Draft frame for higher education in Asia and the Asia Pacific

Getting out in front by REINGINEERING Higher education institutions

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Global context, key trends, sector response

- World order and Asia – two largest economies and their universities
- Growth and decline (vulnerable populations will be on the rise)
- Urbanization, migration and domestic inequality

- Acceleration of technological change/STEM
- From interconnectivity to interdependency
- Innovation and disruption = the end of being “average”

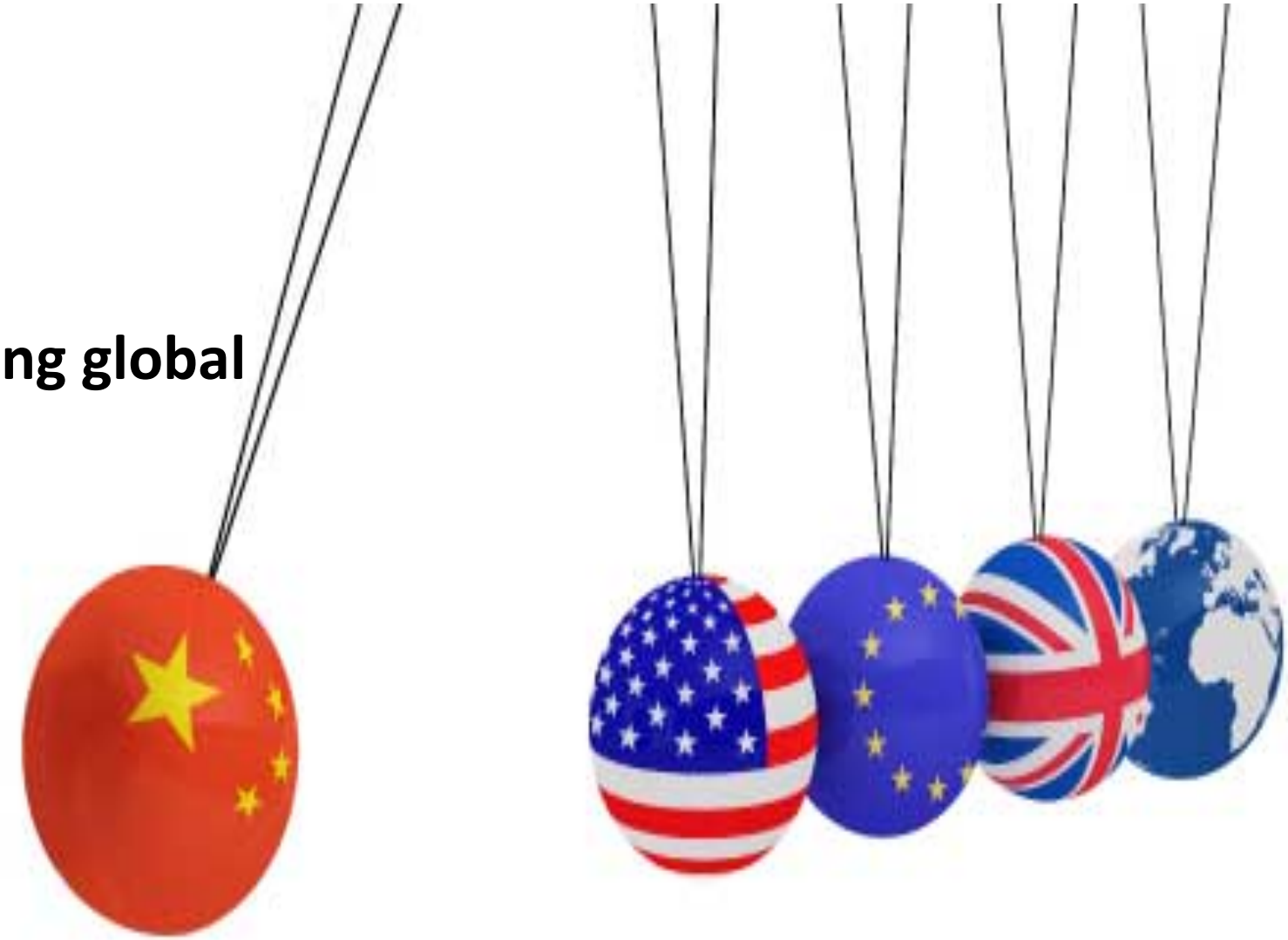
- From EFA to expanded access to tertiary education for GCG
- Improve quality (ExcInit&?) and relevance (KE)
- Employ IT’d; TVETizice for the new economy

- Majority of jobs in Asia Pacific (85%) will change over the next 3 years
- Digital transformation will rise from 6% to 60% of GDP in Asia by 2021
- By 2021, this will bring an additional US$1.16 trillion to the economy

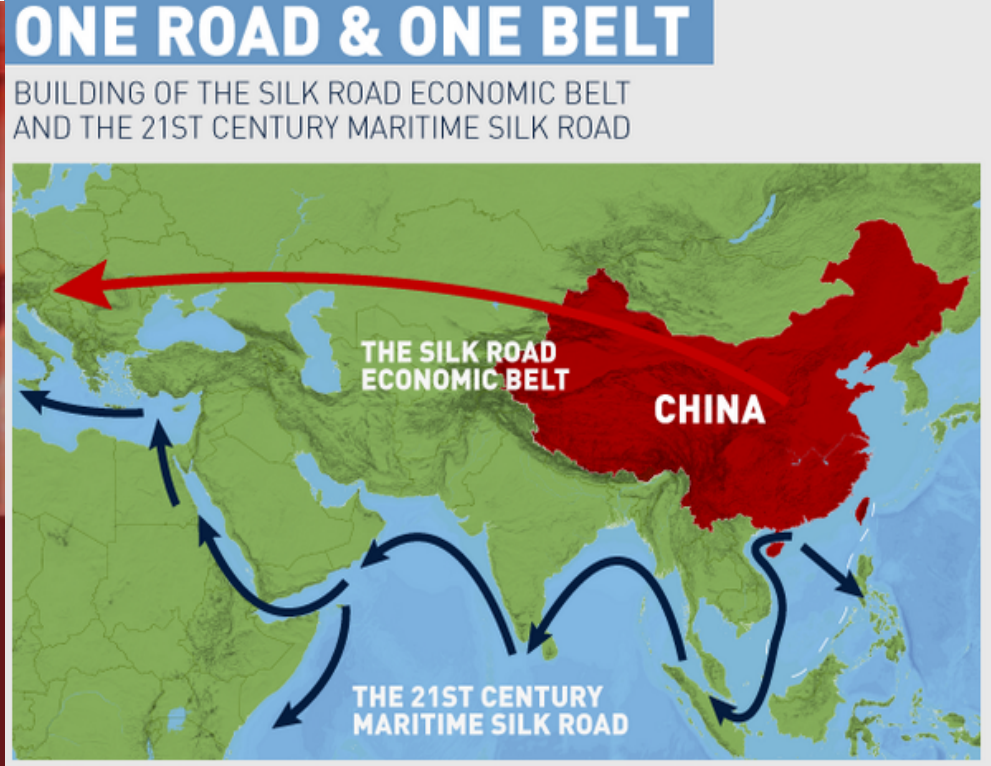
Microsoft study of digital transformation(Feb 2018)

Surveyed 1,560 digital leaders across 15 countries in Asia Pacific.

Going global



The Road of
Rejuvenation

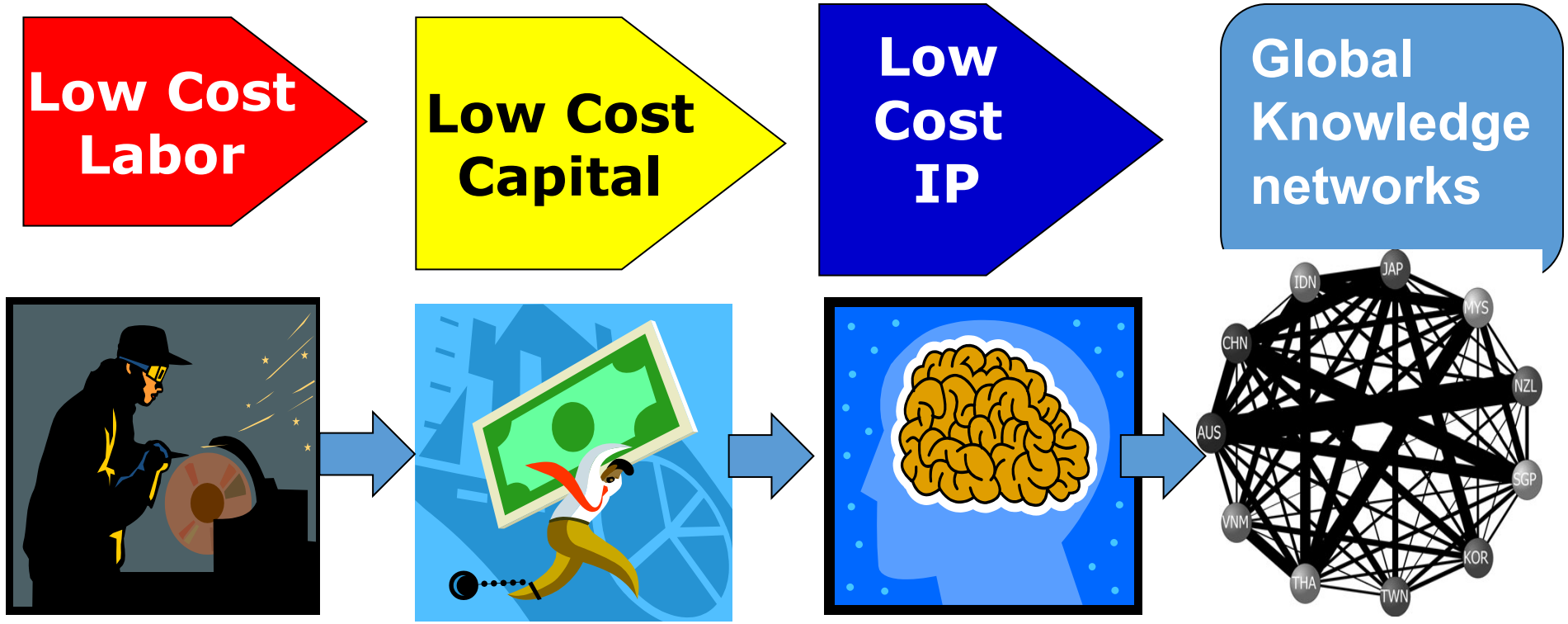

ONE ROAD & ONE BELT
BUILDING OF THE SILK ROAD ECONOMIC BELT
AND THE 21ST CENTURY MARITIME SILK ROAD
THE SILK ROAD
ECONOMIC BELT
CHINA
THE 21ST CENTURY
MARITIME SILK ROAD

文明树新风 公益广告
中国精神 中国形象 中国文化 中国表达
中国
我的梦
大银行 宣
太原市精神

AIIB
Asian Infrastructure Investment Bank

Hyper-connected global economy

TPP?



