Opportunities for Science & Technology Cooperation between the European Union and Russia

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EU-Russia S&T cooperation: Steering bodies
Policy & scientific dialogue “top down”

- Permanent Partnership Council (PPC – ministerial level), four “common spaces” + road maps, one on Research, Education and Culture.
- Joint EU-Russia S&T Cooperation Committee (S&T Agreement, EC Director-General level)
- 12 Joint EU-Russia Thematic Working Groups in priority areas (EC Directorate level)
10 Joint EU-Russia Thematic Research Working Groups
(under S&T Agreement)

- Health
- Food, Agriculture, Biotechnologies
- Information & Communications Technologies
- Nanotechnologies & New Materials
- Non-nuclear Energy
- Environment
- Aeronautics
- e-Infrastructures

New since July 2010:
- Research Infrastructures
- Mobility / Marie-Curie
Russia in the EU Framework Programmes for RTD

Framework Programme 6: 2002-2006

- Russia was the most successful “third-country”*: Scientists participate in 330 projects, incl. 60 Marie Curie fellowships, worth \( \sim \) € 2.8 billion

- Total EC contribution to Russian participants was \( \sim \) € 120 million (including INTAS)

* Third country = neither EU Member State nor country associated with FP
Evaluation of Russian Participation in FP7: Applications Submitted and Retained Cooperation, Capacities and Euratom Programmes
Russia in the EU Framework Programmes for RTD

Framework Programme 7: 2007 – 2013

By 2010 (programme mid-term):

- Overall, Russia continues to be the most active "third country"

- Russian scientists participate in ~300 projects, receiving > € 50 million

- But: compared with FP6 proportionally lower EC contribution due to Russian co-funding of coordinated calls for proposals
EU - Russia S&T Cooperation
Co-funded Coordinated Calls for
Proposals in 7 Thematic Areas

➔ 2007-2008: Energy and Food-Agriculture-Biotechnology


➔ 2009-2010: Aeronautics

➔ 2010-2011: ICT, Nano-technologies & New Materials
FP7 projects in support to enhancing EU-Russia S&T cooperation

- Bilateral S&T Cooperation partnerships: ACCESSRU & BILAT-RUS
- Coordination of national policies & funding programmes: ERA-Net.RUS
- Bi-regional coordination of S&T Cooperation: IncoNet Eastern Europe & Central Asia (EECA)
- Transnational cooperation among National Contact Points (NCP) for international cooperation: INCONTACT – One World
EU-RU S&T cooperation...

...also extends to **related areas** such as...

**Higher Education:**
- Russia’s participation in the “Bologna process”
- *Erasmus Mundus* programme
- *Tempus* programme

**Space (research):**

*European Commission* - *European Space Agency (ESA)* - *Roscosmos*
...EU-RU S&T cooperation

...and also includes Russia’s active participation in major European research infrastructures and facilities such as...

➔ **CERN** - European Organisation for Nuclear Research

➔ **XFEL** - European X-ray Free Electron Laser

➔ **FAIR** - Facility for Antiproton & Ion Research

➔ **GLORIAD** - Global Ring Network for Advanced Applications Development

➔ **GÉANT** - European Data Network for Research & Education

...
EU-Russian S&T web portal as central gateway to S&T cooperation

http://www.st-gaterus.eu
European R&D Framework Programmes (FPs)

FP is the financial instrument for the EU research strategy

- Largest publicly funded competitive R&D programme worldwide (annual budget in FP7 = € 7.2 billion)
- Basic rule of trans-national collaboration
- Thematic programmes in all technology areas
- Special programmes for researchers’ mobility, research infrastructures, SMEs, capacity building
- A defined budget for a defined number of years and a set of priorities for scientific research
- A set of strategies and tools to implement them
Role of the European Framework Programmes for RTD

Objective: to strengthen the S&T basis, to increase the competitiveness of industry and to raise the international standing of Europe

By bringing down barriers

- **between countries:**
  - multinational consortia
  - researchers from any country in the world can participate
  - coordination among national funding programmes

- **between different types of organizations:**
  universities, research centres, SMEs, large companies, etc.

- **between disciplines:** increased focus on translational research

- **and encourage mobility:** Marie Curie fellowships available for researchers and for host institutes
International Cooperation in FP7

3 different avenues:

1. All activities open for International Cooperation
   - International Cooperation Partner Countries (ICPCs) can participate in projects and receive EC funding
   - Industrialised countries may be funded if their participation is seen as essential for the project or if provided for in the call
   - Minimum number of participants: 3 from MS/AC

2. Specific International Cooperation Actions
   - Address specific issues that partner countries face or have a global character, on the basis of mutual interest and benefit
   - Minimum number of participants: 2+2 (2 from MS/AC + 2 from ICPCs – in Russia = 2 regions / Oblasts)

3. Bilateral agreements for targeted co-funding
   - Individual agreements with specific countries e.g. Russia
FP7 2007 –2013
Specific Programmes

- **Cooperation** – Collaborative research
- **Ideas** – Frontier Research
- **People** – Marie Curie Actions
- **Capacities** – Research Capacity

+ JRC non-nuclear research
+ JRC nuclear research
FP7 funding (2007-2013)

Collaborative research
- 10 thematic areas

Frontier Research
- ERC

Marie Curie Actions

Research Capacity

Cooperation: €32.4

Ideas: €7.5

People: €4.7

Capacities: €4.1

Euratom: €2.7

Nuclear research

Evolution of annual budget (1984-2013)

Framework programme budget (1984-2013)

Total EC budget: €50,521
Timeframe for FP7 projects

- Official duration of FP7 2007-2013
- Projects resulting from FP7 calls operating
- Results from FP7 projects in use

