

## INNO-Views Policy Workshop

# Emerging Economies (BRIC\* Countries) and Innovation

*Implications for innovation policies in Europe*

Brussels

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(\*Brazil, Russia, India and China)

***Workshop Output Paper  
Conclusions***

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## Introduction

The 8<sup>th</sup> INNO-Views workshop on “Emerging Economies (BRIC Countries) and Innovation: Implications for innovation policies in Europe” brought together almost 35 leading experts and policy makers on July 9<sup>th</sup> and 10<sup>th</sup> in Brussels. The workshop was hosted by the representation of the State of Baden-Württemberg to the EU.

The invited experts both from European and BRIC countries discussed the opportunities and challenges of innovation collaboration between Europe and the BRIC countries. With view of the changing geography of innovation and the global challenges, Peter Dröll of DG Enterprise & Industry emphasised in his introduction the importance for Europe to open up its innovation policy strategy for international cooperation in particular with emerging economies.

The BRIC country experts Xielin Liu (Chinese Academy of Sciences), Venni Venkata Krishna (Jawaharlal Nehru University, India / National University of Singapore), Carlos H. de Brito Cruz (FAPESP, Brazil) as well as Oleg Luksha and Anton Yanovski (Russian Technology Transfer Network) presented the specific characteristics of the individual innovation systems of their countries. One main conclusion was that bilateral collaboration approaches have to take into account different needs, strengths and cultures of the countries as well as of sub-regions: “There is not one Brazil, but many”, as Carlos H. de Brito stated.

The workshop was organised in four sessions:

- Session 1: Innovation collaboration beyond Europe - Outlining relevant policy areas
- Session 2: Challenges and opportunities with specific BRIC economies
- Session 3: Approaches and practices in innovation collaboration with BRIC economies
- Session 4: Implications for European innovation policy

## Rationale for European innovation policy with BRICs

The **geography of innovation** is changing due to growing innovation capacities of BRIC countries: BRIC countries become increasingly important sources and drivers of knowledge creation and innovation and are creating also new demands. European co-operation with BRIC countries is no longer driven only by cheap (skilled) labour force and a huge market, but also as technological knowledge source and because of human resources.

European innovation policy at present has no **clear common strategy** to address the opportunities and challenges arising from collaboration with BRIC economies. Whereas R&D policy at European, national and regional level has already a longer tradition with view of internationalisation, only few approaches to facilitate and support international innovation collaboration exist; in particular a clear strategy at European level is missing.

The most important **rationale for cooperation** at both sides is to improve competitiveness. In detail the motivations of Europe for international collaboration can be classified as follows:

- Competitiveness of EU: Increasing competitiveness by global knowledge sourcing and adapting to future markets with new demands. The recognition of BRIC countries as 'lead markets' for some goods and services might build a reasonable framework for discourses on increasing EU competitiveness through international collaboration.
- Demographic challenges: The decline of work force in EU is contrasted by a huge potential of young work force in BRIC countries
- Addressing global challenges: The effect and the driving forces of global challenges like climate change or limited resources are global and need to be tackled at global level.
- Development policy and foreign policy: Innovation collaboration can contribute to promote political cooperation, building mutual trust, understanding and capacities.

Innovation strategies moving from "techno-blocism" to globally open systems have to take into account also **challenges and threats** from globalisation: 'Regions don't leave Sweden': Increasingly global activities of companies and building international strategic partnerships may not only be seen as danger for the regions, but as one mean to strengthen both companies' and regional competitiveness.

Representatives from the BRIC countries called for cooperation on a par with Europe. Because collaboration is reciprocal, mutual benefits for Europe as well as for BRIC countries would be essential and opportunities offered by Europe for BRIC countries need to become more visible. In general, the focus of discussion should build more on **opportunities** ("let's happen") and matching different skills, competencies and capacities but not too much on the "balance of interest".

## Specific priority areas/ themes and objectives

*'There is not one Brazil'* but many, therefore instead of establishing generic solutions for innovation collaboration with BRIC countries **definition of priorities** at regional and at specific markets and technological domains are required. Several speakers representing governments, academia and industry explicitly or inherently referred to their countries as 'lead markets' in certain domains with the power to set standards or identify the 'dominant designs'. Differentiated solutions would be essential to use and make available most effectively the potential in the related countries. This might imply focussing collaboration for innovation both on regions (for example via regional clusters) instead of EC or national levels and specific knowledge and market domains (in contrast to a market access to fast growing economies).

