

# Section Sa. Science and Technology Foresight (organised by the HSE Institute for Statistical Studies and Economics of Knowledge)

Moderators: L. Gokhberg (HSE), A. Sokolov (HSE)

## 20 April, Wednesday

10:00-11:30 Room 116, M-20	Session Sa-05. Science and Technology Foresight – 1 Session moderator: L. Gokhberg (HSE)
RUS + ENG, Simultaneous translation	F. Scapolo (European Commission) Foresight in the European Commission: Contribution to policies
	A. Chulok (HSE) S&T Foresight in Russia: Methodological approaches
	K. Urashima (NISTEP, Japan) S&T Foresight and emerging issues for Japan
	I. Kuzminov (HSE) Foresight for Russian agriculture and food sector
	Discussant: J. Cordeiro (Millennium Project; Singularity University, USA)
12:00-13:30 Room 116, M-20 RUS + ENG, Simultaneous translation	Session Sa-06. Science and Technology Foresight – 2 Session moderator: J. Cordeiro (Millennium Project; Singularity University, USA)
	Y. Simachev (Russian Science Foundation) Setting research priorities in the Russian Science Foundation: First practices
	A. Edelkina (HSE) An approach to selection of mid- and long-term technological priorities for sectors of industry
	C. Cagnin (Centre for Strategic Studies and Management (CGEE), Brazil) S&T priority setting in Brazil
	K. Vishnevsky (HSE) Method of umbrella roadmaps for corporate Foresight studies
	Discussant: O. Saritas (HSE)

15:00-16:30 Room 116, M-20 RUS + ENG, Simultaneous translation

### Session Sa-07. Science and Technology Foresight – 3 Session moderator: A. Sokolov (HSE)

R. Saygitov (HSE)

Prospects of assistive technologies in Russia: Results of a Foresight study

D. Belousov (Centre for Macroeconomic Analysis and Short-term Forecasting, Russia) Scenario options and technology priorities: Implications for long-term S&T policy

J. Calof (University of Ottawa, Canada) The need for corporate and government Foresight: Failure in the Canadian telecommunications sector – The case of Nortel and Blackberry

M. Klubova (HSE), L. Matich (HSE) Integrated roadmap of S&T development of the aircraft industry in Russia

Discussant: C. Cagnin (Centre for Strategic Studies and Management (CGEE), Brazil)

### 17:00-18:30 Room 116, M-20 RUS + ENG, Simultaneous translation

## Session Sa-08. Science and Technology Foresight – 4 Session moderator: M. Keenan (OECD)

O. Saritas (HSE) Monitoring technology trends

F. Phillips (Stony Brook University – State University of New York, USA), H. Linstone (Portland State University, USA) Key ideas from a 25-year collaboration at *Technological Forecasting & Social Change* 

J. Linton (University of Ottawa, Canada; HSE), A. Grebenyuk (HSE),A. Sokolov (HSE)Self-interest and science: Implications for developing research priorities

P. Bakhtin (HSE) Analysis of Big Data for Foresight applications

Discussant: F. Scapolo (European Commission)

# Section Sb. Science, Technology and Innovation Policy Moderators: L. Gokhberg (HSE), A. Sokolov (HSE)

### 21 April, Thursday

10:00-11:30 Session Sb-09. Science, Technology and Innovation Policy – 1 Room 116, Session moderator: L. Gokhberg (HSE)

M-20 RUS + ENG, Simultaneous S. translation Oj

S. Salikhov (Ministry of Education and Science of the Russian Federation) Opening remarks

S. Schneegans (UNESCO) Global trends and best practices in STI policy

D. Meissner (HSE) Opportunity-driven S&T policy

M. Keenan (OECD) OECD Innovation Policy Platform

Discussant: J. Guenther (University of Bremen, Germany)

12:00-13:30 Room 116, M-20 RUS + ENG, Simultaneous translation	Session Sb-10. Science, Technology and Innovation Policy – 2 Session moderator: S. Schneegans (UNESCO)
	N. Vonortas (George Washington University, USA; HSE) Creation of regional innovation ecosystems facilitating university-industry interaction: The US experience
	T. Meshkova (HSE), E. Moiseichev (HSE) Best practices in the OECD STI policy: Opportunities for Russia
	J. Guenther (University of Bremen, Germany) Short-term macroeconomic effects of public R&D spending under conditions of an economic crisis
	M. Gershman (HSE), T. Kuznetsova (HSE) Performance-related pay in Russian science: Expectations and realities
	Discussant: D. Meissner (HSE)
15:00-16:30 Room 116, M-20	Session Sb-11. Science, Technology and Innovation Policy – 3 Session moderator: Y. Simachev (Russian Science Foundation)
RUS + ENG, Simultaneous translation	K. Fursov (HSE) R&D performance of public research institutions: Some results of practical evaluation

S. Zaichenko (HSE)

Technology spillovers through the Russian research institutions: The recent trends

V. Carabias-Hutter (Zurich University of Applied Sciences, Switzerland) Global horizon scanning on STI issues of relevance for the SDGs and the Agenda 2030

V. Roud (HSE) Demand for innovation policy instruments: Heterogeneity of actors

Discussant: N. Vonortas (George Washington University, USA; HSE)

17:00-18:30 **Round table Sb-12.** The OECD Innovation Imperative 2015: Room 116, **Impact on National Innovation Strategies and Opportunities for** M-20 Russia RUS + ENG, Simultaneous Moderator: L. Gokhberg (HSE) translation

Issues for discussion:

- Main recommendations and outcomes of the OECD Innovation Imperative 2015

- Prospects of its use for updating Russia's innovation strategy, elaborating S&T development strategy and enhancing Russia's government programs and National Technology Initiative

Participants of discussion:

D. Pilat (OECD), M. Keenan (OECD), A. Shadrin (Ministry of Economic Development of the Russian Federation), S. Matveev (Ministry of Education and Science of the Russian Federation), R. Tsvetkov (Ministry of Economic Development of the Russian Federation), T. Kuznetsova (HSE), M. Gershman (HSE)

### 22 April, Friday

10:00-11:30 Session Sb-13/1. Clusters and Networks in Russian Regions: The Room 116. **Role of the State Policy** M-20 Session moderator: P. Svistunov (Ministry of Economic Development of RUS + ENG. the Russian Federation) Simultaneous translation V. Abashkin (HSE), E. Kutsenko (HSE) Which clusters survive in Russia?

> N. Smorodinskaya (Institute of Economics, Russian Academy of Sciences) Networked nature of the innovation economy: Global trends and Russian realities

A. Song (George Mason University, USA) Interaction of clusters and special economic zones in Russia

12:00-13:30 Room 116, M-20 RUS + ENG, Simultaneous translation

# Session Sb-14/1. Smart Specialization for Regional Innovation Strategies: EU Experience and Applications for the Russian Regions

Session moderator: P. Rudnik (HSE)

E. Islankina (HSE) Renewal of EU regional innovation strategies for smart specialisation: Lessons for Russia

I. Ivanova (HSE) Evaluation of relative innovation sensitivity: The case of Russian regional economies

E. Kutsenko (HSE) Quality assessment of regional innovation policy: Current and advanced criteria

Discussion

Participants of discussion: A. Bannikov (Council for Study of Productive Forces, Russia), G. Kitova (HSE), T. Kuznetsova (HSE), A. Nikolayev (Russian Venture Company), D. Sanatov (Center for Strategic Research, Russia), P. Svistunov (Ministry of Economic Development of the Russian Federation)

# 10:00-11:30<br/>Room 518,<br/>M-11Session Sb-13/2. New Industrial Revolution and AdvancedRUS + ENG,Manufacturing - 1<br/>Session moderator: A. Ponomarev (Skoltech, Russia)

 $\begin{array}{l} \text{RUS} + \text{ENG}, \\ \text{Simultaneous} \\ \text{translation} \end{array} \quad \mathbf{K}$ 

K. Vishnevskiy (HSE)

How to address challenges of new industrial revolution: Foresight for advanced manufacturing

A. Borovkov (Peter the Great St. Petersburg Polytechnic University, Russia) Promising areas of advanced manufacturing development in Russia

P. Pupyrev (Rostelecom, Russia) Industrial Internet of things as a driver for new industrial revolution

D. Ivanov (NPO Saturn, Russia) Advanced manufacturing technologies in the industry: Case of aircraft equipment

Discussion

Issues for discussion:

- Challenges of new industrial revolution

- Promising areas of advanced manufacturing development in Russia

Discussant: A. Chulok (HSE)

Participants of discussion:

Representatives of Stony Brook University (USA), National Research University Higher School of Economics, Peter the Great St. Petersburg Polytechnic University, Skoltech, INUMIT, Siemens PLM Software 12:00-13:30 Room 518, M-11 RUS + ENG, Simultaneous translation

### Session Sb-14/2. New Industrial Revolution and Advanced Manufacturing – 2 Session moderator: A. Borovkov (Peter the Great St. Petersburg **Polytechnic University, Russia**)

V. Avdeev (Institute of novel carbon materials and technologies, Russia) Prospects for advanced manufacturing in the sphere of new materials

A. Kvashnin, A. Oganov (Skoltech, Russia; Moscow Institute of Physics and Technology; Stony Brook University, USA) Computational materials design: Basis for future technologies

V. Bespalov (Siemens PLM Software, Russia) Product lifecycle management in advanced manufacturing

V. Roud (HSE) Agents of the next industrial revolution: Dissemination of advanced technologies and organizational concepts in the Russian manufacturing

### Discussion

Issues for discussion:

- Trends, drivers and barriers for introduction of advanced manufacturing

- Industrial applications of advanced manufacturing technologies

Discussant: K. Vishnevskiy (HSE)

Participants of discussion:

Representatives of Stony Brook University (USA), National Research University Higher School of Economics, Peter the Great St. Petersburg Polytechnic University, Russian venture company, Skoltech, INUMIT, Siemens PLM Software



#### 10:00-11:30 Session Sb-13/3. Foresight of Renewables: Scenarios for the Next Room 513. Energy Wave – 1 M-20 Session moderator: O. Alexeev (Renova Group, Russia) RUS + ENG.Simultaneous translation

E. von Zitzewitz (German Federal Ministry of Economy and Energy; Renewable Energy Policy Network for the 21st Century - REN21) Global development paths for renewables

J. Cordeiro (Millennium Project; Singularity University, USA) Energy futures 2020

D. Bogdanov (Lappeenranta University of Technology, Finland; Energy Watch Group)

Renewable energy system options for Europe based on financial assumptions for the year 2030

12:00-13:30 Room 513, M-20 RUS + ENG, Simultaneous translation

## Session Sb-14/3. Foresight of Renewables: Scenarios for the Next Energy Wave – 2

Session moderator: Y. Golubkov (Renova Group, Russia)

V. Chuprov (Greenpeace Russia) Greenpeace energy [r]evolution: Scenarios

L. Proskuryakova (HSE), Andrey Kovalev (HSE), Georgy Ermolenko (HSE) The Foresight of renewables in Russia: Four plausible 2030 scenarios

### Discussion

Issues for discussion:

- What most important indicators should be considered in the development of scenarios for renewables?

- What are the differences and similarities in various renewable energy scenarios?

- What are the key features of the visionary future and most pessimistic renewable energy scenarios for Russia?

Participants of discussion: V. Dubrovskiy (Siberian Federal University, Russia), Yu. Manzhilevsky (SOWITEC Russia), A. Kuznetsov (OOO «RANK», Russia), A. Kosygina (HSE), A. Ogurtsov (Atomenergomash Group of Companies, Russia), A. Vetvinsky (RAO Energy Systems of the East, Russia)

15:00-16:30 Room 518, M-11 RUS + ENG, Simultaneous translation Session Sb-15. International Workshop "Science, Technology and Innovation Policy in BRICS Countries" - 1 Session moderators: L. Gokhberg (HSE); A. Vaish (Embassy of India to the Russian Federation)

L. Ogorodova (Deputy Minister of Education and Science of the Russian Federation)

A. Vaish (Science and Technology Counsellor, Embassy of India to the Russian Federation)

Opening and Welcome

[TBC] A. Vaish (Embassy of India to the Russian Federation) Science, Technology and Innovation Policy of India

M. Keenan (OECD) Innovation Policy of BRICS countries

A. Polyakov (Ministry of Education and Science of the Russian Federation) Science, Technology and Innovation Policy of Russia

Zh. Shimin (Embassy of the People's Republic of China to the Russian Federation) Science, Technology and Innovation Policy of China

R. Maharajh (Institute for Economic Research and Innovation, Tshwane University of Technology, South Africa) Science, Technology and Innovation Policy of South Africa 17:00-18:30 Room 518, M-11 RUS + ENG, Simultaneous translation Session Sb-16. International Workshop "Science, Technology and Innovation Policy in BRICS Countries" – 2 Session moderators: L. Gokhberg (HSE); A. Vaish (Embassy of India to the Russian Federation)

C. Cagnin (Centre for Strategic Studies and Management (CGEE), Brazil) Science, Technology and Innovation Policy of Brazil

I. Kuklina (International Centre for Innovations in Science, Technology and Education, Russia) Research initiatives of Russia within interstate association BRICS

### Discussion

Issues for discussion:

- Evaluation of national STI policies: Effectiveness and results
- Human resources in STI
- Building of national competitive advantages in STI

Discussant: D. Korotkov (Ministry of Education and Science of the Russian Federation)

Participants of discussion:

A. Polyakov (Ministry of Education and Science of the Russian Federation),
V. Smirnov (Ministry of Education and Science of the Russian Federation),
M. Romanov (Ministry of Economic Development of the Russian Federation),
V. Barinova (Russian Presidential Academy of National Economy and Public Administration), A. Ponomarev (Skolkovo Institute of Science and Technology, Russia), A. Sharov (Russian Foundation for Basic Research), A. Yanovsky (Russian Technology Transfer Network), A. Bagin (HSE), I. Kuklina (International Centre for Innovations in Science, Technology and Education, Russia), T. Kuznetsova (HSE), G. Kitova (HSE), A. Pikalova (HSE), speakers and representatives of India, Brazil, China, South Africa