

2018

ANNUAL REPORT

FSFEI HE “VORONEZH STATE UNIVERSITY” 2018

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RECTOR'S ADDRESS





RECTOR'S ADDRESS



D.A. Endovitsky,
Rector of Voronezh
State University

2018 will undoubtedly hold a special place in the history of Voronezh State University and the entire educational community of the region, as it marked the centenary of our university. The celebration, which was held under the motto "VSU – city, region, country", was packed with numerous and diverse events and it provided a conclusion to the work of previous years. Today we can state with satisfaction that we successfully achieved the goals and objectives we had set ourselves.

This is demonstrated by our team being awarded with the highest award of the region, the "Gratitude from the Land of Voronezh". Words of appreciation and valediction were given on the anniversary from major state and public figures of the country: Prime Minister of Russia, D. A. Medvedev, Minister of Science and Higher Education, M. M. Kotyukov, Patriarch of Moscow and All Russia, Kirill, the Rector of Lomonosov Moscow State University and president of the Russian Union of Rectors, Viktor Antonovich Sadovnichiy, President of the Russian Academy of Sciences, A. M. Sergeev, and Voronezh Region Governor, A. V. Gusev. Last year the anniversary of the city was devoted to the university's anniversary.

I want to emphasize that the award, greetings, and public recognition should not be considered just a ritual act, timed to coincide with a significant date, but also a general authoritative analysis. To do this, one must attentively read and ponder over their significance, every one of you has this possibility.

The standard of the university's achievements can be judged by the successful results of a number of objective and independent ratings.

We deliberately tested ourselves with indicators of not one, but several ratings, including international ratings, in order to see our strengths, which need to be firmly consolidated, so as not to lose the positions gained, and identify the areas where it is necessary to strengthen our work, using the available resources.

In 2018, a wide spectrum of work was carried out in all areas of activity: educational, scientific, character building, cultural, outreach programs, international, social, and economic, encompassing a large number of participants both within and outside the university.



I especially would like to draw your attention to the successful accreditation of a course of fundamental medicine subjects, the licensing of new intermediate vocational education programs, as well as those related to customs and the operation of nuclear power plants.

It cannot but please the ever-expanding circle of people who are directly and indirectly connected with the university, from schoolchildren to production managers, from workers of all types of educational institutions to employees of large research centres, from young people taking their first independent steps in life to elderly people who find support at the university for the fulfilment of their cultural needs and interests. I think it is needless to say that we all cherish such a mass public interest in the university, and are ready to further contribute in every way to this.

As you know, the decision of our regional government in 2018 in honour of the 100th anniversary of VSU and other jubilees in the field of education, for which it was so generous, was declared the Year of Education and Science in the Voronezh Region. Even now, its preliminary results allow us to speak about the great intellectual potential, which has a significant impact on the socio-economic and cultural development of the region. Our university plays a leading role in this positive and dynamic process and is determined to not lose its position.

2018 expanded and strengthened the inter-university contacts of our university and not only within the Voronezh Region, but also at the inter-regional level. Along with the anniversary, we celebrated the first five years of the Association of Higher Education Institutions of the Central Black Earth Region, clearly marking our leadership role in the scientific and educational community in 10 areas, not to boast about it, but to strengthen and develop our interactions and cooperation, coordinating and joining efforts to solve common problems.

As is known, 2018 was declared to be the Year of the Volunteer by the President of Russia. We actively participated in events relating to this. Our students performed both creative and civic activities, and with the support of their elder peers, they showed not only patriotism, but genuine patriotism.

Undoubtedly, the work on the development of the voluntary/volunteer movement will not be limited to the previous year, but will continue and will receive new impetus to its development.



During the immediate preparation for the university's jubilee, a number of interesting books came out in the press, reflecting the history and present day of the university, talking about its outstanding people, those who in the public consciousness have an unofficial, but very significant status of "university man". And this does not count the large number of publications in various periodicals.

Both books and articles, which cross genres, include historical studies, memoirs, works of art, journalism, are very important for self-study, the development of advanced university traditions, and the spiritual and moral orientation of young people. It is important and necessary that these books and articles have readers so that they further our common goals. Such a development of university publications as we saw in the pre-anniversary years and the anniversary year should be the concern of everyone entrusted with the education and upbringing of young people, the preservation and development of the glorious traditions of the university.

In anticipation of the circulation of this report regarding the work we performed last year (and I stress once again it was a special, anniversary), I want to draw attention to the following points.

- 1.** The anniversary year has enriched us with significant experience, and it is important not only to analyse it through the prism of many different events, but also to try to comprehend the deeper essence of what we have gained during this time.

It is necessary to do everything to preserve and strengthen the university's spiritual and moral atmosphere, based on respect for people, the unity and continuity of the university's generations, and genuine patriotism.

- 2.** We cannot close our eyes to the objective difficulties that our country and its higher schools are experiencing. We must clearly see these issues, to be able to resist negative processes and phenomena, and by all means, maintaining the "path of development". We must be realistic and not succumb to the illusion whereby complex problems can be solved with populist one-time measures. Of course, this is not at all easy, but it is within our power, because we have a century of history providing a safety margin, we are a long way from complacency and wishful thinking, united by our love for the university, and we know how to act.



3. In 2019, it is important to make every effort to prepare the applications of the leading universities of the region in readiness for the federal competition relating to the creation of a Scientific and Educational Centre of the Voronezh Region. VSU should act as the main focal point and work closely with the regional government and our industrial partners.
4. It is necessary to continue working within the framework of the project "Universities as centres for creating innovative spaces", and to participate as fully as possible together with industrial partners in various state development programs, federal target programs, competitions to create high tech industries and engineering centres, such as the national projects for "Education", "Science", "Healthcare", and "Digital Economy".
5. In the coming year, 2019, it is necessary we consolidate the efforts of the university's management and all the departments of VSU to double the quantitative indicators of our international activities. In relation to this, we are talking about attracting foreign students, increasing the number of summer and winter schools for foreign participants, the European projects in which our university participates, international forums and conferences organized by VSU, and internship programs for foreign partners to be established in each department. Two principles are important in relation to this complex work: striving for the constant growth of the international academic reputation of the Voronezh State University and obtaining significant economic benefits from international activities.
6. For our current and future work we have sound strategic guidelines. They are clearly outlined in the speech by the President of Russia, V. V. Putin, at the 11th Congress of the Russian Union of Rectors (April 2018), in his May (2018) Decree, and his Address to the Federal Assembly on February 20, 2019.

This is a general overview, which prefaces a more detailed report on the specific work in 2018 in the various areas. It is designed to give everyone who becomes acquainted with it the opportunity for a thorough, critical and creative analysis, determining the next steps for each part of the university and the university as a whole.





UNIVERSITY ADMINISTRATION





UNIVERSITY ADMINISTRATION

2.1. BOARD OF TRUSTEES: STRUCTURE, LIST OF KEY ISSUES

The Board of Trustees of FSFEI HE “Voronezh State University” (hereinafter referred to as the VSU Board of Trustees) was created based on the decision taken by the VSU Academic Council dated 28 September 2012 in accordance with the Charter of FSFEI HE VSU (sections 4.17, 4.20–4.32), and is one of VSU’s management bodies.

The activities of the VSU Board of Trustees are subject to the Charter of the Board of Trustees of Voronezh State University and the Rules and Procedures of the Board of Trustees of Voronezh State University.

The VSU Board of Trustees consists of 31 people.

Since June 21, 2018, the Chairman of the Board of Trustees has been the Governor of the Voronezh Region, **Alexander Gusev**.

Deputy Chairs
of the Board of Trustees – **Alexander Sokolov,
Elena Soboleva,
Evegeny Yurchenko**

Secretary
of the Board of Trustees – **Dmitry Endovitskiy**

MEMBERS OF THE VSU BOARD OF TRUSTEES

1. **Azret Bekkiev**, Deputy General Director of “United Instrument Manufacturing Corporation:” LLC.
2. **Vladimir Bubnov**, Director General of OOO “Kombinat Stroitelnykh Detaley”.
3. **Anton Ganzha**, Regional Manager of “VEB” (Vnesheconombank).
4. **Yury Goncharov**, President of the Voronezh Regional Chamber of Commerce and Industry.
5. **Tatiana Davydenko**, Vice Rector for Innovations of FSFEI HE V.G. Shukhov Belgorod State Technological University.



6. **Boris Danshin**, Director General of the Internet service provider AO "Informsvyaz-Chernozemye".
7. **Dmitry Endovitskiy**, Rector of FSFEI HE VSU.
8. **Viktor Yenin**, Director General of the management company IP "Perspektiva".
9. **Valentin Ievlev**, Full Member of the Russian Academy of Sciences, DSc in Physics and Mathematics, Professor, Head of the Department of Materials Science and the Industry of Nanosystems of the Faculty of Chemistry of FSFEI HE VSU.
10. **Alexey Kamyshev**, Head of the project for creating new activities in relation to the production of electronic components.
11. **Dmitriy Lapygin**, Director of Economic Affairs of OOO "RET".
12. **Nadezhda Mazalova**, General Director of the "Terminal" Group of Companies.
13. **Mikhail Moskaltsov**, Deputy Head of the Voronezh branch of VTB.
14. **Mikhail Nosyrev**, attorney, President of ZAO "Spartak Cinema".
15. **Alexey Ponomarev**, Vice President for Strategy & Industrial Cooperation of the Skolkovo Institute of Science and Technology (Moscow).
16. **Edgars Puzo**, Director General of OOO "Atos IT Solutions and Services".
17. **Igor Risin**, DSc in Economics, Professor, Associate member of the Russian Academy of Natural Sciences, Head of the Department of Regional Economics and Territorial Administration of FSFEI HE VSU.
18. **Vladimir Salmin**, Chairman of the Central Black Earth Branch of PAO "Sberbank".
19. **Elena Soboleva**, Director of Educational Projects and Programmes of the Fund for Infrastructure and Educational Programmes (RUSNANO, Moscow).
20. **Alexander Sokolov**, Vice Rector for Building Operations and Capital Development of FSFEI HE VSU.
21. **Denis Stolyarov**, Director of student admissions at the Skolkovo Institute of Science and Technology.
22. **Natalia Tretyak**, First Vice President, "Gazprombank".
23. **Stephen Hagen**, Honorary Professor of the University of South Wales and a higher education expert of the European Commission.
24. **Heinze Klaus-Dieter**, Head of the chemical/industrial technopark (Dow Olefinverbund GmbH Leiter ValuePark, Germany).
25. **Andrey Hltskov**, Deputy Head of a branch of VoRU PAO "MInBank" (public joint-stock company Moscow Industrial Bank).
26. **Valeriy Chernikov**, Chairman of the Board of AO "Insurance Business Group".



27. Gennadiy Chernushkin, Founder of the “Angstrom” Group of Companies.

28. Elena Chupandina, First Vice Rector – Vice Rector for Academic Affairs of FSFEI HE VSU.

29. Anatoliy Shmygalev, Deputy of the VI Voronezh Regional Duma.

30. Evgeniy Yurchenko, Chairman of the A.S. Popov Investment Fund (Moscow).

In 2018, two meetings of the Board of Trustees were held, during which topical issues relating to the development of the university were discussed: the implementation of the program of anniversary events for the centenary of VSU; internationalization strategies at VSU; development of social innovation; the use of funds obtained as revenue from the discretionary management of the assets of the VSU Endowment Fund; and the presentation of innovative developments of VSU researchers and others.

KEY RESULTS OF THE ACTIVITIES OF THE VSU BOARD OF TRUSTEES IN 2018:

1. Providing support for the celebration of VSU’s centenary.
2. Members of the Board of Trustees were on the jury for VSU’s contest for innovative young researchers.
3. The members of the Board of Trustees acted as experts in the competition of student social projects, organized with the support of the VSU Endowment Fund.
4. The decision about the direction of revenue from the discretionary management of assets of the VSU Endowment Fund for the stimulation of scientific, creative, and other socially significant initiatives of students, for grant support for talented young people, for the support of veterans, for the development of infrastructure and the provision of a comfortable environment for students and university staff was supported.
5. There were a number of proposals aimed at commercializing the results of the innovation projects developed by the researchers of the university.
6. The decision about the creation of a social innovation project at VSU called “Atlas of tourist routes” was supported. .

Information about the activities of the VSU Board of Trustees may be found on the website of FSFEI HE “Voronezh State University”: www.vsu.ru



2.2. THE ACADEMIC COUNCIL: STRUCTURE, LIST OF KEY ISSUES

LIST OF MEMBERS OF THE ACADEMIC COUNCIL OF THE UNIVERSITY

1. Dmitry ENDOVITSKY,

Rector, Chairman of the Academic Council.

2. Elena CHUPANDINA,

First Vice Rector, Vice Rector for Academic Affairs, Deputy Chairman of the Academic Council.

3. Yury BUBNOV,

Vice Rector for Strategic Administrative Management.

4. Oleg GRISHAYEV,

Vice Rector for Student Affairs and Social Development.

5. Larisa KOROBEINIKOVA,

Vice Rector for Economics and Contract Services.

6. Vasily POPOV,

Vice Rector for Science and Innovation,
Dean of the Faculty of Medicine and Biology.

7. Alexander SOKOLOV,

Vice Rector for Facilities and Capital Development.

8. Eduard ALGAZINOV,

Dean of the Faculty of Computer Sciences.

9. Aleksandr BAEV,

Dean of the Faculty of Mathematics.

10. Oleg BELENOV,

Dean of the Faculty of International Relations.

11. Olga BERDNIKOVA,

Dean of the Faculty of Philology.

12. Anatoliy BOBRESHOV,

Dean of the Faculty of Physics.

13. Olga BORISKINA,

Dean of the Faculty of Romance and Germanic Philology.

14. Vladimir GLAZIEV,

Dean of the Faculty of History.

15. Pavel KANAPUKHIN,

Dean of the Faculty of Economics.

16. Semyon KUROLAP,

Dean of the Faculty of Geography, Geoecology, and Tourism.



- 17. Victor NENAKHOV,**
Dean of the Faculty of Geology.
- 18. Vladimir RODIONOV,**
Director of the International Education Institute.
- 19. Viktor SEMENOV,**
Dean of the Faculty of Chemistry.
- 20. Aleksey SLIVKIN,**
Dean of the Faculty of Pharmaceuticals.
- 21. Yury STARILOV,**
Dean of the Faculty of Law.
- 22. Vladimir TULUPOV,**
Dean of the Faculty of Journalism.
- 23. Alexander SHASHKIN,**
Dean of the Faculty of Applied Mathematics, Informatics, and Mechanics.
- 24. Alexander SHCHERBAKOV,**
Dean of the Faculty of Military Education.
- 25. Leonid AKIMOV,**
Head of the Department of Natural Resource Management,
Faculty of Geography, Geoecology, and Tourism.
- 26. Alla AKULSHINA,**
Head of the Department of International Projects and Programs.
- 27. Elena ALEXEYEVA,**
Head of the Department of French Philology, Faculty of Romance
and Germanic Philology.
- 28. Alexander ALBEKOV,**
Associate Professor of the Department of Mineralogy,
Petrology, and Geochemistry, Faculty of Geology.
- 29. Alexander BELANOV,**
Head of the Department of Physical Education and Sports



- 30. Lydia BORISOVA,**
Head of the Department of Theory of Translation and Intercultural Communication,
Faculty of Romance and Germanic Philology.
- 31. Kira VASILIEVA,**
Scientific Secretary of the VSU Academic Council.
- 32. Ludmila VLADIMIROVA,**
Chairman of the Trade Union Committee of Voronezh State University.
- 33. Aleksey VLASOV,**
Head of Student Housing.
- 34. Karina GAIDAR,**
Head of the Department of General and Social Psychology.
- 35. Sergey GAPANOV,**
Head of the Department of Zoology and Parasitology,
Faculty of Medicine and Biology.
- 36. Alexandra GLUKHOVA,**
Head of the Department of Sociology and Politology, Faculty of History.
- 37. Evelina DOMASHEVSKAYA,**
Head of the Department of Solid-State Physics and Nanostructures,
Faculty of Physics.
- 38. Valentin IEVLEV,**
Head of the Department of Materials Science and the Industry
of Nanosystems, Faculty of Chemistry.
- 39. Alexander KAZHIKIN,**
Associate Professor of the Department of Advertising and Design,
Faculty of Journalism.
- 40. Ludmila KOLTSOVA,**
Head of the Russian Language Department, Faculty of Philology.
- 41. Ludmila KONOVALOVA,**
Head of the Department for the Certification of Scientific Personnel.
- 42. Vladimir KOSTIN,**
Head of the Department of Mathematical Modelling, Faculty of Mathematics.
- 43. Lubov KOT,**
Associate Professor of the Department of Humanities at the Institute
of International Education.
- 44. Artem KRIVOSHEYEV,**
Head of Planning and Finance Department.
- 45. Andrey KUDRYAVTSEV,**
Associate Professor of the Department of Criminal Law, Faculty of Law.
- 46. Olga KUPRUSHINA,**
Associate Professor of the Department of Economic Analysis and Audits,
Faculty of Economics.



47. Sergey MEDVEDEV,

Associate Professor of the Department of Computational Mathematics and Applied Information Technologies, Faculty of Applied Mathematics, Informatics, and Mechanics.

48. Arkadiy MINAKOV,

Professor, Department of Russian History, Faculty of History.
Director of the Regional Scientific Library of VSU.

49. Grigory NAGIRNYAK,

Director of the Training Swimming Pool.

50. Tamara NIKONOVA,

Head of the Department of Russian Literature of XX–XXI Centuries,
Theory of Literature and Folklore, Faculty of Philology.

51. Elena NOSYREVA,

Head of the Department of Civil Law and Procedure, Faculty of Law.

52. Oleg OVCHINNIKOV,

Head of the Department of Optics and Spectroscopy, Faculty of Physics.

53. Tatyana POPOVA,

Head of the Department of Medical Biochemistry and Microbiology,
Faculty of Medicine and Biology.

54. Alexey PROKHORCHENKO,

Head of User Support.

55. Natalia SAPOZHNIKOVA,

Head of the Department of Accountancy, Faculty of Economics.

56. Igor SVERTKOV,

Director of the Borisoglebsk branch of VSU.

57. Vladimir SELEMENEV,

Head of the Department of Analytical Chemistry, Faculty of Chemistry.

58. Alexander SIROTA,

Head of the Department of Information Processing and Protection Technologies,
Faculty of Computer Sciences.

59. Nikolay SKOLZNEV,

Director of the Galichya Gora nature reserve.

60. Olga TRINEEVA,

Associate Professor of the Department of Pharmaceutical Chemistry
and Pharmaceutical Engineering, Faculty of Pharmaceutics.



- 61. Olga URYVSKAYA,**
Head of the Department of Clinical Pharmacology, Faculty of Pharmaceutics.
- 62. Konstantin FEDUTINOV,**
2nd class Engineer of the computer laboratory.
- 63. Aleksey KHARIN,**
Head of Innovation and Entrepreneurship Department.
- 64. Ekaterina TSEBEKOVA,**
Associate Professor of the Department of International Economics and International Business, Faculty of International Relations.
- 65. Victor SHAMAEV,**
Professor of the Military Department, Faculty of Military Education.
- 66. Alla SHESTERINA,**
Professor of the Department of Television and Radio Journalism, Faculty of Journalism.
- 67. Hidmet SHIKHALIYEV,**
Head of the Department of Organic Chemistry, Faculty of Chemistry.
- 68. Igor SHUMSKIKH,**
Superintendent of the main building.
- 69. Viktoria DOROKHINA,**
2nd year student of the Faculty of Pharmaceutics.
- 70. Aleksey ELFIMOV,**
Master's student of the 1st course of the Faculty of Physics.
- 71. Elena KRETININA,**
2nd year student of the Faculty of History.
- 72. Kristina KULESHOVA,**
Head of Career Development and Business Partnerships.
- 73. Viktoria PEREVOZNIKOVA,**
3rd year student of the Faculty of Mathematics.
- 74. Maria RUSANOVA,**
4th year student of the Faculty of Philosophy and Psychology.
- 75. Andrey STARTSEV,**
Chairman of the Trade Union of Students.
- 76. Raisa SHAMAILOVA,**
2nd year student of the Faculty of Law.



LIST OF KEY ISSUES CONSIDERED BY THE ACADEMIC COUNCIL IN THE 2017/2018 ACADEMIC YEAR

SEPTEMBER

1. The results of the 2018 admission campaign.
2. About the preparation of buildings and facilities of the University for the operation under winter conditions.
3. Approving the admission rules for the main academic programmes offered by VSU in 2018. Allocating the admission quotas among the programmes.

OCTOBER

1. About the results of the educational activity in higher professional and secondary vocational education programmes.
2. Report on the results of educational activities of the Borisoglebsk branch.
3. Report on the University's social development, and approving the plan for the next academic year.

NOVEMBER

1. About the partnership between Voronezh State University and industrial enterprises aimed at creating high-tech production plants.

DECEMBER

1. VSU internationalization: results of 2018, opportunities for development.
2. Report on the performance of the Institute of International Education.



JANUARY

1. Report on the scientific and innovative work of the university.
2. About the preliminary results of the implementation of the Collective Agreement 2012–2018.
3. Inclusive education at the university: current situation and main targets for 2018.

FEBRUARY

1. Report on the implementation of extended education at the university.
2. About social partnerships at the University.
3. About the state of mass sporting and and recreational activities at VSU.

MARCH

1. Financial and operating performance of VSU: the results of 2017 and the business plan for 2018.
2. About the operation of the military faculty and the tasks of the organization of military training at VSU.

APRIL

1. Rector's report on the operation of VSU.

MAY

2. Report on the implementation of the anti-corruption management plan at the university.
3. Report on the university's social development and approval of the plan for the next year.
4. About the implementation of the program of development of VSU and the promotion of VSU in Russian and World Rankings.

JUNE

1. About the current situation and opportunities of informatisation of the university.
2. Approving personal scholarships for the students enrolled in the main academic programmes of higher education.



2.3. RECTOR'S OFFICE

Rector

Dmitry ENDOVITSKIY

DSc in Economics, Professor. Honorary Worker of Higher Professional Education of the Russian Federation. The author of 411 research papers and study guides. 4 DSc and 56 PhD theses have been performed under the supervision of D. Endovitskiy.

Telephone: +7 (473) 220-75-22

E-mail: rector@vsu.ru

First Vice Rector – Vice Rector for Academic Affairs

Elena CHUPANDINA

DSc in Pharmaceutical Sciences, Associate Professor, Head of the Department of Economics and Management in Pharmaceutics and Pharmacognosy. The author of 268 research papers and study guides. 4 PhD theses have been performed under the supervision of E. Chupandina.

Telephone: +7 (473) 220-87-31

E-mail: chupandina@vsu.ru

Vice Rector for Research and Innovations

Vasily POPOV

DSc in Biology, Professor, Dean of the Faculty of Medicine and Biology, Head of the Department of Genetics, Cytology and Bioengineering. The author of 308 research papers and study guides. 12 PhD theses have been performed under the supervision of V. Popov.

Telephone: +7 (473) 220-75-33

E-mail: popov@vsu.ru



Vice Rector for Economics and Contract Services

Larisa KORBEINIKOVA

PhD in Economics, Associate Professor, Head of the Department of Economic Analysis and Audit. The author of over 428 research papers and study guides, including 3 monographs. 2 PhD theses are being prepared for defence under the supervision of L. Korobeinikova.

Telephone: +7 (473) 222-60-92

E-mail: korobeinikova@vsu.ru

Vice Rector for Strategic Administrative Management

Yuriy BUBNOV

DSc in Philosophy, Professor, Dean of the Faculty of Philosophy and Psychology, Head of the Department of History of Philosophy of the Faculty of Philosophy and Psychology The author of 153 research papers and study guides. 1 DSc and 8 PhD theses have been performed under the supervision of Y. Bubnov.

Telephone: +7 (473) 220-77-73

E-mail: bubnov@vsu.ru

Vice Rector for Student Affairs and Social Development

Oleg GRISHAEV

VSU graduate. Started working at VSU in 1988. PhD in History, Associate Professor, Head of the Department of Contemporary Russian History, historiography and Records Management The author of over 100 research papers and study guides. 1 PhD thesis has been performed under the supervision of O. Grishaev.

Telephone: +7 (473) 239-06-86

E-mail: grishaev@vsu.ru

Vice Rector for Facilities and Capital Development

Alexander SOKOLOV

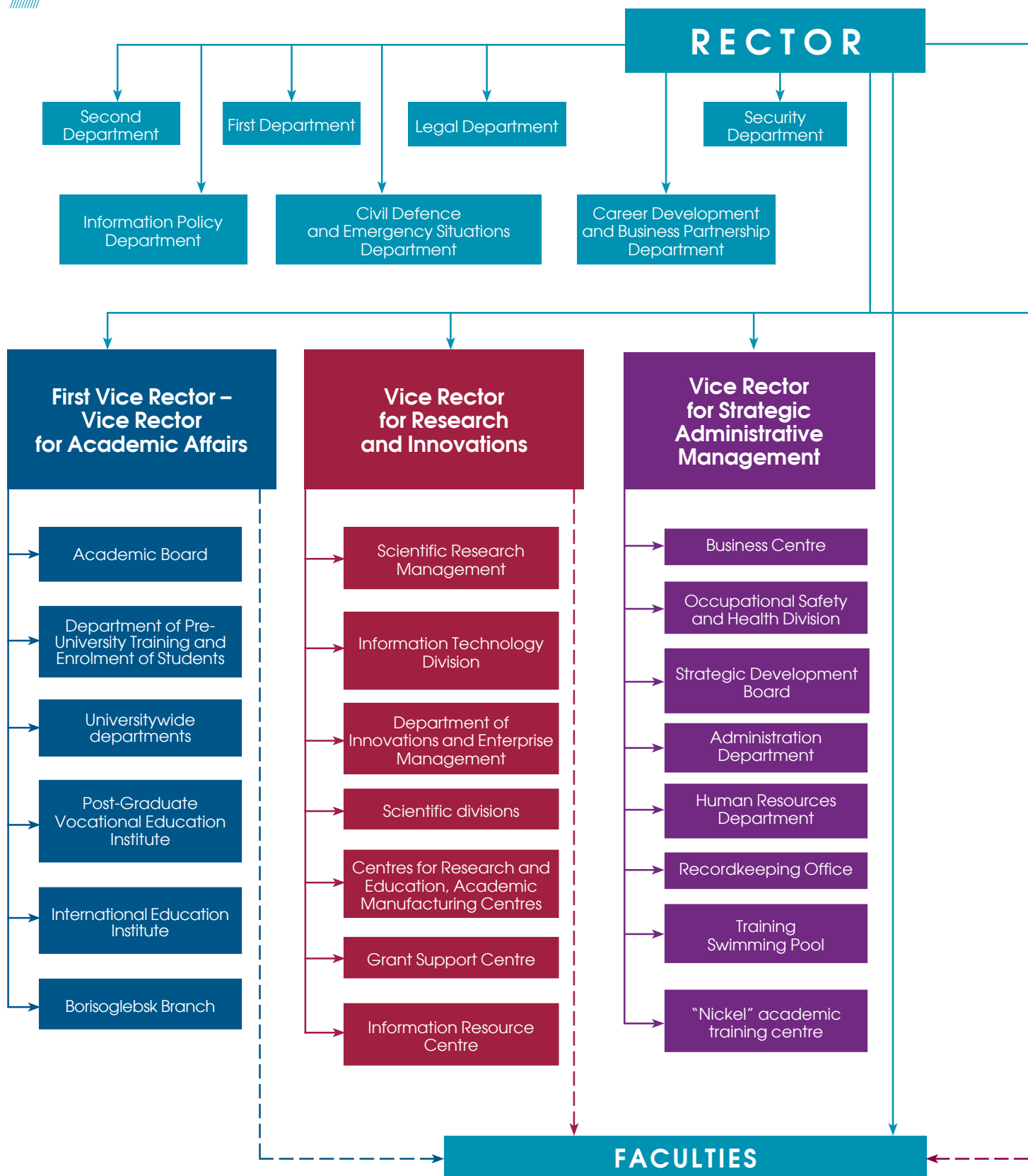
DSc in Economics, Associate Professor. The author of 47 research papers, including 2 monographs. 2 PhD theses have been performed under the supervision of A. Sokolov.

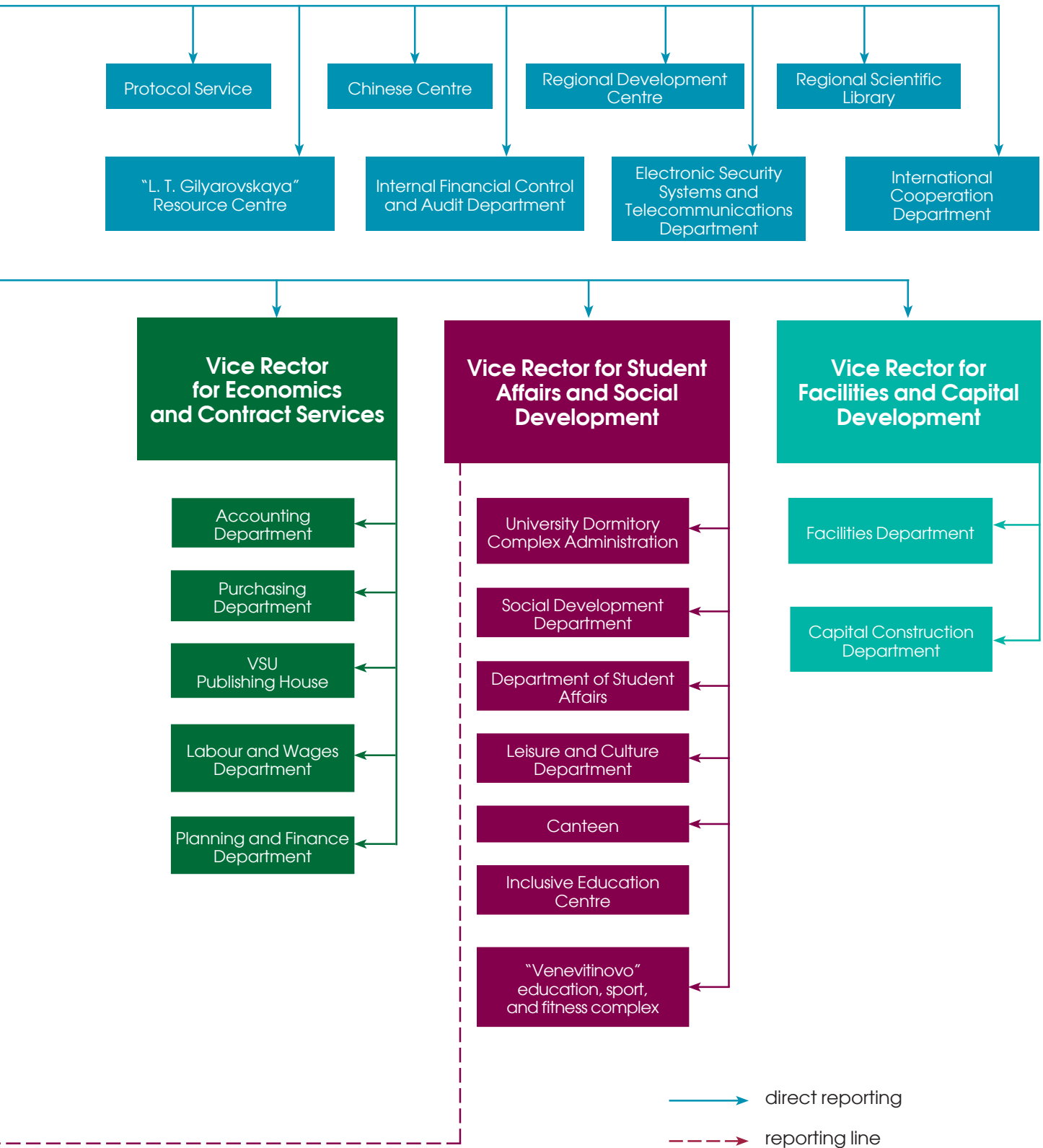
Telephone: +7 (473) 220-75-18

E-mail: sokolov@vsu.ru



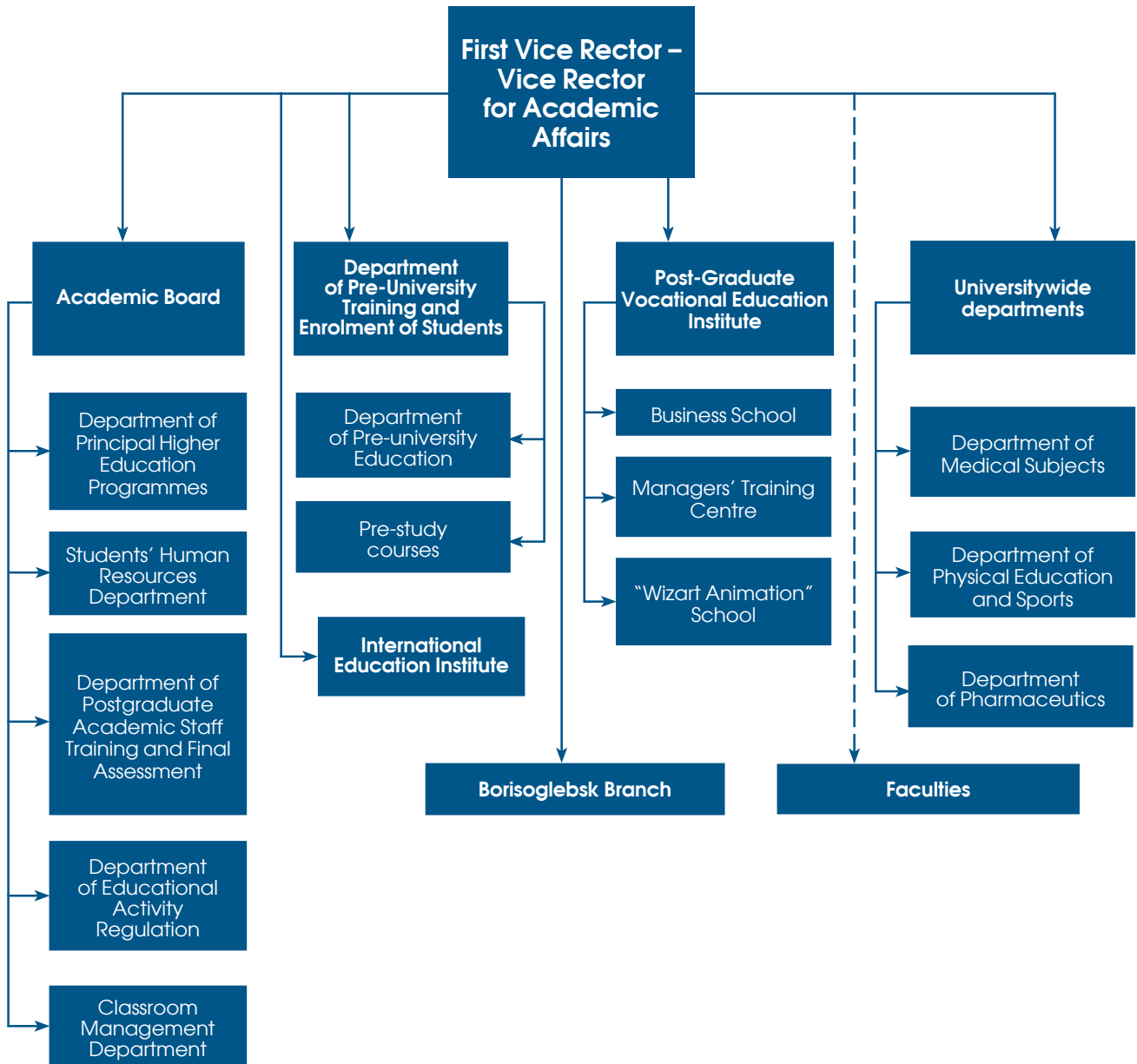
2.4. THE GENERAL STRUCTURE OF VORONEZH STATE UNIVERSITY





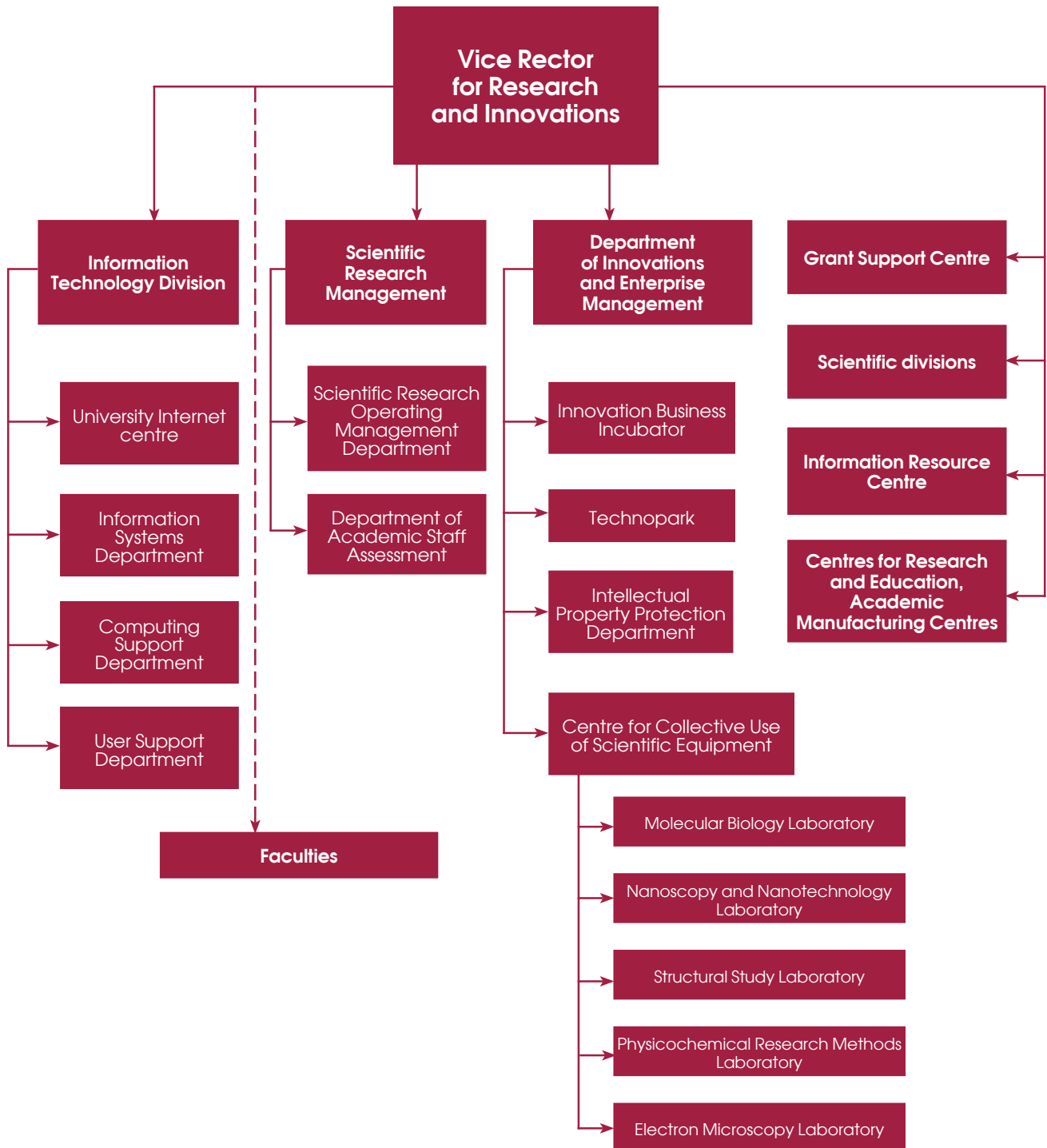


2.5. MANAGEMENT STRUCTURE OF THE FIRST VICE RECTOR – VICE RECTOR FOR ACADEMIC AFFAIRS



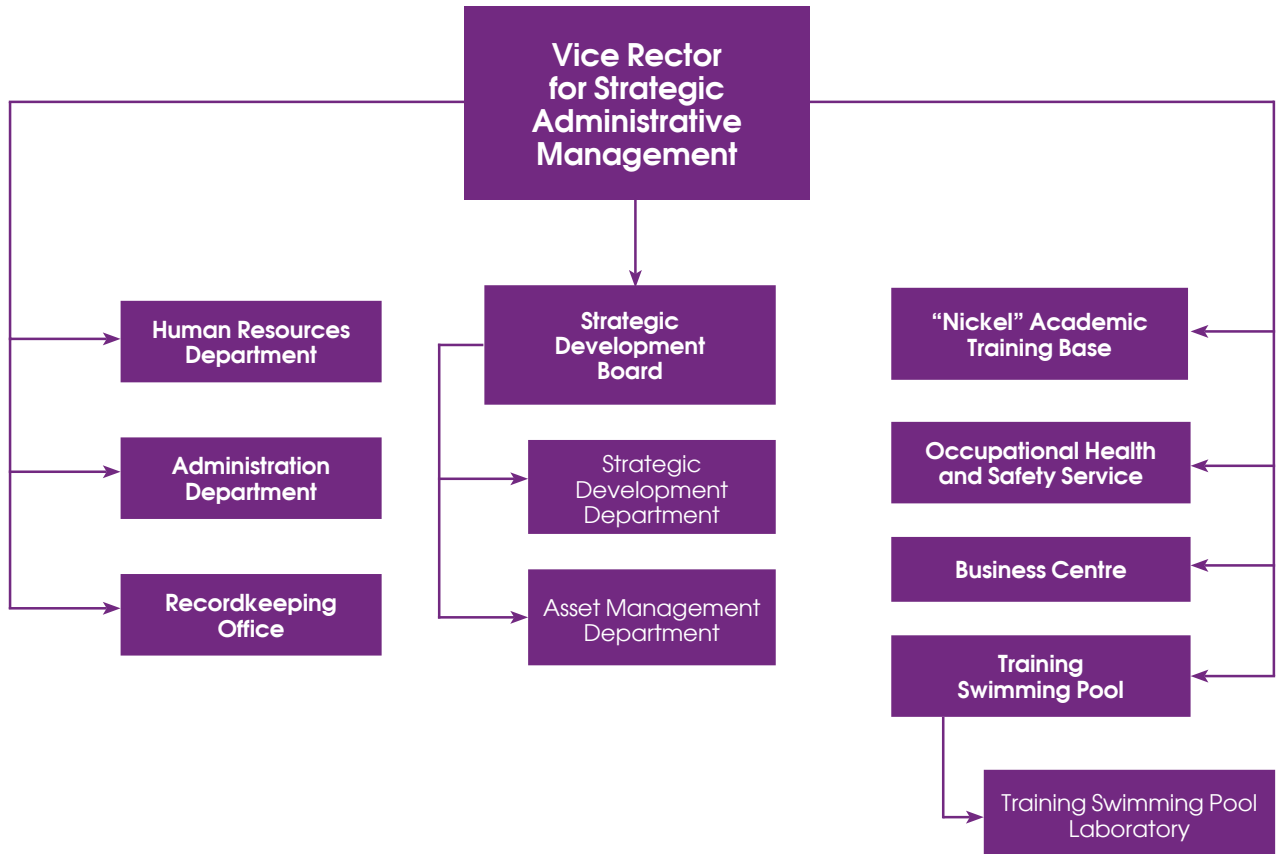


2.6. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR RESEARCH AND INNOVATIONS

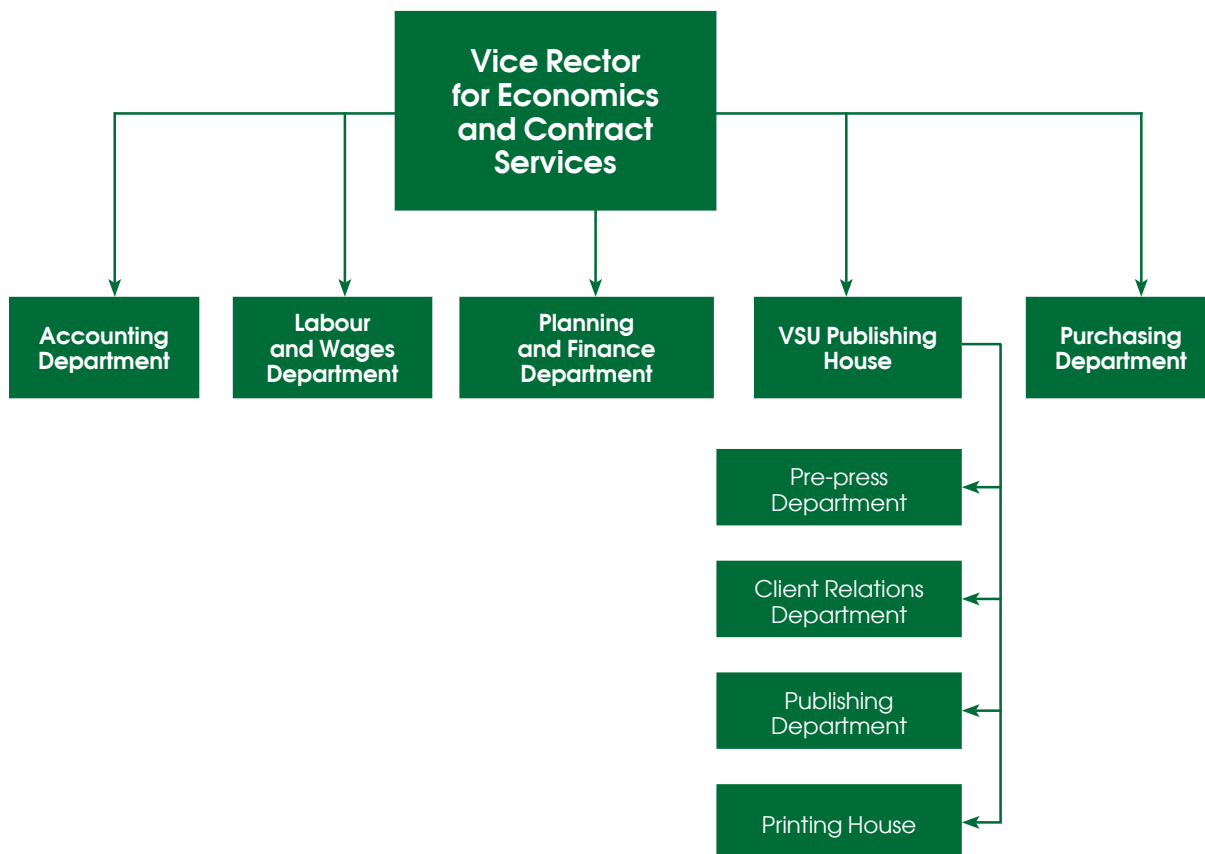


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2.7. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STRATEGIC ADMINISTRATIVE MANAGEMENT

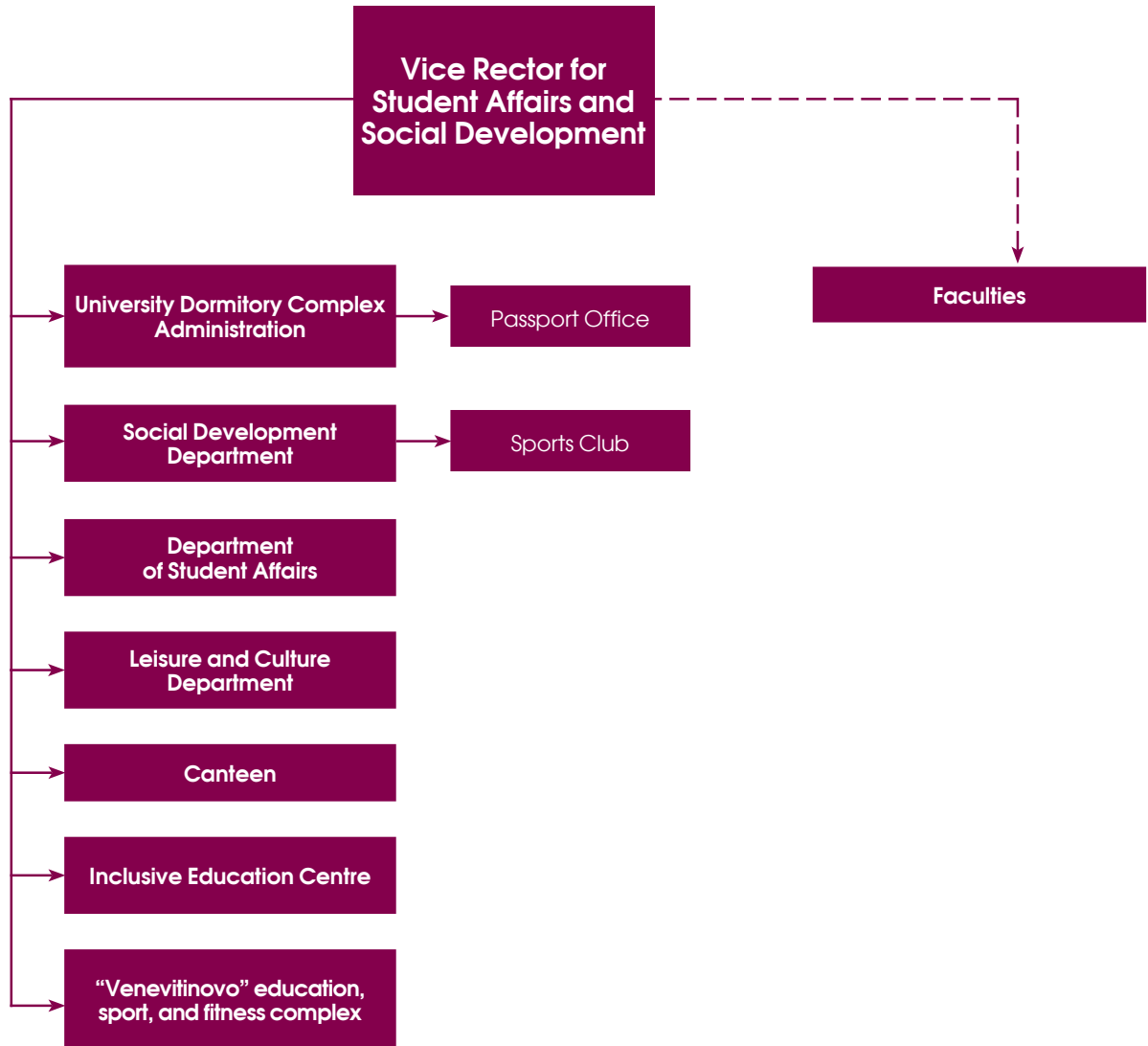


2.8. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR ECONOMICS AND CONTRACT SERVICES



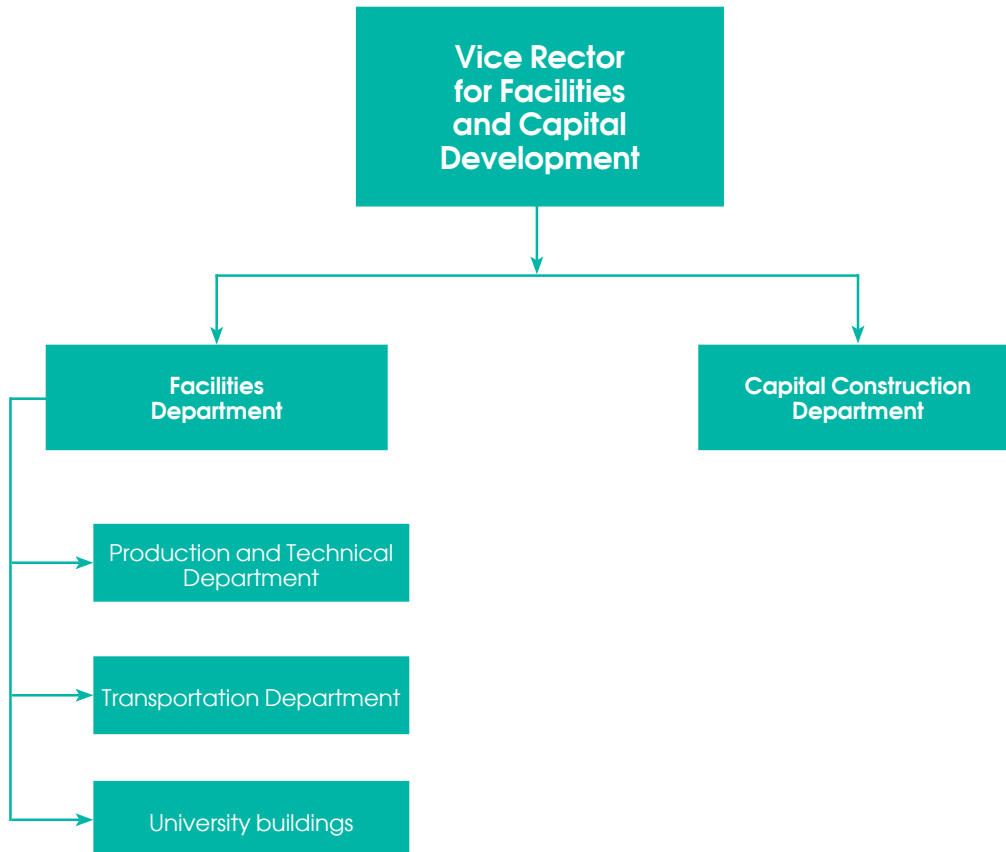
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2.9. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STUDENT AFFAIRS AND SOCIAL DEVELOPMENT





2.10. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR FACILITIES AND CAPITAL DEVELOPMENT





2.11. FACULTIES AND INSTITUTES

THE FACULTY OF GEOLOGY

Dean **Viktor NENAKHOV**

Telephone: +7 (473) 220-89-89 E-mail: nenakhov@geol.vsu.ru

THE FACULTY OF HISTORY

Dean **Vladimir GLAZIEV**

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THE FACULTY OF MATHEMATICS

Dean **Alexander BAEV**

Telephone: +7 (473) 220-84-01 E-mail: baev@math.vsu.ru

THE FACULTY OF MEDICINE AND BIOLOGY SCIENCES

Dean **Vasily POPOV**

Telephone: +7 (473) 220-88-52 E-mail: deanery@bio.vsu.ru

THE FACULTY OF MILITARY EDUCATION

Dean **Alexander SHCHERBAKOV**

Telephone: +7 (473) 255-15-97 E-mail: scherbakov@mil.vsu.ru

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UNIVERSITY STRATEGIC DEVELOPMENT





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Yuriy Bubnov,

Vice Rector for Strategic
Administrative Management

3.1. VSU'S STRATEGY

The university's strategic development is carried out in accordance with the following policy documents:

- The revised VSU Strategy (approved by the Academic Council until 2030, meeting minutes No.7 of 29 September 2017);
- The Program of VSU's transformation into Voronezh Regional University Centre for Innovative, Technological, and Social Development (approved on 26 September 2017; the status was obtained on 14 December 2017);
- The "road map" of events aimed at VSU's transformation into Voronezh Regional University Centre, as well as meet the target performance indicators (as part of the Transformation Program);
- VSU Project Map (revised annually).