One main focus of co-operation should be on addressing the “**Grand Challenges**” including global warming, limited resources (water), increasing material demand and sustainability, urbanisation and transport, as all participants agreed. At present joint priorities for cooperation in innovation along these challenges are missing. Sustainability technologies represent a huge fast growing market and trigger system innovations with high dynamics. Priority setting should aim

- to develop bilateral strategies between EC and BRIC countries,
- to enhance technical capabilities (e.g. in renewables, environmental technologies, materials, pharmaceuticals), but to address also “grass-root level innovations” and
- to create win-win situations in areas, where there is a considerable interest for both parties.

However because of the global nature of the challenges collaboration cannot be established to the detriment of smaller developing countries. Multilateral as well as bilateral cooperation should be established depending on the topic addressed and the depth of cooperation (in-depth cooperation needs bilateral instruments). Most important would be to identify the most relevant partners and stakeholders both to develop strategies and for collaboration at operational level.

“**Bridging the knowledge gap**” between BRIC countries and increasing the visibility at both sides would be essential for improved cooperation. Innovation collaboration is related to exploring, creativity, co-learning and listening to ideas in order to identify new demands and markets. Effective collaboration has therefore to build on a common understanding, awareness and trust. This includes understanding of the different needs and cultures, but also of the innovation systems and innovation approaches (including relevant actors) at both sides.

## Instruments and measures

The European Commission should not enter the operative cooperation level which would be better allocated to the regional or grassroots level (driven by opportunities and needs). EC should take a role as **facilitator** and coordinator, create **visibility**, **promote** Europe as an attractive market and knowledge source for BRIC activities (including investments) and create **supportive framework conditions** also within Europe. Concrete measures discussed by participants included to establish **bilateral dialogues** of EC with individual BRIC countries and **European Business Innovation Centers**.

In general a need for **better horizontal as well as vertical coordination of actions** has to be stated. Most important for Europe would be to gain a strong unique position in order to increase the visibility at international level and contribute to improved promotion of European standards and ethical principles for the performance of science. Integration of policies includes to foster a closer co-operation of Member States as well as integration and coordination of different policy areas affected, like foreign policy, economic policy, labour policy.

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At EC and national level a variety of **programmes** to support R&D collaboration exist, which partially open up for international co-operation (e.g. FP7, Inco). Fewer examples for innovation support measures focusing on international collaboration can be found, but nevertheless a range of promising examples of funding measures at MS level and multilateral level (e.g. Eureka) exist including also multi-stakeholder (PPP) projects. Expanding the ERA concept to better cover innovation issues (“EIRA”) and the cooperation with BRIC countries and analysing which of the existing instruments could or should be opened to BRIC countries, like the CIP programme, was recommended.

To increase the **visibility** and raise awareness of the attractiveness of European HEIs, research institutions and SMEs for BRIC and other developing countries would need improved promotion and better communication activities (e.g. via European innovation centers in BRIC countries, networks of excellence or technology platforms). It would be important for Europe to recognise and use the scientific and innovation potential of BRIC countries, therefore also an increased visibility of BRIC countries would be needed.

Moreover **framework conditions** play an important role to facilitate or hinder innovation collaboration internationally but also within Europe. A dialogue would be needed to develop a common understanding and harmonize framework conditions where appropriate. Topics to be addressed include: IPR, social and technical standards, regulation, but also demand-led policy, public procurement, education, entrepreneurship or culture would be important. Moreover making Europe an attractive place to innovate (not only focusing on R&D) and to live would help to attract companies and skilled work-force from emerging countries in order to foster and strengthen innovation cooperation. Framework conditions should aim to enable transnational mobility of workforce and transnational cooperation between companies, R&D institutions and other partners. This includes the removal of administrative barriers for co-operation between BRIC countries and Europe but also within Europe (e.g. tax system, IPR, employment rules). Participants mentioned cutting red tape in administration (e.g. Visa facilitation) as an important mean to effectively facilitate international cooperation.

**Bilateral dialogues** (EU – Russia, EU - China etc.) are seen as important mean to develop joint collaboration strategies as well as to build trust and understanding. This dialogue should involve a broad set of stakeholders (participatory process) instead of being a top-down process.

