EXECUTIVE SUMMARY

Of the Action Plan ("The Roadmap") for the Implementation of the Program for Enhancing the Competitiveness of ITMO University (Stage Two – 2015-2016).

The strategic goal of ITMO University in 2020 is to achieve a leading position among the world educational and research elite by introducing cutting-edge research in the fields of IT and Photonics, developing highly skilled personnel and commercializing its R&D in the interests of improving the competitive advantage of our country.

Based on this model, ITMO University sees itself in 2020 as market leader in specialized technical niches and an active socio-economical actor capable of creating in-demand intellectual products and programs for a knowledge-based economy. Its efforts are focused on tackling tech challenges of the near future.

Technical competencies of ITMO University, namely in IT, Photonics and their convergence, allow the University in the next five to seven years to become a leader on the national and international scale in such areas: secure personalized information delivery, BigData, of bio and cognitive compatibility (sensors, chips, devices and machines with humans), and the preservation of objects of cultural legacy.

By anticipating potential technological "dead ends" and developing promising technologies and solutions with own competencies, ITMO University is positioning itself towards forming new markets and creating a technological infrastructure of the future. The challenge of personalized data delivery is solved by a quantum approach to generating, transmitting and analyzing information (quantum communication, quantum cryptography, quantum teleportation, etc.). Preserving national legacy can be achieved using IT and photonic technologies

(interactive virtual museums and theaters, optoclones, etc.).

The top areas for utilizing unique technologies are medicine and biology, robotics, modeling and intelligent management systems, urban science and design, art.

The new design of ITMO University is based on the development of those research areas. Priority is given to:

- Focusing and concentrating resources on those areas;
- Aiming the educational programs at training specialists who will form the labor market of the future and have competencies necessary for eliminating technological barriers;
- International recruiting of researchers and instructors, specializing in the designated areas;
- Developing of network partnership with ITMO University playing a leading role in determining challenges and finding solutions.

These principles are the foundation of the six core strategic initiatives (SI): science, education, HR, communications, innovations and management systems. The second stage of the program (2015-2016) can be considered a proactive stage. The strategic initiatives during this time are aimed at the active internationalization of the University, improving the quality of R&D, and widening the network of partners and collaborations. The action plan includes specific steps and instruments outlined for 2015-2016.

The key concepts of the strategic initiatives for 2015 – 2016 are presented below:

- SI 1. Securing the world-class level of scientific research and development projects, notably in the fields of IT and Photonics.

The University's main competitive advantageis its unique scientific research and educational profile in line with its development of the cutting-edge

technologies of the XXI century. Among the goals for SI 1 are the improvement of quality indicators of research results (growth of publications from 2015 to 2020 by 2,5 times, citations by 100 percent) and establishing a financially sustainable research system (the percentage of income from research in University's total income at 53 % by 2020). Some of the instruments and mechanisms of this initiative include: competition-based selection of projects and international research centers in priority areas, new organizational forms with partners (Institute of Translational Medicine and Institute of Urban Design); large international projects; international conferences; inclusion of University's journals into Scopus Database (two journals by 2016 and three by 2020); financial incentives for publishing for faculty and students; fundraising and diversification of income sources (with priority to growth of orders from high-tech enterprises).

- SI.2. Global Education: personal development and professionalcompetitiveness

This initiative is aimed at attracting talented undergraduate and graduate students, internationalization of education, and development and delivery of competitive educational programs, including online programs. Instruments and mechanisms of SI2 include: contests, international centers for high school students (one example is "The World of Science" project at Lakhta Center aimed at popularization of science among young people); multidisciplinary programs, delivered in partnership with leading universities; European accreditation of educational programs (32 by 2020).

- SI.3. Creation of a corporate culture and environment that positively impacts on the development of highly professional staff/faculty

This initiative is designed to transform the system of personnel management with the emphasis on international recruiting and international mobility. Instruments and initiatives include: “ITMO Fellowship & Professorship” program, open competition, job fairs, collaboration with the Russian scientific community abroad (the number of foreign professors, instructors and researchers is expected to grow by 1.7% in 2015 and 7% by 2020); programs of national and international mobility (20% partner universities that participate in academic mobility programs in 2015 and 45% by 2020). Other tools include staff development programs, setting of key performance indicators and launch of effectiveness-based contracts; career guidance for students and graduates, an alumni association.

- SI.4. ITMO University’s global brand-building

This initiative is aimed at promoting ITMO on a global stage and building its international reputation. Some of the instruments and mechanisms include: rebranding; PR-projects and events, such as participation in the International Year of Light and Light-based Technologies; open coworking spaces, such as ITMO OPEN, ITMO PLACE, ITMO MEDIA, ITMO LAB; pool of University experts for media; Internet marketing and social media; print materials, photo, audio and video content; creative student projects and campaigns; University’s corporate culture.

- SI.5. Growth of the innovation ecosystem potential: knowledge and technology transfer

This initiative focuses on promoting University’s innovative projects in the global marketplace, expanding collaboration with business and developing a technology transfer service on an international scale. Some of the instruments and mechanisms include: partnerships with the leading high-tech companies, pre-seed fund, venture fund (100 million rubles in 2015 and 600 million rubles

in 2020); contests of innovative projects; innovative infrastructure services, including technology brokerage (40 startups in 2015 and 70 by 2020); regular technological audit; systematic development of social entrepreneurship; workshops and seminars with leading entrepreneurs and investors.

- SI.6. Transformation and development of the ITMO university management system based on the principle of the ‘Entrepreneurial University’ model.

This initiative calls for modernizing and raising the effectiveness of the management system, restructuring of the academic and administrative units, ensuring of financial stability, as well as initiating and delivering large-scale development projects. Instruments and mechanisms include: organizational diagnostics and optimization of business process; transformation of the organizational system (reorganization of 10 departments, addition of a “single window” service unit); development of the information ecosystem; shared governance; representative offices in Belgium and Italy. System development projects include the city of innovations “Innograd”, international cluster of information and photonic technologies in art and culture, as well as University-based tech initiatives.