

On a learning curve: new realities for higher education in a changing global context



**Centre for Global Higher Education 2019 annual conference:
Challenging higher education**

**Wednesday 3 April 2019
UCL Institute of Education, London**



CHINA DAILY

中国日报

chindaily.com.cn

WEDNESDAY, March 27, 2009



European Commission President Jean-Claude Juncker, President Xi Jinping, French President Nicolas Sarkozy and German Chancellor Angela Merkel meet at the Elysee Palace in Paris on Tuesday. *inews* / *inews*

Xi urges joint efforts in seeking open economy

Leaders of China, Europe discuss multilateralism at meeting in Paris

Deals signed to reinforce teamwork in traffic, trade

Integration to bolster Asia's competitiveness

By LIU WEIPENG
CHENG YU and ZHOU LANKE
in Paris, France

China called on Asian economies to seek greater economic integration to boost regional competitiveness so as to better address challenges amid rising protectionism and uncertainties.

"Against the backdrop of economic uncertainties, Asian economies maintained a sound momentum of steady growth, contributing to around 60 percent of global GDP growth over the past decade or so," said Li Baoqiang, secretary-general of the Forum for Asia, at a news conference on Tuesday in Paris, France.

Li made the remarks after three annual reports — Progress of Asian Economic Integration, Asian Competitiveness, and Development of Emerging Economies — were released in Paris.

"To drive the regional economy to be more balanced and healthy, Asian economies should unite to promote multilateralism and globalization," he said.

They highlighted that despite economic headwinds, Asian economies have witnessed a record and

in the reports showed higher year-on-year in terms of competitiveness.

Leting Wright, former vice-minister of the then Ministry of Foreign Trade and Economic Cooperation, pointed out that China has taken the lead in opening wider to make bigger contributions to economic globalization.

As an example is that the country's Belt and Road Initiative has vigorously furthered the economic integration of Asia over the past six years.

"The BRI has had a positive impact on improving the competitiveness of Asian economies," said Zhang Jianhua, a researcher at the China Center for International Economic Exchange.

Such efforts are expected to help the initiative has improved infrastructure, overall economic strength and social development of countries involved in the BRI, Zhang said. He added that it has boosted cooperation among governments, enterprises and peoples in countries involved, thus facilitating and liberalizing cross-border trade and investment across the region.

The BRI has the potential to fill large infrastructure investment gaps among members of the Association of Southeast Asian Nations, according to the Asian Financial Development Report on Infrastructure Finance. It was the first time that the forum launched a report on finance.

The BRI "can be impactful," the report noted, as it can leverage financial resources and create jobs



The New Silk Road

International research project on the New Silk Road's implications for higher education and research cooperation between China and Europe



CHINA: FOLLOWER OR LEADER IN GLOBAL HIGHER EDUCATION?

中国：全球高等教育的追随者还是领导者？

*It is time to view China not just as a follower, but also look at its potential
role as a global leader in higher education.*

Marijk van der Wende
William Kirby
Jiabin Zhu
2015



Harvard Center Shanghai
哈佛上海中心



Changing Global Context

Recent geopolitical events such as Brexit and the US turning its back on multilateral trade and cooperation create waves of uncertainty in higher education regarding international cooperation, the free movement of students, academics, scientific knowledge and ideas.

At the same time China is launching new global initiatives with its New Silk Road (or One Belt One Road) project, which could potentially span and integrate major parts of the world across the Euro-Asian continents, but likely on new and different conditions, also for higher education.



Areas of Inquiry

A. What are the trends in academic “traffic” on the NSR?

Mapping of Flows of students, researchers, programmes, projects, funding (grants), data, innovations, etc.

B. How do HEIs respond to new opportunities?

Case studies on various forms of inter- and transnational higher education; networks, alliances, joint programmes and ventures, branch campuses, etc

C. Under which conditions are these activities happening?

Who defines these conditions?

Analysis of policy documents & formal agreements between governments, institutions, professional bodies, etc.

D. Based on which values?

Values underpinning the “idea of the university”; mission & model, institutional autonomy, academic freedom, scientific integrity, etc.

E. Impact on the global HE landscape and the role of the US HE sector therein



Relevance

The New Silk Road will carry more than consumer goods alone.

As in previous historical periods, people, ideas, and knowledge will travel along with mutual influence.

China's rise is among the most important geo-political trends that will characterize the (early) 21st century.

And like all previous major geopolitical trends and events, have impacted international cooperation in higher education (for better or for worse), this can also be expected to result from the NSR project.

The size of China's higher education and R&D system

and the speed at which it develops both to global standards, will impact that of its major competitors globally, not at least as it actively seeks to cooperate with academic partners along the Silk Road.

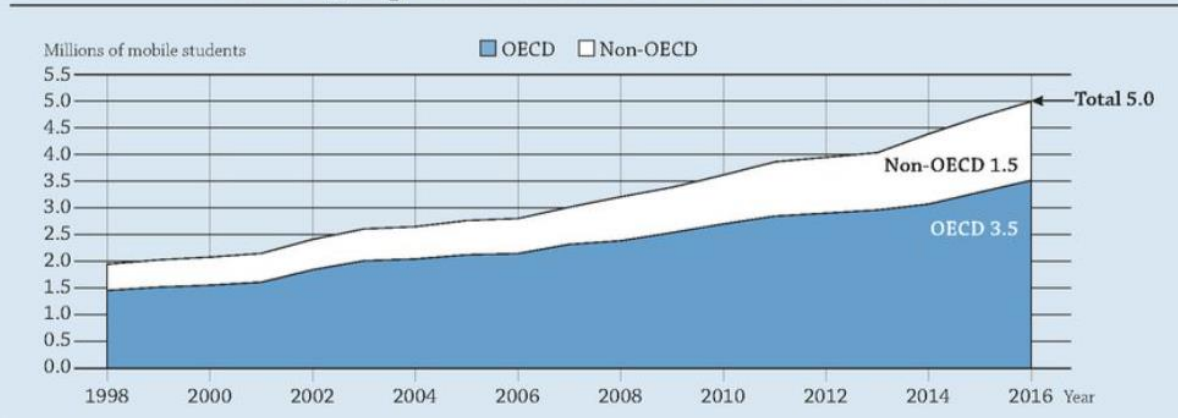
Need to improve our understanding of globalization.

