**Executive Summary to the 2016 Report on implementation of the Action Plan for the Program to Increase Competitiveness («Road Map») of the Federal Public Budgetary Educational Institution of Higher Education «National Research Tomsk State University» for the period of 2013-2020 (2 st stage – 2015-2016).**

The present report reflects the course and the results of implementing the Competitiveness Enhancement Program Event Plan of the Federal State Autonomous Institution of Higher Education National Research Tomsk State University Among the World’s Leading Research and Educational Centers in 2016.

Activity throughout the reported program period was dedicated to completing the target model, developing the innovative ecosystem, reengineering the educational process, creating and developing the StrAU consortium, active positioning, and reputation management.

The basic NRTSU processes which are cornerstone to the University target model also known as the Genome of the University are reevaluated. Those processed include production of scientific knowledge, education and innovation founded on core values (classicality, fundamentality and openness) of the University. New understanding of the uniqueness of NRTSU being a classical university led to a focus on enhancement of the quality of human life and life of society.

The complex crossover interaction between the three listed processes and core values determines the contents of the university target model’s elements, university policies, procedures, and mechanisms of their implementation, which are present in the Competitiveness Enhancement Program Event Plan of the University. All the events held in 2016 were aimed at realizing the key university policies, such as integration of education and science, individualization and internationalization in education, integration of University’s research groups into the leading international academic networks. One of the results is establishment of four StrAU.

StrAU are interdisciplinary graduate and postgraduate institutions embedded with comprehensive bachelor’s programs. Both are interlinked via the projects offered to bachelor students based on research conducted in the Institutions. StrAU concentrate on the research integration (laboratories and centers of excellence), innovation (innovation ecosystem) and education (management of the academic programs). It is aimed at complex issues and trans-disciplinary research methods and focus on knowledge transfer.

At the national level StrAU projects are tuned with the process of defining the key technologies and promoting Russian fast-growing and globally oriented companies to new markets (including the leaders of the National Technology Initiative (NTI)). These companies are major StrAU personnel consumers and R&D customers. In order to involve the key partner enterprises, the Board of Industrial Partners was established.

In 2016, in accordance with the strategies and events of the Competitiveness Enhancement Program Event Plan (the Roadmap) and StrAU Activity Plan for 2016, we developed and approved the regulations, procedures, and other local acts, which regulate the activity of StrAUs; Administrative and Academic Councils of StrAUs were created; the groups of divisions constituting each StrAU were determined, and the staff schedule was formed; the system of financial support for StrAUs was approved; complex integrating research projects were prepared; the promotional events on operation of the StrAU system and each StrAU were organized and conducted; public discussions of the Strategic Academic Units were held; and organizational and scientific events were hosted by StrAUs.

To efficiently develop the innovative ecosystem (infrastructure), to form the entrepreneurship culture and the innovative-entrepreneurial track in education, the Institute of Economics and Management (hereinafter referred to as IEM) was created in 2016. The aim of the Institute is to become a leading institution of economics and management education. The IEM is structured according to the highest international standards and includes the business incubator and the department for technology transfer.

To conduct 100 events and 22 tasks set out in the Roadmap, TSU’s scientific, pedagogical, and administrative staff are carrying out 137 organizational, educational, and research projects in 6 priority areas of development.

The most considerable achievements are: creating and developing 4 Strategic Academic Units; reengineering of the educational process; developing and introducing 11 joint Master’s and Postgraduate programes (where universities in another country are a party); implementation of 57 joint international programes; creating the environment for generating new projects, participation of over 1,000 employees in implementing the research, educational, and organizational projects; recruiting 127 international scientists and experts in 2016; and having over 1,100 publications in first and second quartile scientific journals in 2016. Total number of publications in Web of Science and Scopus is over 2500 (increased fivefold since 2013 (464)).

Since 2013 the ranking of NRTSU in the QS World University Rankings improved by 300 points, and now the University occupies the 377th position. It also entered the top 100 universities of the BRICS countries according to QS (the 43rd position, 6th among Russian higher education institutions). In the QS World University Rankings Emerging Europe & Central Asia (EECA), TSU rose to the 20th position (5th among Russian higher education institutions). In the Times Higher Education BRICS & Emerging Economies Rankings 2016/17, TSU occupied the 60th position in the general list and was the 9th among the Russian higher education institutions. In the Round University Ranking (RUR) of leading world universities, TSU rose by 112 positions, occupied the 249th position, and became the 4th among Russian higher education institutions. In 2016, TSU improved its positions in the Webometrics BRICS ranking and occupied the 108th position (153rd in 2015).

Choosing StrAUs, we empashized research, technological and staff support of the processes of the transformation of the human and society in transition to the new industrial mode, which determined the choice of new priority areas of research that focus on personnel training (first of all, Master's and PhD) and transdisciplinary research in four key areas of change: Human (Institute of Biomedicine), Society (Institute of the Human of the Digital Era), Physical Media (Institute of Smart Materials and Technology), Environment (TSSW: Siberian Institute of the Future).

Establishing the StrAU stimulates reengineering of education and completes the Bachelor’s, Master’s, and PhD fields of the university. These fields save deep integration, but obtain the clear specific character, which is manifested in the complementary results of activities and the key efficiency markers.

The educational process of StrAUs consists of the unique and integrated interdisciplinary suprafaculties of Master’s programes. Programes taught in English and Russian are based on problem- and project-oriented education with research and entrepreneurial tracks, and with employers involved in the development and implementation. StrAUs form a portfolio of projects and advise its implementation by students of corresponding Bachelor’s programes. The module-based structure of main curriculums, as well as additional education, additional professional education, campus courses, and elective courses are intended for implementation of the individual educational way.

The management structure is based on shared governance. The administrative and educational offices of StrAUs were founded to organize and supervise programes, projects, their financing, and recruiting.

The StrAU Institute of Biomedicine is a hub of biomedical technologies that improve the quality of human life and provide active longevity, and development of translational medicine.

The leading scientists working at the Institute are: Harald zurHausen, Nobel laureate in physiology and medicine, Honorary Doctor of TSU; Julia Kzhiskovska, head of the department at the Institute of Transfusion Medicine and Immunology, University of Heidelberg; Professor V. Zharov, University of Arkansas for Medical Sciences; Professor K. Larin, University of Houston; Professor Stephen Johnston, Co-Director of the Biodesign Institute (Arizona State University); Daniel Stamate, University of London (Goldsmiths College); Thomas Preusser, Technical University of Dresden; and others.

Institute of Biomedicine is focused on interdisciplinary research projects, based on the research results of Centers of Excellence and technological projects with leading companies. Examples of these programes are the Master’s programes developed and implemented in 2016: Translational Chemical and Biomedical Technologies, and Data Mining and Bioinformatics.