The mission of VSU as a leading classical university is to make a valuable contribution to national and regional development, drawing upon the best traditions of the national system of education, and combining the scientific, humanitarian, and social knowledge with advanced fundamental and applied research, high innovative potential, and integration with international research and the educational framework. VSU positions itself as a scientific, technological, educational, innovative, and cultural centre that trains highly qualified and eminently employable specialists.

The University's Strategic Aim is to retain and strengthen its leadership in the Central Black Earth Region and among the leading Russian universities in all areas of activity.



TASKS AND EVENTS AS PART OF VSU'S STRATEGY

1. Modernizing Higher Education Academic Programmes:

- Implementing internationally competitive academic programmes in Biomedicine, Physics, Chemistry, Earth Sciences, Computer Sciences, and Social Sciences.
- Expanding the number and range of academic exchange and double-degree programmes.
- Introducing pilot academic programmes for English speaking students.
- Introducing social and technology-oriented entrepreneurship modules into the academic programmes.
- Increasing the number of fundamental departments and disciplines with the participation of potential employers.

2. Developing further education programmes:

- Opening new university-based corporate training centres.
- Developing internationally competitive business education programs.
- Introducing new social and technology-oriented entrepreneurship programs.
- Implementing further education programmes through the university's Electronic Education System.
- Collaborating with organizations working in the area of employment assistance and entrepreneurship development.

3. Intensifying pre-university training and social work:

- Supporting and developing student and graduate communities.
- Implementing educational projects for schoolchildren and the general public.
- Identifying, supporting, and attracting talented school leavers to study at VSU.
- Implementing social projects and initiatives.

4. Enhancing research output:

- Supporting the grant and research based activities of the university's researchers.
- Increasing the university's participation in international research projects.
- Collaborating with the business community to take part in innovative technological projects.
- Providing organizational and informational support for the academic mobility of researchers.

5. Integrating with the regional system of innovative development:

- Collaborating with regional and federal institutions for innovative development.
- Promoting the university as the core of the regional expert community.
- Introducing the elements necessary to pre-accelerate and accelerate innovations.



- Developing student business communities.
- Promoting university-based small innovative enterprises.
- Expanding the number and scale of innovation facilities.
- Supporting initiatives aimed at expanding the information infrastructure for innovative development.

6. Raising the motivation and competencies of the university's personnel:

- Continuous improvement of the criteria of an effective contract for academic staff and senior management.
- The involvement of leading Russian and international researchers and lecturers in the university.
- Supporting young scientists and lecturers and aiding in their professional development.

The tasks and events of the strategic development for 2017–2019 are detailed in the Program of VSU's transformation into Voronezh Regional University Centre for Innovative, Technological, and Social Development.

The purpose of VSU's transformation into Voronezh Regional University Development Centre is the university's contribution to achieving the sustainable social and economic development goals set for the Voronezh Region, Central Black Earth Region, and the Russian Federation. Key initiatives of the transformation are:

- Integrating the regional infrastructure of innovative ventures into VSU.
- Developing the university ecosystem necessary to pre-accelerate the innovations and business activities of the young.
- Collaborating with VSU's industrial partners to implement joint projects in the field of creating high-tech production plants.
- Supporting fundamental and applied research in top-priority areas, in accordance with the the Strategy for Social and Economic Development for the Voronezh Region.
- Modernising the existing educational programmes, introducing social and technology-oriented entrepreneurship modules, and implementing a project-based approach to education.
- Starting new and modernizing existing advanced training programmes in the area of innovations.

In accordance with the Transformation Programme, the top-priority areas for fundamental and applied research of VSU in 2017–2019 are the following multifaceted cross-disciplinary areas: "Improving people's health", "Improving people's living environment", "Enhancing working standards for people with access to production technology", "Improving people's engagement with society", "Mathematics and computer science".

The events of the Transformation Programme are described in detail in Section 3.4 of the present Report – "The Roadmap for "Universities as centres for innovations" project".



3.2. ACHIEVEMENT OF TARGET PARAMETERS IN 2018

VSU's strategy, adopted at the Academic Council on September 29, 2017, set the indicators for the development of the university until 2030. Table 3.1 shows the key performance indices for the reporting year of 2018 compared to 2017, as well as those planned for 2019.

Table 3.1

KEY INDICATORS OF VSU'S STRATEGIC DEVELOPMENT IN 2018

Indicator	2017 (fact)	2018 (fact)	2019 (plan)
Educational activity			
The number of students enrolled in bachelor's, diploma, and master's degree programmes	17,515	17,289	18,000
The total number of postgraduate students	595	634	580
The percentage of students in master's degree and postgraduate programmes in the total number of the given contingent, %	20.03	20.0	21.0
The percentage of international students enrolled in bachelor's, specialist's, and master's degree programmes, in the given contingent, %	4.28	3.4	6.1
The percentage of international postgraduate students, %	12.98	11.8	10.5
The number of international exchange students spending at least one semester at VSU, per 100 students of the given contingent	0.82	0.49	2.0
The number of winners of national and international academic contests, enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes	1	1	3
Scientific Research and Innovative Activity			
The total amount of R&D in the reporting year, million roubles	258.0	282.4	270.0
Revenue from R&D per faculty member, thousand roubles	211.3	188.9	195.4
Total amount obtained in the reporting year from the Russian state foundations supporting scientific and technical research and innovations, million roubles	84.4	84.9	90.0
The number of publications in Web of Science in the reporting year per 100 academic staff members	20.48	21.07	20.6
The number of publications in Scopus in the reporting year per 100 academic staff members	32.84	26.89	28.9
The number of citations of the publications issued in the last five years, indexed in Web of Science in the same period	2,172	2,564	2,400
The number of citations of the publications issued in the last five years, indexed in Scopus in the same period	2,839	3,150	3,050
The number of publications made in collaboration with foreign scholars, according to Web of Science and Scopus, in the reporting year	80	83	75
The number of DSc and PhD dissertations defended at VSU dissertation boards	72	101	130
University staff members			
The total number of the regular FTE academic staff members at the end of the reporting period	1,169	1,408	1,282
The total number of research staff members, working full time, at the end of the reporting period	52	87	100
The share of the academic staff members with a PhD or a DSc degree, %	76.11	75.0	77.0
The share of foreign citizens as a percentage of the total number of academic staff members, %	0.41	0.07	0.5
The number of academic staff members with foreign citizenship	8	1	7

Abbreviations: R&D – research and development.

Notes: Web of Science and Scopus are the the most influential international information and bibliographic databases of scientific citation used to assess research output..



3.3. REPORT ON EVENTS DEDICATED TO THE CENTENARY OF VSU (INCLUDING THE DECISION OF THE ORGANIZING COMMITTEE)

2018 was declared the Year of Education and Science in the Voronezh Region and marked the centenary anniversary of classical, medical, and pedagogical education in Voronezh and, of course, Voronezh State University.

It should be noted that in June 2018, Governor Alexander Gusev headed the Board of Trustees of Voronezh State University. The close cooperation of the government, the Department of Education, Science, and Youth Policy of the Voronezh Region, the administration of VSU and the Council of Rectors of Higher Education Institutions enabled the implementation of many joint projects between universities in our region with the participation of regional authorities.

The Government of the Voronezh region, in the framework of the events dedicated to the Year of Education and Science, made wonderful gifts to VSU and the whole city.

In April, 22 species of rare trees were planted in Koltsov park. The Governor of the Voronezh Region, Alexander Gusev, the heads of departments of the region and representatives of the business community, as well as representatives of the administration and student activists of the Voronezh State University took part in the environmental action.

The milestone event in the jubilee year was the opening of an exhibition in the State Duma of the Russian Federation dedicated to VSU and the higher education system in the Voronezh region in July. This exhibition was organized with the support of the "United Russia" party and on the initiative of the Voronezh region deputy and a VSU graduate, Andrei Markov, with the assistance of the Department of Education, Science, and Youth Policy of the Voronezh region.

It is important to note the appearance this year of new forms of interactions between the university and schoolchildren and the youngest children. This was made possible thanks to the support of the Department of Education, Science, and Youth Policy of the Voronezh Region. VSU is the founder of unique projects for children:

- "Innovation League" – the first interregional pre-accelerator for schoolchildren.
- "ROBOART" – children's All-Russian Robotic Festival.
- "Federal Student Tournament of Three Sciences" – a student tournament in chemistry, physics, and biology.
- "Experimental school of VSU "Children are our future" – providing continuous education from birth to graduation.



Many charity and volunteer projects, such as the actions of the volunteer club “Zernyshko”, charity concerts in conjunction with the Charity Foundation “DobroSvet”, and others, will become a bright tradition for the university for many years.

The solemn celebration of the centenary was combined with the Day of the City and took place on September 15th. This was the key event of the celebrations of the centenary. On this day, solemn events took place in the city centre – a parade of students, teachers, graduates and foreign guests, which gathered 1,500 people, a festival of foreign art, and a large meeting of university graduates, took place in the main building of the Voronezh State University. The main part of the celebration took place at Sovetskaya square. There were organized lectures, creative workshops, scientific and entertainment venues, and dance masterclasses. The solemn part of the celebration of the centenary of the Voronezh State University was held in the Voronezh Concert Hall. This unforgettable and remarkable event gathered employees, graduates, veterans, partners, and friends of the university. The international conference “Internationalisation of Higher Education – Strategies and Tools” was held in VSU on September 13th. This was the key event of the Week of International Education “VSU’s 100th Year in History” held between 13 and 15 September and dedicated to the university’s centenary.

In the hall of the I. N. Kramskoy Voronezh Regional Art Museum there was an exhibition project “People and Things. To VSU’s centenary”.

Opposite the main academic building of VSU, the Square of Researchers was opened, where objects dedicated to five Nobel laureates related to the university and the city of Voronezh were installed. One of them, Pavel Cherenkov, the Nobel Prize winner for Physics (1958), is a graduate of VSU.

On 12 November, Voronezh State University celebrated its 100th anniversary since the first day of studies. On that day, university students and staff paid tribute to the founders of the university and an anniversary meeting of the Academic Board took part in the concert hall of Voronezh State University. The formal part of the meeting was followed by a concert by the MAGNETUS male choir and the Voronezh Youth Symphony Orchestra conducted by the Honoured Artist of the Russian Federation, maestro Yuri Androsov.



3.4. THE ROADMAP OF EVENTS AIMED AT TRANSFORMING THE UNIVERSITY INTO VORONEZH REGIONAL UNIVERSITY CENTRE FOR INNOVATIVE, TECHNOLOGICAL, AND SOCIAL DEVELOPMENT

- 1** Name of the event:
Replicating the framework for strategic partnership.

Description:
Forming alliances with the largest participants in the process of regional modernization: Tele2, "Lukoil-Chernozemienefteprodukt", "Sozvezdie" group of companies, "Bionorika" group of companies, "Rosenergoatom" group of companies represented by the Novovoronezh Nuclear Power Plant, and others.

Key results:
10 collaboration agreements with the key leaders of regional development were signed.

Project duration: 2017.
Amount and sources of funding 1,000,000 roubles from own funds.
Persons in charge: V.N. Popov, A.N. Kharin.
- 2** Name of the event:
Testing the module-based education model.

Description:
Reorientation of educational programs to meet the region's demands for human resources for projects aimed at scientific, technological, and socio-economic development.

Key results:
The priority list of VSU educational programs has been formed.

Project duration: 2017.
Amount and sources of funding 2,000,000 roubles from own funds.
Persons in charge: faculty deans.
- 3** Name of the event:
Introducing a dialogue oriented framework for providing assistance to graduates seeking employment.

Description:
Making use of interactive tools to combine the efforts of the university, students, and employers in order to implement effective employment strategies.

Key results:
Launching the university-based platform "Stazhirovka.ru".

Project duration: 2017.
Amount and sources of funding 1,000,000 roubles from funds provided by industrial partners.
Persons in charge: E.O. Ivashinenko.



- 4** Name of the event:
Replicating the creative framework for graduate work placement.
 Description:
 Expanding VSU's unique project "Student Tournament of Three Sciences" on the territory of the Russian Federation.
 Key results:
 Launching the project in 6 federal districts of the Russian Federation.
 Project duration: 2017.
 Amount and sources of funding 11,000,000 roubles from own funds;
 1,900,000 from the President's grant for developing student communities.
 Persons in charge: D.A. Koyuda.
- 5** Name of the event:
Import substitution of academic programmes in medicine.
 Description:
 Training engineers in the field of high-tech medicine for the medical institutions in the region, specifically in critical areas in terms of personnel shortage.
 Key results:
 Restructuring of VSU's Faculty of Biomedical Sciences.
 Project duration: 2017.
 Amount and sources of funding 1,000,000 roubles from own funds.
 Persons in charge: V.N. Popov.
- 6** Name of the event:
Import substitution of academic programmes in management.
 Description:
 Training managerial personnel who could take part in international internship programmes and/or be awarded an MBA degree.
 Key results:
 4 educational programs were implemented.
 Project duration: 2017.
 Amount and sources of funding 2,500,000 roubles from the regional budget;
 1,250,000 roubles from other sources.
 Persons in charge: L.M. Nikitina.
- 7** Name of the event:
Import substitution of academic programmes in nanotechnologies.
 Description:
 Implementing educational programs that ensure the training of qualified personnel for the innovative economy of the region, creating new professions, programmes, and qualifications in the nanoindustry.
 Key results:
 An additional professional educational program and a prototype of an E-learning resource (ELR) were developed. A list of professional competencies of specialists necessary for the successful performance of their functions has been formed.
 Project duration: 2017.
 Amount and sources of funding 5,600,000 roubles from the Fund for Infrastructure and Educational Programmes RUSNANO.
 Persons in charge: V.N. Popov.



- 8** Name of the event:
The transfer of internationally competitive academic programmes.
Description:
Developing joint educational programmes and double degree programmes in collaboration with the leading European and CIS education centres.
Key results:
12 educational projects with international participation were implemented.
Project duration: 2017.
Amount and sources of funding 2,000,000 roubles from funds provided by European partners.
Persons in charge: O.N. Belenov.
- 9** Name of the event:
Establishing new Executive Education programmes.
Description:
Establishing new educational structures that will implement project-based educational programs in collaboration with the largest enterprises and organizations of the real sector of the regional economy.
Key results:
Corporate educational structures have been formed by VSU, which, together with the largest enterprises and organizations of the real sector of the regional economy, implement project-oriented educational programs.
Project duration: 2017.
Amount and sources of funding 1,000,000 roubles from own funds; 1,000,000 from funds provided by industrial partners.
Persons in charge: E.K. Algazinov, A.I. Shashkin, P.A. Kanapukhin, V.N. Popov, A.M. Bobreshov.
- 10** Name of the event:
Launching the first regional university innovation preaccelerator.
Description:
Launching the "Innovation League" preacceleration programme, aimed at developing basic competencies for innovative activities.
Key results:
Over 100 people took part in the event.
Project duration: 2017.
Amount and sources of funding 50,000 roubles from own funds; 500,000 from funds provided by industrial partners.
Persons in charge: V.N. Popov



- 11** Name of the event:
Implementing VSU-based federal innovation acceleration programmes.
 Description:
 Implementing project-based programs in social and technological entrepreneurship of the Foundation for Developing Internet Initiatives.
 Key results:
 A project-oriented training program for social and technological entrepreneurship of the Foundation for Developing Internet Initiatives was introduced, the "Internet entrepreneurship" training course.
 Project duration: 2017.
 Amount and sources of funding 50,000 roubles from own funds; 200,000 from funds provided by the Foundation for Developing Internet Initiatives.
 Persons in charge: V.N. Popov.
- 12** Name of the event:
Developing the infrastructure for the implementation of projects in accordance with the National Technological Initiative.
 Description:
 Expanding VSU's capacity for using high-performance computing clusters for training personnel in supercomputer computations and performing contractual research work.
 Key results:
 The expansion of VSU's capacity for using high-performance computing clusters for training personnel in supercomputer computations and performing contractual research work has been completed. A new supercomputer was introduced, which is a cluster system with a performance of 39 Tflop/s.
 Project duration: 2017.
 Amount and sources of funding 15,900,000 roubles from own funds.
 Persons in charge: E.K. Algazinov.
- 13** Name of the event:
Forming the list of promising regional technological projects.
 Description:
 Performance of pilot scientific research in areas highly relevant for the region's development, with the financial support of the regional budget.
 Key results:
 Pilot studies were carried out on priority topics for the development of the region, with the attraction of financial support from the regional budget in accordance with the list of promising regional technology projects.
 Project duration: 2017.
 Amount and sources of funding 2,250,000 roubles from regional budget funds.
 Persons in charge: V.N. Popov, A.N. Kharin
- 14** Name of the event:
Becoming part of the regional import substitution programme.
 Description:
 Preparing and implementing a set of attractive investment projects concentrated on regional technological development in collaboration with industrial partners.
 Key results:
 5 projects were prepared and implemented.
 Project duration: 2017.
 Amount and sources of funding 6,000,000 roubles from the funds provided by industrial partners; 2,500,000 roubles from other sources.
 Persons in charge: V.N. Popov, A.N. Kharin.



15 Name of the event:
Implementation of the “Open University” project.

Description:

Holding a series of public events involving federal and international speakers, aimed at developing motivation among students and employees for engaging in the fields of innovative, social, and technological activities in VSU.

Key results:

A series of public events involving federal and international speakers, aimed at developing motivation among students and employees for engaging in the field of innovative, social, technological activities was held at VSU.

Project duration: 2017.

Amount and sources of funding 1,000,000 roubles from own funds.

Persons in charge: O.V. Grishaev.

16 Name of the event:
Creating the conditions necessary for establishing a VSU-based project office for the development of the Voronezh Region.

Description:

Including VSU’s specialists in the group developing key policy documents that determine the development strategy of the Voronezh Region.

Key results:

The Department of Economic Development of the Voronezh Region signed an agreement on expert and advisory support for the development of a strategy for the social-economic development of the Voronezh Region, within which fundamental agreements were reached about the establishment of a Centre for Regional Development at Voronezh State University serving as the project development office for the Voronezh Region.

Project duration: 2017.

Amount and sources of funding 2,500,000 roubles from regional budget funds.

Persons in charge: I.Ye. Risin.

17 Name of the event:
Upscaling VSU’s expert community.

Description:

Involving VSU’s specialists in the group working on the development and implementation of the Regional Import Substitution Programme.

Key results:

Based on the annex to the Order of the Industry Department of the Voronezh Region of December 12, 2017 No. 62-01-06 258, 12 experts from VSU were included in the Expert Council on Import Substitution at the Department of Industry of the Voronezh Region

Project duration: 2017.

Amount and sources of funding 100,000 roubles from own funds.

Persons in charge: A.N. Kharin.



- 18** Name of the event:
Developing VSU's competencies in the area of social planning.
 Description:
 Involving VSU's specialists in the group working on assessing the state and dynamics of civil society institutions in the Voronezh Region and their activities.
 Key results:
 Work was performed according to the task set by the government of the Voronezh region "State of the civil society in the Voronezh region".
 Project duration: 2017.
 Amount and sources of funding 460,000 roubles from regional budget funds.
 Persons in charge: A.N. Kharin.
- 19** Name of the event:
Creating "VSU Atlas of Innovations".
 Description:
 Preparing a tailored package of VSU's innovative developments and projects with high commercial potential and for presenting to prospective investors.
 Key results:
 A tailored package of VSU's innovative developments and projects with high commercial potential and for presenting to prospective investors was prepared.
 Project duration: 2017.
 Amount and sources of funding 100,000 roubles from own funds.
 Persons in charge: A.D. Khvan.
- 20** Name of the event:
Developing the system of small innovative enterprises of VSU.
 Description:
 Forming a network of VSU-based small innovative enterprises that deal with the approbation and scaling of innovative projects, as well as the commercialization of innovative developments.
 Key results:
 31 small innovative enterprises operate at the university.
 Project duration: 2017.
 Amount and sources of funding 1,000,000 roubles from funds provided by the small innovative enterprises.
 Persons in charge: A.D. Khvan.
- 21** Name of the event:
Including VSU's Endowment Fund in the university's project work.
 Description:
 Forming a package of projects and programmes that ensure the implementation of student and staff initiatives in relation to the region's social development.
 Key results:
 A package of projects and programmes was developed that ensures the implementation of student and staff initiatives in relation to the social development of the region.
 Project duration: 2018.
 Amount and sources of funding 1,000,000 roubles from the VSU Endowment Fund; 2,000,000 from funds provided by industrial partners.
 Persons in charge: E.O. Ivashinenko.



22 Name of the event:
Developing the infrastructure for the implementation of VSU projects in the field of pharmacy, phytotherapy, ecology, and environmental management.

Description:

Making the VSU Botanical Garden a platform for the practical implementation of joint projects in collaboration with the enterprises of the real economy sector in scientific, educational, innovative, and social areas.

Key results:

The VSU Botanical Garden has been modernized.

Project duration: 2018.

Amount and sources of funding 1,000,000 roubles from the VSU Endowment Fund;
2,000,000 from funds provided by industrial partners;
2,000,000 from the regional budget.

Persons in charge: A.A. Voronin

23 Name of the event:
Establishing the Regional Project Office.

Description:

Developing and implementing a model steering committee for the coordination and control of project management in the Voronezh region at VSU.

Key results:

With the support of the regional government, a Regional Project Office was opened in Voronezh.

Project duration: 2018.

Amount and sources of funding 1,000,000 roubles from own funds;
1,000,000 from the regional budget.

Persons in charge: V.N. Popov, A.N. Kharin.

24 Name of the event:
Structural and organizational support of the Regional Project Office.

Description:

Creating at VSU an executive body of the Council for Regional Development ensuring the development of public-private partnership tools for the implementation of innovative, social, and technological projects and initiatives.

Key results:

Due to the establishment of the Council for Regional Development at the University, Voronezh State University and the Department for Economic Development of the Voronezh Region signed a cooperation agreement regarding participating in the implementation of individual measures of the socio-economic development strategy of the Voronezh Region

Project duration: 2018.

Amount and sources of funding 1,000,000 roubles from own funds;
340,000 from the regional budget.

Persons in charge: Yu.A. Bubnov, A.N. Kharin.



25 Name of the event: **Material and organizational support of the Regional Project Office.**

Description:

Working with VSU specialists and graduates to create extrabudgetary structures aimed at attracting extrabudgetary funding to implement social, innovative, and technological development projects in the region.

Key results:

In order to create extrabudgetary structures for the attraction of extrabudgetary funding for initiatives to implement projects for social, innovative, and technological development of the region, the Association "Centre for Technological Entrepreneurship and Innovation" was created in 2018.

Project duration: 2018.

Amount and sources of funding 50,000 roubles from own funds; 50,000 from the regional budget, 1,000,000 from grants.

Persons in charge: E.O. Ivashinenko.

26 Name of the event: **Reorientation of master's degree programmes.**

Description:

Introducing modules of social and technology-oriented entrepreneurship into master's degree programmes in accordance with the Federal State Educational Standards of the 3+ and the 3++ generations.

Key results:

Over 15% of master's students are enrolled in new programs including modules on technological and social entrepreneurship.

Project duration: 2018.

Amount and sources of funding 1,500,000 roubles from own funds; 500,000 from funds provided by industrial partners.

Persons in charge: faculty deans.

27 Name of the event: **Developing e-learning elements.**

Description:

Developing and implementing an electronic further education training programme "Innovation Technology Entrepreneurship".

Key results:

The platform for the implementation of e-learning at the university is the educational portal "Electronic University VSU" based on LMS-Moodle. In total, at the end of 2018, 420 e-courses that are actively used in the educational process were created on the "Electronic University of VSU" portal.

Project duration: 2018.

Amount and sources of funding 150,000 roubles from own funds; 200,000 roubles from other sources.

Persons in charge: D.A. Zhukalin.



28 Name of the event:
Developing a lifelong learning education system

Description:

Expanding the range of advanced training programs in the field of high-tech and implementation of social entrepreneurship projects (at least 72 hours).

Key results:

Due to the Centre for Further Professional Education, students and graduates of universities, institutes, colleges, and technical schools are trained for six months with the opportunity to receive a diploma from Voronezh State University with the right to pursue professional activities under professional retraining programs.

Project duration: 2018.

Amount and sources of funding 1,250,000 roubles from the regional budget;
3,000,000 roubles from other sources.

Persons in charge: D.A. Zhukalin.

29 Name of the event:
Developing VSU's expertise in the area of engineering.

Description:

Preparing a package of agreements with strategic partners, government agencies, and development institutions, to create a specialized centre that will provide engineering support for strategic projects in the region.

Key results:

The Engineering I-Technology Centre was created at VSU.

Project duration: 2018.

Amount and sources of funding 1,000,000 roubles from own funds;
6,000,000 from the regional budget,
2,000,000 from industrial partners and other sources.

Persons in charge: V.M. Nenakhov.

30 Name of the event:
University rebranding.

Description:

Implementing a series of initiatives to conduct online and offline activities aimed at creating a new image for VSU as a centre for regional development.

Key results:

A new logo and brand style were developed by Red Collar, one of the leading Russian digital agencies. With the support of industrial partners, the new laboratories of the university were repaired and equipped.

Project duration: 2018.

Amount and sources of funding 1,000,000 roubles from own funds;
2,000,000 roubles from other sources.

Persons in charge: O.V. Grishaev, A.S. Kondratova.



31 **Name of the event:** **Expanding the participation of VSU in regional programs for the acceleration of innovation.**

Description:

Ensuring VSU's participation in the "Innovation Cup" competition with the aim of attracting state financial and information support and participating in the educational programmes of the Agency for Innovation and Development of Economic and Social Projects.

Key results:

5 projects were prepared. Voronezh State University was recognized as the best innovative university in the Voronezh region.

Project duration: 2018.

Amount and sources of funding 500,000 roubles from regional budget funds.

Persons in charge: A.D. Khvan.

32 **Name of the event:** **Introducing elements to programmes aimed at accelerating self-developed technological innovations.**

Description:

Developing the students' technological and social entrepreneurship as part of the competition of innovative projects "Start-up Factory".

Key results:

26 projects were prepared.

Project duration: 2018.

Amount and sources of funding 200,000 roubles from own funds;
200,000 roubles from other sources.

Persons in charge: A.D. Khvan.

33 **Name of the event:** **Developing social entrepreneurship among the students.**

Description:

Implementing VSU's own program of providing support and grants for the implementation of social entrepreneurship projects.

Key results:

A number of Voronezh State University social projects received grant support from the Federal Agency for Youth Affairs (Rosmolodezh).

Project duration: 2018.

Amount and sources of funding 200,000 roubles from funds provided by partners.

Persons in charge: O.V. Grishaev, D.A. Zhukalin.



34 Name of the event:
Developing and upscaling VSU's innovation ecosystem.

Description:

Expanding VSU's unique project "ROBOART" and making it a nationwide event.

Key results:

VSU's unique project "ROBOART" has become a nationwide event. Among the participants of ROBOART 2018 were 1,200 talented children from 20 regions of the Russian Federation.

Project duration: 2018.

Amount and sources of funding 1,400,000 roubles from own funds;
1,920,000 from the President's grant.

Persons in charge: K.A. Fedutinov

35 Name of the event:
Creating a comfortable educational environment.

Description:

Improving the university's facilities and infrastructure, maintaining the high quality of educational, scientific, and innovative activities, and the implementation of social and technological projects and initiatives.

Key results:

Repairs to the roofing, façades of educational buildings, maintenance of the asphalt covering in the courtyard, and refurbishment of the corridors. Major repair of common facilities was performed. Student dormitory buildings were repaired.

Project duration: 2018.

Amount and sources of funding 100,000,000 roubles from the funds provided
by partners and other sources.

Persons in charge: A.A. Sokolov.

36 Name of the event:
**Applying the expertise of VSU in the field of social planning
to the implementation of key regional projects.**

Description:

Involving VSU's intellectual and labour resources in the implementation of the projects of the Voronezh Regional Government aimed at creating the "Kvantorium" children's technopark and the organization of profession-orientation sessions for talented children at the "Repyoye" recreation centre.

Key results:

Voronezh State University provides personnel for such important regional projects as the "Kvantorium" children's technopark and profession-orientation sessions for talented children at the "Repyoye" recreation centre.

Project duration: 2018.

Amount and sources of funding 100,000 roubles from own funds;
2,000,000 from the regional budget.

Persons in charge: O.V. Grishaev.



- 37** Name of the event:
The university's involvement in the social and educational work in the region.
 Description:
 Implementing the "Open University" and "Saturday University" educational projects at the Voronezh regional division of the Russian Foundation "Znaniye".
 Key results:
 Voronezh regional division of the Russian Foundation "Znaniye" in 2018 held a number of educational events in various areas (chemistry, physics, biology, pharmacy, geography, ecology, history, archaeology, instrument engineering, modelling, computer technology, computer science, economics, Russian language, culture of speech and culture of communication, etc.), which were multifaceted and aimed at reaching the entire population of the region.
 Project duration: 2018.
 Amount and sources of funding 100,000 roubles from own funds; 700,000 roubles from other sources.
 Persons in charge: Yu.A. Bubnov.
- 38** Name of the event:
Introducing innovative mechanisms of attracting funding.
 Description:
 Popularizing patronage activities and developing VSU's Endowment Fund with the aim of attracting extra-budgetary funds for the implementation of the university's project proposals.
 Key results:
 The TV station "Kultura" produced a film dedicated to the 100th anniversary of Voronezh State University. According to experts, more than 10,000 people watched it.
 Project duration: 2018.
 Amount and sources of funding 300,000 roubles from the funds provided by industrial partners; 500,000 roubles from grants.
 Persons in charge: E.O. Ivashinenko.
- 39** Name of the event:
Creating VSU's Social Passport.
 Description:
 Preparing a tailored package of VSU's social projects with a high implementation potential and presenting them to prospective partners.
 Key results:
 Preparation of at least 30 projects.
 Project duration: 2019.
 Amount and sources of funding 100,000 roubles from VSU Endowment Fund.
 Persons in charge: O.V. Grishaev.



40 Name of the event:
Developing the region's intellectual potential.

Description:

Holding a series of public international events at VSU in the field of research development, technologies, and innovations.

Key results:

At least 5 events are to be held.

Project duration: 2019.

Amount and sources of funding 300,000 roubles from own funds;
3,500,000 from the regional budget,
700,000 from industrial partners and other sources.

Persons in charge: V.N. Popov, A.N. Kharin.

41 Name of the event:
Developing the tools of public-private partnership.

Description:

Interacting with partners via the Regional Development Council in order to involve them in improving VSU's infrastructure to ensure the implementation of mutually beneficial social, innovative, and technological initiatives.

Key results:

Implementing at least 5 technological projects for the development of VSU's infrastructure.

Project duration: 2019.

Amount and sources of funding 8,000,000 roubles from the funds provided
by industrial partners and other sources.

Persons in charge: O.A. Kozaderov, D.A. Zhukalin.

42 Name of the event:
**Establishing the office for the implementation of social projects
and programmes.**

Description:

Creating and developing the institution of social project mentorship at the NGO Centre for Strategic Communications in scientific, innovative, and social areas.

Key results:

At least 10 projects are to be supported.

Project duration: 2019.

Amount and sources of funding 3,000,000 roubles from grant funds.

Persons in charge: O.V. Grishaev.



43 Name of the event:
Introducing a framework for the self-propagation of the university's community of innovators.

Description:

Forming an alliance with federal and regional development institutions that implement acceleration programmes at VSU in order to create a unified network program.

Key results:

Launching a networked innovation accelerator at VSU.

Project duration: 2019.

Amount and sources of funding 500,000 roubles from own funds;

1,000,000 from the funds provided by partners,

2,000,000 from the regional budget.

Persons in charge: O.A. Kozaderov, D.A. Zhukalin.

44 Name of the event:
Developing the innovation infrastructure.

Description:

Implementing projects for the enterprises of the "Maslovskiy" Industrial Park and cluster structures of the region using VSU's infrastructure facilities.

Key results:

At least 5 projects should be implemented.

Project duration: 2019.

Amount and sources of funding 2,000,000 roubles from the regional budget;

2,500,000 from funds provided by industrial partners.

Persons in charge: O.A. Kozaderov, D.A. Zhukalin.

45 Name of the event:
Introducing the model of "Corporations University".

Description:

Meeting the demands of key enterprises in the real sector of the region's economy for highly qualified specialists with competencies in the field of technological entrepreneurship and technological project management.

Key results:

including modules of technological and social entrepreneurship in at least 40% of master's programme.

Project duration: 2019.

Amount and sources of funding 2,000,000 roubles from the regional budget;

2,000,000 from funds provided by industrial partners.

Persons in charge: faculty deans.



46 Name of the event:
Forming the system of integrated education.

Description:

Focusing on advanced training and retraining programmes to meet the needs of employers; assessing the effectiveness of programmes implemented by the experts of the Regional Development Council.

Key results:

The proportion of students of advanced training programs in relation to the contingent of full-time students is at least 35%.

Project duration: 2019.

Amount and sources of funding 2,500,000 roubles from the regional budget;
4,000,000 from industrial partners and other sources.

Persons in charge: A.A. Tokarev.

47 Name of the event:
Developing import substitution of academic programmes.

Description:

Extensive international accreditation of VSU's educational programmes, increasing the number of foreign teachers.

Key results:

Creating a bilingual scientific, educational, and social environment at VSU.

Project duration: 2019.

Amount and sources of funding: 1,000,000 roubles from own funds;
3,000,000 roubles from other sources.

Persons in charge: O.N. Belenov.

48 Name of the event:
Introducing the "The University as a Driver of Change" model.

Description:

Identifying and solving the specific regional tasks using the extra-budgetary resources of VSU's partners.

Key results:

Shaping and developing the image of VSU as a socially responsible participant in regional development.

Project duration: 2019.

Amount and sources of funding 1,500,000 roubles from own funds;
3,000,000 from funds provided by industrial partners and other sources.

Persons in charge: O.A. Kozaderov, D.A. Zhukalin.



49 Name of the event: **Developing VSU's expert community.**

Description:

Implementation of the strategy of scientific and technological development of the Russian Federation in the framework of creating conditions for training highly qualified specialists and the retention of graduate students and young academic staff members at the university.

Key results:

Introducing the model of "The University as a Driver among the Leaders of Change".

Project duration: 2019.

Amount and sources of funding 3,000,000 roubles from own funds.

Persons in charge: O.A. Kozaderov, D.A. Zhukalin.

50 Name of the event: **Coordinating strategic projects in the Voronezh Region.**

Description:

Monitoring key projects and programmes of the region with the assistance of the Regional Development Council and involving a wide range of experts at the federal and international levels, including the staff of VSU.

Key results:

Forming an open platform for monitoring regional projects.

Project duration: 2019.

Amount and sources of funding 500,000 roubles from own funds;
3,000,000 from the regional budget.

Persons in charge: O.A. Kozaderov, A.A. Tokarev.



3.5. VSU's PERFORMANCE IN INTERNATIONAL AND NATIONAL UNIVERSITY RANKINGS

Voronezh State University's position in national and international rankings is shown in Table 3.2.

Table 3.2

VSU POSITION IN UNIVERSITY RANKINGS

Name of the ranking	2018*
Interfax National University Rating:	26
Education	10
Research	22
Socialisation	42=
Internationalization	38
Brand	28
Ranking of the best universities according to Forbes	69
"Expert RA" rating of inventive activity of Russian Universities	50–54
"Expert RA" Rating of Russian Universities	43
Ranking of most demanded universities of the Russian Federation: classical universities (Social navigator "Rossiya Segodnya")	42
Top Russian universities, according to Vladimir Potanin Foundation	36–37
Progress Ranking of Top Russian universities, according to Vladimir Potanin Foundation	29
Ranking of Russian Universities by the salaries of young specialists, according to "Superjob":	
Economic universities	18
Law universities	9
Ranking of the top 100 best Russian Universities – 2018	27
Academic Ranking of World Universities (ARWU)	801+
Quacquarelli Symonds (QS) World University Ranking	801–1000
Quacquarelli Symonds (QS): BRICS	139
Quacquarelli Symonds (QS): Emerging Europe & Central Asia	130=
Quacquarelli Symonds (QS) STARS University Rating	★★★
Research	★★
Teaching	★★★★★
Internationalization	★★★★★
Employability	★★★

End of table 3.2

Name of the ranking	2018*
Facilities	★★★★
Innovation	★★★★★
Inclusiveness	★★★★★
The best universities in Eurasia by Times Higher Education	61–70
Times Higher Education (THE) World University Ranking	1001+
Times Higher Education (THE) World University Ranking by subject: physical sciences	801+
Times Higher Education (THE) BRICS & Emerging Economies University Rankings	351+
Times Higher Education (THE) Best Universities in Europe	=404
SCImago Institutions Ranking (SIR)	741
University Ranking by Academic Performance (URAP)	2235 (PΦ: 26)
Webometrics Ranking of World Universities	2073 (PΦ: 26)
Webometrics Transparent Ranking: Top Universities by Google Scholar Citations	2659 (PΦ: 30)
UniRank World Universities	1969 (PΦ 30)
Round University Ranking (RUR)	628 (PΦ: 22)
Life Sciences	527 (PΦ: 21)
Medical Sciences	397 (PΦ: 11)
Natural Sciences	563 (PΦ: 32)
Social Sciences	566 (PΦ: 40)
Humanities	460 (PΦ:15)
Technical Sciences	497 (PΦ: 33)
Round University Ranking (RUR) Reputation Ranking	675= (PΦ: 32)
Round University Ranking (RUR) Academic Ranking	642 (PΦ:14)
UI GreenMetric World University Ranking	183 (PΦ: 5)
Academic Ranking of World Universities – European Standard (ARES)	A+
Worldwide Professional University Ranking (RankPro)	468
U-Multirank (CHE / CHEPS / CWTS Consortium)	+

* For global rankings, the position in the world and in Russia are provided.



3.6. INFORMATION ON PASSING THE MONITORING OF UNIVERSITY EFFICIENCY

The Ministry of Science and Higher Education of the Russian Federation annually monitors the effectiveness of the activities of educational institutions of higher education for the purpose of systematic, standardized monitoring of the state of education and the dynamics of changes in its results, the conditions for the implementation of educational activities. According to the results of monitoring the effectiveness of 2018, Voronezh State University fell into the group of universities that achieved 4 or more performance indicators (Table 3.3, Fig. 3.1).

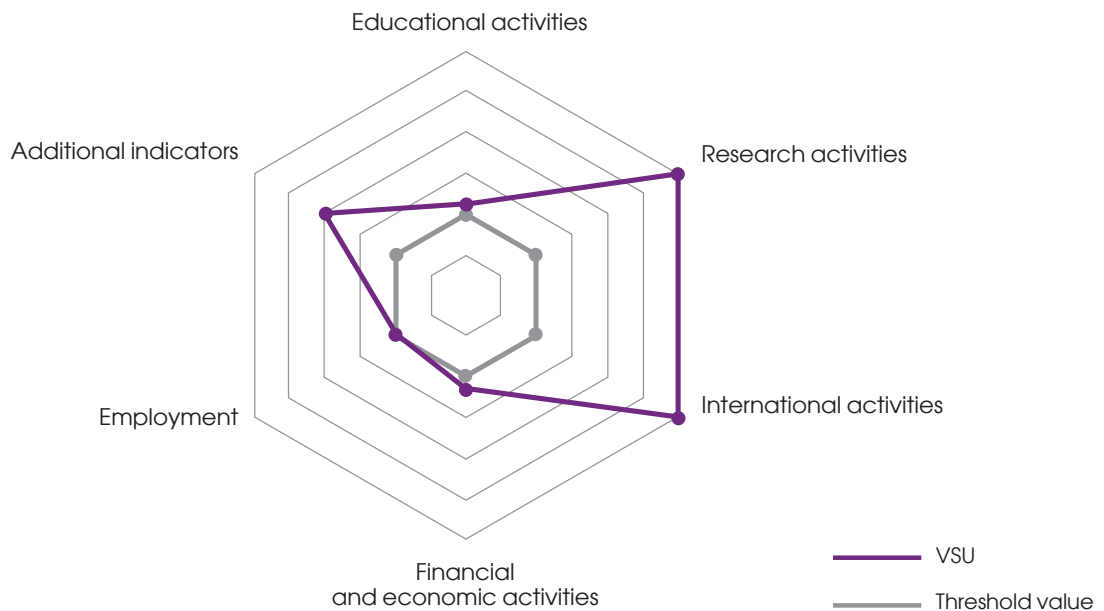
Table 3.3

VSU'S POSITION ON KEY EFFICIENCY MONITORING INDICATORS COMPARED TO THE THRESHOLD VALUES

No.	Indicator name	Values	Threshold value	Change Prior Year Adjustment
E.1	Educational activity	67.21	60	-0.3% (67.43)
E.2	Research	165.26	51.28	-23.1% (214.82)
E.3	International activity	3.89	1	-34.8% (5.97)
E.4	Financial and economic activity	1,741.35	1,327.57	+3.3% (1686.02)
E.5	Salary of academic staff members	182.31	Indicator not rated	+21.5% (150.03)
E.6	Employment	70	70	-
E.8	Additional indicator	5.68	2.78	+0.0% (5.68)

Figure 3.1

SCORE OF THE PERFORMANCE MONITORING, %



Passing performance monitoring indicates high quality training of students, effective innovation, and research activities.



3.7. INFORMATION ABOUT LEASING OPERATION

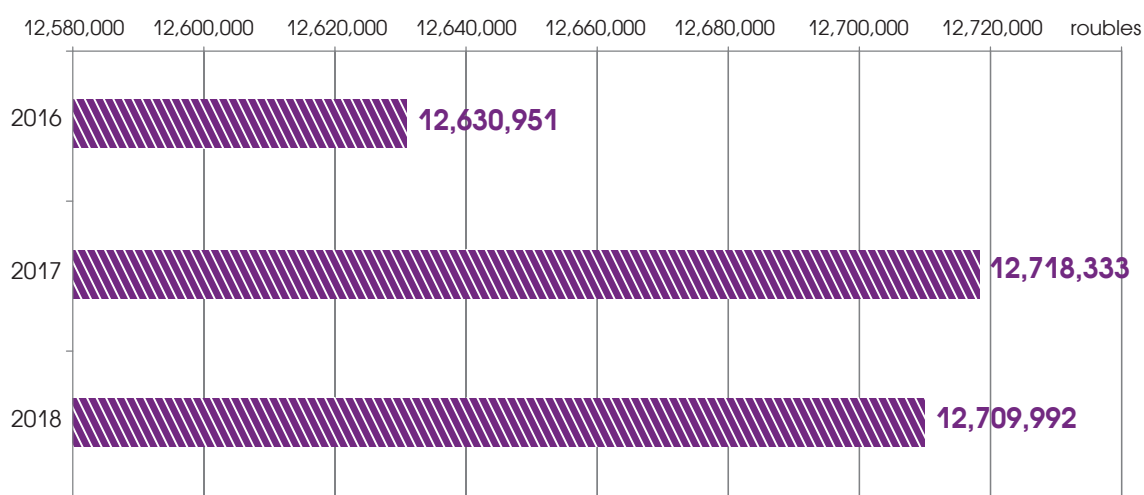
In 2018, the department of strategic development continued to work on leasing federal real estate that are not used for academic activities, to create comfortable living conditions for students and university workers, to optimize the property assets, and to attract additional extrabudgetary funds.

Over the past year, 4 lease agreements were signed for the purpose of setting up catering facilities, 9 projects have been approved by the Ministry of Education and Science of the Russian Federation and the Voronezh Office of the Federal Agency for State Property Management, 12 sets of documents are being considered by the Ministry of Education and Science. The planned lease agreements involve expanding the options for food, setting up self-service mini-laundries in hostels, and creating conditions for the development of small innovative enterprises at the university.