Globalization in the East diverges from globalization in the West. Economic globalization becomes more Eastern-led and Easternization could become a force in international higher education (especially if a quarter of the world's best universities become Asian).

Shifts in global student flows

Figure B6.a. Growth in international or foreign enrolment in tertiary education worldwide (1998 to 2016)

Number of foreign students enrolled in OECD and non-OECD countries



OECD Education at a Glance, 2018

2001 – 2.1 MILLION STUDENTS



2017 – 4.6 MILLION STUDENTS



2001

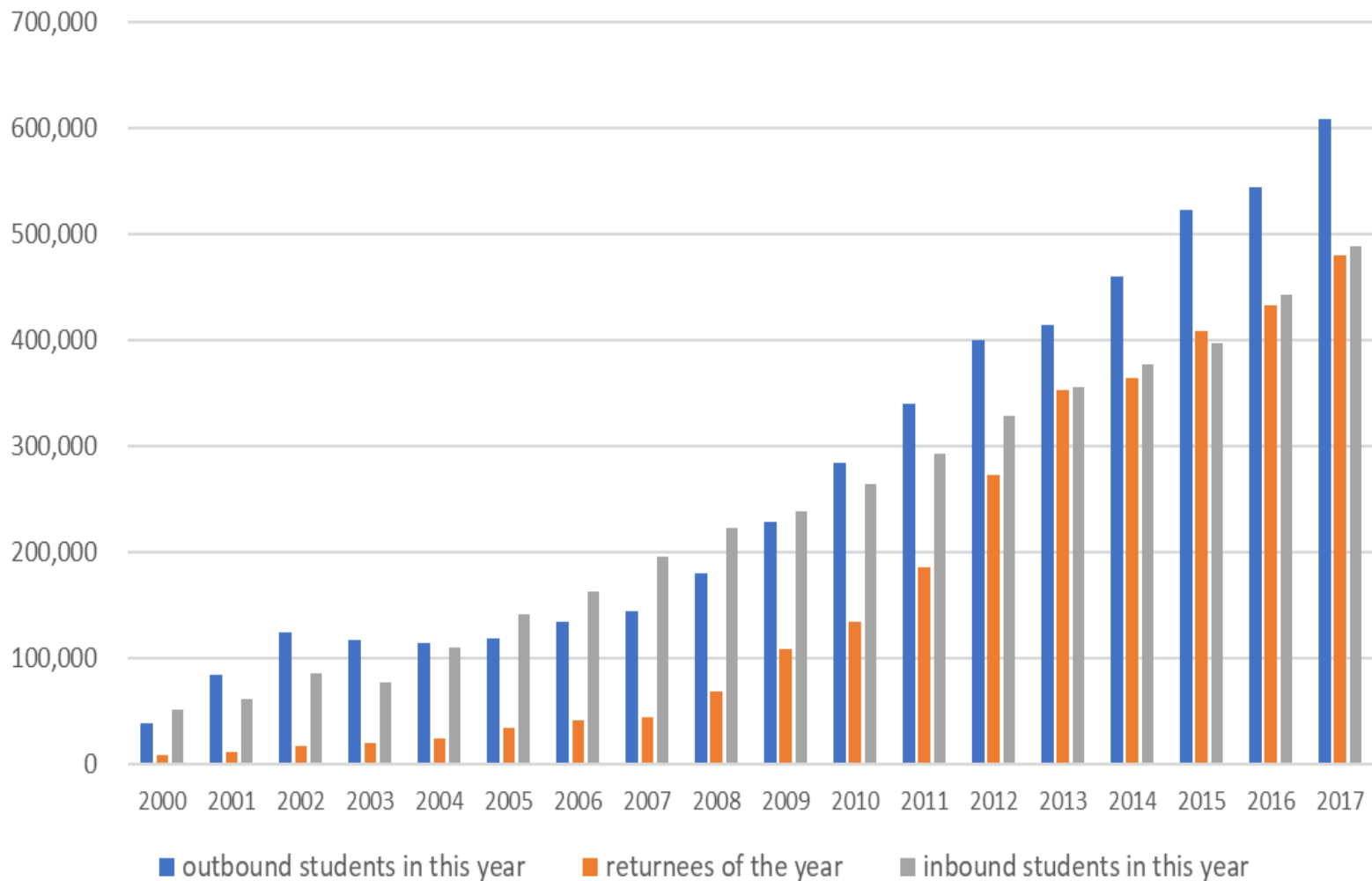
- United States – 28%
- United Kingdom – 11%
- Germany – 9%
- France – 7%
- Australia – 4%
- Japan – 3%
- Spain – 2%
- Belgium – 2%
- all others – 34%

2017

- United States – 24%
- United Kingdom – 11%
- China – 10%
- Australia – 7%
- France – 7%
- Canada – 7%
- Russia – 6%
- Germany – 6%
- all others – 23%