In 2016 the Translational Medicine Alliance (TMA) was established to accelerate the implementation of the most advanced achievements of the fundamental science into practical healthcare. The alliance includes the National Research Tomsk State University, the National Research Nuclear University “MEPhI”, National Research Lobachevsky State University of Nizhni Novgorod, and the Foundation “North-West Center for Strategic Research”. TMA universities will also open network educational programs for graduate and postgraduate students in some new areas: at the intersection between physics, chemistry, biology and medicine, to train experts capable of using cutting-edge science in the practice of medicine.

Preparatory work for establishing the Translational Medicine Consortium was performed to develop system integration with Siberian Medical University (SibSMU) and five academic institutes of the former Academy of Medical Sciences in accomplishing large joint projects. In August 2016, TSU took part in a meeting on complex development of the medicine and pharmaceuticals industry in the Tomsk Region. The consortium documentation package has been prepared containing TSU projects. It is planned that joint projects will lead to establishing small joint innovative enterprises to produce products for clinical use.

In addition, TSU, SibSMU, and Maastricht University (the Netherlands) concluded an agreement to open the first International Public Health Center in Russia. The scientists of the three universities will conduct comprehensive study of health problems from medical, sociological, philosophical, and ethical perspectives. The center is to be opened in 2017.

The Center of Excellence in High Technologies in Medicine was developed to improve effectiveness and quality of the scientific activity of StrAUs. It develops technologies of diagnostic and treatment in cardiology, oncology, and neural diseases.

The Smart Materials and Technologies StrAU is an academic hub of international level, which trains competent specialists, performs research in predicting the physical and chemical characteristics of new materials and technological processes at the nano- and meso-levels using mathematical and computer modeling, followed by the full cycle of research, production, and implementation of smart materials and technologies.

In 2016 we developed and implemented the interdisciplinary Master’s (Fundamental and Applied Chemistry) and PhD programs (Heat Engines and Power Stations of Aircrafts. Partners: Soyuz FCDT, and Dmitry Mendeleev University of Chemical Technology of Russia).

The main results of the research activities by the StrAU are 2 license agreements with Dectris (Baden, Switzerland) for the right to use two objects of the commercial secret (know-hows) in semiconductors amounting to 147.5 million rubles (33.4 million rubles in 2016). Besides, we directly exported semiconductor X-ray detectors for the leading research centers, earning 24.6 million rubles.

In 2016, TSU became an associate member of the international collaboration ATLAS. For the first time since the 90s, the Atlas Collaboration welcomed a new Russian member. As of early 2017, the TSU team has two Atlas authors: more than 100 research articles are published in the leading international journals. The research group of TSU continues working at the Large Hadron Collider (LHC) of the European Council for Nuclear Research (the largest megaclass aggregate). The programe of work was formulated and received approval of the Scientific and Coordinating Committee of the Kurchatov Institute, the ATLAS group of Brookhaven National Laboratory (US), and was supported by the leadership of ATLAS. TSU develops electronics to modernize the ATLAS detector of the LHC in collaboration with the scientists of the Brookhaven National Laboratory (US), Weizmann Institute (Israel), and other participants in the ATLAS project. TSU radiophysicists are designing radiation-resistant detectors to study characteristics of the Higgs boson under the ATLAS project. More than 80 research organizations and universities from around the world, mainly from EU countries, the US, Japan, China, Brazil, and Chile, are included in the collaboration.

We hosted the “High Energy Materials: Demilitarization, Antiterrorism and Civil Application” international conference with more than 20 leading world researchers in high energy materials and systems participating (USA, UK, Japan, Germany, France, and more than 50 scientists from the leading Russian research and industrial organizations).

The Centers for Excellence of StrAUs were developed to improve the effectiveness and quality of scientific activity: the Center for Physics investigates fundamental problems of life; the Center for New Materials investigates advanced high-powered constructions and materials with shape memory, for health and safety.

In February 2016, Tomsk State University founded the “TSSW: Siberian Institute of the Future” StrAU, which is a research center specializing in studying Siberia and promoting recognition and international academic image of TSU.

The following scientists and experts, including members of the International Academic Council of TSU, work at the institute: Terry Callaghan, professor at the University of Sheffield and co-chairman of the International Academic Council; Harald zur Hausen, Nobel laureate in physiology and medicine; Yulia Kzyshkovska; Sergey Pokrovskiy; and Dmitriy Funk. TSU is viewed as a connection point between the world and the region, which opens possibilities to establish new academic networks in which the university plays a leading role in international research projects.

In 2016, the interdisciplinary Master's programes linked to the research of TSSW were developed and implemented: Siberian and Arctic Studies, Russian Studies, and Eurasian Integration. These are aimed at enhancing integration of educational and research activities and developing international research Master's programs. These programes are partners with the leading international universities and networks: UArctic; INTERACT; Observatoire Midi Pyrénées (France); Cardinal Wyszyński University (Poland); Geophysical Institute; University of Alaska Fairbanks (US); and industrial and administrative partners of TSU such as the administration of the Tomsk Region, Khanty–Mansiysk Autonomous District, the Yamal–Nenets Autonomous District, Gazprom Space Systems, and Tomgiprotrans.

In 2016, two Master’s programs of the StrAU TSSW: Siberian Institute of the Future were accredited: Historical and Regional Geology (05.04.01, Geology subject area), Mineral Resources Geology (05.04.01, Geology subject area).

A Siberian network to study environmental change (SecNet) was established based at TSSW. The network connects scientists who jointly study human influence and the influence of global climate change on the ecology of Siberia and the Arctic to forecast the negative impacts of these influences. The following interdisciplinary research centers are the participants in the network: BioClimLand TSU, Canadian Mountain Network, USA NEON, and Arctic INTERACT.

The University organized and hosted the following international interdisciplinary schools: Science as a Life Form summer research school and seminar at the premises of the Kaibasovo TSU research station, English Summer School Heritage of Eurasia: Past, Present, Future, Summer School of Intensive Russian, Geology, Geography, and Ecology of the Asian Highlands summer school. More than 300 people from 8 countries participated.

In 2016, scientists from TSU won two megagrants for a total of 90 million rubles under the decree of the Russian Government No. 220. One of the projects, which is devoted to the study of the languages of Southern Siberia, belongs to a group of TSU scientists under the supervision of the corresponding member of Russian Academy of Sciences Ann Dybo. The second project is establishing a laboratory of geochronology and geodynamics that will work on determining the age of geological features and the exact capacity of Siberian deposits. Scientists from TSU, US, China, Canada, and Spain will be working on the project; the Canadian scientist Richard Ernst is the supervisor. The project is planned to last three years (2017–2020).

The Institute of the Human of the Digital Era was established in 2016 with the goal of developing digital research. This is an interdisciplinary research center for innovative methods of data analysis and machine learning, studying the influence of social relations between humans on rational economic and social decision-making.

The Institute includes the Laboratory for Experimental Methods of Analysis of Big Data in Social and Cognitive Sciences headed by Mikhail Myagkov, professor at Oregon State University (US) was established. Industrial partners of the Institute are Kribrum (Moscow), a social media monitoring service that trains TSU students and employees in methods and technology of social media data collection; InfoWatch; Kasperskiy Lab; and Ashmanov & partners. Data processing and storage are performed using the TSU supercomputer. Team members are well-known Russian and international scientists: Anatoly Gershman, Carnegie Mellon University (US); Konstantin Vorontsov, professor of the Russian Academy of Sciences; Denis Zorin, dean of the faculty of Computer Science, New York University; Mikhail Myagkov, professor of the University of Oregon (US), head of TSU REC and the Laboratory of Experimental Methods in Social and Cognitive Sciences; and others. The following scientists were actively involved in the work of the Institute: Julia Kovas, director of the International Laboratory for Interdisciplinary Investigations into Individual Differences in Learning (InLab), Goldsmith, University of London (UK); Rod Kiewiet, Professor of Political Science, California Institute of Technology; and others.

The Jean Monnet Center of Excellence, which investigates the experience of the European Union in youth policy and democratic processes of strengthening of the civil society in Russia at a regional and local level, was founded to improve the effectiveness and quality of the scientific activity of StrAUs.

The educational process consists of the unique and integrated Master’s programes: Digital Technologies in social and humanitarian practices, Humanitarian Informatics, Human Development: genetics, neuroscience, and psychology.

More than 60 projects amounting to 300 million rubles were completed by the Institute of the Digital Era StrAU in 2016, including: Government Grant in Cognitive Psychology (the RF Government Regulation No.220); genetically informative longitudinal research of young children’s psychological development; humanities in the digital era; establishing Russian high-technology PIK to realize the technological processes management systems based on free software (the RF Government Regulation No.218); studying the interdisciplinary scientific foundations for social robotics in humanitarian informatics; mathematical modeling of reconfigurable systems of information managing and processing, and more.

International assessment of projects; involvement of leading scientists, competitive procedures for support of projects; support for professional development of scientific and pedagogical personnel; support of interdisciplinary research projects relevant for the world research agenda; integration into international research networks were directed to improving the quality of research and enhancing TSU’s reputation in the international scientific and educational space.

In 2016, the annual strategic session of the International Academic Council of TSU was held. The main topic was reengineering of the educational process. Leading experts discussed the strategy of the university’s advance in world rankings, the educational policy, development of publishing activity in subject areas and activity areas, and the strategy of development of StrAUs.

TSU’s D. I. Mendeleyev Scientific Fund for implementing research projects in world-class laboratories and initiative research projects was conducted to concentrate on the priority directions of development of basic and applied research and their support in line with the priorities of the Programe. Projects at a cost of over 520 million rubles were approved. A grant competition for academic mobility of scientific and pedagogical personnel, graduate students, young scientists, and students is held quarterly.

Seven Centers of Excellence that were established in 2014 and 2015 received further development in 2016 to improve their infrastructure and increase the efficiency and quality of their research. The Center for Biota, Climate and Landscape Research BioClimLand investigates complex life ecosystems; the International Center for Human Development Research studies cognitive issues of early human development and genetic and environmental factors of genius and educability; the Center for Physics investigates fundamental problems of life; the Center for High Technologies in Medicine deals with cardiology, oncology, and technology for neurodisease diagnosis and treatment; the Center for New Materials investigates advanced high-powered constructions and materials with shape memory, for health and safety. The Jean Monnet Center of Excellence investigates EU experience in youth politics and democratic processes with a view to contributing to strengthening civil society in Russia, in particular at the regional and local level.

Advanced staff training, stimulus measures, and education of the research staff have led to an increase in the number and quality of publications. The important effect was an increase in the number of articles, written by the main academic staff of university (about 65%) without participation of part-time workers. The overall number of articles published by the university’s academic staff in 2016 comprised more than 2,500 articles indexed in the Web of Science and Scopus citation indexes, 1,100 of those were published in the journal with Q1 and Q2 quartiles.

In 2016, six TSU journals were included in the Scopus citation index, including Siberian Historical Research and Tomsk State University Journal, Philology. TSU became the only Russian university to have two journals in humanities to be indexed in Scopus. TSU is a co-founder of an international historical journal Rusin, which is indexed in Scopus and has entered Q1 as the best historical journal in Eastern Europe. TSU staff has electronic access to the main publishers, citation indexes, and databases: Elsevier: ScienceDirect, Illunine8, SciVal, Scopus, BCC Research, Thomson Reuters Web of Science Core Collection, InCites, Journal Citation Reports, Essential Science Indicators, EndNote,.

For plans to conduct research taking into account high-priority international directions of fundamental and applied research, the total amount of the agreements that are being implemented and that were made, as well as contracts and projects, comprised about 1.65 billion rubles, more than 70% of it for large-scale contracts and grants.

The most essential scientific-technical projects and grants implemented by the university in 2016 are:

• 2 grants from the Government of the Russian Federation for state support of scientific research implemented under the guidance of leading scientists in Russian educational institutions of higher professional education by the following branches: geosciences and related ecological sciences, cognitive psychology, history, and archeology;

• 1 complex project on creating high-technology production, from the Ministry of Education and Science of Russia;

• 20 projects that are being implemented in the federal special purpose programe Research and developments on high-priority branches of development of scientific and technological complex of Russia for 2007–2012, from the Ministry of Education and Science of Russia;

• 15 scientific projects in the basic part of the state assignment of the Ministry of Education and Science of Russia; according to the results of competitive selection in the project part of the state assignment, 19 scientific projects were supported– the total is 34 projects;

• 19 projects financed by the Russian Science Foundation (RSF) with total funding in 2016 of 123.2 million rubles;

• Grants of Russian Foundation for Basic Research (RFBR) and Russian Humanitarian Scientific Foundation (RHSF) (171);

• RF President Grants for Young Scientists (young PhD–15, young Doctors of Science–4).

In 2016, the University revisited the innovative activities organization model and introduced the new office of Vice-Rector for Innovation to develop the external innovation contour. The office is held by Konstantin Belyakov, Vice President of Elikard SC. An action plan was developed and launched to organize federal- and regional-level events; develop infrastructure; create favorable conditions for projects in Tomsk; form financial support; actively cooperate with Asian markets; and negotiate with international companies on competitive products developed by Russian universities and companies.

A complex collaborative program has been developing via innovation, research, and education projects implemented jointly in collaboration with high-tech advanced manufacturing companies, including Russian Technological Agency, Military Engineering Corporation, Sibur-Holding (Moscow), Concern VKO Almaz-Antei (Moscow), SDS Azot (Kemerovo), RosHimZaschita (Tambov) Rostechnology, Pharmocontract (medical instrumentation and pharmacy), Reshetnev Information Satellite Systems , United Heavy Machinery , OPK Oboronprom , United Aircraft Corporation , RusGidro , Mikrogen Medical and Immunobiological Drugs Research and Production Company FSUC, Morinformsystem-Agat Concern , Kamaz, RPC Mikran , Roskhimzashchita Corporation, Gazprom Space Systems (remote sensing and connection), Dectris (sensors for synchrophasatrons), Starline (intellectual security systems), ASB (education technology), Elesy (medical instrumentation), Angioline (titanium nickel alloy cardiovascular stents), ArtLife (food and biologically active additives), and advanced divisions of large corporations such as Sibur.

Tomsk State University was the first to introduce the Industrial Partners Council as a way to involve high-tech companies in the university management processes, which is unparalleled in Russia. The Industrial Partners Council includes: Mirriko group of companies, Makeyev State Rocket Center , Micran NPP (R&D), Kamaz , Reshetnev Information Satellite Systems , Shvabe , Transneft-Central Siberia , Pharmocontract , Artlife Ltd., Tomlesdrev Ltd., TVEL , SKTB Katalizator , Elesy , Tomskneftekhim Ltd., Siberian Chemical Plant, Altai FRPC , Soyuz Federal Center of Duel Technology (state company), National Immunobiological Company , Industrial Development Fund, NIOST Ltd., Rostec , Radiosvyaz NPP , and Russian Federal Nuclear Center.

In the 2014–2016 state support to pilot project engineering centers established and developed through the Ministry of Education and Science higher educational organizations, TSU was allocated 150 million rubles for support and development, with 60 million rubles in funding in 2016. The principal goals of the Engineering Chemical Technology Center are to promote university developments to the market and provide R&D for enterprises. The Center boasts among its partners such giants as Sibur, a large chemical plant in Kemerovo KAO Azot, Kamensky FTE, Novochem Trading Ltd., VladMiVa R&D Plant , Krezol Ltd., ZAO Mikran, and others.

In the RF Government Regulation No.218 and in collaboration with its industrial partner EleSy, TSU pursued developing a domestic high-tech program tool complex for realizing technology processes control systems based on free software, a project won by TSU in 2015. More than 300 million rubles will be invested in the project, with Elesy covering 50% of the total.

To promote university developments to international markets and stimulate the university small enterprises’ growth and internationalization, TSU has joined the International Association of Science Parks (IASP), which is developing a global network of the most active and significant incubators and technology and research parks in the world. To enter Asian markets, an agreement of collaboration was concluded with PlaTCOM Ventures Sdn Bhd (Malaysia).

TSU has also become a regional partner of the GenerationS accelerator. The GenerationS start-up accelerator is considered the largest in Russia and Western Europe. Its best projects receive Russian Venture Company (RVC) and accelerator partners’ financial support. The GenerationS–2016 prize fund amounts to 15 million rubles and the overall value of prizes from partners is estimated at over 100 million.

TSU has become a leader in the first Russian Federation university innovation ranking, ranking third among top universities. TSU is operating 34 innovation and enterprise programs, maintaining innovation collaboration agreements with 100 companies, and houses 659 intellectual property objects.

Two license agreements on the right to use two objects of commercial secrets (know-hows) in the field of semiconducting materials and products at a cost of 147.5 million rubles (33.4 million in 2016) were reached with Dectris (Baden, Switzerland). Moreover, semiconducting detectors of X-Ray emissions were also directly supplied, ordered by the leading research centers at a cost of 24.6 million rubles.

The IEM was established to effectively develop the innovative ecosystem (infrastructure), form the culture of entrepreneurship and innovative and entrepreneurial track in education, based on the results of staff audit of structural subdivisions of Tomsk State University, implementing the educational programes in economics and management (with the participation of Sberbank Corporate University). The TSU Institute of Innovation, Economics and Management aims to become a leading center of economics and management education beyond the Urals. Over the last several years, the university has been carrying out preparatory work to ensure this. Today TSU has strong partners in the areas of economy and management, such as Sberbank, Ernst & Young, KPMG, and other international companies. ACCA (Association of Chartered Certified Accountants), a partner association, carried out professional accreditation of the Master’s program Finance and Accounting in Organizations and awarded it an international mark of quality.

The Institute was developed on advanced international standards; it incorporates a business incubator and technology transfer department and concentrates on economics and innovation management research and training. By 2020, the Institute is expected to become a leading school of management in Northern Eurasia and acquire the role of an innovation ecosystem coordinator—of a high technology transfer hub, focusing on the Central and Southeast Asia markets. The Institute’s Bachelor’s and Master’s programs meet international standards.

The IEM manages the educational process according to the academic programs. Problem-Based Learning (PBL) was selected as the primary educational technology. In the next three years, this technology will be adopted at the Bachelor’s and Master’s level (jointly in collaboration with Maastricht University) and a global level PBL competence center is expected to form. This step will allow dissemination of experience to the Russian education system (supporting universities, for example) and commercial technology transfer in Northern Eurasia. PBL is an individual-centered and problem-oriented style with a large share of time spent on independent investigation and acquiring knowledge to respond to a problem, and it involves working in small groups with a moderator instead of a teacher. Delegates from the University of Maastricht (Netherlands) visited TSU in November 2016. The purpose of visit is to transfer the problem-oriented education, that is PBL-technologies (Problem-based Learning) to the educational practice of TSU. The Netherland experts demonstrated lessons (tutorials) for students and university staff, as well as observed a range of faculties to determine the organizational readiness. Tomsk State University, in collaboration with Maastricht University, has developed an action plan for the next two years. The Maastricht University lecturers and experts will perform in-person and distance consulting functions and provide advanced training and retraining for lecturers, instructors, and tutors to implement PBL at TSU.

Reengineering of education was based on the fundamental principles of academic activities at TSU: integration of science and education; individualization of education and talent development; internationalization, and it includes: development of new approaches to the contents, educational technologies, and administration of the educational process.

The target model of our graduate is a developed person able to act beyond the professional limits and create the new technological and social reality in enhancing the quality of life in the information society.

The University aims to train a graduate who is able to self-develop and change the current practices in management, society, and technology of the rapidly-changing world and the open future.

The key skills of a graduate are:

• Ability to act in uncertain situations;

• Problem-based thinking;

• Research in professional activities;

• Ability to self-develop and be a leader;

• Cultural skills.

To implement the policy to form the individual educational trajectories of students, campus courses are introduced, that is lectures and seminars on different subject areas, which can be studied by students of all faculties in addition to the main curriculum.

The campus course catalogue is available at the TSU web page (www.cdeq.tsu.ru/courses) and contains 118 disciplines, including employer courses and courses in English. In 2016, 1,592 TSU and non-university students were enrolled in the TSU campus courses.

The campus courses project resulted in TSU quality standard criteria development and approbation, taking into consideration the individual educational trajectory within larger programs.

The “Support of Training in the Area of Art and Culture in TSU” scholarship fund was established with support from university alumni and Gazprombank to support talented students of the TSU Arts and Culture Institute studying on a fee basis.

The high educational standard is confirmed by the international and national professional accreditation received. Six Master’s programs were accredited in 2016. A number of complex interdisciplinary programs are planning to merge Master’s and Doctoral tracks and develop 5-year PhD programs.

To promote the academic content of the university in the world academic field, in 2015 an agreement of cooperation was signed with Coursera, an American MOOC platform, which hosts 23 MOOCs by TSU. Two TSU MOOCs in Russian were developed and uploaded to the Lektorium (www.lektorium.tv/mooc) enlightenment project media base: Astonishing World of Geography and Probability Theory–Science of Chance. Also developed and uploaded was the “Genius. Talent. Golden Mediocrity” online course to diversity, a European MOOC-platform media base. In March 2016, a delegation from TSU partook in a Coursera international partner conference in The Hague, where the parties discussed further development of collaboration between the university and Coursera, as well as issues of positioning, marketing, and promoting TSU’s open online courses in the international academic field. Due to the “Regulations on TSU Online Courses Credits” implemented in 2015, students are able to use the MOOC within their main curriculums, i.e. students may skip a repeating course, provided the online course is included in the list of recommended courses by the faculty or the main curriculum board.

Since 2014, TSU has developed 34 MOOCs (4 of which are in English). In 2016, TSU MOOCs were completed by more than 93,000 people from 150 countries, with 25% of them being from 80 countries including Germany, Italy, USA, Spain, France, Israel, Netherlands, Scotland, Norway, Vietnam, Bulgaria, Poland, Czech Republic, Serbia, Hungary, Greece, Taiwan, China, India, Kazakhstan, Uzbekistan, Kyrgyzstan, Armenia, Moldova, Belarus, Estonia, Latvia, Ukraine, and Russia. 55% of the students heard of TSU for the first time thanks to the MOOC. In 2016 TSU developed 19 online courses, including the first online speciality «Digital SMM Project: Virtual Platform for Business Communications», which began in May 2016 on Coursera. An agreement of cooperation was also signed with OOO Stepik on joint development and organization of online studies in MOOC. In April 2016, Tomsk State University hosted the third «Massive Open Online Courses: Developing, Promoting, Implementing» Siberian School with international participation.

In 2016 TSU won an EdCrunch Award for the Best MOOC Practice.

To implement the “development and approbation of methods of developing and implementing Master's Programs with modules as remote courses with participation of international professors in universities that are members of the 5-100 Program”, in 2016, TSU enrolled students to 6 off-campus Master's Programs:

– Management of Social and Educational Innovations;

– Strategies and Technologies of Humanities Personnel Management;

– Modern Social and Humanities Technologies of Work with Youth;

– Philology in General Education;

– Humanities Informatics;

– Information Processes and Systems.

The information on the Programs is on the TSU website (http://tsu.ru/content/education/upr/magistratura/), the website of the Institute of Distance Education of TSU (http://ido.tsu.ru/magistr/), and on social networking pages.

As part of the project of forming a multilanguage environment, there are three functioning English-speaking clubs (with more than 500 participants), including one in which Tomsk residents may participate; campus infrastructure in English is developing; English testing is performed for the personnel of faculties and services; there is an extensive Program for teaching English to managerial and university staff; and there are functioning centers of academic writing in English, a center of language competence, and 3 translation centers in socio-humanitarian and physical, mathematical, and natural science disciplines. In 2016, the English Practice Laboratory at the Research Library opened its doors for postgraduate students and lecturers of TSU, where they can discuss issues of written/oral English with employees of TSU who are native speakers.

11 winter and summer schools were developed and organized, and they involved international experts and leading scientists. Undergraduate and graduate students from 46 different countries participated in the schools including students from Nanyang Technological University (Singapore), Durham University (Great Britain), University of Leeds (Great Britain), University of Sussex (Great Britain), Sun Yat-sen University (China), University of Wroclaw (Poland), University of Verona (Italy), and many others. The schools covered various areas of knowledge: Russian language and traditional culture, intercultural communication, social entrepreneurship, management, Earth sciences, and information technology

In 2016, 680 TSU students received funding for academic mobility, which they used to study and complete internships in 17 countries. As of the first half of 2016, the total number of TSU students who have participated in international events was more than 10% of the student body.

In 2016, 11 joint programs were developed and implemented with international universities; in total, 57 joint international academic Programs were implemented, with 166 students from 14 countries enrolled, including 15 international double-degree Programs, 26 exchange Programs, and 7 joint PhD Programs.

TSU was one of the first Russian universities to participate in the Tempus Program. Now, TSU is working on 5 projects, and the double Master's degree Program with Vrije Universiteit Brussel is active. Three Tempus projects that TSU implements with international partners have had supervision by international experts.

This year TSU has successfully completed certification and received the license to host TOEFL iBT examinations (international English language examination). Employees of the Research Library and the International Division received the right to administer tests from the examination company, ETS (US). The Testing Center began its work as early as this fall.

In order to efficiently recruit international students, TSU entered an institutional partnership supported by the ERASMUS+ European Commission grant Program. This international academic project is scheduled for three years, with a grant amount of 996,500 euros. The partnership includes Siberian and Kazakhstani universities, European universities, Russian Academy of Sciences institutes, and water supply organizations.

2016 saw the international student grant support actively developing. The TSU International Students Grant was established to attract talented students from abroad to study at TSU and to support a multicultural academic environment.

An adaptation Program run by the International Student Services Center is being implemented in English, Chinese, German, Italian, and Arabic. Involvement of student volunteers was broadened, Buddy program was begun, Arabic, English, Chinses, Japanese, and Hebrew speaking clubs were held regularly.

TSU developed and implemented 7 postgraduate Programs in English. In 2016, TSU students got the opportunity to prepare and defend their dissertations to obtain the PhD degree from TSU. Also, the traditional grant contest «PhD Scholarship TSU» was organized for international students for postgraduate studies at TSU in the 2016-2017 academic year under «Internationalization of postgraduate/PhD and post-doctoral studies». 107 postgraduate students from abroad study at TSU, and they represent such countries as Egypt, Iran, Saudi Arabia, Algeria, Pakistan, Tanzania, India, Vietnam, China, Mongolia, Italy, Poland, Yemen, Bangladesh, and Laos.

The total number of full-time international students was 1,772, which equals 15.01% of the total number of students.

To support international students, the International Division established the Department for International Student Adaptation. In 2016, more than 150 students from partner universities successfully completed the course Russian As a Foreign Language and partook in contests in the Russian language.

For the purposes of complex studies of Russian and further enrollment for Bachelor's and Master's Programs of the university the Preparatory Faculty was established. It operates in two modes: teaching Russian as a foreign language and training candidates for humanities (History) and sciences (Mathematics) profiles for entrance exams and study at the university.

To find promising candidates who are oriented toward research more quickly and to form «our target candidates» who meet the target model, the university implements network projects with the general education system of the Tomsk Region and Siberian Federal District and established a network of TSU partners that includes the Regional Center for Education Development, the Intermunicipal Centers for Development of Talent (9 centers in the Tomsk Region), the Department of General Education in Tomsk Region, 32 education institutions with the status of regional centers of innovation implementation, schools that are experimental platforms of TSU for development and implementation of joint Programs of specialized education (100 schools), and the methodological services of municipal entities.

In 2016, the TSU Internet Lyceum remotely taught 115 Programs involving 1,011 schoolchildren from more than 40 regions of Russia and also from Kazakhstan, Iran, and the United Kingdom; it also hosts scientific, popular-science, and artistic events for schoolchildren. TSU has 5 remote-course schools for development of talented children. More than 6,437 children are involved in projects and events on the TSU School Portal.

In 2016, TSU offered a project «Creating conditions for implementing personalized academic trajectories in project and research activities by high school students» as part of the agreement with the Administration of Tomsk Region and Tomsk Polytechnic University on Joint Activities at a session of the Board of Academic Development of the Region. During the academic year, students had the opportunity to conduct their projects and research with the consultation of university students and faculty lecturers. University lecturers have developed exercises of various levels of difficulty: information search, analysis, and projects in interdisciplinary fields: Nature, Society, Human, Engineering, Culture. The exercises were uploaded at the TSU School Portal «University Prospect», which serves as a platform for students' initiatives, where they can be introduced to activities of faculties, research laboratories, and Centers of Excellence, and learn about the university resources for following the academic trajectory.

To coordinate the joint work with schools and to enhance the university's role in the regional education system, the «Open university classes» in municipalities were organized. The open university class lets students take courses and classes in specialized fields, metasubject courses, trainings, and practicums in project and research activities, development of communication, leadership, and entrepreneurship skills.

250 teachers from Tomsk Region, Siberian Federal District, CIS systematically used the interactive portal created, «University Prospect», to support individual and team activities of students in projects and research for 786 high school students.

The annual conference of TSU partner schools took place in April 2016.

In February 2016, TSU held the 20th International Tutors Conference and Workshop “Diversity and Individualization as a Way to Develop Educational Culture”. The participants analyzed individualization practices in education, summarized the 25-year period of the tutor movement in Russia, and discussed the foundations of designing a world-class university educational model with experts from Germany, the Netherlands, and Belarus and representatives of Montessori and Waldorf pedagogy: Kristof Johannsen, Sandra Veenstra, and Alexandr Polonnikov.

The strategy for TSU internationalization, which was developed with the help of QS consulting group, is based on establishing a multicultural environment at the university, active participation in associations and partnerships by TSU, and cooperation with international research and education centers.

In 2016, TSU became a member of the european university continuing education network (EUCEN), which includes more than 180 members from 36 countries. TSU became one of the 4 Russian universities to join the organization.

In 2016, the university, as a member of the prestigious international organization UArctic, partook in the Arctic Science Summit Week at the University of Alaska Fairbanks (US).

TSU is also a member of the world largest union of tech parks, International Association of Science Parks and Areas of Innovation–IASP and the coordinator of the Association of Russian and Indian Universities.

TSU continues its activity as the coordinator of the Global Universities Association's Conference of Italian University Rectors (CRUI). The initiative is aimed at attracting Italian students to TSU Programs, to determine best practices, and to exchange experiences. In 2016, a TSU delegation participated in the seminar of the work group of CRUI and the Global Universities Association that was organized by employees of the University of Turin and Tomsk State University, with TSU being the coordinator of the work group appointed by the Association. In addition, it was attended by representatives of other top-tier Russian universities, HSE, ITMO, MISIS, Lobachevsky University, UFU, and NSU. The Italian side, in addition to the University of Turin, was represented by the University of Sacro Cuore (Milan), Milan Polytechnic University, Tor Vergata University, L'Orientale (Naples), University of Siena, and Turin Polytechnic University.

In April 2016, the memorandum of understanding on the establishment of the Eurasian Network University (ENU) was signed. The initiators of its creation were TSU, Moscow State University and St. Petersburg State University of Economics (SPbSUE); they also created the model of ENU development. The signing took place at the meeting of representatives of the leading universities in the member states of the Eurasian Economic Union (EAEU): the Republic of Kazakhstan, Kyrgyz Republic, Belarus, and others.

In November 2016 in India TSU held an International Educational Forum - Russian Education as an Opportunity Space. The Forum was held with the support of the Association of Russian and Indian Universities which was founded in 2015. Tomsk State University and Indian Institute of Technology Bombay are the coordinators of the Association. Tomsk State University will host the platform for international cooperation of Russia and Southeast Asian universities aimed at exchanging experiences.

In 2016, the university hosted 80 international events, and the university was visited by 23 international delegations and more than 150 international heads of universities, scientists, educators, politicians, diplomats, and administrators.

In 2016 activities to recruit students to study at TSU from the leading universities from abroad was continued.

To find promising candidates for 2017-2018 TSU participated in the following educational fairs: EAIE-2016 (Liverpool, Great Britain), China Educational EXPO (China), Russian Education Fair 2016 (Mongolia), Education & Training Expo-2016 (Indonesia), Russian Universities (Vietnam and Laos). To recruit international students TSU organized a number of events in China (visit to Shenyang Polytechnic University, Dalian University of Foreign Languages, Dalian University of Finance and Economics); Laos (National University of Laos); Vietnam (schools of North, Central, and South Vietnam that have Russian in their curriculum); Indonesia (Sepuluh Nopember Institute of Technology, Padjadjaran University, Udayana University, Gadjah Mada University). The share of international students of the main curriculum is increased to 15,01%, 10,8 in 2013 for all students.

In May 2016, an international conference with the participation of rectors “Experience of national Programs of academic excellence” was organized; it was dedicated to the 138th birthday of TSU. Delegations from universities in China, India, UK, USA, Malaysia, Vietnam and other countries came to participate. 20 candidates were presented for long-term study at leading international universities training under the Global Education Program; 7 of them have been approved and are at the University of Maastricht (Netherlands) and the University Medical Center, Leiden (Netherlands).

In 2016, agreements with 22 leading universities were concluded, including Leiden University, Netherlands; Nanyang Technological University, Singapore (QS-13), Ecole Polytechnique, France (QS-53).

In 2016, 1,021 employees participated in TSU mobility programs, 42% (432) of whom were young employees, who performed 254 internships, including 146 in Russia and 108 abroad; they also participated in 767 conferences (including 616 scientific conferences), including 579 conferences in Russia and 188 abroad. Study and development of the best organizational practices and their use by academic and administrative staff in training is one of the resources for updating management procedures and increasing their efficiency.

In total, the trainees visited 38 countries, including Armenia, Austria, Belgium, Bulgaria, Great Britain, Hungary, Germany, Greece, Denmark, Ireland, Israel, Italy, Kazakhstan, Canada, China, Laos, Malta, the Netherlands, Norway, the United Arab Emirates, Poland, Portugal, Republic of Belarus, the Republic of Korea, Poland, the Republic of Malta, Serbia, Montenegro, Slovakia, USA, Taiwan, France, Czech Republic, Switzerland, Sweden, Estonia, and Japan. Study and development of the best organizational practices and their use by academic and administrative staff during training is one of the resources for updating management procedures and increasing their efficiency.

Concentrating and managing talent with research potential and motivation for self-development was based on creating an internal environment aimed at attracting and retaining leading researchers and teachers, including those from leading international universities. In 2016, the Centers of Excellence, laboratories, and academic units employed 127 international scientists and experts. In order to attract young researchers and teachers, including those from leading international universities, for laboratory research and reading courses in English, TSU held an open international competition for grants to young lecturers and researchers and employed 15 postdocs. An adaptation Program was implemented, which includes assistance in finding employment, the extension of visas for international experts, holding formal and informal meetings, teaching the Russian language, and support in everyday life for international postdocs.

The objectives of this phase are aimed at the professionalizaing management, involving staff in the transformation process and university management, developing a matrix management model with a combination of elements of shared governance, developing internal communications, and engaging in culture change.

Professionalization of managerial positions in 2016 was achieved through involving leading international and domestic experts, training and retraining of personnel, providing internships for the study of the best university management practices, consulting and analytical support on managerial practices, using a system of effectiveness of contract managers and personnel rotation, and creating a talent pool of administrative personnel to conduct organizational projects that improve competitiveness.

TSU is also conducting a comparative analysis of the best international practices for university management. University management team representatives visited a number of universities in China, Japan, Taiwan, Laos, and the United Kingdom. In June, a delegation of the university headed by the rector studied the best practices of management at the University of Dusseldorf and in the Netherlands at the University of Maastricht. The outcome of these meetings was the extension of the cooperation agreements, preparation of proposals to enhance cooperation in the subject areas, and the establishment of a system of training, including online and new projects.

In March 2016, a symposium «Models of universities in the Russian system of education» was held, the participants of which were the rectors of leading universities and representatives of the Ministry of Education and Science.

In early 2016, the forum ‘Education of the Future for the National Technological Initiative (NTI)’ took place at TSU. Among the participants were experts of the Agency for Strategic Initiatives, representatives of educational tracks of the NTI, teachers representing higher education in Tomsk and the Tomsk Region, employees of institutions of higher education, and parents.

In December 2016, the first meeting of the project Higher Education Institutions as Centers of Creating Innovations was held at TSU. The Deputy Minister of Education and Science, Lyudmila Ogorodova, representatives of the Tomsk regional administration, and heads of Siberian and Asian universities took part in the meeting. The organizational and technical support of the project provided by TSU.

Experts of the SKOLKOVO School of Management, headed by A.E. Volkov, held five strategic sessions; the permanent work of the thematic groups involving top managers, leaders of scientific and pedagogical staff, young teachers and researchers, and student representatives (over 400 people) was organized. The system of support of the university’s quality and services and the policies and mechanisms to make it possible were developed.

The university implemented a programe for improving management competencies of the university leaders, including implementing a project under the supervision of O.B. Alexeev, an expert in the field of management of changes. 11 workshops were held during 2016. The project aimed at transforming the TSU organizational culture, reducing administrative barriers, developing internal communication, increasing the efficiency of organizational measures, adjusting the styles of interaction between the management of TSU and its divisions.

To form internal motivation of the academic staff, the University is creating the innovative and active environment, which sustainably supports the process of management of changes. The focus on the professionalization of management was combined with the involvement of key staff in the discussion of the major decisions and in the implementation of projects under the Programe. During 2016, the key communication events, meetings with the personnel of divisions and laboratories, strategic sessions, public meetings of the Council, and open seminars were attended by more than 1,500 employees, with more than 900 employees participating in the projects of the Programe.

As a part of the project titled ‘Establishment of innovative and active environment sustainably supporting the management of changes’, and in order to attract the employees, the University uses such means as open seminars on management of changes, organization of project, analytical, and expert groups at divisions; open expert and analytical seminars and programs on innovations in education, science, and university management, meetings between the personnel and the administration of the University.

In total, the reported period saw more than 170 events organized; the events are connected with realizing the Competitiveness Enhancement Program. Besides, innovative activity by the academic staff is stimulated via contest/grant mechanisms, and also using the bank of initiatives by the TSU staff dedicated to the key development fields. In 2016 the University held the third grant contest: 17 of 30 applications are now projects supported by the University. Those projects aims to spread the best practices of education and research. Starting in 2013, more than 60 projects have been completed to date with more than 1500 employees and students of the University participating.

The electronic version of the map of the proactive environment is being filled with information about the current projects, activities, and participants (http://innomap.tsu.ru/). In 2016 the university released the «Digest of initiative projects» to describe the results and prospects of the already implemented projects. The printed version was issued; the electronic version is available at http://innomap.tsu.ru/UploadFiles/12978.pdf . In 2017, the University plans to elevate the TSU Bank of Initiatives to the city level in order to involve the region to creating and evaluating the new ideas.

In order to provide the analytical support of the change management and the formation of a university model in the economy of knowledge and refinement of the TSU target model, Peter Shedrovitsky gave a series of webinars titled «How to adapt to the Third Industrial Revolution and at least somehow benefit from it» as part of the program.

Participation of the academic and management staff in forming the talent pool based on the principles of talent management became on the tools of personnel involvement. As a part of this program, the University developed individual development programs, organized a series of events to develop competencies, including lectures and seminars dedicated to research activity by modern scientists, events aimed at development of management skills, English language classes, and participation of the members of the talent pool in strategic events of the University. The program is coordinated with the analogous projects and programs by the leading Russian universities as a part of network interaction of the member-universities of the ‘Global Universities’ Association.

The scientific and practical conference “HR Trend 2016: Talent management and corporate culture transformation” was held at TSU on 10–12 November 2016. The conference was devoted to the problems of recruitment and training of talented employees at the top Russian universities. Its primary purpose was to create a community of researchers and practitioners working in the field of training high-potential employees.

In 2016 TSU was the only institution to receive “SKOLKOVO Trend Award”. “SKOLKOVO Trend Award” is awarded by the Moscow school of Management SKOLKOVO to the best projects implemented by corporate and state partners of the business school. TSU received an award for training of personnel reserve within the framework of the strategic development program.

The system of shared management was developing in 2016, as 50 boards and commissions in various areas continued to operate. They included over 1,100 representatives of academia and management. New commissions of the Academic Council were established. The membership of the Executive Board was broadened by including the heads of Centers of Excellence and laboratories; the meetings are attended by deans and directors of institutes. In 2016 it held two meetings of the Supervisory Board, in which the decisions were made regarding more than 20 issues.

Positioning and development of communications in the university were being built based on the target model. Informational support of the Program aims at the engagement of leacturers, academic staff, and students in the implementation of the Program activities, facilitating the corporate interaction to achieve strategical goals of university, form the positive image of university as a leading scientific center of science, education and innovations. The active information policy aims at the growth of reputation and international advancement of university.

Websites of our partner universities provided information about employees of TSU who participated in the activities of the university, as well as links to the TSU site. TSU main website is translated into English and Chinese. In 2016 the number of visitors rose by 46%.

Articles about TSU were published in The Independent, The Sun, phys.org, Mirror, Saberian Tames, Huffington Post UK, Science Daily, and Daily Mail. More then 700 articles were published.

The Russian media, including the publishing house Kommersant, journal Expert, Russian Reporter, Rossiyskaya Gazeta, Vedomosti, news agency Interfax covered development of gallium arsenide matrix detectors, IT cluster, development of wide profile lasers, new control technologies, and other topics. TV reports were shown by Russia Today, Pervyi Kanal, Rossiya 1, 5 Kanal, NTV. More then 15,000 stories were shown.

TSU is present in 7 social networks in Russian and English: VK (24,435 followers), Facebook (2,969 followers), Twitter (2,539 followers), Instagram, Youtube, and Google+. These services post in English and Russian. TSU is also present in a Chinese social network QQ (over 2,500 followers). TSU begun work in Telegram (100 followers). In 2016 the number of active followers online grew by 12%. The Ministry of Education and Science, 5-100 project, Vesti Nauka, Study in Russia, TSU partners and field media frequently cite TSU communities.

TSU’s Science Portal where one can find information on priority areas of research, leading laboratories, researchers, announces, and scientific news of university begun to work. To develop an internal communication system, the «Word of the Rector” section http://www.tsu.ru/rektor/ included 23 articles and 124 news items in Russian and English on TSU’s website, reflecting the most important events in the context of changes, which take place at the university from the rector's perspective. 101 materials on the best research and educational practices of the university were published in the corporate newspaper Alma Mater.

The ‘Internal E-Communications’ project was completed. The project allowed the University to develop the motivation of the staff for participating in the TSU e-communication according to the modern corporate standards and helped create the mechanisms for obtaining the feedback on the attitude of TSU employees to the changes in the university via internal e-communication. The number of subscribers of the internal corporate email grew by 20%. This project makes employees more loyal to changes that happen at the university and motivates them to work towards common goals set out in the Competitiveness Enhancement Program.

As part of the project, PR-events were held, which supported the discussion of the TSU Corporate Code: ‘Corporate Culture of the Classical University: Role in Forming the Professional and Personal Identity of a Graduate’, ‘Development of Innovation-active Environment Supporting the Management of Changes to Form the TSU Administration Talent Pool’, ‘Creating the TSU English-speaking Environment to Attract Students from the Leading International Universities’, and more.

As part of the project of campus transformation to promote a creative modern environment focused on the new educational content and technologies and interdisciplinary cooperation between students, in 2016 the research hall was opened in the TSU Scientific Library, that is the place supporting the development of joint activities and projects, as well as the scientific center Siberian Institute of the Future (TSSW), which is the base for the leading interdisciplinary research of region.

The campus transformation project is building the ideology of openness, an accessible environment, and a «smart», energy-efficient, and safe campus.

In 2016, the University renovated the territory of the campus. In order to establish the ecocampus, 2016 saw the project dedicated to introduction of the ‘third locations’ (territory for socializing, group work, and artistic activities) continue.

In 2016, the TSU campus territory was enhanced with the modern high-technology developments in construction, reconstruction, and design with the use of new materials. Public places in 6 TSU residence halls were modernized, auditoriums in 7 TSU buildings were renovated. Major renovations were performed, including 29 auditoriums, new laundry complexes were appropriated. The works on friendly environment continue, as several buildings were equipped with ramps for students with special needs.

In 2016 we also worked on enhancing of the law enforcement support systems, developing mobile applications on MacOS and Android, apps for applicants, for students who live in residence halls (‘TSU.Helper’), application for evaluation of services.

A complex of events to modernize the system of TSU corporate services was realized with special attention to the introduction of the mobile university: modernization of the unified TSU corporate accounts service, modification of personal profiles system for TSU employees, development and implementation of the subject dedicated to mobile application development into the educational process.

Activities for cooperation with a local community and advancement of scientific and research, social and cultural city environment were conducted within implementation of the Third role of university. TSU follows the open policy to engage the local community to the university life. Public access to the TSU infrastructure is provided for Tomsk residents and guests: Scientific Library, Botanical Garden, Cultural Center (concerts of the TSU Chapel Choir, Ensemble of violinists of TSU, jazz-band TSU-62), and Sports Building of TSU. Over 5.5 thousand citizens attended the university museums at the event “Night of discoveries of TSU”.

The educational project “Open university” is continuing, developing within informal education, and encouraging the development of social partnership of the university and growth of its authority in Tomsk. Over 6,000 citizens studied the additional general programs.

A system for the TSU museum complex and exhibition halls of the TSU Research Library has been created. It works with different segments of the museum’s audiences: preschool children, schoolchildren, TSU students, and those from other educational institutions, as well as guests. Excursions and tours and educational activities are conducted for all audiences: pre-schoolers, schoolchildren, students, and guests of the university. In 2016, 892 excursions for more than 23,000 visitors were conducted.

These events reflect the realization of the ‘third role’, which is based on interaction between TSU, local community, businesses, and administration.

The results achieved in 2016, the dynamics of completion of the Program (publications in WoS and Scopus – more than 2500 (fivefold (464) increase since 2013); since 2013 QS World University Rankings(THE) improved by 300 points) express the new quality of TSU development.

To conclude, the modified University target model, which was implemented in the management policies and mechanisms; currently, provides the basis for NRTSU sustainable progress in the global academic community, increase its efficiency and international recognition.