Revenues from the disposition of federal real estate for the reporting period amounted to 12,709,992.3 rubles, which is fully consistent with the figures of previous years (Fig. 3.2).

Figure 3.2

REVENUES FROM THE MANAGEMENT OF ASSETS FOR THE LAST 3 YEARS



The proceeds are allocated not only for the maintenance of federal property, but also for upgrading the material and technical capabilities of the university.

Thus, the university dynamically develops leasing activities, taking into account the needs of students and university employees, holding permanent control over the quality of goods and services provided by the lessee of goods and services and seeking to use areas not used in the educational process in full compliance with the current regulatory framework. In 2019, it is planned to implement the agreed upon projects for the lease of federal real estate, significantly increasing the amount of funds received from the management of assets.



3.8. VSU ENDOWMENT FUND

The VSU Endowment Fund was founded in March 2013 to attract additional resources to provide long-term financing of the university's research, social, and infrastructure programmes and projects.

The founders of the fund

- Voronezh State University
- VSU Alumni Association
- Alexander A. Sokolov, Vice Rector for Building Operation and Capital Development, Chairman of the Board of Trustees of VSU;
- Gennady V. Chernushkin, Founder of Angstrom Group, member of the Board of Trustees of VSU.

The Fund Management Board

- Dmitry A. Endovitsky, Chairperson, Rector of Voronezh State University;
- Evelina P. Domashevskaya, Head of the Department of Solid-State Physics and Nanostructures of VSU.
- Olga N. Uryvskaya – Chief Accountant of VSU;
- Gennadiy V. Chernushkin, Founder of the "Angstrom" group of companies.

The Fund's Board of Trustees

- Alexandra V. Glukhova, Head of the Department of Sociology and Politology.
- Dmitriy R. Lapygin, Director of Economic Affairs of OOO "RET".
- Sergey V. Sokolinsky – Head of the Voronezh regional division of the Association of Young Businessmen.
- Evgeniy V. Yurchenko, Chairman of the A.S. Popov Investment Fund.

Director of the VSU Endowment Fund

- Alexander A. Sokolov, Vice Rector for Building Operation and Capital Development.

The endowment's assets are held under trust by ZAO "Gazprombank – Assets Management".

The Mission of the Endowment Fund is to unite graduates and other stakeholders in order to solve the top priority issues of the university, related primarily to the support of staff involved in the development of the university.



The Fund Management Board identified priority areas for the distribution of gains from the management of the Endowment Fund:

- Grant support for the activities of young researchers, covering the cost of research and internships.
- Providing grants to VSU's leading researchers.
- Personal pensions for the distinguished teachers and scientists of VSU;
- Scholarships for undergraduate and postgraduate students.
- Purchasing unique equipment to increase the innovative capacity of the research.
- Remote preparatory training for school leavers.
- Organizing academic competitions for VSU applicants.
- Supporting the innovative educational Youth Centre for Scientific Creativity.
- Development of the Botanical Garden of VSU, the biocenter and the "Venevitinovo" recreation facility, and the development of the "Galichya Gora" nature reserve;
- Setting up leisure facilities for VSU students and staff members.
- Enhancement of the university's facilities.
- Other uses in compliance with the VSU development strategy and the objectives set by the Charter of the Fund.

The value of the investment portfolio in discretionary management at the end of 2018 is estimated at 26,386,063.09 roubles.

The profitability of the investment portfolio for 2018 is 6.72%, which in absolute figures is 1,721,673 roubles.

The remuneration of ZAO "Gazprombank – Assets Management" in 2018 was 172,167.28 roubles.

New donations made in 2018 amounted to 1,618,800 roubles. (Table 3.4.) .



Table 3.4

VSU ENDOWMENT FUND VALUE AND CONTRIBUTIONS

Indicator	Year	2014	2015	2016	2017	2018
	Net asset value by the end of the year, thousand roubles		13,378,000	17,248,000	18,647,000	24,294,579
The revenue from the discretionary management, roubles		400,144	2,735,000	1,565,000	1,850,249	1,721,673
Annual effective yield, %		3.5	22	10.5	11.11	6.72
Inflation rate, % (according to Rosstat)		11.4	13	5.4	2.5	4.3
Replenishment of the endowment, roubles		376,800	1,617,791	596,685	7,536,250	388,325
Amount transferred to VSU, roubles		393,667	360,129	707,800	1,404,400	1,850,000

The main activities and development of the Endowment Fund of Voronezh State University are determined by the decisions of the University's Board of Trustees and the Board of Trustees of the Endowment Fund.

Last year, full participation in organizing and financially supporting events related to the main event of the year, the 100th anniversary of VSU, was the priority activity for the Fund.

When holding jubilee events with the participation of the Fund, emphasis was placed on promoting the openness of the Fund's activities in order to further increase its endowment and, consequently, increase the financial capacity to implement its main activities.

The revenue from the Endowment Fund to be disbursed in 2018 amounted to 1,850,000 rubles, and was fully expended.

VSU's Endowment Fund initiated the inter-regional patriotic military festival "Heirs of Victory", which was organized jointly with the children's and the youth centre for creativity and development "Children are our future" and was held on the eve of May 9 with the support of the Department of Education, Science and Youth Policy of the Voronezh region, Grazhdanskoye Sobranie Lider, and VROO "Strength in Unity". About 160 contest entries from more than three hundred amateur artists were announced for

3

the qualifying round of the festival. The competition was held in two stages. The day after the qualifying round of the competition, all Grand Prix winners took to the stage of the VSU "University Hall" concert hall and displayed their talents and varied repertoire, from dances and songs to literary monologues and opera scenes. Without exception, the spectators admired the gala concert. The special guest of the event was the winner of the first season of the TV show "Voice", the finalist of Eurovision 2013, and Honored Artist of the Republic of Tatarstan, Dina Garipova.

The tradition of organizing annual the "Only the heart sees clearly" charity concerts, held together with the DobroSvet foundation to aid children with cancer was continued. The concert program was fully prepared by the students of the university and the children of our experimental school "Children are our future". More than 100 thousand roubles were raised for aiding seriously ill children.





The festival of student creativity "University Spring" was held in the concert hall of VSU. The non-competitive performance of the 18th Faculty (represented by graduates) was only one part of it. 17 faculties competed in the event. At the concert, students demonstrated their vocal and dancing skills, presented stand-ups, and unconventional performances. A novelty in line with the anniversary year, was a special nomination dedicated to the 100th anniversary of VSU.





The Fund organized and successfully held a competition of student social projects. 18 student projects were presented at the finals of the competition.

In 2018, Voronezh State University, with the support of the Endowment Fund, launched the project "Experimental School of VSU "Children are our future", based on more than 10 years of practical experience in lifelong education and the education of children from the age of 6 months and until they become university graduates.

The project was based on the agreement dated February 7, 2018 between Voronezh State University and the "Children are our future" centre.

In anticipation of the 100th anniversary of VSU, the Fund launched two long-term fundraising programmes aimed at increasing awareness of the university. The programmes involve charitable contributions to the Fund from:

- Selling desserts at the Shokoladnitsa chain of coffee houses.
- A special tariff for for VSU students and academic staff provided by the company Tele2.

A striking confirmation of the openness and transparency of the financial and economic activities of the Fund was the award of the silver standard in 2018 for the Fund's 2017 annual report to the all-Russian competition of annual reports of NGOs.

The strategic objectives of the Fund for 2019 and its outlook remain unchanged and primarily focus on stimulating the scientific, creative, and other socially significant initiatives of students, providing support to talented young people, providing assistance to our veterans, developing the infrastructure, and providing a comfortable environment for students and university staff.

The main events of 2019:

- All-Russian student marathon.



The team of the Voronezh State University “Doctor of Science Academician Schwarzengolt” will represent the city of Voronezh for the eighth time at the youth festival. The VSU team has been the champion of the festival for many years. Competitions are held in three areas: sports, creative games, and intellectual games. The Endowment Fund of VSU in 2019 will support the VSU team’s preparation for the festival.

- Federal Student Tournament of Three Sciences.
- Charity concert “Only the heart sees clearly”.
- VSU school for student activist.

The summer educational camp for VSU students is held at the Venevitinovo recreation centre. About 300 first-year students and 80 school organizers and volunteers participate in the program annually.

- Career day at VSU.

The university-wide event, with the involvement of university partners, is aimed at solving the problem of personnel for enterprises and the problem of employment for VSU students. It provides students with the opportunity to attend interviews, master classes from partners, write a resume, and get feedback from HR representatives of the companies.

- The setting up of student sports leagues.

Current data about the Fund’s activity can be found on the Fund’s website:

www.vsu.ru/endowment-fund



3.9. HUMAN RESOURCES

The highest priority areas of the human resources policy of the university are:

- Ensuring staffing needs are met for academic, support, and administrative personnel.
- Creating the conditions necessary for personal fulfillment and professional development of all employees.
- Supporting young researchers and postgraduate students.
- Supporting initiatives in the area of education.
- Improving the motivation and commitment levels of university employees.
- The creation of a system of lifelong professional development and improvement of mechanisms for organizing professional retraining and advanced training of university staff.
- Ensuring an adequate personnel reserve and its efficient use.
- Introducing methods for human resources management using information technologies and automated systems.
- Creating a comfortable psychological environment for employees.

Key quantitative characteristics of the university's employees as of 31 December 2018 (figures 3.3, 3.4):

- Total number of employees **3378 people**
- Among them:
- Academic personnel **1510 people**
 - Educational support personnel **748 people**
 - Scientific and engineering personnel **219 people**
 - Operational personnel **600 people**
 - Administrative and managerial personnel **301 people**



Figure 3.3

TOTAL NUMBER OF EMPLOYEES IN 2016–2018

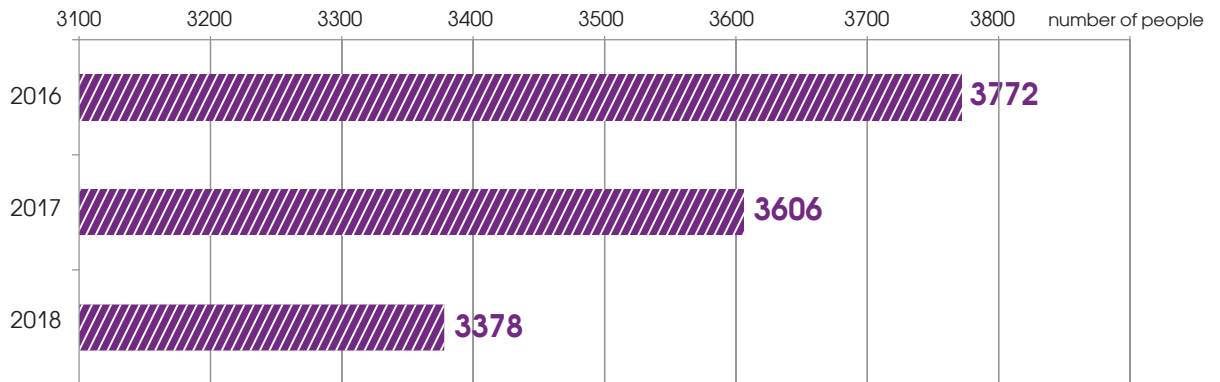
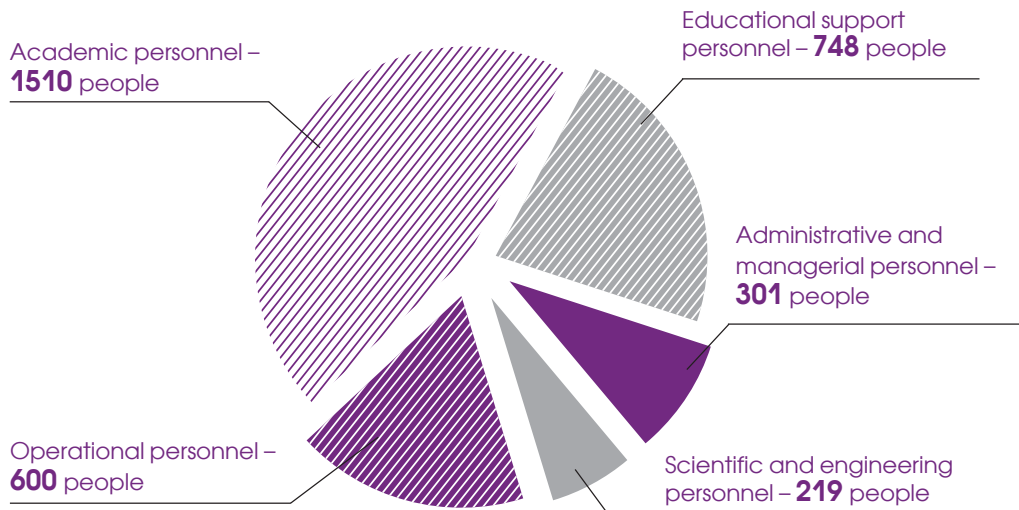


Figure 3.4

COMPARISON OF THE NUMBERS OF STAFF MEMBERS BY FUNCTION IN 2018





Dynamics of quantitative and qualitative indicators of the university employees in total in 2016–2018 is shown in Table 3.5.

Table 3.5

NUMBER AND COMPOSITION OF THE UNIVERSITY'S EMPLOYEES IN 2016–2018

Composition of university employees	2016	2017	2018
Total number of employees	3772	3606	3378
Academic staff	1567	1532	1510
Including:			
Total with a degree	1163	1150	1134
DSc	309	306	300
PhD	854	844	834
Educational support personnel	830	778	748
Administrative and managerial personnel	327	308	301
Scientific and engineering personnel	200	198	219
Operational personnel	848	790	600

The analysis of the composition of the university staff demonstrates that 75% of the total number of the academic staff members have an academic degree (1,134 people). There are 300 staff members with a DSc degree (20%). The results of the academic staff numbers are shown in Figures 3.5–3.9 and in Tables 3.6–3.9.

Figure 3.5

COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS IN 2016–2018

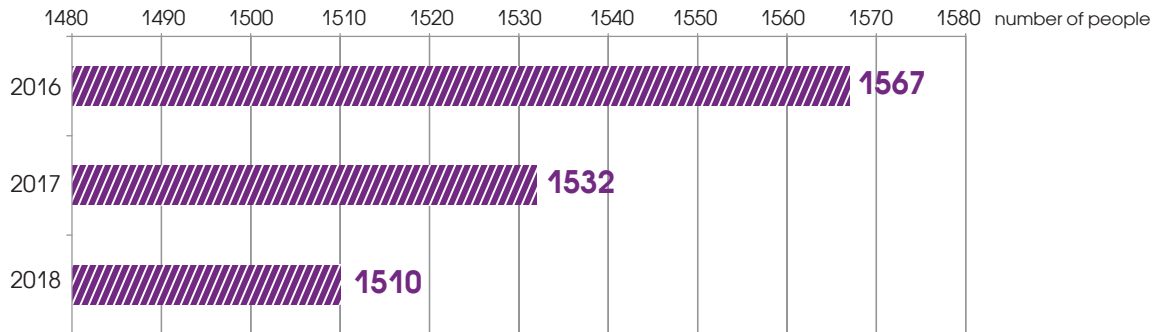


Figure 3.6

DISTRIBUTION OF ACADEMIC STAFF BY POST AS OF 1 JANUARY 2019

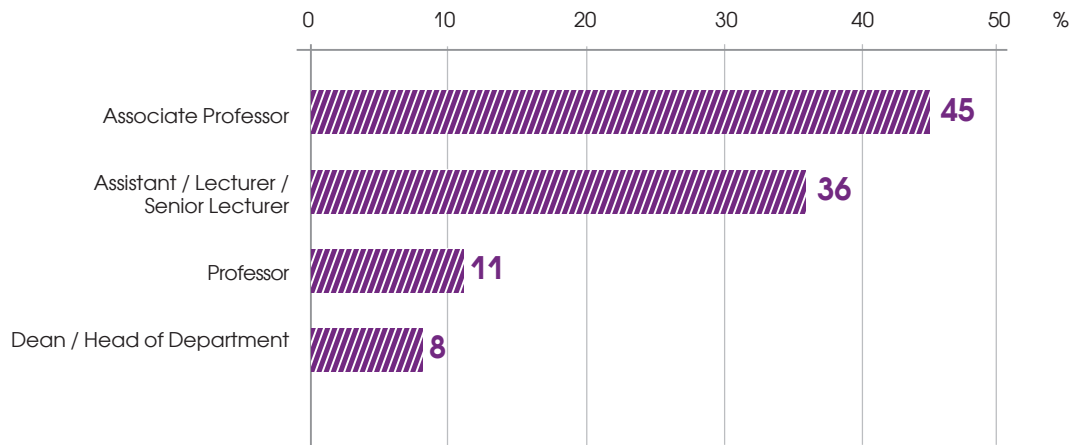


Figure 3.7

DISTRIBUTION OF ACADEMIC STAFF NUMBERS BY DEGREE

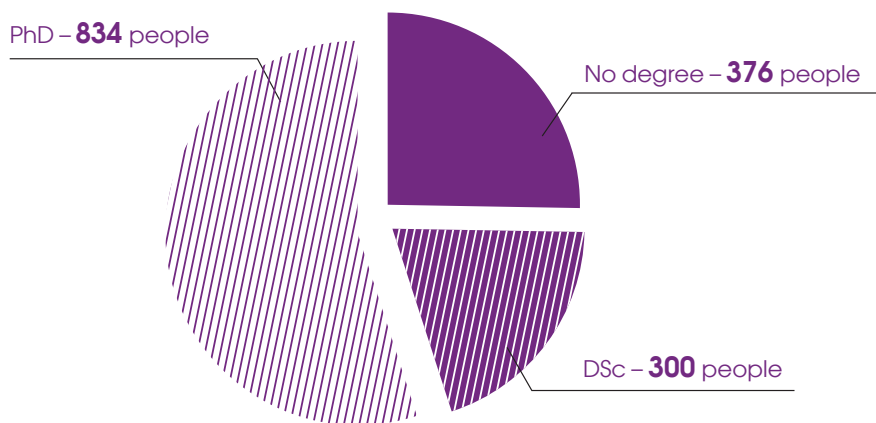




Figure 3.8

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITY-WIDE DEPARTMENTS AS OF 1 JANUARY 2019



Figure 3.9

COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS, WORKING FULL-TIME AND PART-TIME IN 2018

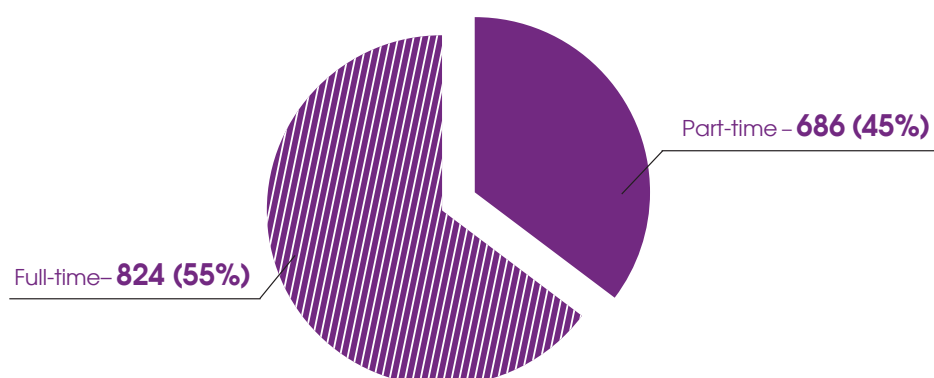


Table 3.6

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITY-WIDE DEPARTMENTS AS OF 1 JANUARY 2018

Structural subdivision	The number of academic staff members	
	In full time employment	Total
Faculty of Geology	12	58
Faculty of History	34	59
Faculty of Mathematics	30	62
Faculty of Biomedical Sciences	48	81
Faculty of Military Education	29	33
Faculty of Geography, Geoecology, and Tourism	27	47
Faculty of Journalism	29	53
Faculty of Computer Sciences	36	72
Faculty of International Relations	17	31
Faculty of Applied Mathematics, Informatics, and Mechanics	57	126
Faculty of Romance and Germanic Philology	114	200
Faculty of Philosophy and Psychology	31	51
Faculty of Pharmaceutics	25	37
Faculty of Physics	47	126
Faculty of Philology	18	58
Faculty of Chemistry	22	62
Faculty of Economics	89	152
Faculty of Law	74	109
Department of Medical Subjects	6	9
Department of Physical Education and Sports	37	40
Post-Graduate Vocational Education Institute	–	2
International Education Institute	42	42
Total	824	1510



Table 3.7

THE DISTRIBUTION OF THE ACADEMIC STAFF BY STRUCTURAL SUBDIVISION, INCLUDING THE PERCENTAGE OF STAFF MEMBERS WITH A PHD AND A DSC DEGREE

Structural subdivision	Total number of people	PhD, %	DSc, %
The Faculty of Geology	58	63.8	24.1
Faculty of History	59	59.3	27.1
Faculty of Mathematics	62	54.8	22.6
Faculty of Biomedical Sciences	81	63.0	24.7
Faculty of Military Education	33	12.1	0.0
Faculty of Geography, Geoecology, and Tourism	47	63.8	17.0
Faculty of Journalism	53	67.9	17.0
Faculty of Computer Sciences	72	55.6	22.2
Faculty of International Relations	31	67.7	19.4
Faculty of Applied Mathematics, Informatics, and Mechanics	126	52.4	20.6
Faculty of Romance and Germanic Philology	200	50.5	8.0
Faculty of Philosophy and Psychology	51	56.9	25.5
Faculty of Pharmaceutics	37	43.2	13.5
Faculty of Physics	126	61.9	30.2
Faculty of Philology	58	60.3	25.9
Faculty of Chemistry	62	45.2	50.0
Faculty of Economics	152	59.9	19.7
Faculty of Law	109	63.3	18.3
Department of Medical Subjects	9	66.7	22.2
Department of Physical Education and Sports	40	7.5	–
Post-Graduate Vocational Education Institute	2	50.0	–
International Education Institute	42	54.8	2.4

Table 3.8

AGE AND ACADEMIC DEGREE OF ACADEMIC STAFF MEMBERS

Degree	Age				
	Total	under 35	36 to 50	51 to 70	over 70
Total	1510	357	528	471	154
Among them:					
Have a DSc degree	300	2	58	162	78
Have a PhD degree	834	184	367	222	61

Table 3.9

THE DISTRIBUTION OF ACADEMIC STAFF MEMBERS BY STRUCTURAL SUBDIVISION BY THE AVERAGE AGE

Structural subdivision	2016		2017		2018	
	Total number of people	Average age, years	Total number of people	Average age, years	Total number of people	Average age, years
Faculty of Geology	71	48	64	51	58	50
Faculty of History	67	49	61	49	59	49
Faculty of Mathematics	64	51	64	52	62	51
Faculty of Biomedical Sciences	89	49	80	49	81	48
Faculty of Military Education	26	48	30	51	33	50
Faculty of Geography, Geoecology, and Tourism	46	49	51	49	47	49
Faculty of Journalism	52	48	54	50	53	50
Faculty of Computer Sciences	65	45	69	47	72	47
Faculty of International Relations	32	42	30	45	31	45
Faculty of Applied Mathematics, Informatics, and Mechanics	125	45	127	47	126	48
Faculty of Romance and Germanic Philology	202	44	197	45	200	46
Faculty of Philosophy and Psychology	59	46	52	48	51	50
Faculty of Pharmaceutics	38	47	37	46	37	42
Faculty of Physics	126	55	129	54	126	55
Faculty of Philology	67	51	64	50	58	51
Faculty of Chemistry	68	51	63	53	62	53
Faculty of Economics	154	47	158	48	152	48
Faculty of Law	108	44	108	45	109	45
Department of Medical Subjects	6	51	6	54	9	53
Department of Physical Education and Sports	42	46	41	48	40	50
Post-Graduate Vocational Education Institute	2	54	2	55	2	56
International Education Institute	53	47	45	48	42	50

The analysis of the age of academic staff members in 2016–2018 demonstrates that the average age of the academic staff members in the University as a whole is:

- as of 31 December 2016, 48.0, while the percentage of employees at retirement age is 32.0%.
- as of 31 December 2017, 49.0, while the percentage of employees at retirement age is 32.5%.
- as of 31 December 2017, 49.0, while the percentage of employees at retirement age is 32.3%.





EDUCATION





EDUCATION



E.E. Chupandina,
First Vice-Rector –
Vice-Rector for Academic
Affairs

4.1. THE MAIN OBJECTIVES OF THE UNIVERSITY ACADEMIC POLICY IN 2017–2018

1. To create and publish on VSU's website 3–4 Massive Open Online Courses (MOOCs) with free access.
2. To receive state accreditation in medical specialities in "Fundamental Medicine" and a license for the master's programme "Industrial Pharmacy".
3. To continue the independent assessment of the quality of education through the public and professional accreditation of education programmes.
4. To take measures aimed at enhancing pre-university work with talented schoolchildren (in VSU centres and centres at partner schools) and to connect partner schools to VSU's electronic (distance learning) courses.
5. To create a system of off-site admission boards for remote regions of the Russian Federation, Kazakhstan, Armenia, and Belarus.
6. To increase by 2 times the number of practice-oriented corporate education programmes created and implemented in cooperation with VSU's industrial partners.
7. To strictly control the transition to the 1:12 ratio of teachers and students established by the Ministry of Education of the Russian Federation and comply with the minimal number of students in groups and subgroups (25 and 12 people respectively).
8. To provide organisational, methodological, and information support to the development of engineering, technical, medical, and military specialities, and to create and diversify secondary vocational education programmes at all university faculties.
9. To increase the extra-budgetary funding to 15% of VSU's total extra-budgetary income by extending further vocational education programmes of retraining/professional development of specialists.

4.2. POSTGRADUATE AND RESIDENCY PROGRAMMES

In 2018, VSU postgraduate students were trained within 17 research areas and 75 fields of study (Table 4.1).

Table 4.1

RESEARCH AREAS WITHIN POSTGRADUATE DEGREE COURSES

Specialities	Profile (field of study)
THE FACULTY OF BIOMEDICAL SCIENCES	
06.06.01 Biological Sciences	Biophysics Biochemistry Botany Zoology Entomology Genetics Ecology Soil Studies
THE FACULTY OF GEOGRAPHY, GEOECOLOGY, AND TOURISM	
05.06.01 Geosciences	Physical Geography and Biogeography, Soil Geography, and Landscape Geochemistry Economic, Social, Political, and Recreational Geography Geoecology
THE FACULTY OF GEOLOGY	
05.06.01 Geosciences	General and Regional Geology Palaeontology and Stratigraphy Petrology and Volcanology Lithology Geohydrology Geological Engineering, Permafrostology, and Soil Science Geophysics and Geophysical Methods in Mineral Deposit Exploration Geology, Solid Mineral Deposits Exploration, and Minerageny Geoecology
THE FACULTY OF JOURNALISM	
45.06.01 Linguistics and Literary Studies	Journalism
THE FACULTY OF HISTORY	
41.06.01 Political Sciences and Regional Studies	Political Institutions, Processes, and Technologies
46.06.01 Historical Sciences and Archaeology	Russian History General History (Modern and Contemporary History) Archaeology
THE FACULTY OF COMPUTER SCIENCES	
09.06.01 Informatics and Computer Facilities	System Analysis, Management, and Processing of Information Theory of Informatics Mathematical Modelling, Numerical Methods, and Programme Systems



Table cont. 4.1

Specialities	Profile (field of study)
THE FACULTY OF MATHEMATICS	
01.06.01 Mathematics and Mechanics	Substantial, Complex, and Functional Analysis Differential Equations, Dynamical Systems, and Optimal Control
09.06.01 Informatics and Computer Facilities	Mathematical Modelling, Numerical Methods, and Programme Systems
THE FACULTY OF APPLIED MATHEMATICS, INFORMATICS, AND MECHANICS	
01.06.01 Mathematics and Mechanics	Substantial, Complex, and Functional Analysis Differential Equations, Dynamical Systems, and Optimal Control Solid Mechanics
09.06.01 Informatics and Computer Facilities	System Analysis, Management, and Processing of Information Management in Social and Economic Systems Theory of Informatics Mathematical Modelling, Numerical Methods, and Programme Systems
THE FACULTY OF ROMANCE AND GERMANIC PHILOLOGY	
45.06.01 Linguistics and Literary Studies	Germanic Languages Romance Languages Linguistic Theory
THE FACULTY OF PHYSICS	
03.06.01 Physics and Astronomy	Theoretical Physics Radiophysics Optics Condensed Matter Physics Semiconductor Physics
11.06.01 Electronics, Radioengineering, and Communication Systems	Solid-state Electronics, Radioelectronic Components, Microelectronics, Nanoelectronics, and Quantum Effect Devices
THE FACULTY OF PHARMACEUTICS	
33.06.01 Pharmacy	Pharmacology and Clinical Pharmacology Pharmaceutical Chemistry and Pharmacognosy Pharmacy Business Organisation
THE FACULTY OF PHILOLOGY	
45.06.01 Linguistics and Literary Studies	Russian Literature International Literature Russian Language Linguistic Theory



End of table 4.1

Specialities	Profile (field of study)
THE FACULTY OF PHILOSOPHY AND PSYCHOLOGY	
37.06.01 Psychological Sciences	Social Psychology Pedagogical Psychology
44.06.01 Education and Pedagogical Sciences	General Pedagogics, History of Pedagogics and Education
47.06.01 Philosophy, Ethics, and Religion Studies	Ontology and Epistemology Ethics Social Philosophy
51.06.01 Cultural Studies	Theory and History of Culture
THE FACULTY OF CHEMISTRY	
04.06.01 Chemical Sciences	Inorganic Chemistry Analytical Chemistry Organic Chemistry Physical Chemistry Electrochemistry High-molecular Compositions Solid State Chemistry
THE FACULTY OF ECONOMICS	
38.06.01 Economics	Economics Theory Economics and National Economy Management Finance, Currency Circulation, and Credit Accounting and Statistics Mathematical and Instrumental Techniques in Economics
THE FACULTY OF LAW	
40.06.01 Jurisprudence	Theory and History of State and Law: History of State and Law Studies Constitutional Law, Constitutional Proceedings, and Municipal Law Finance Law, Tax Law, and Budget Law Labour Law and Social Security Law Criminal Law, Criminology, and Correctional Law Criminal Procedure International and European Law Criminalistics, Operational Investigations, Judicial and Expert Activity Administrative Law and Procedure Civil and Arbitral Procedure



The postgraduate student population according to research areas and fields of study as of 31 December 2018 is shown in Table 4.2.

Table 4.2

NUMBER OF POSTGRADUATE STUDENTS ACCORDING TO RESEARCH AREAS AND FIELDS OF STUDY

Codes of research areas and fields of study	Titles of research areas and fields of study	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
	Total	553	487	13	53
01.06.01	Mathematics and Mechanics	58	56	0	2
	Substantial, Complex, and Functional Analysis	11	11	0	0
	Differential Equations, Dynamical Systems, and Optimal Control	36	35	0	1
	Solid Mechanics	11	10	0	1
03.06.01	Physics and Astronomy	64	58	0	6
	Theoretical Physics	11	9	0	2
	Radiophysics	26	25	0	1
	Optics	5	4	0	1
	Condensed Matter Physics	11	10	0	1
	Semiconductor Physics	11	10	0	1
04.06.01	Chemical Sciences	37	32	0	5
	Inorganic Chemistry	3	3	0	0
	Analytical Chemistry	7	4	0	3
	Organic Chemistry	7	5	0	2
	Physical Chemistry	8	8	0	0
	Electrochemistry	4	4	0	0
	High-molecular Compositions	3	3	0	0
	Solid State Chemistry	5	5	0	0
05.06.01	Geosciences	39	34	0	5
	General and Regional Geology	3	2	0	1
	Palaeontology and Stratigraphy	1	1	0	0
	Petrology and Volcanology	2	2	0	0
	Lithology	2	2	0	0
	Geohydrology	5	5	0	0
	Geological Engineering, Permafrostology, and Soil Science	1	1	0	0
	Geophysics and Geophysical Methods in Mineral Deposit Exploration	5	3	0	2
	Geology, Solid Mineral Deposits Exploration, and Minerageny	4	4	0	0
	Physical Geography and Biogeography, Soil Geography, and Landscape Geochemistry	3	3	0	0
	Economic, Social, Political, and Recreational Geography	5	4	0	1
	Geoecology	8	7	0	1

Table cont. 4.2

Codes of research areas and fields of study	Titles of research areas and fields of study	Number of postgraduate students			
		Total	Including		
			RF citizens	CS citizens	Foreign citizens
06.06.01	Biological Sciences	60	51	1	8
	Biophysics	5	3	1	1
	Biochemistry	14	13	0	1
	Botany	5	5	0	0
	Zoology	6	5	0	1
	Entomology	3	3	0	0
	Genetics	15	13	0	2
	Ecology	10	8	0	2
	Soil Studies	2	1	0	1
09.06.01	Informatics and Computer Facilities	57	51	1	5
	System Analysis, Management, and Processing of Information	10	10	0	0
	Management in Social and Economic Systems	3	2	1	0
	Theory of Informatics	22	22	0	0
	Mathematical Modelling, Numerical Methods, and Programme Systems	22	17	0	5
11.06.01	Electronics, Radioengineering, and Communication Systems	4	3	0	1
	Solid-state Electronics, Radioelectronic Components, Microelectronics, Nanoelectronics, and Quantum Effect Devices	4	3	0	1
33.06.01	Pharmacy	6	5	0	1
	Pharmacology and Clinical Pharmacology	1	0	0	1
	Pharmaceutical Chemistry and Pharmacognosy	2	2	0	0
	Pharmacy Business Organisation	3	3	0	0
37.06.01	Psychological Sciences	9	8	0	1
	Social Psychology	5	5	0	0
	Pedagogical Psychology	4	3	0	1
38.06.01	Economics	56	50	1	5
	Economics Theory	10	10	0	0
	Economics and National Economy Management	28	23	1	4
	Finance, Currency Circulation, and Credit	3	3	0	0
	Accounting and Statistics	10	9	0	1
	Mathematical and Instrumental Techniques in Economics	5	5	0	0
40.06.01	Jurisprudence	65	59	4	2
	Theory and History of State and Law, History of State and Law Studies	8	7	1	0
	Constitutional Law, Constitutional Proceedings, and Municipal Law	6	3	2	1

4

End of table 4.2

Codes of research areas and fields of study	Titles of research areas and fields of study	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
	Finance Law, Tax Law, and Budget Law	6	5	0	1
	Labour Law and Social Security Law	1	1	0	0
	Criminal Law, Criminology, and Correctional Law	7	6	1	0
	Criminal Procedure	4	4	0	0
	International and European Law	4	4	0	0
	Criminalistics, Operational Investigations, Judicial and Expert Activity	4	4	0	0
	Administrative Law and Procedure	15	15	0	0
	Civil and Arbitral Procedure	10	10	0	0
41.06.01	Political Sciences and Regional Studies	4	3	0	1
	Political Institutions, Processes, and Technologies	4	3	0	1
44.06.01	Education and Pedagogical Sciences	10	10	0	0
	General Pedagogics, History of Pedagogics and Education	10	10	0	0
45.06.01	Linguistics and Literary Studies	50	35	6	9
	Russian Literature	7	6	1	0
	International Literature	2	2	0	0
	Journalism	13	9	0	4
	Russian Language	11	6	0	5
	Germanic Languages	8	6	2	0
	Romance Languages	4	3	1	0
	Linguistic Theory	5	3	2	0
46.06.01	Historical Sciences and Archaeology	21	19	0	2
	Russian History	15	13	0	2
	General History	4	4	0	0
	Archaeology	2	2	0	0
47.06.01	Philosophy, Ethics, and Religion Studies	9	9	0	0
	Ontology and Epistemology	5	5	0	0
	Ethics	1	1	0	0
	Social Philosophy	3	3	0	0
51.06.01	Cultural Studies	4	4	0	0
	Theory and History of Culture	4	4	0	0



In 2018, the second intake of students of postgraduate academic staff training programmes completed the programme and obtained postgraduate diplomas.

Number of graduates by postgraduate education staff training programmes in 2018 and the information about defended PhD theses are shown in Table 4.3.

Table 4.3

NUMBER OF POSTGRADUATE STUDENTS ACCORDING TO RESEARCH AREAS AND NUMBER OF DEFENDED PHD THESES IN 2018

Research area	Number of graduates	Defended PhD theses
Mathematics and Mechanics	9	1
Physics and Astronomy	10	3
Chemical Sciences	8	3
Geosciences	9	2
Biological Sciences	14	0
Informatics and Computer Facilities	15	1
Electronics, Radioengineering, and Communication Systems	0	0
Pharmacy	1	0
Psychological Sciences	1	0
Economics	17	3
Jurisprudence	18	0
Political Sciences and Regional Studies	1	0
Education and Pedagogical Sciences	2	0
Linguistics and Literary Studies	21	3
Historical Sciences and Archaeology	7	1
Philosophy, Ethics, and Religion Studies	3	0
Cultural Studies	1	0
Totals	137	17
The number of foreign citizens as a percentage of the total number of PhD students	19	3

In the 2017/18 academic year, VSU launched the postgraduate academic staff training residency programme in the field of study 33.08.02 "Management and Economics of Pharmacy". 16 people enrolled in the programme.



4.3. GENERAL INFORMATION ON TECHNOLOGIES AND MAIN STEPS OF PRE-UNIVERSITY WORK

In the reporting period, VSU's pre-university work was carried out in several key areas.

COLLABORATION WITH OTHER EDUCATIONAL INSTITUTIONS

- E-mail correspondence with educational institutions from Voronezh, the Voronezh, Lipetsk, Orel, Tambov, Rostov, and Kursk regions (956 schools).
- E-mail correspondence with schoolmasters, deputy schoolmasters for pupil affairs, subject teachers, educational psychologist, young teachers (940), parents (120), heads of school libraries (19), heads of school scientific societies formed in educational institutions and establishments of further education in Voronezh and the Voronezh region, and authorised representatives from seven municipal districts of the Voronezh region.
- Organisation and holding events in collaboration with the education departments of Voronezh (18) and the heads of municipal districts of the Voronezh region (39).
- Collaboration with the Department of Education, Science, and Youth Policy of the Voronezh Region and the Department of Education and Youth Policy of the Voronezh Government.
- Regular update on information presented on VSU information stands (15 schools).
- Participation of the admission board representatives and vice-deans for the pre-university work in teacher-parent meetings at schools, collaborative events, and school scientific societies.
- Organisation of open lectures by VSU researchers, as well as various festivals, master classes, and competitions, such as "With books we grow", "Rhetoric Festival", a reading competition "The Most Literate", a poetry workshop, festivals of the Russian language at schools and kindergartens, local history lessons, schools of young specialists, Lyceum Days, etc.).
- Collaboration of the university academic staff members in the framework of the networking cooperation with schools: elective courses and extra curricular activity.



EDUCATIONAL PROJECTS FOR SCHOOLCHILDREN AND THE GENERAL PUBLIC

1. The project "A Large University for a Large City". 22 popular science lectures by university researchers were held in the "Amital" book supermarkets (about 700 participants). 5 online lectures were prepared within the project (over 10,000 views).
2. The project "Saturday University" with events broadcast live on the Youtube channel (<https://goo.gl/UddQVB>). 20 popular science lectures for schoolchildren were given and broadcast live.
3. The project "Province". Lectures by VSU academic staff members "Word Territory" delivered at literature and music meetings and municipal and regional events (Lipetsk, Rostov, Volgograd, and Voronezh regions).
4. "Open laboratory" is a new international educational event explaining how the world works.
5. A new educational project "Health Triangle" was started. This comprehensive approach that is used to deal with the population of a big city with the involvement of researchers working in the area of natural sciences and humanities, social activists, doctors, and psychologists is very timely. It also contributes a lot to the development of the Concept of a healthy lifestyle in the region. (Supported by: the Department of Education, Science, and Youth Policy of the Voronezh Region, Voronezh Regional Duma, children's clinical hospital No. 4, and Northwest Research Centre of Hygiene and Public Health). 12 events were held (<http://www.vsu.ru/ru/news/feed/2017/12/9105>).
6. For the first time, the university took part in the municipal festival "My city, my opportunities" (September 2018).
7. For the first time the Faculty of Geology of VSU held off-site lectures of "Living Planet" for schoolchildren of forms 10–11 from Voronezh schools.
8. The university continued to participate in the educational event "National Economical Dictation" dedicated to the topic "A Strong Economy Means a Prosperous Nation". 190 (85 students and 105 schoolchildren) took part in the event.
9. On the Day of the City, the university organised a theme area for children and adults "Intellectual Lotto" (15 September 2018).



IDENTIFYING, SUPPORTING, AND ATTRACTING TALENTED STUDENTS TO STUDY AT VSU. INNOVATIONS AND TRADITIONS

The most prominent events held in the reporting period included the following:

- 1.** A first in Russia, a university innovation preaccelerator for schoolchildren “The League of Innovations” (areas of knowledge: Physics and Mathematics, Chemistry and Biology, IT, and Social and Economic Sciences). Partners: GK Informsvyaz-Chernozemye (Freedom) and Birch-NT Innovation Centre (R&D of GK EFKO). 500 participants.
- 2.** International open festival of robotics, “ROBOART 2018” (the grant of the President of the Russian Federation aimed at the development of civil society, provided by the Presidential Grants Foundation). Partners: Voronezh regional public organization “Lider” and the interregional INTERKHOS group. 1,210 participants from 20 regions of the Russian Federation, 232 prize-winners.
- 3.** National series of tournaments “EcoSmart” (the Presidential Grants Foundation).
- 4.** Intellectual game for schoolchildren “What? Where? When?”.
- 5.** The regional project Golden Section, within which schoolchildren from forms 7–11 from schools of Voronezh, Novovoronezh, Pavlovsk, Anna, Yamnoye settlement studied in the recreation boarding house “Repnoye” (VSU, the Engineering Competence Centre for Children and Youth “Kvantorium”).
- 6.** Events in the framework of the collaboration with the Kvantorium children’s technopark, the Solnyshko school for gifted children (Repnoye), and the Centre for Children’s Technical and Creative Projects “Technograd”.
- 7.** Vivaldi Cup for schoolchildren and young people (in cooperation with the Voronezh Intelligent Technologies Centre). 16 teams of smart and talented schoolchildren and students from Voronezh and the Voronezh region demonstrated their mental abilities.



COMPETITIONS FROM THE LIST OF COMPETITIONS BY THE MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION

The following competitions were held in the reporting period:

- A multidisciplinary engineering academic competition among schoolchildren “Star” organised in cooperation with South Ural State University (national research university). Over 60 co-organisers. The final stage of the competition included the following disciplines: Russian (407 participants), Natural Sciences (253 participants), History (183 participants), and Social Studies (298 participants); 165 winners.
- Qualifying stage of the specialised physical and mathematical competition “Rosatom” by the National Research Nuclear University MEPhI (Moscow Engineering Physics Institute) for schoolchildren of forms 7–11. Subjects: Mathematics, Physics; 250 participants.
- The final stage of Saint-Petersburg Online Academic Competition in Physics (50 participants).
- Interregional Physics competition “Future Researchers: the Future of Science” (in cooperation with Lobachevsky National Research Nizhny Novgorod University). The number of participants of the qualifying stage was 212 and the number of participants of the final stage was 72; 10 winners.

COMPETITIONS, MARATHONS, CONTESTS, AND TOURNAMENTS

Among the most prominent events were the following:

- Engineering Academic Competition for Schoolchildren from Central Russia in Mathematics and Physics (201 participants, 3 winners).
- Marathon of Information Technologies by the Faculty of Computer Sciences.
- Interregional Programming and Physics competition for schoolchildren “Smart Start”. The number of participants of the qualifying stage was 1,294 and the number of participants of the final stage was 275; 22 winners.
- Programming team competitions (126 participants, 18 winners).
- Competition in theory of informatics (183 participants, 12 winners).
- IT&Kids 2018 project contest (100 participants, 9 winners).
- Research projects contest for schoolchildren from elementary and secondary school “Kaleidoscope of Science”.
- The tournament of young Physicists, Chemists, and Biologists “Science Debut”.
- The tournament of Natural Scientists.
- 23rd Conference of the Student Scientific Society (24 sections, 106 subsections, 2,600 participants).



- The third scientific school for talented teenagers: schoolchildren interested in learning, creativity, and research (August 2018).
- “Holiday University”: master-classes in solving challenging tasks.
- Regional competition “The Art of Science” held in the framework of the Federal Student Tournament of Three Sciences.
- Schools of young experts run by VSU faculties:

The School of Young Journalists, the School of Young Philosophers, the School of Young Experts in International Relations, the School of Local Historians, the Psychological and Pedagogical Club for Schoolchildren, the School of Young Psychologists, the School of Young Pharmaceutists, the Latin Language School, the School of Young Philologists, the School of Young Chemists, the Saturday Language School, the Summer Language School, the Saturday Mathematics School, the Summer Mathematics School, the Mathematics Correspondence School, the School of Young Physicist, and the School of Young Economists.

EDUCATIONAL AND CREATIVITY EVENTS: POETRY, LITERATURE, SINGING, AND MUSICAL CONTESTS, LESSONS, CLUBS, AND FESTIVALS

1. The drawing and photography contest “Pets: their life is in your hands!” (at the further education centre “Sozvezdiye”).
2. The patriotic project “Children make history”: local history conferences and museum excursions.
3. The festival “You and I are big friends of books” (over 40 thousand participants).
4. The poetry contest “Inspiration” among teachers from the Voronezh region. The event was held in cooperation with the Voronezh regional committee of staff members of educational institutions, 500 participants.
5. The municipal contest among schoolchildren “Literate” (at the bookshop “Amital” and the Centre for Children and Young People, 100 participants).
6. The intermunicipal poetry festival and contest “First Attempt at Writing” in the Petropavlovsk region.
7. The poetry club “Hummingbird” at the City’s Youth Centre.



8. The regional contest of videos in local history among schoolchildren (at the Voronezh Regional Institute of Professional Development and Retraining of Staff Members of Educational Institutions): about 200 works.
9. The educational and development game and exhibition "The City of Marshak".
10. The meeting "My path to world-class sport".
11. The anniversary of the newspaper "Iskra" in the Ostrovskaya school in the Anna region.
12. The festival of children's creativity "The little shore" in the Anna region.
13. The children's contest "Children sing and write" in the framework of the summer and winter festival "The Sail of Hope": about 300 children aged between 5 and 16.
14. "Bibliomight".
15. Publishing of the student newspaper "Zerkalo" (at Voronezh Law College).
16. The festival "The Pokrov Dawn" (children's contests, master-classes, exhibitions, and VSU presentations) in Taganrog in the Rostov region, and the settlement of Lev Tolstoy in the Lipetsk region (November).
17. Events dedicated to VSU's centenary.
18. The presentation by VSU's Department of Pre-University Work in the Cossack villages Bokovskaya, Karginskaya in the Rostov region (July), in Taganrog in the Rostov region (August), Syzran in the Samara region (September), the settlement Mordovo in the Tambov region (September), and Elets in the Lipetsk region (June).
19. The meeting dedicated to the 90th anniversary of VSU scientist L.L. Semago in the Liski local history museum.
20. Celebration of the 100th anniversary of the Leninist Young Communist League of the Soviet Union in the recreation centre "DK Zheleznodorozhnikov" (October).
21. A concert for disabled people in the Nikitin library.
22. The Day of the Russian language in Voronezh school No. 103 (Shilovo).
23. A Commemoration meeting dedicated to the people's teacher M.I. Kartavtseva.



ACADEMIC SCIENCE FOR TEACHERS AND FURTHER TRAINING

The university conducted a lot of varied activities aimed at teachers. Among the key events are the following:

1. All-Russian research conference "COGNITIVE ABILITY OF CHILDREN AND TEENAGERS" (in cooperation with the Faculty of Philosophy and Psychology and the Faculty of Pharmaceutics).
2. Annual international research conference dedicated to VSU centenary "VORONEZH PEDAGOGICAL SCHOOL: EXPERIENCES OF THE PAST AND CHALLENGES OF THE PRESENT" (A.A. Khovansky Foundation and VSU).
3. Scientific school for teachers (of History, Russian, Literature, Geography, Mathematics, Physics, and ICT).
4. "SCIENTIFIC ASSOCIATION OF TEACHERS AT THE FACULTY OF GEOGRAPHY, GEOLOGY, AND TOURISM". Dedicated to the innovative educational project "Lessons in the cities of Russia".
5. The seminar for teachers "PROJECT ACTIVITIES. THEORY OF SOLVING INVENTION TASKS".
6. Specialised courses of further training for the programmes "CONTEMPORARY TASKS OF PHILOLOGICAL SCHOOL EDUCATION IN THE FRAMEWORK OF THE FEDERAL STATE EDUCATIONAL STANDARD IMPLEMENTATION" and "TEACHER OF ASTRONOMY".
7. The municipal pedagogical conference "PROJECTING AN INDIVIDUAL EDUCATIONAL PATH FOR STUDENTS" (March 2018, in school No. 40).
8. Participation in the work of Kartavtseva Foundation for the Support of the Russian Language (April 2018).
9. The final stage of the programme "TEACHER IN RUSSIA" (in cooperation with charitable foundation for support and Development of Education "NEW TEACHER").



WORKING WITH PRE-SCHOOL ORGANISATIONS

A number of events were held as a part of work with pre-school institutions.