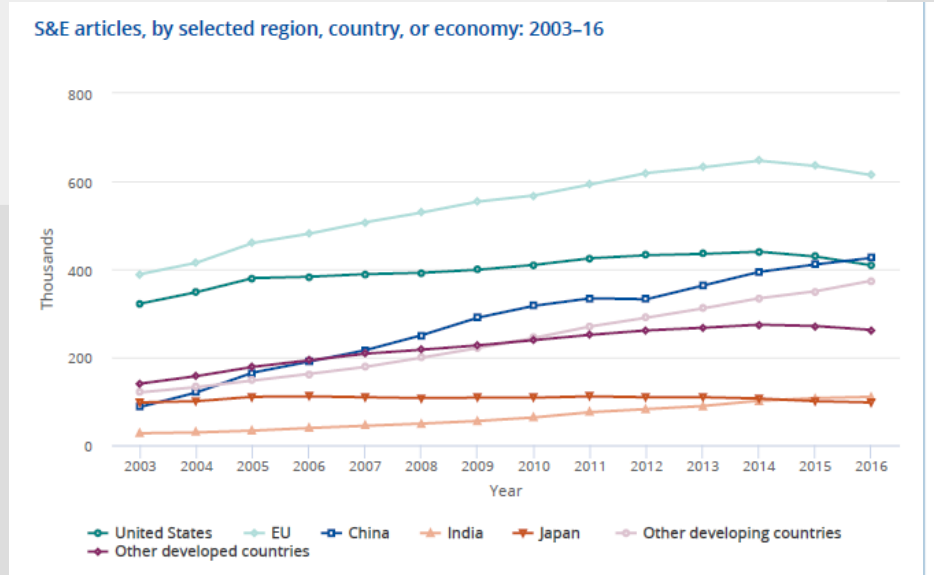
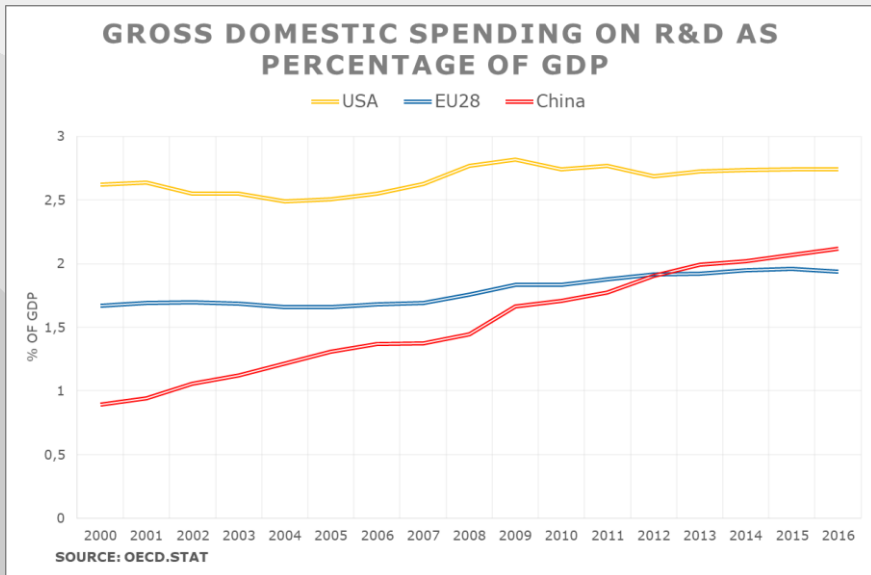
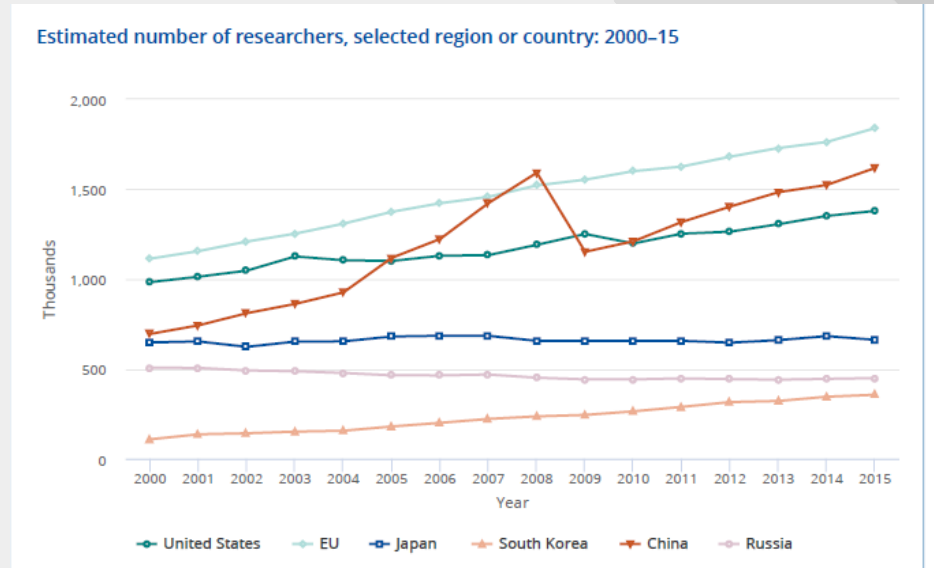
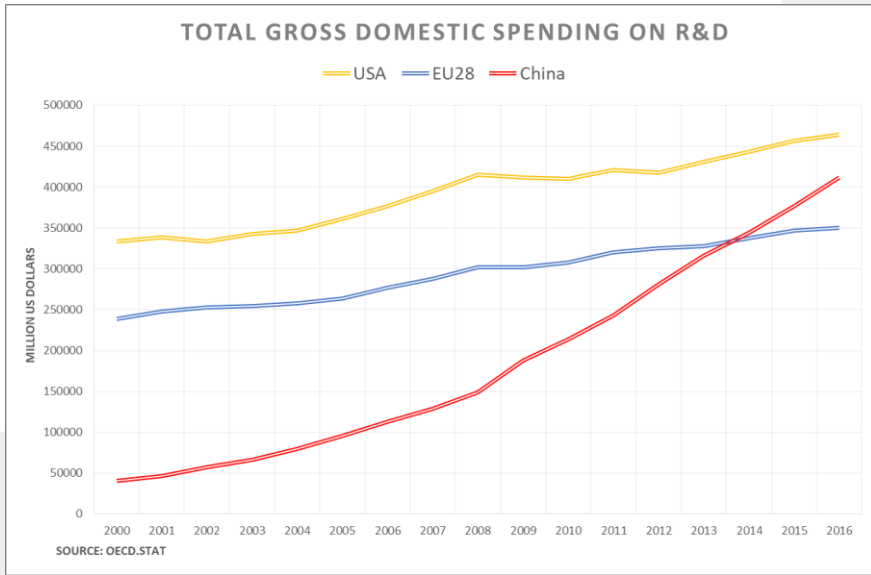
FIGURE 14 Host destinations of globally mobile students, 2001 & 2017 SOURCE: PROJECT ATLAS, 2017; UNESCO, 2017

