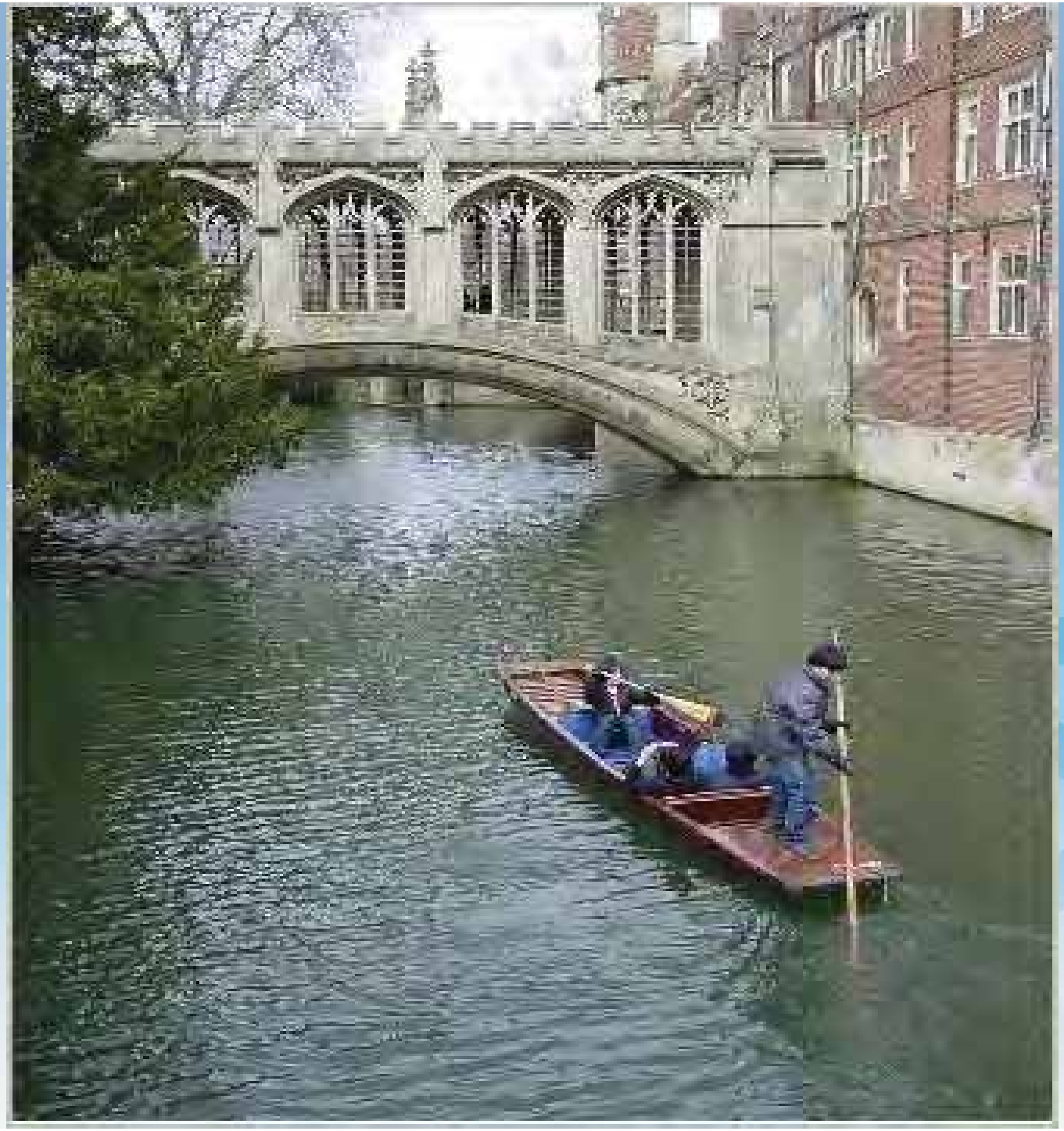


defining the WCU

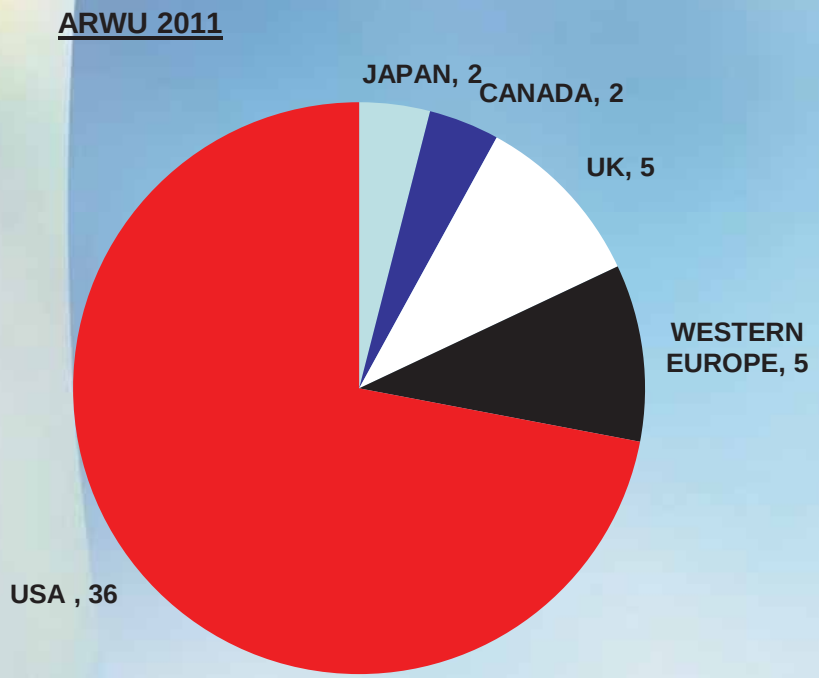
- self-declaration
- reputation