1. A joint project with kindergarten No. 115 dedicated to the Russian language and speech skills.
2. Scientific, methodological, psychological, and pedagogic supervision of:
 - Voronezh kindergarten No. 167.
 - Voronezh special school for children with disabilities No. 3.
 - Voronezh kindergarten No. 109 for children with speech disorders.
 - Orlov gymnasium “Mariana Rostcha” (special school for children with disabilities), Moscow.

IMPLEMENTING SOCIAL PROJECTS AND INITIATIVES

In the reporting year, the university was actively engaged in social projects and initiatives. Among the most prominent events are the following:

1. Educational, consultative, and social project “Parents’ university” in school No. 4 and school No. 48 (4 lectures) (<http://www.vsu.ru/ru/news/feed/2018/03/9456>; <http://www.vsu.ru/ru/news/feed/2018/04/9620>).
2. An event dedicated to the International Day of Health (April 2018) (in cooperation with Nikitin Regional Scientific Library and Voronezh Regional Clinical Centre for Disease Prevention).
3. The lecture centre “Be healthy!” (in the Nikitin Regional Scientific Library).
4. National contest “Healthy movement” (in cooperation with the National Public Private Youth Organisation “Russian Schoolchildren’s movement”).
5. Charity events.
6. Support of the volunteer movement. Volunteer team “Prospective student”.



INFORMATION SUPPORT FOR THE UNIVERSITY ADMISSIONS PROCESS

Articles dedicated to questions concerning the university admissions process and studies were published in online mass media, regional mass media, Voronezh State University Newspaper, and in the reference guide for university entrants "Chance". Special programmes were also broadcast by regional and city radio.

The Department of Pre-university Education provided regular online and telephone consultations for prospective students on the questions of the University admissions process (at the official VSU website, in social networks, and via email).

CAREER GUIDANCE FOR UNIVERSITY ENTRANTS

Three University open information days were held: On 14 January 2018 (1,468 people), 22 April 2018 (3,308 people), and 14 October 2018 (3,305 people) and a University open information day for prospect master's students: 14 April 2018 (about 400 people).

15 off-site open information days were held in Voronezh schools (No. 2, 8, 16, 34, 38, 48, 56, 71, 80, 100, 102, lyceum No. 1, 4, gymnasium No. 1, 2) and in schools of the Voronezh, Lipetsk, Tambov, and Belgorod regions. VSU had off-site presentations in the Nizhnedevitsk, Khokhol, Bobrov, Panino, Liski, Ostrogozhsk, Ertil, Boguchar, Kalach, Pavlovsk, Rossosh, Anna, Verkhny Mamon, and Novaya Usman regions, Novovoronezh, Stary Oskol, the settlements of Lev Tolstoy, Mordovo, Otradnoye, and Kurbatovo. All in all, 81 educational institutions were visited.

The university also held a career guidance workshop for Voronezh pupils "I choose VSU".

In April, the university delegation headed by the Rector took part in the Moscow International Education Fair, 19th Kazakhstan exhibition "Education and Career", and a job fair "Choose your own profession".

Computer-based testing of schoolchildren was organised at the VSU Testing Centre within the programme "Proorientator" in collaboration with the Centre of Testing and Development "Humanitarian Technologies", Moscow. The number of people tested amounted to 80.

In cooperation with the company SIBUR, VSU conducted career guiding programmes for schoolchildren from forms 10-11 from gymnasium No. 1 and lyceum No. 1. Career guiding lessons were also held in a number of Voronezh schools (school No. 101, lyceum No. 5, gymnasium No. 5, gymnasium No. 1, lyceum No. 1, lyceum No. 8, lyceum No. 2, and Koltsov gymnasium).

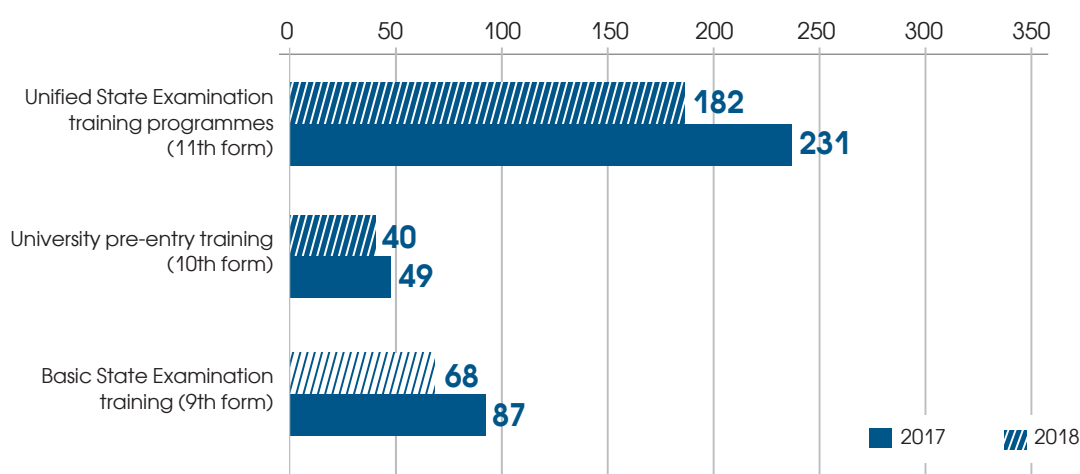


PRE-STUDY COURSES (ADDITIONAL GENERAL DEVELOPMENT PROGRAMMES)

In 2018, 290 students took fee-paying pre-study courses within additional general development programmes aimed at improving the level of proficiency in general subjects and university pre-entry training: "Training for the Unified State Examination", "Preparation for the Final Essay", "University pre-entry training", "Basic State Examination Training", and "Remote Training for the Unified State Examination". Figure 4.1 shows the distribution by programmes.

Figure 4.1

FREQUENCY DISTRIBUTION OF STUDENTS ACCORDING TO THE PROGRAMMES OF PRE-STUDY COURSES IN 2017–2018



In September, the programme "Preparation for the Final Essay" was opened for 11th form students. In 2018, the programme was completed by 12 students.

In 2018, pre-study courses continued to offer training within the programme "Remote Training for the Unified State Examination" which is comprised of a series of e-courses. The programme was completed by 12 students.

In 2018, pre-study courses continued the practice of conducting mock USEs which were followed by consultations on the examination results held by USE expert lecturers. 13 examinations taken by over 574 students were conducted overall.

The analysis of USE results for the graduates of pre-study courses as well as their matriculation results allows carrying out qualitative assessment of the training provided at the courses (see Tables 4.4, 4.5).



Table 4.4

AVERAGE SCORE IN THE UNIFIED STATE EXAMINATION
FOR THE GRADUATES OF PRE-STUDY COURSES

Subject	2017	2018
Russian Language	78.8	80.2
Mathematics	61.4	57.92
Biology	53.7	56.75
Geography	70.7	–
Foreign Language (English)	72.1	54
Informatics and ICT	71.9	64.97
History	58.1	57.5
Literature	70.3	65.3
Social Studies	64.2	59.27
Physics	62.7	63.82
Chemistry	63.5	49.71

Table 4.5

ENROLMENT RESULTS DEMONSTRATED BY THE GRADUATES
OF PRE-STUDY COURSES

	2017	2018
Number of graduates	231	182
Enrolled at VSU	140	105
Enrolled at other higher educational institutions in Voronezh	71	55
Enrolled at higher educational institutions in other cities	5	9
Results of enrolment at higher educational institutions:		
Total number of students enrolled at higher educational institutions	216	169
Percentage wise	93.5%	92.9%



4.4. MAIN RESULTS OF THE 2018 ADMISSION CAMPAIGN

In 2018, following the results of an open public competition, Voronezh State University was allocated 2,379 state-funded places for bachelor's, diploma, and master's degree programmes, including 2,145 places for full-time students.

Among bachelor and diploma programmes, Law and Economics remained the priority specialities for the graduates of secondary schools and institutions of secondary vocational education. At the same time, IT education is becoming more popular, and consequently, the programme "Applied Mathematics and Informatics" was among the most demanded last year. The favourable tendency for the increase in the number of students who enrolled in full-time bachelor's degree and diploma degree programmes on a fee-paying basis remained rather strong this year. In 2017, the number of such students was 1,665, whereas in 2018 it was 1,721. In 2018, the number of first year students who enrolled in programmes on a fee-paying basis was a new record: over 3,000 students.

Distribution of the full-time first year students by bachelor and diploma degree programmes in 2018 is shown in fig. 4.2.

The number of part-time and extramural students enrolled in bachelor and diploma degree programmes has recently remained stable and low. What is more, state-funded places are now available only for part-time programmes and extramural Law programmes can only be completed as a second degree (fig. 4.3 and 4.4.).

Figure 4.2

DISTRIBUTION OF THE FULL-TIME FIRST YEAR STUDENTS BY BACHELOR AND DIPLOMA DEGREE PROGRAMMES AND SPECIALITIES

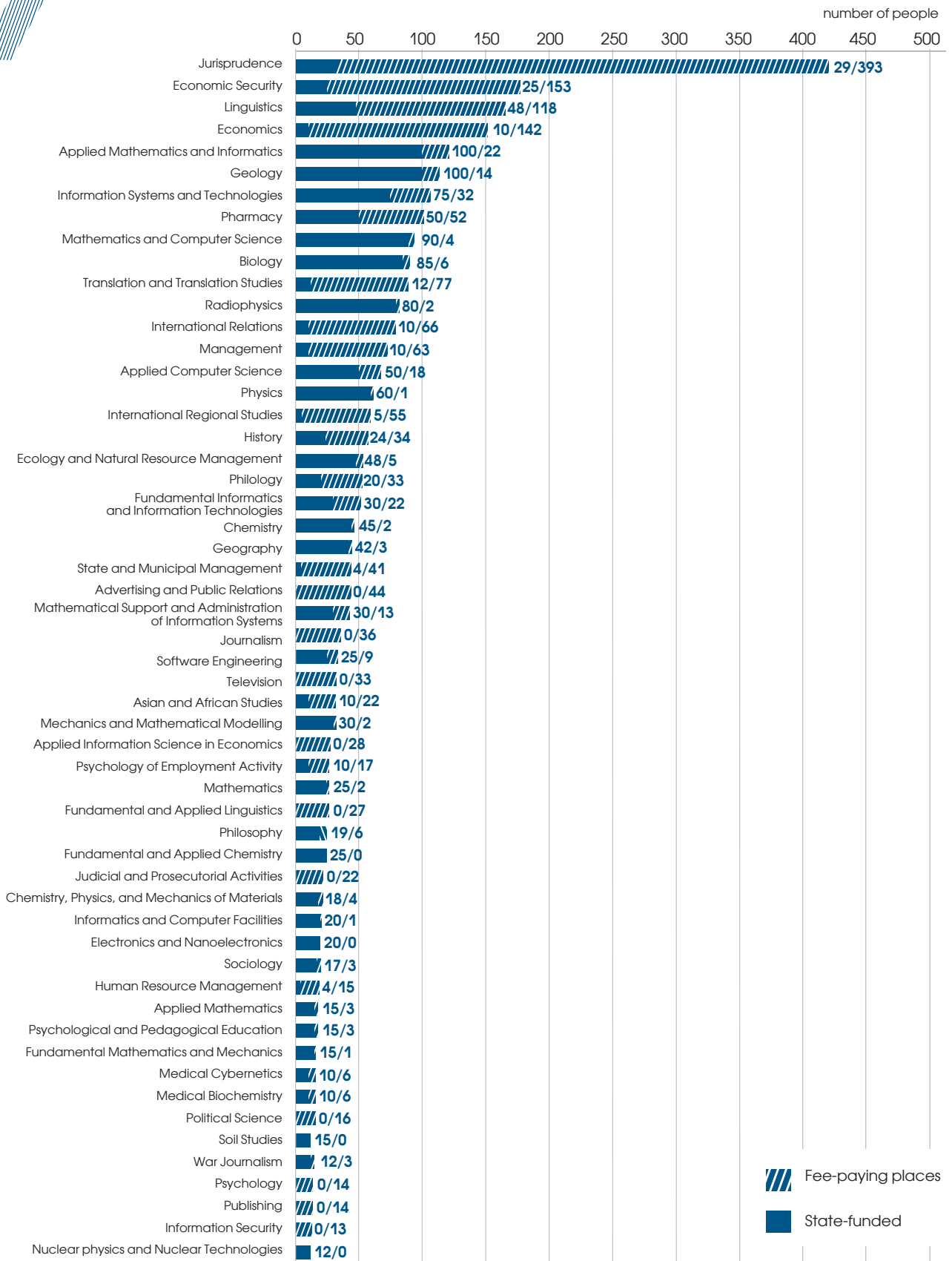




Figure 4.3

NUMBER OF PART-TIME STUDENTS ENROLLED IN BACHELOR'S DEGREE PROGRAMMES

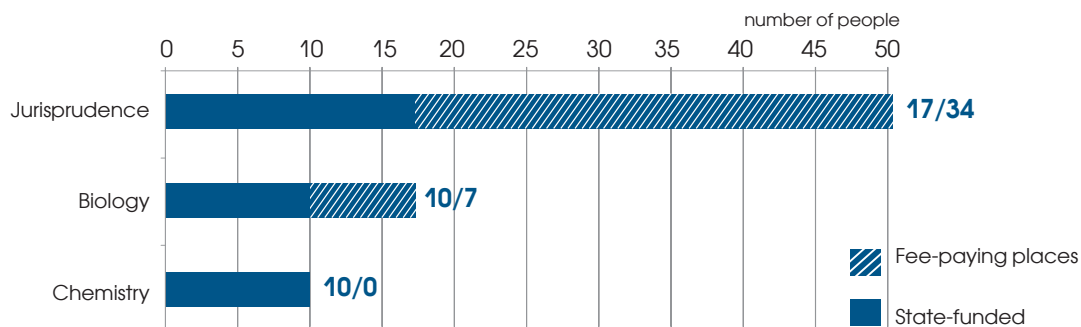
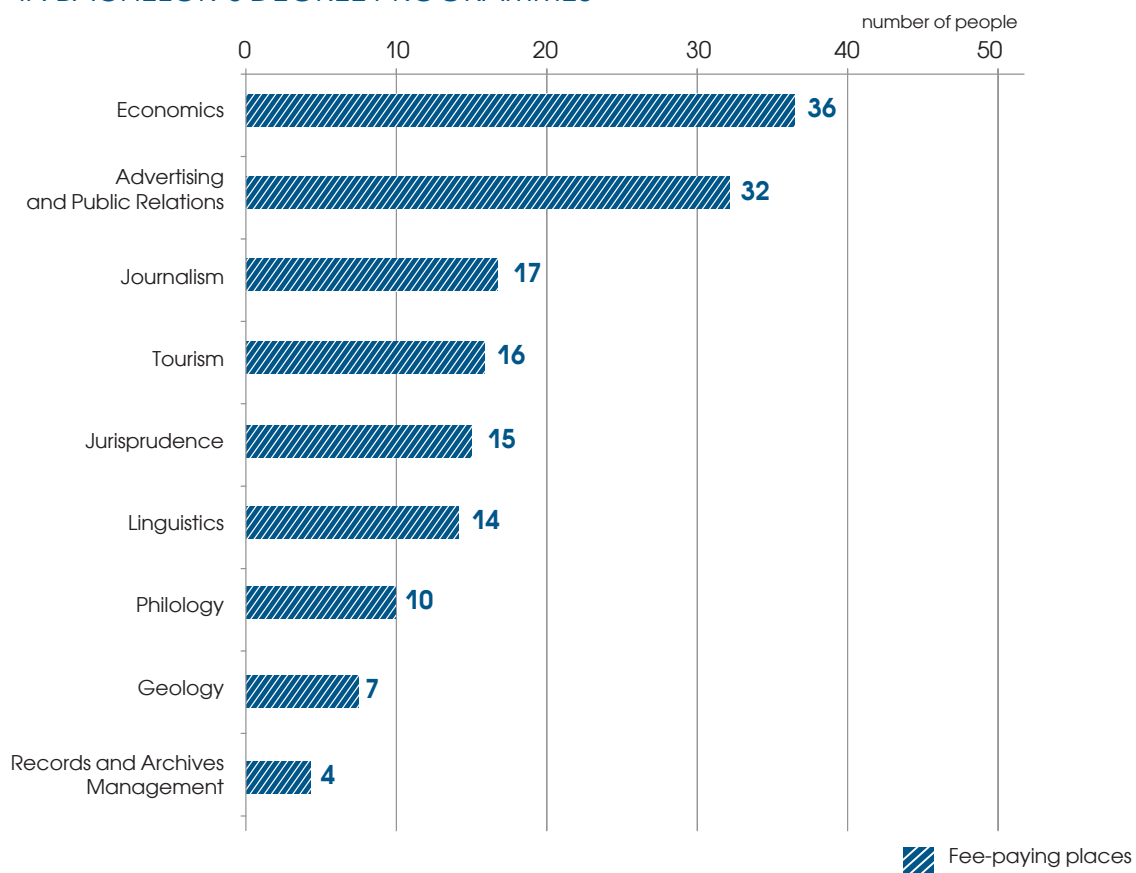


Figure 4.4

NUMBER OF EXTRAMURAL STUDENTS ENROLLED IN BACHELOR'S DEGREE PROGRAMMES





The list of master's programmes provided by the university in the 2017/18 academic year is shown in Table 4.6.

Table 4.6

MASTER'S PROGRAMMES PROVIDED BY THE UNIVERSITY IN THE 2017/18 ACADEMIC YEAR

Specialities	Programmes
THE FACULTY OF BIOMEDICAL SCIENCES	
06.04.01 Biology	Biophysics Biochemistry Genetics Ecology Biomedical Sciences
06.04.02 Soil Studies	Soil Genesis and Evolution in Natural and Antropogenic Landscapes
05.04.06 Ecology and Natural Resource Management	Ecological Safety Ecological Management
THE FACULTY OF GEOGRAPHY, GEOECOLOGY, AND TOURISM	
05.04.02 Geography	Landscape Studies and Landscape Design Social and Economic Geography
05.04.06 Ecology and Natural Resource Management	Ecological Monitoring and Environmental Impact Assessment
THE FACULTY OF GEOLOGY	
05.04.01 Geology	Geological Surveying in Orogens Geological Engineering Oil and Gas Geophysics Geological Surveying and Mineral Deposit Exploration in Platform Regions Ecological Management
THE FACULTY OF JOURNALISM	
42.04.02 Journalism	Mass Media and the Internet Advertising and Public Relations
42.04.01 Advertising and Public Relations	Advertising and Public Relations in Mass Media
THE FACULTY OF HISTORY	
46.04.01 History	Modern and Contemporary History of Western Europe and North America Russian History
41.04.04 Political Science	State and Municipal Policy and Management, Political Examination
THE FACULTY OF COMPUTER SCIENCES	
02.04.01 Mathematics and Computer Science	Informatics (Computer Sciences) as a Second Competence Computer Modelling and Artificial Intelligence
09.04.02 Information Systems and Technologies	Information Systems Analysis and Synthesis Information Systems Security Information Technologies in Management Communication Technologies Information Systems Design Technologies Informatics as a Second Competence
THE FACULTY OF MATHEMATICS	
01.04.01 Mathematics	Differential Equations, Dynamical Systems, and Optimal Control Mathematical Modelling
02.04.01 Mathematics and Computer Science	Mathematical Methods in Economics and Finance Mathematical Basis for Computer Science Mathematical Analysis and its Applications Mathematical and Computer Modelling

Table cont. 4.6

Specialities	Programmes
THE FACULTY OF INTERNATIONAL RELATIONS	
41.04.05 International Relations	International Human Rights Protection International Integration and International Organisations
41.04.01 International Regional Studies	European Studies
38.04.02 Management	International Business Customs Services Management
38.04.01 Economics	Business in the Emerging Markets
THE FACULTY OF APPLIED MATHEMATICS, INFORMATICS, AND MECHANICS	
02.04.02 Fundamental Informatics and Information Technologies	Computer Sciences Mobile Application Programming Management Information Systems
01.04.02 Applied Mathematics and Informatics	Mathematical Basis for Computer Graphics Mathematical and Information Support in Economic Activities Mathematical and Software Support for ECM Mathematical Modelling Machine Learning and Intellectual Systems Optimisation and Optimal Control Numerical Methods
02.04.03 Mathematical Support and Administration of Information Systems	Information Technologies
01.04.03 Mechanics and Mathematical Modelling	Applied Mechanics and Computer Modelling
38.04.05 Applied Information Science in Economics	Information Business Intelligence
THE FACULTY OF ROMANCE AND GERMANIC PHILOLOGY	
45.04.01 Philology	International Business Communication Business Communication in Economics: German Translation Studies and Practice Linguistic Support for Project Activities in International Cooperation
44.04.01 Pedagogical Education	Foreign Language Teaching with the Application of Online Technologies
THE FACULTY OF PHILOSOPHY AND PSYCHOLOGY	
44.04.01 Pedagogical Education	Pedagogical Management and Innovations in Education
37.04.01 Philosophy	Ontology and Epistemology
37.04.01 Psychology	Clinical and Psychological Follow-up Psychology of Personality
44.04.02 Psychological and Pedagogical Education	Psychology and Pedagogy of Creativity
THE FACULTY OF PHYSICS	
03.04.02 Physics	Atomic and Molecular Physics Optics and Nanophotonics Physics of Nanosystems Nuclear and Elementary Particle Physics

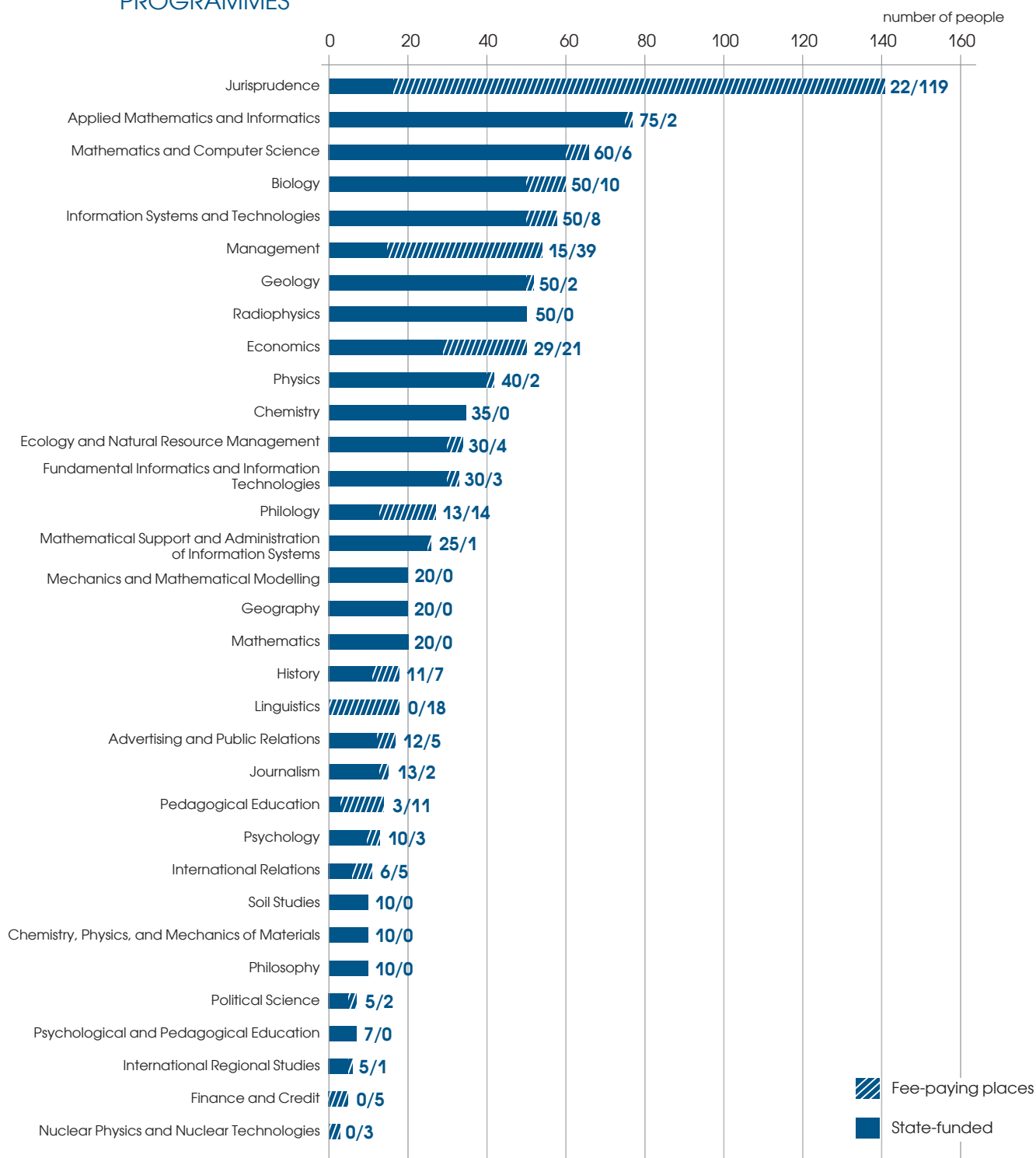
Specialities	Programmes
03.04.03 Radiophysics	Information Systems and Processes Computer Radiophysics Computer Methods of Radiophysical Information Processing Microelectronics and Semiconductor Devices Power Electronics Telecommunication Systems and Electronic Warfare Statistical Radiophysics
THE FACULTY OF PHILOLOGY	
45.04.01 Philology	Practical Philology in the Organisation of Administrative, Cultural, and Educational Activity Psycholinguistics and Forensic Linguistics Russian Literature in the European Context Russian Literature in Cultural and Pedagogical Aspects Russian Language for International Students Text and Communication
THE FACULTY OF CHEMISTRY	
04.04.01 Chemistry	High-molecular Compositions Organic Chemistry Physical Chemistry Chemistry of Natural Compounds Chemical Examination
04.04.02 Chemistry, Physics, and Mechanics of Materials	Chemistry, Physics, and Mechanics of Function Materials
THE FACULTY OF ECONOMICS	
38.04.01 Economics	Quantitative Analysis in Financial Markets Corporate Accounting, Financial, and Investment Analysis Accounting, Analysis, and Audit Financial Analyst: Investments, Credit Standing, Risks Economics and E-commerce Economics of Organisations and Markets Labour Economics Economy of a Firm
38.04.02 Management	General and Strategic Management Marketing management Economics and Firm Management
38.04.08 Finance and Credit	Banks and Banking Financial Management
38.04.04 State and Municipal Management	Administration of the Territory Social and Economic Development
38.04.03 Human Resource Management	Human Resources Management
THE FACULTY OF LAW	
40.04.01 Jurisprudence	Conventional Law Protection of Human Rights and Freedoms Corporate Attorney Criminalistics, Operational Investigations, Judicial, and Advocate Activities International Law and Business Financial and Tax Law Taxation and Civil Legislation Organization of the Judicial Power and Law Enforcement Activities Judicial and Non-Judicial Forms of Civil Rights Protection Theory and History of State and Law Criminal Law, Criminology, Criminal, and Penal Law Criminal Procedure Legal Defence in Administrative and Administrative Procedure Law Lawyer in the Field of Labour, Social, and Land Law Public Authority Attorneys



Unlike enrolment numbers for bachelor and diploma degree programmes which have been steadily increasing, the number of students enrolled in master's degree programmes in 2018 slightly decreased as compared to the record figures of previous years. However, it is still quite high: over 1,500 people with the majority of students enrolled in fee-paying programmes (fig. 4.5, 4.6, and 4.7).

Figure 4.5

NUMBER OF FULL-TIME STUDENTS ENROLLED IN MASTER'S DEGREE PROGRAMMES





The programme “Jurisprudence” has no rival among both bachelor and master’s programmes, yet, the following IT speciality programmes are also among the leaders of full-time programmes: “Applied Mathematics and Informatics”, “Mathematics and Computer Sciences”, and “Information Systems and Technologies”.

Figure 4.6

NUMBER OF PART-TIME STUDENTS ENROLLED IN MASTER’S DEGREE PROGRAMMES

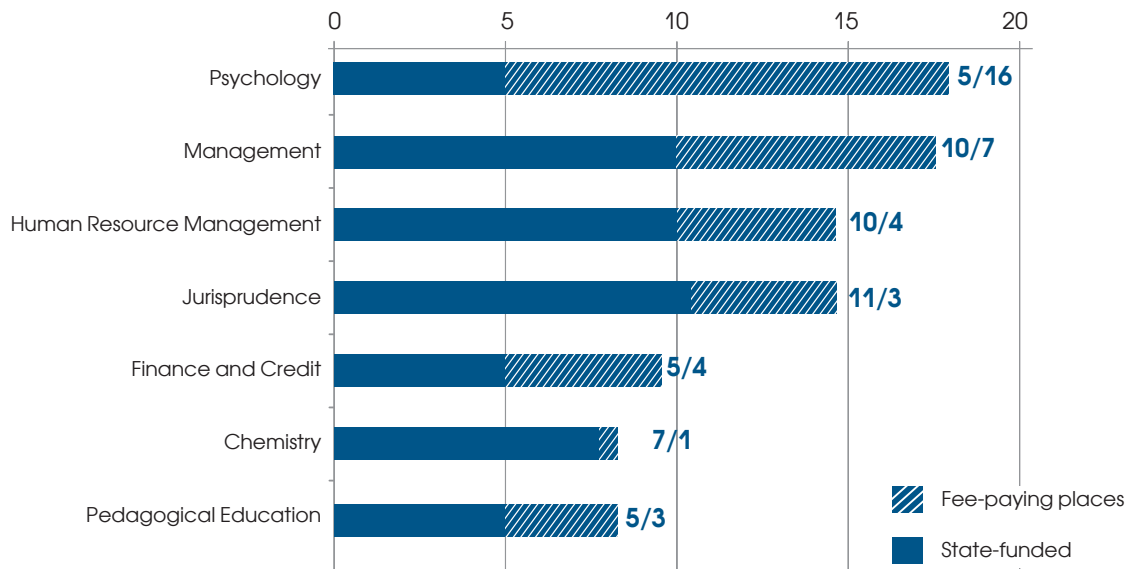
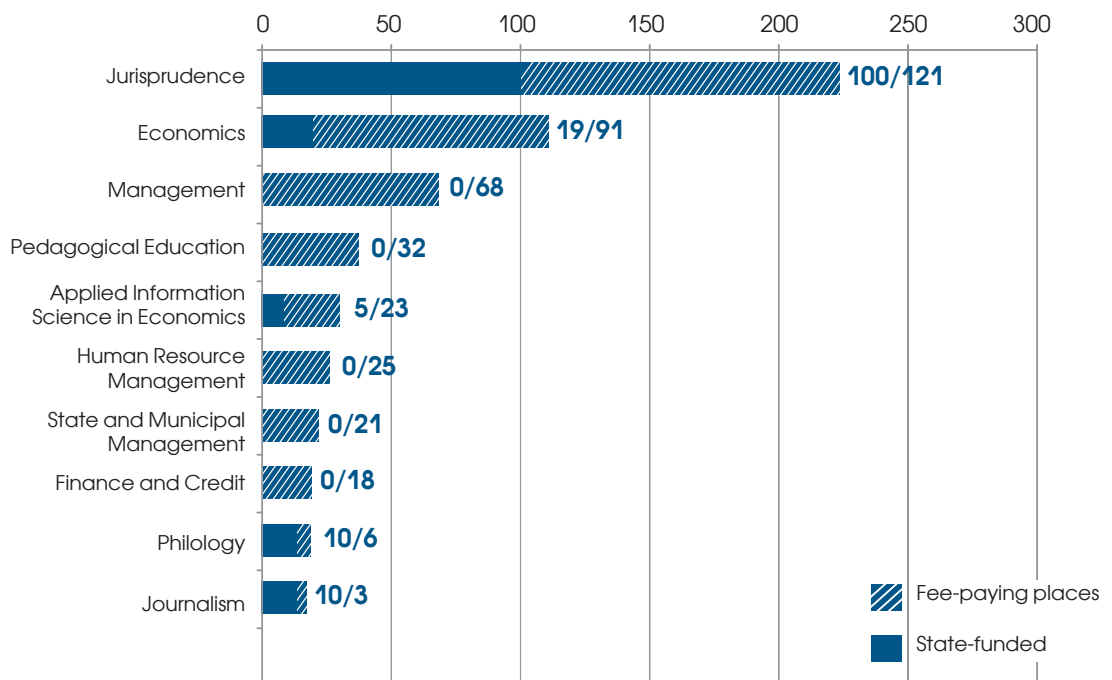


Figure 4.7

NUMBER OF EXTRAMURAL STUDENTS ENROLLED IN MASTER’S DEGREE PROGRAMMES

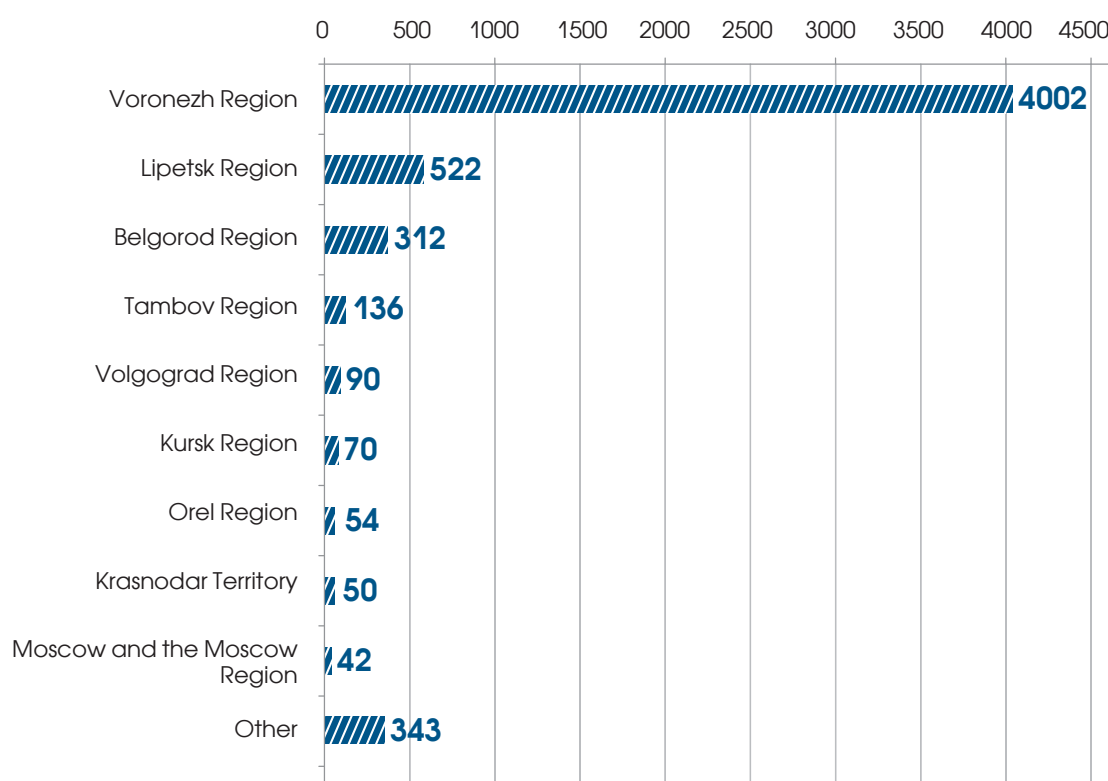




In 2018, similarly to the previous years, applicants from over 70 subjects of the Russian Federation filed their documents with VSU. Representatives of 68 Russian regions were matriculated (69 regions in 2017) (fig. 4.8).

Figure 4.8

FIRST-YEAR STUDENTS ACCORDING TO REGIONS



Traditionally, the leading regions providing VSU with students are neighbouring regions in the Central Black Earth region headed by the Lipetsk and the Belgorod region.

In 2018, VSU enrolled 19 winners and awardees of academic competitions held among schoolchildren (Table 4.7). Most of them (8 people) chose the programme "Jurisprudence".



Table 4.7

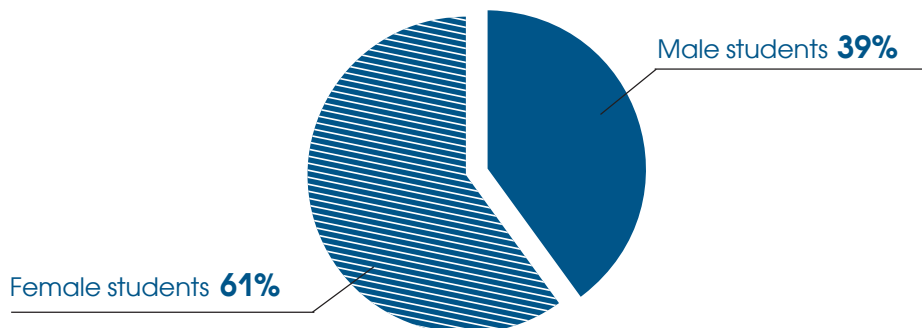
DISTRIBUTION OF THE ACADEMIC COMPETITION WINNERS AND AWARDEES ACCORDING TO THE SPECIALITIES

Speciality	Number of students enrolled without examinations	Number of students enrolled with the score of 100 points in an academic competition
International Regional Studies	1	1
History	1	1
Linguistics	0	1
Applied Mathematics and Informatics	0	1
Philology	1	1
Fundamental Informatics and Information Technologies	1	1
Economy (the Faculty of International Relations)	0	1
Jurisprudence	4	4

The gender composition of the admitted students underwent some changes, and the number of male students decreased by 1% (see fig. 4.9).

Figure 4.9

GENDER COMPOSITION OF THE FIRST-YEAR STUDENTS



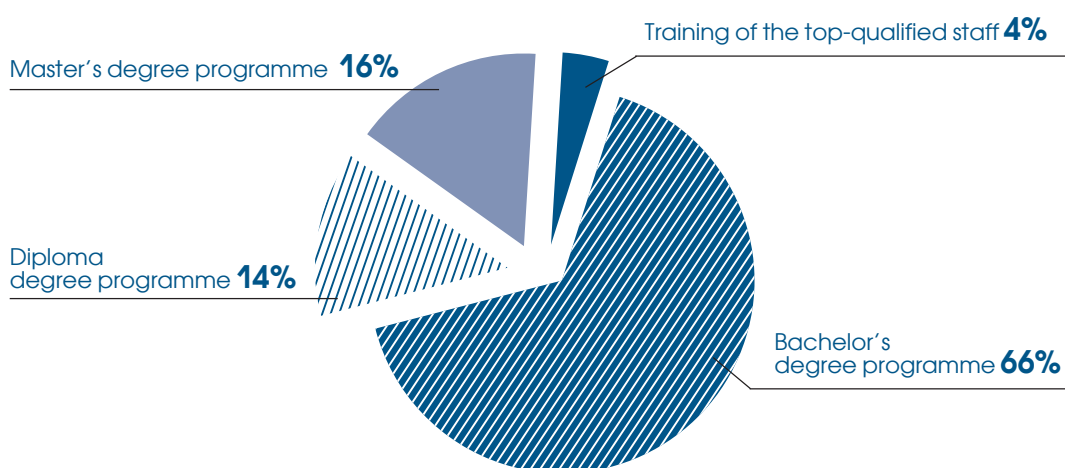


4.5. OVERVIEW OF HIGHER EDUCATION AND SECONDARY EDUCATION PROGRAMMES

In 2018, the aggregate normalised contingent of students within academic programmes totalled over 14,866 people, including 9,888 bachelor's degree students, 2,051 diploma degree students, 2,372 master's degree students, 532 PhD students, and 23 residents. The percentage of master's degree students, PhD students, and residents in the normalised contingent amounted to 20%, which is equivalent to the data of previous years (fig. 4.10).

Figure 4.10

THE STRUCTURE OF THE NORMALISED CONTINGENT WITHIN HIGHER EDUCATION PROGRAMMES



The number of higher education programmes implemented in 2018

- Bachelor's degree – (50 specialities; 138 programmes)
- Diploma degree – (13 specialities; 17 programmes)
- Master's degree – (41 specialities; 128 programmes)
- PhD degree – (17 specialities; 75 programmes)
- Residency programmes (1 speciality).



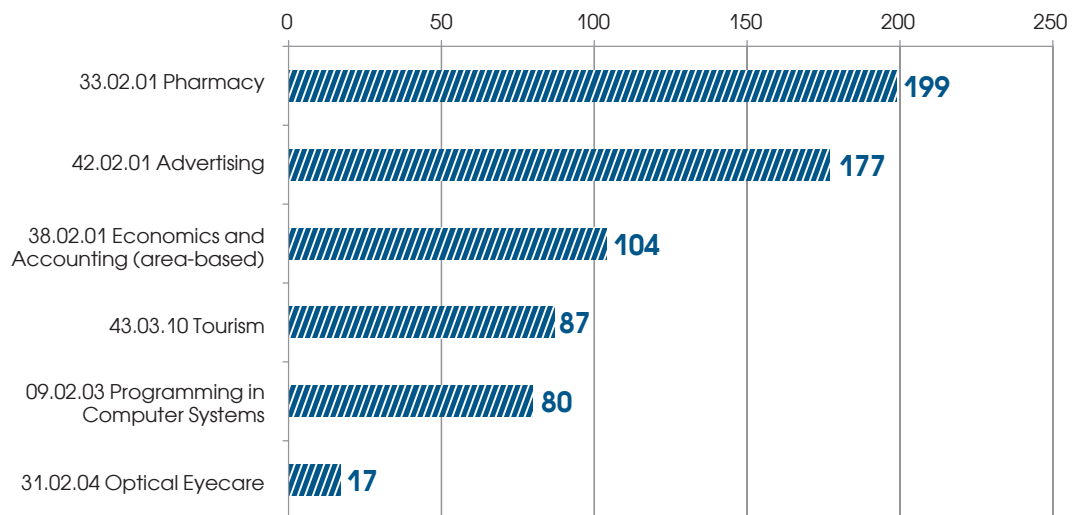
SECONDARY VOCATIONAL EDUCATION

In 2018, the university implemented primary-level programmes, designed for secondary vocational education (SVE) specialists, within six Federal State Educational Standards including 09.02.03 Programming in computer systems (basic level); 31.02.04 Optical Eyecare (advanced level); 33.02.01 Pharmacy (basic level); 38.02.01 Economics and Accounting (area-based) (basic level); 42.02.01 Advertising (basic level); and 43.02.10 Tourism (basic level).

As of 1 October 2018, the number of secondary vocational education students of all years of study totalled 664: speciality 09.02.03 Programming in Computer Systems (80 people); speciality 31.02.04 Optical Eyecare (17 people); speciality 33.02.01 Pharmacy (199 people); speciality 38.02.01 Economics and Accounting (area-based) (104 people); speciality 42.02.01 Advertising (177 people); and speciality 43.02.10 Tourism (87 people) (fig. 4.11).

Figure 4.11

DISTRIBUTION OF STUDENTS ACCORDING TO SECONDARY VOCATIONAL EDUCATION PROGRAMMES

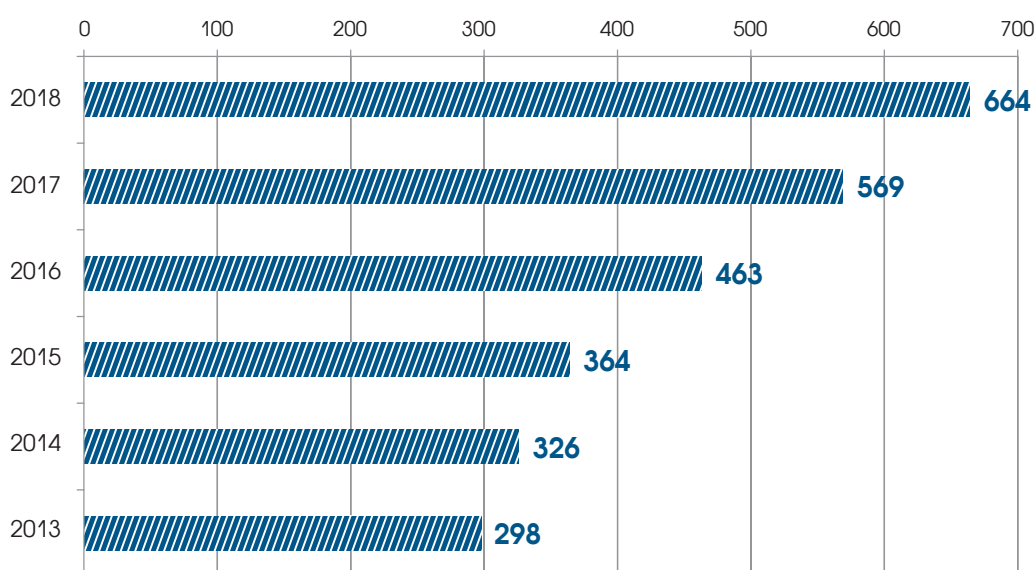




According to the results of the statistical monitoring conducted using the form SVE-1, in 2013-2018 the interest to secondary vocational education programmes has been considerably increasing. For example, according to SVE-1, the aggregate contingent was as follows: 2013 (298 people), 2014 (326 people), 2015 (364 people), 2016 (463 people), 2017 (569 people), and 2018 (664 people). The dynamics of the changes in the number of students over the last 6 years is shown in fig. 4.12.

Figure 4.12

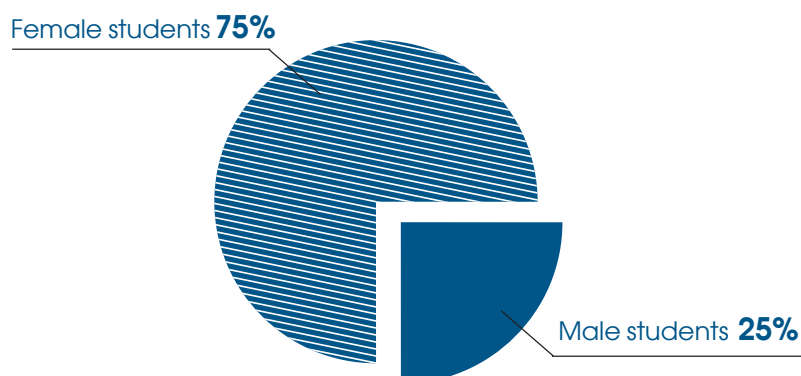
DYNAMICS OF THE CHANGES IN THE NUMBER OF STUDENTS AT SECONDARY VOCATIONAL EDUCATION PROGRAMMES



The distribution according to gender was the following: female students (496 people) and male students (168 people) (fig. 4.13).

Figure 4.13

GENDER COMPOSITION OF THE SECONDARY VOCATIONAL EDUCATION STUDENTS





A grade point average is an important criterion of educational activity. For students enrolled in secondary vocational education programmes it was the following: Pharmacy (4.3), Tourism (3.99), Economics and Accounting (area-based) (4.25), Advertising (4.15), and Programming in Computer Systems (3.86). It should be noted that the grade point average of students within all VSU secondary vocational education programmes was above the nationwide GPA which amounted to 3.71.

In 2018, educational and onsite practices for students were held on the ground of 105 long-term agreements: the speciality “Advertising” (54 agreements), the speciality “Pharmacy” (28 agreements), the speciality “Tourism” (21 agreements), and the speciality “Optical Eyecare” (2 agreements). The agreements enabled developing students’ practical skills in disciplines and interdisciplinary courses.

In 2018, 116 students completed the programmes, 21 of them graduated with honours degree. The number of graduates with honours degree more than doubled. Overview of the graduates of the secondary vocational education programmes is shown in Table 4.8.

Table 4.8

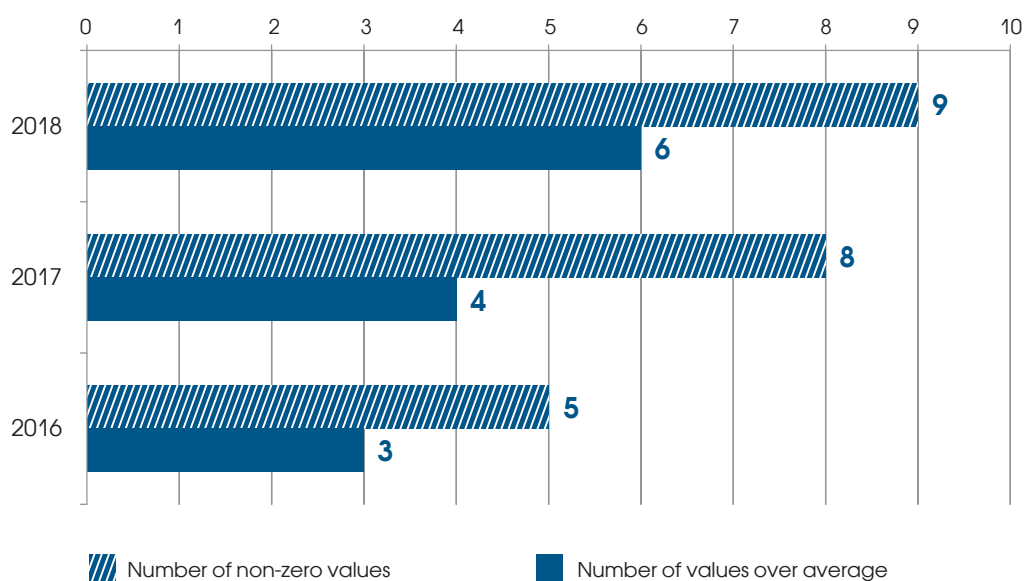
OVERVIEW OF GRADUATES ACCORDING TO THE SECONDARY VOCATIONAL EDUCATION SPECIALITY IN 2018

Secondary vocational education speciality	Graduates (people)				
	Total	Of them			
		With honours degree	With an excellent mark for thesis defence	With a good mark for thesis defence	With a satisfactory mark for thesis defence
09.02.03 Programming in Computer Systems	12	2	10	2	0
33.02.01 Pharmacy	13	1	7	4	2
38.02.01 Economics and Accounting (area-based)	19	1	2	7	10
42.02.01 Advertising	51	9	21	23	7
43.03.10 Tourism	21	8	11	10	0
Totals	116	21	51	46	19

In 2018, the Monitoring of the Quality of Specialists Training in Educational Organisations Implementing Secondary Vocational Education Programmes (SVE Monitoring) demonstrated that VSU’s performance in the field of educational activity, infrastructure development, financial and economic activities, employment of graduates of secondary vocational education programmes, and social responsibility was above average. The dynamics of the results of the SVE Monitoring in 2016–2018 by the number of non-zero figures and figures above average is shown in fig. 4.14.