The outbound/inbound students and returnees in China (2000-2017)

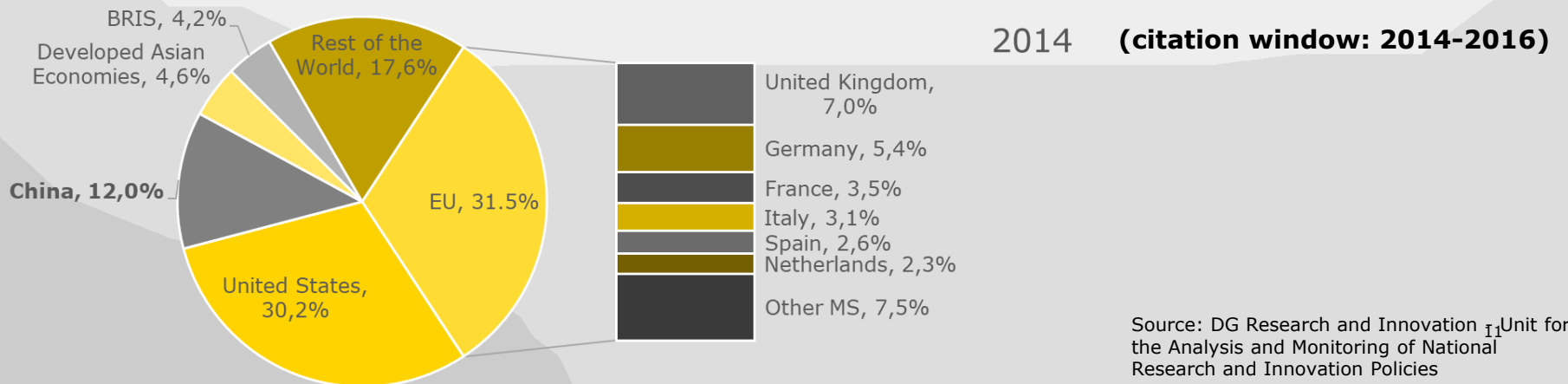
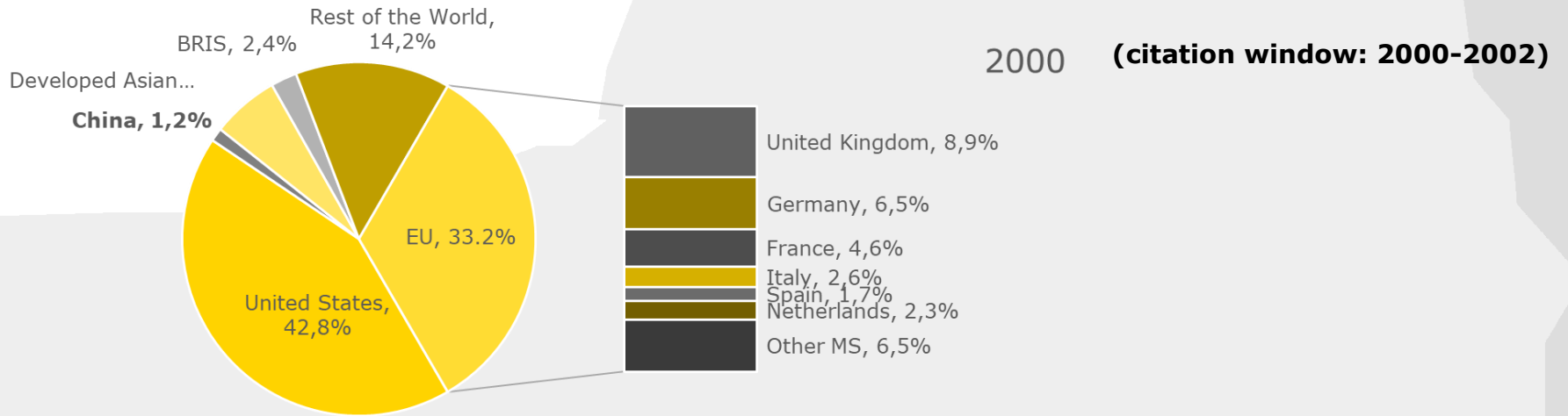