Source: De Woskin and Stevenson, April 2005.

Source: Haustein. Tunger. Heinrichs, Baelz. 2010

Making the jump

CONGRATULATIONS GRADS
UNEMPLOYMENT
garyvarvel.com

“average is over”

“AI will transform the way we perceive and think of the world.”
2018/09/18

human and appealing. Good salary and good future for steady man who can forget the bright lights and "stay put" with a live organization in a live and growing art field. Send samples with letter. Wilson H. Lee Advertising Service, New Haven, Conn.

ONLY HUMANS NEED APPLY

Winners & Losers in the Age of Smart Machines

THOMAS H. DAVENPORT & JULIA KIRBY

Agent wanted in every city in America to sell an inexpensive new article that is needed for daily use in every office and home. Easy seller, good profits. Permanent, exclusive arrangements possible. Write for par-

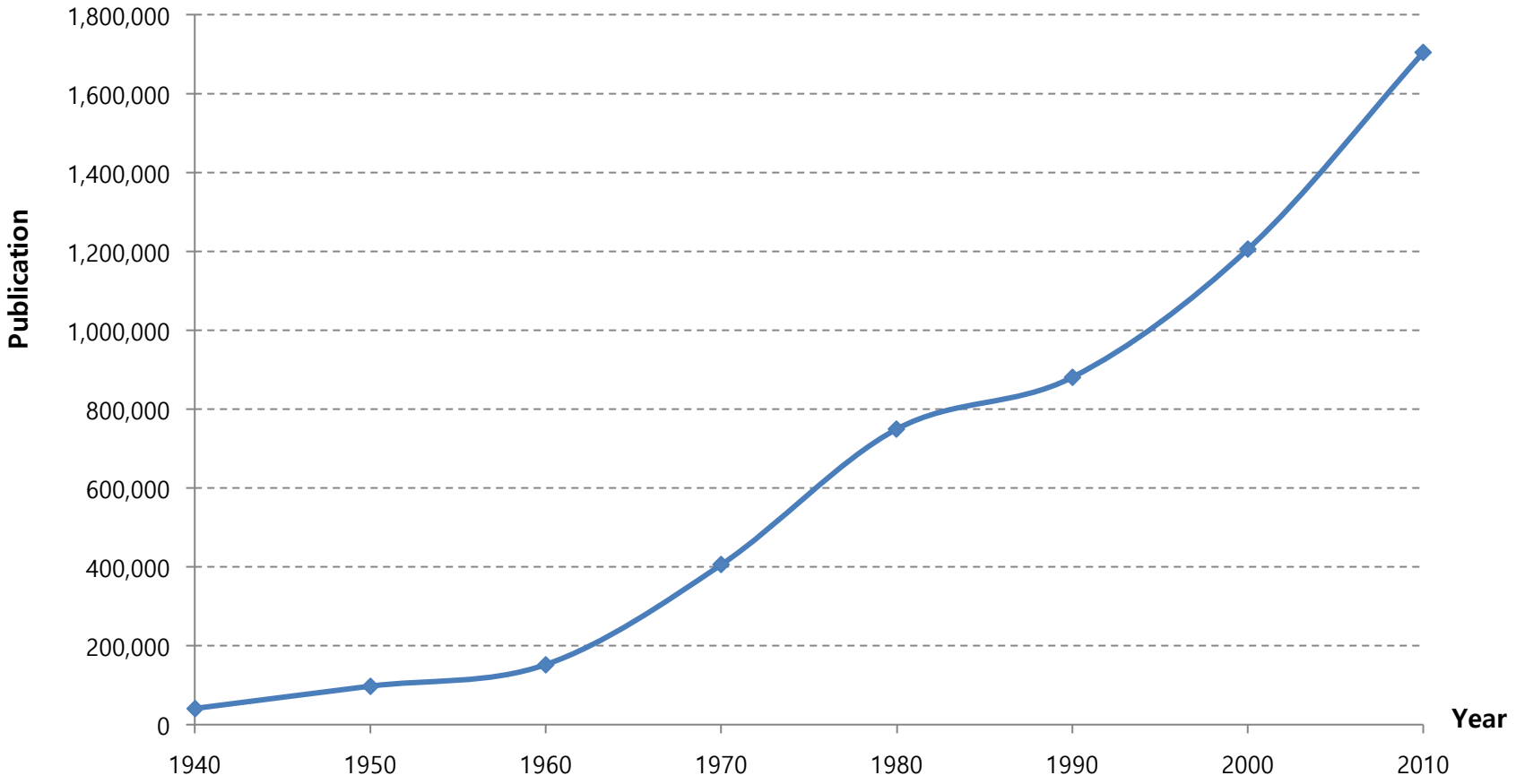
Conventional practices are challenged

- Traditional university
