The Russian Foundation for Technological Development: Boosting Business R & D in Russia

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CONTENTS

1. History
2. Major principles of operation
3. Current status
4. Technological platforms
5. Limitations and prospects
History

RFTD was founded in 1992 with an aim to create favorable conditions for development of “Russian scientific and technological potential”.

RFTR finances applied R&D in top-priority fields defined by the Russian government
Since establishment, RFTD supported:

• about 900 projects
• Total amount of support: about 230 million USD

RFTD was frozen during 2007-May 2011.
## RFTD Among Institutes for Development

<table>
<thead>
<tr>
<th>Higher education</th>
<th>R&amp;D</th>
<th>Pre-seed and seed</th>
<th>Start-up</th>
<th>Growth</th>
<th>Expansion</th>
<th>Pre-IPO</th>
<th>IPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Universities, R&amp;D institutes</td>
<td>RFTD</td>
<td>Fund for Assistance</td>
<td>Skolkovo</td>
<td>Russian Venture Company</td>
<td>RUSNANO</td>
<td>Special Economic Zones</td>
<td>SMP Bank (SME) - loans</td>
</tr>
<tr>
<td>RFBR, RFH</td>
<td>Technology platforms</td>
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</tbody>
</table>

Российский фонд технологического развития
## Budgets of Institutes for Development

Investing in R&D

<table>
<thead>
<tr>
<th>Institute for Development</th>
<th>Budget in 2012, million USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds established by RVC</td>
<td>937.5 (total budgets of all funds)</td>
</tr>
<tr>
<td>RUSNANO</td>
<td>694.0</td>
</tr>
<tr>
<td>Skolkovo Fund</td>
<td>687.5</td>
</tr>
<tr>
<td>Fund for Assistance</td>
<td>125.0</td>
</tr>
<tr>
<td>RFTD</td>
<td>40.2 (total 106.25)</td>
</tr>
</tbody>
</table>
Major Principles of Operation

RFTD supports R&D at small and medium-sized companies, aiming at development of high-tech innovation production.

Basic terms of support:
Financing is provided in a form of loans with 3% fee for consulting services from RFTD
Loan amount - from 0,35 up to 10 million $, but no more than the sum of the net assets of the applicant
Loan term – up to 60 months
The applicant - legal entity - resident of the Russian Federation, participant of TECHNOLOGICAL PLATFORM
Consulting Support

✓ Advice, information and marketing services in the area of scientific, technological and innovation activities.
✓ Support of financed companies:
  ✓ Technological audit;
  ✓ Consulting on the system of management;
  ✓ Monitoring;
  ✓ Marketing support (exhibitions, etc.)
✓ Search for co-investors and mobilization of additional funds to the project.
Current Projects (as of September 2012)

- Total number of applications – 120
- Requested financing – 400 million USD
- Passed different stages of expert evaluation – 103
- Rejected – 74
- Received support – 10
- Amount granted, total – 40 million USD

Some organizations who currently implement projects are well known:

- NT-MDT Co. (photonics)
- group of companies “UNICHIMTEK” (thermal power engineering)
- Research Institute “Polyus” (photonics).
Technological Platforms: Definition

- Initiative was announced in 2010, 30 platforms were founded during 2011-2012.
- Concept borrowed from EU experience.
- Participants: research organizations, universities, state and private companies.
- Should become communication instrument aimed to activate creation of new technologies and products due to synergy of business, science, government, and civil society (according to the Strategy for innovation development-2020)
## Technology Platforms: EU versus Russia

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>EU</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle of formation</td>
<td>Bottom-up</td>
<td>Top-down</td>
</tr>
<tr>
<td>Goals</td>
<td>Synergy among major stakeholders</td>
<td>Creation of new technologies</td>
</tr>
<tr>
<td></td>
<td>Connections between fundamental research and practical applications</td>
<td>Attraction of additional resources for R&amp;D</td>
</tr>
<tr>
<td></td>
<td>Coordination of interests of countries-EU members</td>
<td>Improvement of legal regulations in R&amp;D and innovation</td>
</tr>
<tr>
<td>Tasks</td>
<td>Development of Strategic Plan and road maps</td>
<td>Development of Strategic Program</td>
</tr>
<tr>
<td></td>
<td>Marketing of ideas in EU</td>
<td>Development of programs to disseminate new technologies</td>
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<tr>
<td></td>
<td></td>
<td>Development of educational activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Expert functions for the government</td>
</tr>
<tr>
<td>Financing</td>
<td>State, private, self-financing</td>
<td>Government financing (planned)</td>
</tr>
<tr>
<td>Government role</td>
<td>Promotion of platforms concept</td>
<td>Participation in governance of platforms</td>
</tr>
<tr>
<td></td>
<td>Limited financial support of operational activities</td>
<td>Attraction of platforms as experts of government decisions</td>
</tr>
<tr>
<td></td>
<td>No instruments to push platforms to any activities</td>
<td>Monitoring according to set of indicators</td>
</tr>
</tbody>
</table>
### PROBLEMS

