

"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

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

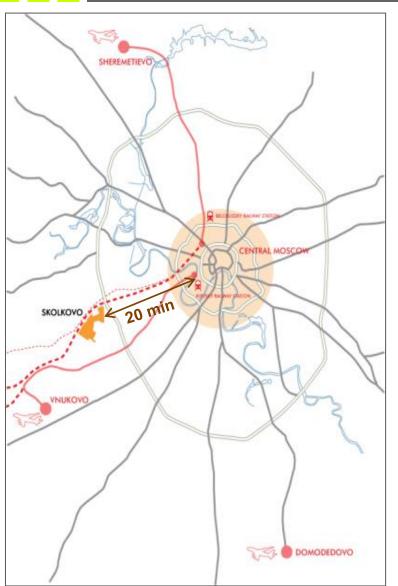
- •Service providers attracted 16, (more than USD 20mn of total economy)
- •Session of IASP 2016 Steering Committee conducted
- •Representative office in Far East Federal District launched
- •Facilities under preliminary lease agreements 15%
- •Webinars conducted 22
- •5 200 views

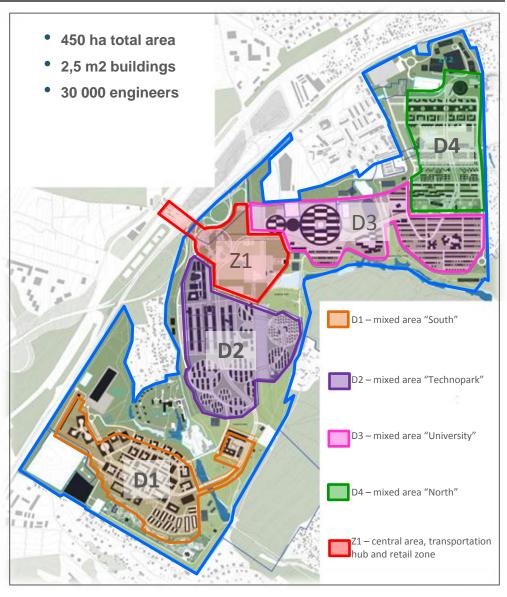
Skolkovo IP Center IP Protection

- 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







INNOVATION CENTER «SKOLKOVO» - CONSTRUCTION PROGRESS

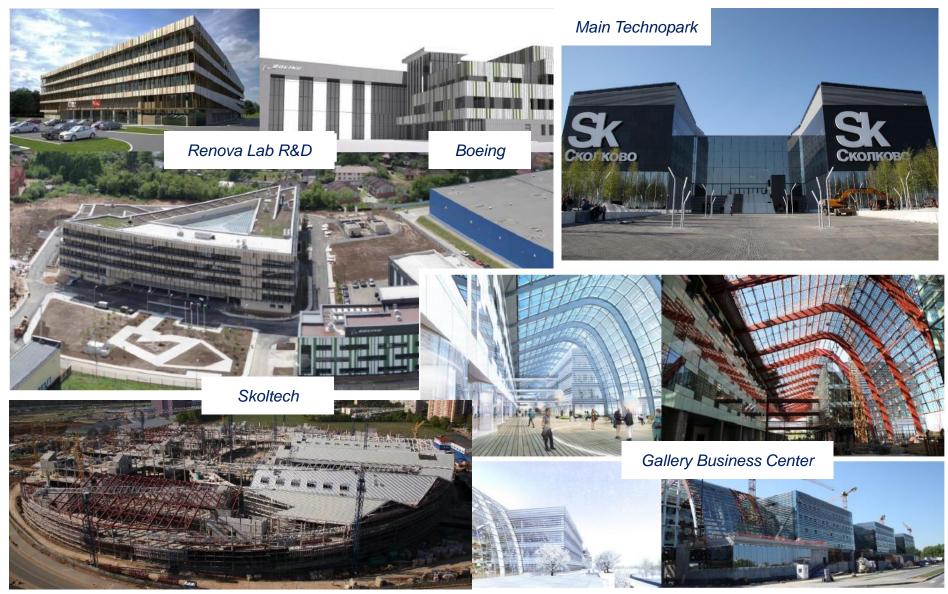






INNOVATION CENTER «SKOLKOVO» - CONSTRUCTION PROGRESS (SELECTED OBJECTS)