- Academic profession
- Untailored curriculum

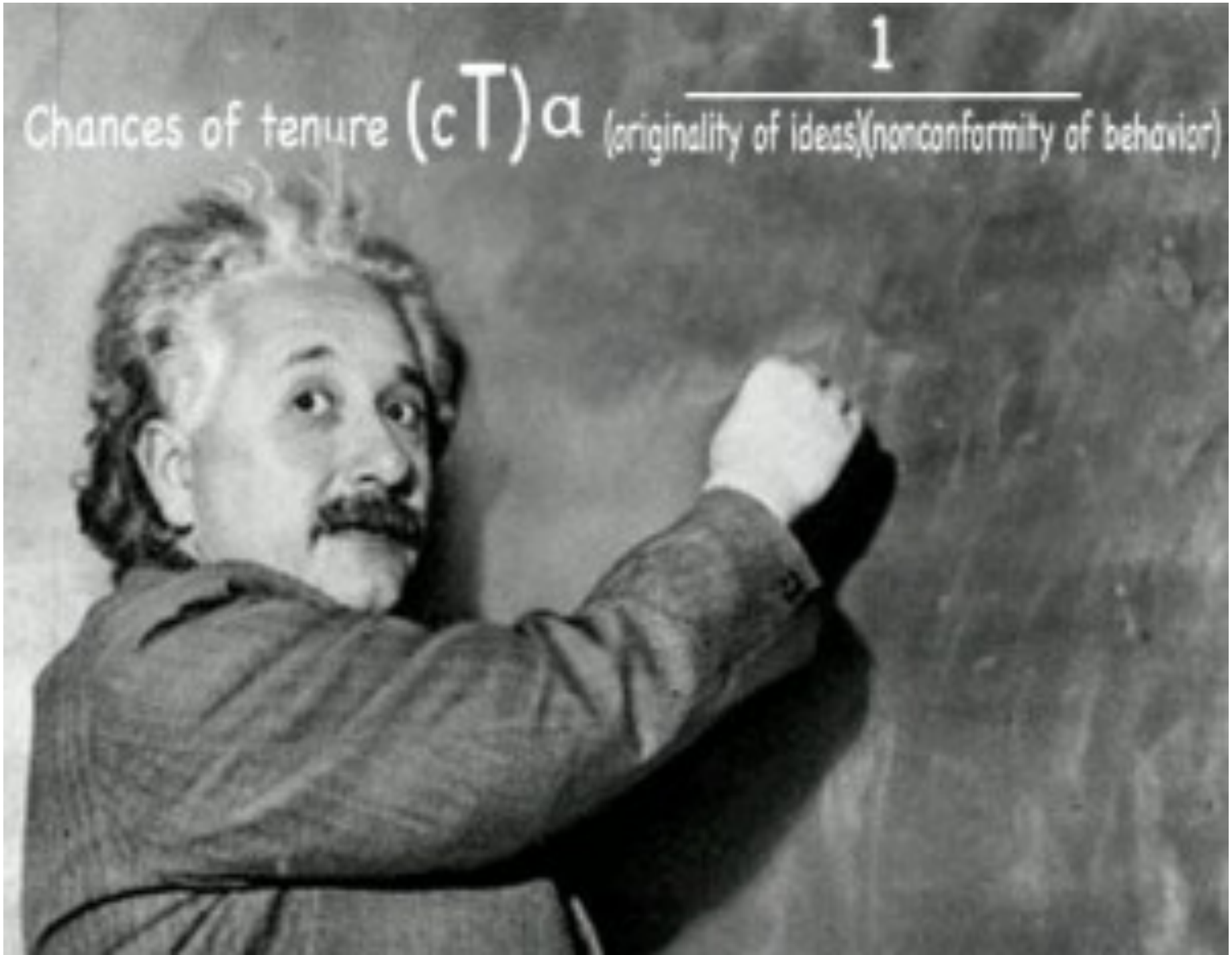
Barriers to university innovation

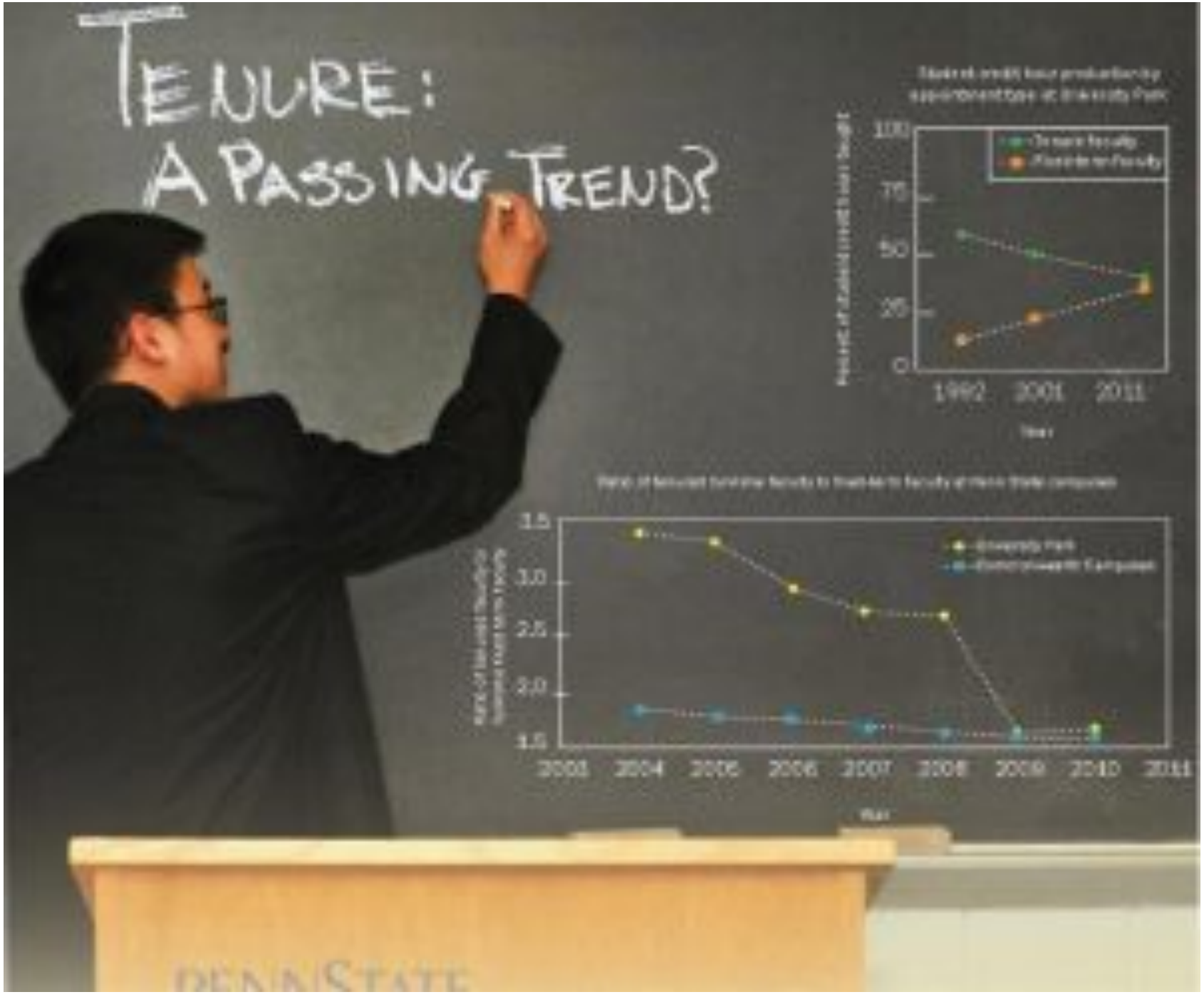
- Weak incentives to change
- Over-regulation
- Micro-management
- Standardization

Academic:
Should We Publish More or teach more?

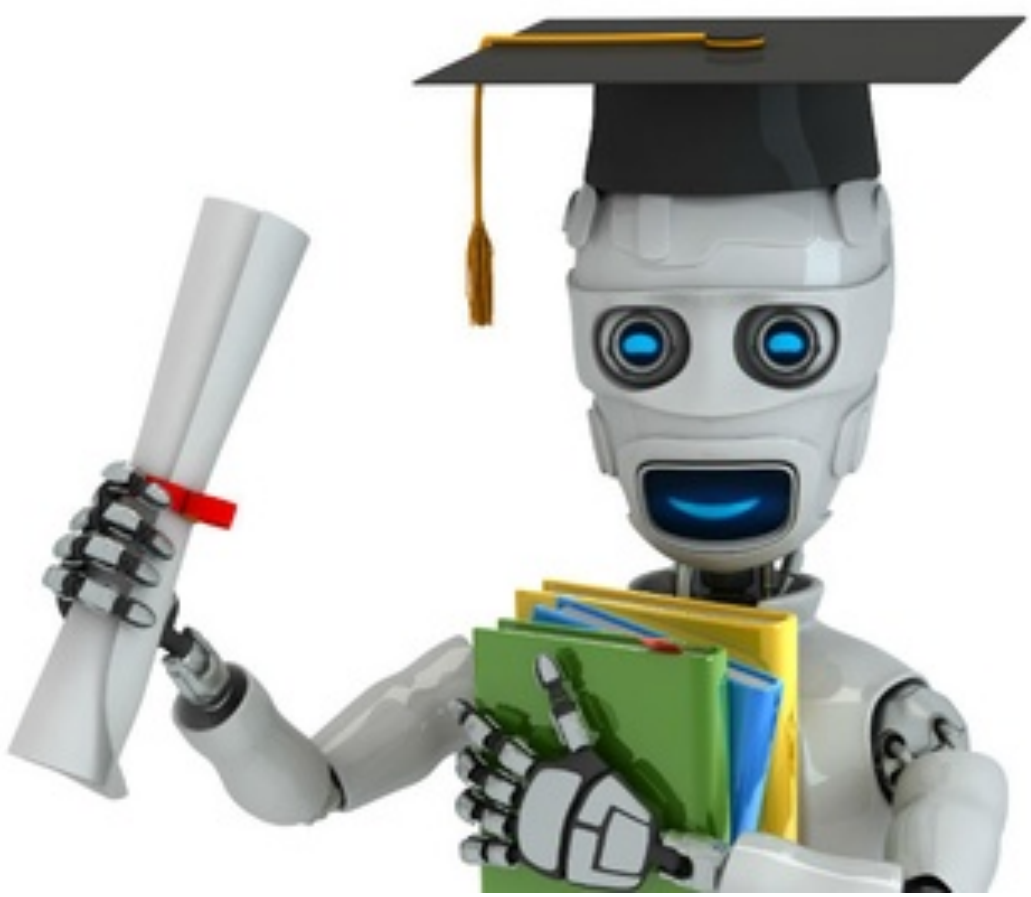


Source: Jung Cheol Shin & Ulrich Teichler (2014), *The Future of the Post-Massified University at the Crossroads . Springer.*


Chances of tenure $(cT)^{\alpha}$ $\frac{1}{(originality\ of\ ideas)(nonconformity\ of\ behavior)}$


TENURE:
A PASSING TREND?
100
75
50
25
0
1992
2001
2011
3.5
3.0
2.5
2.0
1.5
2003
2004
2005
2006
2007
2008
2009
2010
2011
PENNSTATE

New practices are becoming embedded: some good; some not so good



New practices are becoming embedded

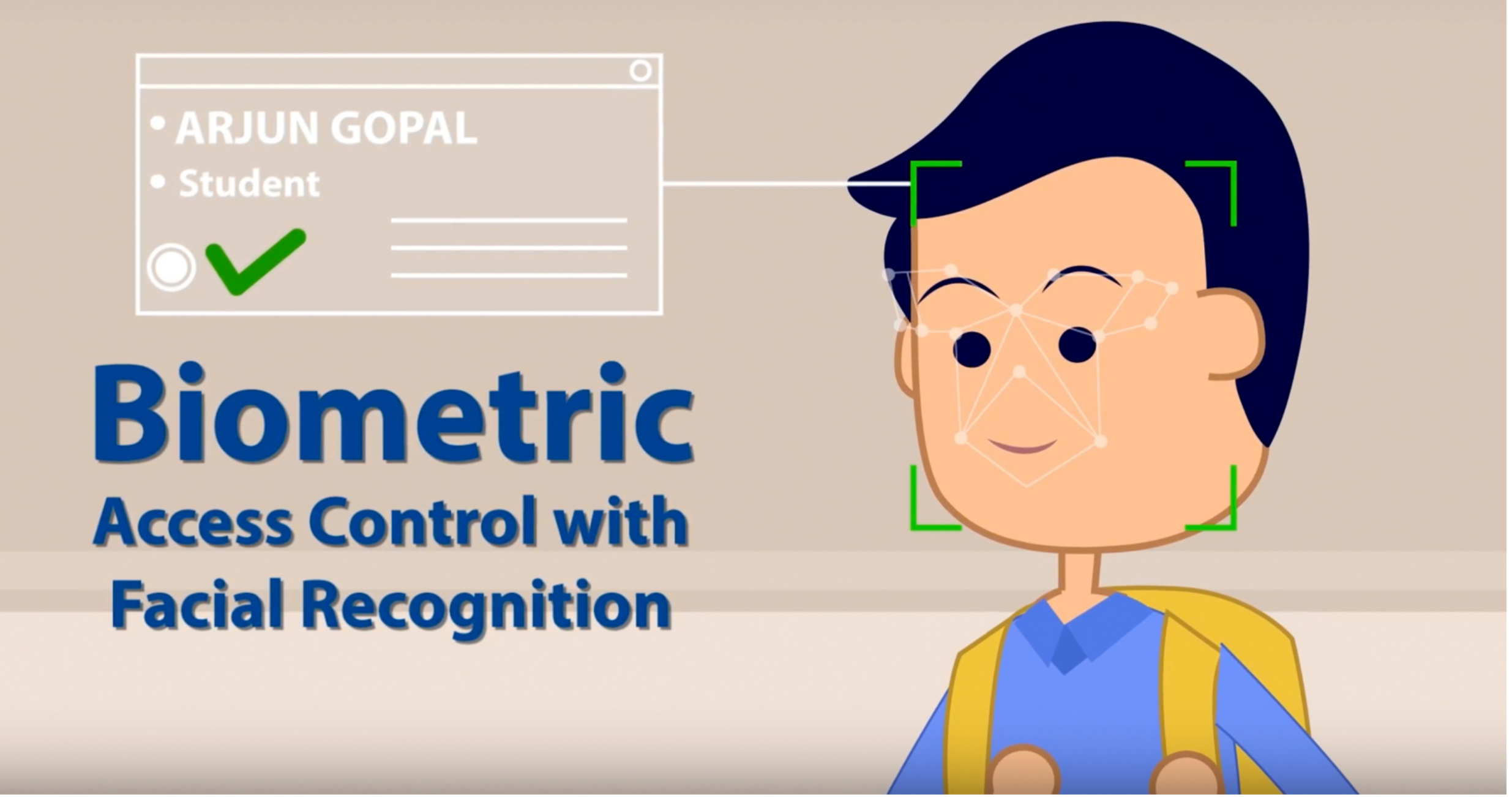
- New teaching/learning approaches
- New AI tech modalities
- Excellence initiatives