- Unclear interests from side of business
- **Low innovative activity of business**
- Low influence of business on choice of thematic priorities in S&T
- Low commercial outcome of R&D
- Duplication of federally-supported R&D
- Barriers for technology dissemination related to tech regulations
- Weak priority setting procedures in terms of involvement of all actors

### GOALS

- Development of partnerships between science and business
- Networking
- Improvement of environment for technology dissemination
- Attraction of non-budgetary sources
- Consolidation of resources on S&T priorities
- Better condition to evaluate technologies for socio-economic development
Share of Innovative Enterprises Conducting Technological Innovations, %
(Russia-2010, other countries – latest year available)
Expenditures on R&D Financed by Business and Government

- USA
- Japan
- 17 EU Countries
- Russia

<table>
<thead>
<tr>
<th>Year</th>
<th>Business</th>
<th>Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>64.3%</td>
<td>66.1%</td>
</tr>
<tr>
<td>2010</td>
<td>61.8%</td>
<td>61.8%</td>
</tr>
</tbody>
</table>

- 17 EU Countries
- Russia

<table>
<thead>
<tr>
<th>Year</th>
<th>Business</th>
<th>Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>18.3%</td>
<td>18.3%</td>
</tr>
<tr>
<td>2010</td>
<td>18.3%</td>
<td>18.3%</td>
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</tbody>
</table>
R&D in Total Expenditures on Innovations, % (2010)

- Germany: 49.3%
- France: 60.4%
- Finland: 65.6%
- Norway: 67.6%
- Russia: 14.4%
### R&D in Business Sector, Financed by Government, %

<table>
<thead>
<tr>
<th>Country</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>9.7</td>
<td>9.8</td>
<td>9.9</td>
<td>8.9</td>
<td>14.0</td>
</tr>
<tr>
<td>Japan</td>
<td>1.2</td>
<td>1.0</td>
<td>1.1</td>
<td>0.9</td>
<td>-</td>
</tr>
<tr>
<td>Germany</td>
<td>4.5</td>
<td>4.5</td>
<td>4.5</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>France</td>
<td>10.1</td>
<td>11.3</td>
<td>9.8</td>
<td>11.4</td>
<td>-</td>
</tr>
<tr>
<td>UK</td>
<td>8.3</td>
<td>7.6</td>
<td>6.8</td>
<td>6.6</td>
<td>6.6</td>
</tr>
<tr>
<td>OECD countries</td>
<td>6.8</td>
<td>6.8</td>
<td>6.8</td>
<td>6.5</td>
<td>-</td>
</tr>
<tr>
<td>Russia</td>
<td>53.6</td>
<td>52.0</td>
<td>55.3</td>
<td>56.0</td>
<td>57.4</td>
</tr>
<tr>
<td>№1. Medicine of the Future</td>
<td>№17. Low dispersed energetics</td>
<td></td>
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<tr>
<td>№3. Bioenergetics</td>
<td>№22. Shot minerals</td>
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<tr>
<td>№6. Photonics</td>
<td>№23. Technologies for extraction and use of hydrocarbons</td>
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<tr>
<td>№15. Ecologically clean thermal power engineering</td>
<td>№24. Deep processing of hydrocarbon resources</td>
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<tr>
<td>№16. Perspective technologies of renewable energetics</td>
<td>№27. Ocean development</td>
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<td></td>
<td>№28. Technologies of ecological development</td>
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Technological Platforms: Government Implementation

• Accent on universities and R&D institutes as driving forces in platforms
• Linking “push for innovations” (applied to big companies) with platforms’ activity
• Mechanisms of financing: from self-support to different government instruments
• Government push – request to finance technology platforms through various institutes for development
Technological Platforms: Insider View

Case studies conducted in September-October 2012 show:

• Organizations in platforms counted either on additional money or influence on top-level decision making

• Surveyed platforms do not have enough resources to develop vision and strategic plans; big companies are not active in these activities

• Counting mostly on government financing for R&D projects

• Do not have clear understanding what would be considered as a successful functioning of a platform. Possible outcomes:
  – New linkages
  – Additional money on R&D
  – Involvement of big companies in various activities
Government Intentions to Support Technology Platforms

- Evolution: from push to self-support to intention to finance organizational stage and planning stage. At present: government is going to implement:
  - Earmark equal subsidies for organizational work of platforms and their cooperation with clusters (under discussion – co-financing);
  - Inclusion of thematic R&D areas suggested by platforms to government programs (8 programs are considered);
  - Appeal to Institutes for development to start activities in support of platforms.
Limitations and Prospects

• **RFTD** – unique instrument in the conditions when bank loans system is underdeveloped
• Financial and consulting activities are combined at all stages of project development

**Limitations:**

• **Budget limitations:** low budget for rather big projects
• **Functional limitations:** only projects associated with technology platforms may be supported

**Prospects:**

• support of medium-size companies outside platforms
• Educational and training programs
• Support of &D in innovation clusters
Thank you for your attention

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