uploads/2019/03/DQGlobalStandardsReport2019.pdf
- Press Release: https://www.dqinstitute.org/news-post/worlds-first-global-standard-for-digital-literacy-and-skills-launched-by-the-coalition-for-digital-intelligence/

DQ 24

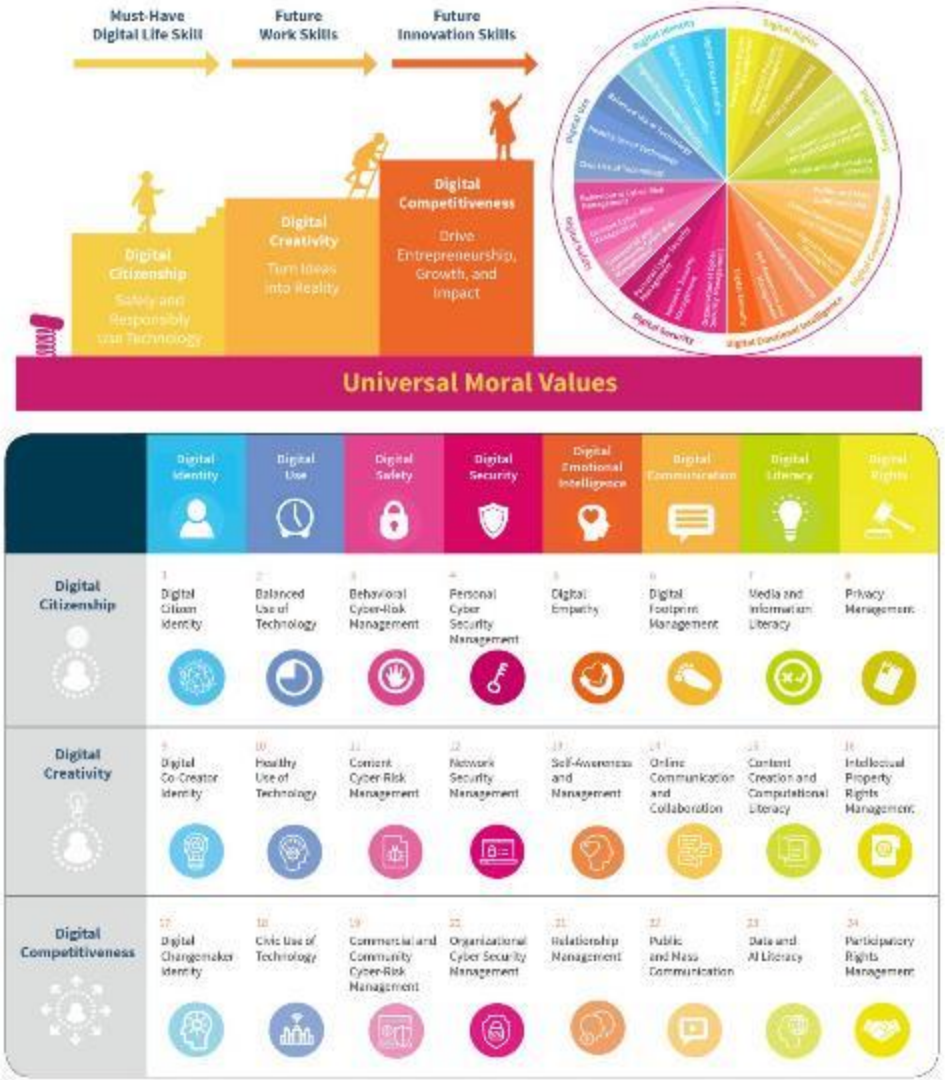
The DQ Global Standards are unique as overarching concepts that encompass the competencies of digital literacy, skills, and readiness, with a systematic structure built on the OECD's Education 2030 Learning Framework. The DQ Framework consists of 24 competencies across eight areas of digital life and three levels of experience:

Eight areas of digital life:

- Digital Identity
- Digital Use
- Digital Safety
- Digital Security
- Digital Emotional Intelligence
- Digital Communication
- Digital Literacy
- Digital Rights