Internationally transmittable to developing countries ---new pedagogical approaches

- varied modalities for learning
  - active, interactive, collaborative & experiential

21st century learning
No longer a spectator sport

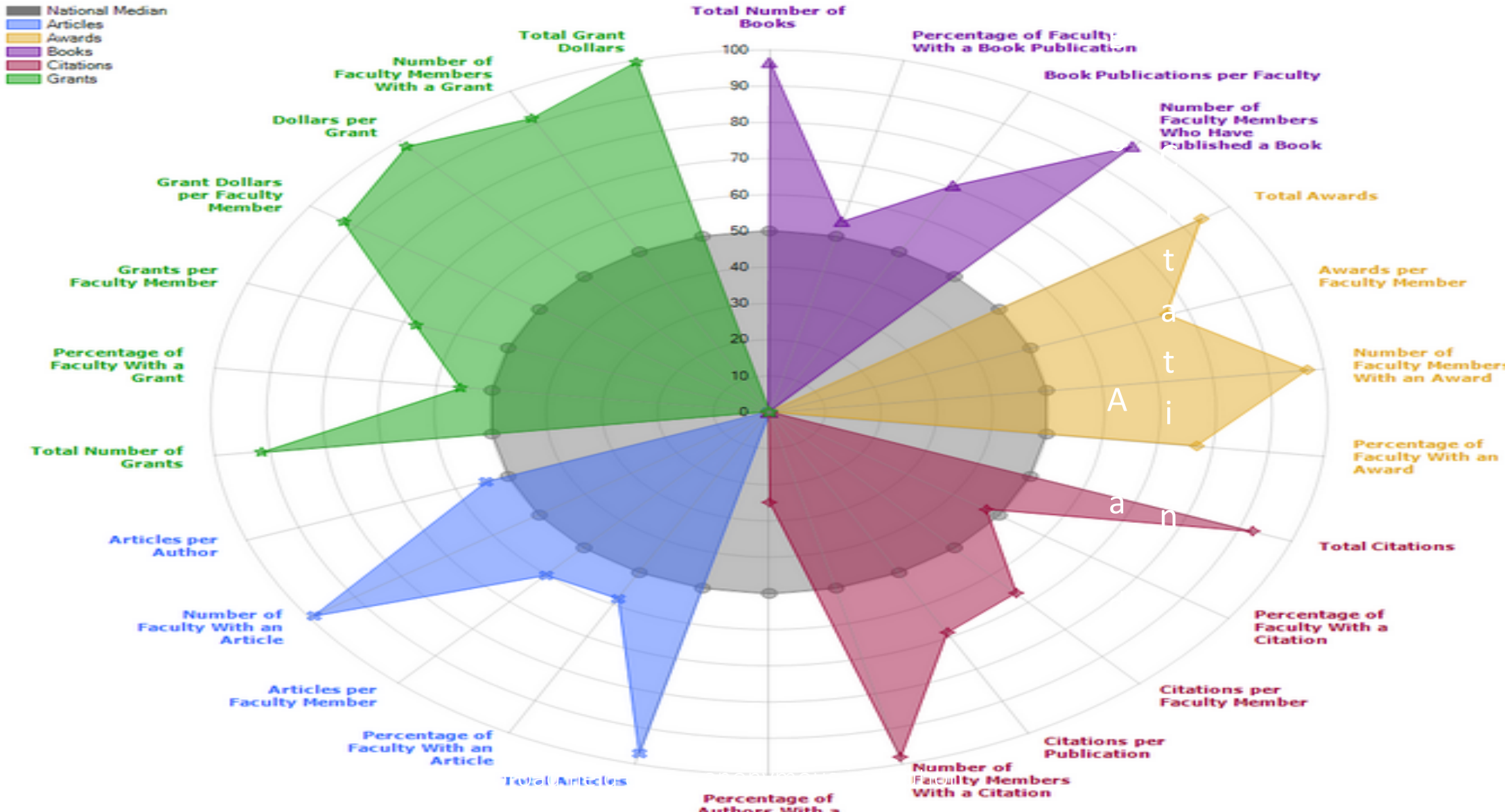
The "Flipped" Classroom


• ARJUN GOPAL
• Student
Biometric
Access Control with
Facial Recognition

