Enhancing and focusing EU international cooperation in research and innovation: a strategic approach

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Innovation requires

➡ Proximity to key users – increasingly found outside Europe!
➡ Cooperation with leading research and innovation environments – new hubs emerging outside North America, Europe, Japan (the Triad)
➡ Cooperation across disciplines
➡ Innovation focused on needs rather than driven mainly by technology

⇒ a global, outward-looking approach!
Knowledge and innovation: recent trends

- Global challenges
- New users of knowledge and innovation
- New producers of knowledge and innovation
- New networks and mechanisms (for innovation, for knowledge production and dissemination, for cooperation)
- Budgetary restrictions
Grand challenges require solutions and provide opportunity for growth

Global challenges require local and concrete solutions and global cooperation!!
Regions’ share of global R&D expenditure

Source: NSF S&E Indicators 2012
New users of innovation
New users…

…With different preferences…

…demand new products which require R&D cooperation and presence!

Source: The Economist

Source: en.wikipedia.org
New producers of knowledge and innovation...

...And new forms
New Innovation Alliances

- Brewing for a Better World: Anheuser Busch InBev Partners with GE to Increase Water and Energy Efficiency – in Central China

- Telefonica/Mozilla/ZTE/TCL cooperate to launch new smartphone with open source operating system – in Brazil
Implications of the new geography for Europe

» Europe’s importance is declining (scientifically and economically)!
» Demand, needs and innovation drivers are increasingly outside Europe
» Europe’s linkages with the new global knowledge and innovation hubs are weak (part. research cooperation and SMEs)
» Large firms are successful globally but are they creating jobs in Europe?
» Shortage of human capital and missing out on global brain circulation?
» Addressing global challenges requires global cooperation!
» Suitability of existing instruments (eg Framework Program and ERC)?
» How to achieve critical mass in the face of diverging Member State interests as regards international cooperation and science diplomacy?
Important for internationalization strategies

- Level of economic development no guarantor or exclusive base of global research excellence or lead markets!
- Lead users and pockets of research excellence or world class innovation increasingly found in ‘developing countries’
Expert Group

- Appointed by DG Research to provide recommendations on how to strengthen international cooperation in research and innovation
- Specific focus on innovation and industry
- Delivered report in October
Promoting international STI cooperation: importance of policy at all levels!
Priorities for international cooperation

Intelligence, benchmarking, indicators

Bilateral agreements (eg matching fund based instruments through joint or coordinated calls)

Stakeholder consultation and buy-in

S&T policy support projects (e.g. policy dialogue facilitation, exchange and learning fora)

SFIC

Multilateral initiatives (e.g. intl. ERA-NETs, JPI, large scale research infrastructures)

Priorities in Framework Programs and other programs (Horizon 2020 and Innovation Union)

From this…

…to this…

Conducive framework and regulatory measures to reduce transaction costs of intl. cooperation
  - General opening measures
  - Targeted instruments (eg bilateral/multilateral agreements and programs)

EU Policies

Stakeholder consultation and buy-in

Intelligence, benchmarking, indicators, evaluation
Expert Group: key recommendations

1. Europe (and the world!) needs international cooperation in research and innovation (perhaps more than ever before!)

2. A strategy with a focus on European attractiveness

3. Integrate the international perspective more fully into ’regular’ EU programmes; Prioritization of international collaboration should follow priorities of EU’s core research and innovation programmes

4. Theme- and problem-oriented prioritization rather than geographic; Grand Challenges as a clear prioritization tool also in the international dimension (geographical approach should be the core of an implementation strategy)

5. Make Horizon 2020 truly open and attractive to the best and brightest in the world

6. Strengthen framework conditions for and remove barriers to international cooperation (eg mobility)
Expert Group: key recommendations

6. Design **targeted initiatives for strengthening cooperation** in selected (prioritized) areas: can be multilateral, bilateral, unilateral. Key criteria should be achieving benefits for stakeholders.

7. Ensure **strong focus on firms and innovation**; requires new/different approach because of fundamental differences in drivers of international cooperation between academia and industry and between research and innovation.

8. Exploit **variable geometry**, with flexible arrangements (within EU and with countries outside EU) including multilateral platforms for strategic cooperation. Build on lead initiatives by Member States.

9. Strengthen **evidence- or analysis-based decision-making**, including forward looking analysis about likely trends and future changes and systematic exchange of experiences.
Overall goal: A Europe committed, open and attractive
Much of this is addressed in the Commission’s strategic framework!

- International cooperation in research and innovation is not an end in itself. It is a means for the Union to achieve its higher level objectives, in particular by:
  - strengthening the Union’s excellence and attractiveness in research and innovation and its economic and industrial competitiveness;
  - tackling global societal challenges, such as food and energy security and climate change;
  - supporting the Union’s external policies.

- Importance of mix of bottom-up and top-down, of general opening and targeted activities

- Importance of integrating the international perspective better into key programs (both at national and EU level)
What more can be done?

» Make Europe more attractive to global talent and R&D – look at framework conditions eg for mobility!!
» Indicators and evaluation of initiatives
» Strengthen stakeholder involvement (part of industry)
» Strengthen global linkages (research coop, SMEs, mobility)
» Consider the use of test beds and demonstration facilities to strengthen attractiveness, test products and produces for addressing global challenges and facilitate internationalization esp for SMEs?
» Strengthen coordination among Directorate-Generals of international cooperation in research and innovation
» Strengthen global governance of science, technology and innovation cooperation: potential for Europe to play key role
» Use public procurement (and test beds and demonstration facilities) to stimulate the development of concrete solutions to societal challenges
» KEEP EUROPE OPEN AND ATTRACTIVE!
Thank you!

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