

CREATING A WORLD-CLASS UNIVERSITY
IN THE HEART OF EURASIA



**Ural Federal
University**

named after the first President
of Russia B.N.Yeltsin

URAL FEDERAL UNIVERSITY



- Red dots are universities in THE top 200
- Purple dots are universities from THE top 200-400

Source: Times Higher Education World
University Rankings 2012-13

ABOUT THE UNIVERSITY



ON THE WAY TO THE WORLD'S UNIVERSITY ELITE

*Festival for first-year students
"First day at Ural Federal"*



**VICTOR KOKSHAROV,
RECTOR**

Ural Federal University is a new generation and new standards university. UrFU has already become one of the leading universities in Russia having a precise development plan and aspiring to enter the world's university elite. We are proud of the fact that the university is implementing the Competitiveness Enhancement Program; the main aim of the program is to enter the top-100 of world universities by 2020. This is a historic opportunity we are obliged to implement. Of course, the achievement of such a complex, ambitious and very important goal involves special responsibility, first of all — to our students — those who study today and those who will enter the university in the future. Much of what we do today is aimed not only at solving current challenges, but as well at thinking long-term.

In 2013–2014, the university has started the process of quality transformation. 72 Centers of Competence in the key areas of scientific research have been established. The steady growth of publications in journals indexed by Web of Science and Scopus databases (by 30–40% annually) was achieved. Since 2011, R&D amounts have been increased by more than 2 times — up to 1,137,800,000 rubles in 2014. A significant share of the growth of the scientific productivity was secured by attracting leading foreign scientists to the management of research centers and laboratories.

The university is undergoing the process of active technological modernization and transition to a new model of organization of lecturers' and students' activities. This will be possible through the large-scale introduction of information and distance education technologies,

the development of open education and the introduction of a modular principle of educational programs for the implementation of individual educational trajectories.

Since the moment of the university foundation, its main mission was training specialists for industrial enterprises of the region. Now, under the conditions of re-industrialization, when eliminating the shortage of engineering specialists has been declared to be one of the priorities of higher education in Russia, the activities of the university are in full compliance with the policy of the state. There are about 200 educational majors offered by the university, alongside with an impressive number of state-funded places that currently exceeds 6500. UrFU is proud of its highly qualified professionals and the advanced laboratory equipment. All these factors open up wide opportunities for carrying out study and research activities.

UrFU is a core of the research cluster, which includes Institutes of the Ural Branch of the Russian Academy of Sciences, specialized laboratories and high-tech industry companies. Research and education are two processes that do not just go in parallel, but interconnect very closely. Modern education cannot be imagined without scientific research, especially for the students during the senior years of their Bachelor and Specialist studies and doing their Masters. By 2020 Ural Federal University intends to transform to a research university with a strong focus on entrepreneurship.

UrFU encourages students in fulfilling their potential not only in studies and research, but as well in sports and art. The university is a place for exciting knowledge and exciting life! UrFU graduates are proud of their diplomas and use the multifold opportunities that are opened up for them.

The university continues to develop, and is in constant search of new growth points. Studying at Ural Federal University is prestigious and honorable today. Many of our students receive job offer already during their studies which is the best proof of the high quality of education.

Over the past few years the university has become an effective platform for the development of social technologies and open discussion, as well as a field for social models testing. Ural Federal University is not only an educational institution, but also a social center, a center of transformations and a core of the new economy formation.



WE ARE IN LINE WITH THE TRENDS

Ural Federal University today is an active participant and initiator of many modern projects; it aims to ensure the safety and competitiveness of Russia in the global race for leadership in technology.

In recent years UrFU has made considerable investments in the purchase of the most advanced equipment for research and scientific work. In addition, the status of the federal university allows it to develop and implement the educational standards of the third generation. In collaboration with companies and enterprises UrFU provides its graduates with knowledge and skills relevant to the needs of the time.



Metal cutting CNC machines at UrFU Center of High Technologies in Machine Building

REVIVAL OF THE URAL SCHOOL OF ENGINEERING

Ural Federal University can be called one of the flagships the revival of the Ural School of Engineering. The university actively cooperates with industrial enterprises of the region; many of them establish affiliated academic departments in collaboration with UrFU. As a result students undergo their training in the environment most close to real production, and after graduation they are ready to work in line with the actual needs of employers.

A very good example of the successful implementation of such an approach is a joint project of Ural Federal University and Ural Mining and Metallurgical Company (UMMC) on creating a universal laboratory complex "Metallurgy", a unique complex in terms of its scale and content, which was opened in September 2014 in Verkhnyaya Pyshma. The main tasks of the new complex are conducting scientific research on the orders of industrial enterprises and training students in the relevant directions of development of mining and metallurgical industry in the Urals.

There is an Innovation and Implementation Regional Engineering Center established on the basis of the university; activities of the Center are focused on machinery industry. The center is intended to support the processes of modernization and technological re-equipment of machine-building enterprises, transfer of innovative technological developments in the production, creating conditions for import substitution of technologies, equipment and materials in the spheres characterized by a significant lag from western analogues.

The university has traditionally maintained contact with metallurgical, machine building and energetic enterprises, enterprises of material production, information technologies and communications, chemistry, precision engineering, and others. Interest on the part of enterprises is growing; there are a lot of meetings with the heads of the companies presenting their suggestions for further cooperation. We're actively developing new mechanisms of collaborating with employers.

University interaction with business is not only focused on training. UrFU scientific potential allows to introduce the latest engineering developments into production. University researchers take an active part in the modernization of production capacities and the introduction of new technologies contributing to the revival of entire segments of Russian industry. For example, within three years Ural Federal University and its partners will create a pilot production based on the technology for extraction of rare earth metals and scandium from uranium ore. The unique technology developed by the researchers of UrFU, the Institute of Physical Chemistry and Electrochemistry of the RAS and "Atomproject" JSC will allow to produce up to thousands of tons of rare earth metals a year, and thus reduce the dependence of Russia from foreign suppliers.