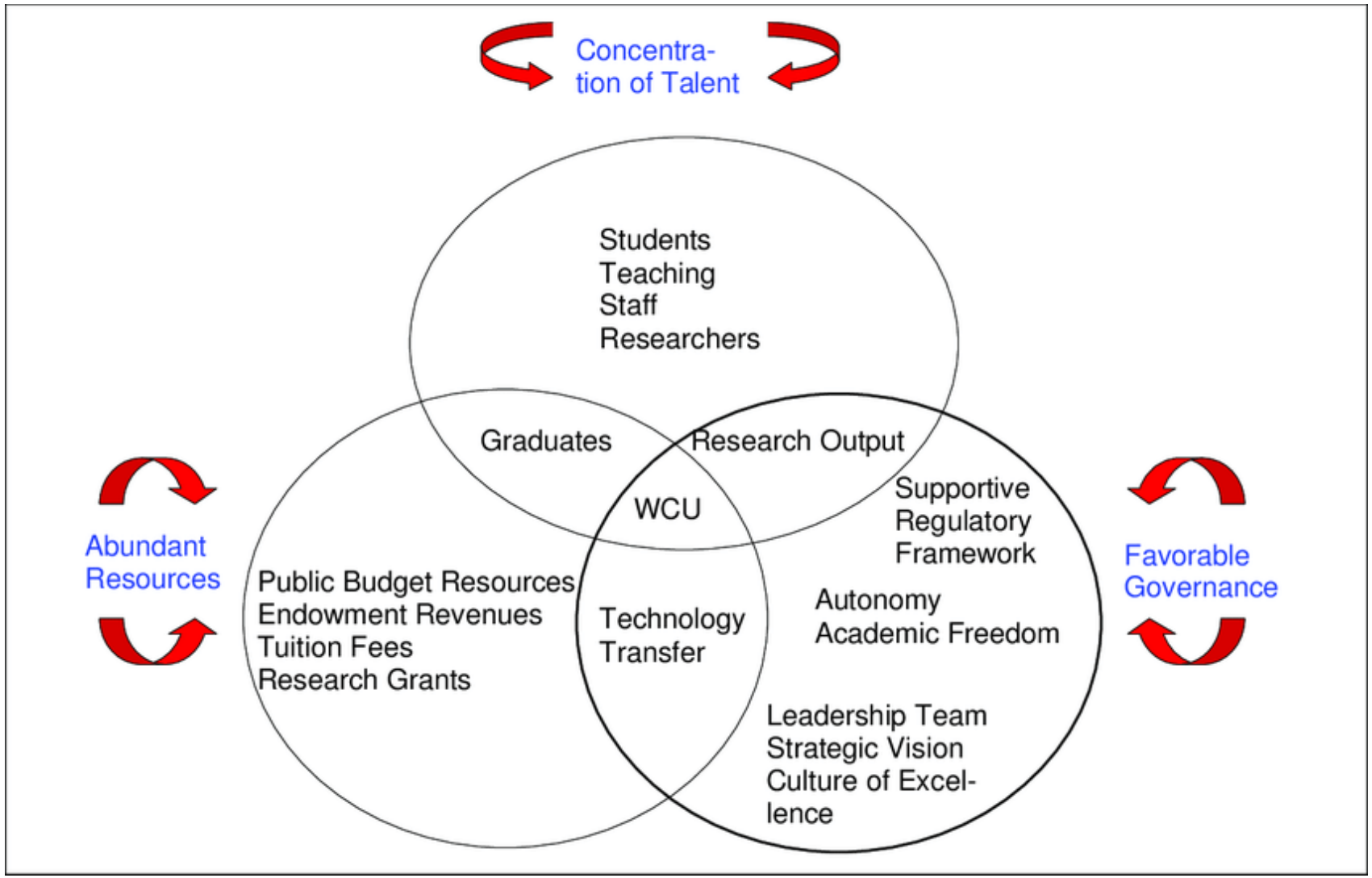
Facial recognition at school

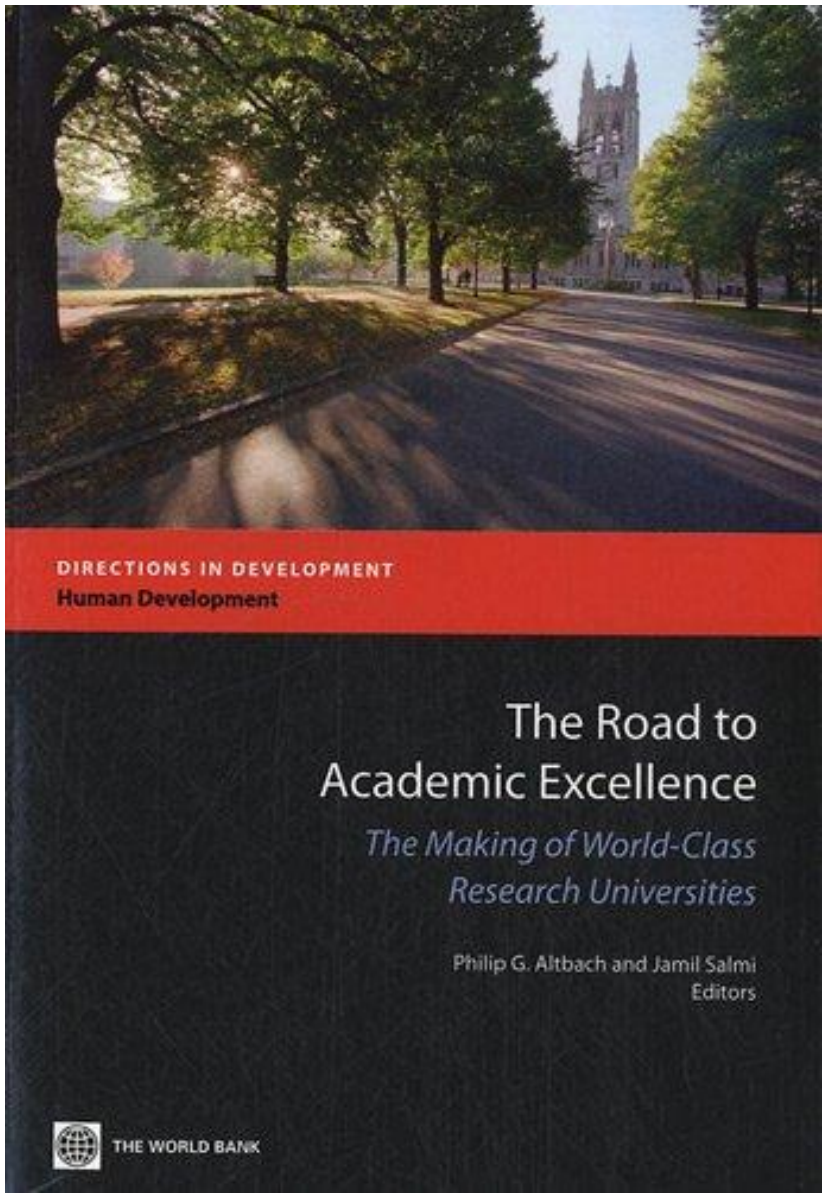
Name
Aaliyah
Age
12

Big data AI algorithms for managing universities



WCU construction

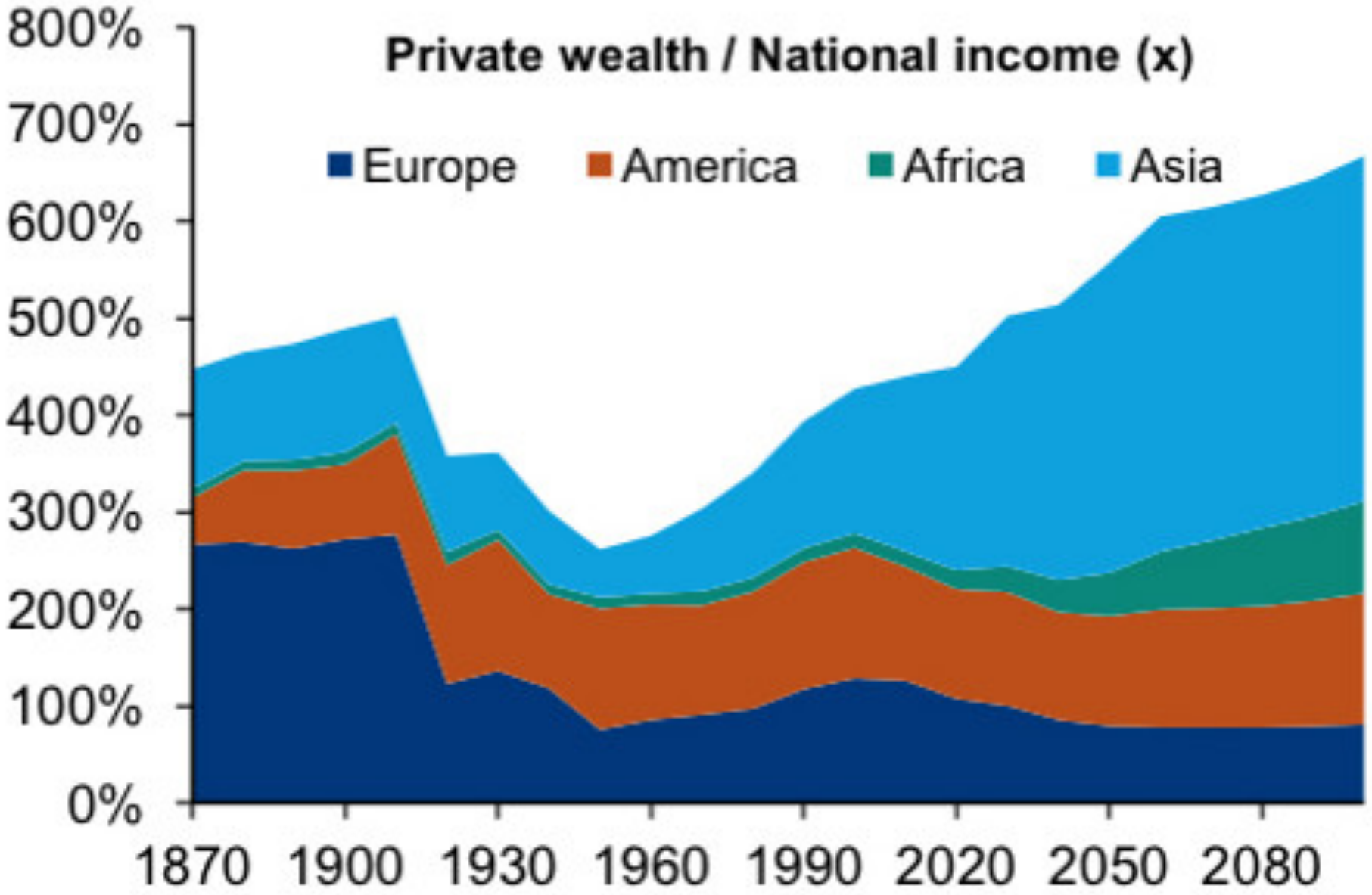




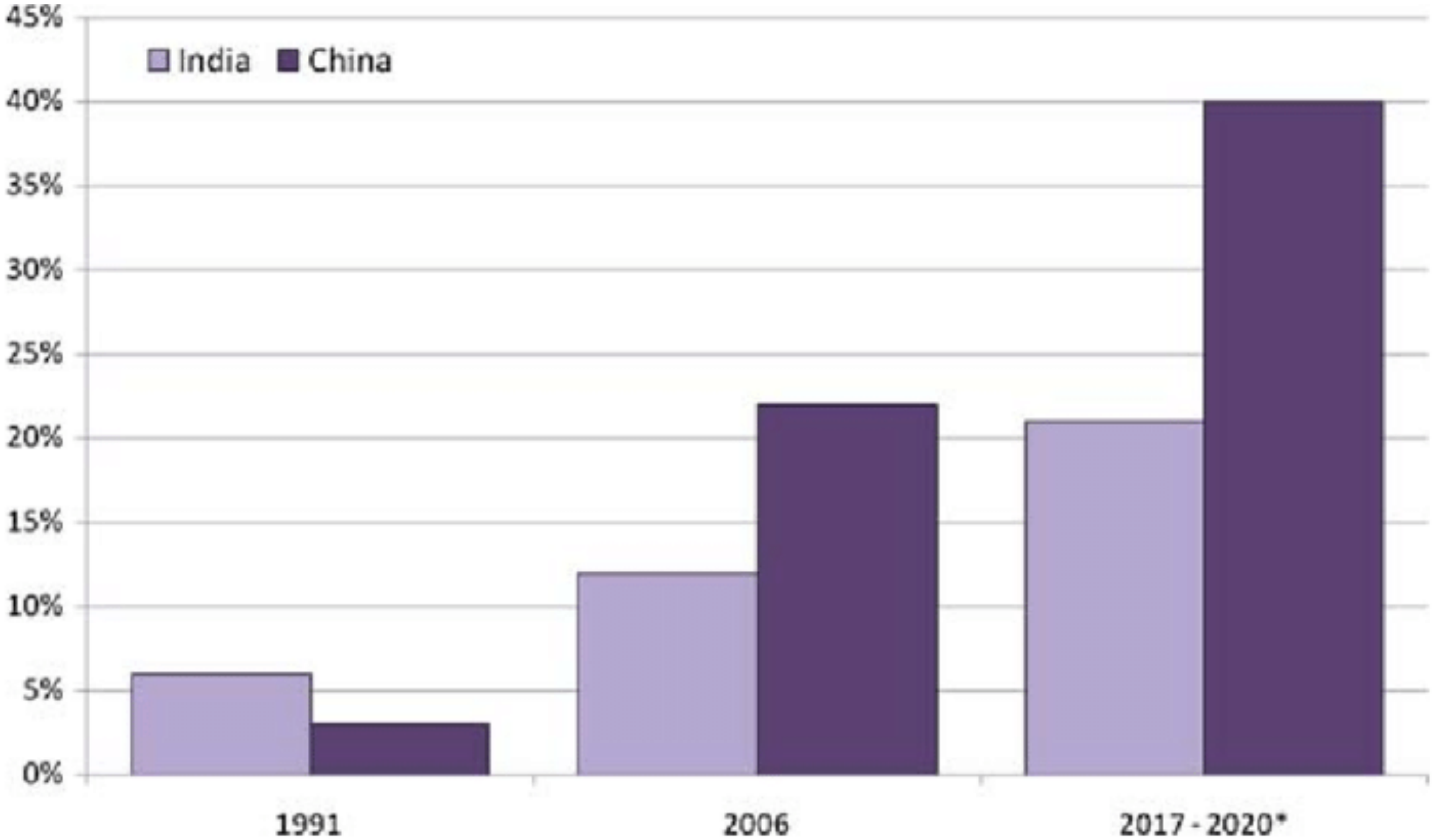
Developing country challenges: Access, quality and relevance

