Opportunities for collaborative research with Korea

Moon Jung Kang, June 29 2015
1. General R&D funding scheme in Korea

2. Opportunities for collaborative research in Korea
# History of EU-Korea R&D Collaboration

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 1992</td>
<td>MOU for Korea-EU Science and Technology Cooperation</td>
</tr>
<tr>
<td>September 2006</td>
<td>Agreement for Galileo Cooperation</td>
</tr>
<tr>
<td>November 2006</td>
<td>Agreement for ITER Cooperation</td>
</tr>
<tr>
<td>November 2006</td>
<td><strong>Agreement on the Scientific and Technology Cooperation</strong></td>
</tr>
<tr>
<td>July 2007</td>
<td>1\textsuperscript{st} Korea-EU Joint S&amp;T Cooperation Committee Meeting (Seoul)</td>
</tr>
<tr>
<td>March 2009</td>
<td>2\textsuperscript{nd} Korea-EU Joint S&amp;T Cooperation Committee Meeting (Brussels)</td>
</tr>
<tr>
<td>July 2011</td>
<td>3\textsuperscript{rd} Korea-EU Joint S&amp;T Cooperation Committee Meeting (Seoul)</td>
</tr>
<tr>
<td>June 2013</td>
<td>4\textsuperscript{th} Korea-EU Joint S&amp;T Cooperation Committee Meeting (Brussels)</td>
</tr>
<tr>
<td>November 2013</td>
<td>Joint declaration in Commemoration of the 50th Anniv. of Diplomatic Relations</td>
</tr>
<tr>
<td></td>
<td>Implementing arrangement between the EC and MSIP</td>
</tr>
<tr>
<td></td>
<td>ERC-Korea agreement for Korean young talent to join ERC research teams</td>
</tr>
<tr>
<td>June 2014</td>
<td>Joint declaration on Strategic Cooperation in ICT and 5G</td>
</tr>
</tbody>
</table>
R&D Policies of EU and Korea

**EU**

- **2010-2020**
  - Europe 2020
    - Innovation Union

- **2014-2020**
  - Horizon 2020

**Korea**

- **2013-2017**
  - Creative Economy
    - 3rd S&T Basic Plan

- **2015**
  - Annual R&D programs

Implementation
Strategy & Plan

Range of the 3rd Basic R&D Plan

• A framework for 5 years to devise comprehensive S&T policies
• Objectives:
  ✓ R&D to contribute 40% of economic growth by 2017
  ✓ 640,000 new jobs
  ✓ Raising Korea’s innovation capability against comparator nations

[ Major Government Projects of Park Guen-hye administration ]

- Economic democracy
- Public economy

- Improve the S&T-based citizens safety
  - Intellectual Property Ecosystem
  - Technology-based startup
  - Small & middle enterprise innovation
  - Create IT convergence new industry
  - Expand new growth engine industry
  - Expand basic research

- Create S&T-based new jobs
  - Industry-University-Research Institute Cooperation
  - Foster the creative talented
  - Strengthen the Regional S&T
  - Make up S&T creative culture

- Expand R&D expenditure
- Improve the treatment for researchers
- Make up the S&T creative culture
- Reinforce the S&T diplomacy

[ Action Plan for Creative Economy ]

(Source: Introduction to Creative Economy & The 3rd Science and Technology Basic Plan in Korea, KISTEP, 2014)
Framework of the R&D Supporting Scheme in Korea

- PACST: President Advisory Council on Science and Technology
- NSTC: National Science and Technology Council
- MOSF: Ministry of Strategy and Finance
- MISP: Ministry of Science, ICT and Future Planning
- MOTIE: Ministry of Trade, Industry and Energy
- KISTEP: Korea Institute of Science and Technology Evaluation and Planning

✓ R&D agencies are more or less dependent on the policies of specific ministries
✓ Modality of participation of funding schemes is various among agencies and programs
MEST and MKE took up as much as 60% of total investment. MEST, the leading ministry of R&D, mainly supports the activities of academic fields such as universities or research institutes. MKE supports the activities of industrial sectors in R&D and commercialising developed technologies in the targeted market. The research areas of MEST and MKE cover almost all research themes.
### Status of International Cooperation

<table>
<thead>
<tr>
<th>Category</th>
<th>No. of projects (A)</th>
<th>% of projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperation projects</td>
<td>7,650</td>
<td>18.0%</td>
</tr>
<tr>
<td>International cooperation projects</td>
<td>736</td>
<td>1.7%</td>
</tr>
<tr>
<td>Total</td>
<td>42,522</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
1. General R&D funding scheme in Korea

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EU-Korea R&D Collaboration

R&D Collaboration Programs supported by Korea

- Horizon 2020
- EUREKA, EUROSTAR
- ERC programs

- NRF’s programs
- KIAT’s programs
Main programs supporting international R&D collaboration

- Reference: “Government-funded R&D programmes of Korea”, *(published by KISTEP in June 2010)*

- 18 out of total 170 main R&D programs in 2010 explicitly include international cooperation in their project objectives
- These include tools for both R&D collaborations and capacity building/mobility.