In 2013, UrFU Professor Victor Grokhovsky has been included in the list of 10 people, who had changed the world, according to Nature journal

PARTICIPATION IN INTERNATIONAL COMPETITIONS AND GRANTS

University researchers are continually expanding the scope and directions of studies conducted within the frameworks of scientific and technical programs, competitions and grants of the Ministry of Education and Science, various international foundations and organizations. UrFU research teams annually perform more than 150 Russian and international contracts and grants and actively participate in research and development works.

COOPERATION WITH THE URAL BRANCH OF THE RUSSIAN ACADEMY OF SCIENCES

Studies conducted in cooperation with the Institutes of the UB RAS helped to create an effective antiviral, antibacterial, cardiovascular and anticancer drugs, as well as diagnostic tools. The results achieved formed the basis for the implementation of such promising and large-scale projects as the "Cyclotron Center of Nuclear Medicine" and the "Chemical and Pharmaceutical Center"

UrFU RESEARCH TEAMS
ANNUALLY PERFORM
MORE THAN
150 RUSSIAN
AND INTERNATIONAL
CONTRACTS AND GRANTS



UrFU students in Hong Kong University of Science and Technology during their scholarship program, provided by RUSAL Company

ATTRACTING THE YOUTH TO RESEARCH ACTIVITIES

One of the priorities of the university is to attract young people to participate in research activities. Training of research staff is a continuous process: school student – undergraduate student – graduate student – postgraduate student. About 40% of the full-time students are involved in scientific activities. In order to encourage the students, the university has developed the system of incentives for scientific achievements.

The university is the main venue of "Science Olympus", the regional competition for the best student research work in "Science" and "Engineering" categories.

Over the past few years Ural Federal University organized several hundred of scientific competitions, scientific and technical schools, conferences and forums with the participation of students.

UrFU students annually become winners at the National contests for the best research and diploma projects.

FOCUS ON INTERNATIONALIZATION

The university aims to conduct its activities in line with the global educational system. Annually hundreds of international researchers join the university. UrFU students have wide opportunities of going to foreign partner universities as exchange students or with the aim of continuing their studies. The university is actively involved in Erasmus Mundus consortium, CIS Network University, SCO University and the University of the Arctic.

The university successfully implements double-degree programs; every year the number of programs in English increases. UrFU actively develops distance learning programs making education accessible to students living in other cities and countries.

The language centers of Ural Federal University offer the opportunity to learn several foreign languages, to obtain skills of cross-cultural communication and even to participate in theater productions, staged in the language of originals. UrFU students participate in working groups engaged in international fundamental and applied research projects.



IMPROVING POSITIONS IN THE GLOBAL RANKINGS

Today Ural Federal University is one of the most dynamically developing universities in the country. Of course, this affects the increase in its positions in Russian and international rankings. According to the rating of Russian universities, released by the rating agency “Expert RA”, UrFU belongs to top-10 of Russian universities and is the leader among federal universities of the country in technical and economic fields of study. In 2014, Ural Federal University entered the longlist of Academic Ranking of World Universities - ARWU. UrFU belongs to top-15 of Interfax ranking, top-600 of QS World University Ranking, top-60 of QS Emerging Europe and Central Asia Ranking, holds the 80th position of QS University Ranking: BRICS, the 3rd position in the ranking of the leading Russian universities according to the Vladimir Potanin Foundation, and belongs to the B group of the CIS university ranking. In 2014 UrFU became the first Russian university to enter the Fitch rating. In addition, in Webometrics rating UrFU is ranked 7th among Russian universities and is considered to be the best among all federal universities in the country. UrFU Open archive remains the undisputed leader in Russia and one of the best in the CIS.

DEVELOPING THE UNIVERSITY

Since its foundation Ural Federal University has been implementing a special program for the development of the university, approved on October 7, 2010 by the Russian Prime Minister Vladimir Putin. Approval of the development program, which will be implemented by 2020, allowed to start working on the more specific tasks. The main aim for the university is to become an effective innovation platform and the center of technological progress and

QS World University Rankings

550-600

Position in 2014

80

position

QS University
Rankings: BRICS

7

position

Webometrics
Ranking

10

position

Ranking of Russian
Universities by
“Expert RA”

6

position

Ranking of the most popular
universities in blogosphere
and social networks

17

position

Ranking of universities
in CIS, Georgia, Latvia,
Lithuania and Estonia by
“Interfax”

13

position

Ranking of “Interfax” group
and radio station “Echo of
Moscow”

3

position

Ranking of the leading Rus-
sian universities by Potanin
Foundation

60

top-60 of QS Emerging
Europe and Central Asia
Ranking

development of the region. Vladimir Putin noted the importance of attracting regional authorities and local businesses for close cooperation. The volume of investments allocated from the federal budget in the frames of the development program already reached 5 billion rubles.

Most of the funds were allocated for the modernization of the research process and the innovation activities, as well as for the modernization of the study process. In addition, the funding was allocated for the development of human resources and forming the high-quality student body, providing comfortable and safe environment for studying and living, the implementation of scientific research and innovation processes, the development of organizational structure of the University and the modernization of the financial, administrative systems and IT-infrastructure.

Supporting the establishment of Ural Federal University, the government pursued a strategic goal to create a scientific, educational and innovation cluster in the region with the new university being the core of it.

The university should be a place for generating intellectual capital: knowledge, innovation and competence. Since 2015, UrFU development program will be implemented with the use of the inner resources of the university.

Over the past 5 years, all target indicators of the program have been fully achieved. For a number of key performance indicators the significant growth has been recorded. Thus, the volume of R&D has increased by 2 times. The university brand awareness increased up to 7% at the federal level, and to 45% at the regional level.

