

# Turkish Universities in ERA "Open to the World"

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## **ERA & International Cooperation**

- ERA is open to the world: International Cooperation is a transversal ERA Priority
  - "...take maximum advantage of the best research and innovation opportunities on a global basis" (ERA Roadmap, ERAC, 2015)
- ERA Roadmap Actions
  - Define National strategies for internationalisation
  - Better coordination through SFIC, data exchange on joint initiatives and further development of Roadmaps
  - Improve coordination with external policies of the EU





Tackling global societal challenges effectively

Participation in global value chains

Access to new and emerging markets

Access to talent and resources

Benefits of international cooperation

Strengthened position as a major global player



## Open to the World: why?

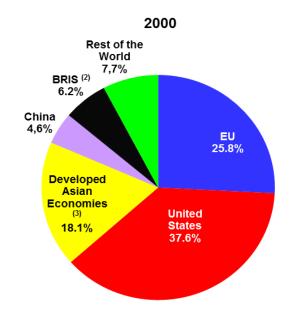
- Science is global and collaborative
  - Excellence breeds excellence
  - Access to infrastructures and data (Open Science)
- Value chains become international
- Global societal challenges require global cooperation
- Science for and in diplomacy

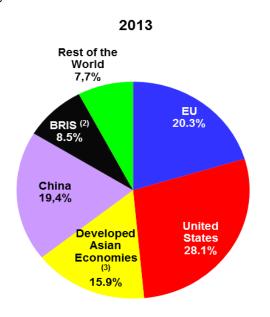




# International knowledge flows will become increasingly important in a multipolar global research and innovation landscape ...

#### **R&D** Investment



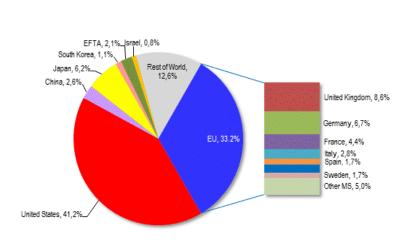


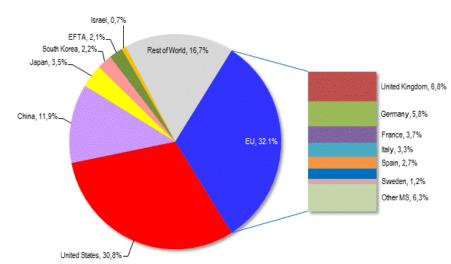


## ... and the rise of new scientific and technological powerhouses

#### World share of highly cited publications (1)







Source: DG Research and Innovation - Unit for the Analysis and Monitoring of National Research Policies

Data: Science-Metrix (Canada), based on Scopus database

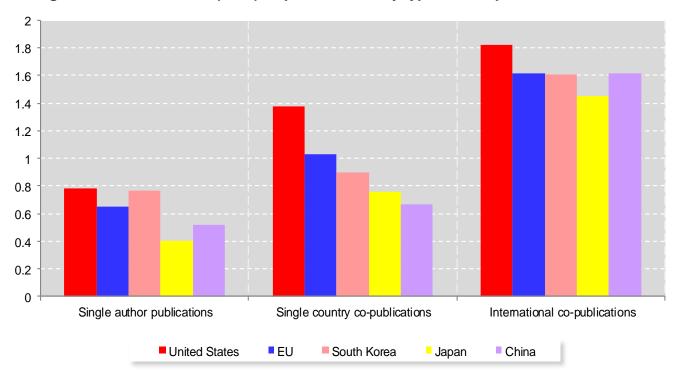
Note: (1) Fractional counting method.

- (2) Scientific publications 2000, citation window 2000-2003.
- (3) Scientific publications 2010, citation window 2010-2013.



### **Cooperation increases impact**

#### Average Relative Citations (ARC) of publications by type of co-operation, 2010



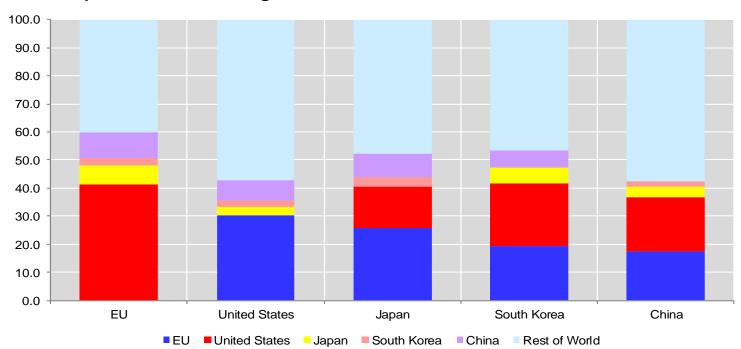
Source: DG Research and Innovation - Unit for the Analysis and Monitoring of National Research Policies

Data: Science-Metrix (Canada), based on Scopus database



## The EU is the leading research partner

#### Scientific publication with foreign co-authors, 2010-2014



Source: DG Research and Innovation - Unit for the Analysis and Monitoring of National Research Policies