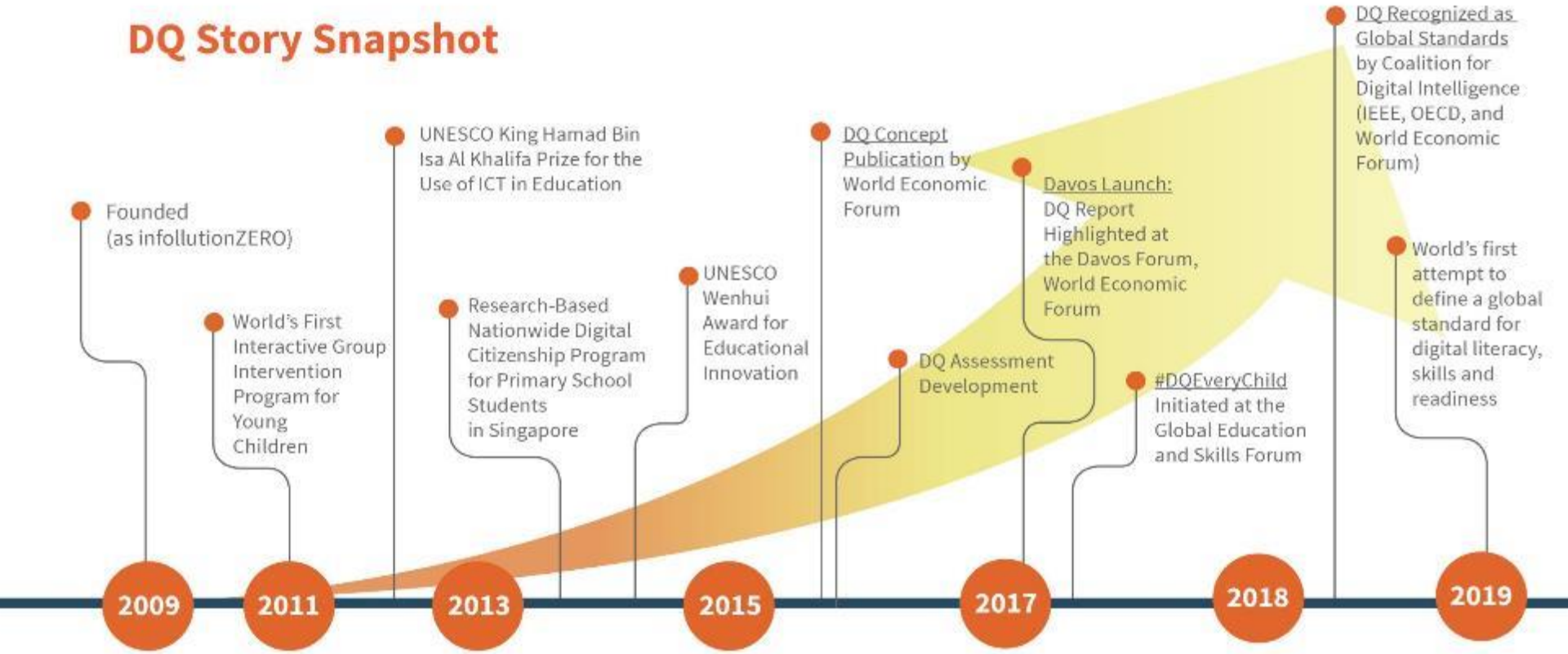
Three levels of experience:

- Citizenship
- Creativity
- Competitiveness



DQ Story and Impact

DQ Story Snapshot



Organization

infollutionZERO
iZ HERO Exhibition

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE · NIE
iZ HERO Multimedia Programs