- Access
- Quality
- Relevance

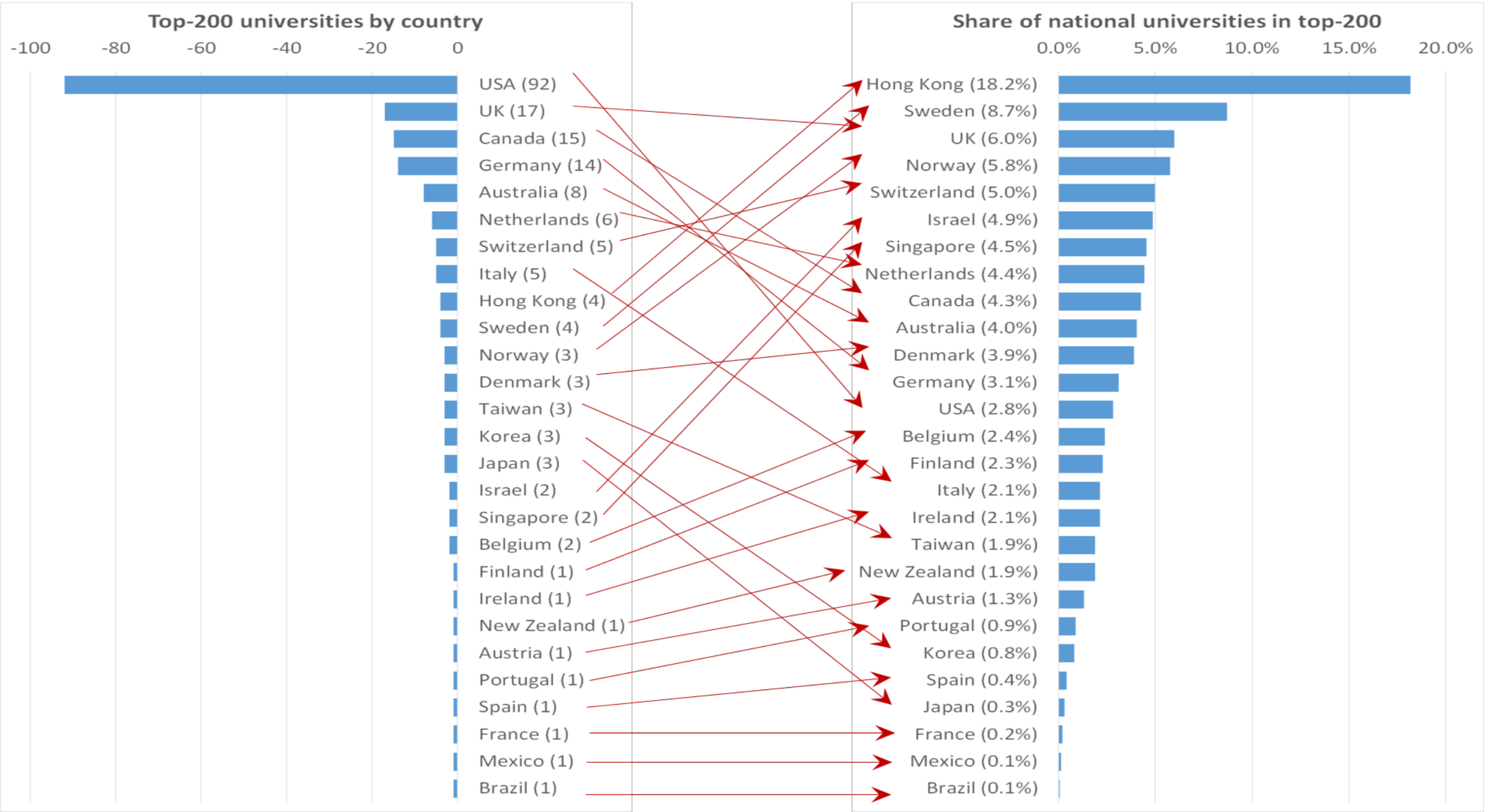
Global wealth/income ratio

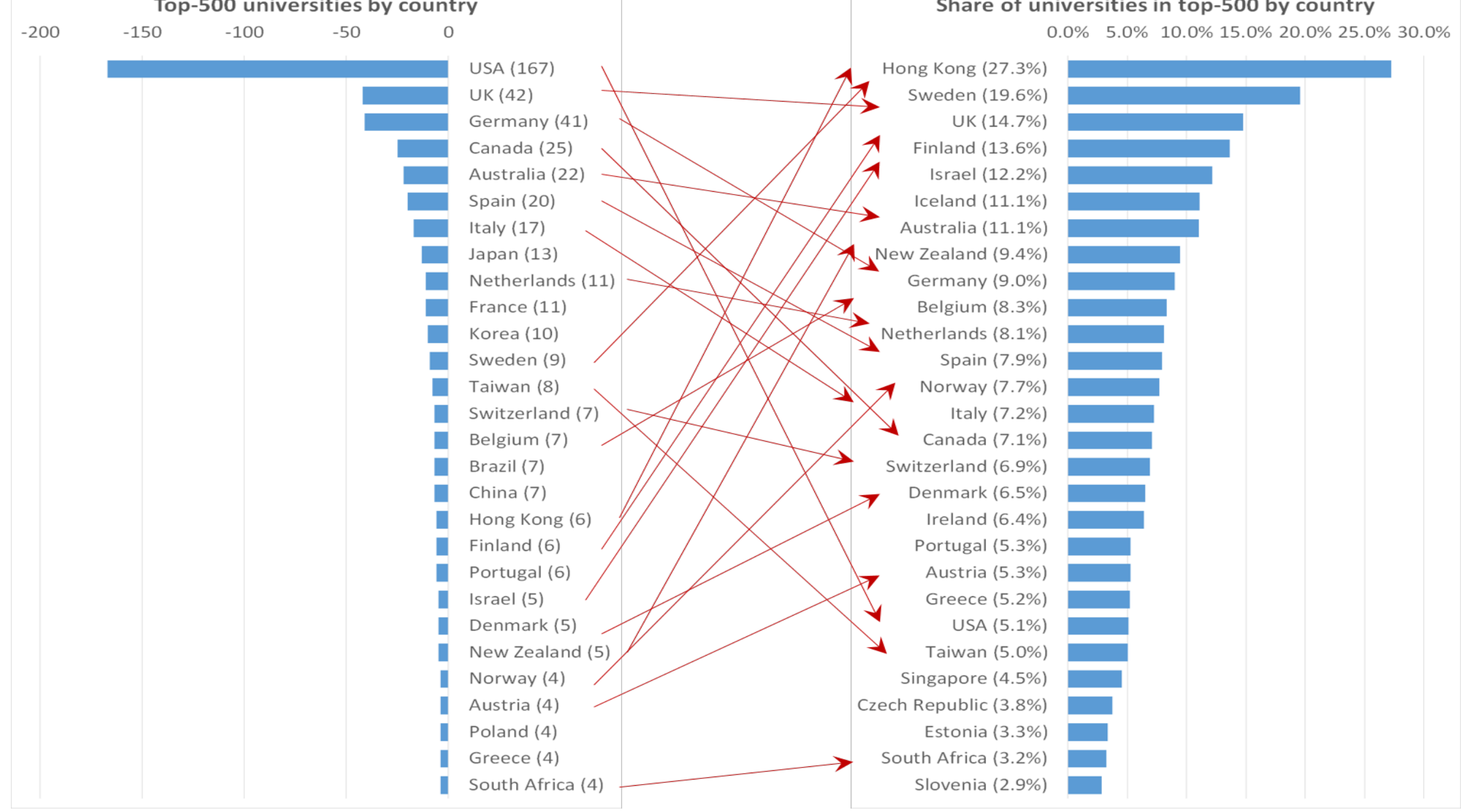


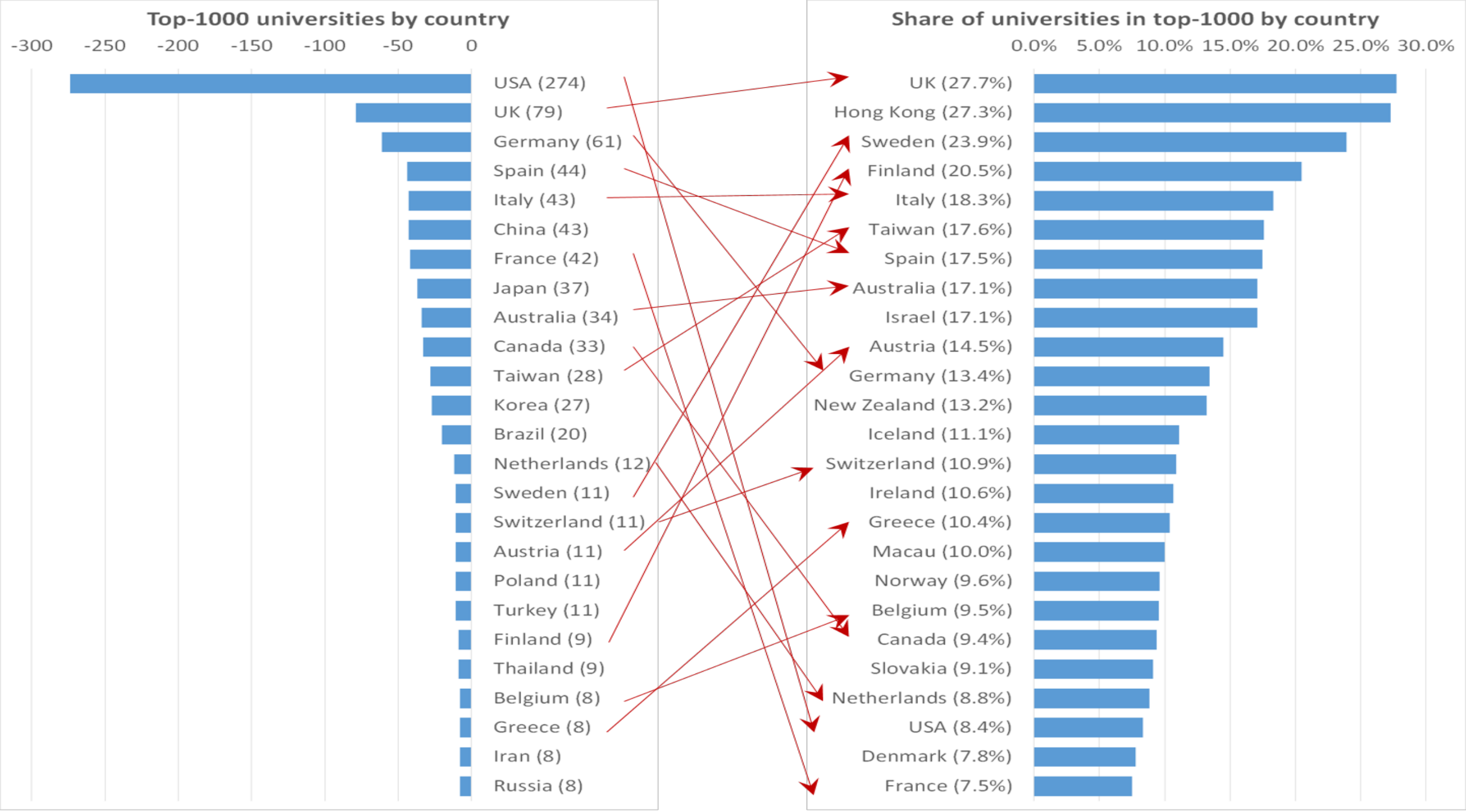
Source: Piketty/Bank of America


45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
India
China
1991
2006
2017 - 2020*