Source: MOE China; Centre for China and Globalization

R&D: spending, researchers and output in S&E



Shifts in the world share of top 10% highly cited scientific publications

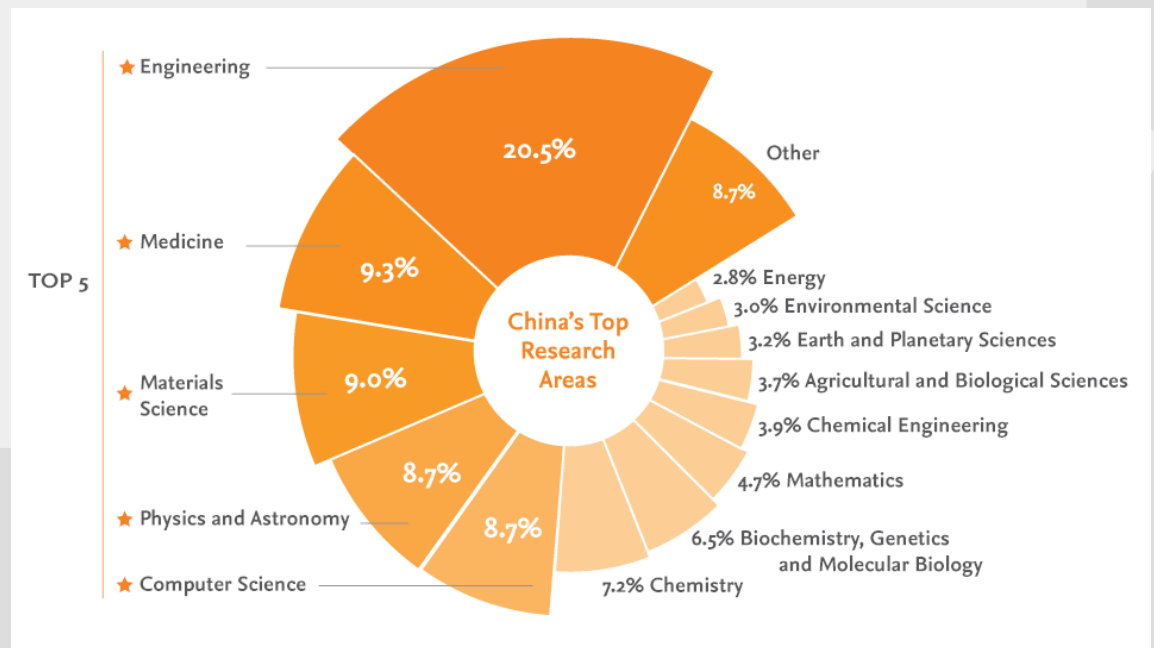


China's "**Double World-Class Project**" builds on the previous 211 and 985 projects and aims for China to have around **40 World-Class Universities** by mid-century and to generate significant **global impact**



Tsinghua 45, Peking 57,
Zhejiang 67 in ARWU 2018

China's Most Prolific Research Areas (2011-2016)



Source: <https://www.elsevier.com/research-intelligence/campaigns/onebeltonerod>

China's rise - STEM

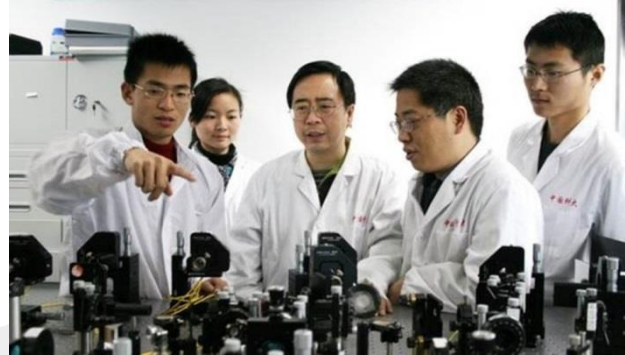


Table 1: Subject fields in which China holds number 1 position and $\geq 20\%$ of global top 50 (based on ARWU Academic Subjects Ranking 2017 and 2018)

Subject field	Number of institutions in top 50 2017 / 2018	Highest position 2017-2018
Instruments S&T	15 / 19	1 / 1
Transportation	-- / 12	-- / 1
Metallurgical engineering	15 / 11	1 / 1
Telecom engineering	11 / 11	1 / 1
Aerospace	-- / 10	-- / 1

Table 2: Subject fields in which China holds number 1 position or $\geq 20\%$ of global top 50 (based on ARWU Academic Subjects Ranking 2017 and 2018)

Subject field	Number of institutions in top 50 2017 / 2018	Highest position 2017 / 2018
Civil engineering	8 / 9	1 / 1
Remote sensing	7 / 8	1 / 1
Marine/ocean engineering	8 / 8	1 / 1
Mining	13 / 16	1 / 2
Mechanical engineering	10 / 13	8 / 2
Chemical engineering	10 / 13	4 / 3
Energy S&E	10 / 13	13 / 6
Nano S&E	14 / 11	6 / 6
Automation & control	-- / 12	-- / 4
Biomedical engineering	-- / 10	-- / 3
Biotech	-- / 10	-- / 5