DQ World
Online and Offline DQ World Education

DQ Institute
In association with WORLD ECONOMIC FORUM

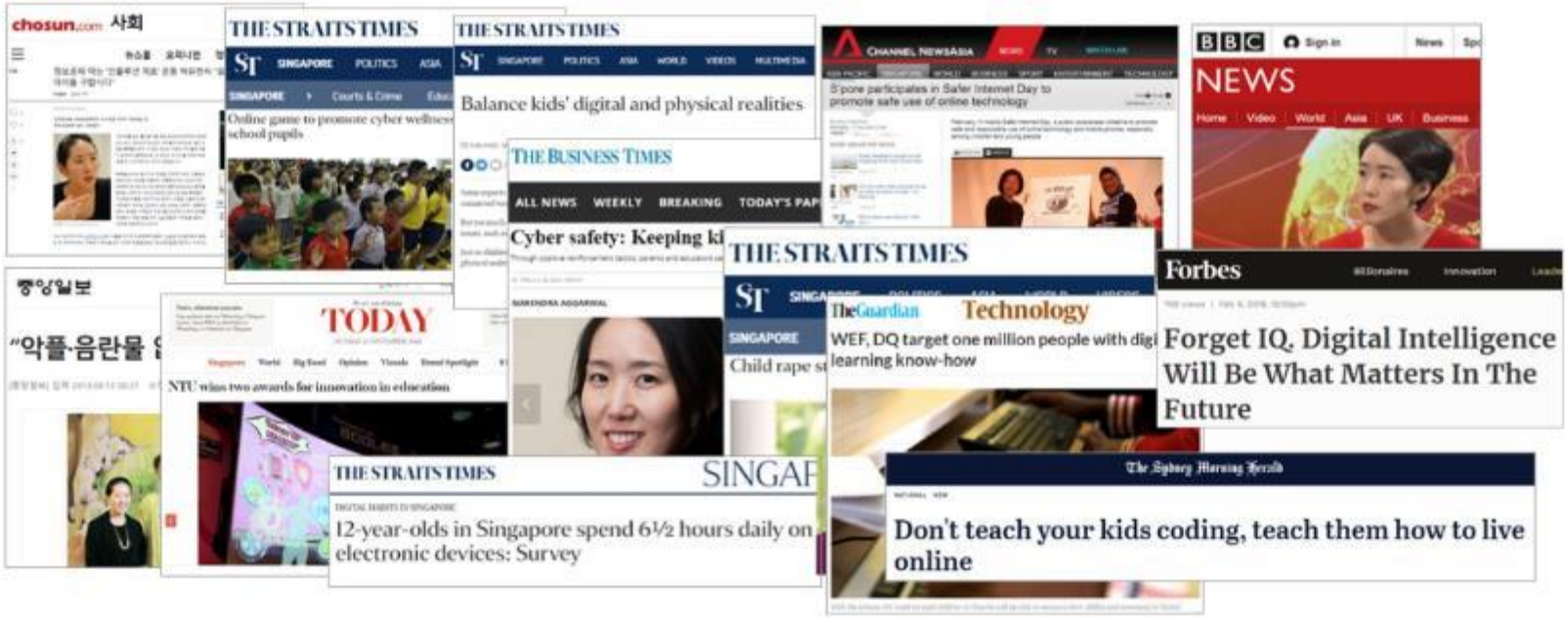
COALITION for DIGITAL INTELLIGENCE · IEEE · OECD · WORLD ECONOMIC FORUM

Korea → **Singapore** → **Global**

17

DQ International Recognition

2011 2013 2017 2018



Our Impact

Empowering Children, Classrooms, and Communities

DQ Conference in Dominican Republic

1st-Ever DQ Challenge for Schools

Police Officers in Colorado, USA Sharing DQ with the Local Community

After-School DQ Programmes in Hong Kong

DQ Community Workshop for Parents in Jakarta

Student Planning for DQ Curriculum in Luxembourg

DQ Tokyo Summit

DQ Teacher Workshop in Korea

DQ Booth in Philippines

National Rollout of DQ Program in Mexico with MOE

DQ Test in a Nigerian Classroom

DQ Teacher Conference in Oman

DQ Parent Workshops for Facebook Employees

National DQ Launch in Turkey with 40,000 Registrations

Launch DQ nationally in Egypt, Oman, and Saudi Arabia (Sept 2019)

School Assembly Programs to Master Digital Skills

DQ Pilot Program in India

DQ Teacher Workshop in Nepal

Students Learning DQ in Spanish Classroom

After-School DQ Test in Thailand

Women Developers Conference

Launch DQ in Thailand with AIS (July 2019)

21 Lanauages | **100** Partners | **110** Countries | **700,000** Children

Our Impact

Creating Global Standards and Supporting Nations

- Launched the Coalition for Digital Intelligence (CDI) at WEF's Sustainable Development Impact Summit (Sept 26, 2018)
- Developed the DQ Framework for global standards of digital literacy and skills based on DQ education for children in 104 countries
- Conceived the UK CDI for impacting the nation's digital strategy

COALITION for DIGITAL INTELLIGENCE

Efficient Institutionalization and Scalable Adoption Across Education and Tech Sectors

OECD

Governments and Educational Sector

IEEE STANDARDS ASSOCIATION

Industries and Technology Sectors

WORLD ECONOMIC FORUM

Private-Public Partnership

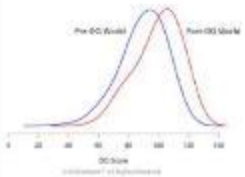
#DQEveryChild™
100 Countries by 2020

Our strategy is to provide a test and proven plug-and-play online learning plattform to nations around the world which is designed to teach, measure, and improve children's DQ score.

