Development Institutions And Technology Parks As Elements Of The Innovation Ecosystem In The Russian Federation
INNOVATION ECOSYSTEM OF THE RUSSIAN FEDERATION

Business angels

Lack of private funding of R & D

Support programs for small and medium-sized businesses

Regional venture capital funds

JSC RUSNANO

Vnesheconombank

FTsP "National technological base"

Venture capital funds with JSC "RVC" and RUSNANO

Investment fund

Seed fund JSC "RVC"

Foundation for assistance to small innovative enterprises

Idea creating

Prototype creating

Product launch

Mass production

FTsP “Research and development”

FTsP «Development of nanotechnology infrastructure in Russia»

The problem of turning ideas into a working prototype

The program of basic scientific research of the state academies of sciences

Budget investments

Private financing

Lack of private funding of R & D
PLACE OF TECHNOPARKS IN THE INNOVATION ECOSYSTEM OF THE RUSSIAN FEDERATION

Instruments for implementation of economic policy

Federal, regional, industrial targeted investment programs

State and private development institutions

Infrastructure for innovation

Technoparks

Private investors

Enterprises

Small investment companies

Universities

The participants of the innovation ecosystem
IMPLEMENTATION MECHANISM OF STATE PROGRAMMES

**Development institutions and FTsP**

State instrument for implementation of socio-economic policies and technological development of personal skills to create competitive world-class technologies.

**Infrastructure, technoparks**

Promote innovation, provide creative teams with opportunities for the growth of human capital as well as cultivation of business values by means of offering their services, infrastructure and network of partners for the creation and development of innovative companies, increase of innovation activity and investment attractiveness of the region.

**The participants of the ecosystem**

A self-developing innovative system for creating jobs with new competencies in high-tech companies with high added value.
RUSSIA 2020 – TARGET VALUES

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<tr>
<th>Values</th>
<th>2008-2009</th>
<th>2020</th>
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<tr>
<td>The share of enterprises engaged in technological innovation, of the total number of enterprises</td>
<td>10,4% (2009)</td>
<td>40-50%</td>
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<td>Russia's share of high technology products and services in the global markets</td>
<td>at least 5-10% in 5 – 7 sectors</td>
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<td>The share of Russian exports of high-tech products worldwide</td>
<td>0,35% (2008)</td>
<td>2%</td>
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<td>The gross added value of the innovation sector in GDP</td>
<td>11,8% (2009)</td>
<td>17-20%</td>
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<td>The share of innovative products in the total volume of industrial production</td>
<td>12,4% (2009)</td>
<td>25-35%</td>
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<td>Domestic expenditure on research and development (%GDP)</td>
<td>1,24% (2009)</td>
<td>2,5-3% more than half of them - at the expense of the private sector</td>
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<td>The share of worldwide publications of Russian researchers in scientific journals</td>
<td>2,48% (2008)</td>
<td>5%</td>
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<td>The number of patents registered by Russian individuals and legal entities in the EU, U.S. and Japan</td>
<td>63 (2008)</td>
<td>Over 2,5 - 3 th a year</td>
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According to the Ministry of Economic Development of Russian Federation
DEVELOPMENT INSTITUTES OF RUSSIAN FEDERATION

1. State corporation "Vnesheconombank“
2. Investment Fund of the Russian Federation
4. JSC "RUSNANO" and the Fund For Infrastructural and Educational Programs
5. Venture capital institutions - JSC "Russian Venture Company", regional venture capital funds, JSC "Russian Investment Fund for Information and Communication Technologies“
6. Skolkovo Innovation Centre
7. Special economic zones (SEZ)
8. Technoparks, business incubators and technopolises (about 150, including ~ 50 large)
Own funds - 382 bln rubles.
Raised funds - 232.82 bln rubles.

Investment projects portfolio:
As of the since the establishment of the Development bank (figure on March 1, 2013), Vnesheconombank's governing bodies have approved participation in the implementation of 270 investment projects, projects to support export and transactions financed for other purposes.
The total cost of the projects amounts to 3.53 trillion rubles, economic interest of Vnesheconombank is 2.1 trillion rubles.