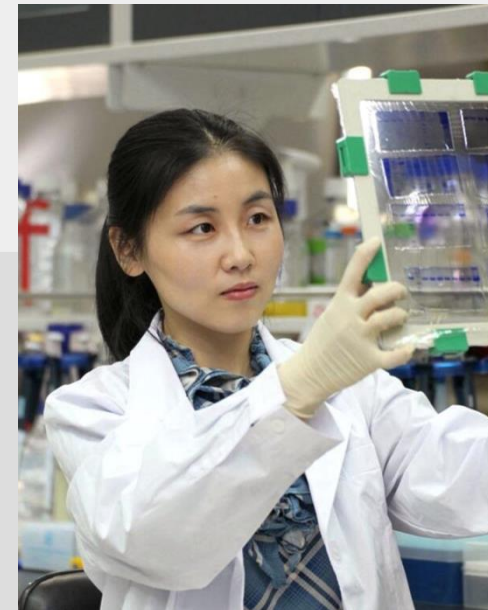
China's rise - STEM

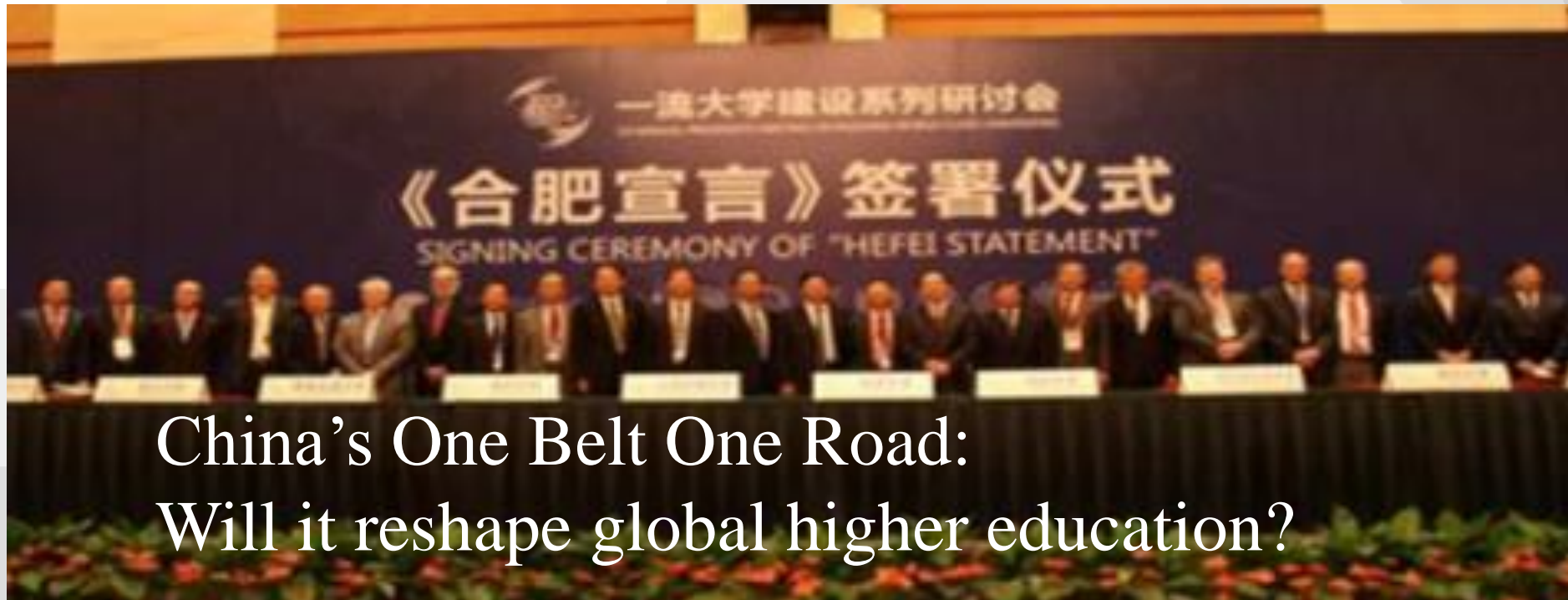
Table 3: scientific impact per field (based on Leiden ranking, CWTS 2017 and 2018)

Field	Impact (number of publications)		Impact (number of top 10% publications)		Impact (percentage of publications in top 10%)	
	Number of institutions in top 50 2017/2018	Highest position(s) 2017/2018	Number of institutions in top 50 2017/2018	Highest position(s) 2017/2018	Number of institutions in top 50 2017/2018	Highest position(s) 2017/2018
Math & Computer sciences	23/29	1-8/1-9	16/22	1/1-3	1/8	10/11
Physics & engineering	25/28	1-5/1-7	17/20	3/1	--/1	-/50
Life and earth sciences	--/12	--/4	--/6	--/16	--/2	--/18

Table 4: combining all high citation papers (top 10% of research field), in math and physical sciences, 2012-2015 (based on Leiden ranking, CWTS 2017)

World rank	University and system	High citation papers in Math, Computing, Physics and Engineering
1	Tsinghua University, China	1421
2	MIT, USA	1420
3	UC Berkeley, USA	1360
4	Nanyang Technological University, Singapore	1190
5	Stanford University, USA	1184
6	Zhejiang University, China	1113
7	Harvard University, USA	1008
8	National University Singapore	975
9	Cambridge University, UK	936
10	ETH Zurich, Switzerland	842
11	University of S&T, China	835
12	Shanghai Jiao Tong University, China	834

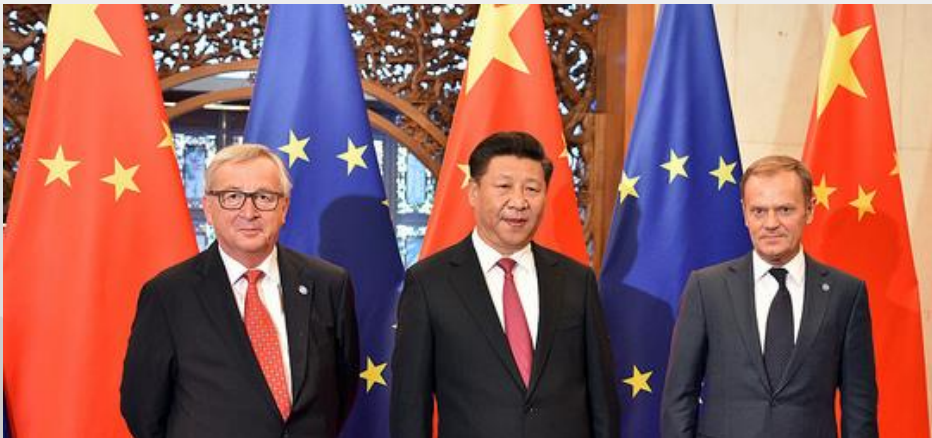




HEFEI STATEMENT (2013)
ON THE TEN CHARACTERISTICS OF CONTEMPORARY RESEARCH UNIVERSITIES
ANNOUNCED BY AAU, LERU, GO8 AND C9

Cooperation - Competition

- > 40 yrs of collaboration in HE: from individual mobility to strategic cooperation: High Level People-to-People Dialogue, EU programs open to China, Alliances, Roadmaps, Joint Programming, etc.
- The EU and China are engaged in almost one hundred dialogues and workshops per year



"The European Union regards China as one of its most important strategic partners". "In recent years, we have witnessed an ever deeper and broader relationship in almost every area"

(Jean-Claude Juncker and Donald Tusk, March 2018)

The evolving EU-China relationship



Cooperation and competition

Convergence and divergence

Persistent imbalance and STEM bias

Data access & protection, privacy, integrity, ethics

New paradigms for globalization and internationalization?