**Joint R&D programs of MEST**

- Global Research Laboratory (GRL) Programme (1)
- Global Research Network (GRN) Programme (1)

**Joint R&D programs of MKE**

- International Collaborative R&D Programme (2)
- R&D programmes on energy technologies (1)
## EU-Korea Bilateral Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Open Call in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Korea-France Cooperation Development Program</td>
<td>O</td>
</tr>
<tr>
<td>Korea-Germany Cooperation Development Program</td>
<td>O</td>
</tr>
<tr>
<td>Korea-Switzerland Cooperation Development Program</td>
<td>O</td>
</tr>
<tr>
<td>Korea-UK Focal Point Program</td>
<td>O</td>
</tr>
<tr>
<td>Korea-Slovenia Cooperation Development Program</td>
<td>O</td>
</tr>
<tr>
<td>Korea-Italy Cooperation Development Program</td>
<td>X</td>
</tr>
<tr>
<td>Korea-Finland Cooperation Development Program</td>
<td>X</td>
</tr>
<tr>
<td>Korea-Sweden Cooperation Development Program</td>
<td>X</td>
</tr>
<tr>
<td>Korea-Czech Cooperation Development Program</td>
<td>X</td>
</tr>
<tr>
<td>Korea-Sweden Cooperative Fund</td>
<td>O</td>
</tr>
<tr>
<td>Korea-Germany Cooperative Fund</td>
<td>O</td>
</tr>
</tbody>
</table>

*Contact point: Global Cooperation Programs Team, 02-3460-5722*
Global Research Network (GRN) Program

- Objectives:
  - Expand networks and joint research projects with prominent international universities and research institutes
  - Improve the national research capacity and create world-class research results

(Unit: million KRW)

<table>
<thead>
<tr>
<th>Year</th>
<th>Budget (Ongoing + New projects)</th>
<th>Funded Projects (New projects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008-2014</td>
<td>48,200</td>
<td>162</td>
</tr>
<tr>
<td>2015</td>
<td>6,600</td>
<td>1</td>
</tr>
</tbody>
</table>
Global Research Network (GRN) Program

Program Details

<table>
<thead>
<tr>
<th>Research Field</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities and Social Sciences: all areas of concentration</td>
<td></td>
</tr>
<tr>
<td>Natural Science and Engineering: basic science, basic medicine and pharmacy only</td>
<td></td>
</tr>
<tr>
<td>※ Only for joint research with China in SSH field in 2015</td>
<td></td>
</tr>
<tr>
<td>Project Duration</td>
<td>1-3 years</td>
</tr>
<tr>
<td>Project Funding</td>
<td>Up to 80M KRW per year for Humanities and Social Sciences</td>
</tr>
<tr>
<td></td>
<td>Up to 100M KRW per year for Natural Science and Engineering</td>
</tr>
</tbody>
</table>

Schedule in 2015

2015.04 Opening a New Call (2015.03.09 - 2015.05.13)
2015.05-07 Final Evaluation for New Projects
2015.08 Launching New Projects

* Contact point: NRF, Global R&D Cooperation Team, 02-3460-5638
Global Research Laboratory (GRL) Program

Objectives:
To establish and operate world-class laboratories capable of leading global cooperation in core technology fields and to increase international cooperation between Korea and other countries

<table>
<thead>
<tr>
<th></th>
<th>Budget (Ongoing + New projects)</th>
<th>Funded Projects (New projects)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006-2014</td>
<td>130,094</td>
<td>57</td>
</tr>
<tr>
<td>2015</td>
<td>22,514</td>
<td>8</td>
</tr>
</tbody>
</table>
### Global Research Laboratory (GRL) Program

#### Program Details

<table>
<thead>
<tr>
<th>Program</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Field</td>
<td>• <strong>13 field</strong> supported in 2015</td>
</tr>
<tr>
<td>Project Duration</td>
<td>• 6 years (maximum funding term)</td>
</tr>
<tr>
<td>Project Funding</td>
<td>• Up to 500M KRW for a project</td>
</tr>
</tbody>
</table>

#### Schedule in 2015

- **2015.03** Opening a New Call (2015.03.09 - 2015.05.13)
- **2015.05-07** Final Evaluation for New Projects
- **2015.08** Launching New Projects