First calls: 2007
First projects start: 2008
Last projects start: 2011
Last projects end: 2013
**FP7 “Cooperation”**

**Thematic Priorities:**

1. Health
2. Food, agriculture & biotechnology
3. Information & communication technologies
4. Nanotechnologies & materials
5. Energy
6. Environment
7. Transport
8. Socio-economic sciences

<table>
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<th>Thematic Priority</th>
<th>Billion Euro</th>
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<td>Health</td>
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<td>Security &amp; Space</td>
<td>2,9</td>
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<tr>
<td><strong>Σ</strong></td>
<td><strong>32,3</strong></td>
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The EC currently manages only about 6% of total public R&D investment in the EU

EU countries invest about 2% of GDP in research
FP7 “Ideas” – European Research Council (ERC)

- To support investigator-driven frontier research over all areas of research
- By individual teams
- Excellence as sole criterion
- Autonomous scientific governance
- Simple, user-friendly delivery

Team Leader (“Principal Investigator”) assembles his/her research group; freedom to choose the research topic. Individual teams to consist of researchers without “artificial” administrative constraints; thus members may be drawn from one or several legal entities, from within or across national boundaries, including 3rd countries
FP7 “People”

Marie Curie Actions - Fellowships, Grants, Awards

- **Initial training (~40% budget)**  
  ➔ Initial Training Networks (ITN)*

- **Life-long training and career development (~25-30% budget)**  
  ➔ Intra-European Fellowships (IEF)/ Career Integration Grants (CIG)  
  ➔ Co-funding of regional/national/international programmes (COFUND)

- **Industry dimension (~5-10% budget)**  
  ➔ Industry-Academia Partnerships and Pathways (IAPP)*

- **International dimension (~25% budget)**  
  ➔ International Outgoing & Incoming Fellowships (IOF & IIF)  
  ➔ International Staff Exchange Scheme (IRSES)

- **Policy support actions (~1% budget)**  
  ➔ Mobility and career enhancement actions

* Open to third-country nationals
FP7 “Capacities”

- Research infrastructures
- Research for the benefit of SMEs
- Regions of Knowledge
- Research Potential
- Science in Society
- Coherent development of policies
- Activities of International Cooperation
EU-Russia Partnership for Modernisation

- Priority 3: « Enhancing cooperation in innovation, research and development, and space ». 

- Work plan: (i) participation of parties in Russian and European scientific programmes, (ii) global research infrastructures, (iii) joint fundamental research programmes, (iv) nuclear research.

- Current S&T cooperation already covers the majority of R&D areas listed in the work plan, based on:

- S&T cooperation agreement since 1999, an important part in the overall EU-Russia relationship.

- More to be done on research for innovation.
EU-Russia Partnership for Modernisation

in Europe:

- Heart of **Europe 2020 Strategy** → Innovation Union, turning ideas into jobs, green growth and social progress
- An ageing population, strong competitive pressures from globalisation → future economic growth and jobs will increasingly have to come from innovation in products, services and business models.
- > 30 action points
  - to improve conditions and access to finance for research and innovation in Europe,
  - to ensure that innovative ideas can be turned into products and services that create growth and jobs.
The Innovation Union: aims

Adoption of Communication 6 October 2010

Support for research and innovation focussing on (limited number of) key societal challenges, including health and demographic change:

- Improving framework conditions for businesses to innovate, improving access to finance.
- Creating 'European Innovation Partnerships' between the EU and national levels to speed up the development and deployment of the technologies needed to meet the challenges identified.
- Increasing focus of research funding effort on support to innovative, high-tech SME, fund high-impact and demonstration-type projects.
Common Strategic Framework - Green Paper -

• Consulting on major improvements to future EU research and innovation funding
  – With a coherent set of funding instruments along the whole innovation chain (from basic research to market uptake)
  – And far reaching simplification of procedures and rules

• For the next EU Budget (to start in 2014)

• Seeking stakeholder views ahead of the Commission’s formal proposals (deadline 20 May, conference 10 June, findings by end 2011)
  – On the proposed improvements
  – On the priorities of the Common Strategic Framework

http://ec.europa.eu/research/innovation-union/index_en.cfm
Scope of the Common Strategic Framework

- Covering current funding for:
  - The 7th Framework Programme (FP7) for research, technological development and demonstration
  - The Competitiveness and Innovation Framework Programme (CIP)
    - € 3.6 billion (2007-13). 3 programmes on enterprise & innovation, intelligent energy, and ICT policy support.
  - The European Institute for Innovation and Technology (EIT)
    - Autonomous EU body bringing together higher education, research and business to stimulate innovation in Knowledge and Innovation Communities. EU budget contribution of € 309 million (2007-13)
  - And strengthening complementarities with the Structural Funds
    - € 86 billion allocated (2007-13) to R&D and innovation, entrepreneurship, ICT and human capital development
EU-Russia Partnership for Modernisation

in Russia

“Innovative Russia – 2020”, a draft Strategy for innovation development published on 31/12/2010 by the Russian Ministry of Economic Development

5 key tasks:

- Need for ‘innovative man’ – people to become more receptive to innovation
- Need for innovative business
- Need for innovative state – modernisation of state administration
- Need for effective science – to be able to adapt to new world trends and needs of national economy and society, to effectively commercialise new technologies
- Need to enhance international cooperation
European Research Information

- **EU Research & Innovation**
  http://ec.europa.eu/research

- **Innovation Union**
  http://ec.europa.eu/research/innovation-union/index_en.cfm

- **Seventh Framework Programme**
  http://ec.europa.eu/research/fp7

- **Information on research programmes and projects**
  http://cordis.europa.eu/

- **Experts’ registration in FP**
  https://cordis.europa.eu/emmfp7/index.cfm