Figure X: H2020 researcher mobility per disciplinary fields (source EC, 2018 MSCA file)

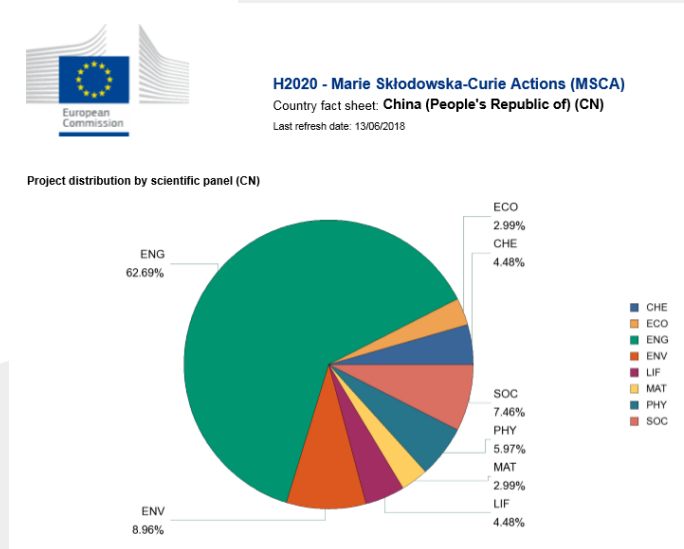
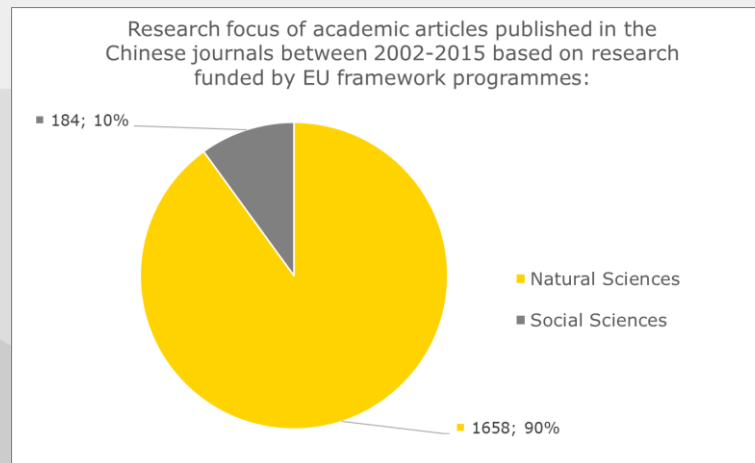


Figure X: Focus of publications in Chinese journals from EU-funded research (sourceⁱ)



How to deal with China?

Competencies of the EU in relevant domains

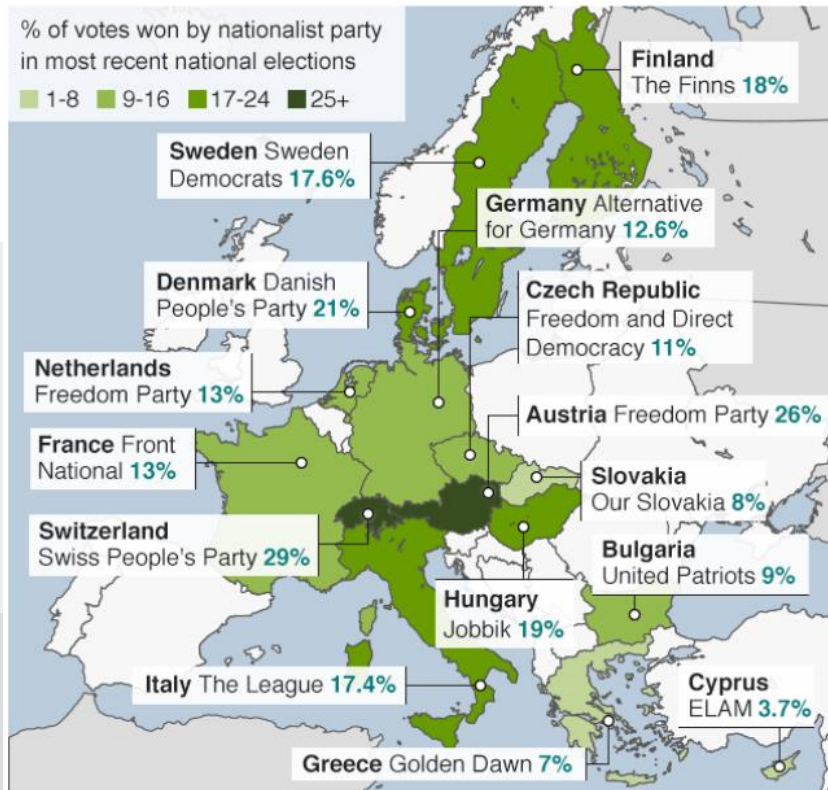


Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Aai0020>



Europe migrant crisis

Rise of nationalism in Europe



In many countries nationalists got higher scores in European Parliament elections and opinion polls

