

**THE CONCEPT**  
**Of the International Forum of Technological Development**  
**«TECHNOPROM 2015»**

**1. The Forum Title** is «The Technological Breakthrough Energy».

*The Forum title reflects the global economic agenda for the urgent demand for national and regional technological development under the current conditions. Active economic growth launch, being the main challenge of the present, is considered alongside with current threats and risks to Russia's technological development and long-term trends in the national and regional industrial and innovative policies, as well as to finding "extricating" projects, new leaders, and progressive territories, all of which being poles of the technological leap.*

*The mentioned subject development at "Technoprom 2015" Forum is associated with seeking and revealing potential and unconventional solutions to rapid technological development in Russia. The Forum participants will answer the key question: "what sources can provide the breakthrough energy?"*

**2. The Forum dates.**

June 4<sup>th</sup> to 5<sup>th</sup>, 2015.

**3. The Forum venue.**

Novosibirsk Expo Centre, Novosibirsk, Russian Federation.

**4. The Forum Goal.**

The Forum goal is developing an international business platform, intended to ensure the sixth technological stage forming, which is based on active science, technology and engineering development, international and interregional integration, "extricating" technological projects and technological poles best practices, providing technology leadership.

**5. The Forum Objectives.**

**5.1. The Forum as a discussion platform.** The Forum agenda will include discussions on priority development courses in science and engineering, extensive high-end projects and programs with related high-performing employment generation, major problems and solutions for modern knowledge and technology

system building and advancement, and high technology entrepreneurship promotion issues.

*Key performance indicator 1: The Forum Resolution.*

**5.2. The Forum as a communication platform.** New alliances between scientists, structural designers, manufacturers, investors, development institutions, expert communities, state and municipal authorities are to be built, and existing partnerships are to be strengthened at the Forum platform.

*Key performance indicator 2: number of the Forum participants in accordance with the target audience representation.*

**5.3. The Forum as an exhibition platform.** The Forum will include presenting cutting-edge engineering structures and prototyping centers, new advanced developments that will enable a considerable change in manufacturing and service industries technological base.

The exhibition for technologies, engineering projects and innovative infrastructure development institutions will be organized in island-type displays, according to branches and clusters principle. In addition, communication areas will be arranged for establishing and developing contacts with potential partners.

*Key performance indicator 3: number of exhibitors.*

**5.4. The Forum as an investment (partnership) platform.** The Forum will provide facilities for efficient communication between potential partners and direct interaction with venture investors.

Developers will be given a unique chance not only to discuss possible cooperation courses with investors, but also to organize primary road shows for their projects.

Potential partners will be able to sign agreements, memorandums and joint actions plans.

*Key performance indicator 4: number of concluded agreements.*

**5.5 The Forum as a competence development platform.** A special range of events will be devoted to raising up-to-date business competencies, related to efficient growth strategy and tactics development in high technology companies, as well as developing competence of innovation process participants, from young scientists to entrepreneurs, higher education institutions and innovation infrastructure representatives.

*Key performance indicator 5.* The Forum participants' satisfaction with new competencies acquisition (survey).

## **6. The Forum history.**

In line with implementing the Russian Federation Presidential Decrees dated May 7, 2012 # 596 "On the long-term national economic policy" and the # 599 "On measures to implement the state policy in the field of Education and Science", since 2013 Novosibirsk region has hosted the annual International Forum on technological development, titled as "TECHNOPROM" (hereinafter - "Technoprom").

The strategic goal of the "Technoprom" Forum is expert and analytical support for the global technological leadership of the Russian economy. Within "Technoprom", leading Russian scientists and experts, representatives of state and municipal authorities, and technology investors participate in the development of propositions for public and public-private scientific, technical and innovation policy.

"Technoprom" is supported by the Military-Industrial Commission under the Government of the Russian Federation (currently titled as Military Industrial Commission of the Russian Federation), Russian Industry and Trade Ministry, Ministry of Economic Development of Russia, Ministry of Education of Russia, Federal Agency for Science Organizations of Russia, Siberian Branch of the Russian Academy of Sciences, Technical Universities Association of Russia, Association of Innovative Regions of Russia, and Autonomous Non-commercial Organization "Agency for strategic initiatives for new projects promotion."

The Forum has become a significant event in the country life, has attracted leading companies and experts from Russian regions and foreign countries, taken the position of a national business platform. The Forum participants have proposed a number of solutions to ensure the transition of the Russian economy to the sixth technological stage through active science, technology and engineering development and new industrial policy implementation. In particular, "Technoprom" outcome recommendations have helped to shape the re-industrialization policy in Novosibirsk region. As part of this policy, a cooperation agreement between Novosibirsk Regional Government and Ministry of Industry and Trade of the Russian Federation has been signed. To date, Novosibirsk Regional Government has begun to work on a program on the technological development in the region.

In addition, a long-term cooperation development between the Siberian Branch of the Russian Academy of Sciences and the Foundation for Advanced Studies has become an important outcome of the Forum. Within this cooperation, advanced scientific and technological projects that present state security and defense importance have been sought and selected.

Implementation of advanced scientific and technological projects will provide a new generation of materials, devices, micro-, nano- and opto-electronics, development of hypersonic technology, high-precision laser systems, nanobiotechnologies, intelligent information and infotelecommunication systems.

## **7. "TECHNOPROM 2015" Forum agenda.**

The international Forum of technological development "TECHNOPROM" holds a position of national discussion and communication platform where concerned parties are involved in concept vision formulation and developing particular propositions and solutions to achieve the technological leadership of the Russian economy.

The main purpose of the agenda is to find sources that can provide energy for the technological breakthrough.

Taking into account that, under current conditions, imposing economic sanctions against Russia will hinder achieving technological leadership of the Russian economy, implementing and developing high technologies must be focused, at a significant extend, at the domestic and partner countries' markets. An import substitution program, unprecedented in its scope, is to be brought into action, especially in the area of industrial production. It is necessary to revive entire industries to place full manufacturing cycles within the territory of Russia. On the one hand, this ambition will require ensuring advanced technologies transfer, including offset transactions mechanism. On the other hand, proper conditions should be created for developing national (scientific) technological base for manufactures re-equipment.

Modern enterprises ("digital factories") are created in places with high educational and scientific potential. In this regard, it is advisable to provide deep integration of new industries with scientific, research and educational organizations.

### **Topics for the Forum main discussion panels:**

1. **“Extricating” technological projects:** "intelligent technologies", "human genome", "smart city", "personalized medicine", "biotechnology", "deep processing of natural resources", etc. (description of the projects that solve social and economic development problems).

*Format: “scientists -- entrepreneurs -- development institutions -- the authorities”*

2. **New technologies and import substitution** for the defense industry, utilities infrastructure, energy, engineering, transport (active demand development for technology replacement).

*Format: "Investors -- scientists -- manufacturers"*

3. **Road maps:** biotechnology, photonics, composite materials, engineering and design, IT.

*Format: "Russian and foreign technological entrepreneurs"*

4. **Technological breakthrough poles:** regional innovation clusters, development institutions, industrial and technology parks, special economic zones, national research institutions and universities ("best practices").

*Format: "presentations of poles development best practices"*

5. **National-level scientific and technological installations:** Mega-science, beam accelerators, colliders, wind tunnels, laser, plasma and electrical boards, radars and radio telescopes, medical and specialty chemistry networks, system of fine organic and inorganic synthesis, vivarium, sounding stations, and supercomputer centers ("centers for experimental knowledge").

*Format: "presentations of best results and plants development directions"*

A special place in the program will be given to the panel discussion on Space Technology, including a summit on Space Medicine and Biotechnology. The topic is dedicated to problems and development prospects of cellular technologies, basic technologies for producing advanced bio products under microgravity conditions, as well as ways of applying them; arranging bioregenerative processes and unique life-support systems to simulate mass transfer processes for future long-term deployment space stations. In addition, a summit on GLONASS will take place, devoted to development and application of software and technology solutions based on GLONASS satellite system in various economy sectors and for public safety purposes. Scientific application of GLONASS system is also to be considered (ornithology, biological species distribution, fauna protection, robots and UAV remote control, etc.).

The Forum will include Conference on Re-industrialization Program for Novosibirsk region.

It has been a tradition to hold the analytical expert symposium on Dynamics of the industrial development of the region, the country and the world, Issues and

Challenges. This time the discussion topics will include the general trend of the world development towards the "return" to industrialization based on new technologies, and analysis of necessary conditions for implementing both the country and regions industrial development strategy.

The program of the IX Siberian Venture Fair will include a joint panel on Smart investments.

The Forum will also host a number of satellite events, integrated into the program.

## **8. The Forum Organizational Partners**

- 8.1. Military-Industrial Commission of the Russian Federation;
- 8.2. The Government of the Russian Federation;
- 8.3. The State Duma of the Federal Assembly of the Russian Federation;
- 8.4. Russian Academy of Sciences;
- 8.5. FASO Russia;
- 8.6. Foundation for Advanced Studies;
- 8.7. Russian Science Foundation;
- 8.8. Open Government;
- 8.9. Russian Technologies;
- 8.10. Rosatom;
- 8.11. Rusnano;
- 8.12. Roscosmos;
- 8.13. JSC "Russian Railways".

## **9. The Forum Strategic Partners:**

- 9.1. Agency for strategic initiatives for new projects promotion;
- 9.2. Siberian Branch of Russian Academy of Sciences;
- 9.3. Association of Innovative Regions of Russia;
- 9.4. Technical Universities Association of Russia;
- 9.5. Chamber of Commerce of the Russian Federation;
- 9.6. The Fund for Infrastructure and Educational Programs;
- 9.7. JSC "Academician MF Reshetnev "Information Satellite Systems"

9.8. Federal State Budget Institution of Science RF State Science Centre "Institute of Biomedical Problems, Russian Academy of Sciences"

9.9. Yu.A. Gagarin Research and Test Cosmonaut Training Centre

## **10. The structure and format of the Forum discussion.**

Traditionally, the Forum communication space is created in the form of various sites where possible direct interaction between researchers, inventors, designers, producers, managers and investors takes place. The format of the discussion is also traditionally built on a combination of topics, related to breakthrough technologies development and necessary conditions for achieving technological breakthroughs. This combination will enable "Technoprom 2015" Forum platform to promote effective communication, strengthen partnerships between representatives of government, science, education, industry and business.

Within the Forum discussion agenda, the following issues will be considered: priority development courses for science and technology, large-scale high-tech projects and programs, main problems and solutions for the modern knowledge systems and infrastructure technology development, high-tech entrepreneurship promotion.

The Forum structure secures top marks in the field of expert analysis of a new industrial revolution, a recent years' phenomenon, targeted at the revival of modern national industry and employment generation in the real industrial production and high-tech services.

Within the main discussion subjects at "Technoprom", development of a number of technology areas will be considered like photonics, energy, including alternative sources, technology for the Arctic, nanomaterials and nanotechnology, infotelecommunication technologies and instrument engineering, biomedical technology. The latter will include building up a Russian national competence center for personalized medicine in Novosibirsk region.

Issues of current importance and the discussion format will make it possible to identify weak links in technology, formulate and enhance consumer demands, increasing life support quality, reboot development institutions and conditions for technological poles development, and identify the "elegant principles of the fifth force" for active production and managing the technological breakthrough energy.

"Youth is a source of the breakthrough energy" is the youth-focused Forum line, targeted at innovative activity stimulation among young scientists and students, especially with respect to projects with 10-20-year implementation terms.

The Forum format will combine thematically interrelated congress and exhibition events.

## **11. The Forum Target Audience.**

- 11.1 scientists and researchers, students and professors;
- 11.2 new leaders of project management and innovation infrastructure;
- 11.3 designers and high-tech entrepreneurs;
- 11.4 investors, including those in venture capital;
- 11.5 manufacturers of new products and services;
- 11.6 representatives of state and municipal authorities.

## **12. Expected Forum results.**

The Forum will demonstrate the capabilities of providing expert and analytical support for Russian economy global technological leadership.

The Forum will present propositions for cutting-edge engineering structures and prototyping centers, new advanced developments that will enable a considerable change in manufacturing and service industries technological base.

Scientific and innovation potential integration within the Eurasian Economic Union, the BRICS and the SCO will also receive a fresh impetus for joint activities implementation.

Examples of regional best practices of import substitution, based on introduction of high technologies, will allow replicating the successful experience in other regions.

A practical guide for project teams and their leaders, as well as scientists and engineers, will give an option of using the most important action skills for successful projects / missions accomplishment.

A project for building up a Russian national competence center for personalized medicine in Novosibirsk region will be presented.

The Forum outcome recommendations will include public policies aimed at achieving technological leadership of the Russian economy, including terms of national "extricating" projects implementation (in the field of critical technologies).