- http://web.edu.hku.hk/f/acadstaff/363/WCU%205%20%20What%20Matters.pdf


Top-200 universities by country
-100
-80
-60
-40
-20
0
USA (92)
UK (17)
Canada (15)
Germany (14)
Australia (8)
Netherlands (6)
Switzerland (5)
Italy (5)
Hong Kong (4)
Sweden (4)
Norway (3)
Denmark (3)
Taiwan (3)
Korea (3)
Japan (3)
Israel (2)
Singapore (2)
Belgium (2)
Finland (1)
Ireland (1)
New Zealand (1)
Austria (1)
Portugal (1)
Spain (1)
France (1)
Mexico (1)
Brazil (1)
Share of national universities in top-200
0.0%
5.0%
10.0%
15.0%
20.0%
Hong Kong (18.2%)
Sweden (8.7%)
UK (6.0%)
Norway (5.8%)
Switzerland (5.0%)
Israel (4.9%)
Singapore (4.5%)
Netherlands (4.4%)
Canada (4.3%)
Australia (4.0%)
Denmark (3.9%)
Germany (3.1%)
USA (2.8%)
Belgium (2.4%)
Finland (2.3%)
Italy (2.1%)
Ireland (2.1%)
Taiwan (1.9%)
New Zealand (1.9%)
Austria (1.3%)
Portugal (0.9%)
Korea (0.8%)
Spain (0.4%)
Japan (0.3%)
France (0.2%)
Mexico (0.1%)
Brazil (0.1%)


Top-500 universities by country
-200
-150
-100
-50
0
USA (167)
UK (42)
Germany (41)
Canada (25)
Australia (22)
Spain (20)
Italy (17)
Japan (13)
Netherlands (11)
France (11)
Korea (10)
Sweden (9)
Taiwan (8)
Switzerland (7)
Belgium (7)
Brazil (7)
China (7)
Hong Kong (6)
Finland (6)
Portugal (6)
Israel (5)
Denmark (5)
New Zealand (5)
Norway (4)
Austria (4)
Poland (4)
Greece (4)
South Africa (4)
Share of universities in top-500 by country
0.0%
5.0%
10.0%
15.0%
20.0%
25.0%
30.0%
Hong Kong (27.3%)
Sweden (19.6%)
UK (14.7%)
Finland (13.6%)
Israel (12.2%)
Iceland (11.1%)
Australia (11.1%)
New Zealand (9.4%)
Germany (9.0%)
Belgium (8.3%)
Netherlands (8.1%)
Spain (7.9%)
Norway (7.7%)
Italy (7.2%)
Canada (7.1%)
Switzerland (6.9%)
Denmark (6.5%)
Ireland (6.4%)
Portugal (5.3%)
Austria (5.3%)
Greece (5.2%)
USA (5.1%)
Taiwan (5.0%)
Singapore (4.5%)
Czech Republic (3.8%)
Estonia (3.3%)
South Africa (3.2%)
Slovenia (2.9%)


Top-1000 universities by country
-300
-250
-200
-150
-100
-50
0
USA (274)
UK (79)
Germany (61)
Spain (44)
Italy (43)
China (43)
France (42)
Japan (37)
Australia (34)
Canada (33)
Taiwan (28)
Korea (27)
Brazil (20)
Netherlands (12)
Sweden (11)
Switzerland (11)
Austria (11)
Poland (11)
Turkey (11)
Finland (9)
Thailand (9)
Belgium (8)
Greece (8)
Iran (8)
Russia (8)
Share of universities in top-1000 by country
0.0%
5.0%
10.0%
15.0%
20.0%
25.0%
30.0%
UK (27.7%)
Hong Kong (27.3%)
Sweden (23.9%)
Finland (20.5%)
Italy (18.3%)
Taiwan (17.6%)
Spain (17.5%)
Australia (17.1%)
Israel (17.1%)
Austria (14.5%)
Germany (13.4%)
New Zealand (13.2%)
Iceland (11.1%)
Switzerland (10.9%)
Ireland (10.6%)
Greece (10.4%)
Macau (10.0%)
Norway (9.6%)
Belgium (9.5%)
Canada (9.4%)
Slovakia (9.1%)
Netherlands (8.8%)
USA (8.4%)
Denmark (7.8%)
France (7.5%)

WCU-Mainstream-TVET-Central and localities

Will the mainstream university survive?

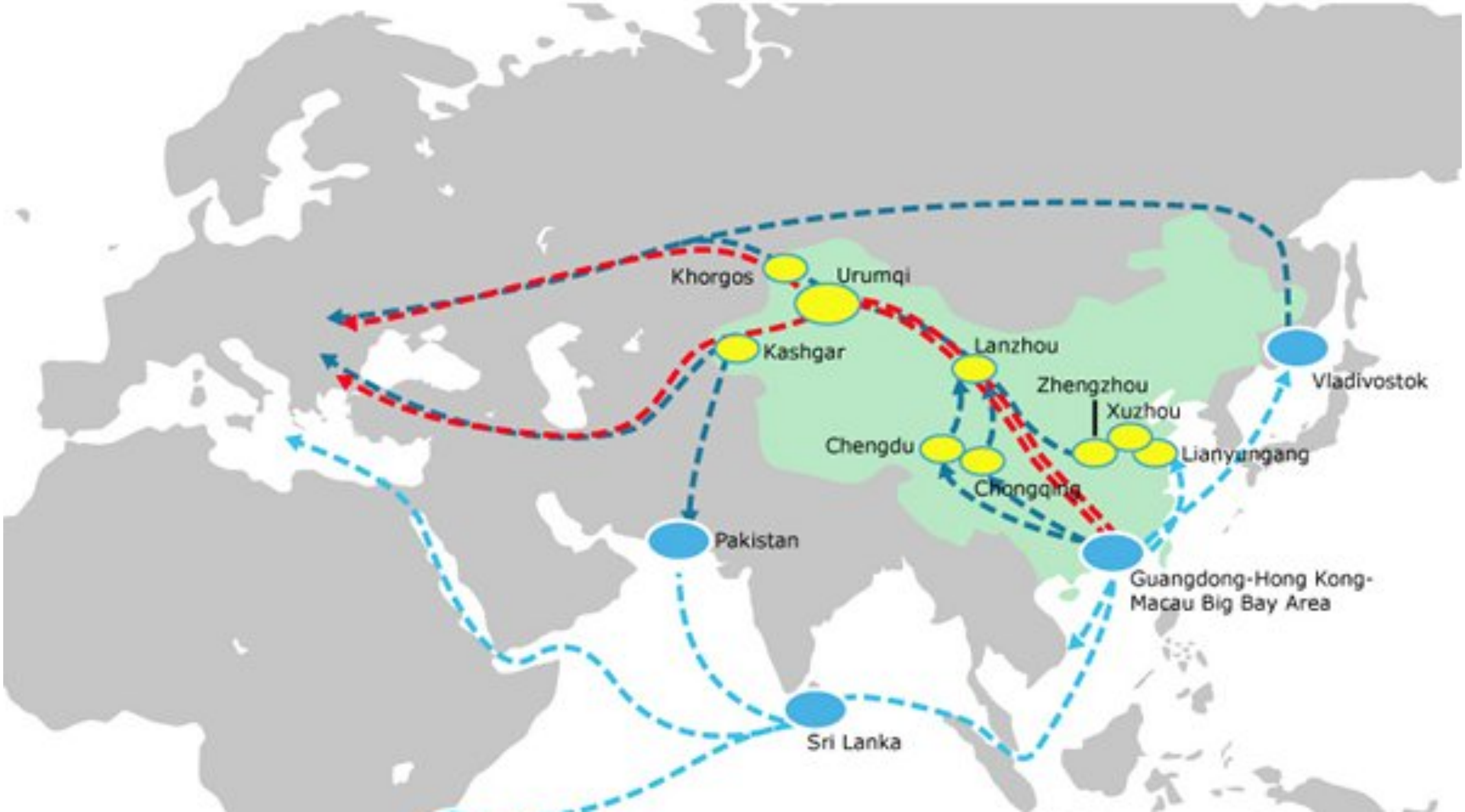
- **Yes**, they must but they have to become:
  - Mission centered (implicit value)
  - Market smart (not market centered)
  - Margin conscious (when does expansion work against the instituons and how to prioritize when cost cutting is necessary).