UrFU management system received the “Recognised for Excellence 5 star” from the European Foundation of Quality Management; the project management system of the university received “Gold” at the National competition of International Project Management Association (IPMA).

ENHANCING COMPETITIVENESS

In 2013, Ural Federal University became one of 15 Russian universities that won the right to obtain a special subsidy for the enhancement of the global competitiveness of the university and its promotion in the international rankings. The roadmap of the university, which has been approved by the Ministry of Education, will allow UrFU to enter top -100 of universities in the world by 2020 (the program “5-100-2020”).

The achievement of this goal is closely connected with the mission of Ural Federal University. UrFU was formed through the merger of two leading universities in the Urals with the aim of uniting their educational, scientific and innovative capacities for the development of the Ural Region as one of the centers of the global economy.

UrFU's win in the contest organized by the Ministry of Education and Science gave impetus to the development and implementation of a separate program for enhancing the competitiveness of Ural Federal University. The program is designed to define the measures and target indicators, which will help to form a world-class university.



UrFU IN THE REGION, RUSSIA, AND THE WORLD

UrFU at Innoprom-2014

UrFU AT INNOPROM INTERNATIONAL EXHIBITION

Ural Federal University annually boasts one of the best exhibition stands at the International Exhibition and Forum of Industry and Innovations "INNOPROM". In addition, the university organizes a number of discussion platforms focusing on the most relevant issues of modern education closely connected with science and real business.

The university continues to cooperate actively with the industry for the creation and implementation of innovative development programs. In a very short time, small innovative enterprises with the participation of UrFU moved from the level of generating projects to real products and services. Major infrastructure projects of regional and federal levels presented by the university during the exhibition attract great interest of the participants.

CONSTRUCTION OF THE URAL UNIVERSITY TECHNOLIS

In July 2014 the project of the world-class Ural University Technopolis was presented to Dmitry Medvedev at "Innoprom". By combining the efforts of UrFU, Ural Branch of the Russian Academy of Sciences, the private sector and the regional authorities, the Technopolis will become a source of technologies and HR potential for the re-industrialization of the region and the successful development of the Polar Urals and the Arctic shelf territories. Technopolis including its campus, technopark and industrial park should become a new growth point for the innovation economy and help to strengthen the position of Ekaterinburg as a capital of the large and strong region. It will be a center of international integration and technological exchange. For innovators, students and lecturers it is an opportunity to fulfill the boldest dreams and implement their research developments.

In the end of 2014, the Minister of Communications and Mass Media of the Russian Federation, Nikolay Nikiforov took part in the opening of the first stage of technopark of high technologies of the Sverdlovsk region. In 2015, the construction of a modern dormitories complex will start. The dormitories will be located near the industrial park.

IN SEARCH OF ECONOMIC GROWTH POINTS

Together with the media holding "Expert" UrFU traditionally holds the annual conference "Economic Growth Points of the Big Urals". At the conference a world-class panel of specialists gather to exchange views on development trends of the regional economy.

CONTRIBUTION TO THE DEVELOPMENT OF RUSSIAN IT-INDUSTRY

Ural Federal University is one of the leading research and educational centers which expertise in the sphere of training IT specialists is well recognized in Russia and abroad. In the end of 2014, UrFU Innovation Infrastructure opened its first accelerator for the development of innovative IT-projects in Ekaterinburg. Special program supported by experts helps authors and teams of these projects to develop a prototype in the shortest time possible, make the first sale and identify the weaknesses of the project and its potential development.

WORLD FINALS OF THE ACM ICPC

The key event of the IT Year at Ural Federal University became the Finals of XXXVIII International Collegiate Programming Contest (AMC ICPC 2014). This is the largest international competition, bringing up new generations talented in the field of science and information technology.



World Finals of the ACM ICPC

Ural Federal University has not only become one of the organizers of the championship, but also held a parallel entertainment program for the participants and the spectators. The competition was attended by more than 1 000 students-programmers, who represented 122 teams from 44 countries. Participants had been welcomed by 300 university volunteers, who accompanied the guests for the whole period of their stay in Ekaterinburg.

Ural Federal University was traditionally represented by a team of students from the Institute of Mathematics and Computer Sciences. Over the past years, it was the 12 time it participated in the finals of the world championship on computer programming. Regular successes of UrFU programmers have contributed to the decision of holding the ACM ICPC Finals in Ekaterinburg.

The fact that the university hosted such a global event and was one of the co-organizers boosted the international reputation of the university, strengthened partnerships with government and business structures, as well as contributed to the UrFU reputation of leading Russian center of science and education. Moreover, the accumulated experience allows to organize international events of the highest level. The closest one will be held at the University in 2016. The International Young Physicists Tournament (IYPT) will take place in Russia for the first time since the collapse of the Soviet Union.

ESTABLISHMENT OF AFFILIATED DEPARTMENTS AT THE ENTERPRISES OF THE REGION

Establishment of affiliated university departments at the enterprises in other cities contributes to the development of the region. Students have



ROSATOM Career Days

a chance to study in the environment close to the real production and are immersed into the technological processes. In their turn, the representatives of partner enterprises underline the main advantage for the students of the affiliated departments: after graduation, they will have guaranteed employment.

In 2013-2014, the university opened 13 affiliated departments: Department “Energetics” on the base of OOO “Gazprom Transgaz Yugorsk” (Yugorsk), Department “Metallurgy” in the corporate university of UMMC (Verkhnyaya Pyshma), Department “Pipe Production Technologies and Equipment” on Pervouralsk New Pipe Plant (Pervouralsk), Department “Machine Building, Metallurgy and Metal Working” on Chusovoy Metallurgical Works (Chusovoy), Department “Electrotechnics” in collaboration with interregional energy company “MRSK Ural”, Department “Machine Building” and “Machine Building Production” together with Kalinin Machine-Building Plant and The Ural Machine-building Corporation

“Pumori”, Department “Machine Building” on the base of OAO “Scientific and Production Corporation “Uralvagonzavod” (Nizhny Tagil), Department “Big Data Analytics and Techniques of Video Analysis” in collaboration with OOO “DATA-CENTER Avtomatica” (Ekaterinburg), Department “Technologies and Testing Tools” on the base of FSE “Nizhny Tagil Institute of Metal Testing” (Nizhny Tagil), Department “Radiotechnology and Nuclear Technology” on the base of OAO “Institute of Reactor Materials” (Zarechny), Department “Metallurgy of Titanium” in collaboration with “VSMPO-AVISMA Corporation” (Verkhnyaya Salda), Department “Laser Technologies in Machine Building” on the base of “Regional Centre for Laser Technology” (Ekaterinburg).