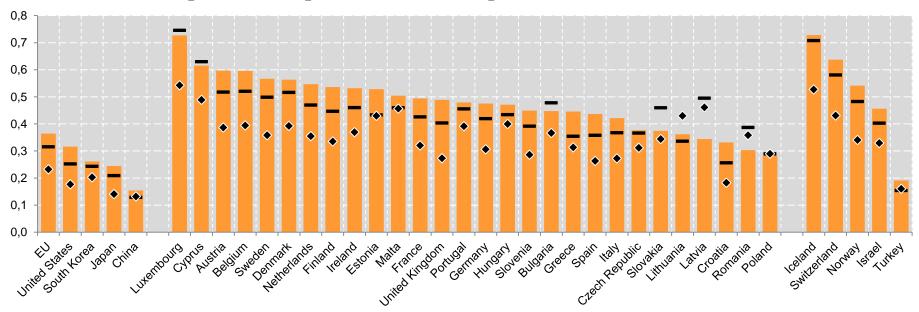
Data: SciVal (based on Scopus)

Note: Elements of estimation were involved in the compilation of the data.



## ... Europe is also increasingly opening up to scientific collaboration to third countries ...

#### International co-publications per total number of publications(1), 2000, 2007 and 2013



Source: DG Research and Innovation - Unit for the Analysis and Monitoring of National Research Policies

Data: Science-Metrix (Canada), based on Scopus database

Note: (1) Full counting metod.



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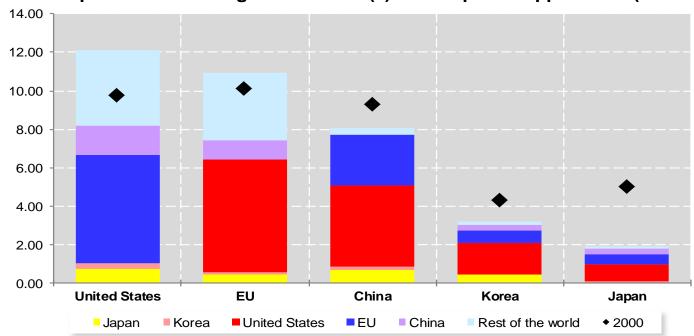
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#### International co-patents are increasing

Share of patents with foreign co-inventor(s) in total patent applications (WIPO PCT), 2000, 2012



Source: DG Research and Innovation - Unit for the Analysis and Monitoring of National Research Policies

Data: OECD



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## **Science Diplomacy**

- Use research cooperation to catalyse and improve international relations
  - in conflict areas and complex security environments
  - in free trade
- Ensure that the EU's external policy is based on scientific evidence and advice
  - E.g. in global challenges like climate change, energy, health, migration,...





## Open to the World: How? (1)

- Ensure researchers can access foreign know-how and resources
  - Mainstream international cooperation
  - Provide (co-)funding capability with key partners
  - Negotiate open access terms, interoperability (publications, data, infrastructures)
- Engage with multilateral initiatives to combat global challenges (GLoPID-R, GACD, GEO, IPCC...)
- Engage with global research infrastructures (global access, financing and governance)





## Open to the World: How? (2)

- Level playing field through common principles and fair framework conditions
  - Research integrity, standards, IPR, visas,...
- Synergise with external policies (security, trade, development,...): work across silos

Role of bilateral and multilateral dialogues and fora; national strategy; SFIC





## Strategic Forum on International Cooperation - SFIC

- Part of ERA governance
- Align and synergise policies & activities of Member States, Associated Countries and Commission
  - Discuss actions with international partner countries
  - Exchange of data on joint initiatives between MS/AC and third countries
  - Development of multi-annual Roadmaps for cooperation with strategic partners
- Turkey's representatives to SFIC: Ms Burcu GOGUS DOGAN and Ms Melike ERGÜN (Tübitak)



#### **Role of Universities**

- Provide the infrastructure for globally Open Science and innovation
  - Open access and open data policies; university data repository/cloud; certification
  - Communication services
  - Through local ecosystems
- Encourage mobility of students and staff in ERA and beyond: mobility breeds mobility
- Engage and contribute to national and international policy



#### **International Cooperation in Horizon 2020**

- Increase in numbers and budgets of WP 2016-17 topics specifically targeting international cooperation, compared to WP 2014-15
  - Also better visibility and guidance on the Participant Portal
  - Matching funding arranged with key partner countries

#### European Innovation Centres

 To connect and support European researchers and entrepreneurs in R&I leading countries globally

#### Service Facility

- In support of R&I international cooperation policy
- Awareness raising and training; support to NCPs; organisation of meetings; analysis and monitoring





#### For further information

- Participant Portal
   http://ec.europa.eu/research/participants/portal/desktop/en/home.html
- Helpdesk
   http://ec.europa.eu/research/enquiries
- Expert evaluators needed!
   http://ec.europa.eu/research/participants/portal/desktop/en/expert
   s/index.html
- Learn more about Horizon 2020 http://ec.europa.eu/horizon2020

#### Thank you for your attention!

