“SKOLKOVO” INNOVATION CENTER
## SKOLKOVO INNOVATION ECOSYSTEM

### SKOLTECH
- Professors and lecturers: 48
- Students: 219
- Centers for Research, Education and Innovation: 8

### START-UPS
- Number of companies: >1500
- Total revenue: USD 760mn
- Investments: USD 200mn
- Workplaces: 12.5 th FTEs
- Patents obtained: 735

### INDUSTRIAL PARTNERS
- Number of partners: 57
- Workforce: 6,000
- Investments: USD 240mn
- Office space lease: 260 th sq. m
- 39 commercial successes of startups

### INVESTORS
- Accredited institutions: 42
- Soft liabilities: USD 493mn
- Business angels: 210
- Mentors: 165

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### Innovative city and physical infrastructure
- Total space of 2600 th sq.m by two stages of development (2011-2020)
- Over 30 th. workplaces
- Over 19 th. residents
- More than USD 1.2bn of external financing attracted

### Technopark Service infrastructure
- Service providers attracted - 16, (more than USD 20mn of total economy)
- Session of IASP 2016 Steering Committee conducted
- Representative office in Far East Federal District launched
- Facilities under preliminary lease agreements 15%
- Webinars conducted 22
- 5 200 views

### Skolkovo IP Center IP Protection
- 731 applications for IP registration submitted through Skolkovo IP Center for the last 3 years
- More than 10% of PCT applications in Russia will be submitted through Skolkovo IP Center in 2015
- Skolkovo IP Center supported more than 50 transactions of Skolkovo startup companies with estimated value over USD 40mn in 2014 - 2015
SKOLKOVO INNOVATION CENTER – INNOVATION-PURPOSED ENVIRONMENT JUST OUTSIDE OF MOSCOW

- 450 ha total area
- 2,5 m² buildings
- 30,000 engineers
INNOVATION CENTER «SKOLKOVO» - CONSTRUCTION PROGRESS

May. 2014

June. 2016
SKOLKOVO FOUNDATION IS THE KEY INSTRUMENT FOR INNOVATIONS MANAGEMENT IN RUSSIA

SKOLKOVO FOUNDATION AS AN INVESTMENT PLATFORM

- Skolkovo Foundation is a non-commercial organization founded to create friendly ecosystem for technology business and support innovative start-ups without acquiring a stake in their capital and management.

- Start-ups undergo international level expert analysis for compliance of technology and business model with international practices and ability to compete in the global market.

SKOLKOVO FOUNDATION’S INSTRUMENTS OF SUPPORT

- **Maximal tax benefits in the Russian Federation:** VAT and customs duties – 0%, profit tax – 0%, property tax – 0%, social tax reduced twofold – 14%

- **Non-refundable and non-returnable grant financing** – from 1 million to 150 million roubles. (available to every company)

- **Acceleration Support** on Russian and foreign markets by the means of cooperating directly with potential clients and investors, business associations and incubators

- **Access to the infrastructure** and services of the Skolkovo Technopark on preferential terms (placement, equipment, IP protection, consulting and legal services)
SKOLKOVO FOUNDATION’S PERFORMANCE OVER THE LAST 5 YEARS HAS BEEN DECLARED SUCCESSFUL

<table>
<thead>
<tr>
<th>Applications for Participant status</th>
<th>10,000</th>
<th>Number of start-ups</th>
<th>1,4 bln. USD</th>
<th>Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP registration applications</td>
<td>2150</td>
<td></td>
<td>400 mln. USD</td>
<td>Investments</td>
</tr>
<tr>
<td>Patents obtained</td>
<td>900</td>
<td></td>
<td>300 mln. USD</td>
<td>Approved grants</td>
</tr>
<tr>
<td>Start-ups sale abroad</td>
<td>150</td>
<td></td>
<td>18,000</td>
<td>Jobs</td>
</tr>
</tbody>
</table>

![Transport hub](image1)  ![Matryoshka Business Centre](image2)  ![Teaching quarter](image3)  ![Technopark OC](image4)  ![IFC Kvadrat](image5)  

![Skoltech](image6)  ![Boeing](image7)  ![Technopark](image8)
The Skolkovo startups get:

**Tax benefits:**
- VAT – 0%
- Profit tax – 0%
- Property tax – 0%
- Decreased social tax (14%)  

**Development:**
- Acceleration and development support
- Cooperation with Russian and international science and business community
- GR/PR support

**Grant financing:**
- Up to USD $5 mln
- Min 50% of co-investments

**Intellectual services:**
- Access to the research infrastructure and Intellectual property protection
Market priorities for implementation of advanced manufacturing and nuclear & radiation technologies

- Nuclear industry
- Medicine and biotechnologies
- Microelectronics
- Manufacturing and processing industries

- Security and safety
- Food and water markets
- Ecological sustainability
- Scientific market
# ADVANCED MANUFACTURING, RADIATION & NUCLEAR TECHNOLOGIES CLUSTER PROJECTS*

* DISTRIBUTED BY TECHNOLOGICAL PRIORITY

<table>
<thead>
<tr>
<th>NUCLEAR AND RADIATION TECHNOLOGIES</th>
<th>EQUIPMENT AND DEVICES</th>
<th>NEW MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td>startups</td>
<td>startups</td>
<td>startups</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>24</td>
</tr>
<tr>
<td>Decommissioning, nuclear fuel management and radwaste, engineering of radiation-dangerous objects</td>
<td>Detectors, sensors, dosimeters</td>
<td>Coatings, filters, films</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>23</td>
</tr>
<tr>
<td>Mining, recycling and refining technologies</td>
<td>Laser and plasma sources, ionizing radiation</td>
<td>Engineering materials (ceramics, polymers, composites, )</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>16</td>
</tr>
<tr>
<td>Radiation technologies including nuclear medicine</td>
<td>Electromagnetic and ultra-high frequency devices</td>
<td>Materials for photonics, optics, electronics and electrical engineering</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Automation, robotics, NDT and data analysis</td>
<td>Technology and equipment for design, production and processing of metals and alloys</td>
</tr>
</tbody>
</table>

*191 startups as of June 2016
ATTRACTION AND SUPPORT OF STARTUPS IS OUR KEY ACTIVITY IN FRAME OF CREATION OF SKOLKOVO ECOSYSTEM

- On September 30, 194 startups participated in Skolkovo project and developing their technology business in the innovation segment Advanced Manufacturing, Radiation&Nuclear Technologies Cluster. 12 projects got positive response from Cluster expert panel. 13 projects under the expertise. Cluster actively attracting new teams in frame of Startup Tour/


Resident companies supported by NT cluster presented their achievements on International exhibitions in Russia and abroad: LASER World of Photonics, Photonics Rus, 3D Incide. We are under preparation of expositions on Metall Processing, Analitics Expo, InnoProm, et al.

Support of Cluster participants in development business and technology partnership with industrial leaders and governmental relations SC Rostech ChemComposite, Foxconn,, Evonik, «Regional Airports” , PNPPK, ChTPZ
5-10 startups of Cluster participate in each key acceleration support program

Metallurgy and metal processing
- ChuTomo
- YZK
- Magnitogorsk Metallurgical Combine
- TMK

China/Taiwan
- FOXCONN
- Trustpipe Group
- 纳诺科技

Industrial chemistry
- Evonik Industries
- KAZATOMProm
- МЕТАКЛЭЙ
- Kompozit Company
- Porcher Industries
- КРАСЦВЕТМЕТ

South Korea
- SAMSUNG
- LG
- POSCO ICT
- Hyundai Heavy Industries Co., Ltd.
- Hanil E-HWA

Mining
- AAPOCA
- KAZATOMProm
- LucrasDiamond
- Mountain Province Diamonds
- Vale
- Firestone Diamonds
- Gem Diamonds

Security and Sensors
- SK
- POCTAM
- PID
- AR
- АСЕКURITY
- Автоматика-С
### Commercialization Cases