*Contact point: NRF, Global R&D Cooperation Team, 02-3460-5638*
International Collaborative R&D Programs

**Bilateral R&D** ($44.1M)
- Supports Bilateral Technology Development
- Int’l Collaborative R&D
- Bilateral R&D with FR, DE, CN (‘15~ : CH, ES)
- Global Industry-Academia cooperation
- Global Partnership
- Korea-Israel Joint R&D Fund (KORIL)

**Multilateral R&D** ($9.4M)
- Supports Participation in EU R&D Networks
- HORIZON 2020
- M-ERA-NET
- EUREKA - EUROSTARS 2

**Infrastructure Establishment** ($6.5M)
- Networking Events
- Global Networks
- HR Development
- Industry Cooperation Joint Committee
- Global office network
- GT & GCC
- Coordinator of EEN
- Int’l Member of TAFTIE
- Mobilities

**Industrial Technology ODA** ($10.5M)
- Coexistence with less-developed countries
- Appropriate technology development and diffusion
- Consultation on industrial technology policy
- HR Development

**Total $70.5M for 2015 (1$≒1,100₩)**

- First Associate Country beyond Europe to EUREKA since 2009
- A Coordinator of Korean EEN Consortium since 2010
- Only Partnership Country beyond Europe to EUROSTARS 2 since 2014
- Official partner organization of KONNECT Project under HORIZON 2020
- First International Partnership beyond Europe to TAFTIE (signed on 25.Nov.2015)
- Official partner country to M-ERA-NET (Material) from 2015 (will be signed in Jan. 2015)
- Joint R&D funding under discussion with NL, DK, NO, UK.

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Joint R&D Programs funded by KIAT

**Bilateral Matching Fund R&D**
- Kor.-China, Kor.-France, Kor.-Germany
  - Overseas R&D Entities
  - KIAT
  - Both sides to form two equally responsible and separate consortia

**General Joint R&D**
- Market Development Type
- Technology Acquisition Type
  - Overseas R&D Entities
  - Korean R&D Entities
  - Joint R&D Projects
  - All Participants to be included in one consortium lead by a Korean entity
KIAT’s programs

**Bilateral R&D with selected countries**

- **Purpose** - To enhance technical competitiveness through research and development collaboration in which each party participates on an equal footing based on an a bilateral agreement *between the governments of two partner countries (France, Germany, Switzerland, Spain and non-EU countries)*.

- **Project Management** - Applicants shall take the form of a consortium consisting of Korean and foreign company, university and research institute. Only a company can be a lead organization.
  - **Lead organization**: only a Korean company can be a lead organization. It shall be a corporation that has been in operation for one year or more since its establishment.
  - **Participating organization**: Korean university, research institute, etc. may participate in a consortium as a participating organization. For foreign lead organization(company), it shall submit an application to the government of its own country.
**KIAT’s programs**

**Bilateral R&D with selected countries** (France, Germany, Switzerland, Spain)

**Funding size and duration**

- Total budget for 2015: KRW 5.15 bil. for new projects
- Funding: approx. KRW 500 mil. per year, for no longer than 3 years

**Funding areas**

- Across all industries
  
  (however, for collaborative R&D between Korea and France, The funding will be available only for the following areas: Bio Technology and Medical Technology, Energy and Environment Technology, Robot, Automobile and Machinery Systems Technology, Materials and Nano Technology, ICT)

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International Collaborative R&D Program (non-reciprocal)

- **Purpose** - To develop technologies **tailored to industrial needs** and demand by utilizing R&D capabilities of outstanding foreign partners in order **to enhance Korea’s technical competitiveness and acquire advanced technologies or penetrate into overseas markets**

- **Project Management** - projects are to be consortia comprised of domestic partners and one foreign partner (corporate, academic or research), **led by a Korean partner**
  - **Lead organization**: a Korean company, university or research institute. In a case where a Korean company is lead organization, it shall be a corporation that has been in operation for one year or more since its establishment
  - **Participating organization**: Korean or foreign company, university or research institute
  - **Organizations(companies) from the countries participating in the Bilateral R&D Co-Funding programme (France, Spain, Germany, Switzerland and China) will be excluded from this Programme.**
International Collaborative R&D Program (non-reciprocal)

Funding size and duration
- Total budget for 2015: KRW 3.81 bil. for all new projects
- Funding: approx. KRW 500 mil. per year, for no longer than 3 years

Funding areas
- Across all industries
  (however, for collaborative R&D between Korea and France, the funding will be available only for the following areas: Bio Technology and Medical Technology, Energy and Environment Technology, Robot, Automobile and Machinery Systems Technology, Materials and Nano Technology, ICT)

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Thanks for your attention !!

Innovation needs a competent partner, ideas and know-how.

We connect you to them !!!