Establishing (joint) **European Business Innovation Centers** in BRIC countries with a focus on ‘lead markets’ could provide direct support for innovation collaboration and increase awareness of the growing market power at European companies. The European Business Innovation Centres go far beyond a generalised facilitation of market access and technology transfer. They shall aim at supporting companies to adapt and test design in the lead market; at supporting researchers to valorise their knowledge and acquire new knowledge; and at supporting industrial associations and involve in formal and informal standard setting. Furthermore the centres shall act as major sites for innovation policy related dialogues with the country.

Establishing Innovation Centers should be a two-way model, i.e. there should be the possibility to develop Innovation Centers in Europe for BRIC countries and their industry as

well. Building a network of such national/regional innovation centers would contribute to increase effectiveness of collaboration and support the dialogue. It should be explored whether links of such a network to EEN would be useful and how they could be managed.

With view of policy support measures participants mentioned the following ideas:

- Existing approaches to address innovation collaboration with BRIC countries should be explored and further developed. Beside R&D, topics like commercialisation, venture capital, cluster support etc. need to be addressed. International business support should in particular focus on IPR and licensing, but also on the development and implementation of new innovation models like user driven innovation.
- Existing networks like the EEN in the field of transnational technology and knowledge transfer could be used as potential facilitators to bring people together.
- Living Labs provide great value for validating technology advancements in an environment that does not allow to simply extrapolate from state of the art (European) technology. FP7 Living Lab Networks should therefore aim at increasing the use of Living Labs as a methodology in Third countries to guide the design and development of appropriate and relevant technologies (in Europe) for deployment in emerging economies.
- Costs related to internationalisation should be seen as an investment to increase competitiveness. In this context, incentives could play a role to lower costs and foster collaboration.
- In order to increase competitiveness and foster competitive regions, let them compete and invest in the “best”.
- Programmes that seek missing/ complementary competencies would help to foster cooperation. A common platform for matching competencies and opportunities should be discussed.
- The mobility of competence would be important (“brain circulation”). This includes not only programmes for students, but also establishing exchange programmes for employees.
- The shortage of highly skilled work force and the need for people able for cross-cooperation needs training and education programmes including the cultural dimension and intercultural communication. Existing programmes and approaches (e.g. ERASMUS) should be used.
- Selecting flagship projects can be used to raise awareness and interest and to increase visibility, but they could also be used as test beds for new form#s of cooperation that can be enlarged.
- Most important would be measures allowing people to meet (dismantle administrative mobility barriers including e.g. problems to get visa) and to organise matchmaking of interests.

- Open innovation environments allow flexible, dynamic and accelerated commercialization of research results but require joint IP regulations that are of great importance in particular for private companies.
- Much of the visible collaboration with BRIC countries is driven by MNEs, direct support measures should therefore focus on collaboration opportunities for SMEs.
- The appropriateness of dedicated calls to BRIC countries needs to be analysed (e.g. living labs, co-innovation).
- Measurement of impact of measures should be fostered in order to improve effectiveness.

## Next steps

The following activities have been recommended as first steps towards a common innovation collaboration strategy of EC with BRIC countries:

- To set up the policy dialogue in order to define mutual interest, priorities, etc involving all stakeholders in a participatory process. Listening to the European industry, their needs and views would be essential for this dialogue. Main objective would be to develop bilateral innovation strategies with individual BRIC countries (joint priority setting) to provide an appropriate framework for collaboration. Most important would be in a first step to find a common language and build mutual trust.
- Promotion measures to increase the visibility and raise awareness of the attractiveness of European HEIs, research institutions and SMEs for BRIC and other developing countries. European Business Innovation Centers in BRIC countries could help to increase visibility and additionally support European companies, in particular SMEs to get access to global knowledge sources and new markets
- Critical framework conditions need to be addressed in appropriate fora, in particular regulation, IPR and social as well as technical standards both between BRIC countries and EC, but also within EC.
- Launching a study to collect the current innovation collaboration activities with BRICs in order to develop common and most effective approaches and a strategy to make most efficient use of existing approaches.

### **INNO-Views**

*INNO-Views policy workshops establish a dialogue between public authorities, analysts, industry and academia to explore new or better innovation policy instruments for Europe. The workshops have the objective to explore innovation themes related to actual and forthcoming needs of European innovation policies. On average, 4 workshops are organised per year. The workshops bring together 30-40 relevant professionals and are organised on the basis of personal invitations only. Workshop results are published on the PRO INNO Europe website (<http://www.proinno-europe.eu>).*

*Any requests, recommendations and suggestions of themes, experts and locations for further workshops are welcome and should be directly addressed to INNO-Views:*

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