<table>
<thead>
<tr>
<th>Company</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>POCATOM</strong></td>
<td>Supply of components or R&amp;D contract: Thin film technologies (Hydropress – 1.8 mln. rub), Axion- RNM (Mayak – 4.5 mln. rub.), Corporation on Nuclear Containers (Atomenergoproekt – 2 mln. rub.),</td>
</tr>
<tr>
<td><strong>РОЧАНО</strong></td>
<td>Investments from Infrastructural and Education Fund to «T8 Sensors». The sum of the deal ~ 150 mln. rub.</td>
</tr>
<tr>
<td><strong>Optogard Nanotech</strong></td>
<td>«Optogard Nanotech» signed a contract to supply equipment for laser-plasma processing of pipes with Shandong Trustpipe Industry</td>
</tr>
<tr>
<td><strong>ДИМАНТ</strong></td>
<td>R&amp;D contract on industrial test of neutron facility for Detection of diamonds in kimberlite lump ore without its destruction on Lomonosov GOK – 12 mln. rub. The tests were successful (Act of tests).</td>
</tr>
<tr>
<td><strong>Axion</strong></td>
<td>R&amp;D contract for the sorption technology development for refining process (20 mln. Rub.)</td>
</tr>
<tr>
<td><strong>Radiation-Chemical Technologies</strong></td>
<td>Three side agreement Sk – Evonik – RCT. R&amp;D contract with Evonik Industries (100 KEuro), on technology development of radiation-induced polymerization</td>
</tr>
<tr>
<td><strong>SEMAT</strong></td>
<td>Investments to SEMAT from machinery and instruments holding МТЕ КОВОСВИТ МАС (Russia – Czech) on 50 mln. Rub.</td>
</tr>
</tbody>
</table>
• Interaction with 50+ key institutes of the Russian Academy of Sciences (RAS)
• At least 25% of the Advanced Manufacturing Cluster projects stem from RAS institutes

• Interaction with major 20+ technology universities in Russia
• At least 30% of the Advanced Manufacturing Cluster projects stem from leading Russian technical universities

• More than 30% Advanced Manufacturing Cluster projects got financial support from Rusnano, Russian Venture Company, Foundation of Perspective Research (Russian DARPA’s analog) and other major venture funds, relevant business incubators, accelerators and governmental agencies
• At least 10% startups of NT Cluster stem from Rosatom (State Atomic Energy Corporation)
SUPPORT PROGRAM FOR INDUSTRIAL PARTNERS FROM SKOLKOVO FOUNDATION

PARTNERS

Large and mid-size corporates

Start-ups

Research organizations

AREAS OF COOPERATION

- Russian-foreign companies R&D partnership platform
- Government and public relations support from Skolkovo Foundation
- Platform for cooperation with Russian science community (research institutes, universities, startups)
- Favorable tax regime for corporate R&D centers and startups (VAT – 0%, profit tax – 0%, property tax – 0%, Decreased social tax (14%), reimbursement of customs payments)
- Grant financing for startups and spin-offs (up to $5 mln.)
- Access to Skolkovo infrastructure and services (shared use centers, IP protection, customs services, etc.)
November 2015. Partnership agreement signed among Skolkovo Foundation and Fanuc Corporation

- Fanuc Corporation is #1 worldwide in robotics, automation and laser systems
- HQ is located in Japan, Oshino-mura (Yamanashi). Main production facilities are located in Yamanashi, Tsukuba, Hayato (Japan). Revenue $6 bn. Net profit $1.7 bn. (as of 2014 FY)
- Among the clients are: Apple, Boeing Co., Coca-Cola, Toyota Motor Co, General Motors Co, Volkswagen, Honda, BMW, Saab, Land Rover, Rolls-Royce, Ford
- Agreement with Skolkovo Foundation presumes investments of $10 mln. in 3 years to construct 5000 sq.m. (with extension to 10 000 sq.m.) R&D and engineering center at Skolkovo territory which will engage 50 qualified research and engineering staff
- The R&D and engineering center will conduct engineering projects for Russian clients and collaborate with Skolkovo industrial startups to integrate it’s innovative technologies to industrial projects
«Kunshan Nano New Material Technology» is a subsidiary company of Foxconn Group.

Head Quarter and production facilities are located in Kunshan Economic & Technical Development Zone (Mainland China) and Taiwan.

Core expertise and technologies are: (1) laser cutting of glass, sapphire, silicon; (2) thermal conductive polymers, compounds and pastes; (3) polishing of sapphire, metals, alloys, glasses and plastics; (4) Nano-materials and liquids for industrial applications.

R&D Center at Skolkovo will start its operations in 2016. The budget for the first phase is ~4 mln. USD. Scientific and engineering personnel in R&D center will comprise 10 people.