ANNUAL CONGRESS OF TEACHERS

The key task of the university is to attract and educate talented students. It is obvious that the future university students can be fully prepared only by talented professionals in the field of education. That is



Meeting of the Kazakhstan Branch of UrFU Alumni Association, 2014

why the university offers school teachers comprehensive support. One form of such support is the Annual Congress of Teachers. The goal of this Congress is the development of professional competencies of teaching community in schools and universities. During this event teachers have the opportunity to study developments of the experts in the field education and the experience of leading educational institutions of secondary education of Ekaterinburg.

EFFECTIVE COOPERATION WITH KAZAKHSTAN

For many years the university has been successfully attracting students from Kazakhstan, and has actively cooperated with educational institutions, enterprises and public authorities. Demand for UrFU graduates in Kazakhstan is growing every year, the high level of training gives them a good start in the beginning of their career. Graduates note the importance of the university scientific basis for further professional activities.

Representatives of the university regularly participate in large-scale joint events. In November 2013, UrFU participated in the X Forum of Interregional Cooperation between Russia and Kazakhstan. The forum program included a meeting of the Russian-Kazakh Business Council, which was followed by the signing of agreements on joint projects and cooperation. Rector of Ural Federal University, Vitcor Koksharov, and rector of Al-Farabi Kazakh National University, Galimkair Mutanov, had

also signed an agreement on the establishment of a regional center “Eurasia-G-GLOBAL” and the Eurasian Platform “Green Bridge through the generations.”

In May 2014, during the days of VII Astana Economic Forum, a memorandum on mutual cooperation between university and the largest scientific organization of Kazakhstan, the National Science and Technology Holding “Parasat” had been signed. According to the document, the Russian and Kazakh scientists will work together on projects in the field of mineral and water resources, energy, and pharmaceuticals.

In November 2014, the delegation of Ural Federal University took part in the business forum of national business “Expert-200-Kazakhstan”: “Reform of State Administration: center - regions - business”. The forum covered issues of improvement of economic politics implementation effectiveness, reforms of state administration and the principles of interaction between business and the state. The topic of innovation and competitiveness of the national economy was also touched upon. UrFU is interested in close cooperation with the enterprises of Kazakhstan, and the last forum was a good opportunity to present the possibilities of the university and to establish contacts with prospective partners.



EDUCATION

Reading hall of the Regional Research Library

FACULTY MEMBERS

The educational process at Ural Federal University is provided by 3852 lecturers, including 584 Professors, Doctors of Sciences, and 1 864 Associate Professors, candidates of science (Russian equivalent for PhD). The academic staff of the university includes 26 members and corresponding member of the Russian Academy of Sciences, 2 members of the Russian Academy of Arts and 110 members of Russian and international public academies.

EDUCATIONAL PROGRAMS

Ural Federal University offers 293 educational programs of higher education and 27 programs of secondary vocational education, alongside with professional retraining and development courses, MBA programs and foundation programs for new applicants.

The university structure includes 18 institutes with more than 250 departments. UrFU has a wide branch network.

Ural Federal University is home to about 36 500 students, 24 000 of them are full-time students. Academic majors are offered in a wide range of areas including technical sciences, natural sciences and humanities. Study programs are responsive to the needs of employers, that is why UrFU graduates obtain qualifications, which are in high demand in the Russian economy.

MASTER STUDIES AT URAL FEDERAL UNIVERSITY

Over the recent years UrFU has laid an emphasis on promoting Master programs. After the introduction of the two-level system, the university adopted the general global trends in higher education that open up wider opportunities for students. Master studies give a student a chance to gain in-depth knowledge in the area of study to carry out either research or practical professional activities. Master programs at Ural Federal involve a high share of internships and trainings. Future graduates of Master programs perform practical tasks and conduct scientific research at enterprises. The share of Master graduates in the total number of students graduating from the university is increasing annually.

Master programs are offered in the Russian and English languages. There are 20 Master programs delivered in English in the most relevant areas from Food Biotechnology to Russian Studies.

INSTITUTE OF INTERNATIONAL EDUCATION

In 2014, Ural Federal University established the Institute of International Education (IIE) specializing in higher education and continuing education programs delivered in English. The activities of the Institute are focused on international students mainly. The Institute offers Master programs in English, the “Summer university” program that includes short-term modules in Russian language, engineering, natural sciences and humanities, as well as a range of modules for exchange students. IIE also develops and offers 1-2 months internship program in English or Chinese. The internship includes a research program at the university and a practical training at a Russian enterprise or company. In addition, IIE offers additional courses of Russian as a foreign language. Many programs are implemented in collaboration with foreign partners.

INSTITUTE OF OPEN EDUCATIONAL TECHNOLOGIES

UrFU Institute of Open Educational Technologies opens up wide opportunities for students interested in distance learning. It offers advanced educational programs that take into account individual needs and potential, providing support for the professional development of a person. Distance education technologies allow learning from the best Russian and foreign experts, without being bounded by any territorial borders. It is also a great opportunity to combine study with work.

The Institute of Open Educational Technologies offers programs of higher education, second higher education, additional vocational training.