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



Applications for Participant status

10,000

IP registration applications 2150

Patents obtained 900

Start-ups sale abroad 150

Number of start-ups

1500

1,4 bln. USD

400 mln. USD

300 mln. USD

18,000

Revenue

Investments

Approved grants

Jobs

















SKOLKOVO STARTUPS GET UNPARALLELED SUPPORT TO DEVELOP INNOVATIVE PROJECTS



The Skolkovo startups get:



Tax benefits:

- ─ VAT 0%
- Profit tax 0%
- Property tax 0%
- Decreased social tax(14%)



Grant financing:

- Up to USD \$5 mln
- Min 50% of coinvestments



Development:

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



Intellectual services:

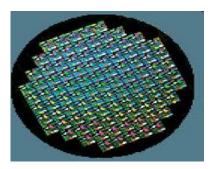
 Access to the research infrastructure and Intellectual property protection

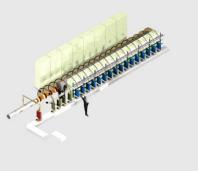
MARKET PRIORITIES FOR IMPLEMENTATION OF ADVANCED MANUFACTURING AND NUCLEAR & RADIATION TECHNOLOGIES



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

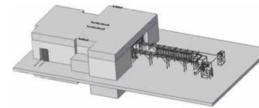












- Security and safety
- Food and water markets
- Ecological sustainability
- Scientific market

ADVANCED MANUFACTURING, RADIATION&NUCLEAR **TECHNOLOGIES CLUSTER PROJECTS* DISTRIBUTED BY TECHNOLOGICAL PRIORITIES**



NUCLEAR AND RADIATION TECHNOLOGIES







EQUIPMENT AND DEVICES







startups

NEW MATERIALS









Decommissioning, nuclear fuel management and radwaste, engineering of radiation-dangerous objects	10
Mining, recycling and refining technologies	9
Radiation technologies including nuclear medicine	11

Detectors, sensors, dosimeters	24
Laser and plasma sources, ionizing radiation	23
Electromagnetic and ultra-high frequency devices	16
Analytical and measurement equipment	19
Automation, robotics, NDT and data analysis	18

|--|

Engineering materials	
(ceramics, polymers,	
composites,)	

Materials for photonics,	
optics, electronics and	
electrical engineering	

Technology and equipment
for design, production and
processing of metals and
alloys







^{* 191} startups as of June 2016



ATTRACTION AND SUPPORT OF STURTUPS IS OUR KEY ACTIVITY IN FRAME OF CREATION OF SKOLKOVO ECOSYSTEM















On Septrmber 30, 194 startups participated in Skolkovo project and developing their technology business 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/



Developing relationship with professional associations working in NT Cluster priority areas. Joint Russian – Chinese seminar with Laser Association. Seminar "Export potential of Russian accelerators and radiation technologies with RadTech Partnership.



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









China/Taiwan











Industrial chemistry













South Korea











Mining















Security and Sensors















COMMERCIALIZATION CASES



Company



Description

Supply of components or R&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.),





Investments from Infrastructural and Education Fund to «T8 Sensors». The sum of the deal ~ 150 mln. rub.





«Optogard Nanotech» signed a contract to supply equipment for laser-plasma processing of pipes with Shandong Trustpipe Industry





R&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).



R&D contract for the sorption technology development for refining process (20 mln. Rub.)





Three side agreement Sk – Evonik – RCT. R&D contract with Evonik Industries (100 KEuro), on technology development of radiation-induced polymerization



Investments to SEMAT from machinery and instruments holding MTE KOBOCBUT MAC (Russia – Czech) on 50 mln. Rub.

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CLUSTER ACTS AS A COMPLEMENTARY PLATFORM FOR KEY RELEVANT SCIENTIFIC UNIVERSITIES, RESEARCH INSTITUTES AND VENTURE FUNDS





- 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











Institute of Laser Physics SB RAS, Novosibirsk

Institute of High Current Electronics (IHCE), Tomsk)

Institute for Spectroscopy RASInstitute for General Physics, Troitsk Moscow

Institute of Nuclear Physics, Novosibirsk

nteraction with universities

- 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.)



















KEY PARTNER EXAMPLE - FANUC CORPORATION

- 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





Fanuc center Changwon (Headquarters) 16

PARTNER EXAMPLE - KUNSHAN NANO NEW MATERIAL TECHNOLOGY

- «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.