Industry investment priorities of Vnesheconombank:
• aeronautics and space-rocket complex
• shipbuilding
• electronic industry
• nuclear industry, including nuclear power
• heavy transport, special and power engineering
• metallurgy (special steel)
• wood products industry
• defense-industrial complex
• agro-industrial complex
• strategic computer technologies and software
• information and communication systems
• medical equipment and pharmaceuticals
INVESTMENT FUND OF THE RUSSIAN FEDERATION

Purposes of the Institute are as follows:
• to provide government support in the implementation of concession projects
• to support complex infrastructural projects of national importance
• to support highly efficient regional projects

Investment projects - 52 (as of 1.01.2013)
Purposes of the Institute are as follows:
• to create new innovative enterprises
• to involve young scientists and specialists in innovative entrepreneurship
• to introduce intellectual property in economic turnover
• to attract extrabudgetary investment in small innovative business

Fund budget in 2009-2010 — 4.8 bln rubles

Funding of approx. 800 companies a year

Results:
over 2,000 new innovative enterprises
over 15,000 jobs
3,000 young scientists, implementing technological innovations, have received state support

Competitions and programs:
• "Start"
• "Umnik"
• "Development"
• Russian-German program (with the International Bureau (IB) of the Federal Ministry of Education, Science, Research and Technology, Germany)
• Russian-French program (with the Innovation Promotion Agency OSEO Innovation),
• Russian-Finnish program (together with the Finnish Funding Agency for Technology and Innovation Tekes)
Purpose of the Institute is to develop high-tech businesses and infrastructure in nanotechnologies.

**BUSINESS:**
Commercialization of investment projects in the nanotechnology domain.
The goal — an annual turnover of projects of approx. 300 bln rubles by 2015 with the direct participation of JSC "RUSNANO".

**NONPROFIT:**
The development of innovative technology infrastructure.
The purpose - to promote nanoindustry through projects with the participation of independent manufacturers with an annual turnover of about 600 bln rubles by 2015.

**Investment projects portfolio:**
Funded: 100 projects worth over 263 bln rubles. (including "RUSNANO" - 133 bln rubles, co-investors - more than 130 bln rubles.).
Purpose of the Institute is
To stimulate venture capital and "seed" investments, to development infrastructure for managing the innovation technology business.

Priority areas for investment venture capital funds decided upon with the participation of "RVC" are defined in accordance with the List of critical technologies approved by the President of the Russian Federation, which includes the following:
• security and counter-terrorism;
• living systems (understood as biotechnology, medical technology and medical devices);
• nanosystems and materials;
• information and telecommunications systems;
• environmental management;
• transport, aviation and space systems;
• energy and energy conservation.

139 innovative companies were funded by RVC in January 2013.
Total invested funds - 12.1 bln rubles.
Results of 2012:

- During 2012 the Fund approved 3 bln rubles worth of grants for developers
- "Skolkovo" residents created 131 intellectual property objects, with the targeted plan of only 100 objects over the period of 11 months
- By the end of 2012 the number of residents of the project amounted to 750 residents, with the targeted plan plan 500 companies in 2012.
- In 2012, the resident companies earned 400 mln rubles by selling intellectual products created in "Skolkovo", according to the forecast for the following year this figure is expected to exceed 1 billion rubles.
SPECIAL ECONOMIC ZONES (SEZ)
SPECIAL ECONOMIC ZONES FOR TECHNICAL INNOVATION

Purpose of the Institute is
To create and develop high-tech industries and to manufacture new high-tech innovative products

Technological SEZ are located in major scientific and educational centers with rich academic traditions and recognized research schools. They offer vast opportunities for innovative business development, hi-tech production and its launch to Russian and international markets.

Technological SEZs are attractive to venture capital funds, as well as developers and manufacturers of high-tech products, due to customs exemptions and tax incentives, access to the professional workforce, along with the growing demand for new technologies and modernization of various sectors of the Russian economy.

- SEZ "Zelenograd" Moscow
- SEZ "Dubna" Moscow region
- TIZ "Saint-Petersburg"
- TIZ "Tomsk"
- TIZ "SMART City“ Kazan (Project)
INDUSTRIAL SPECIAL ECONOMIC ZONES

Industrial SEZ occupy vast territories, located in the major industrial regions of the country. The proximity to the resource base for production, access to infrastructure and main roads — these are a few of the characteristics of industrial zones, which determine their benefits.