Last updated: September 2018

BBC

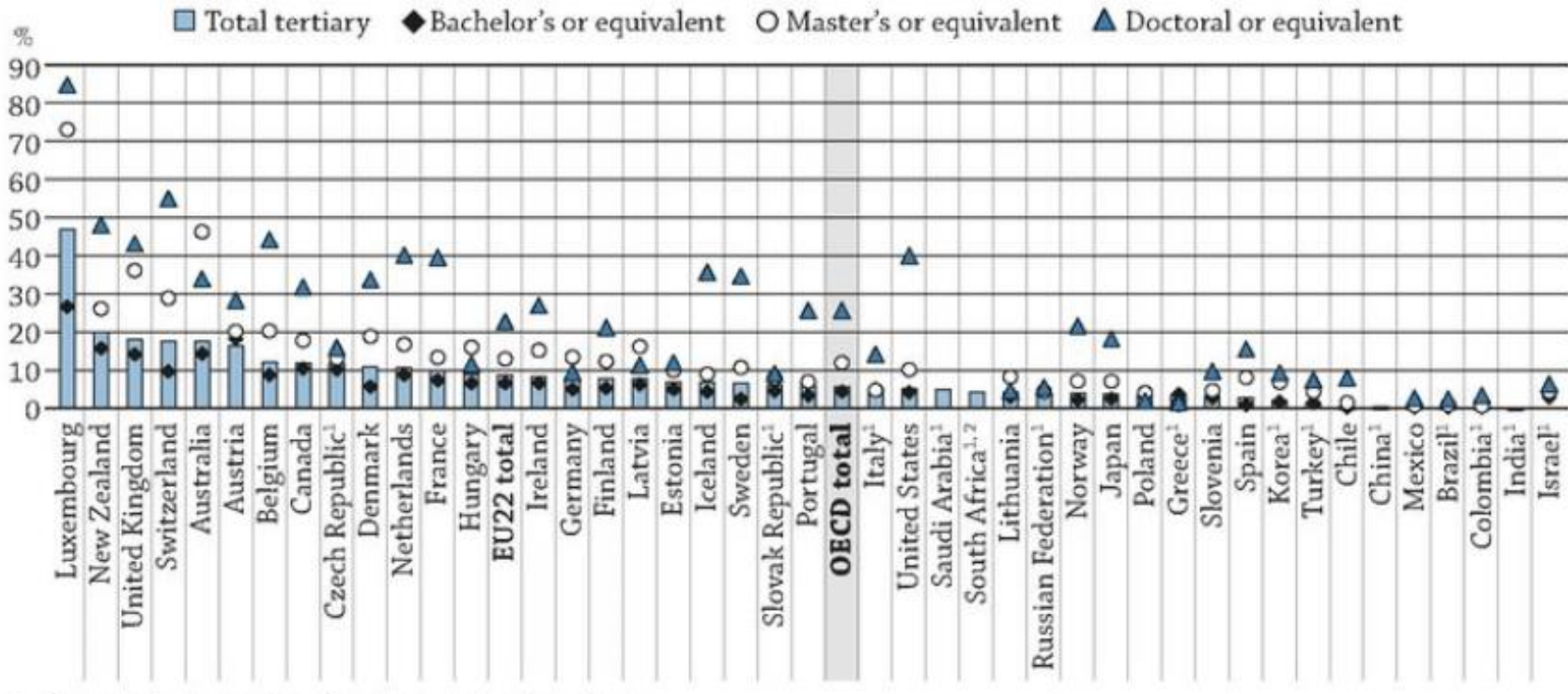
Across Europe, nationalist and far-right parties have made significant electoral gains.

Table 1: Selected scores on topics relevant to neo-nationalism discussion (source Eurobarometer 2018).

Indicator	EU \bar{x} 2018	EU \bar{x} 2015	3 countries with highest scores	3 countries with lowest scores
Trust in the EU	42%	32%	Lithuania 65% Denmark 60% Sweden 59%	Greece 26% United Kingdom 31% Czechia 32%
Overall positive image of EU	43%	34%	Ireland 64% Luxembourg 56% Bulgaria 56%	Greece 25% Czechia 28% Slovakia 33%
I feel like a EU citizen	71%	50%	Luxembourg 89% Germany 86% Ireland 85%	United Kingdom 58% Czechia 56% Greece 52%
Main concern facing the EU: immigration	40%	58%	Estonia 65% Malta 61% Slovenia & Czechia 58%	Romania 25% Portugal 30% United Kingdom 31%
Political priority with most support: free movement of EU citizens who can live, work, study and do business anywhere in the EU	83%	-	Latvia 96% Estonia and Lithuania 94%	Romania 69% Italy 72% United Kingdom 74%
Most positive result of the EU: free mobility of persons to live work or study anywhere in the EU	59%	25%		

Figure B6.1. Incoming student mobility in tertiary education, by level of education (2016)

International or foreign student enrolment as a percentage of total tertiary education



Source: OECD, Education at a Glance 2018

Higher education and globalization trilemma's combined

Higher education
trilemma



Globalisation
trilemma



Competencies of the EU in relevant domains



Source: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Aai0020>





Institutional autonomy and academic freedom in Europe

“While earlier assessments showed promising developments towards more autonomy in Europe, there is currently no distinguishable uniform trend.

The Old Continent faces [.....] rising populism, weakening solidarity and pressure on some of its most important values – all of which affect the ability of the higher education and research sectors in fulfilling their missions.

In this scenario, university autonomy and academic freedom are of particular concern, as there is a growing tendency for governments to interfere. We have recently seen concrete cases in countries in Europe

This is worrisome as autonomy and academic freedom are crucial to the well-functioning of universities”

(EUA, 2017).



—
Article 7 procedure for undermining democratic rules and being
“a clear risk of a serious breach of the values referred to in
Article 2 of the Treaty on the European Union:

“The Union is founded on the values of respect for human dignity, freedom, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities. These values are common to the Member States in a society in which pluralism, non-discrimination, tolerance, justice, solidarity and equality between women and men prevail.”

2018

EU Parliament adopts Recommendation on Academic Freedom

Reference to: Charter of Fundamental Rights of the European Union

Article 13

“The arts and scientific research shall be free of constraint”

“Academic freedom shall be respected”.

To become part of Copenhagen criteria for future accession to the EU



“Academic freedom or even the university cannot be taken for granted”.

Michael Ignatieff
President of CEU
2018

Internationalisation as a cosmopolitan project

"The risk that universities become "footloose from society as an academic jet set of international types who live in their own world" (Bovens, 2017)



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“If history has taught us anything, it is that out of conflict comes collaboration.

Brexit won't hold back science because the challenges the world faces are bigger than the fights between nations and it is in everyone's best interest to work together”.

Carel Stolker
President and Rector
Leiden University