

**36th Conference of Rectors and Presidents of  
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**Internationalisation of Universities**  
**Introduction to the Conference**

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# Changing university environments

- **New powers of knowledge production**
- **World-wide connectivity, accessibility and mobility**
  - **Globalisation and globality of STI**
  - **International competition/cooperation of universities**
- **Grand global societal challenges**
- **Large scale international research initiatives**
- **New approaches towards innovation**

# **The new global setting of STI**

## **A multi-polar world of STI is developing**

**“Europe and the USA are still in the lead, but their future is uncertain ...” (UNESCO Science Report)**

**“Emerging economies” are developing substantive capacities in STI and education**

### **E.g. Developments in China:**

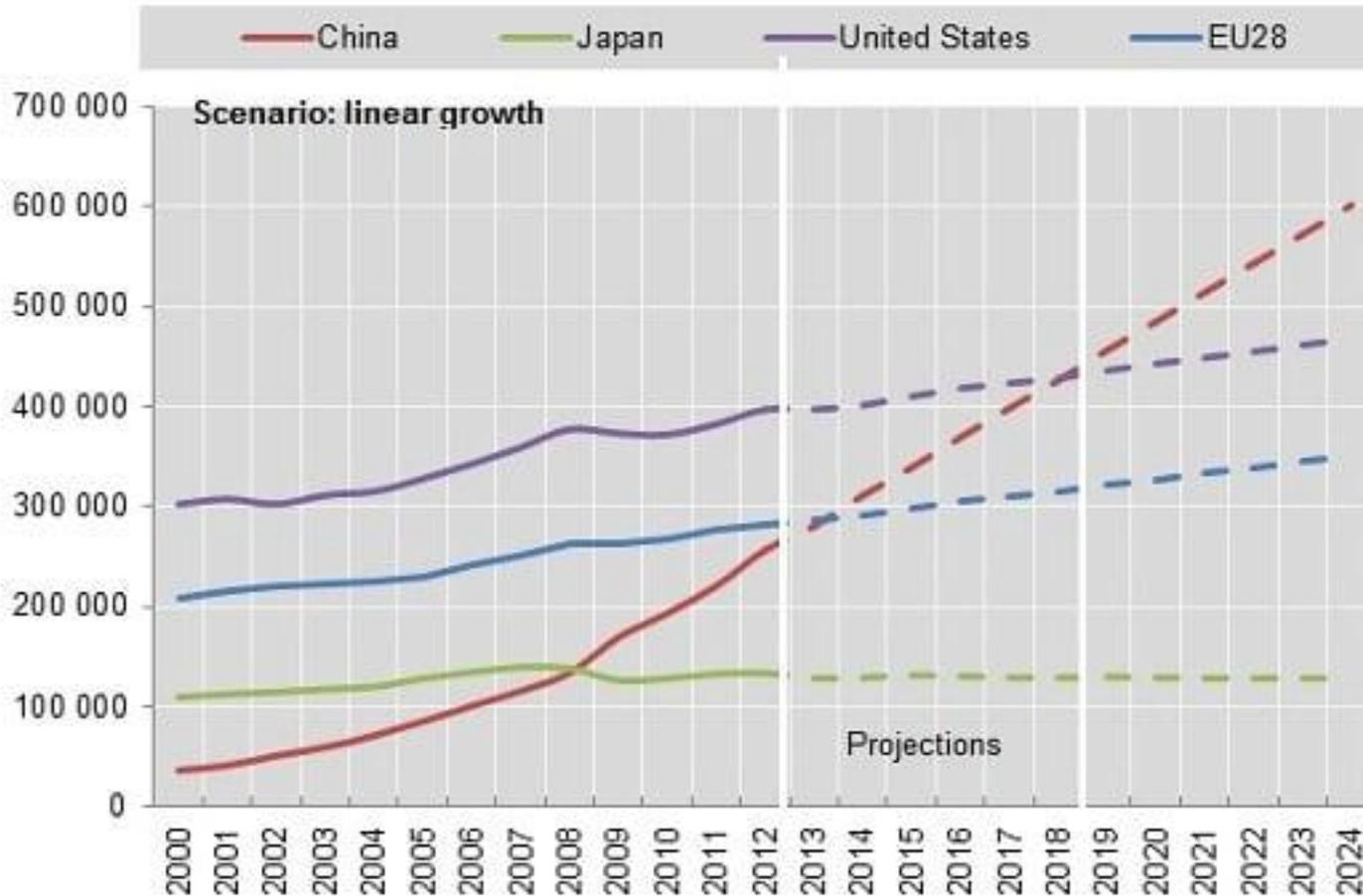
- **Expenditures for R&D: € 17,6 bn in 1995 to € 287,5 bn in 2014**
- **GERD / GDP: from 0.57% in 1997 to 2.07% in 2014**
- **Number of researchers: 0,443 mio in 1997 to 1,518 mio in 2014**
- **Scientific publications (SCI): second only to US**

**The number of internationally mobile students will increase from 1,8 mio to 7,2 mio from 2000 to 2025**

**Researchers are more mobile than ever using funds available for international STI cooperation (e.g. EU)**

## China poised to outpace the US in R&D spending around 2019

GERD, millions of 2005 USD PPP, 2000-12 and projections to 2024



Source: The Guardian, 17 April 2017; China poised to outpace US in R&D spending Photograph:

OECD Science, Technology and Industry Outlook 2014 - © OECD 2014

<https://www.theguardian.com/business/economics-blog/2014/nov/12/china-surpass-united-states-r-and-d-spending-role-west>

# **The new global setting of STI**

## **Internationalisation of STI: Some indicators**

**The global workforce of researchers increased from 5,7 mio in 2002 to about 10 mio researchers in 2015**

**35% of articles in international journals are co-authored, up from 25% 15 years ago**

**The size of author teams of scientific publications almost doubled – from 1,9 to 3,5 authors per article**

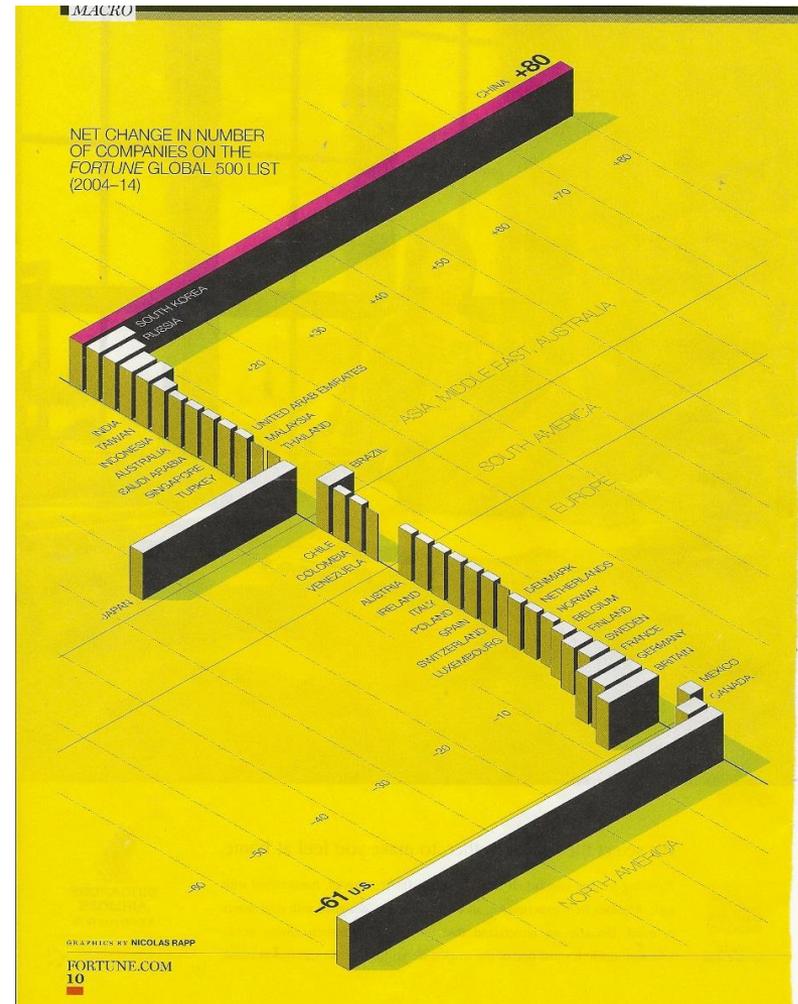
**The average distance of co-authors increased from 334 km in 1980 to 1,553 km in 2009**

# Changes of the global company landscape

## GLOBAL 500: A new world order

### Net Change in number of companies on the FORTUNE GLOBAL 500 list 2004-2014:

- **80 Chinese newcomers**
- **New European companies from Austria, Ireland, Italy, Poland, Spain, Switzerland**
- **New companies from Russia; South Korea, India, Taiwan, Indonesia; Australia; Saudi Arabia, United Arab Emirates; Turkey; Brazil, Chile, Colombia; Mexico**
- **61 USA companies out**
- **25 Japanies companies out**
- **Also firms from other countries are out: Britain, Germany, France, Sweden, Finland, Belgium, Norway, Netherlands, Denmark; Canada**



# Benefits of international cooperation

- **Raising visibility of the university at the international stage**
- **Strengthening excellence, improving outputs (publications, co-operations) and impact (citations, patents, licences)**
- **Educating graduates for working in international settings**
- **Learning from other approaches, methods for education, research, and innovation**
- **Addressing problems that need collaboration**
- **Utilizing synergies of complementary resources**
- **Developing assets for academic and other careers**
- ...

# Some points for discussion

- **University strategies for internationalisation**
  - Drivers and objectives of institutional strategies
  - Supporting individual initiatives
  - Setting priorities at institutional level
- **Choosing the right measures**
  - Mobility of students and faculty
  - Joint study programmes and research activities
  - Joint institutes or labs, off-shore campuses, ...
  - International university networks or associations
- **Institutional structures, management and services supporting internationalisation**

# The Conference

- **Keynote lectures setting the stage**
- **University leaders presenting examples**
- **Conclusions**
- **Outlook to crp2018 in Glasgow**
- **Social programme**
  - **Continuing the discussion, exchanging views**
  - **Strengthening existing contacts**
  - **Establishing new partnerships**

**Thank you for your attention!**

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