- rankings


教育部战略研究基地
世界一流大学研究中心
Center for World-Class Universities

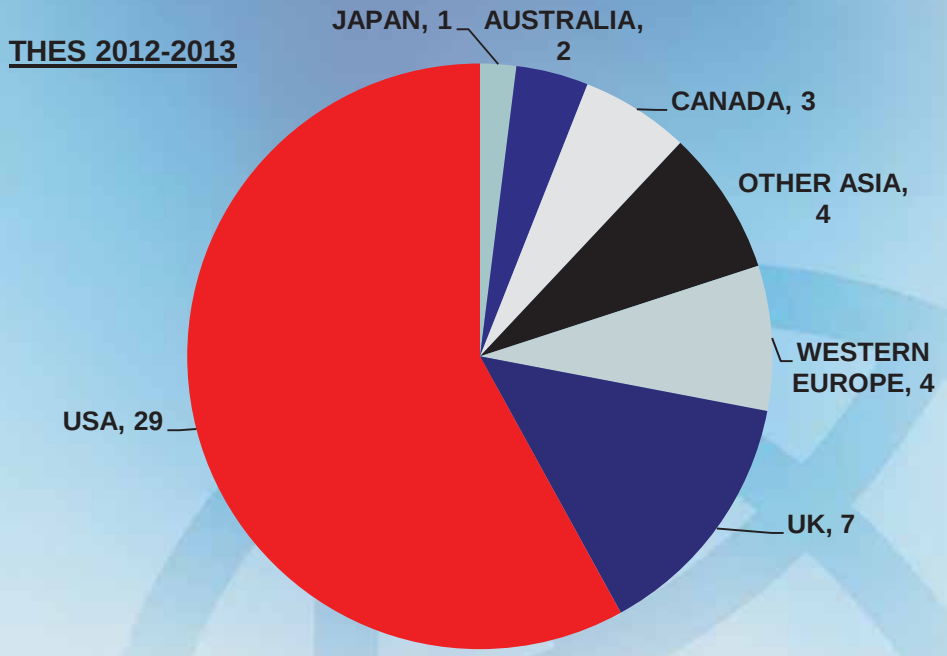

DELL

top 50 universities (2012)