Figure 4.14

QUANTITATIVE RESULTS OF THE SVE MONITORING



It should be noted that according to the SVE Monitoring, Voronezh State University also improved its position as to the normalised contingent by 11 points among the educational institutions of the Voronezh Region as compared to the results of 2017.

In 2018, VSU students studying secondary vocational education programmes were awarded the Russian Federation Government Scholarships for 2018/19 in top-priority areas of modernisation and technological development of the economy of the Russian Federation. The number of the quotas was increased by 2 as compared to 2017. The scholarships were awarded to three students of the pharmacy programme, and three students of the programming in computer systems programme.

In 2018, Voronezh State University held the qualifying stage of the National Professional Excellence Competition for students of the programmes 09.02.03 Programming in Computer Systems, and 33.02.01 Pharmacy. The winner of the qualifying stage in pharmacy showed good results at the national (final) stage.

For the first time, the team of Voronezh State University consisting of a contestant and an expert took part in the regional championship WorldSkills Russia of the Voronezh region in the area "Programming solutions for business". The contestant was the winner of the qualifying stage of the National Professional Excellence Competition for students of the programme 09.02.03 Programming in Computer Systems. The expert was a lecturer from the Faculty of Mathematics.



4.6. OVERVIEW OF SCHOLARSHIP PROGRAMMES

University students have an opportunity to take part in different scholarship programmes which are aimed at supporting talented young people. The names and types of scholarship support provided to students in 2018 are shown in Table 4.9.

Table 4.9

TYPES OF UNIVERSITY SCHOLARSHIP PROGRAMMES FOR UNDERGRADUATE AND POSTGRADUATE STUDENTS IN 2017/18

Scholarship programme	Number of scholarships for students
Funded from the federal budget	
Scholarship of the President of the Russian Federation	2
Scholarship of the Government of the Russian Federation	3
Scholarship of the President of the Russian Federation in priority areas	9
Scholarship of the Government of the Russian Federation in priority areas	16
Scholarship of the Government of the Russian Federation in priority areas (for the first time for SVE)	4
Grant of the President of the Russian Federation (within the programme "Talent and Success")	4
Personal scholarship of Vladimir Potanin Charitable Foundation	10
Funded by VSU	
Scholarship of the VSU Academic Board	4
Scholarship named after Professor L.D. Kokorev	2
Scholarship named after Professor G. F. Gorsky	2
Scholarship named after Professor I. A. Galagan	2
Scholarship named after Professor V.S. Osnovin	2
Scholarship named after Professor V.A. Panushkin	2
Scholarship named after Professor A.M. Abramov	1
Scholarship named after Professor M. S. Tochilin	2
Scholarship named after Professor M.A. Levitskaya	2
Scholarship named after Professor V.A. Lisitsky	1
Scholarship named after Yu.A. Rylov	1
Scholarship named after Professor G.Ye. Vedel	1
Scholarship named after Professor L.T. Gilyarovskaya	2
Scholarship named after Professor V.N. Eytinon	2
Scholarship named after Professor M.A. Krasnoselsky	1
Scholarship named after Professor V.I. Sobolev	1
Scholarship named after Professor V.T. Titov	1
Funded by employers	
Scholarship of the data provider Informsvyaz-Chernozemye	15
Novolipetsk Steel PAO NLMK Scholarship	10
Personal scholarships of the Angstrom manufacturing company	6
Scholarship of OOO LUKOIL-Chernozemienefteprodukt	5
Scholarship by PricewaterhouseCoopers Consulting	2
Scholarship of "Concern Sozvezdiye"	8
"RZhD" scholarship	1
Scholarship of the Oxford Russia Fund charity organisation	76



4.7. INFORMATION ON INNOVATIVE EDUCATIONAL TECHNOLOGIES AND DISTANCE EDUCATION

Network technologies, e-learning, and practice-oriented education programmes developed together with industrial partners are key trends of the education system today.

The range of network education programmes was extended. In 2018, an agreement with Southern Federal University was concluded on the networking education programme “International business (English language)” for speciality 38.04.02 Management. In the framework of international cooperation a networking agreement was signed with the University of Girona (Spain) on the education programme “International Tourism Management” (specialisation 38.04.02 “Management aimed at enhancing the quality of education”) which allows accumulating the best practices of leading international educational organisations. The programme lasts for one year and is aimed at shaping students’ personal qualities, developing their speaking and writing skills in a foreign language, as well as improving the ability to adopt to different educational environment, traditions, and teaching methods.

Today’s innovative educational process also implies the importance of using the potential of the leading research institutions and manufacturing research companies, as well as the necessity to account for their demand for qualified professionals with certain skills and experience. Following the requirements of the labour market, as well as the changes in the form and content of the educational process, the university opened the Fundamental Department “Operation of Nuclear and Electric Power Plants” which provides for closer collaboration with Novovoronezh Nuclear and Electric Power Station regarding training specialists in the speciality “Nuclear Physics and Nuclear Technologies”, including bachelor and master’s degree programmes.

An integrated education and information system is now an essential part of the educational process. The university’s integrated education and information system is able to satisfy the demands of any user (students, teachers, staff members, and other users). This is one of the main criteria for assessing the system’s effectiveness.



OVERVIEW OF INFORMATIONAL SUPPORT AND MANAGEMENT OF THE EDUCATIONAL PROCESS

The “Electronic University VSU” web portal (<https://edu.vsu.ru>) is an integrated education and information system of the University created in accordance with the Federal Law “On Education in the Russian Federation” and the Federal State Educational Standards.

Students and the teaching staff can access their personal accounts from any PC or other electronic device connected to the Internet at any time.

“Electronic University VSU” portal is integrated with such information management systems as “Contingent”, “Human Resources”, “Curriculum”, etc.

A service which automatically processes students’ requests for access permissions was launched.

A service was developed allowing students and the teaching staff to change their personal profile in their personal accounts, to upload documents, and to post them on the network.

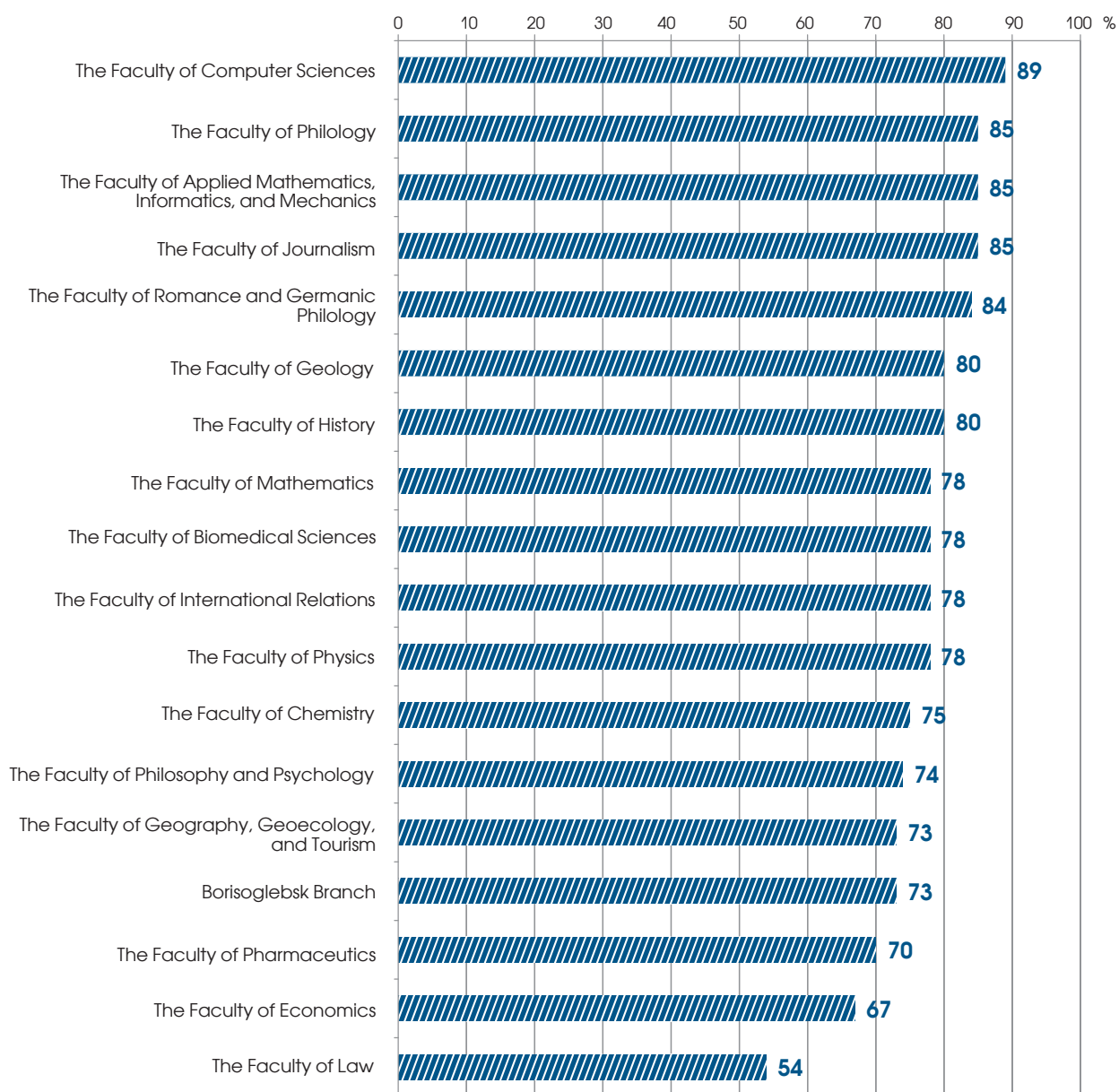
The portal has special services for uploading, downloading, and posting the following documents regulating the educational process:

- 297 (+51) State Educational Standards
- 2,413 (+362) main academic programmes implemented by VSU
- 2,317 (+511) main academic programmes curricula
- 37 (+6) SVE academic programmes curricula
- 69,558 (+24,678) course syllabuses.

The portal has a service for uploading and downloading of graduate qualification papers by undergraduate students and scientific reports and graduate qualification papers by postgraduate students, as well as checking these works in the Automated Antiplagiat system. In 2018, 4,320 works were uploaded. The diagram shows the average originality percentage of the works checked in the Antiplagiat system by faculties (fig. 4.15).

Figure 4.15

ORIGINALITY PERCENTAGE OF PARTS OF GRADUATE QUALIFICATION PAPERS BY FACULTIES





TEACHING INNOVATIONS “ELECTRONIC UNIVERSITY VSU” PORTAL, AN ENVIRONMENT FOR E-LEARNING AND DISTANCE LEARNING TECHNOLOGIES

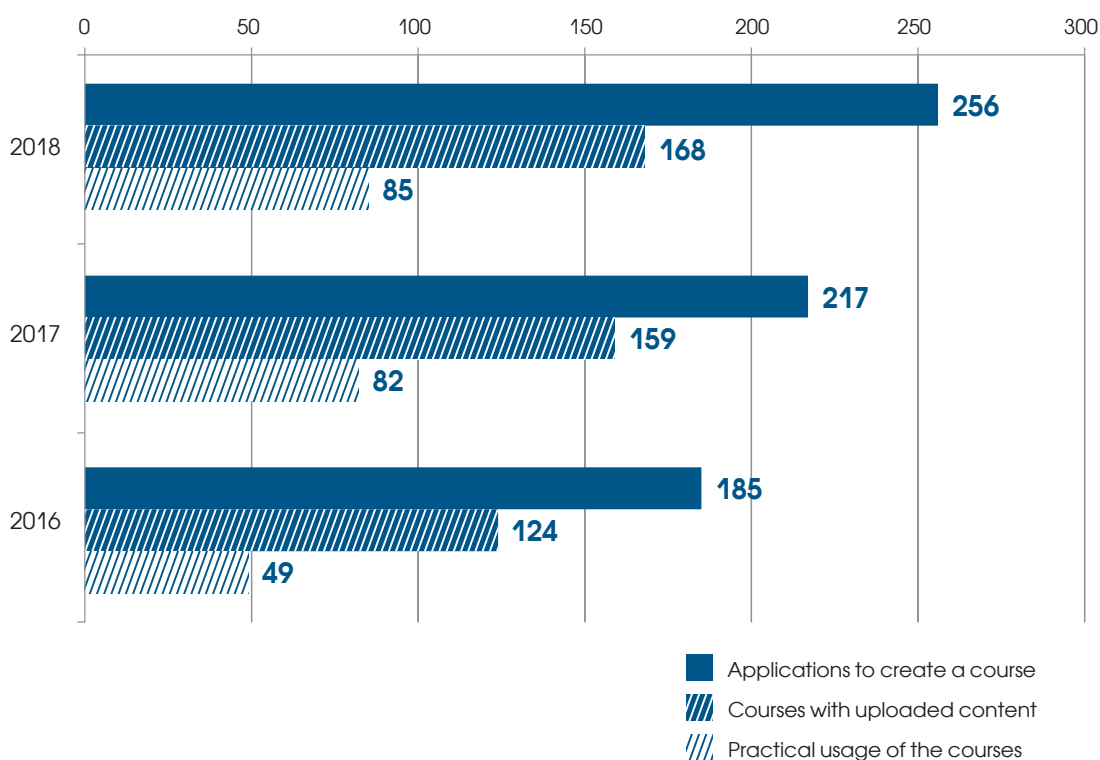
The e-courses registered on the portal include all the components of the educational process: study materials, assessment tools, as well as communication and control facilities.

At present, the number of all e-courses registered on the “Electronic University VSU” portal totals over 1,200. However, only 400 of them were used in the educational process in 2018 (the courses which students really used).

Figure 4.16 shows the dynamics of applications submitted by lecturers to create new e-courses on the “Electronic University VSU” portal, of uploads of the content of the existing courses, and of usage of these resources by students in the educational process.

Figure 4.16

STRUCTURE OF E-COURSES ON THE “ELECTRONIC UNIVERSITY VSU” PORTAL



The total number of students' requests to access e-courses was over 3.5 million.

Figure 4.17 shows the number of e-courses by faculties with unloaded content and courses for which students were subscribed and which they really used.

Figure 4.17

DISTRIBUTION OF THE E-COURSES ACCORDING TO FACULTIES

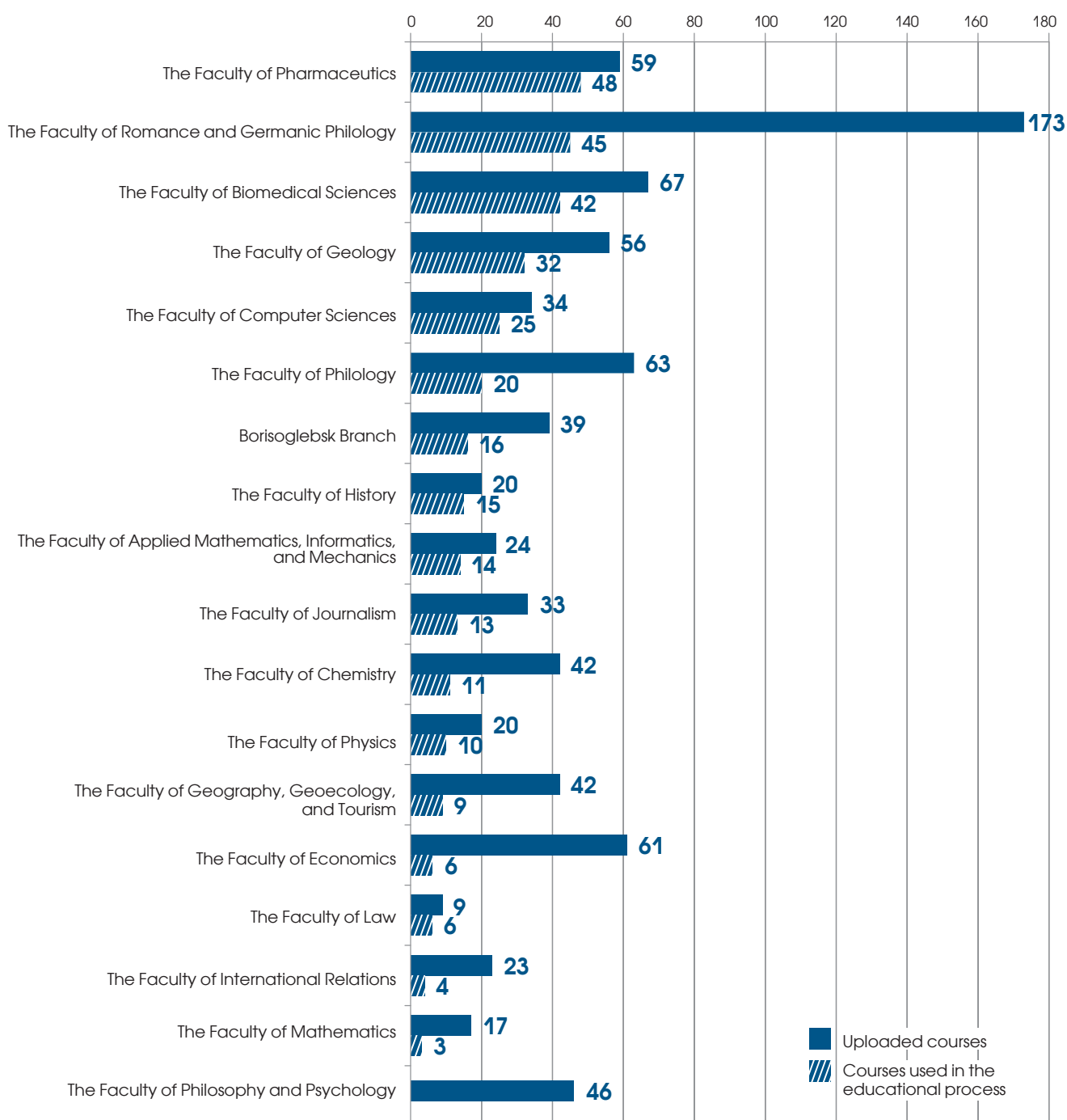
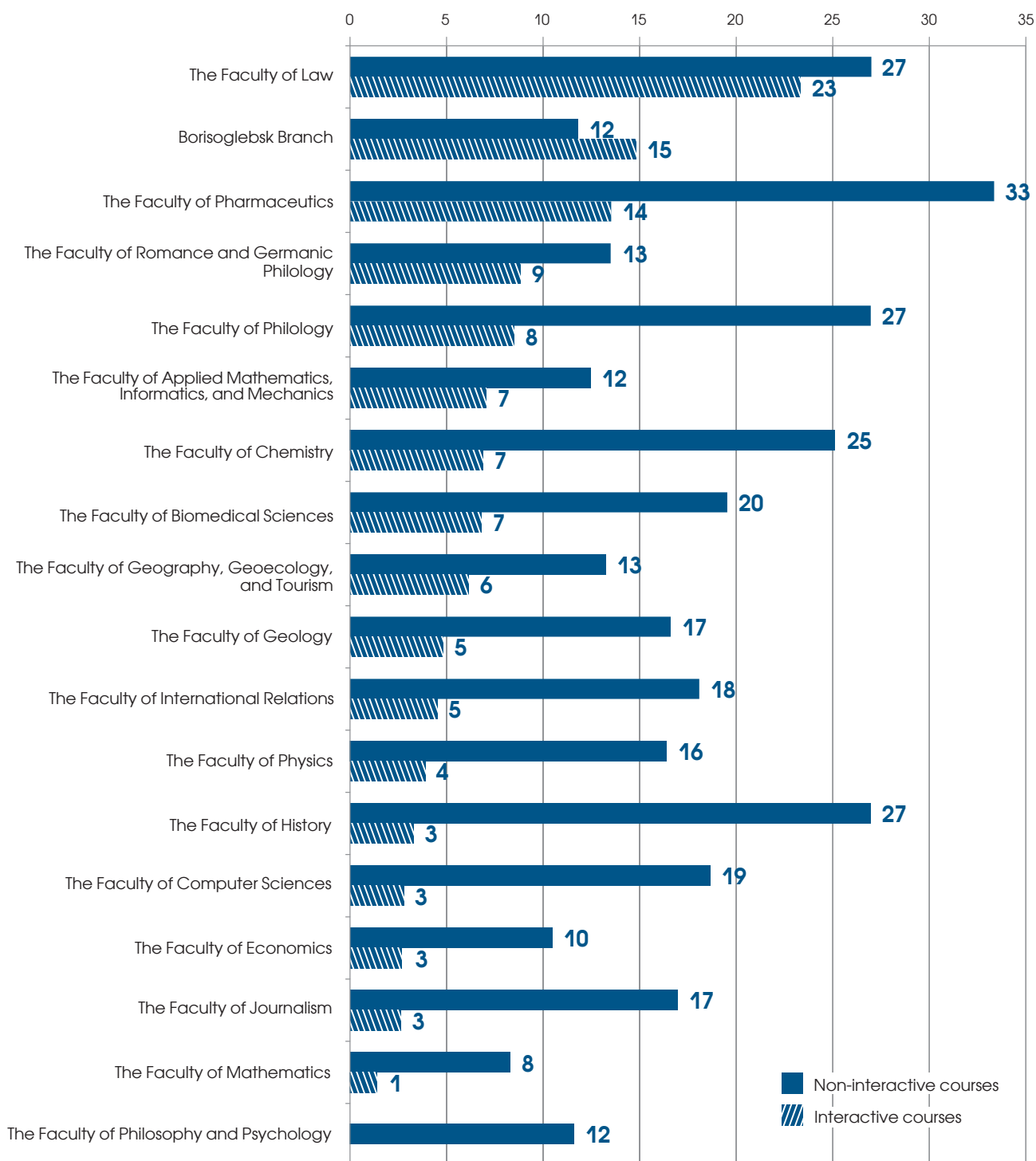




Figure 4.18 shows the content quality of the e-courses by faculties: the average number of non-interactive informational educational resources in the faculty's courses and the average number of interactive evaluated components.

Figure 4.18

NUMBER OF INTERACTIVE AND NON-INTERACTIVE COURSES ON THE "ELECTRONIC UNIVERSITY VSU" PORTAL





In 2016, 2017, and 2018, university lecturers obtained 123 certificates verifying that their e-courses were officially acknowledged as teaching aids (+36 in 2018).

The portal stores 59 e-courses in ecology and foreign language teaching developed within the frameworks of international Tempus projects, and 12 distance learning e-courses for the Unified State Examination training in various disciplines.

A distance learning course was developed within the advanced training programme for academic staff members in the field of e-learning and distance learning technologies.

The Faculty of Romance and Germanic Philology runs a master's degree programme "Foreign Language Teaching with the Application of Online Technologies".

To provide a fair view of e-courses in respect of them being updated with educational components or used by students, a statistics system was created allowing to rate courses by various criteria.

Within the framework of the national project "Modern electronic education environment in the Russian Federation", VSU signed a partnership agreement with Saint Petersburg National Research University of Information Technologies, Mechanics, and Optics. The agreement enables VSU to join the "single-window" system and thus become integrated within the electronic education environment with access to information about students' academic performance available on various online platforms.

In the process of creating the environment for massive online courses the Department of E-learning and Distance Learning Technologies was established within the Information Technology Administration.

At present, the mass open online course (MOOC) "Modern chemical sources of currents" was created (by O.A. Kozaderov).

The website <https://mooc.vsu.ru> based on the LMS platform Moodle was created for uploading of VSU online courses.

4

4.8. QUANTITATIVE AND QUALITATIVE DATA ON FURTHER EDUCATION

Dynamics of the number of programmes and students of professional education programmes implemented by the university is shown in Tables 4.10 and 4.11.

Table 4.10

DYNAMICS OF THE NUMBER OF PROFESSIONAL EDUCATION PROGRAMMES IMPLEMENTED BY THE UNIVERSITY IN 2018

Professional education programmes	Number of programmes	
	2017	2018
Total	440	470
including:		
Professional retraining programmes	72	73
Advanced training programmes	242	262
General development programmes	126	135

Table 4.11

DYNAMICS OF THE NUMBER OF STUDENTS OF PROFESSIONAL EDUCATION PROGRAMMES IMPLEMENTED BY THE UNIVERSITY IN 2018

Professional education programmes	Number of students	
	2017	2018
Total	2727	3665
including:		
Professional retraining programmes	488	485
Advanced training programmes	1410	2950
General development programmes	829	230



In 2018, 4,138 certificates were awarded regarding acquired qualifications or completion of a further education programme.

Tables 4.12 and 4.13 show the number of students and financial data by subdivisions of the Centre for Further Professional Education.

Table 4.12

NUMBER OF STUDENTS BY SUBDIVISIONS OF THE CENTRE FOR FURTHER PROFESSIONAL EDUCATION

Structural subdivision	2017	2018
Centre for Further Professional Education	80	166
Business School	139	150
Managers' Training Centre	60	70

Table 4.13

FINANCIAL DATA BY STRUCTURAL SUBDIVISIONS OF THE CENTRE FOR FURTHER PROFESSIONAL EDUCATION

Structural subdivision	2017	2018
Centre for Further Professional Education	1,300,000	3,222,000
Business School	11,692,000	13,351,920
Managers' Training Centre	3,390,000	3,761,000



MANAGERS' TRAINING CENTRE AT THE CENTRE FOR FURTHER PROFESSIONAL EDUCATION

In 2018, VSU continued to implement the state plan programme on training managers for enterprises of the national economy of the Russian Federation in three further education programmes: the programmes of professional retraining "Management", "Marketing", and "Finance".

68 people enrolled in the programme, 1 person was expelled, and 67 people completed the programme.

Total financing under the agreement of the government of the Voronezh region amounted to 3,819,000 roubles, including 2,520,540 roubles funded from the budget of the Russian Federation (1,487,118 roubles financed through subsidies obtained from the Russian Federation state budget resources). Actual amount with due regard for 1 expelled student was 3,783,261.1 roubles, including 2,484,801 roubles funded from the budget of the Russian Federation.

Detailed information for the programmes is shown in Table 4.14.

Table 4.14

THE STATE PLAN PROGRAMME ON TRAINING MANAGERS FOR ENTERPRISES OF THE NATIONAL ECONOMY OF THE RUSSIAN FEDERATION (THE PRESIDENTIAL PROGRAMME)

Number of students	Number of hours	Tuition fees	Total amount	Funded from the budget of the Russian Federation	The amount due funded from the federal budget	Duration of the programme
The programme "Management"						
44/43	550	51,150.00	810,084.00 (44 people)	630,078.57 (43 people)	906,698.43 (43 people)	Between 04.12.2017 and 27.07.2018
The programme "Finance"						
11/11	550	59,850.00	223,839.00	178,149.51	256,361.49	Between 04.12.2017 and 27.07.2018
The programme "Marketing"						
13/13	550	59,850.00	264,537.00	210,540.33	302,972.67	Between 04.12.2017 and 27.07.2018
Total: 68/67 people			Total: 1,298,460.00	Total: 1,018,768.41	Total: 1,466,032.59	

In 2018, 2 further education programmes were registered: further training courses "Management" and "Management Basics" for managers of the healthcare institutions.

The advanced training programme "Foreign Language for Managers" was continued.

On the instruction of the Voronezh regional committee for the organisation of the training of managers for enterprises of national economy, a competition was held among specialists who wanted to compete training in the framework of the state plan programme on training managers in the 2018/19 academic year. 98 people successfully passed the entrance test.



BUSINESS SCHOOL

In 2018, a professional retraining programme (double degree programme) was opened in cooperation with the EMBA ISC Paris Business School.

Guest lectures, training sessions, professional simulations, and master-classes were held for the students of the business school.

MBA programmes

1. "Issues of transport logistics" by S.Yu. Nesterov, PhD in Economics, manager of the group of companies ILG.
2. "Practical aspects of business planning" by K.L. Zagorulko, PhD in Economics, underwriter of the corporative business PAO "Sberbank".
3. "Informational technology and project management" by I.V. Istchenko, PhD in Economics, corporative information system engineer.
4. "Project management" by E.I. Gavrilov, MSc in Economics (VSU), individual entrepreneur.
5. "DISC assessment: communicative differences and working rules for teams comprised of different people" by A. Kireyev, Head of the expert community "STRAKTIKA", Executive MBA, Essec & Mannheim Business School, entrepreneur, business consultant, expert in leadership, efficient management and talent management.
6. "Peculiarities of corporate management" by I.A. Kosyakin, Head of the Department of Legal and Corporate Affairs of "Concern Sozvezdiye".
7. "Talent management" by A. Kireyev, Head of the expert community "STRAKTIKA", Executive MBA, Essec & Mannheim Business School, entrepreneur, business consultant, expert in leadership, efficient management and talent management.
8. "Change management" by A. Kireyev, Head of the expert community "STRAKTIKA", Executive MBA, Essec & Mannheim Business School, entrepreneur, business consultant, expert in leadership, efficient management and talent management.
9. Training session "Efficient management" by I.A. Kaverina, Deputy General Director for Human Resources of "Energeticheskaya elektronika".
10. "Interfunctional professional simulations" by I.A. Kaverina, Deputy General Director for Human Resources of "Energeticheskaya elektronika".



BBA programme

1. "Professional leadership" by A. Kireyev, Head of the expert community "STRAKTIKA", Executive MBA, Essec & Mannheim Business School, entrepreneur, business consultant, expert in leadership, efficient management and talent management.
2. "Conflict: concept, dynamics, solutions" by E. Kuznetsova, PhD in Economics, business coach, Director of the "Institute of the Dialogue between Cultures "Interlingva""
3. "Efficient team" by E. Kuznetsova, PhD in Economics, business coach, Director of the "Institute of the Dialogue between Cultures "Interlingva".

EMBA programme

1. "Leadership skills in the 21st century: malfunctional and efficient leadership" by A. Kireyev, Head of the expert community "STRAKTIKA", Executive MBA, Essec & Mannheim Business School, entrepreneur, business consultant, expert in leadership, efficient management and talent management.
2. "Leadership basics: efficient management" by A. Kireyev, Head of the expert community "STRAKTIKA", Executive MBA, Essec & Mannheim Business School, entrepreneur, business consultant, expert in leadership, efficient management and talent management.
3. "Marketing specialist and sales manager. Division of responsibilities and how to enhance them" by D.S. Lovchikov, Development Director of "AEDON".
4. "Informational technology and project management" by I.V. Istchenko, PhD in Economics, corporative information system engineer.



4.9. EDUCATION QUALITY ASSESSMENT SYSTEM

The University education quality assessment system includes the internal assessment and the external independent expert evaluation of the quality of education programmes with due consideration to the opinions and satisfaction of clients and all the parties concerned. It also involves an assessment of the compliance with the requirements of the Federal State Educational Standards, an assessment of the University management system quality in accordance with ISO international standards, and an assessment made by professional communities and employers.

In accordance with the requirements of the Federal State Educational Standards, the education quality monitoring within the main academic programmes is conducted by means of current, midterm, and final assessments.

RESULTS OF THE MIDTERM ASSESSMENTS IN 2018

In the 2017/18 academic year, 15,756 students (93.85%) took the mid-year examinations. 79.62% of the students who were allowed to sit the examinations managed to pass them, which was 4.51% less than the rate of the previous mid-year examinations. Academic performance by faculties and with allowance for attempts to re-sit the examinations is shown in Figure 4.19.

In the 2017/18 academic year, the average grade for the mid-year examinations amounted to 3.98, which is 0.01 higher than the figure of the previous mid-year examinations. The highest average mark was demonstrated by the students of the Faculty of Philology (4.28) and the Faculty of Romance and Germanic Philology, whereas the Faculty of Pharmacy had the lowest average mark (3.67).

In the 2017/2018 academic year, 14,482 students (89.64%) took the end-of-year examinations. 86.04% of the students who were allowed to sit their examinations managed to successfully pass them, which exceeded the rate of the previous end-of-year examinations by 6.49%. Academic performance by faculties and with allowance for attempts to re-sit the examinations is shown in fig. 4.20.

In the 2017/18 academic year, the average grade for the end-of-year examinations amounted to 4.00, which was lower than the figure of the previous end-of-year examinations by 0.01. The Faculty of Romance and Germanic Philology had the highest average mark (4.39) and the Faculty of Law (3.77) and the Faculty of Physics (3.78) had the lowest average mark.



Figure 4.19

ACADEMIC PERFORMANCE OF ALL UNIVERSITY STUDENTS
IN THE END-OF-YEAR EXAMINATIONS IN THE 2017/18 ACADEMIC YEAR
ACCORDING TO FACULTIES

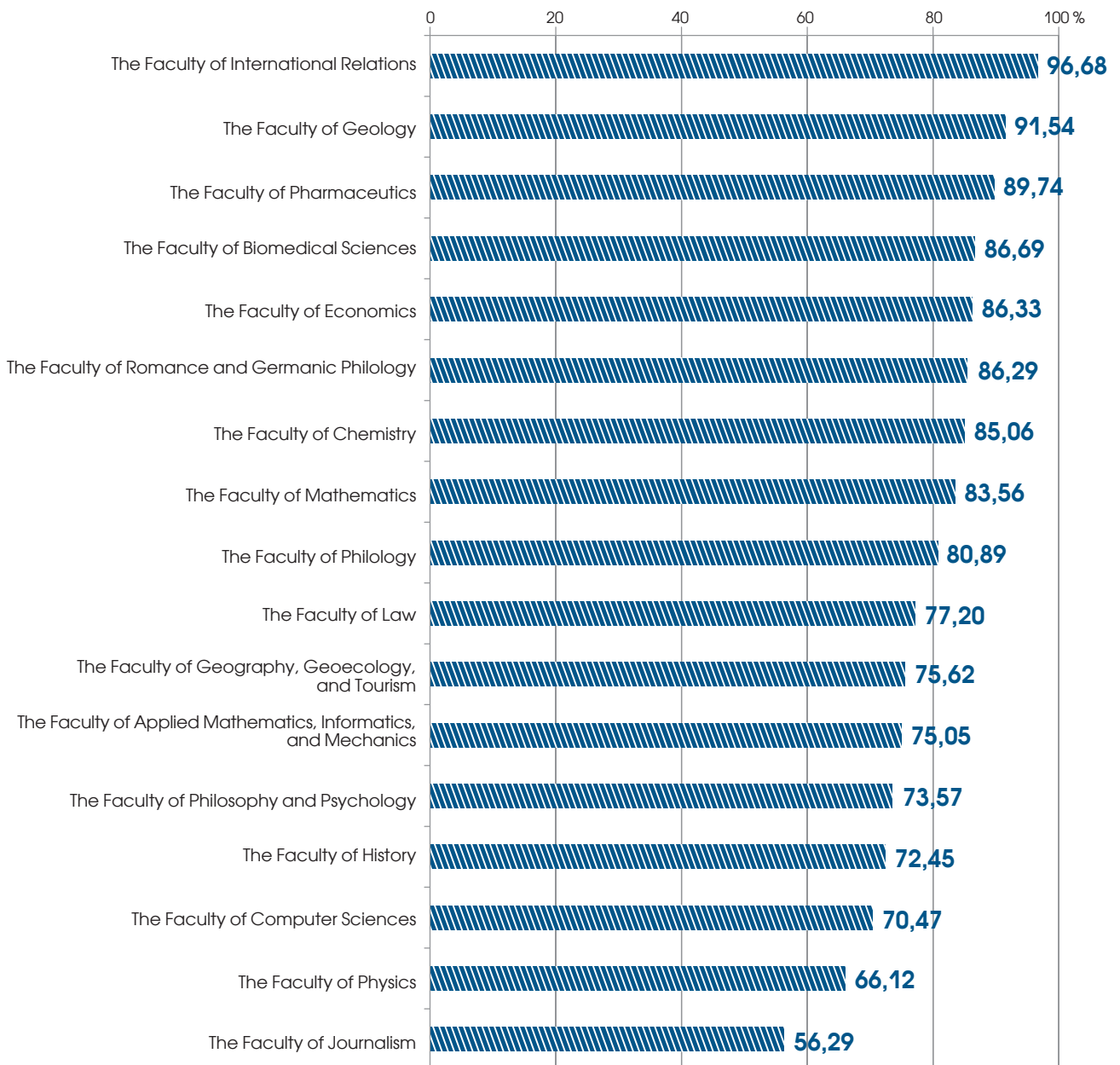
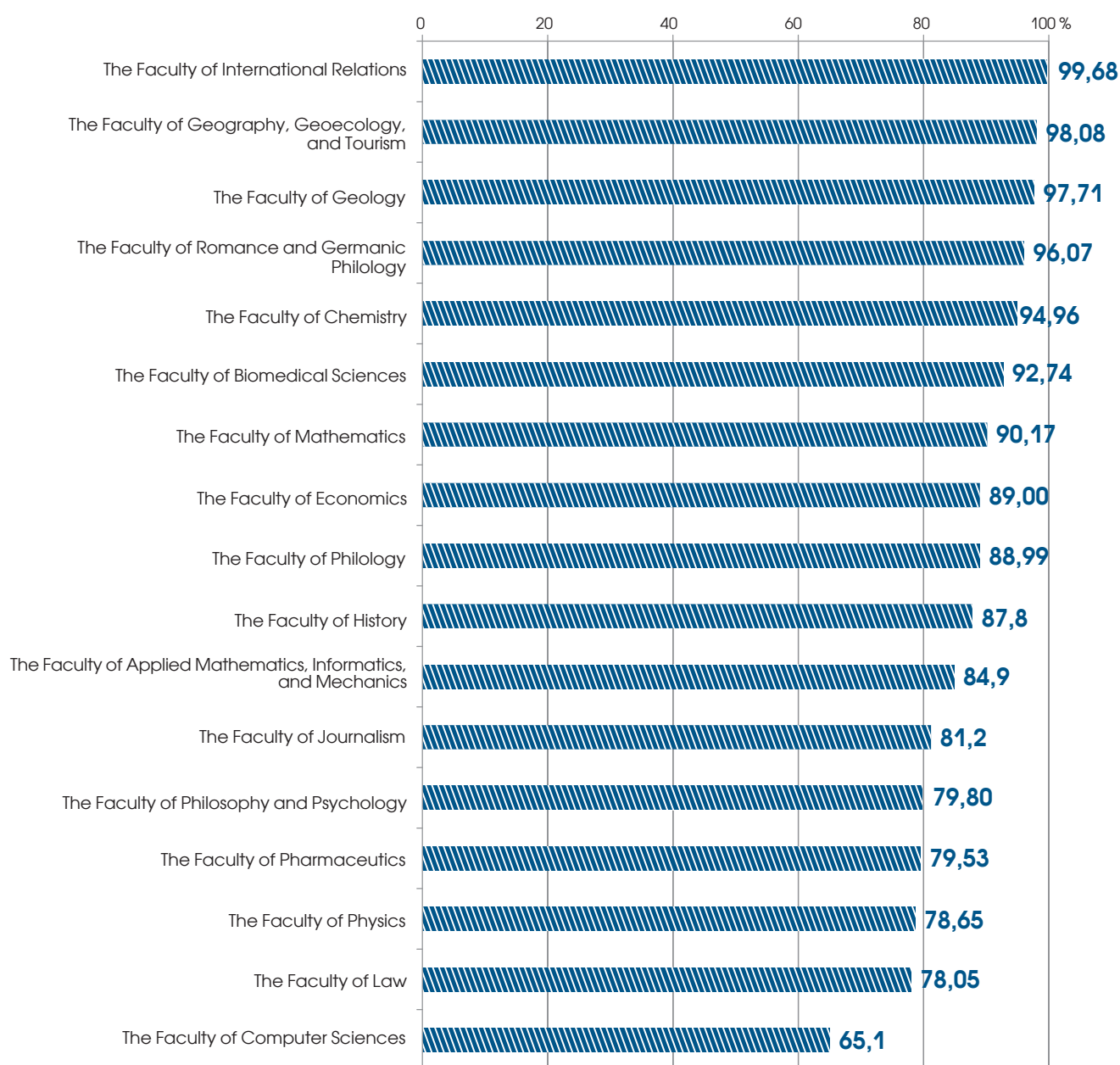


Figure 4.20

ACADEMIC PERFORMANCE OF ALL UNIVERSITY STUDENTS
IN THE MID-YEAR EXAMINATIONS IN THE 2017/18 ACADEMIC YEAR
ACCORDING TO FACULTIES





STATE FINAL EXAMINATION

219 state examination committees worked during the state final examination. The number of students who passed the state final examination is as follows: 4,394 people, including 2,716 bachelor's degree students, 182 diploma degree students, 1,240 master's degree students, 128 PhD students, and 128 secondary vocational education (SVE) specialists (Table 4.15).

Table 4.15

DISTRIBUTION OF STUDENTS ACCORDING TO THE MODES OF STUDY AND DEGREE LEVELS IN 2018

Study option	Bachelors		Specialists		Masters		Secondary vocational education		Postgraduate training
	excellent	Total	excellent	Total	excellent	Total	excellent	Total	Total
Full-time	434	2,283	31	129	517	1,073	25	128	128
Extramural	24	331	1	35	41	149			
Part-time	12	102	0	18	9	18			
Totals	470	2,716	32	182	567	1,240	25	128	128

SATISFACTION WITH THE QUALITY OF EDUCATION

Undergraduate and postgraduate students, academic staff members, and other participants of the educational process are annually surveyed in order to identify the level of satisfaction with the quality of education.

In 2018, the survey was participated in by 2,016 students. According to the results of the survey, the level of satisfaction of students remained stable (0.5 index, which is a 0.02 decrease as compared to 2017). The results are displayed in Table 4.16.

Table 4.16

SATISFACTION OF VSU STUDENTS WITH EDUCATIONAL PROCESS ELEMENTS IN INDICES IN 2018

Assessed aspects	VSU students' answers indices
Quality of academic timetables (accuracy, layout)	+0.57
Attitude to students shown by the lecturers of the same faculty	+0.78
Attitude to students shown by the lecturers of other faculties	+0.57
Educational facilities (availability, accessibility, etc.)	+0.5
Attitude of the dean's office personnel to the difficulties which students might experience with their studies	+0.55
Level of teaching special disciplines (application of new methods, facilities, interactivity, etc.)	+0.56
Level of teaching general theoretical disciplines	+0.77
Level of teaching Social Sciences and Humanities	+0.72
Content of disciplines within the speciality: the question is answered only by the students who study these disciplines	+0.67
Attitude to students shown by the educational support personnel	+0.63
Availability of study materials at the library	+0.55
Availability of the electronic materials within the speciality from PC	+0.43
Attitude to students shown by the library personnel	+0.61
Availability of modern computers at the faculty	+0.26
Access to computer software and its quality	+0.38
Catering services in the university building (opening hours, prices, range of dishes, quality of food, etc.)	+0.19
Medical care and health services (health unit opening hours)	+0.06
Volume of the study load	+0.46
Gaps in the timetable	+0.38
Availability of elective courses	+0.42
Availability of tools and equipment in laboratories	+0.37
Availability of places in classrooms	+0.66
General assessment of the educational process	+0.73



The students, as usual, highly praised the attitude shown by the teaching staff at their faculties. The attitude of the dean's office personnel to the difficulties which students might experience with their studies has improved. Special attention should be paid to an increase in the satisfaction of students with the quality of the timetable and the level of teaching of general theoretical disciplines. All in all, as of 2018, despite stability in some aspects, there is a decrease in the level of students' satisfaction with the quality of computers, the accessibility of electronic materials within the speciality, the equipment used in the educational process, and the variety of elective courses. Students gave low ratings to the university's catering services and the quality of medical and health services.

The survey was also conducted among academic staff members. In 2018, 319 people participated in the survey. It was established that the index of the academic staff members satisfied with their job amounts to 0.38 which is 0.02 lower than the 2017 rate. Most academic staff members are dissatisfied with the volume of academic load, the necessity to combine teaching and research activities, the salary, and the low job prestige.

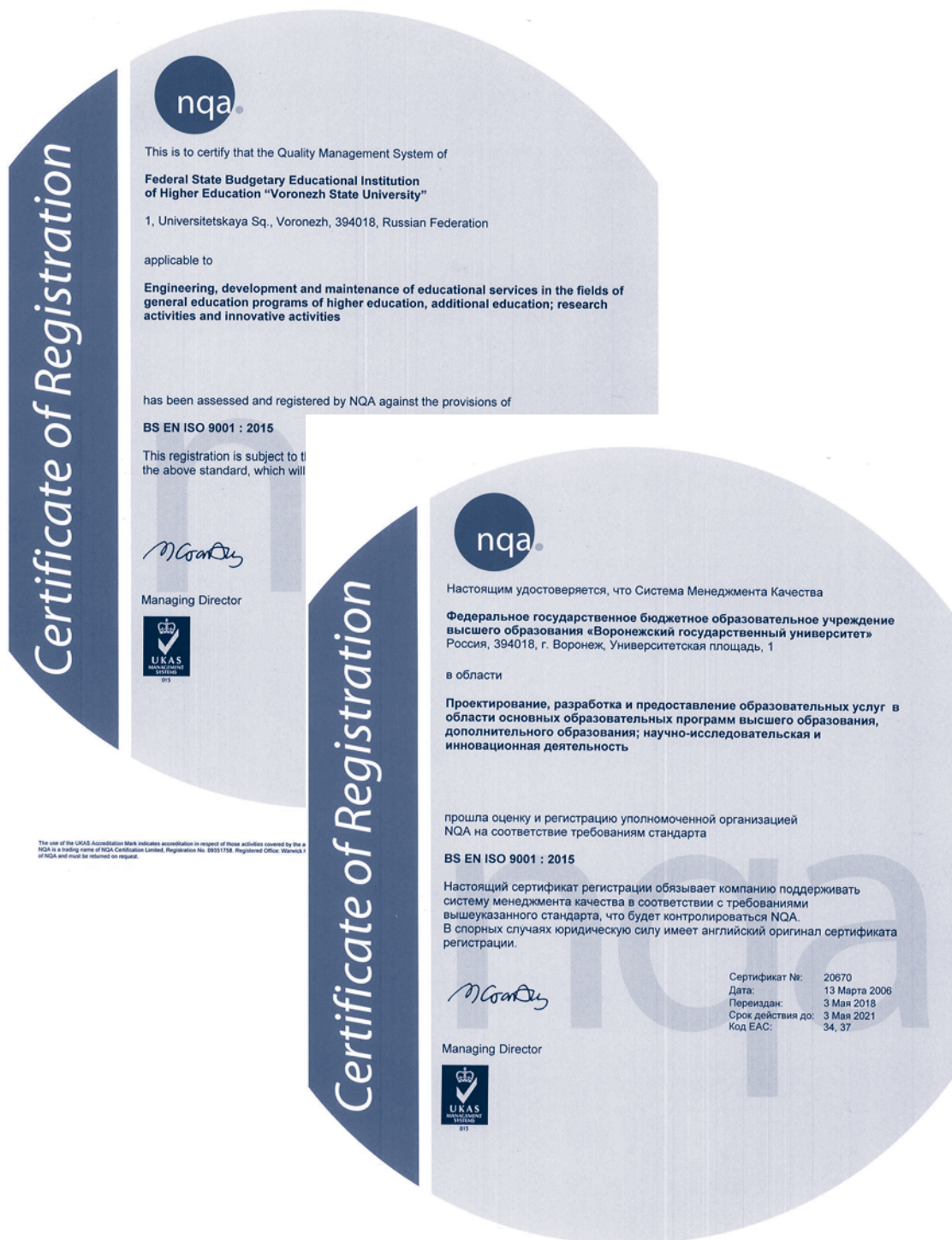
VSU has used the quality management system for over 10 years, which allows maintaining the quality of management in accordance with international standards.

In March 2018, the university's quality management system was assessed and registered by the authorised organisation NQA (Tomsk) which checked its compliance with the international standard ISO 9001:2015 in the following areas: designing, developing and providing educational services in the area of main higher education and further education programmes, research, and innovative activities (fig. 4.21). The audit involved 11 subdivisions, including 5 faculties. The auditors confirmed that the university had maintained the quality management system. The results of the visit were satisfactory and all the goals were achieved. The audit did not expose any nonconformances and opportunities for improvement were highlighted.

Furthermore, within the recertification audit of the quality management system, advanced training courses for the university staff were held within the programme "Theory and practice of the quality management systems based on the international standard ISO 9001-2015. Internal Audit of the Quality Management System".