Country specific with ADB support

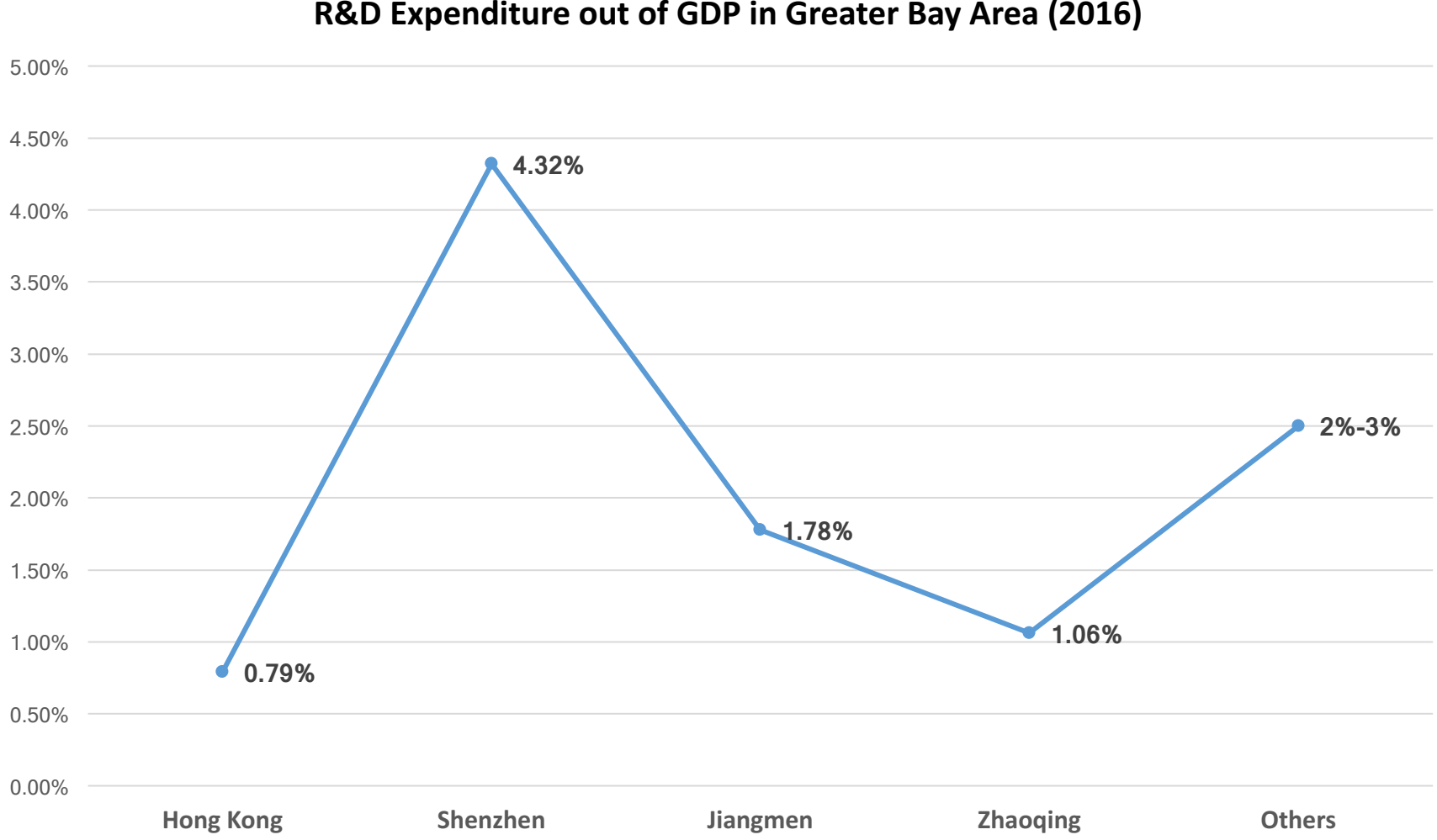
Opportunities --innovations

- The Hong Kong, China story
- China’s policy: 600 provincial universities to be applied universities
- The Guangzhou, Hong Kong, Macao Greater Bay Area Initiative

Promoting connectivity:
Guangdong-Hong Kong-Macau Big Bay Area and the 21st Century Maritime Silk Road



Guangzhou, Hong Kong, Macao, Shenzhen and six cities

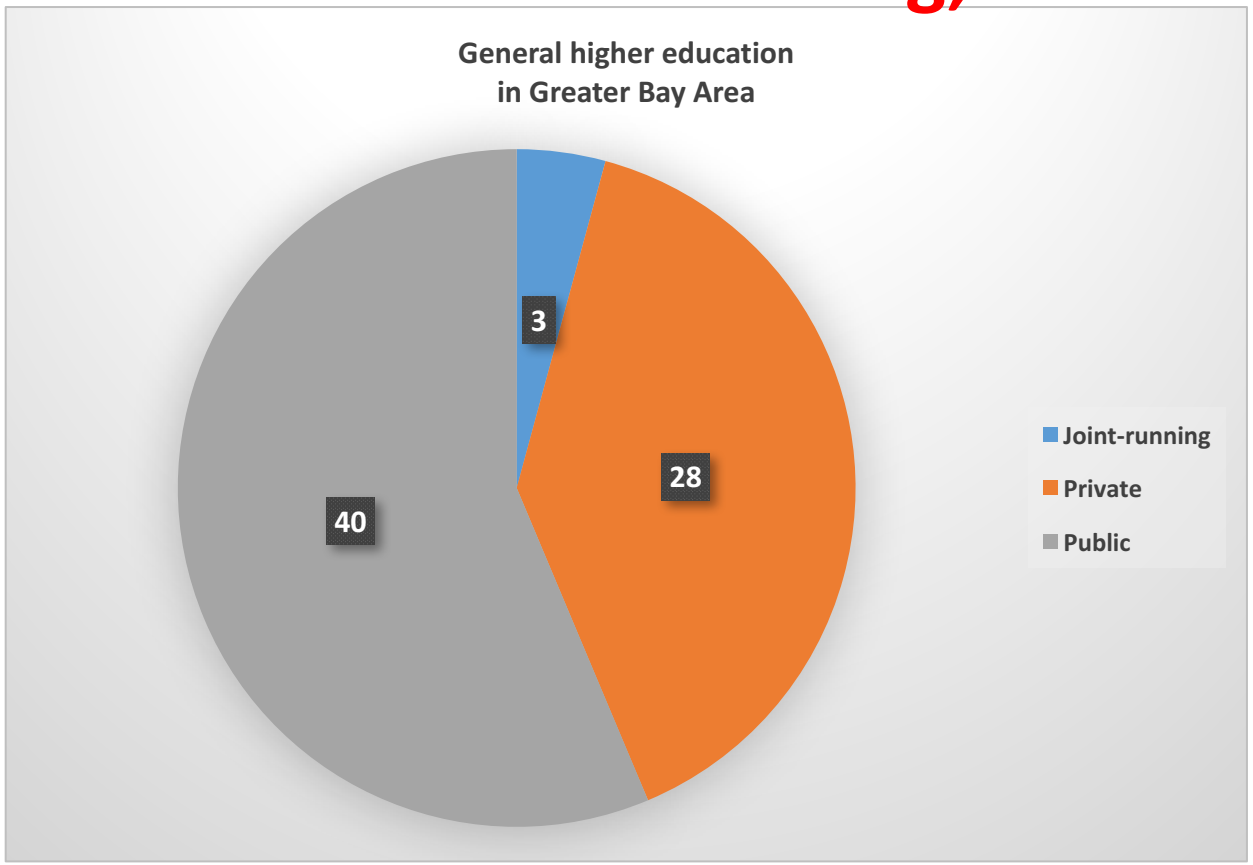


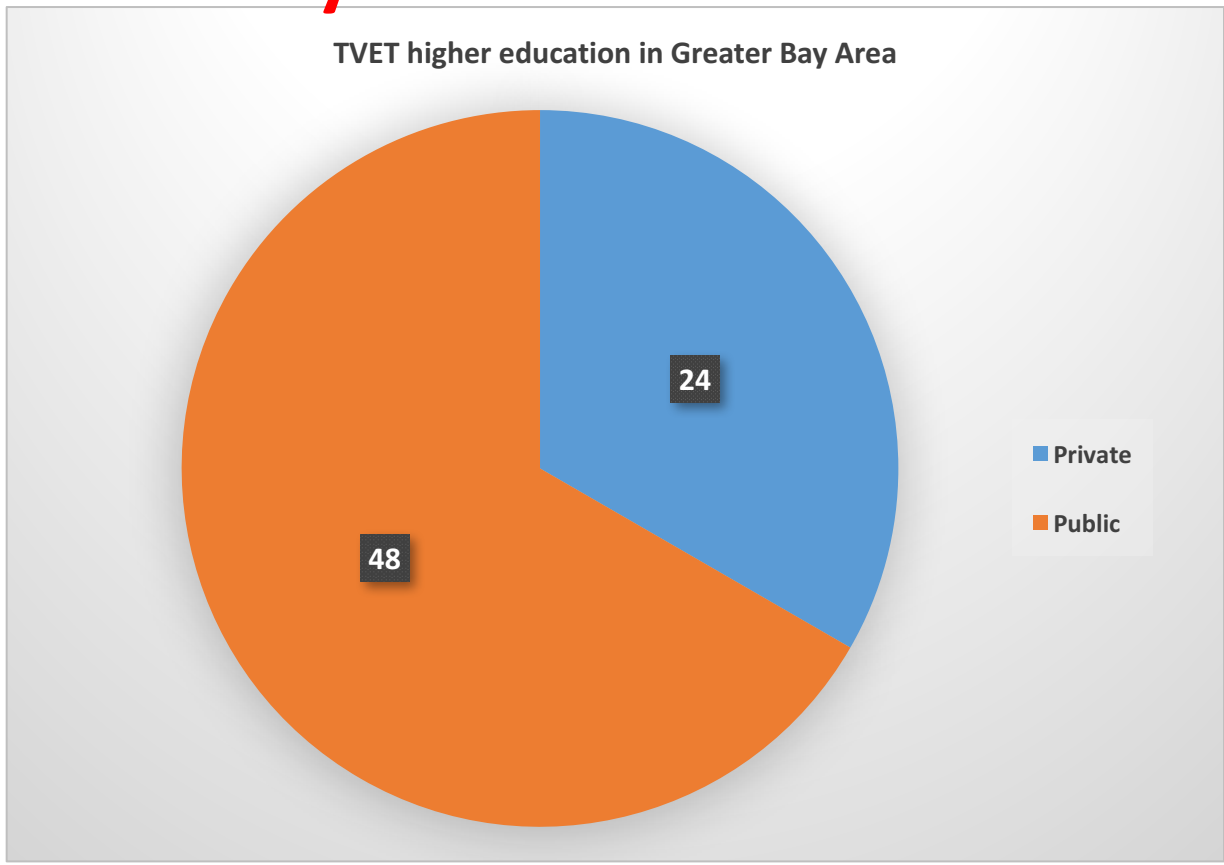
- *'Others' refer to other 6 cities in mainland China: Foshan, Zhuhai, Guangzhou, Dongguan, Huizhou and Zhongshan. The R&D expenditure accounted for 2%-3% of its GDP in each of these cities.*
- *The Macau data is subject to further collection*

Technical skill levels

- San Francisco Bay Area: 26%
- China Greater Bay Area: 2.2%
- Shenzhen: 18,000 returnees with overseas education

General and TVET higher education in Guangzhou, Hong Kong, Macau Greater Bay Area





“Will Asia be just producing more of the same of the Western-originated contemporary higher education model, ……

…..or will it be able to unleash a more critical understanding and practice of higher education, a cultural and epistemological reflection of the role of universities as venues of higher learning?” (Cheung, 2012, p. 186).

ADB possibilities for advancing innovation in higher education

- What trends and developments should ADB take into account?
  - How DMCs balance competing domestic demands and global aspirations
- Where could be potential benefits?
  - Sustain gains
  - Protect vulnerable populations
  - Reduce inequality
- What type of new approaches and partnerships are critical to advancing the sector?
  - Integrate TVET and mainstream higher education
  - Reduce and structure system differentiation
  - Partnerships to eliminate poverty