Production on the territory of industrial zone can improve the competitiveness of products in the Russian market by cutting manufacturing costs.

- SEZ "Lipetsk" Lipetsk region
- SEZ "Alabuga" Republic of Tatarstan
- SEZ "Moglino" Pskov region
- SEZ "Tolyatti" Samara region
- SEZ "Ljudinovo" Kaluga region
- SEZ "Titanium Valley" Sverdlovsk region
HIGH-TECH TECHNOPARKS

High technology Technopark is a form of territorial integration of commercial and non-profit scientific and educational organizations, financial institutions, enterprises and entrepreneurs, interacting with public authorities, local governments engaged in the formation of modern technological and organizational environment for innovative entrepreneurship and implementation of venture projects.

FTsP "Creation of high technology technoparks in the Russian Federation" was adopted in 2006, extended to 2014.

In 2007-2010 7.65 bln rubles were directed for the implementation of this Program.
In order to implement the 3rd stage of the Program during 2011-2014 6.01 billion rubles were allocated from the federal budget.
TECHNOPARKS IN THE CITIES OF RUSSIAN FEDERATION
HIGH-TECH TECHNOPARKS

- Developed technoparks
- New technoparks
- Developing technoparks
- Candidate in technoparks

Map of Russia showing technoparks and cities.
ASSOCIATION OF INNOVATIVE REGIONS OF RUSSIA

- Tomsk Region
- Novosibirsk Region
- Irkutsk Region
- Kaluga Region
- Republic of Tatarstan
- Republic of Mordovia
- Krasnoyarsk Krai
- Perm Krai
- Republic of Bashkortostan
- Samara Region
- Ulyanovsk Region
- Lipetsk Region

Chairman of the AIRR Supervisory Board is Sergei Naryshkin.

Chairman of the Association Board, a permanent collegial body of AIRR management is Rustam Minnikhanov, the President of the Republic of Tatarstan.

Executive Director of the Association is – Ivan Bortnik, founder of the Foundation for Assistance to Small Innovative Enterprises in Science and Technology.
CJSC “INNOVATIVE PRODUCTION TECHNOPARK “IDEA

Infrastructure

Total area – 2 hectares
Premises space – 28,680 m²
Investment scope – 26 million USD
Investment were returned in 2010

Total number of companies in the Technopark – 112
Number of employees – 1,913
Jobs, created in 2012 - 692
The average ages of employees – 28 years
The average monthly salary of employees – 863 USD

Shareholders:
RESIDENT-COMPANIES OF TECHNOPARK “IDEA”

Anchor residents:

Exterritorial residents:
THE RESIDENTS PROFILE

- Engineering services in the nanotechnology: 35%
- Consulting services: 19%
- Engineering: 20%
- Logistics: 5%
- Advertising and design: 8%
- Other: 9%
- State structures: 4%
RESIDENT’S CLIENTS OF TECHNOPARK “IDEA”
PROPOSALS FOR THE DEVELOPMENT INSTITUTIONS

1. Co-financing of R&D carried out by companies
2. Funding for basic research carried out by private companies on condition that they agree to co-finance subsequent application developments
3. Creation of RVC Seed Fund, launching of special program on five priority areas by Foundation for Assistance to Small Innovative Enterprises
4. Priority support for small companies on the base of Institutes and Universities in the framework of the federal program to support small and medium-sized businesses
5. Acquisition of foreign technologies required for technological chains build-up in Russia (as well as through private equity funds)
PROPOSALS FOR COORDINATING DEVELOPMENT INSTITUTIONS

- Set up an EBN representative office in Russia (Kazan)
- Information exchange
- The mechanism of transferring projects from one development Institute to the other ("innovative elevator")
- Technology platforms
- Formation of the demand from the State and Public companies
- Staff training
- Coordination on foreign markets
- Changes in legislation (favorable innovation climate)
- Integration of Russian technoparks into an EBN network
- Promotion of EBN standards in Russian technoparks
Thank you for your attention!

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