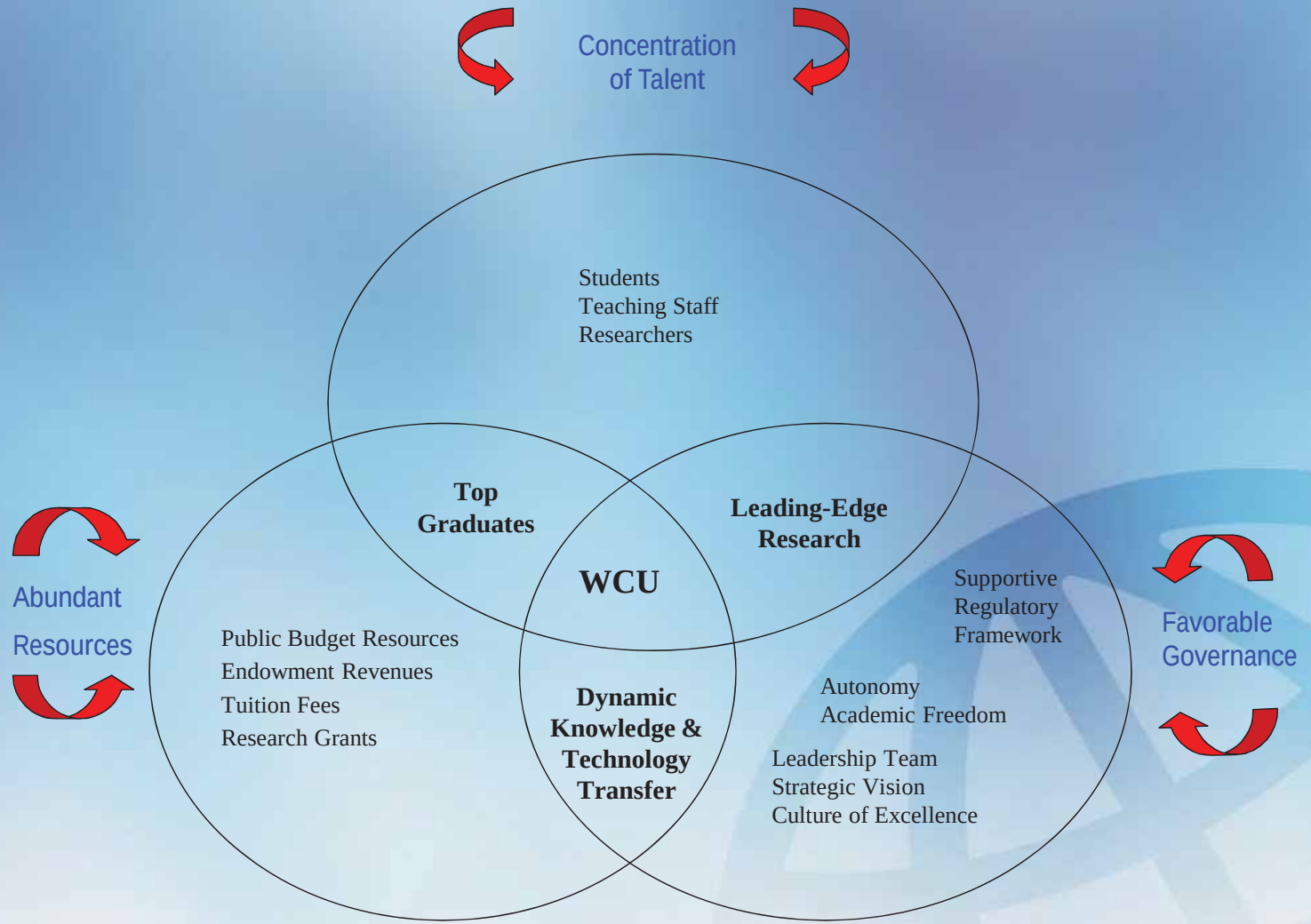
ARWU 2012



THE 2012-13



Characteristics of a World-Class University
Alignment of Key Factors



Source: Elaborated by Jamil Salmi


THINKSTOCK

weight of graduate students

University	Undergraduate Students	Graduate Students	Share of Graduate Students (%)
Harvard	7,002	10,094	59
Stanford	6,442	11,325	64
MIT	4,066	6,140	60
Oxford	11,106	6,601	37
Cambridge	12,284	6,649	35
LSE	4,254	4,386	51
Beijing	14,662	16,666	53
Tokyo	15,466	12,676	45

concentration of talent

- teachers and researchers
- incoming students
- undergraduate / graduate students balance
  - but involving undergraduate students in research
- international dimensions

international dimensions

- foreign faculty
  - Caltech (37%), Harvard (30%), Oxford (36%), ETH Zürich (60%)
- foreign students
  - Harvard (19%), Cambridge (18%)

abundant resources

- government funding
  - US able to spend 3.3% of GDP ($54,000 per student) – 1/3 public 2/3 private
  - Europe (E25) only 1.3% ($13,500 per student)
- endowments