Figure 4.21

CERTIFICATE BY THE INTERNATIONAL COMPANY NQA (NATIONAL QUALITY ASSURANCE, THE UK)





In 2018, for the fourth time, VSU took part in and won the contest "Voronezh Quality", a local stage of the national contest "100 Best Russian Products" (fig.4.22). The organisers of the contest (the government of the Voronezh region, the Voronezh Centre for Standardisation and Metrology, and Regional Quality Commission) assessed educational services by such criteria as their quality, safety, attractiveness, functional acceptability, cost, etc.

Figure 4.22

DIPLOMA OF A LAUREATE OF THE CONTEST
"VORONEZH QUALITY", 2018



In 2018, Voronezh State University was among the laureates of the 21st National Contest "100 Best Russian Products". The information about these goods and services is published in the annual catalogue and on the official website of the programme "100 Best Russian Products" (fig. 4.23). The laureates of the contest are awarded with the right to label their products and services with the logo of the programme "100 Best Russian Products" and publish it in their documentation for two years.

Figure 4.23

CERTIFICATE OF A LAUREATE OF THE 21ST NATIONAL CONTEST
"100 BEST RUSSIAN PRODUCTS", 2018





To commemorate its centenary, Voronezh State University also received an honorary diploma for high achievements in the area of providing quality services in the system of higher education (fig. 4.24).

Figure 4.24

HONORARY DIPLOMA DEDICATED TO THE CENTENARY
OF VORONEZH STATE UNIVERSITY FOR HIGH ACHIEVEMENTS
IN THE AREA OF PROVIDING QUALITY SERVICES IN THE SYSTEM
OF HIGHER EDUCATION



In 2018, the quality of education continued to undergo independent assessment by the introduction of the employers and representatives of professional communities into the educational process. The Federal Service for Supervision in the Sphere of Science and Education carried out an independent assessment of student knowledge. VSU's higher education programmes underwent public and professional accreditation.

Among the participants of the independent assessment of student knowledge were students from the Faculty of Computer Sciences, the Faculty of International Education, the Faculty of Philosophy and Psychology, and the Faculty of Physics. They proved the objectiveness of the assessment of the knowledge they get at VSU.



In 2018, 4 programmes of the Faculty of Physics passed professional and public accreditation by the Intersectoral Association of Nanoindustry:

- 11.03.04 Electronics and Nanoelectronics: “Nanotechnologies in Electronics” (bachelor’s degree programme).
- 11.03.04 Electronics and Nanoelectronics: “Integrated Electronics and Nanoelectronics” (bachelor’s degree programme).
- 11.04.04 Electronics and Nanoelectronics: “Nanotechnologies in Electronics” (master’s degree programme).
- 11.04.04 Electronics and Nanoelectronics: “Integrated Electronics and Nanoelectronics” (master’s degree programme) (fig. 4.25–4.28).

Figure 4.25

CERTIFICATE OF PROFESSIONAL AND PUBLIC ACCREDITATION OF THE EDUCATION PROGRAMME “NANOTECHNOLOGIES IN ELECTRONICS” (BACHELOR’S DEGREE PROGRAMME)




 <p>НАЦИОНАЛЬНЫЙ СОВЕТ ПРИ ПРЕЗИДЕНТЕ РОССИЙСКОЙ ФЕДЕРАЦИИ ПО ПРОФЕССИОНАЛЬНЫМ КВАЛИФИКАЦИЯМ</p>	 <p>Межотраслевое Объединение Наноиндустрии</p>
<p>СВИДЕТЕЛЬСТВО о профессионально-общественной аккредитации образовательной программы</p> <p>(действительно при наличии приложения)</p>	
Дата выдачи: 29 июня 2018 г.	
Регистрационный номер свидетельства: ПОА-003.41	
Наименование аккредитующей организации: Некоммерческое партнерство «Межотраслевое объединение наноиндустрии»	
Регистрационный номер аккредитующей организации в Национальном реестре профессионально-общественной аккредитации (http://nspk-poa.ru): 003	
Наименование и юридический адрес организации, осуществляющей образовательную деятельность: федеральное государственное бюджетное образовательное учреждение высшего образования «Воронежский государственный университет» Российская Федерация, 394018, г. Воронеж, Университетская площадь, 1	
Наименование образовательной программы: Нанотехнология в электронике (бакалавриат) <i>по направлению подготовки 11.03.04 «Электроника и наноэлектроника»</i>	
Срок действия свидетельства: до 29 июня 2021 г.	
Генеральный директор НП «Межотраслевое объединение наноиндустрии»	 / О.А.Крюкова /



Figure 4.26

CERTIFICATE OF PROFESSIONAL AND PUBLIC ACCREDITATION OF THE EDUCATION PROGRAMME "INTEGRATED ELECTRONICS AND NANOELECTRONICS" (BACHELOR'S DEGREE PROGRAMME)




	НАЦИОНАЛЬНЫЙ СОВЕТ ПРИ ПРЕЗИДЕНТЕ РОССИЙСКОЙ ФЕДЕРАЦИИ ПО ПРОФЕССИОНАЛЬНЫМ КВАЛИФИКАЦИЯМ		Межотраслевое Объединение Наноиндустрии
СВИДЕТЕЛЬСТВО о профессионально-общественной аккредитации образовательной программы (действительно при наличии приложения)			
Дата выдачи: 29 июня 2018 г.			
Регистрационный номер свидетельства: ПОА-003.43			
Наименование аккредитующей организации: Некоммерческое партнерство «Межотраслевое объединение наноиндустрии»			
Регистрационный номер аккредитующей организации в Национальном реестре профессионально-общественной аккредитации (http://nspk-poa.ru): 003			
Наименование и юридический адрес организации, осуществляющей образовательную деятельность: федеральное государственное бюджетное образовательное учреждение высшего образования «Воронежский государственный университет» Российская Федерация, 394018, г. Воронеж, Университетская площадь, 1			
Наименование образовательной программы: Интегральная электроника и нанoeлектроника (бакалавриат) по направлению подготовки 11.03.04 «Электроника и нанoeлектроника»			
Срок действия свидетельства: до 29 июня 2021			
Генеральный директор НП «Межотраслевое объединение наноиндустрии»			/ О.А.Крюкова /

Figure 4.27




CERTIFICATE OF PROFESSIONAL AND PUBLIC ACCREDITATION
OF THE EDUCATION PROGRAMME "NANOTECHNOLOGIES
IN ELECTRONICS" (MASTER'S DEGREE PROGRAMME)

	НАЦИОНАЛЬНЫЙ СОВЕТ ПРИ ПРЕЗИДЕНТЕ РОССИЙСКОЙ ФЕДЕРАЦИИ ПО ПРОФЕССИОНАЛЬНЫМ КВАЛИФИКАЦИЯМ		Межотраслевое Объединение Наноиндустрии
<p>СВИДЕТЕЛЬСТВО о профессионально-общественной аккредитации образовательной программы</p> <p>(действительно при наличии приложения)</p>			
Дата выдачи: 29 июня 2018 г.			
Регистрационный номер свидетельства: ПОА-003.42			
Наименование аккредитующей организации: Некоммерческое партнерство «Межотраслевое объединение наноиндустрии»			
Регистрационный номер аккредитующей организации в Национальном реестре профессионально-общественной аккредитации (http://nspk-poa.ru): 003			
Наименование и юридический адрес организации, осуществляющей образовательную деятельность: федеральное государственное бюджетное образовательное учреждение высшего образования «Воронежский государственный университет» Российская Федерация, 394018, г. Воронеж, Университетская площадь, 1			
Наименование образовательной программы: Нанотехнология в электронике (магистратура) <i>по направлению подготовки 11.04.04 «Электроника и наноэлектроника»</i>			
Срок действия свидетельства: до 29 июня 2021 г.			
Генеральный директор НП «Межотраслевое объединение наноиндустрии»			/ О.А.Крюкова /



Figure 4.28

CERTIFICATE OF PROFESSIONAL AND PUBLIC ACCREDITATION OF THE EDUCATION PROGRAMME "INTEGRATED ELECTRONICS AND NANOELECTRONICS" (MASTER'S DEGREE PROGRAMME)

	НАЦИОНАЛЬНЫЙ СОВЕТ ПРИ ПРЕЗИДЕНТЕ РОССИЙСКОЙ ФЕДЕРАЦИИ ПО ПРОФЕССИОНАЛЬНЫМ КВАЛИФИКАЦИЯМ		Межотраслевое Объединение Наноиндустрии
СВИДЕТЕЛЬСТВО о профессионально-общественной аккредитации образовательной программы (действительно при наличии приложения)			
Дата выдачи: 29 июня 2018 г.			
Регистрационный номер свидетельства: ПОА-003.44			
Наименование аккредитующей организации: Некоммерческое партнерство «Межотраслевое объединение наноиндустрии»			
Регистрационный номер аккредитующей организации в Национальном реестре профессионально-общественной аккредитации (http://nspk-poa.ru): 003			
Наименование и юридический адрес организации, осуществляющей образовательную деятельность: федеральное государственное бюджетное образовательное учреждение высшего образования «Воронежский государственный университет» Российская Федерация, 394018, г. Воронеж, Университетская площадь, 1			
Наименование образовательной программы: Интегральная электроника и наноэлектроника (магистратура) по направлению подготовки 11.04.04 «Электроника и наноэлектроника»			
Срок действия свидетельства: до 29 июня 2021 г.			
Генеральный директор НП «Межотраслевое объединение наноиндустрии»			/ О.А.Крюкова /



In December 2018, all-Russian public organization “Association of Russian Lawyers” held professional and public accreditation of education programmes at the Faculty of Law. It made a favourable conclusion regarding higher education programmes: bachelor’s, master’s, and PhD programmes.

In 2018, new local documents regulating the activities of the university’s subdivisions were developed and introduced (over 300 documents) (Table 4.17).

Table 4.17

LOCAL UNIVERSITY DOCUMENTS PUT INTO EFFECT IN 2018

Type of the document	Number
Standards	13
Documented procedure	1
Regulations	67
Regulations on structural subdivisions	40
Instructions	23
Rules	4
Job descriptions	5
Forms	111
Plans	6
Quality manual	1
Catalogue	1
Procedures	1



4.10. MAIN ACHIEVEMENTS OF THE UNIVERSITY IN THE FIELD OF EDUCATIONAL ACTIVITIES

1. There was consistent growth in the number of education programmes.

In 2018, VSU obtained license for the following new programmes: 15.03.06 Mechatronics and Robotics, 42.03.05 Media Communications, 40.05.04 Judicial and Prosecutorial Activities, 09.04.03 Applied Computer Science, 33.04.01 Industrial Pharmacy, and 42.04.05 – Media Communications.

The following programmes were developed and approved: 3 bachelor's programmes: "Theory Basis of Non-Clinical Study of Medicinal Products" (speciality 06.03.01 Biology), "Information Processing and Machine Learning" (speciality 09.03.02 Information Systems and Technologies), "Models and Methods of Digital Economy Analysis" (speciality 38.03.01 Economics).

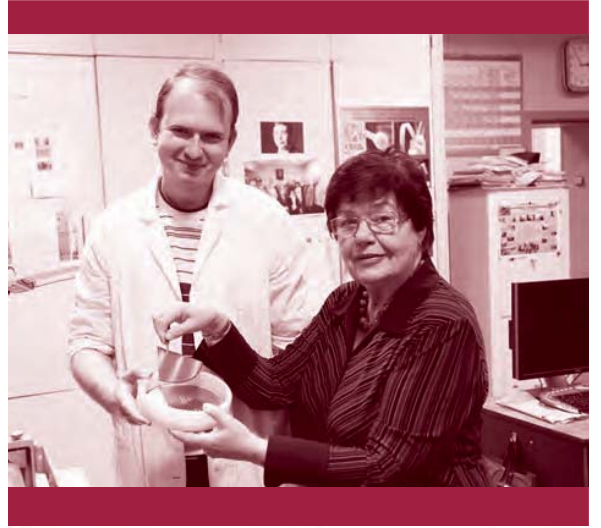
8 master's degree programmes: "Geoinformation Technologies and Earth Remote Probing" (speciality 05.04.06 Ecology and Natural Resource Management), "Genetic Engineering", "Biotechnology" (speciality 06.04.01 Biology), "Artificial Applied Intelligence Systems" (speciality 09.04.02 Information Systems and Technologies), "Health Care Accounting, Control, and Analysis" (speciality 38.04.01 Economics), "Health Care Management" (speciality 38.04.02 Management), "Russian Literature in Cultural and Pedagogical Aspects" (speciality 45.04.01 Philology), and "Philosophy of Creativity and Cultural Industries" (speciality 47.04.01 Philosophy);

1 programme for training top-qualified academic staff, PhD programme: "Non-Clinical Studies of Medicinal Products" (speciality 06.06.01 Biological Sciences).

2. The following specialities successfully underwent the state accreditation process: 31.02.04 Optical Eyecare (the Faculty of Physics), 30.05.01 Medical Biochemistry, 30.05.02 Medical Biophysics, 30.05.03 Medical Cybernetics (the Faculty of Biomedical Sciences), 37.05.02 Psychology of Employment Activities (the Faculty of Philosophy and Psychology), and 33.08.02 Management and Economics of Pharmacy (the Faculty of Pharmaceutics).



3. 4 programmes by the Faculty of Physics passed professional and public accreditation by the Intersectoral Association of Nanoindustry:
 - 11.03.04 Electronics and Nanoelectronics: “Nanotechnologies in Electronics” (bachelor’s degree programme).
 - 11.03.04 Electronics and Nanoelectronics: “Integrated Electronics and Nanoelectronics” (bachelor’s degree programme).
 - 11.04.04 Electronics and Nanoelectronics: “Nanotechnologies in Electronics” (master’s degree programme).
 - 11.04.04 Electronics and Nanoelectronics: “Integrated Electronics and Nanoelectronics” (master’s degree programme).
4. The Faculty of Law underwent the procedure of the professional public accreditation which was carried out by the all-Russian public organization “Association of Russian Lawyers”. It made a favourable conclusion regarding higher education programmes: bachelor’s, master’s, and PhD programmes.
5. In 2018, students from the Faculty of Computer Sciences, the Faculty of International Education, the Faculty of Philosophy and Psychology, and the Faculty of Physics took part in the independent assessment of quality of education conducted by the Federal Service for Supervision in Education and Science. The students proved the objectiveness of the assessment of the knowledge they get at VSU.
6. The first MOOC was created (“Modern chemical sources of currents” by O.A. Kozaderov).
7. For the first time, a team from Voronezh State University, consisting of a contestant and an expert, took part in the regional championship WorldSkills Russia of the Voronezh region in the area “Programming solutions for business”. The contestant was the winner of the qualifying stage of the National Professional Excellence Competition for students of the programme 09.02.03 Programming in Computer Systems. The expert was a lecturer from the Faculty of Mathematics.





**RESEARCH,
INNOVATIONS,
AND INFORMATISATION**

57



RESEARCH, INNOVATIONS, AND INFORMATISATION

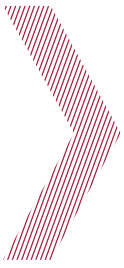


O.A. Kozaderov,
Vice Rector for Research
and Innovations

5.1. MAIN OBJECTIVES OF VSU IN THE AREA OF RESEARCH, INNOVATIONS, AND INFORMATISATION FOR 2018

In 2018, the main objectives of VSU in the area of research, innovations, and informatisation were the following.

1. To encourage VSU researchers to actively participate in various scientific contests and competitions organized by Russian research foundations, international and national projects, and federal target programmes.
2. To continue improving the scientific indices and publication records in Web of Science, Scopus, and Russian Science Citation Index databases.
3. To organise work aimed at getting VSU journals included in international databases, such as Web of Science and Scopus.
4. To monitor the effectiveness of applications for competitions within the framework of the Decrees of the Russian Government No218 (hi-tech production) and No.220 (mega-grants for leading researchers), federal target programmes, and the Innovation Cup regional competition.
5. To organise work aimed at implementing the programme for transforming VSU into the centre for innovative, technological, and social development of the region.
6. To coordinate and evaluate work of the Radio and Telecommunication System laboratory (Concern "Sozvezdie"), the Centre for the Development of Artificial Intelligence Technologies (Concern "Sozvezdie"), Molecular Biotechnology laboratory (GC "Efko"), and the laboratory of machine learning and big data analysis (PAO "Novolipetsk Steel").
7. To provide 90% of the administrative staff with use of the electronic document flow system and to increase the proportion of digital document usage within the University to 50%.
8. To continue the programme for strategic development of the VSU engineering centre "I-technology".

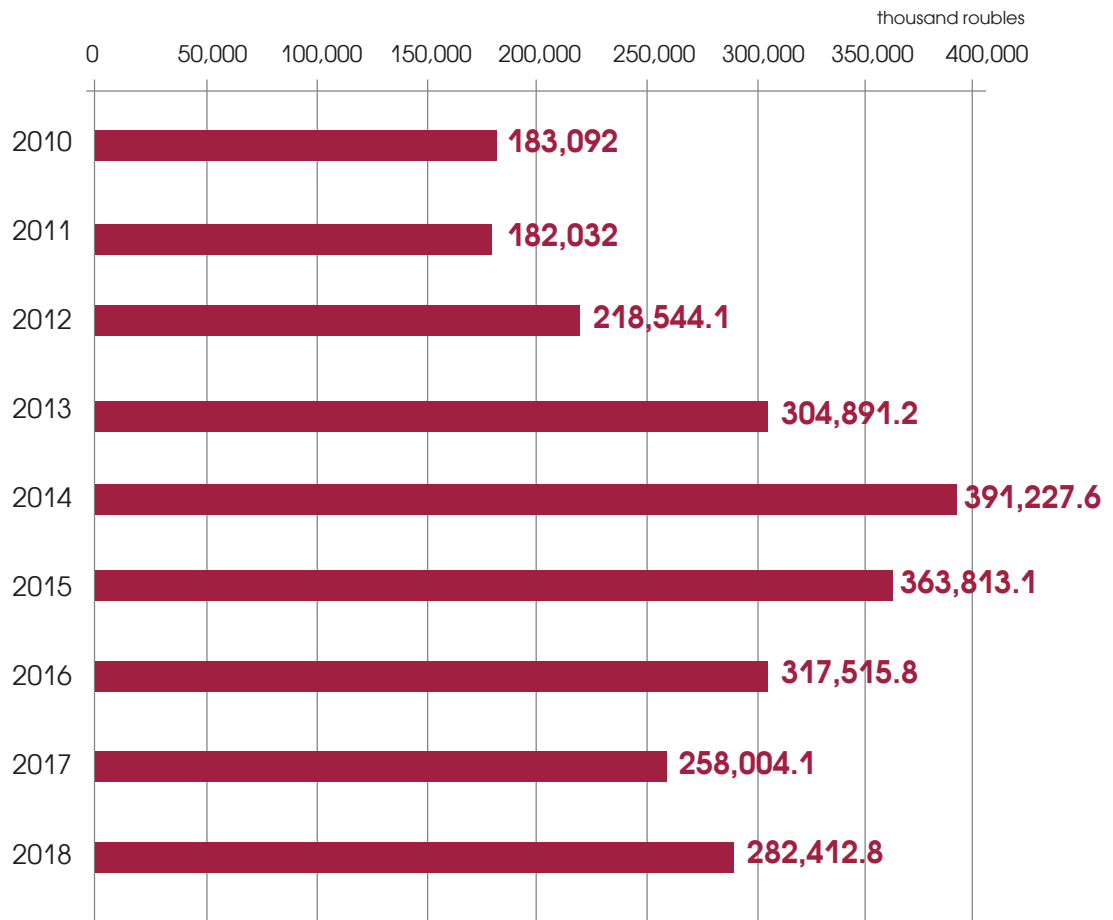


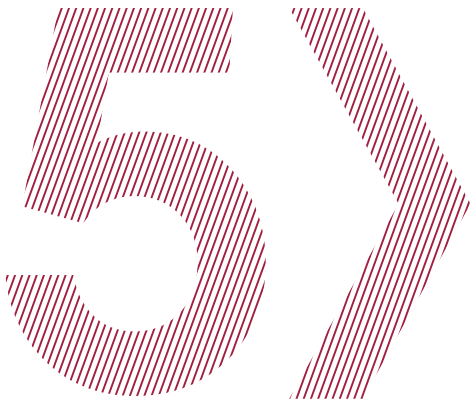
5.2. RESEARCH FUNDING IN 2010–2018

In 2018, total funding for research projects amounted to 282.4 million roubles, which is 24.4 million roubles more than the previous year (fig. 5.1).

Figure 5.1

RESEARCH FUNDING IN 2010–2018





5.3. VSU RESEARCH FUNDING IN 2018 BY SOURCE

Of the total sum invested in research: 51.1 million roubles (18.1%) was received for funding projects under the Government Order by the Ministry of Education and Science of the Russian Federation for higher education institutions in the area of scientific research; 38.3 million roubles (13.6%) for research and development in top-priority areas of science and technology in Russia for 2014-2020 Federal Target Programme; 30.8 million roubles (10.9%) from the grants of the Government of the Russian Federation for the state support of research conducted by the leading scientists in Russian educational institutes of higher education; and 84.9 million roubles (30.1%) constituted grants from the Russian foundations supporting scientific and technical research.

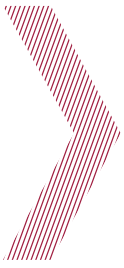
In 2018, state funding constituted 76.1% of the total funding. 20.7% came from industrial enterprises and other organisations that were interested in innovations and planned to implement within their production process the results of the research conducted at VSU.

The sources of VSU's research funds are listed in Table 5.1.

Table 5.1

SOURCES OF VSU'S RESEARCH FUNDS IN 2018

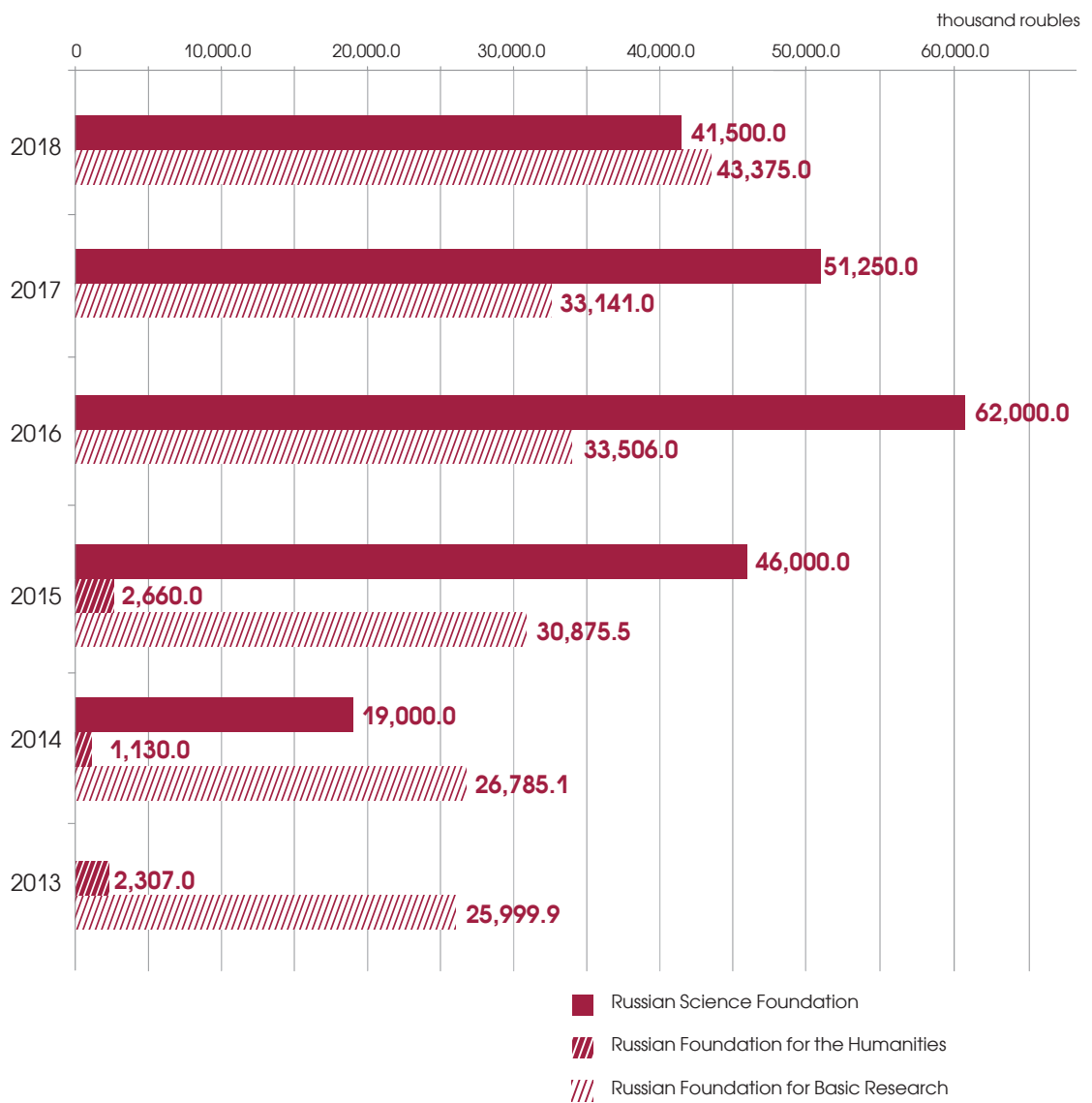
Sources of funding	Percentage
The Ministry of Science and Higher Education of the Russian Federation	45.0
Russian foundations supporting scientific and technical research and innovations	30.1
Federation subjects and local budget	1.1
Russian economic entities	20.7
Other Russian non-budgetary sources and VSU funds	2.3
International sources	0.8



Research funding coming from Russian scientific foundations is shown in Figure 5.2.

Figure 5.2

RESEARCH FUNDING COMING FROM RUSSIAN SCIENTIFIC FOUNDATIONS





5.4. PAPERS PUBLISHED BY THE VSU'S ACADEMIC STAFF IN 2018

Table 5.2

PAPERS PUBLISHED BY THE VSU'S ACADEMIC STAFF AS OF 21 FEBRUARY 2019

No.	Indicator	2017	2018
1	Published articles (database "Academic staff articles")	4,705	4,769
2	Published articles (Russian Science Citation Index database)	4,346	4,966
3	Total number of citations (Russian Science Citation Index database)	11,839	16,083
4	Total H-index (Russian Science Citation Index database)	108 (25th place)	119 (24th place)
5	Articles published in journals indexed by Web of Science	234	301
6	Total number of citations per year (Web of Science)	1,850	2,227
7	Articles published in journals indexed by Scopus	390	397
8	Total number of citations per year (Scopus)	395	397

Some more data from the Academic staff articles database:

- Number of monographs: 2017 (80), 2018 (113)
- Number of text books: 2017 (394), 2018 (415).

Table 5.3

FACULTIES LISTED ACCORDING TO THE HIRSH INDEX
(RUSSIAN SCIENCE CITATION INDEX DATA) AS OF 14 FEBRUARY 2019

No.	Name	Hirsh index	
		2017	2018
1	The Faculty of Law	64	70
2	The Faculty of Philology	54	60
3	The Faculty of Economics	48	51
4	The Faculty of Biomedical Sciences	39	45
5	The Faculty of Physics	36	42
6	The Faculty of Romance and Germanic Philology	37	40
7	The Faculty of Mathematics	32	36
8	The Faculty of Geology	31	36
9	The Faculty of Chemistry	32	34
10	The Faculty of History	31	33
11	The Faculty of Applied Mathematics, Informatics, and Mechanics	26	30
12	The Faculty of Geography, Geoecology, and Tourism	24	29
13	The Faculty of Philosophy and Psychology	22	26
14	The Faculty of Journalism	23	25
15	The Faculty of Computer Sciences	22	23
16	The Faculty of Pharmaceutics	16	20
17	International Education Institute	17	18
18	The Faculty of International Relations	13	16
19	The Faculty of Military Education	3	3

The data presented in Table 5.3 was taken from the eLibrary's section on the publications records of the VSU departments (eLIBRARY.ru).



Table 5.4

AUTHORS LISTED ACCORDING TO THE HIRSH INDEX
(RUSSIAN SCIENCE CITATION INDEX DATA)

No.	Name	Hirsh index
1	Iosif A. Sternin	52
2	Yury N. Starilov	35
3	Dmitry A. Endovitsky	34
4	Oleg Ya. Baev	31
5	Natalia V. Sirotkina	31
6	Yury I. Tereshevsky	30
7	Arkady D. Savko	28
8	Marina V. Sentsova (Karaseva)	27
9	Nikolay L. Manakov	26
10	Evelina P. Domashevskaya	24
11	Nikolay P. Lyubushin	24
12	Vladimir B. Mikhno	23
13	Mikhail V. Frolov	22
14	Oleg P. Negrobov	21
15	Viktoria I. Tinyakova	21
16	Anatoly G. Baskakov	20
17	Stanislav G. Kadmsky	20
18	Alexey N. Borisov	20
19	Alexey A. Kretov	20
20	Mikhail I. Retsky	20
21	Igor E. Risin	20
22	Vladimir F. Selemenev	20
23	Vladimir A. Shaposhnik	20
24	Pavel N. Burukov	19
25	Vera I. Vasilieva	19
26	Ludmila I. Grishaeva	19
27	Vyacheslav V. Provotorov	19
28	Pavel V. Seredin	19

Figure 5.3

NUMBER OF PAPERS BY VSU STAFF ACCORDING TO WEB OF SCIENCE CORE COLLECTION AS OF 23 FEBRUARY 2019

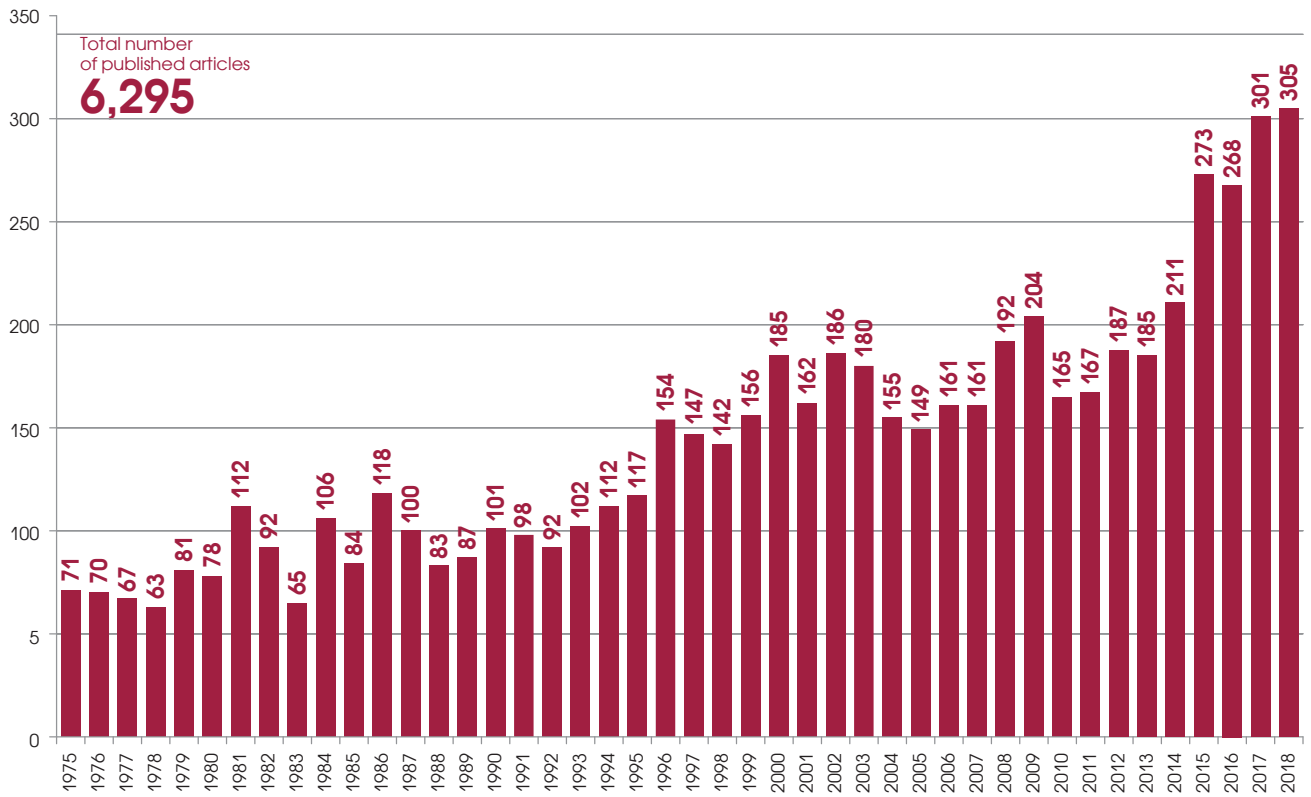
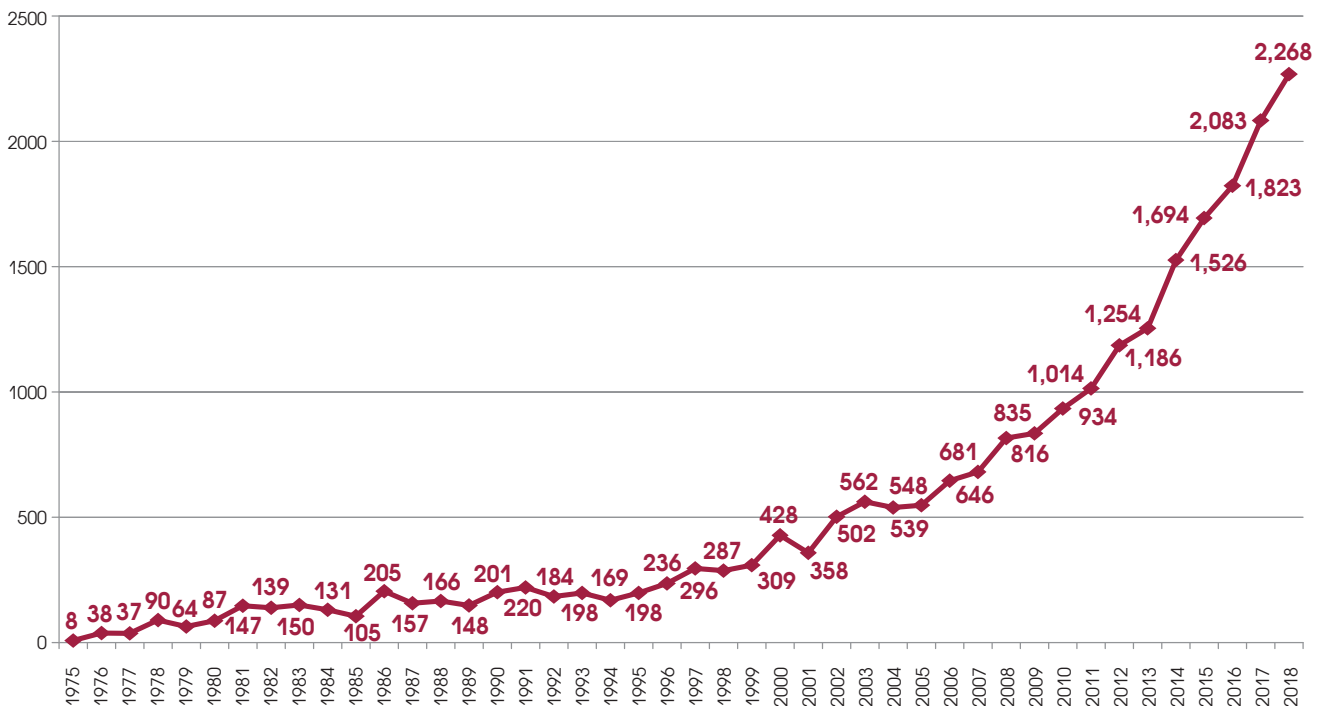


Figure 5.4

CITATION DATA ACCORDING TO WEB OF SCIENCE CORE COLLECTION AS OF 23 FEBRUARY 2019





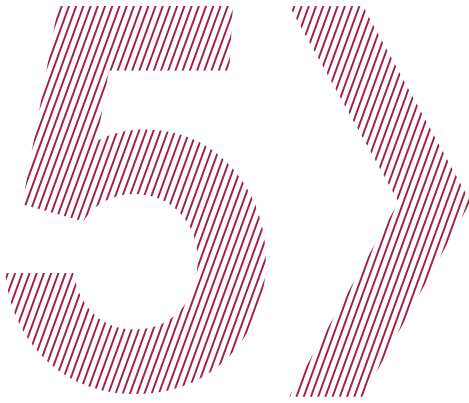
5.5. VSU ACADEMIC AND SCIENTIFIC SCHOOLS AND RESEARCH AREAS

RESEARCH IS CARRIED OUT WITHIN 28 MAJOR THEMATIC PRIORITIES IN THE FIELDS OF:

1. Analytical, geometrical, and numerical methods of studying differential equations.
2. Function theory and functional analysis.
3. Mathematical modelling, software and dataware, methods of numerical and applied mathematics in fundamental scientific research.
4. Deformable body and fluid mechanics.
5. Solid-state nanostructures. Physics of magnetic and ferroelectric phenomena. Semiconductors and semiconductor structures. Microwave solid-state devices.
6. Fundamental nuclear physics. Cosmic-ray physics and the nuclear aspects of astrophysics. Nuclear physics issues.
7. Fundamental issues of material-radiation interaction.
8. Issues of information transfer, acquisition, processing, and storage. Radioelectronic device electromagnetic compatibility.
9. High-temperature processes in chemistry and materials science.
10. Catalysis, phase equilibrium, physical and chemical processes in solutions, melts, and solid bodies.
11. Surface phenomena, colloids and nanoparticles, clusters.
12. Directed synthesis and extraction of physiologically active chemical compounds and special-purpose substances. Bioactive natural and non-natural substances and low-molecular bioregulators.
13. Ecological, physiological, physical and chemical foundations of interaction between biosystems and the environment.



14. Soil genesis and evolution influenced by natural and anthropogenic factors.
15. The deep structure of the Earth's crust, geodynamics, magma generation and deposit generation, and accumulation conditions in the Precambrian in platform sedimentary basins and fold belts.
16. Ecological and geographical aspects of the interaction between society and the environment.
17. The scientific foundation of social and economic policies and business practice.
18. Economics management system: emergence and development.
19. Individuals as subjects of social change: social, humanitarian, and psychological concerns.
20. Archaeology and ethnography of the Central Black Earth Region.
21. Russian and European History.
22. International literatures and languages and their interaction. The issue of international communication.
23. A contrastive-comparative study of Germanic, Romance, and Slavic languages and cultures.
24. Mass media history, theory and practice.
25. The Russian state and its legal framework: modern development, concerns and prospects.
26. Educational processes in the changing sociocultural environment, acmeology.
27. Social and political processes, crises, conflicts.
28. The theory, methodology, and policies of accounting, analysis, and monitoring the activity of economic entities.



THERE ARE 41 ACADEMIC AND SCIENTIFIC SCHOOLS AT VSU

1. Topological methods in nonlinear analysis

Founded by Professor Yu.G. Borisovich, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation

Head Researcher: Professor V.G. Zvyagin, DSc in Physics and Mathematics

2. Mathematical analysis

Head Researcher: Professor E.M. Semyenov, DSc in Physics and Mathematics

3. Differential equations, optimal management and nonlinear oscillation theory

Head Researcher: Professor A.I. Perov, DSc in Physics and Mathematics

4. Qualitative methods for boundary value problems in complex environment and spatial networks

Founded by Professor Yu.V. Pokorny, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation

5. Solid Mechanics

Head Researcher: Professor A.N. Sporykhin, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation

6. Theoretical physics (fundamental issues of interaction of optical radiation with atoms and molecules)

Head Researcher: Professor B.A. Zon, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation

7. Radiophysics (enhancing electromagnetic compatibility of radio-electronic equipment by improving the radio receiving equipment and its elements)

Head Researcher: Professor E.A. Alginov, DSc in Physics and Mathematics

8. Statistical informatics and radiophysics

Founded by Professor A.P. Trifonov, DSc in Technical Sciences, Honoured Scientist of the Russian Federation

9. Photostimulated processes on crystals with ion and covalent bonds

Head Researcher: Professor A.N. Latyshev, DSc in Physics and Mathematics

10. Electron Structure of Condensed Matter

Head Researcher: Professor E.P. Domashevskaya, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation, Associate member of the Russian Academy of Sciences

11. Nuclear and condensed matter physics

Head Researcher: Professor S.G. Kadmsky, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation



12. Chemistry (directed synthesis of physiologically active chemical compounds, polymer, and their special-purpose dispersion)

Head Researcher: Professor G.V. Shatalov, DSc in Chemistry

13. Chemistry of solids and semiconductors, and processes in them and on the surface

Founded by Professor Ya.A. Ugai, DSc in Chemistry, USSR National Prize in Science laureate, Honoured Scientist of the Russian Federation, Full Member of the International Academy of Higher Education

14. Chemistry of ion-exchange and membrane processes

Head Researcher: Professor V.F. Selemenev, DSc in Chemistry, Honoured Scientist of the Russian Federation

15. Electrochemistry and electrochemistry of alloys

Founded by Professor I.K. Marshakov, DSc in Chemistry, Honoured Scientist of the Russian Federation

16. Solid state chemistry (physicochemistry of heterogeneous equilibria)

Head Researcher: Professor E.G. Goncharov, DSc in Chemistry

17. Biophysics (the functioning of complex (oligomeric) protein systems in various microenvironments)

Head Researcher: Professor V.G. Artyukhov, DSc in Biology, Honoured Scientist of the Russian Federation

18. Classification, fauna, and ecology of invertebrates: entomology, ecology, hydrology, and parasitology

Head Researcher: Professor O.P. Negrobov, DSc in Biology

19. Plant metabolism organization and regulation

Head Researcher: Professor A.T. Epryntsev, DSc in Biology, Honoured Scientist of the Russian Federation

20. Soil studies (anthropogenic evolution of black soils)

Founded by Professor A.P. Scherbakov, DSc in Biology, Full Member of the Russian Academy of Agricultural Sciences, State Prize of the Russian Federation laureate, Honoured Scientist of the Russian Federation

Head Researcher: Professor D.I. Scheglov, DSc in Biology

21. Soil studies (soil genesis, evolution, structure, and biospheric functions)

Founded by Professor B. P. Akhtyrsev, DSc in Biology, Honoured Scientist of the Russian Federation

Head Researcher: Professor T.A. Dyatlova, DSc in Biology

22. Geodynamics, magmatism and metallogeny of the early Precambrian history of the Earth

The school is ranked among the top scientific schools of the Russian Federation (in 2008–2009 was included into state support programme for the leading scientific schools in Russia). Founded by Professor N.M. Chernyshov, DSc in Geology, Associate Member of the Russian Academy of Sciences, Honoured Scientist of the Russian Federation

23. Lithology and minerals of ancient platforms

Head Researcher: Professor A.D. Savko, DSc in Geology, Honoured Geologist of the Russian Federation

24. History

Head Researcher: Professor A.Z. Vinnikov, DSc in History

25. History

Head Researcher: Professor M. D. Karpachev, DSc in History, Honoured Scientist of the Russian Federation

26. Archaeology. East European forest-steppe archaeology

Head Researcher: Professor A.D. Pryakhin, DSc in History, Honoured Scientist of the Russian Federation



27. Economics theory and the world economy

Founded by Professor Yu.I. Khaustov, DSc in Economics

28. Labour market research methodology

Head Researcher: Professor I.T. Korogodin, DSc in Economics

29. Management

Founded by Professor V.N. Eytington, PhD in Economics, Honoured Economist of the Russian Federation

30. Philosophy. Philosophy of Science

Head Researcher: Professor A.S. Kravetz, DSc in Philosophy, Honoured Scientist of the Russian Federation

31. Russian literature studying and teaching

Head Researcher: Professor V.M. Akatkin, DSc in Philology, Honoured Scientist of the Russian Federation

32. Literary studies (literary anthropology and author's role in Russian literature of the 19th century)

Founded by Professor B.T. Udodov, DSc in Philology, Honoured Scientist of the Russian Federation

33. History of journalism

Head Researcher: Professor L.E. Kroichik, DSc in Philology

34. Linguistics. Slavic onomastics

Head Researcher: Professor G.F. Kovalev, DSc in Philology

35. Linguistics (Romance and Germanic languages)

Founded by Professor Yu.A. Rylov, DSc in Philology

36. World and Russian linguistics

Founded by Professor Z.D. Popova, DSc in Philology, Honoured Scientist of the Russian Federation

37. Physical geography, geophysics, and landscape geochemistry

Head Researcher: Professor V.I. Fedotov, DSc in Geography

38. Legal science

Head Researcher: Professor Yu.N. Starilov, DSc in Law, Honoured Scientist of the Russian Federation

39. Pedagogical sciences

Head Researcher: Professor N.I. Vyunova, DSc in Pedagogics

40. Political Sciences

Head Researcher: Professor A.V. Glukhova, DSc in Politics

41. Physicochemistry and technology of thin-film materials and nanomaterials

The school is ranked among the top scientific schools of the Russian Federation (in 2006–2010 was included into state support programme for the leading scientific schools in Russia). Head Researcher: Professor V.M. Ievlev, DSc in Physics and Mathematics, Full Member of the Russian Academy of Sciences

5.6. VSU DISSERTATION COMMITTEES' PERFORMANCE

In 2018, 15 dissertation boards in 32 fields of study were operating at VSU. There were also 5 joint dissertation boards operating in 9 fields of study (Table 5.5).