UrFU has initiated cooperation between the leading universities in the field of e-learning. It is currently implementing the project “Open University”, organized by the Club of 9 Federal Universities. Also there was created



GLIMPSES OF HISTORY

Since 2008, Ural University bears the name of Boris Yeltsin, who graduated from the university in 1955, and in 1991 had been elected the first President of Russia by nationwide vote. In October 2009, the President of the Russian Federation, D.A. Medvedev had signed the decree about changing the status of university to Federal. UrFU was established through the merge of two oldest universities of the Urals-USTU-UPI and USU.

a networking group of the association “Global Universities”, one of the objectives of which is to help the universities participating in the Competitiveness Enhancement Program to enter international platforms for online learning (including edX, Coursera, Iversity).

ACADEMIC ACHIEVEMENT SCHOLARSHIPS

Every year hundreds of students are awarded the Presidential Scholarship, the Scholarship of the first President of Russia B.N.Yeltsin, scholarships of the government of the Russian Federation, the Governor of Sverdlovsk region, UrFU Academic Council Board and Potanin Foundation. UrFU students also have an opportunity to receive scholarships from regional enterprises.

In 2010 the University won the contest “Systems of Quality Assurance in Professional Education Institutions”. The victory was proved by the excellent results the university had achieved in the field of education quality.



RESEARCH: GROWTH POINTS

- Increasing the number of competencies, in which UrFU is among the world leaders in terms of the publication activity (10% of universities and research institutions in the world most actively working in the particular research field);
- Attracting experienced foreign researchers to the management of research centers and laboratories and the recruitment of young foreign scientists;
- The development of the Center for cooperation with enterprises in the field of increasing the volume of R&D for the benefit of the real sector;
- Deepening integration with the institutions of the Ural Branch of the Russian Academy of Sciences, with which joint grants, basic departments, laboratories, scientific and technical council boards have been already established;
- The further development of the research cooperation with the universities of the BRICS countries.

UrFU IS A LEADER AMONG THE FEDERAL UNIVERSITIES AND THE UNIVERSITIES PARTICIPATING IN THE “5-100-2020” PROGRAM IN TERMS OF THE NUMBER OF PUBLICATIONS IN THE SCIENTIFIC JOURNALS INDEXED BY WEB OF SCIENCE

PRIORITY DIRECTIONS OF UrFU RESEARCH DEVELOPMENT:

- INFORMATION TECHNOLOGIES AND HUMAN BEING IN THE INFORMATION SOCIETY
- POWER ENGINEERING, RESOURCE SAVING, AND ENVIRONMENTAL MANAGEMENT
- FLEXIBLE TECHNOLOGIES AND NEW MATERIALS
- LIVING SYSTEMS AND HEALTH

ESTABLISHMENT OF THE COMPETENCE CENTERS

Ural Federal University is actively reforming the system of management of the research activities. In particular, the university has begun to establish centers of competence in order to achieve the necessary scientific indicators for the implementation of the Competitiveness Enhancement Program. The centers have already been established in four priority areas.

In terms of the scientific potential the university holds the 3rd place in the country, according to the Electronic catalog of high-tech equipment and objects of the scientific potential of the Russian Federation.

71 COMPETENCE CENTERS HAVE ALREADY BEEN ESTABLISHED AT UrFU:

- 20 key centers of excellence;
- 29 research laboratories (including 12 laboratories headed by the leading foreign researchers),
- 23 research teams.

UrFU has also established the center for the interaction with knowledge-based companies of the region and obtained a license to work on state defense orders. The structure of the university includes Cambridge center, where the employees increase their language skills and pass language exams, and the Center for linguistic support of lecturer’s and researchers’ scientific publication activity.

PUBLISHING ACTIVITIES

The university publishes such scientific journals as: “Analytics and Control”, “Onomastics Issues”, “Quaestio Rossica: Historical and Philological Researches” (the application for inclusion in the Web of Science database has been submitted), “University Management: Theory and Practice”, “Chimica Techno Acta: Processes in Chemistry and Chemical Technology”.

EXAMPLES OF BREAKTHROUGH PROJECTS

- Climate and Environmental Physics Laboratory headed by Dr. Jean Jouzel, Nobel prize co-winner, Institut Pierre Simon Laplace, France;
- Nanoscale ferroelectrics laboratory (NANOFER) headed by Dr. Andrey Kholkin, University Aveiro, Portugal, one of the most reputable experts in this field;
- System of radiological sensing of the atmosphere for the cosmodrome «Vostochny», ordered by the Operation Center for Objects of Ground-Based Space Infrastructure (the main provider of cosmodrome projecting);
- Research project «Return to Europe: Russian elite and European innovations, standards and models (XVIII - the beginning of XX centuries)”. The breakthrough project in the field of humanities is implemented under the guidance of the famous French researcher Marie-Pierre Rey.

CONTRIBUTION TO THE REAL ECONOMY

The most important performance indicator for the research is its contribution to the development of the Russian economy. One of the missions of UrFU is the reindustrialization of the Urals. The university is actively developing contractual research and design activities. In addition, Ural Federal University leads several major projects and integrates a number of subcontractors (implementation of the RF Government Decree № 218). Joint high-tech developments by UrFU scientists and representatives of the industry receive federal subsidies. The bright examples of the successful cooperation of UrFU and Russian enterprises are the projects with “I-Teco” and NPO Automatika companies.



INNOVATIVE SYSTEM

UrFU INNOVATIVE SYSTEM:

- attracts undergraduate, graduate and postgraduate students and the university staff to innovative activities;
- searches, develops and implements innovative projects at all stages from the idea to the manufacturing of innovative production and the development of science intensive businesses;
- establishes innovative and engineering centers;
- establishes joint innovative projects with medium-scale and large-scale enterprises;
- develops international cooperation in the field of innovations.

DEPARTMENT OF INNOVATION MARKETING

Department of Innovation Marketing evaluates commercial prospects, conducts marketing research and develops marketing strategies, forms brands of innovative enterprises, contributes to promotion of innovative products.