1967 19

Comparison of US and UK Endowment Levels

US Institutions	Endowments Assets (2009 million $)	UK Institutions	Endowment Assets (2009 million $)
Harvard University	25,662	Cambridge	6,327
Yale University	16,327	Oxford	5,767
Stanford University	12,619	Edinburgh	264
Princeton University	12.614	Manchester	204
University of Texas	12,163	Glasgow	164

Comparison of US and UK Endowment per Student

US Institutions	Endowment per student (2009 $)	UK Institutions	Endowment per student (2009 $)
Princeton University	1,667,000	Cambridge	343,934
Yale University	1,408,000	Oxford	283,670
Harvard University	1,209,000	Edinburgh	9,298
Stanford University	824,000	Glasgow	6,952
University of Texas	239,000	Manchester	5,208

abundant resources

- government funding
- endowments
- tuition fees
- research funding

funding features of case studies

- 8 out of 11 are public institutions

- endowments
  - Pohang: 2 billion $
  - NUS: 1 billion $
  - Monterrey Tech: 1 billion $
  - SJTU 120 million $


A R C E L O N A

favorable governance

- freedom from civil service rules (human resources, procurement, financial management)
- management autonomy
  - flexibility and responsiveness with power to act
- selection of leadership team
- independent Board with outside representation

U. Of Malaya vs. NUS

- talent
  - UM: selection bias in favor of Bumiputras, less than 5% foreign students, few foreign professors
  - NUS: highly selective, 43% of graduates students are foreign, many foreign professors

U. Of Malaya vs. NUS (II)

- finance
  - UM: $385 million, $14,000 per student
  - NUS: $1 billion endowment, $1,200 million, $39,000 per student

U. Of Malaya vs. NUS

- governance
  - appointment of VC highly political in Malaysia: 10 VCs until 2008 (Prime Minister statement)
  - more professional in Singapore (5 VCs)
  - UM: restricted by government regulations and control, unable to hire top foreign professors
  - NUS: status of a private corporation, able to attract world-class foreign researchers
    - 52% of professors (9% from Malaysia)
    - 79% of researchers (11% from Malaysia)

creati nergy

Researc ngapore

NUS

FEBRUARY 2010

Knowledge Enterprise

A Publication of National University of Singapore

NUS Solar Energy Research Institute:
Taking the lead in solar energy research and development 2

search in

able Energy

S researchers

Supported by:

NUS

NUS Enterprise

outline of the presentation

- defining the world-class university
- **the road to academic excellence**

the path to glory

- mergers
- upgrading existing institutions
- creating a new institution


hp
COMPAQ
DELL

upgrading approach

- less costly
- challenge of creating a culture of excellence
- focus on governance

"Whew! That was close! We almost decided something!"

creating a new institution

- KAUST, Nazarbayev University, Skolktech
- higher costs
- getting the right culture from the beginning
- creating a deep tradition of research
- academic freedom

which approach works best?

- upgrading and merging complicated
- establishing a new university from scratch potentially easier

who takes the initiative?

role of the State

- favorable regulatory framework
- funding
  - Excellence Initiatives

of excellence initiatives

Region	1989 - 2004	2005 - 2012
Africa	0	1
Asia & Pacific	8	14
Europe	4	18
Middle East	0	1
North America	1	1
Total	13	33

regional distribution of EIs

Region	1989 - 2004	2005 – 2012
Africa	-	Nigeria
Asia & Pacific	Australia, China, Hong Kong, Japan, New Zealand, South Korea	China, India, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand
Europe	Denmark, Finland, Ireland, Norway	Denmark, France, Germany, Luxembourg, Poland, Russian Federation, Spain, Sweden
Middle East	-	Israel
North America	Canada	Canada

characteristics of EIs

- focus on entire institutions or individual departments / centers?
- allocation method: competitive or picking winners?
- focus on young researchers?
- involvement of international experts in selection of winners?

characteristics of EIs

- financial stability over the years
  - crisis (Japan and Spain)
  - phased programs
  - endowment (France)
- scholarship programs (Brazil, Chile, Kazakhstan, Saudi Arabia)

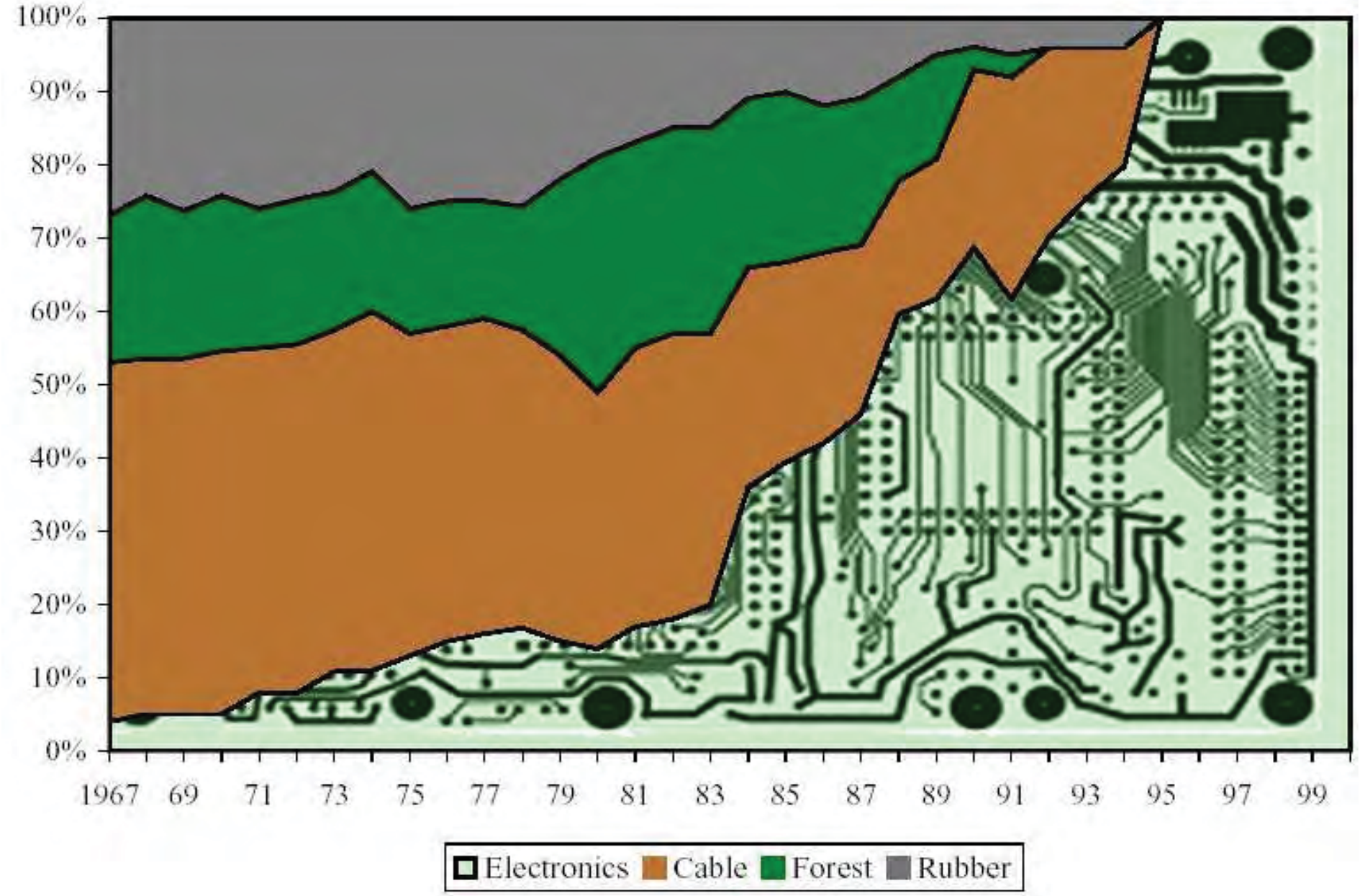
who takes the initiative? (II)

- role of the institutions
  - leadership
  - strategic vision
  - culture of excellence


Oulu
OULUN KAUPUNKI
City of Oulu
OULUN YLIOPISTO
University of Oulu


NOKIA
kia E7
u tượng mới
a người thành đạt
NOKIA
Connecting People
NOKIA
OPEN: 08h00
CLOSE: 21h00
Biểu tượng
của người

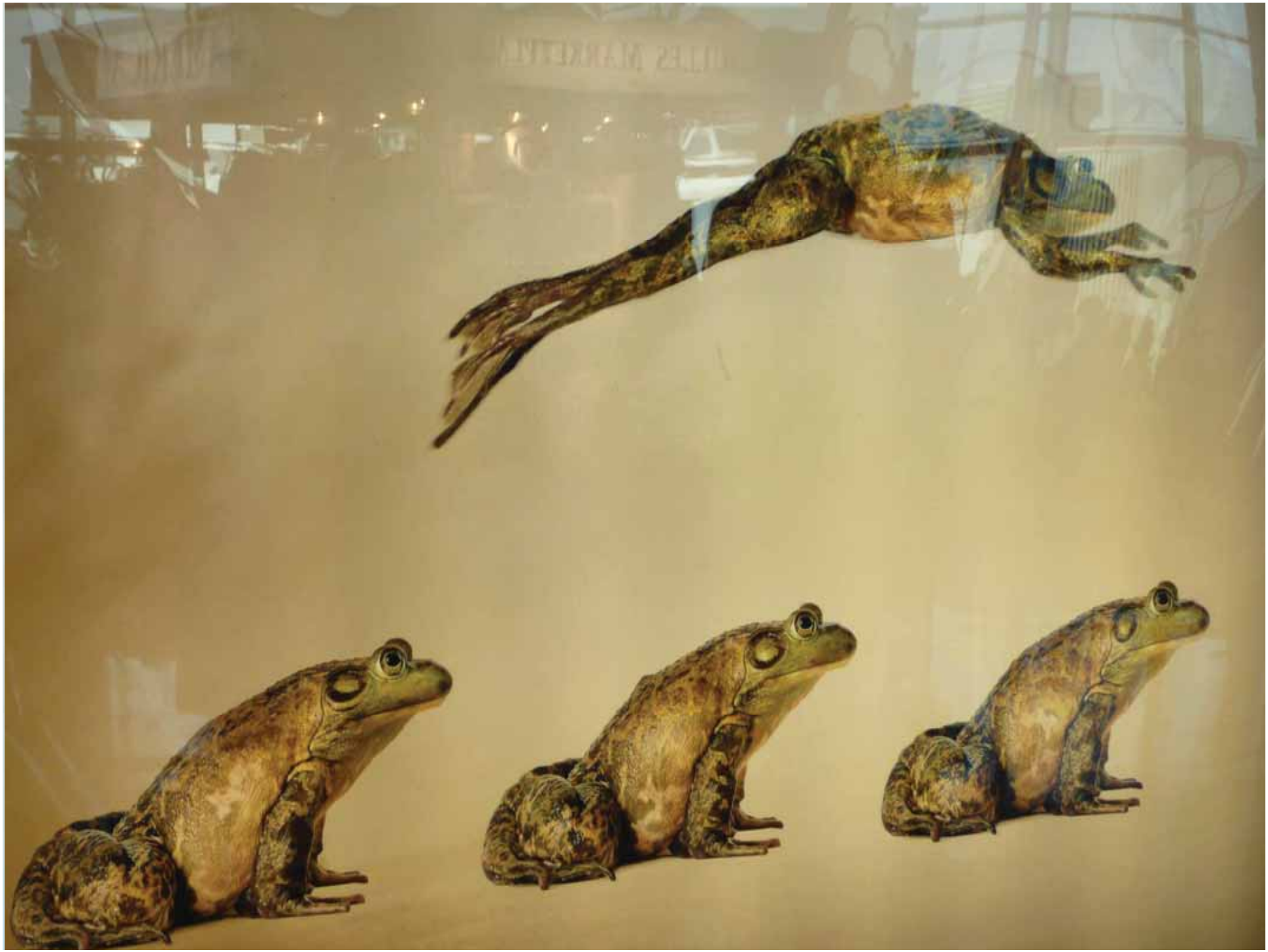
evolution of Nokia income



outline of the presentation

- defining the world-class university
- the road to academic excellence
- **lessons of experience**

vintage bias



accelerating factors

- internationalization

research capacity: EU research grants by country of host institutions per 1 million inhabitants

international dimensions

- reliance on Diaspora (Pohang, HK, SJTU, Cyprus)

international dimensions

- reliance on Diaspora (Pohang, HK, SJTU, Cyprus)
- foreign or foreign-trained academics
- foreign partners (new universities)
  - creation of original institutional culture (KAUST, Nazarbayev U)
- English language (all or many)