Table 5.5

DISSERTATION BOARDS AS OF 1 JANUARY 2019

Code of the dissertation board, fields of study	Chairperson, Academic Secretary, contacts
D 212.038.01 09.00.01 Ontology and Epistemology 09.00.11 Social Philosophy	Alexander S. Kravets , Chairperson Irina Yu. Tikhonova , Academic Secretary Phone: +7 (473) 255-08-57 E-mail: dekanat@phypsy.vsu.ru
D 212.038.03 03.01.04 Biochemistry 03.01.02 Biophysics	Valeriy G. Artyukhov , Chairperson Margarita Yu. Grabovich , Academic Secretary Phone: +7 (473) 220-89-81 E-mail: artyukhov@bio.vsu.ru
D 212.038.06 01.04.02 Theoretical Physics 01.04.05 Optics 01.04.07 Condensed Matter Physics	Oleg V. Ovchinnikov , Chairperson Sergey N. Drozhdin , Academic Secretary Phone: +7 (473) 220-86-25 E-mail: drozhdin@phys.vsu.ru
D 212.038.07 10.02.01 Russian Language 10.02.19 Linguistic Theory	Alexey A. Krefov , Chairperson Inna A. Merkulova , Academic Secretary Phone: +7 (473) 276-92-61 E-mail: a_a_krefov@rambler.ru
D 212.038.08 02.00.01 Inorganic Chemistry 02.00.04 Physical Chemistry 02.00.05 Electrochemistry	Alexander V. Vvedensky , Chairperson Boris V. Sladkopezhev , Academic Secretary Phone: +7 (473) 220-85-46 E-mail: dp-kmins@yandex.ru
D 212.038.10 01.04.03 Radiophysics 01.04.10 Semiconductor Physics 05.13.01 System Analysis, Management and Information Processing (Radioengineering, Automatics, Communications)	Vladimir A. Terekhov , Chairperson Vladislav A. Stepkin , Academic Secretary Phone: +7 (473) 220-83-63 E-mail: stepkin@phys.vsu.ru
D 212.038.12 07.00.02 Russian History 07.00.06 Archaeology	Mikhail D. Karpachev , Chairperson Elena Yu. Zakharova , Academic Secretary Phone: +7 (473) 224-75-15 E-mail: m-karpach@mail.ru, ez@list.vsu.ru
D 212.038.14 10.01.01 Russian Literature 10.01.03 International Literature (Literature of the Countries of Germanic and Romance language families)	Viktor M. Akatkin , Chairperson Alexander A. Zhitenev , Academic Secretary Phone: +7 (473) 255-99-49, 220-89-41 E-mail: msv2012kafedra@yandex.ru, pravdukhina@phil.vsu.ru
D 212.038.15 08.00.01 Economics Theory 08.00.05 Economics and National Economy Management (by field and sphere of activity, including Labour Economics and Regional Economics)	Tatiana N. Gogoleva , Chairperson Galina V. Golikova , Academic Secretary Phone: +7 (473) 228-11-60 (IP 5130) E-mail: tgogoleva2003@mail.ru
D 212.038.16 10.02.05 Romance Languages 10.02.04 Germanic Languages	Natalia A. Fenenko , Chairperson Oxana M. Voevuskaya , Academic Secretary Phone: +7 (473) 253-22-38 E-mail: fenenko@rgph.vsu.ru
D 212.038.18 10.01.10 Journalism	Vladimir V. Tulupov , Chairperson Alexander A. Kazhikin , Academic Secretary Phone: +7 (473) 274-52-71 E-mail: vltul@mail.ru



End of table 5.5

Code of the dissertation board, fields of study	Chairperson, Academic Secretary, contacts
D 212.038.19 02.00.02 Analytical Chemistry 02.00.03 Organic Chemistry 02.00.21 Solid State Chemistry	Viktor N. Semenov , Chairperson Nadezhda V. Stolpovskaya , Academic Secretary Phone: +7 (473) 220-89-73 E-mail: kcmf@main.vsu.ru
D 212.038.20 05.13.17 Theory of Informatics 05.13.18 Mathematical Modelling, Numerical Methods and Program Systems	Alexander D. Baev , Chairperson Sergey A. Shabrov , Academic Secretary Phone: +7 (473) 220-86-18 E-mail: pokorny@kma.vsu.ru
D 212.038.22 (closed since 27.06.2018) 01.01.01 Substantial, Complex, and Functional Analysis 01.01.02 Differential Equations, Dynamical Systems, and Optimal Control	Evgeniy M. Semyonov , Chairperson Yuriy E. Gliklikh , Academic Secretary Phone: +7 (473) 220-86-65
D 212.038.23 08.00.12 Accounting, Statistics	Dmitry A. Endovitsky , Chairperson Tatiana A. Pozhidayeva , Academic Secretary Phone: +7 (473) 275-57-27 E-mail: endov@econ.vsu.ru
D 999.010.03 13.00.01 General Pedagogics, History of Pedagogics and Education 13.00.08 Theory and Methods of Vocational Education FSFEI HE "Voronezh State University" FSFEI HE "Lipetsk State Pedagogical University" FSFEI HE Zhukovsky and Gagarin Air Force Military Academic Centre (Voronezh)	Irina F. Berezhnaya , Chairperson Elena V. Krivotulova , Academic Secretary Phone: +7 (473) 255-72-01 E-mail: beregn55@mail.ru
D 999.104.03 12.00.01 Theory and History of State and Law, History of State and Law Studies 12.00.02 Constitutional Law, Constitutional Proceedings, Municipal Law 12.00.14 Administrative Law; Administrative Procedure FSAEI HE "Belgorod State National Research University" FSFEI HE "Voronezh State University" FSFEI HE "Oryol State University"	Evgeny E. Tonkov , Chairperson Yury N. Starilov , Vice Chairperson Alexey N. Nifanov , Academic Secretary Phone: +7 (4722) 30-11-93 E-mail: D999.104.03@bsu.edu.ru
D 999.109.03 05.13.01 System Analysis, Management and Information Processing (Radioelectronics, Automatics, Communications) 05.13.06 Automation and Control of the Technological Processes and Production (industry) FSFEI HE "Voronezh State Technical University" FSFEI HE "Voronezh State University" FSFEI HE "Lipetsk State Technical University"	Semen L. Podvalny , Chairperson Tatiana M. Ledeneva , Vice Chairperson Anatoly K. Pogodaev , Vice Chairperson Svetlana Yu. Beletskaya , Academic Secretary Phone: +7 (473) 243-77-18
D 999.159.03 08.00.05 Economics and National Economy Management (by field and sphere of activity, including Management, Economics, Organisation and Management of Enterprises, Industries, and Complexes: industry) FSFEI HE "South-Western State University" FSFEI HE "Oryol State University of Economics and Trade" FSFEI HE "Voronezh State University"	Yulia V. Vertakova , Chairperson Inna G. Parshutina , Vice Chairperson Vladimir I. Gurov , Vice Chairperson Yulia S. Polozhentseva , Academic Secretary Phone: +7 (4712) 22-26-46
D 999.191.02 01.02.04 Solid Mechanics (Physics and Mathematics, and Technical Sciences) FSFEI HPE "Tula State University" FSFEI HE "Voronezh State University"	Alexey A. Markin , Chairperson Alexander I. Shashkin , Vice Chairperson Vadim V. Glagolev , Academic Secretary Phone: +7 (4872) 73-44-44



In 2018, 101 dissertations were defended at Voronezh State University dissertation boards, including 10 doctoral dissertations and 91 PhD dissertations. 14 dissertations were defended by postgraduate students graduating in 2018, 6 dissertations were defended by university staff members, including 3 DSc and 3 PhD dissertations (Table 5.6). 3 DSc and 4 PhD dissertations were defended at dissertation boards belonging to other universities.

Table 5.6

NUMBER OF PEOPLE WHO OBTAINED THEIR PHD AND DSC DEGREES IN 2018, BY THE FIELD OF STUDY

Code of the dissertation board	Code of the fields of study of the board	The number of dissertations considered in 2018						
		PhD				DSc		
		Total	VSU employees	VSU postgraduate students (graduated in 2018)	External applicants	Total	VSU employees	External applicants
D 212.038.01	09.00.01 Ontology and Epistemology	-	-	-	-	-	-	-
	09.00.11 Social Philosophy	2	-	-	2	1	-	1
D 212.038.03	03.01.02 Biophysics	2	-	-	2	2	2	-
	03.01.04 Biochemistry	2	-	-	2	-	-	-
D 212.038.06	01.04.02 Theoretical Physics	1	-	-	1	-	-	-
	01.04.05 Optics	2	-	1	1	-	-	-
	01.04.07 Condensed Matter Physics	3	-	-	3	-	-	-
D 212.038.07	10.02.01 Russian Language	7	1	1	5	-	-	-
	10.02.19 Linguistic Theory	3	-	-	3	-	-	-
D 212.038.08	02.00.01 Inorganic Chemistry	1	1	-	-	-	-	-
	02.00.04 Physical Chemistry	2	-	2	-	-	-	-
	02.00.05 Electrochemistry	-	-	-	-	-	-	-
D 212.038.10	01.04.03 Radiophysics	4	-	2	2	-	-	-
	01.04.10 Semiconductor Physics	-	-	-	-	-	-	-
	05.13.01 System Analysis, Management, and Information Processing	-	-	-	-	-	-	-
D 212.038.12	07.00.02 Russian History	3	-	-	3	3	-	3
	07.00.06 Archaeology	2	-	-	2	-	-	-
D 212.038.14	10.01.01 Russian Literature	4	-	-	4	-	-	-
	10.01.03 International Literature (Literature of the Countries of Germanic and Romance language families)	-	-	-	-	1	-	1
D 212.038.15	08.00.01 Economics Theory	2	-	-	2	-	-	-
	08.00.05 Economics and National Economy Management (by field and sphere of activity, including Labour Economics and Regional Economics)	5	-	3	2	1	1	-
D 212.038.16	10.02.04 Germanic Languages	2	1	-	1	-	-	-
	10.04.05 Romance Languages	2	-	-	2	-	-	-
D 212.038.18	10.01.10 Journalism	10	-	2	8	1	-	1
D 212.038.19	02.00.02 Analytical Chemistry	4	-	1	3	-	-	-
	02.00.03 Organic Chemistry	-	-	-	-	-	-	-
	02.00.21 Solid State Chemistry	-	-	-	-	-	-	-
D 212.038.20	05.13.17 Theory of Informatics	1	-	-	1	-	-	-
	05.13.18 Mathematical Modelling, Numerical Methods and Program Systems	4	-	1	3	-	-	-



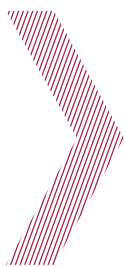
End of table 5.6

Code of the dissertation board	Code of the fields of study of the board	The number of dissertations considered in 2018						
		PhD				DSc		
		Total	VSU employees	VSU postgraduate students (graduated in 2018)	External applicants	Total	VSU employees	External applicants
D 212.038.22	01.01.01 Substantial, Complex, and Functional Analysis	1	–	–	1	–	–	–
	01.01.02 Differential Equations, Dynamical Systems, and Optimal Control	3	–	1	2	–	–	–
D 212.038.23	08.00.12 Accounting, Statistics	2	–	–	2	–	–	–
D 999.010.03	13.00.01 General Pedagogics, History of Pedagogics and Education	5	–	–	5	1	–	1
	13.00.08 Theory and Methods of Vocational Education	12	–	–	12	–	–	–
D 999.104.03	12.00.01 Theory and History of State and Law, History of State and Law Studies 12.00.02 Constitutional Law, Constitutional Proceedings, Municipal Law 12.00.14 Administrative Law; Administrative Procedure							
D 999.109.03	05.13.01 System Analysis, Management and Information Processing (Radioelectronics, Automatics, Communications) 05.13.06 Automation and Control of the Technological Processes and Production (industry)							
D 999.159.03	08.00.05 Economics and National Economy Management (economics, organization and management of enterprises, industries, and complexes – industry; management)							
D 999.191.02	01.02.04 Solid Mechanics (Physics and Mathematics, and Technical Sciences)							
	Totals	91	3	14	74	10	3	7

DSc students' training has been conducted in accordance with the specialisations of the dissertation boards.

Members of the dissertation boards are required to publish their articles regularly in journals, primarily those included in Web of Science and Scopus, as well as specialised professional databases Astrophysics, PubMed, Mathematics, Chemical Abstracts, Springer, Agris, GeoRef, MathSciNet, BioOne, and journals included in the list of Russian peer-reviewed journals recommended by the State Commission for Academic Degrees and Titles.

The university examines the originality of the text to isolate cases of using borrowings without reference to the author and (or) the source of the citation.



5.7. LIST OF RESEARCH PROJECTS AND GRANTS

SCIENTIFIC RESEARCH AS A CORE PART OF THE GOVERNMENT ORDER OF THE MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION (11 PROJECTS)

3.7514.2017/BCH Research project No.17015 2017–2019

Generation of the high harmonics ionization of atomic systems in intense laser fields

Head Researcher: Professor N.L. Manakov, DSc in Physics and Mathematics (Faculty of Physics, Department of Materials Science and Nanosystems Industry)

6.6927.2017/BCH Research project No.17012 2017–2019

Epigenetic regulation of the Krebs cycle enzymes as part of adaptive responses of plant cells' metabolism to extreme conditions

Head Researcher: Professor A.T. Epyntsev, DSc in Biology (Faculty of Biology and Soil Sciences, Department of Biochemistry and Cell Physiology)

4.7972.2017/BCH Research project No.17010 2017–2019

Synthesis, structure, and properties of metal composites of membrane elements for the ultrapurification of hydrogen

Head Researcher: Professor V.M. Ilevlev, DSc in Chemistry, Full Member of the Russian Academy of Sciences (Faculty of Chemistry, Department of Materials Science and Nanosystems Technologies)

6.4656.2017/BCH Research project No.17011 2017–2019

Studying metabolism and physiological functions of reactive oxygen in cells

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

4.6937.2017/BCH Research project No.17013 2017–2019

Dynamics and equilibrium of sorption of biologically active substances by nanostructured materials following their chromatographic separation, concentration, and extraction

Head Researcher: Professor V.F. Selemenev, DSc in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

3.6672.2017/BCH Research project No.17014 2017–2019

Studying the nonlinear optical properties and bleaching in associates of organic dyes with plasmonic nanoparticles of various morphology

Head Researcher: Senior research fellow R.A. Ganeev, DSc in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

3.4826.2017/BCH Research project No.17018 2017–2019

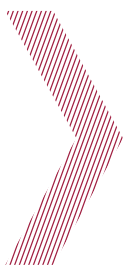
Spectroscopic characteristics of excited atoms and molecules

Head Researcher: Associate Professor V.E. Chernov, DSc in Physics and Mathematics (Faculty of Physics, Department of Mathematical Physics)

3.8122.2017/BCH Research project No.17017 2017–2019

Developing and studying ultra-wideband radioelectronic and location systems using ultra-short impulse signals of subnanosecond duration

Head Researcher: Professor A.M. Bobreshov, DSc in Physics and Mathematics (Faculty of Physics, Department of Electronics)



16.8158.2017/BCH Research project No.17019 2017–2019

Synthesising functional nanostructured materials and precision diagnostics for atomic and electronic structure and the interfacial interaction by means of synchrotron radiation of megascience facilities

Head Researcher: Associate Professor S.Yu. Turischev, DSc in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

3.6655.2017/BCH Research project No.17016 2017–2019

Studying the processes of electronic excitation energy transfer in organo-inorganic associates of semiconductor colloid quantum dots and dye molecules

Head Researcher: Associate Professor M.S. Smirnov, PhD in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

11.4718.2017/BCH Research project No.17009 2017–2019

Semiconductor nanoheterostructures with higher than normal indices: new approaches to synthesizing and basic research

Head Researcher: Professor P.V. Seredin, DSc in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

SCIENTIFIC RESEARCH CARRIED OUT WITHIN THE PROJECT ORIENTED PART OF THE GOVERNMENT ORDER OF THE MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION (4 PROJECTS)

3.1761.2017/PCH Sciences of the Future Research project No.17003 2017–2019

Controlling linear and nonlinear electromagnetic behaviour of molecules and nanoparticles in strong external fields

Head Researcher: Professor B.A. Zon, DSc in Physics and Mathematics (Faculty of Physics, Department of Mathematical Physics)

3.1659.2017/PCH Sciences of the Future Research project No.17005 2017–2019

Atomic and molecular photoprocesses in strong laser fields, including short and ultra-short impulse signals

Head Researcher: Associate Professor M.V. Frolov, DSc in Physics and Mathematics (Faculty of Physics, Department of Materials Science and Nanosystems Industry)

8.3844.2017/PCH Development of Competences Research project No.17006 2017–2019

New linear and condensed heterocyclic systems based on functionally substituted hydroquinols: developing synthesising methods and studying the physiological activity

Head Researcher: Professor A.A. Sirota, DSc in Physics and Mathematics (Faculty of Computer Sciences, Department of Information Security and Processing Technologies)

4.3633.2017/PCH Development of Competences Research project No.17004 2017–2019

Development of new corrosion inhibitors for copper and its functionally-substituted triazole alloys to be used in heat-exchange equipment

Head Researcher: Professor Kh.S. Shikhaliev, DSc in Chemistry (Faculty of Chemistry, Department of Organic Chemistry)



PROJECTS CARRIED OUT WITHIN THE COOPERATION PROGRAMMES BETWEEN THE MINISTRY OF EDUCATION OF THE RUSSIAN FEDERATION AND GERMAN ACADEMIC EXCHANGE SERVICE (DAAD) “MIKHAIL LOMONOSOV” AND “IMMANUEL KANT”

34.12727.2018/12.2 Research project No.18017 2018

Prosodic and paralinguistic peculiarities of situational speech forms (congratulation, well-wishing, praise) in Russian, German, Spanish, and Italian languages

Head Researcher: lecturer O.A. Yartseva (Faculty of Romance and Germanic Philology, Department of German Philology)

GRANTS OF THE GOVERNMENT OF THE RUSSIAN FEDERATION FOR THE STATE SUPPORT OF RESEARCH CONDUCTED BY THE LEADING SCIENTISTS IN RUSSIAN UNIVERSITIES AND RESEARCH ORGANISATIONS (MEGA-GRANT)

14.Z50.31.0037 Research project No.17022 2017–2019

Studying the problems of mathematical hydrodynamics

Head Researcher: P.I. Plotnikov, DSc in Physics and Mathematics, Associate Member of the Russian Academy of Sciences (Research Institute for Mathematics)

GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR SUPPORT OF RESEARCH BY YOUNG RUSSIAN SCIENTISTS WITH A DSC DEGREE (2 GRANTS)

MD-188.2017.2 Research project No.17027 2017–2018

Developing the technology for obtaining highly functional epitaxial A3B5/por-Si heterostructures and their basic study

Head Researcher: Professor P.V. Seregin, DSc in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

MD-7902.2016.9 Research project No.16041 2016–2017

Developing the methods for ultra-wideband radioelectronic and location systems using ultra-short impulse signals of nano and subnanosecond duration

Head Researcher: Professor G.K. Uskov, DSc in Physics and Mathematics (Faculty of Physics, Department of Electronics)

GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR SUPPORT OF RESEARCH BY YOUNG RUSSIAN SCIENTISTS WITH A PHD DEGREE (2 GRANTS)

MK-2213.2018.1 Research project No.18061 2018–2019

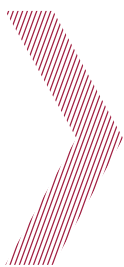
Studying alpha models of non-Newtonian hydrodynamics

Head Researcher: senior research fellow A.V. Zvyagin, PhD in Physics and Mathematics (Research Institute for Metallurgy)

MK-925.2018.3 Research project No.18015 2018–2019

Studying electrical convection in systems with heterogeneous ion-exchange membranes with different surface morphologies

Head Researcher: senior engineer E.M. Akberova, PhD in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)



GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION TO SUPPORT LEADING SCIENTIFIC SCHOOLS OF THE RUSSIAN FEDERATION

NSH-3451.2018.11 Research project No.18003 2018–2019

Genetics and bioenergetics of mitochondria as a foundation for the development of modern agrobiotechnologies

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

FEDERAL TARGET PROGRAMME “RESEARCH AND DEVELOPMENT IN TOP-PRIORITY AREAS OF SCIENCE AND TECHNOLOGY IN RUSSIA FOR 2014–2020” (3 PROJECTS)

14-577.21.0257 Research project No.17047 2017–2018

Developing biomolecular methods for quality control of milk and fat-and-oil productions by means of high-performance DNA analysis

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

14.586.21.0062 Research project No.18032 2018–2020

Development of a new method of diagnosing oncological diseases by harmonisation of sequencing data and protein chips with a reversed phase

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

Research project No.18063 2018–2020

Development of the technology of pilot production of recombinant ferments for the food manufacturing industry

Head Researcher: A.V. Kabanov (Faculty of Biomedical Sciences, EFKO Department of Molecular Biotechnology)

GRANTS FROM THE RUSSIAN SCIENCE FOUNDATION

RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING BASIC RESEARCH AND SCIENTIFIC SEARCH BY RESEARCH GROUPS (3 PROJECTS)

14-14-00721-P Research project No.17032 2014–2018

Free-radical, molecular, and enzymic mechanisms for coordinating the tricarboxylic acid cycle and the glyoxylate cycle in adaptive responses of plant cells' metabolism to anthropogenic changes in the biosphere

Head Researcher: Professor A.T. Epryntsev, DSc in Biology (Faculty of Biology and Soil Sciences, Department of Biochemistry and Cell Physiology)

16-11-10125 Research project No.6056 2016–2018

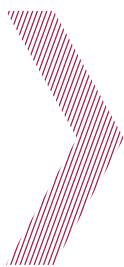
Operator equations in spaces of function and applications of nonlinear analysis

Head Researcher: Professor E.M. Semenov, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Geometry and Functional Theory)

18-12-00476 Research project No.18018 2018–2020

Studying effects of atomic structure excitation and resonance in the fundamental processes in an intense laser field

Head Researcher: Associate Professor M.V. Frolov, DSc in Physics and Mathematics (Faculty of Physics, Department of Materials Science and Nanosystems Industry)



RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING BASIC RESEARCH AND PILOT STUDY IN TOP PRIORITY SPECIAL RESEARCH AREAS (2 PROJECTS)

16-14-00176 Research project No.16005 2016–2018

Studying and genetic certification of agriculturally significant insects and mites, followed by the genomic selection of pollinating insects and entomophages

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

16-15-00003 Research project No.16003 2016–2018

Developing effective methods for preventive dental care based on normalization of metabolism of the dental hard tissues in vivo using biochemical materials with high remineralization potential.

Head Researcher: Professor P.V. Seredin, DSc in Physics and Mathematics (Faculty of Physics, the Department of Solid-State Physics and Nanostructures)

RUSSIAN SCIENCE FOUNDATION GRANTS FOR CONDUCTING RESEARCH WITH PARTICIPATION OF YOUNG SCIENTISTS WITHIN THE PRESIDENTIAL PROGRAMME FOR RESEARCH PROJECTS CONDUCTED BY LEADING SCIENTISTS, INCLUDING YOUNG SCIENTISTS (2 PROJECTS)

17-72-20105 Research project No.17073 2017–2020

Developing, obtaining, and studying new ferroelectric and magneto-electric materials with preset functional properties determined by means of controlled alteration of their nanostructure

Head Researcher: senior research fellow N.G. Popravko, PhD in Physics and Mathematics (Faculty of Physics, Department of Experimental Physics)

18-74-10097 Research project No.18050 2018–2021

Development of blood thinners of new generation based on blood coagulability factor Xa and XIa inhibitors of linear and condensed functionally substituted hydro-quinols

Head Researcher: senior research fellow I.V. Ledenev, PhD in Chemistry (Faculty of Chemistry, Department of Organic Chemistry)

RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING INITIATIVE RESEARCH BY YOUNG SCIENTISTS WITHIN THE PRESIDENTIAL PROGRAMME (5 PROJECTS)

17-72-10287 Research project No.17071 2017–2019

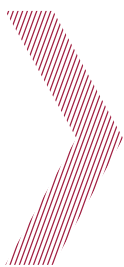
Atomic and electron structure of new functional composite nanostructures based on wide-band tin oxides and hybrid bionanomaterials combined with filamentary silicon

Head Researcher: research fellow E.V. Parinova, PhD in Physics and Mathematics (Faculty of Physics, Department of solid-State physics and nanostructures)

17-75-10046 Research project No.17072 2017–2019

Developing the principles of precision diagnostics of caries of various degrees based on a basic study of biogenic material and biomimetic model environment

Head Researcher: senior engineer D.L. Goloschapov, PhD in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)



17-72-10225 Research project No.17058 2017–2020
Nonlinear media for low limiting optical threshold based on associates of Ag_2S colloid quantum dots and dye molecules with controlled luminescence properties

Head Researcher: Associate Professor T.S. Kondratenko, PhD in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

17-71-10057 Research project No.17074 2017–2020
Developing methods and algorithms for combined optimum processing of signals with unknown parameters and irregular distortions

Head Researcher: senior research fellow K.S. Kalashnikov, PhD in Technical Sciences (Faculty of Physics, Department of Radiophysics)

18-76-00027 Research project No.18049 2018–2020
Development of new approaches to evaluate the toxicity of pesticides for insect-pollinators

Head Researcher: Professor V.N. Syromyatnikov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

THE RUSSIAN FOUNDATION FOR BASIC RESEARCH GRANTS

INITIATIVE PROJECTS (30 PROJECTS)

16-07-01238 Research project No.16018 2016–2018
Developing methods and equipment for high-speed radio communication based on ultra-short impulse signals of nano and subnanosecond duration

Head Researcher: Professor A.M. Bobreshov, DSc in Physics and Mathematics (Faculty of Physics, Department of Electronics)

16-06-00535 Research project No.16014 2016–2018
Developing a set of mathematical optimisation models and algorithms in order to enhance the efficiency of management of the region's labour market and employment of population

Head Researcher: Professor T.V. Azarnova, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Mathematical Methods of Operations Research)

16-05-01044 Research project No.16022 2016–2018
Fluid evolution during metamorphism in Archaean ferruginous-siliceous formations

Head Researcher: Associate Professor S.M. Pilyugin, DSc in Geology (Faculty of Geology, Department of Mineral Resources and Mineral Management Studies)

16-06-00390 Research project No.16015 2016–2018
Mathematical characterization of circular economy principles followed by the development and testing of models that take into account the law's influence on the going concern, efficient use of resources, and sustainable development of economic systems

Head Researcher: Professor N.E. Babicheva, DSc in Economics (Faculty of International Relations, Department of International Economics and International Business)

16-01-00197 Research project No.16028 2016–2018
Methods of representation theory for groups, semigroups and Banach algebras in the spectral analysis of linear functions and linear operators

Head Researcher: Professor A.G. Baskakov, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Nonlinear Oscillations)



16-01-00370 Research project No.16017 2016–2018

Development and application of topological methods for nonlinear analysis

Head Researcher: Professor V.G. Zvyagin, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Algebra and Topological Analysis Methods)

16-04-01014 Research project No.16030 2016–2018

Modulation of mitochondrial respiration and reactive oxygen species metabolism by means of alternative electron transport

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

16-05-01063 Research project No.16021 2016–2018

Acoustic wave conversion methods applied to noise interferometry problems in shallow seas

Head Researcher: Professor B.G. Kaznelson, DSc in Physics and Mathematics (Faculty of Physics, Department of Mathematical Physics)

16-02-01167 Research project No.16016 2016–2018

Basic research of atomic and electronic structure of hybrid nanomaterial bakterioferritin Dps and derivative structures

Head Researcher: Associate Professor S.Yu. Turischev, DSc in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

16-03-00291 Research project No.16054 2016–2018

Juridification as a legal regulation issue

Head Researcher: Associate Professor V.V. Denisenko, PhD in Law (Faculty of Law, Department of the Theory and History of State and Law)

16-01-00058 Research project No.16057 2016–2018

Formation of the landowning servicemen class in the southern parts of Russia in the 17th century

Head Researcher: Associate Professor E.V. Kamarauli, PhD in History (Faculty of History, Department of Political History)

16-04-00488 Research project No.16055 2016–2018

Voronezh Region's culture in the middle of the 19th century (based on the Russian Geographical Society archive in St.Petersburg)

Head Researcher: Associate Professor T.F. Pukhova, PhD in Philology (Faculty of Philology, Department of Russian Literature of 20–21st Centuries, the Theory of Literature, and Folklore)

17-08-00426 Research project No.17034 2017–2019

Electrochemical polarization of metal-ion exchanger nanocomposites for constant deoxygenation of water in open flow systems

Head Researcher: Professor T.A. Kravchenko, DSc in Chemistry (Faculty of Chemistry, Department of Physical Chemistry)

17-01-00138 Research project No.17028 2017–2019

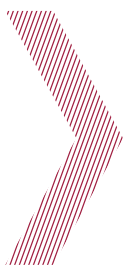
Studying the properties and interactions of functional spaces, basic sequences, and special operators

Head Researcher: Professor E.M. Semenov, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Geometry and Functional Theory)

17-05-00569 Research project No.17035 2017–2019

Studying the functioning of ecological and geochemical background and health risks to people living in building and industrial areas of the Central Black Earth Region

Head Researcher: Professor S.A. Kurolap, DSc in Geography (Faculty of Geography, Geoecology, and Tourism, Department of Geoecology and Environmental Monitoring)



17-04-01039 Research project No.17033 2017–2019
Intracellular mechanism of transduction of photoreceptor signal regulating the functioning of the key enzymes of the tricarboxylic acid cycle in plants under different light conditions
Head Researcher: Professor A.T. Epryntsev, DSc in Biology (Faculty of Biology and Soil Sciences, Department of Biochemistry and Cell Physiology)

17-03-01140 Research project No.17029 2017–2019
Studying the nature of microplasticity and variability of magnetic properties of multicomponent iron based amorphous alloys
Head Researcher: Professor S.B. Kushev, DSc in Physics and Mathematics (Faculty of Chemistry, Department of Materials Science and Nanosystems Technologies)

17-01-00251 Research project No.17036 2017–2019
Models of technical systems with hysteresis characteristics in condition of parametric uncertainty
Head Researcher: Professor M.G. Matveev, DSc in Technical Sciences (Faculty of Computer Sciences, Department of Information Technologies in Management)

17-02-00748 Research project No.17037 2017–2019
Photophysical processes in rare-earth-ion-doped CdS and ZnS colloid quantum dots conjugated with organic molecules and J-aggregates
Head Researcher: Associate Professor M.S. Smirnov, PhD in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

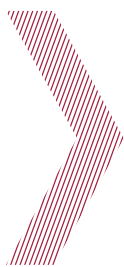
17-03-00702 Research project No.17038 2017–2019
Tax sovereignty and protection of taxpayers' rights in the EU on the EEU
Head Researcher: Professor M.V. Sentsov, DSc in Law (Faculty of Law, Department of Financial Law)

17-02-00435 Research project No.17055 2017–2019
Control over the professional adaptation of cadets and young specialists working in units subordinate to the Ministry of Emergency Situations
Head Researcher: senior research fellow I.V. Shershen, PhD in Economics

18-08-01260 Research project No.18006 2018–2020
Demineralisation and partitioning of the water-salt solution of neutral amino acid and sugar by dialysis with ion-exchange membranes
Head Researcher: Professor V.I. Vasilieva, DSc in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

18-05-00226 Research project No.18012 2018–2020
Development of the group method of geological and geophysical data handling
Head Researcher: Associate Professor O.M. Muravina, DSc in Geology (Faculty of Geology, Department of Geophysics)

18-04-00556 Research project No.18005 2018–2020
Molecular, biochemical, and evolutionary mechanisms of phenotypic differences of strains of colourless sulphur bacteria *Beggiatoa leptomitiformis* D-401 and D-402 with genome identity above 99.9%
Head Researcher: Professor M.Yu. Grabovich, DSc in Biology (Faculty of Biology and Soil Sciences, Department of Biochemistry and Cell Physiology)



18-04-00464 Research project No.18004 2018–2020

Development of issues related to taxonomy and biodiversity of problem systematic groups of Hemiptera (Heteroptera) in Central and Eastern Palearctic: morphological, karyological, and molecular cytogenetic approaches

Head Researcher: Professor V.B. Golub, DSc in Biology (Faculty of Biomedical Sciences, Department of Ecology and Systematics of Invertebrates)

18-03-00354 Research project No.18009 2018–2020

Development of fundamental basis of chemically-guided synthesis of nanoscale films on A3B5 semiconductors for opto- and microelectronics, and gas sensors

Head Researcher: Professor I.Ya. Mittova, DSc in Chemistry (Faculty of Chemistry, Department of Materials Science and Nanosystem Technologies)

18-02-00053 Research project No.18001 2018–2020

Precision spectroscopy of supercooled atoms

Head Researcher: Professor V.D. Ovsyannikov, DSc in Physics and Mathematics (Faculty of Physics, Department of Materials Science and Nanosystems Industry)

18-01-00048 Research project No.18002 2018–2020

Stochastic equations and inclusions with mean derivatives in vector spaces and on smooth manifolds

Head Researcher: Professor Yu.E. Gliklikh, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Algebra and Topological Analysis Methods)

18-012-00476 Research project No.18007 2018–2020

Aesthetic novelty and literariness as theoretical and creative practice issues of the 20th century: avantgardism of 1910–1930's and postmodernism of 1970–1980's

Head Researcher: Associate Professor A.A. Zhytenev, DSc in Philology (Faculty of Philology, Department of Humanities and Arts)

18-011-00806 Research project No.18008 2018–2020

Adaptive potential of regional political systems under indeterminateness and risk (by the example of regions of the Central Black Earth region)

Head Researcher: Professor A.V. Glukhova, DSc in Politics (Faculty of History, Department of Sociology and Politology)

BASIC RESEARCH PROJECTS ORGANISED BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE VORONEZH REGION (3 PROJECTS)

17-14-36002 Research project No.17039 2017–2018

Poetry in Voronezh on the turn of the 20th century: sensor and affective codes

Head Researcher: Associate Professor A.A. Zhytenev, DSc in Philology (Faculty of Philology, Department of Humanities and Arts)

Research project No.18047 7/18 2018–2019

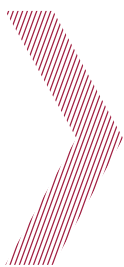
Archaeological sites of the Stone Age in the basin of the Upper and Middle Don: a history of discovery and study

Head Researcher: Associate Professor E.Yu. Zakharova, DSc in History (Faculty of History, Department of Archaeology and Ancient History)

Research project No.18048 18/18 2018–2019

Barbarian enamels in the forest steppe in the interfluvium of the Don and the Volga: issues of cultural and ethnical attribution

Head Researcher: Associate Professor I.V. Zinkovskaya, DSc in History (Faculty of History, Department of Archaeology and Ancient History)



RESEARCH PROJECTS CONTEST FOR YOUNG SCIENTISTS (MY FIRST GRANT) (10 PROJECTS)

16-34-01141 Research project No.16012 2018–2019

Genesis of ferrigenous deposits of the Devonian period in the crestal position of the Voronezh anticline

Head Researcher: A.V. Milash (Research Institute of Geology, Complex Research Laboratory)

18-35-00058 Research project No.18021 2018–2019

Palaeoproterozoic volcanism of the Orlov-Timsk structure of the Kursk region of Eastern Sarmatia: geochronology, petrogenesis, and geodynamical environment

Head Researcher: S.V. Zybulyaev (Research Institute of Geology, Metamorphism and Ore Genesis Department)

18-33-01215 Research project No.18022 2018–2019

Synthesis and properties of thin-film CdS–ZnS solid solutions, doped by copper (silver) ions of thiourea solution coordination compounds

Head Researcher: lecturer T.V. Samofalova, PhD in Chemistry (Faculty of Chemistry, Department of General and Inorganic Chemistry)

18-33-00900 Research project No.18023 2018–2019

Identification and stabilisation of new semiconductor phases in the A(III)–B(VI) systems

Head Researcher: Associate Professor A.V. Kosyakov, PhD in Chemistry (Faculty of Chemistry, Department of General and Inorganic Chemistry)

18-32-01046 Research project No.18024 2018–2019

Atomic and electronic structure of the surface and formed boundaries in tracking composite nanostructures of nickel-porous oxidized silicon on silicon

Head Researcher: researcher E.V. Parinova (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

18-32-00497 Research project No.18025 2018–2019

Photophysical and photochemical transformations in Ag_2S colloid quantum dots

Head Researcher: lecturer I.G. Grevtseva (Faculty of Physics, Department of Optics and Spectroscopy)

18-32-00493 Research project No.18026 2018–2019

Studying the nonlinear refraction and reverse absorption saturation in colloid solutions of CdS and ZnS colloid quantum dots conjugated with molecules of thiazine dyes

Head Researcher: lecturer A.I. Zvyagin (Faculty of Physics, Department of Optics and Spectroscopy)

18-31-00097 Research project No.18027 2018–2019

Harmonic analysis of periodic and almost periodic at infinity functions and distributions from homogeneous spaces and semigroups of bounded operators

Head Researcher: researcher I.I. Strukova (Faculty of Applied Mathematics, Informatics, and Mechanics, Department of System Analysis and Management)

18-31-00083 Research project No.18028 2018–2019

Studying methods and solution algorithms for inconsistent linear equations systems, and nonlinear programming problems and their applications

Head Researcher: Associate Professor V.V. Volkov, PhD in Physics and Mathematics (Faculty of Technology and Pedagogics, Department of Natural and General Education Disciplines at the Borisoglebsk branch)



18-31-00354 Research project No.18016 2018–2019

Harmonic analysis of differential operators

Head Researcher: researcher E.Yu. Romanova (Faculty of Applied Mathematics, Informatics, and Mechanics, Department of Mathematical Methods of Operations Research)

CONTEST OF BASIC RESEARCH PROJECTS CARRIED OUT BY YOUNG SCIENTISTS WITH PHD OR DSC DEGREES IN SCIENTIFIC ORGANISATIONS OF THE RUSSIAN FEDERATION

18-35-00115 Research project No.18020 2016–2018

Studying of resolvability, attractors, and optimal feedback control in various tasks for non-Newtonian hydrodynamics

Head Researcher: senior research fellow A.V. Zvyagin, PhD in Physics and Mathematics (Research Institute for Metallurgy)

DIRECTED BASIC RESEARCH CONTEST FOCUSED ON CONTEMPORARY INTERDISCIPLINARY PROBLEMS (3 PROJECTS)

16-29-08342 Research project No.16058 2016–2018

Comparative analysis of cognitive stimulation based on human-computer interfaces (including brain-computer interfaces) and its effects on healthy users and users with neurologic pathologies

Head Researcher: Professor S.D. Kurgalin, DSc in Physics and Mathematics (Faculty of Computer Sciences, Department of Information Systems)

17-29-06036 Research project No.17078 2017–2018

Genome and metabolic markers of lung cancer

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

17-29-02505 Research project No.17046 2017–2020

Molecular genetic features determining the effectiveness of eye tracking systems and brain-machine interfaces

Head Researcher: Professor V.N. Popov, DSc in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

BEST INTERDISCIPLINARY FUNDAMENTAL RESEARCH PROJECTS (2 PROJECTS)

18-29-11062 Research project No.18053 2018–2020

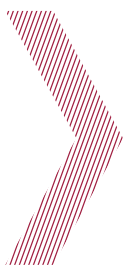
Synthesis of lithium niobate films for the element base of opto-, acousto-, and microelectronic devices

Head Researcher: Professor E.K. Belonogov, DSc in Physics and Mathematics (Faculty of Chemistry, Department of Materials Science and Nanosystems Technologies)

18-29-11008 Research project No.18052 2018–2020

Biomimetical composites for regenerative dentistry, imitating the structure hierarchy and peculiarities of the anisotropy of human dental tissue: technology for the production and fundamental research of the mechanisms of their integration with natural tissue

Head Researcher: Professor P.V. Seregin, DSc in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)



BASIC RESEARCH PROJECTS CARRIED OUT BY GROUPS OF YOUNG RUSSIAN AND BELARUSIAN SCIENTISTS, ORGANISED BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE BELARUSIAN REPUBLICAN FOUNDATION FOR FUNDAMENTAL RESEARCH

17-52-04090 Research project No.17041 2017–2018

Studying the molecular interaction and spatial confinement of phonons in CdS and Ag₂S colloid quantum dots, passivated using thioglycolic acid

Head Researcher: Associate Professor T.S. Kondratenko, PhD in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

BASIC RESEARCH PROJECTS CARRIED OUT BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE BELARUSIAN REPUBLICAN FOUNDATION FOR FUNDAMENTAL RESEARCH

18-52-00037 Research project No.18035 2018–2019

Femto-, pico-, and nanosecond dynamics of electronic excitation in dye molecule associates and quantum dots of metallic sulphides

Head Researcher: Professor O.V. Ovchinnikov, DSc in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

BASIC RESEARCH PROJECTS CARRIED OUT BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE GERMAN RESEARCH COMMUNITY

17-52-12034 Research project No.17049 2017–2019

Generation of the high harmonics using quantum dots

Head Researcher: senior research fellow R.A. Ganeev, DSc in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

ORGANISING AND HOLDING NATIONAL AND INTERNATIONAL SCIENTIFIC EVENTS (8 PROJECTS)

18-02-20059 Research project No.18019 2018

Organising the 68th International Conference “NUCLEUS 2018” dedicated to nuclear spectroscopy and nuclear atomic structure “Fundamental problems of nuclear physics, nuclear energy industry, and nuclear technology”

Head Researcher: Professor S.G. Kadmsky, DSc in Physics and Mathematics (Faculty of Physics, Department of Nuclear Physics)

18-03-20037 Research project No.18030 2018

Organising the 8th All-Russian conference “Physical and chemical processes in condensed matter and interphase boundaries 2018”

Head Researcher: Associate Professor O.A. Kozaderov, DSc in Chemistry (Faculty of Chemistry, Department of Physical Chemistry)

18-01-20056 Research project No.18031 2018

Organising the scientific conference “Mathematical modelling and information technologies in engineering and business applications”

Head Researcher: Professor M.G. Matveev, DSc in Technical Sciences (Faculty of Computer Sciences, Department of Information Technologies in Management)



18-010-20075 Research project No.18051 2018

Organising the 41st International Conference (Scientific Workshop) "Social and Economic Processes System Modelling" in the honour of Professor S.S. Shatalin

Head Researcher: Associate Professor I.N. Schepina, DSc in Economics (Faculty of Economics, Department of Information Technology and Mathematical Methods for Economics)

18-01-20107 Research project No.18054 2018

Organising the international conference "Current issues in applied mathematics, informatics, and mechanics"

Head Researcher: Professor A.I. Shashkin, DSc in Physics and Mathematics (Faculty of Applied Mathematics, Informatics, and Mechanics, Department of Mathematical and Applied Analysis)

18-05-20015 Research project No.18013 2018

Organising the 13th International Landscaping Conference "Modern landscape and environment and optimisation of natural environments in regions" dedicated to the 100th anniversary of F.N. Milkov, the Honoured Scientist of the Russian Federation, and the centenary of Voronezh State University

Head Researcher: Professor V.B. Mikhno, DSc in Geography (the Faculty of Geography, Geoecology, and Tourism, Department of Physical Geography and Landscape Optimization)

18-012-20003 Research project No.18011 2018

Organising International scientific conference "Book in the contemporary world: issues of reception"

Head Researcher: Professor M.K. Popova, DSc in Philology (Faculty of Philology, Department of Publishing)

18-011-20026 Research project No.18014 2018

Organising the international scientific conference "Limits for individual rights and freedoms from viewpoint of the libertarian legal doctrine" (dedicated to the 80th anniversary of the Full Member of the Russian Academy of Sciences, V.S. Nersesyantsa)

Head Researcher: Associate Professor V.V. Denisenko, PhD in Law (Faculty of Law, Department of the Theory of State and Law, International Law, and Comparative Legal Studies)

ORGANISING RUSSIAN AND INTERNATIONAL SCIENTIFIC EVENTS FOR YOUNG SCHOLARS

18-31-10011 Research project No.18010 2018

Project of an international conference for young scholars "Voronezh Winter School of Mathematics in honour of S.G. Krein – 2018"

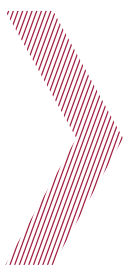
Head Researcher: Professor V.A. Kostin, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Mathematical Modelling)

PUBLISHING SCIENTIFIC WORKS

18-112-00224 Research project No.18064 2018

Publishing the "Dictionary of the Voronezh dialects", issue 3

Head Researcher: Professor G.F. Kovalev, DSc in Philology (Faculty of Philology, Department of Slavic Philology)



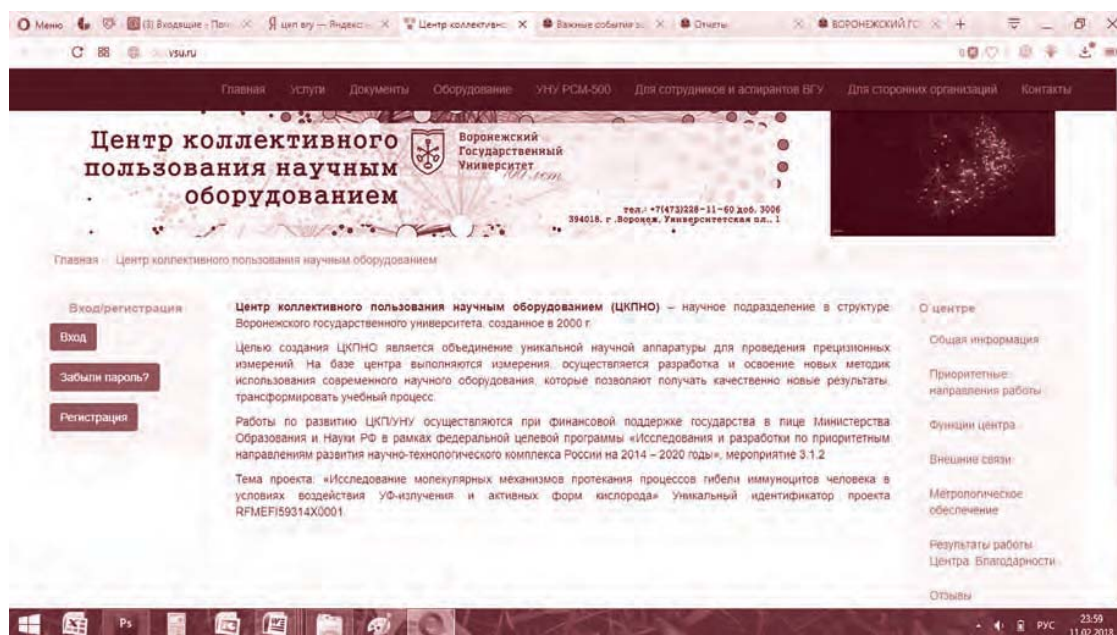
5.8. CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT (CCUSE)

ABOUT THE CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT

The Centre for Collective Use of Scientific Equipment is one of the official research units of the Russian Federation registered on www.ckp-rf.ru website (fig. 5.5). Its activity is monitored by the Ministry of Science and Higher Education of the Russian Federation. The Centre for Collective Use of Scientific Equipment of Voronezh State University is a scientific and organisational division housing 35 units of modern scientific and analytical equipment, such as the unique computer-assisted laboratory facilities PCM-500. The centre employs highly qualified researchers who are able to carry out scientific studies and provide services (research, experiments, measurements) to various customers including external agencies (Table 5.7 and 5.8).

Figure 5.5

WEBSITE OF THE CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT



CONTACT DETAILS:

Director: **Alexander A. Sinelnikov**,
PhD in Physics and Mathematics

Head Researcher: **Oleg A. Kozaderov**,
PhD in Chemistry, Vice Rector for Research and Innovations

Address: 1 Universitetskaya ploschad, 394018, Voronezh

Telephone: +7 (473) 228-11-60 (IP 3006)

E-mail: ckp-vsu@mail.ru

Table 5.7

KEY INFORMATION ABOUT THE ACTIVITIES OF THE CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT IN 2018

Book values of equipment, mln roubles	177
Number of units of equipment valued at over 1 mln roubles	27
Number of staff members	13
Total number of works (services) carried out by the university with the help of CCUSE equipment, mln roubles	18
Actual equipment loading, %	82
Actual CCUSE equipment loading on behalf of third parties, %	41
Number of organisations (external agencies)	15

In the reporting year, the CCUSE met key progress indicators developed by the Ministry of Education of the Russian Federation.

Table 5.8

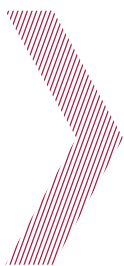
MOST IMPORTANT EQUIPMENT OF CCUSE VSU AS OF 2018

Name of the equipment	Manufacturing company	Country of manufacture	Application, specifications
X-ray diffractometer Thermo ARL X'TRA	Thermo Fisher Scientifics	Switzerland	Structural and phase analysis of crystalline materials in situ study in a vacuum chamber at up to 1,000°C
Electron microscope JSM-6510LV	JEOL Ltd	Japan	Study of surface morphology within the range of 150,000× magnification. Microanalysis of the elemental composition, including mapping
Scanning probe microscope SOLVER P47	NT-MDT	Russia	Study of the surface of solid material in the modes of atomic force microscopy and tunnel probe microscopy. Visualisation of the surface microrelief. Qualitative relief assessment at the spacing up to 180 × 180 μm. Mapping of elements with different electrical conductivity and magnetic properties in the mode of the tunnel microscope
Libra 120 transmission electron microscope (fig. 5.6)	Carl Zeiss	Germany	Study of structure, substructure, and phase analysis of solids in volume as thin as 0.2 nm.
X-ray diffractometer Empyrean B.V. (fig. 5.7)	PANalytica	The Netherlands	Structural and phase analysis of crystalline materials
Primo Star optical microscope	Carl Zeiss Microscopy	Germany	Microscopy of microbiologic preparations
Versatile centrifuge Z 36 NK	Hermle	Germany	Centrifugation of complex biological mixtures
QUANT-Z-ETA-1 atomic absorption spectrometer	OOO "Kortek"	Russia	Quantitative determination of elements in liquid samples of various origin and composition at the level of ng/L
U-2900 double beam spectrophotometer	Hitachi	Japan	Double beam optical system. Spectral range within 190 and 1,200 nm
A system for carrying out materials testing in vacuum and under UV radiation	OOO "Vakuumnye Sistemy i Elektronika", Anest Iwata	Russia Japan	Samples vacuumising up to 10 ⁻⁴ Pa. Exposure to electromagnetic radiation in ultraviolet spectra
Nikon ECLIPSE Ni-E/Ni-U optical microscope	Nikon	Japan	Upright Hi-End microscope. Optical system CFI60 ("endless" optics). Resolution up to 0.2 μm

5

End of table 5.8

Name of the equipment	Manufacturing company	Country of manufacture	Application, specifications
Upright polarized-light microscope Olympus BX51	Olympus	Japan	Optical microscope works in the following modes: light field, dark field, phase contrast, polarized light, fluorescence, and Nomarski DIC (differential interference contrast) Up to 150x magnification range
Gas chromatograph: Agilent 7890B/5977A mass spectrometer	Agilent Technologies	USA	Separation of mixtures and mass spectrometry analysis of organic compounds
Agilent 6230 accurate-mass time-of-flight (TOF) LC/MS system	Agilent Technologies	USA	Separation of mixtures and mass spectrometry analysis of organic compounds and study of organic reactions mechanisms
Milestone MicroSynth microwave synthesis system	Milestone	Italy	Controlled synthesis of organic compounds exposed to microwave radiation
Chemical vacuum station PC 3004 Vario	Vacuubrand	Germany	Creating a controlled vacuum for the synthesis and extraction of organic compounds
SONICATOR Q500 ultrasonic dispergator	QSONICA	USA	Sample preparation. Preparation of suspended solids by ultrasound
System Zetasizer Nano ZSP	Malvern	England	Size characterisation of organic and inorganic nanoparticles within the range of 0.3–0.5 µm
Rotary ultramicrotome for electron microscopy PT-PC 75840	RMC-Boeckeler	USA	A PC controlled ultramicrotome performs ultra-thin sectioning for their further study by means of transmission scanning electron microscopy, atomic-force microscopy, scanning probe microscopy, or optical microscopy. The precision feed technology allows obtaining sections from 5 nm to 10 µm.
S8 Tiger X-ray diffractometer (fig. 5.8)	Bruker	Germany	A system for elemental X-ray fluorescence analysis in such industries as petroleum chemistry, cement production, and extraction of minerals
Vertex 70 series FT-IR spectrometer	Bruker Optik GmbH	Germany	Vertex 70 series FT-IR spectrometer with vacuum optical system enables maximum sensitivity in near, medium, and far IR THz bands and eliminates the effects of carbon and water vapour on the quality of the spectra
UV-2550 spectrophotometer	Shimadzu Scientific Instruments	Japan	Double monochromator with wavelength range of 190–900 µm
Shimadzu 2501 spectrophotometer	Shimadzu Scientific Instruments	Japan	Double beam optical system with wavelength range of 190–1100 µm



MOST VALUABLE EQUIPMENT OF CCUSE VSU

Figure 5.6

ZEISS LIBRA 120 TRANSMISSION ELECTRON MICROSCOPE



Figure 5.7

PANALYTICA EMPYREAN B.V. X-RAY DIFFRACTOMETER



Figure 5.8

BRUKER S8 TIGER X-RAY DIFFRACTOMETER





5.9. VSU INNOVATION FINANCIAL SUPPORT IN 2017–2018

The total financing of innovation projects in 2018 amounted to 80 million roubles. Table 5.9 shows key projects funded from the federal budget and from funds provided by industrial partners.