Currently UrFU is in the process of transition to a research university with the elements of the business model. The university is actively developing its innovative system aimed at the commercialization of ideas and scientific developments. One of the main areas of the UrFU activity is the development of knowledge-based entrepreneurship and the commercialization of research. By presenting innovative products and services, which are in demand nowadays, the university earned 496 million rubles in 2014. It is planned to increase manufacturing of innovative production in the future



CENTER OF TECHNOLOGY TRANSFER AND ENTREPRENEURSHIP

conducts the search and selection of commercialized ideas and R&D results, supports the development and the implementation of innovative projects, enterprises and the attraction of grants and investments.

CENTER OF EDUCATIONAL TECHNOLOGIES AND HR SUPPORT OF RESEARCH ACTIVITIES

helps to involve undergraduate, graduate and post-graduate students and the university employees to the innovative activities, assists in the development of ideas and projects, evaluates HR potential of projects teams, finds and train employees of innovative enterprises, provides further consultancy to the staff.

CENTER OF SUPPORT AND DEVELOPMENT OF INNOVATIVE ACTIVITY

supports the development of innovative infrastructure, organize legal and financial support of it, and contributes to the establishment of innovative centers at UrFU.

CENTER OF INTELLECTUAL PROPERTY

organizes and provides legal protection of the intellectual property of UrFU and its partners, including those located outside Russia, by complex of effective intellectual property management technologies. It also contributes to enhancement of partner-enterprises competitiveness.

SMALL INNOVATIVE ENTERPRISES

are established to commercialize innovative developments of UrFU. By the beginning of 2015 the number of small innovative enterprises with the

participation of UrFU included 80 enterprises. Their task is to bring an idea to industrial standard and start production of the innovative product.

COMPLEX OF INNOVATIVE CENTERS

has been created to develop, produce and sell pilot models and batches of innovative products. By the beginning of 2015, about 10 centers had been established at UrFU.

“INNOVATION DIVING”

is a unique education program for the youth, which helps the participants to turn their innovative idea into real business project, find partners, create a team and establish their own innovative enterprise. The participants receive the experience of professional project activity, aimed at successful result.

FUND FOR THE DEVELOPMENT OF INNOVATIONS

operates since 2014 as an investment partnership for the development of startups, created by small innovative enterprises with the participation of UrFU. The fund has the right to purchase UrFU shares in the small innovative enterprises, and also to participate in capitals of new startups, created with the support of UrFU or its partners.

MODEL FACTORY OF LEAN PRODUCTION

was created by UrFU in collaboration with McKinsey company and Uralmash-Izhora Group (OMZ). Model factory simulates production process in conditions close to reality. Applied training allows the most efficient transfer of skills and techniques increasing labor productivity.



INTERNATIONAL COLLABORATION

Ural Federal University actively develops the system of international relations. At the moment UrFU cooperates with 400 foreign universities, participates in the network projects such as BRICS University League, CIS University, SCO University, University of the Arctic, Association of Technical Universities of Russia and China.

There are more than 1200 foreign students from 60 countries at UrFU; in addition the university annually admits not less than 200 students within the frames of academic exchange programs and international schools. More than 500 students and employees of UrFU go abroad for academic exchange; they have the opportunity to receive grant support of the university.

UrFU scientists participate in the largest international programs supporting scientific research, for example, Seventh Framework Program of EU, RESET-HESP Program of Open Society Institute. The International

Academic Council was created in the university in 2013 within the frames of the Competitiveness Enhancement Program. The Council was created to define the forms and directions of the scientific research development, the promotion of the UrFU brand and the establishment of closer relations with the leading scientific and educational centers of the world. The council is headed by co-Peace Nobel Prize winner, director of IPSL (Institut Pierre Simon Laplace), Professor Jean Jouzel. The list of the Council members includes an outstanding economist, professor of the New Economic School in Moscow Shlomo Weber, the Academic Director of the HSE Institute of Education and the counselor of the Russian Minister of Education and Science Isak Froumin, the Director of Knowledge Enterprise and Analysis Center at City University of Hong Kong Dr. Kevin Downing, the President of American Councils for International Education Dr. Dan Davidson, the Director for Applied Research in the New Economic School Igor Fedyukin.



20 grants/year

for foreign postdocs;

50 grants/year

for international degree-seeking students;

125 grants/year

for international exchange students coming to UrFU;

125 grants/year

for UrFU students participating in semester-long programs of foreign universities.

More than 100 international delegations representing the leading universities of the world, diplomatic structures and large scale enterprises visit the university every year. UrFU is a corporate member of such organizations as the Russian International Affairs Council, EMBRI, ECPR, EUCEET, EFMD.

Ural Federal University is an open space and a platform where different cultures meet. UrFU keeps in touch with the diplomatic missions of Germany, France, the USA, the UK, Hungary, China and other countries. There are several cultural centers in the university. For example, Confucius Institute was established in 2008 on the base of UrFU Institute of Social and Political Sciences, Thai Cultural Center was opened in 2013.

The unique atmosphere of a truly international university is created by public lectures delivered by foreign scientists, diplomats and art figures, international conferences, exhibitions and meetings. There is a system of grant support for students and young researchers in the university. Every year university awards

- 20 grants for foreign postdocs
- 50 grants for international degree-seeking students
- 125 grants for international exchange students coming to UrFU
- 125 grants for UrFU students participating in semester-long programs at foreign universities



INFRASTRUCTURE

UrFU is a successor of the fine traditions of two largest Ural universities. Currently the university has a unique infrastructure. There are 14 academic buildings and 16 dormitories. In 2013, the new dormitory for 1000 students has been opened. It was constructed in record period of time. UrFU provides 6500 places in dormitories in total. Two new dormitories will be constructed in the future campus located near the Lake Shartash.