DQ World is a world leading online education platform to teach children ages 8-12 the Digital Citizenship Skills. It empowers them to become informed and discerning digital citizens.

World-Leading One-Stop Solution for Digital Intelligence Education/ Assessment Platform for Primary School Students (Available in 6 language versions: English (US,UK), Spanish, Korean, Chinese, Turkish)

The DQ curriculum and assessment is developed by researcher from distinguished institutions such as Nanyang Technological University (NTU), Singapore, and its efficacy is proven through academic research.



Our Strength

DQ Institute's Global Standards and Global Networks

Institutionalization of Global Standards through IEEE and OECD

IEEE STANDARDS ASSOCIATION — Global Industry Standards of Digital Skills for Industries

OECD — Recommendations and Guidelines of Digital Literacy for Governments

Fast Adoption through Global Networks

More than 100 partners in over 30 countries

WORLD ECONOMIC FORUM · OECD · IEEE STANDARDS ASSOCIATION

Singtel · OPTUS · TURKCELL

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE · VARKEY FOUNDATION · Google · twitter

IMDA INFOCOMM MEDIA DEVELOPMENT AUTHORITY · MEDIA LITERACY COUNCIL · @prende 2.0

Junior Achievement · unicef KOREA

London is The First Mover for Shaping Tomorrow's City

UK COALITION FOR DIGITAL INTELLIGENCE

ROUNDTABLE 12TH APRIL 2019

SHAPING TOMORROW'S CITY TODAY

DIGITAL • INNOVATION • SKILLS • INCLUSION

RUDQ?

DIGITAL SKILLS: CRISIS OR OPPORTUNITY?

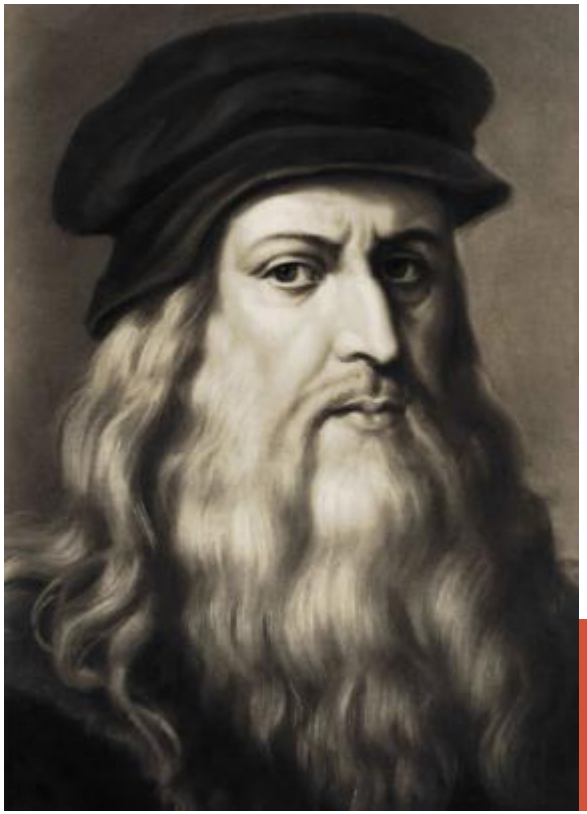
The Rt Hon The Lord Mayor of the City of London
Alderman Peter Estlin

Lord Mayor's Gresham Lecture 2019

SHAPING TOMORROW'S CITY.. TODAY

DIGITAL • INNOVATION • SKILLS • INCLUSION

CITY OF LONDON



"I have been impressed with the urgency of doing. Knowing is not enough; we must apply. Being willing is not enough; we must do".

Leonardo da Vinci (1452 -1519)
Artist and intellectual

Thank You

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE