Creating Successful Startups – Experience and Support of Skolkovo Energy Cluster

Oleg Pertsovskiy
COO, Energy Efficiency Cluster
Skolkovo Foundation

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Skolkovo is a strategic innovation development institution established by the Russian Government.

- **Diversify the Russian Economy** through innovation and entrepreneurship
- **Integrate Russian science and technology** into the global economy
- **Develop human capital** through world-class research
- **Grow competitive knowledge-based companies**
Skolkovo enabling components

Russian and International Innovation ecosystem

1400 startups

Technological University

Virtual Skolkovo

70+ VCs: $720M

50+ global corporations

Office and R&D infrastructure

Biomedical, Space, Energy, Nuclear, It

Ideas

Knowledge

People

Funding

Technologies and market access

Infrastructure & community

Skolkovo ecosystem
Startup support instruments

The Skolkovo startups get:

- Access to the research infrastructure and Intellectual property protection
- Grant financing
- Acceleration and development support including mentorship program

Tax benefits:
- VAT – 0% (instead of 18%)
- Profit tax – 0% (instead of 20%)
- Property tax – 0% (instead of 2.2%)
- Social charges – 14% (instead of 30%)
- Reimbursement of customs duties
Energy Efficiency Cluster

- Startups: 343
- Revenue: ~4 bln RUB
- Employees: ~2600
- Patent applications RF/PCT: 178/130
- Investments: ~1.8 bln RUB
Innovation priorities

Oil & Gas 100 Projects
- Upstream technologies
- Downstream technologies
- Gas, coal - and petrochemistry
- Chemical technologies

Energy sector 116 Projects
- Fossil fuel generation
- Renewable energy
- Smart grid
- Power electronics
- Energy storage
- Fuel cells

Energy Efficiency 127 Projects
- Construction materials
- HVAC
- Water supply
- Metals and mining
- New materials & Coatings
- Drives & Engines

Centers for Hydrocarbons production & processing
Centers for Electrochemical energy storage and Energy systems
Center for Design, Manufacturing and Materials
Support opportunities

**Acceleration & commercialization:**

- Contacts with potential customers in Russia and abroad (energy, oil&gas, metals&mining, machinery, construction, communal sector)
- Special joint events with partners – open innovation days, conferences, project contests, bilateral meetings
- Participation in Russian and international exhibitions
- Mentorship program (60 mentors from corporations and venture industry)
- GR support (Ministry of Energy, Ministry of Industry and Trade, Ministry of Construction and Communal Services etc.)

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<tbody>
<tr>
<td>Grants</td>
<td>43</td>
<td>2.4 bln RUB</td>
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<tr>
<td>Mini</td>
<td>36</td>
<td>103 mln RUB</td>
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<tr>
<td>Micro</td>
<td>26</td>
<td>6.3 mln RUB</td>
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### Conferences

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<tr>
<th>Name</th>
<th>Partners</th>
<th>Themes</th>
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| Инновационный КВАРТАЛ | Danfoss, Saint-Gobain, Morten, Cutili XXI век, Schneider Electric | - March 18 held a roundtable on innovative solutions in housing and construction. During the discussion discussed possible solutions for the leveling of the factors limiting demand for innovation on the part of market participants  
- It was conducted pitch session 9 projects of Skolkovo  
- The event was attended by about 200 people, including industrial companies, venture capital funds, research institutions and so on.  
- The aim of the conference was to discuss the stationary and transport and storage of hydrogen technologies, NTS MINPROMTORG  
- During the event 7 exhibitors had stands  
- More than 150 representatives of oil companies from various specialized units, investment funds and research organizations  
- Participants discussed the creation of an infrastructure for testing and the testing of technologies and intellectual fields, building energy-efficient and reliable production processes  
- Summed up the results of two competitions of innovative projects Extraction 2.0 and a catalyst for innovation |
1 Open innovations days
A 6 "Days of Open Innovation" in Skolkovo. Partners have voiced the need for new technologies and presented the format of interaction with members of Skolkovo. Within each event startups had opportunity to present projects, some of them to agreed on further steps to implementation

2 Pitch session and presentation of projects
A 30-pitch session on the basis of requests for innovative technology, the participants presented individual projects in more than 60 companies
Skolkovo your key to international markets
Contests

Electrochemistry
Innovation catalyzer
Upstream 2.0
Innovation quarter

Number of participants
30
25
40
120
NOVAS Success story

- Company foundation: 2009
- Skolkovo Participant: November 2011
- Conference CERAWeek: March 2012
- Grant from Skolkovo: July 2012
- March 2013
- Awarded Total Energy USA: June 2013
- November 2013
- Skolkovo Support
- Achieved results

- 2009
- November 2011
- March 2012
- July 2012
- March 2013
- June 2013
- November 2013
- March 2014
- July 2014

- Launched JV in USA
- Industrial trials in USA
- Private investment
- Launched JV in China
RRT Success story

- **Company foundation**: January 2011
- **Skolkovo Participant**: June 2011
- **Skolkovo Grant**: September 2011
- **Industrial trials of PRIS equipment**: July 2012
- **Business mission in China and India**: Сентябрь 2012, Октябрь 2012
- **Participated in CERAWeek and NNF**: Март 2013, Октябрь 2013
- **First license agreement**: Октябрь 2013
- **Alliance with KBR**: Декабрь 2014, август 2015
- **Open office in USA and India**: Сентябрь 2012
- **First license agreement**: Октябрь 2013
- **Skolkovo Grant**: Декабрь 2014

**Skolkovo Support**
- Open office in USA and India
- Industrial trials of PRIS equipment
- Business mission in China and India
- Participated in CERAWeek and NNF
- First license agreement
- Skolkovo Grant

**Achieved results**
- Open office in USA and India
- Industrial trials of PRIS equipment
- Business mission in China and India
- Participated in CERAWeek and NNF
- First license agreement
- Skolkovo Grant

**Catalyst**

**Reactor zone**
**Ensol Success story**

- **Enter logistics market** November 2011
- **Skolkovo Participant** February 2012
- **Prize Spinverse on StartupVillage** May 2013
- **Industrial trials with AVL GmbH** June 2013
- **Minigrant** August 2013
- **Contract with AVL GmbH** September 2013
- **First revenue from sales** September 2013
- **CeMAT exhibition participant** February 2014
- **Signed JDA with Panasonic** June 2014
- **Negotiation with Panasonic** July 2014
- **Negotiation with Panasonic on StartupVillage Part 2** December 2014
- **Supply agreement** March 2015
- **Opened office in USA** March 2015
- **Supply agreement** August 2013
- **Prize Spinverse on StartupVillage** May 2013
- **Contract with AVL GmbH** June 2013
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**Skolkovo Support**

**Achieved results**
Questions you should be able to answer

• What do you want to do and what problem are you going to solve with it?
  - Clearly formulate expected product from your project

• What is your market and who is your potential buyer?
  - Define your market (in terms of product segment and geography) and its size

• Why the customer will buy your product
  - Understand your competitive advantages

• How are you going to earn money?
  - Define the commercialization model

• How to protect your results?
  - Define the IP protection model

• Who will implement the project?
  - Form the team capable to implement the project from the beginning till the commercial success
Contacts

Oleg Pertsovskiy

Energy Efficiency Cluster
Skolkovo Foundation

OPertsovskiy@sk.ru

Energy@sk.ru

www.sk.ru