The university infrastructure includes the summer and winter sport stadiums, 11 special sport halls, 2 ski bases, 1 skating rink and 14 sports grounds on the territory of the campus. In 2007, UrFU constructed the Sport Complex for Team Sports, and opened the university pool in 2011.

Medicine and health care services of the university includes the university hospital and the first-aid post, the sport camps near Ekaterinburg and on the Black Sea (the village Divnomorskoye), the recreation center near the Beloyarskoe pond, the children's camp in Berezovskiy and the kindergarten for children of UrFU employees.

14 academic buildings

16 students' dormitories

New dormitory for 1000 students

was constructed in 2013 at a record pace

6500 places
in the dormitories in total



ALUMNI ASSOCIATION

Participants of the meeting on the establishment of the representative office of UrFU Alumni Association in China (Beijing, May 2014)

UrFU Alumni Association was established on October 19, 2012. The aim of the association is the development of the system of mutually beneficial relations between the university and its graduates. Any graduate of any UrFU educational program (except for programs of additional education) can become a member of the association.

UrFU Alumni Association is a society of people sharing common ideas. This society has a unique potential, which helps the university to develop and improve. It also serves as a guarantee of good reputation and a corporate club for graduates.

THE MOST IMPORTANT AIMS OF THE ASSOCIATION:

- ensure the competitive benefits for the university in the sphere of employer interaction;
- introduce the growing potential of the university to its graduates and provide them with wider opportunities for improving their qualification and developing their professional skills;
- strengthen the role of the university graduates in all forms of social and economic activities, thereby ensuring the promotion of the university brand;
- create a line of succession, when the children and the grandchildren of the graduates choose Ural Federal University as their alma-mater.

The cooperation between the university and its graduates leads to the active development of competitive educational programs, the development of innovation, support of academic mobility of students and professional growth of the UrFU employees. Success stories of the university alumni show today's students how wide are the opportunities opened up before them. The Association has overseas representative offices in China, Mongolia and Kazakhstan, and five offices in Russia (Moscow, Nizhny Tagil, Kamensk-Uralsky, Noyabrsk).

The branch network of the association will grow and develop. The representative offices allow graduates staying in contact with the university. It is also planned to establish new representative offices in Kyrgyzstan, Israel and Germany.

THE UNIVERSITY EXPRESSES GRATITUDE TO ITS PARTNERS WHO HAVE MADE THE SIGNIFICANT CONTRIBUTIONS TO THE ENDOWMENT FUND



PARTNERS

НП «Попечительский совет ФТФ»

Many projects of Ural Federal University in the fields of education, research, business, art and sport are implemented in collaboration with various partners. Organizations and enterprises award scholarships to the most successful students, develop joint educational programs with the universities, establish affiliated departments, take part in the implementation of infrastructural projects and the organization of prominent events – both on local and international levels. All contributions to the university endowment fund made by the partners enable UrFU to encourage talented young people to implement their initiatives.

ENDOWMENT FUND

The endowment fund intended for the implementation of various university projects was set up in 2012. Any person can make a contribution to the fund and support the development of the alma mater. The fund is a non-profit organization set up by physical persons on the basis of voluntary investments.

The principle of the endowment fund is simple: a benefactor makes a donation and can control its further expenditure. The collected capital is transferred to trust management with the purpose of investment, which ensures its growth. The profit received from the investments allows financing of the development programs of the university, while the principal amount remains intact.

Formation of the university endowment does not only provide financial help for the alma mater. It represents “smart” money in the long run – an investment into the professional employment pool: those investing into

the endowment fund today will get trained specialists for their laboratories, enterprises and companies tomorrow.

The endowment fund stands for the efficient, structured relationships profitable for all sides involved. Participating in this relationship means being a part of a big and united family even long after graduation.

During the two and a half years the total sum of donations contributed to the endowment fund grew up to 38 million roubles.

The endowment fund enabled UrFU to become one of the three leading universities to receive maximal financial support of the Vladimir Potanin Foundation.





SOCIAL LIFE

Social life at UrFU is very rich and diverse. Up to 200 events in various spheres (sport, art, leadership, patriotism, tolerance, international collaboration, volunteer service) take place throughout a year. The institutes of the university also hold about 50 to 80 internal events each year. In 2013 Ural Federal University won the first place among the universities in Russia for the organization of sport activities; the official ceremony was held in the Kremlin by the representatives of the government of Russian Federation on behalf of the president Vladimir Putin.

FESTIVAL MOVEMENT

An inter-institutional student festival “Vesna UPI” (“Spring at Ural Polytechnical Institute”) was established in 1956. Today it is held under the name of “Vesna at Ural Federal” (“Spring at Ural Federal”). Starting from 2009 the festival became international. More than 9500 participants of the universities from Russia and 24 countries of the world took part in the XXII festival held in April-May 2012.

The festival takes place twice every 5 years. It is an unforgettable event that includes all spheres of students’ life: discussion grounds, sporting events, artwork and science.



X-Games at UrFU

Such festivals as the Russian festival of student theatres “Theatrical Meetings”, the sport festival “Student starts”, the festival of extreme sports “UrFU X-Games”, the regional art festival for students from UrFU’s branches “Student gems” and others are annually held by the university. UrFU is renowned for its achievements in the fields of art and sports. We are proud that the members of the famous KVN team “Uralskie Pelmeni”, which became an international champion of KVN League, the winner of music festival in Jurmala (twice) and the winner of the Summer Cup of the highest KVN League, graduated from our university.

PERFORMING GROUPS

Ural Federal University has more than 20 performing groups, such as: hip-hop studio “Forsage”, KVN team “Davay Pozhenimsya” (Let’s get married), UrFU Students Academic Choir, B. Serebrovsky Chorus Chapel, the ancient music ensemble “Choral”, the studio of ballroom dancing, the student drama theater “Stariy Dom” (Old house), the musical theater “Verona”, the Linguistic theater “Lingua-T”, the dance group “Laboratory of Dance” and many others. UrFU performing groups are the winners and laureates of the international competitions, festivals and championships.

SPORT LIFE

Ural Federal University regularly hosts large sport competitions such as the National Universiade in athletics, swimming, box, table tennis, badminton, handball, as well as Mini-football Cup of Russia, Muay Thai and Judo championships, and the stages of the World Cup in Climbing.

Students and graduates of the university are winners of the largest international sport competitions in climbing, athletics, box, wrestling, skiing and biathlon, muay thai, and prize-winners of Olympic Games (Greece, 2004; Italy, 2006, 2009; Beijing, 2008; London, 2012). During the Olympic Games in Sochi, UrFU student, Olympic champion and the winner of Stanley Cup, Pavel Datsyuk became the captain of the national team. The other graduate of the university Anton Shipulin also distinguished himself at the Olympics. He won a gold medal at the man’s biathlon relay race.

According to the results of the International Universiade, which was held in Kazan in 2013, Ural Federal University was considered to be one of the best universities in Russia. The students and graduates of the university won 3 gold, 1 silver and 1 bronze medals. The best sportsmen of the university, the winners of the Universiade are Ilya Khlybov, Ivan Tatarinov, Alyona Tamakova, Ksenya Ustalova, Anastasia Salina, Alexandra Pasyunkova and Dmitry Khmelin.

Every year the university organizes a large number of major sport projects, within the frames of which about 80 mass sports events on 40 kinds of sports are being held. The largest of these events are UrFU Universiade, Spring Sport Festival “Student start”, UrFU relay race dedicated to the Victory in the World War II, sport part of the Festival “Spring at Urals Federal”, UrFU X-Games” (summer and winter extreme disciplines), “May Walk”, sport week for the freshmen and “Dormitories Olympics”.



THE PROJECTS WE ARE PROUD OF

VIENNA MUSIC FILM FESTIVAL

Ural Federal University is a venue for the key event of the cultural life of Ekaterinburg and Russia. Vienna Music Film Festival is a series of unique video and live concerts of classical music and opera-films, which are broadcasted on a giant screen in open air. In 2015 the festival is held in Ekaterinburg for the 6th time.

Every year thousands of citizens and guests of the city visit the festival to listen to classical music and feel the special atmosphere of this unique event.

This is a rare opportunity for the classical music admirers to enjoy masterpieces from Vienna in Ekaterinburg.

UrFU INITIATES AND ORGANIZES A LARGE NUMBER OF EVENTS. MOST OF THE PROJECTS WERE IMPLEMENTED IN RUSSIA FOR THE FIRST TIME AND HAS ALREADY BEEN ASSOCIATED WITH URAL FEDERAL UNIVERSITY.

GRADUATION CEREMONY

The bright and memorable graduation ceremony has become a hallmark of Ural Federal University. The tradition started in 2012.

In the end of June graduating students dressed in academic gowns and caps gather on the main square in front of the university. They receive their diplomas from the hands of the top management of the university, directors of institutes, heads of departments and the honorary graduates.

In 2014, the famous DJ Leonid Rudenko, the one, who opened the Olympic Games 2014 in Sochi, performed at the graduation ceremony. Graduates' parents, relatives and friends could see the ceremony on the big screen in the fan-zone, which was located in the green alley near the main venue of the ceremony. The official part of the graduation ceremony was closed by graduation cap-throwing, which was initiated by the rector.

The final part of the graduation ceremony was a big party in "Ekaterinburg EXPO" Center. The program of the party included performances of famous Russian bands Band'Eros and Fontano, lottery with such prizes as a trip abroad, dinner in one of the best restaurants of the city and a bicycle.

The graduation ceremony was held in such a large scale thanks to the contribution to the Endowment Fund made by last-year graduates. They not only contributed to the future graduation ceremony, but also to the development of the university.



Graduation ceremony



Festival for freshmen "The first day at Ural Federal University"

THE FIRST DAY AT URAL FEDERAL UNIVERSITY

On September 1, Ural Federal University welcomes its first-year students with a big celebration on the University Square. More than 6 000 students have the opportunity not only to get acquainted with each other and their lecturers, but also to learn about all the possibilities the largest federal university has to offer.

During the "Fair of Possibilities" the students have a chance to know more about different activities such as youth science, students' union, sport teams, international activities, the movement of student teams, performing groups and more.

The Students' Union organizes lottery among first-year students who submitted the originals of their documents to the admission commission. The program of the event includes greeting from the administration of the university, the first persons of the region, famous alumni, as well as the concert of performing and sport teams of the university.

TEST DRIVE AT URAL FEDERAL

In spring 2013 the University launched "Test drive at Ural Federal", a project, which is absolutely unique for Russia. The initiative allows 350 talented school children from the Ural region and the CIS countries to come to UrFU for few days and get acquainted with the largest federal university. Within the frames of the project the participants attend lectures, pass tests, live in the dormitories, eat at the students' canteen and get fully integrated with the university environment. The motto of the project is: "You are still at school, but you are already a university student!". The project aroused great interest among the high-school students.

The experience has shown that "Test Drive" helps to activate students' creative, cognitive and intellectual initiatives, encouraging them to cooperate with each other. It also provides an opportunity to practice before final

school tests. In order to participate in the project, high school students upload their presentations in the Internet and gather hundreds of supporters launching real "advertising campaigns". During the first initiative more than 1 million people visited www.testdrive.urfu.ru

Every year the university is organizing up to 300 events of different kinds: conferences, forums, contests, championships, competitions, summer and winter schools, round-table discussions, workshops and public lectures. All these events allow the students having the active social life, gaining new knowledge, fulfilling their potential, finding new friends and becoming active members of the modern, respected and actively developing university – Ural Federal University.



Test Drive at Ural Federal

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All people in the photos are UrFU students, staff members and partners.
The University thanks all the participants of the photo sessions.

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