Table 5.9

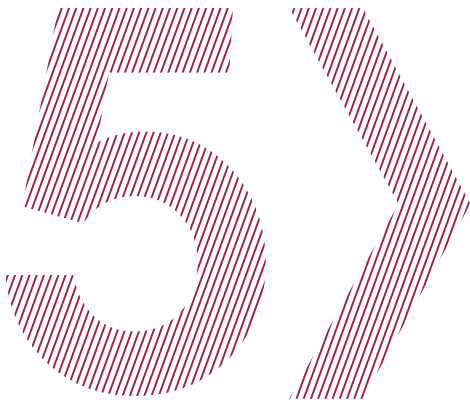
VSU INNOVATION FINANCIAL SUPPORT IN 2017–2018

No.	Projects	Head Researcher	Duration of the Programme	Funding, thousand roubles			
				2017		2018	
				Federal financing	Independent entrepreneurs co-financing	Federal financing	Independent entrepreneurs co-financing
The Decree of the Government of the Russian Federation No.211 dated 26.06.2015 "On the procedure of the formation of the government order for rendering state services (or carrying out works) by federal state institutions and financial support of the execution of the government order"							
1	Development of new corrosion inhibitors for copper and its functionally-substituted triazole alloys to be used in heat-exchange equipment. Industrial Partner: OOO "Naftaeko IK"	Head Researcher: Professor Kh.S. Shikhaliev, DSc in Chemistry	2017–2019	10,377.70	4,300	10,508.30	4,505.00
2	Development of methods for express analysis and sorting of elements of grain mixture with pathologies, based on the combination of spectrum analysis and machine learning methods. Industrial partner: OOO "Voronezhselmash"	Professor A.A. Sirota, DSc in in Technical Sciences	2017–2019	8,325.20	3,500	8,435.70	3,500.00
The federal target programme "Research and Development in Top-Priority Areas of Science and Technology in Russia for 2014–2020"							
3	Developing biomolecular methods for quality control of milk and fat-and-oil productions by means of high-performance DNA analysis. Industrial partner: OOO "Efirnoye"	Professor V.N. Popov, DSc in Biology	2017–2018	15,000.00	15,000.00	15,000.00	15,000.00



End of table 5.9

No.	Projects	Head Researcher	Duration of the Programme	Funding, thousand roubles			
				2017		2018	
				Federal financing	Independent entrepreneurs co-financing	Federal financing	Independent entrepreneurs co-financing
The Programme of the Fund for Infrastructure and Educational Programmes (ROSNANO).							
4	Working out an advanced training programme of further education in the field of biotechnologies, biochemistry, and genetic engineering for creation of producer strain of enzymes used in food industries. Industrial partner: GK "Efko"	Professor V.N. Popov, DSc in Biology	2017–2018	5,664.00	–	2,832.00	–
5	Studying the state of civil society of the Voronezh Region Customer: autonomous institution of the Voronezh region "Institute of Regional Development"	research fellow M.V. Odintsov	2017	460.00	–	20,000.00	–
6	Carrying out research and developing a technology for electrodialysis with continuous-flow demineralisation of lactose-containing products. Preparing a technical design specification for the creation of an experimental-industrial electrodialysis machine. Designing technical documentation for creation of an experimental-industrial electrodialysis machine. Industrial Partner: FSAEI HE North-Caucasus Federal University	P.I. Kulintsov, PhD in Chemistry	2017–2018	4,150.00	–	700.00	–

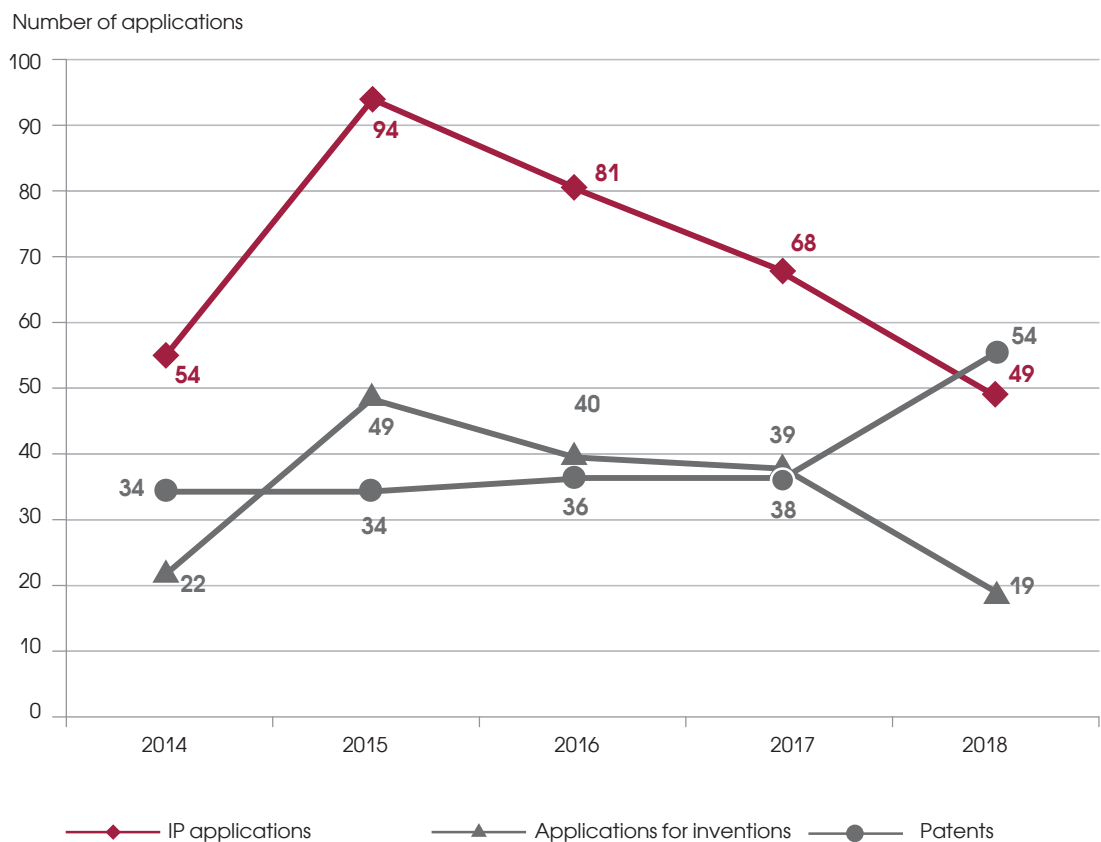


5.10. VSU PATENT ACTIVITY IN 2014–2018

In 2018, patent and license activity enhancement was continued. VSU academic staff created 81 copyrightable intellectual property items. There were 19 applications for inventions, 68 patent and registration certificates applications were filed. The results of the innovative activity were used to create 3 new small innovative businesses (fig. 5.9).

Figure 5.9

APPLICATIONS FOR IPS AND INVENTIONS (2014–2018)

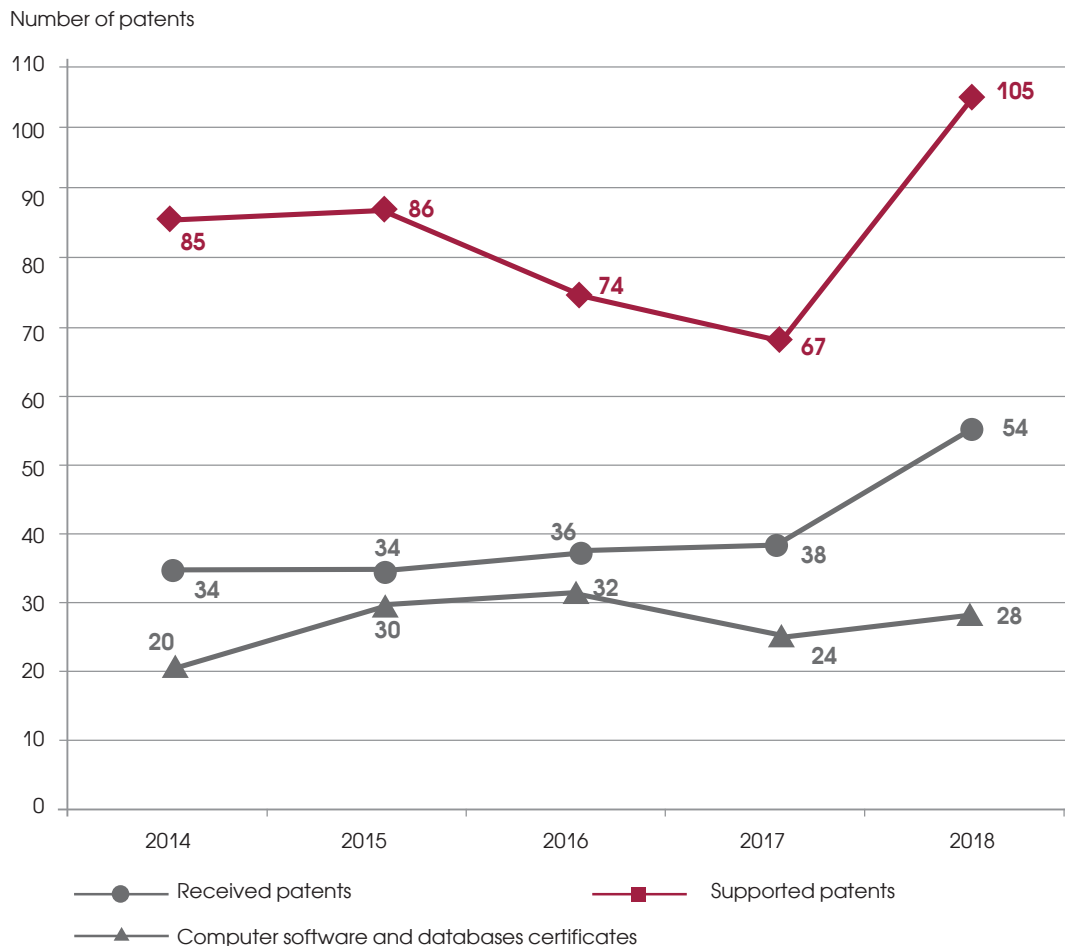




The decrease in the number of applications can be accounted for by the introduction of a case-specific approach to the choice of a protection strategy and the character of preliminary examination of market potential of the suggested copyrightable intellectual property items (fig. 5.10).

Figure 5.10

VSU PATENT ACTIVITY (2014–2018)



In 2018, VSU researchers received 28 computer programs and database certificates. A comparative analysis of the number of invention and utility model patents showed that it was continuously growing between 2014 and 2018. In 2018, the number of results of intellectual activity protected by the laws of the Russian Federation, amounted to 53 items. The patent activity played a great role in the implementation of the University Strategic Development Programme.

As of the end of 2018, VSU held intellectual property rights for 104 patents with high commercial potential.

In 2018, over 380 thousand roubles were spent on state patent dues.



5.11. IP APPLICATIONS DYNAMICS PER FACULTY

The monitoring of patent activity per faculty over the period between 2014 and 2018 shows that the Faculty of Biomedical Sciences maintained their position among the most active inventors. The Faculty of Applied Mathematics, Informatics, and Mechanics and the Faculty of Computer Sciences were again leading in the number of applications submitted (see Table 5.10).

Table 5.10

IP APPLICATIONS DYNAMICS (2014–2018)

Faculty	2014	2015	2016	2017	2018
The Faculty of Biomedical Sciences	1	10	11	12	12
The Faculty of Computer Sciences	11	23	8	9	13
The Faculty of Pharmaceutics	7	13	4	7	5
The Faculty of Physics	12	6	11	8	1
The Faculty of Chemistry	18	15	19	11	4
The Faculty of Applied Mathematics, Informatics, and Mechanics	9	13	22	13	12
The Faculty of Geography, Geoecology, and Tourism	–	1	–	3	1
Other units	3	13	4	5	1
Total	61	94	79	68	49



5.12. INNOVATIVE VENTURES DEVELOPMENT: NAMES OF ALL SIBS CREATED, THE BEST VSU SIBS, SIBS EFFECTIVENESS INDEX

The university's contribution to the capital stock of the newly created SIBs was, as usual, the rights of utilization of the results of intellectual activity classified as trade secrets. These rights were transferred under license agreements concluded with a SIB. In 2018, three agreements were concluded.

Intellectual property rights were also transferred under license agreements and agreements on the cession of rights concluded with the university's industrial partners implementing projects within the framework of FTP "Research and Development in Top-Priority Areas of Science and Technology in Russia for 2014–2020". In 2018, two license agreements were concluded with OOO "Voronezhselmash". Following these agreements the company is entitled to utilise the intellectual property of the university obtained as a result of joint projects carried out within the framework of the FTP. Additionally, 3 protected intellectual property products were transferred under agreements on the cession of rights to the intellectual property of OAO "Efirnoye" (upon completion of a joint project carried out under the FTP).

See the dynamics of the university's intellectual property transfers and acquisition activities in Table 5.11.

Table 5.11

VSU INTELLECTUAL PROPERTY TRANSFER (ACQUISITION) ACTIVITY DYNAMICS

Indicator	2014	2015	2016	2017	2018
1. Number of SIBs created	4	4	2	2	3
2. Number of license agreements (agreements on the cession of rights) concluded	4	5	10	5	5
2.1. Number of SIB-referenced license agreements concluded	2	3	5	2	3
2.2. Number of concluded license agreements (agreements on the cession of rights) with no reference to SIB	2	2	5	3	2
3. Number of existing license agreements (agreements on the cession of rights) – increment total	29	31	39	39	39
4. Economic benefits (revenue, cost-cutting) of acquisition/selling of license agreements (agreements on the cession of rights), roubles	28,322	6,800	270,000	–	–

Table 5.12 demonstrates the results achieved in the commercialisation of intellectual property using various mechanisms.

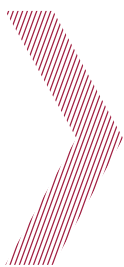


Table 5.12

TECHNOLOGY COMMERCIALISATION MECHANISMS

Indicator	2014	2015	2016	2017	2018
SIBs	30	31	32	31	–
License agreements	3	3	8	5	5
Agreements on the alienation of rights	1	2	2	–	2

In 2018, the entrepreneurial activity of small innovative businesses at VSU remained similar to the last year's.

The university continued to close small innovative businesses that had remained ineffective for several years. In 2018, 4 slow-moving small innovative businesses were closed (Table 5.13).

Table 5.13

SIBs FUNCTIONING IN 2018

No.	SIB's name	Founded in
1	OOO "AKMA-Universal"	2010
2	OOO "TeknoKhim"	2010
3	OOO "Institute of Corrosion"	2010
4	OOO "Laboratory of Innovations"	2011
5	OOO "Centre for Consulting Services and Innovative Technological Solutions for Geology Tsitrin"	2011
6	OOO "NanoImpulse"	2011
7	OOO "Voronezh Enterprise of Ecological Soil Monitoring"	2011
8	OOO "Technologies of Bumblebee Keeping"	2011
9	OOO "Innovation Expert Enterprise Ecotechnologies"	2012
10	OOO "RPE Hydrogeocentre – VSU"	2012
11	OOO "PlazmoSil"	2012
12	OOO "BioInt"	2012
13	OOO "Institute of System Biotechnologies"	2012
14	OOO "Basic Information Technologies B"	2013
15	OOO "Efficient Management Centre"	2013
16	OOO "VSU Consulting Centre"	2013
17	OOO "NPO Membranes"	2014
18	OOO "I-Expert Group"	2015
19	OOO "RST"	2015
20	OOO "Proftsentr Perspektiva"	2015
21	OOO "Smileoptic"	2016
22	OOO "Centre for the Transfer of Technologies in High Molecular Compound Chemistry"	2016
23	OOO "BFSoft"	2017
24	OOO "A-Systems"	2017
25	OOO "BRENNEN"	2018
26	OOO "Gruppa KVL"	2018
27	OOO "I-Technology Engineering"	2018



5.13. OVERVIEW OF THE VSU ENGINEERING CENTRE

Voronezh State University continues working in the framework of state support of pilot projects for the creation and development of engineering centres based on higher educational institutions subordinate to the Ministry of Education and Science of the Russian Federation.

One of the aims of the project is to provide for engineering-based introduction of effective technologies for glass sand deposit development with concurrent extraction of strategic marketable raw materials. Another objective is the development of import-substituting production by means of the research, innovative, engineering, technological, human resources, and information capacities of the centre.

Services provided by the Engineering Centre include:

- Processing and production of glass sand complying with the state standard GOST 22551-77.
- Development and introduction of technologies and technological solutions of concurrent extraction of heavy fraction, of impure rare-metal collective concentrate (zirconium, rutile-leucoxene, ilmenine, and cyanite) in the process of recycling of byproducts of silica sand extraction and other common mineral resources.
- Development of organisational schemes of specialised mineral-processing equipment and adjusting its work, extending its functions.
- Employee training.
- Selection and commissioning of efficient mineral-processing equipment supplemented by our own developments.
- Development of technical procedures for specific types of monomineralic raw materials.

In accordance with the Strategic Programme of the Work Advancement within the project, the following key progress indicators, as well as project success indicators were achieved:

- A new structural subdivision of the Faculty of Geology was created (I-Technology Engineering Centre) and OOO "I-Technology Engineering" was incorporated which provide engineering and advisory services for industrial enterprises of the Voronezh Region and the Central Black Earth Region.
- Professional personnel were recruited.
- New specialised mineral processing equipment, worth a total of 20 million roubles, was purchased.
- Laboratories and the office room of the I-Technology engineering centre with a total area of 150 m² were refurbished.
- University premises and 20 units of specialised equipment, including 12 units purchased in 2018, were allocated to the Engineering Centre by the order of the Rector.



- Marketing research in the area of engineering services within the industry in Russia was carried out.
- The staff of the engineering centre completed advanced training courses within their specialisations.
- Contracts concluded within the project amounted to 5 million roubles.

According to the Strategic Programme, the project is now in the initial pre-investment stage. The results of the first stage showed that research, manufacturing, and academic facilities which the university provides to the Engineering Centre as well as considerable professional experience of the founders and masterminds of the project allow the Engineering Centre to solve a number of tasks, the most important of which for 2019 are the following:

- To achieve the indicators set by the project.
- To enhance the personnel of the Engineering Centre by recruiting qualified staff members.
- To ensure advanced training of the employees of the Engineering Centre.
- To promote projects and visit specialised exhibitions.
- To extend the services provided by the Engineering Centre.
- To create a book of orders and to conclude long-term contracts.

INFORMATION ABOUT THE ENGINEERING CENTRE PROJECT

Opening of the engineering centre I-Technology is in line with top-priority areas of the development of the Voronezh Region, including the following:

- Activities (roadmap) in the field of engineering and industrial design, approved by the Government Executive Order of 23 July 2013 No.1300-r, Subprogramme 15 "Developing the rare and rare earth metals industry".
- State Programme of the Russian Federation "Industry Development and Competitiveness Enhancement" approved by the Government Order No.328 dated 15.04.2014.
- The Strategy of the Development of the Voronezh Region 2020.



- The Strategy of the Development of the Voronezh Region 2035.
- The programme for transforming VSU into the centre for innovative, technological, and social development of the region.
- Plan of interindustry regional project of the Voronezh region “Development of innovation support infrastructure in the area of industrial technologies”.

The priority areas of the Engineering Centre’s activities are the following:

- Management of natural resources.
- Ecological safety.
- Employee training.
- Import substitution.
- Development of technical procedures for specific types of monomineralic raw materials.
- Testing innovative technologies while developing and manufacturing construction equipment and materials.
- Testing innovative technologies while developing and manufacturing recycling facilities for industrial and solid domestic waste.

Our university is quite experienced in carrying out applied research projects and providing engineering services to the real economy sector companies of the region, which will be beneficial for the development of the I-Technology Engineering Centre. The research infrastructure of the centre includes the VSU Science Park, the Centre for Collective Use of Scientific Equipment, and VSU-based small innovative businesses.

The major clients of the engineering centre include the largest industrial enterprises of the Russian Federation working in mining industry, glass manufacture (industrial silica sand), pottery clay and fire-clay goods manufacture, chemical industry (zirconium concentrate), steel industry (ilmenine and rutile concentrates), as well as international companies (see Table 5.14).

Total cost of the project is 150,224 million roubles, including:

- 80 million roubles from subsidies
- 70,224 million roubles of inner financing.

Tax payments for the budgets of different levels for the whole period of the project will exceed 60 million roubles.

Head researcher: Professor V.M. Nenakhov, DSc in Geology and Mineralogical Sciences

Duration of the project: 2018–2022.

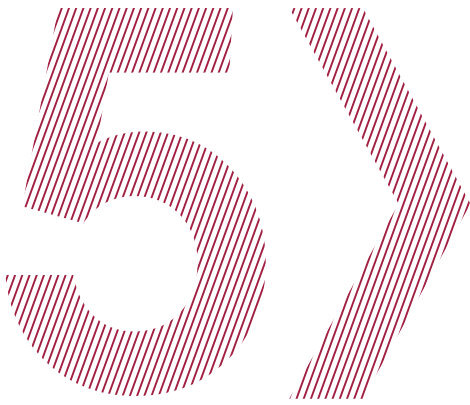
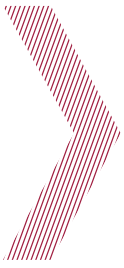


Table 5.14

SERVICES PROVIDED BY THE ENGINEERING CENTRE AND SALES MARKET CHARACTERISTICS

No.	Works and services	Deliverables of services	Sales market	Application of the deliverables
1	Processing of the byproducts of silica sand extraction	Zero-waste production of glass sand and graded sand of high quality	Glass manufacturers, steel industries, dry mix producing companies, water treatment plants and oil and gas industry	<ul style="list-style-type: none"> a) crystal sheet and commercial glass; b) laboratory glassware, medical glass, perfume glass bottles; c) fibre glass for electrical engineering purposes, electric energy, and sodium silicates (catalysts); d) glass blocks; e) glass cans and decolorized glass bottles; f) automobile glass and glass-cases; g) water treatment; h) dry mixtures; i) sand blasting; j) casting; k) oil and gas industry.
2	Concurrent extraction of strategic marketable raw materials (concentrated complex)	Production of ilmenine and rutile concentrates	Chemical and steel industries, pottery clay and fire-clay goods manufactures	<ul style="list-style-type: none"> a) titanium sponge (titanium); b) titanium dioxide; c) ferrotitanium (for steel deoxidation and alloying); d) goods with high dielectric dispersion; e) electrodes for hand welding.
		Production of zirconium concentrate		<ul style="list-style-type: none"> a) refractory manufacturing; b) nuclear fuel elements; c) steel alloying; d) pyrotechnics; e) superconductor materials; f) acid-resistant reactors; g) medicine (bone grafting, joint implants, and dental prostheses); h) chisel production; i) ceramic coatings.
		Production of cyanite concentrate		<ul style="list-style-type: none"> a) refractory products; b) porcelain manufacture.



5.14. OVERVIEW OF INNOVATION BUSINESS INCUBATOR

VSU's innovation business incubator is a unique platform that joins VSU's SIB administration, representatives of research and expert communities of other universities, as well as specialized departments of Voronezh and the Voronezh region administration. The business incubator is a structural subdivision of VSU and consists of a number of offices and a conference room. Its activities involve all areas of work of the Innovations and Enterprise Management, including creating project teams, preparing applications for regional and federal programmes aimed at the support of innovative projects (Russian Science Foundation, Federal Target Programmes, the Order of the Russian Government No.218 dated 9 April, 2010, Skolkovo Foundation, the Fund for Promotion of Innovations, the Innovation Cup, etc.), management of intellectual property activities (creation, accounting, introduction, and commercialisation), promoting entrepreneurship (detecting promising ideas, creation of projects, start-ups, development and efficient cooperation with small innovative businesses), participation in exhibitions, cooperation with industrial partners and representatives from authorities.

In 2018, the business incubator worked in the following major areas:

1. Promotion of key R&D projects of VSU researchers and small innovation businesses at exhibitions and presentation platforms: the Moscow International Inventions and Innovative Technology Salon "Archimedes 2018", the Moscow International Education Fair, Voronezh Industrial Forum, Wilhelm Stoll Entrepreneurship Forum (Voronezh), Middle Russian Economical Forum (Kursk), Eurasian Scientific and Technological Conference (Saint Petersburg), Exposition of VSU innovative projects organised for a Chinese delegation, international forum "Open Innovations" (Moscow, Skolkovo Foundation), international scientific and technological conference Russia – Korea – CIS (Moscow), regional Internet forum (Voronezh), and Voronezh business community forum.

Each project involved the preparation of exhibition materials and computer presentations. Over 25 key R&D projects by SIBs and VSU researchers were presented at 11 exhibitions and presentation events at various levels. VSU researchers were also awarded various prizes for their projects, including the gold medal at the Moscow International Inventions and Innovative Technology Salon "Archimedes 2018", the medal "For the contribution to the development of education" at the Moscow International Education Fair, the silver medal at the Eurasian competition of agri-food strategies, programmes, and projects, and the second degree diploma at the Middle Russian Economical Forum.

2. Organisation and holding of educational events, including:
 - Two training sessions "Development of a business model for innovative projects".
 - Two training sessions "Engineering of innovative projects and enterprises: commercialisation, business plan, and presentation".
 - Individual consulting to justify economic efficiency and commercialisation of the project.



3. Organisation and holding of the VSU Innovation Projects Contest -2018 “Start-up Factory” 2017–2018 (hereinafter Contest).

The Contest is held among students and young VSU scholars at the innovation business-incubator by Rector’s order No.0107 of 28 February 2017. In 2018, 31 contest applications were submitted. As a result of the qualifying stage, which was held between January and October 2018, 5 best projects were chosen and recommended for the interuniversity contest of innovative projects “Innovation Cup”.

4. Consultative and administrative support of innovative projects by VSU students and staff submitted for the contest held between Voronezh universities “Innovation cup – 2018”.

In 2018, VSU played an active part in the annual innovation project contest held between Voronezh universities “Innovation Cup”: VSU’s young researchers submitted 5 innovative projects for this contest. During the process of preparation, each project received individual consultative support. As a result of the contest, Voronezh State University took second place in the overall competition (in 2015, 2016, 2017 VSU took first place in the overall competition and received the title of “the best innovative university in the Voronezh region”) having lost to Zhukovsky Air Force Academy. Also, the university won individual prizes. The winners of the Innovation Cup include:

- A.V. Parshina for the project “Multisensor systems for express analysis of food, pharmaceutical, medical products, and industrial-municipal wastewater” (first place).
- E.V. Popova for the project “Serial production of the advanced colour sorting machine SapsanMicro for small and medium size agricultural and food industry businesses” (first place).
- I.A. Koltakov for the project “MRI contrast agent Lipocsan” (3rd place).

All the winners were awarded with grants with a total amount of 800 thousand roubles.

5. Preparing VSU students for the programme “Participant of the Youth Scientific and Innovation Competition” (“U.M.N.I.K.”).

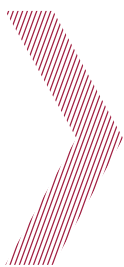


Between 2009 and 2018, almost 60 VSU students were among the winners of the programme "U.M.N.I.K.". In 2018, 15 VSU's students presented their projects in the finals of all the 5 nominations (Information Technologies, Medicine of the Future, Advanced Materials and Technologies, New Devices and Hardware Systems, and Biotechnologies) and 4 participants won grants with total amount of 2 million roubles.

6. Monitoring and support of VSU SIBs activities.

In 2018, the Innovative Business Incubator held a series of meetings in order to discuss the ways to enhance the interaction between the university and the SIBs. A comprehensive analysis of the performance of SIBs was carried out, and a number of legal and formal issues were settled. Several SIB projects received full-scale support and were submitted for the competition for the grants of Skolkovo foundation following the Order of the Government of the Voronezh Region No.516 dated 28 June 2017. The cost of consulting services for SIBs totalled 370 thousand roubles. Dividends amounted to 115 thousand roubles. VSU SIBs provided equipment and paid for the renovation and maintenance of university premises with a cost of 300 thousand roubles. Additionally, VSU SIBs provided employment for VSU staff with the total compensation fund of over 30 million roubles. Due to the support of grant and subsidy applications, VSU's SIBs received over 1.6 million roubles from the regional budget.

- 7.** There was an increase in the activity of VSU's and SIB's researchers aimed at the protection of intellectual property rights: applications submitted to the Federal Institute of Industrial Property received full-scale support in order to make the process quicker. The procedure for including the intellectual property on the university's books without spending money for the services of independent valuers was developed and introduced (as a result about 2 million roubles will be saved in 2019). About 100 thousand roubles were received from partners who use the intellectual property via license agreements.
- 8.** Development of bilateral cooperation with the following organisations providing support for the Voronezh region small business and innovation structure development: The State Foundation for Assistance to the Voronezh Region Small Innovative Enterprises, OKU "Innovations and Development Agency", GBU "Voronezh Region Cluster Development Centre", the Department of Economic Development, Entrepreneurship, and Trade, and the Department of Industry of the Voronezh region, VPRSP "OPORA", and GS "Leader". A project was implemented under the contract with OKU "AIR" for the amount of 30 thousand roubles.
- 9.** Ensuring the efficient business of the VSU business incubator by concluding contracts with contracting organizations: OOO "Stroipozhservis" (fire protection service), OOO "Centre for Preventive Disinfection" (disinfection and deraturation services), ZAO "Quant-Telecom" (telephony), and OAO SKBKM (water supply and sewerage, security services, maintenance of common facilities (non-contractual matters)).



5.15. VSU R&D PROJECT DATABASE

To enhance the efficiency of events aimed at fulfilling VSU's innovative potential, VSU Atlas of Innovations was created and is continuously updated with new innovative projects (fig. 5.11).

Figure 5.11

COVER OF THE ATLAS OF INNOVATIONS OF VSU

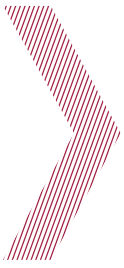


Before the Atlas was created a full-scale monitoring of the university innovation potential was conducted, the most promising and demanded R&D projects were determined, and a set of activities was carried out to prepare presentation materials.

The Atlas is presented in two forms:

- An electronic version published on the university's official website: <https://www.vsu.ru/ru/university/docs/news/atlas.pdf>
- An illustrated printed brochure.

In 2018, a new redesigned and updated version of the Atlas was published.



5.16. VSU ALUMNI ASSOCIATION

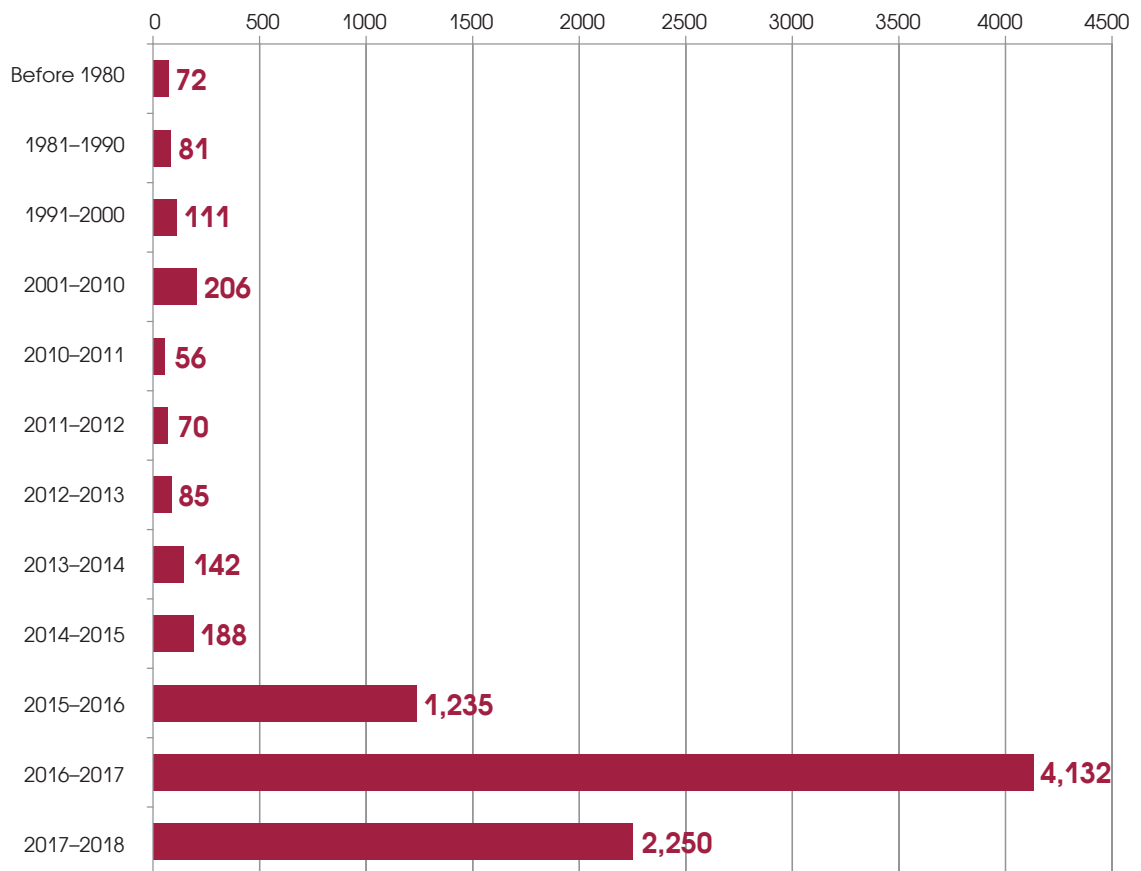
VSU Alumni Association was founded in December 2012 in order to maintain contact with university graduates, help graduates to stay in touch with each other, and involve them in joint projects.

The number of registered users of the Association's website currently stands at over 7.5 thousand people, which is 2 thousand registered graduates more than at the end of 2017. In 2018, the Association collected a lot of new data and established contacts with a large number of graduates. For example, registration of the participants of the reunion meeting for graduates dedicated to the centenary of VSU which was held on 15 September allowed extending the Association's database by 1.5 thousand contacts.

The Association is currently collecting information about the graduates of the 2018/19 academic year. It is expected that 3 thousand more graduates will be included in the database. The fig. 5.12 shows the number of registered graduates according to the year of graduation.

Figure 5.12

NUMBER OF REGISTERED MEMBERS ACCORDING TO THE YEAR OF GRADUATION





MAIN ACTIVITIES OF VSU ALUMNI ASSOCIATION IN 2018

1. CONTEST OF SOCIALLY ORIENTED PROJECTS

18 student projects were presented in the framework of the contest. The project "Saturday University" by Alexei Kruzhilin, a postgraduate student from the Faculty of Chemistry of VSU, took first place. The second place was awarded to the project "A start for students" presented by Alexei Elfimov, a master's degree student from the Faculty of Physics. "Students' puppet theatre "Bi-Ba-Bo" by students from the Borisoglebsk branch of VSU came third.

2. HEIRS OF VICTORY

The VSU Endowment Fund suggested holding the interregional patriotic festival and competition "Heirs of Victory" which was organised in cooperation with the centre for youth artistic development "Dety - Nashe Buduschee" ("Children are our Future"). The event was held prior to 9 May with the support of the Department of Education, Science, and Youth Policy of the Voronezh Region, "Grazhdanskoye Sobranie "Lider"" ("Civil Meeting "Leader""), and Voronezh patriotic organisation "Sila v – Edinstve" ("United We Stand"). About 160 performance acts by over 300 beginner artists were submitted for the qualifying stage of the festival. The competition had two stages. The day after the qualifying stage all winners of the grand prize came onstage in the VSU concert hall "University Hall" and won the audience of the gala concert by their talents and diverse repertoire: from dances and songs to monologues from literature and scenes from opera. A special guest of the festival was the winner of the first season of the TV project "Voice", a finalist of "Eurovision 2013", the Honoured Artist of the Republic of Tatarstan, Dina Garipova.

3. CHARITY CONCERT "IT IS ONLY WITH THE HEART THAT ONE CAN SEE RIGHTLY" (INTERNATIONAL CHARITY DAY #GENEROUS TUESDAY)

The performances were prepared by the pupils from the family centre "Mamina Radost" ("Mother's Happiness"), VSU experimental school "Dety – Nashe Buduschee", and students from Voronezh State University.

Most of the funds raised during the concert were sent to the DobroSvet foundation for children suffering from oncological diseases (88,295 roubles) and the Charity Foundation "Podary Zhizn" ("Gift of Life") helping children with serious diseases (14,205 roubles). The fund purchases medicine, promotes voluntary donorships, finances the search for unrelated donors of bone marrow, and provides for rehabilitation and palliative care.



The Endowment Fund will continue promoting charitable events and supporting social projects.

The total sum raised during the concert amounted to 102,500 roubles.

4. FEDERAL STUDENT TOURNAMENT OF THREE SCIENCES

On 26 September, the final stage of the Federal Student Tournament of Three Sciences started at Voronezh State University. All federal districts of Russia were involved in the qualifying stages of the event. 21 of the strongest teams came to VSU. The Tournament of Three Sciences is an annual team competition between students from higher education institutions of the Russian Federation. It includes the following stages: solving scientific problems which were published in advance, presenting solutions and defending them as part of a dispute during a scientific battle. The event is public that is why anybody can watch the scientific battles. The participants have three roles during the discussion: opponent, reviewer, and speaker. The solution requires an interdisciplinary approach at the intersection of such sciences as Physics, Chemistry, and Biology. During the battle, the students need to use their fundamental knowledge to solve practical problems which they have to prove by experiment. The problems are developed in cooperation with the university partners interested in new human resources. The tournament was started in 2012 as a training session aimed at preparing physicist students of Voronezh State University for national and international competitions. It was a success: students started to win and take part in international competitions in France, Sweden and other countries. In 2016, the interdisciplinary competitions became federal: for the first time the qualifying stages of the tournament were held in the Urals, Siberian, and the Volga Federal Districts. The following year, Southern and Far Eastern Districts joined the event, and in spring 2018, Northwest and North-Caucasus Federal Districts also took part in the tournament. The final stage of the competition is traditionally held at VSU.

5. STUDENTS' SPRING FESTIVAL "18TH FACULTY SPRING FESTIVAL"

The traditional students' festival "University Spring" was held in the university concert hall and lasted for a month. The non-competition performance of the 18th faculty (the university graduates) was just the finishing touch. 17 faculties competed in the event. At the concert, students demonstrated their vocal and dancing skills, presented stand-ups and special genre performances. A special nomination dedicated to VSU's centenary was a novelty to celebrate the anniversary. About 1,000 people came to see the performance of the 18th faculty in the university concert hall.



MAIN ACTIVITIES OF VSU ALUMNI ASSOCIATION PLANNED FOR 2019

1. NATIONAL STUDENT MARATHON

For the fifth time, Voronezh will be represented by the VSU team “Doctor of Sciences, Professor Shvarzengolt”. The VSU team is a many time winner of the festival. Despite a break they had in 2018, in February 2019, the VSU team came back, beat 23 teams from all over Russia, and became the absolute champion of the festival. The event consists of three parts: sports, creativity, and intellectual games. VSU Endowment Fund provided support during the preparation of the VSU team for the festival.

2. FEDERAL STUDENT TOURNAMENT OF THREE SCIENCES

3. CHARITY CONCERT “IT IS ONLY WITH THE HEART THAT ONE CAN SEE RIGHTLY”

4. VSU SCHOOL FOR STUDENT ACTIVISTS

It is a summer educational camp for VSU students which takes place at the “Venevitinovo” recreation facility. Over 300 first year students and 80 organisers and volunteers take part in the school annually. Invited experts share their knowledge with the students in the following areas: creativity, support of youth initiatives (in cooperation with the regional youth centre), and organisation of events.

5. VSU CAREER DAY

It is a university event with the participation of university partners aimed at solving human resources issues in enterprises and employment issues of VSU students. Over 25 companies and 250 students take part in the event. It provides students with a chance to have job interviews, take part in master classes from the partners, submit a resume, and get feedback from HR representatives of the companies.

6. OPENING STUDENT SPORTS LEAGUES

Students sports leagues in volleyball, indoor soccer, and basketball. The volleyball sports league was started in November 2018. 9 men’s and 8 women’s teams took part in the event. Only university students and staff can be among the participants of the event.

More information about the activities of the VSU Alumni Association, photo and video reports of the events, previews of events can be found on the Association’s website: www.alumni.vsu.ru, and on a public page on the Vkontakte social networking site at https://vk.com/alumni_vsu.



5.17. GRADUATES EMPLOYMENT ASSISTANCE ACTIVITIES

The demand for the university graduates on the labour market is one of the most significant indicators of the quality of their training. The employment of young specialists has been recently of great importance. To solve this problem, VSU founded the Centre for Career Development (CCD) which assisted in the employment of VSU graduates. Following the Order of the Rector No.35 dated 27 January 2017, the Centre for Career Development opened the Career Development and Business Partnership Department (CDBPD). Career guidance and graduate employment assistance are the priority area for the CDBPD. In order to improve the university's efficiency, the CDBPD collaborates with business partners and regional authorities on implementation of various regional projects and programmes, attraction of partners, fund raising for the VSU Endowment Fund, and graduate and student employment.

MAIN EMPLOYMENT ASSISTANCE TECHNIQUES

- Providing graduates with information about existing vacancies.
- Assistance in youth employment: helping to find temporary and permanent jobs.
- Individual consulting of students and graduates regarding employment.
- Helping students with their professional self-determination depending on their capabilities and job demand on the labour market.
- Assistance in preparing a resume in accordance with modern requirements.

EMPLOYMENT ASSISTANCE RESULTS (VSU INNER SYSTEM)

- A job bank.
- A graduates bank containing the CVs of graduates.
- Information and professional orientation events for students.
- Individual consulting of students on career determination, planning, and development.
- Employment monitoring within one calendar year after the year of graduation.



ORGANISATIONAL AND METHODOLOGICAL SUPPORT OF THE CDBPD'S ACTIVITIES IN 2018

1. Extending the database of potential employers (agreements with enterprises on students internships, cooperation with enterprises and companies aimed at VSU students and graduates' employment, etc.).
2. Providing senior students and graduates with information from the job bank of regional employment bodies (cooperation with Voronezh Region Employment Department).
3. Organisation of events contributing to the successful employment of students and graduates (career fairs, career days, excursions to partner enterprises, employment master classes, presentations by employers, etc.).
4. Operation of faculty bodies responsible for helping with finding jobs and for contacts with students aimed at obtaining information about the jobs of employed graduates and providing unemployed graduates with information from the job bank and employment assistance.

INFORMATION RESOURCES

The CDBPD actively uses social networks to support its activities:

- The Centre of Career Development's official VKontakte group was functioning effectively (as of the end of 2018, the number of followers was 1,650 people).
- The department created an Instagram account "vsucareer" (the number of followers is 130 people).

Additionally, in 2018, the electronic database was extended by 3,000 CVs, and now contains 9,498 CVs.

ORGANISATION OF GRADUATE EMPLOYMENT ASSISTANCE EVENTS

VSU has 143 existing cooperation agreements. In their framework CDBPD organised and held professional orientation events, aimed at assisting graduates in finding employment: such as Career Day, excursions to partner enterprises, and workshops. The information about these events is shown in Table 5.15.

Table 5.15

CONTRIBUTION BY EMPLOYERS

Company	Date of event and number of hours dedicated by employer	Event
Tele2	08.10.2018 2 hours	Presentation of the head-to head stage of the contest for the scholarship by the company
GK "EFKO"	03.10.2018, 04.10.2018, 12.10.2018 6 hours	Preview of the programme "Career breakthrough"
Plant "KMA Ruda"	13.10.2018 5 hours	Excursion to the enterprise
GK "EFKO"	20.10.2019 6 hours	Excursion to the innovation centre "Biruch-NT"
Voronezh Marriott Hotel	24.10.2018, 12.11.2018, 19.11.2018, 26.11.2018 16 hours	Marriott Career Day for VSU students (hotel presentation, excursion to its subdivisions)
Voronezh Mechanical Plant	25.10.2018 3 hours	Excursion to the enterprise
Kamelot	01.11.2018, 29.11.2018 2 hours	Masterclass "Goal setting" by Olga Grishina, the General Director of the group of companies OOO "Kamelot Partner"
HeadHunter	10.11.2018 2 hours	Masterclass "Preparing your resume" by Anna Tvildiani, Leading Marketing Manager and PR of HeadHunter
DSR Corporation	10.11.2018 2 hours	Masterclass "Personal branding in social networks: a jobseeker as seen by the employer" by Anna Koltakova, PR Manager of the company
GK "EGKO", Sberbank, Tele2, DOM. RF, Pepcico, Kommercheskaya Nedvizhimost "Sapsan", FITTIN, Pricewaterhouse Coopers, KPMG, Marriott, Sibur, HeadHunter, Kamelot, Gazprombank, OOO "Business Car Voronezh", Rostelekom, DSR Corporation, Sektr (Poryadok), VTB, WorldQuant	10.11.2018 9 hours	Career Day at VSU: – general presentation of the companies' activities – job interviews
Tele2	Between 14.11.2018 and 16.11.2018 6 hours	Holding the in presence stage of the contest for the scholarship by the company
GK "EFKO"	28.11.2018 2 hours	Training session "Goal setting and time management" by Alexander Kolbas, Deputy Development Director at Biruch-NT Innovation Centre.
Tele2	26.11.2018 5 hours	Press conference and award ceremony of the winners of the personal scholarships by the company
GK "Tortiana"	17.12.2018 6 hours	Excursion to the bread baking plant "Rodnye Prostory"

The number of VSU graduates who applied to employment service bodies reduced from 55 in 2017 to 36 in 2018. Table 5.16 demonstrates the data presented by the Voronezh region employment bodies about VSU graduates of 2018.

Table 5.16

VSU STUDENTS WHO GRADUATED IN 2018 AND APPLIED TO EMPLOYMENT SERVICE BODIES OF THE VORONEZH REGION AS OF 25 DECEMBER 2018

Major	Speciality	Educational programme	Number of graduates who applied to employment service bodies	Including number of graduates registered unemployed	Including those who were deregistered due to:			Registered as of 25.12.2018
					employment	vocational training	long period of absence	
Higher professional education								
Specialist's degree	Geography	Bachelor's degree, specialist's degree	2	2			1	1
	Radiophysics	Specialist's degree	1	1				1
	History	Specialist's degree, master's degree	2	1			1	1
	Ecology and Natural Resource Management	Master's degree, bachelor's degree	3	2	1	2		
	Mechanics and Mathematical Modelling	Bachelor's degree	1	1		1		
	Electronics and Nanoelectronics	Bachelor's degree	1	1		1		
	Ecology	Bachelor's degree	1	1				1
	Psychology	Bachelor's degree, specialist's degree	6	4	2		1	3
	Linguistics	Bachelor's degree	2	2		1	1	
	Advertising and Public Relations	Bachelor's degree	1	1			1	
	International Relations	Master's degree	1		1			
	Economics	Specialist's degree	1	1				1
	Political Science	Bachelor's degree	1	1				1
	Arts and Humanities	Bachelor's degree	1	1				1
	Jurisprudence	Bachelor's degree	3	3		1	1	1
Teacher	Pedagogics and Methodology of Elementary Level Education	Bachelor's degree, specialist's degree	1		1			
Teacher-psychologist	Psychological and Pedagogical Education	Bachelor's degree	1	1				1
Economist	Economics	Specialist's degree	2	2	1			1
Manager	Management	Bachelor's degree	1	1	1			
Chemist	Chemistry	Specialist's degree	3	2	1		1	1
Pre-school teacher	Pre-school education	Specialist's degree	1	1				1
Total			36	29	8	6	7	15
Secondary vocational education								
Major	Speciality	Number of graduates who applied to employment service bodies	Including number of graduates registered unemployed	Including those who were deregistered due to employment	Registered as of 25.12.2018			
Specialist's degree	Advertising, specialist in advertising	3	2	2	1			
Teacher-psychologist	Pedagogics of further education	1	–	1	–			
Total			4	2	3	1		



ANALYTICAL DATA ABOUT THE EMPLOYMENT OF GRADUATES WHO COMPLETED EMPLOYER-SPONSORED TRAINING

Table 5.17

DATA ABOUT THE EMPLOYMENT OF GRADUATES WHO COMPLETED EMPLOYER-SPONSORED TRAINING DURING BACHELOR'S DEGREE PROGRAMMES IN 2018

Enrolment year	Total number of enrolled students	Bachelor's degree					Year of graduation from masters' degree programmes
		Year of graduation	Total number of graduates	Employed		Continued training	
				at the sponsor-company	at other companies		
2014	30	2018	30	1	1	20	2020

In 2019, the university will continue collecting and analysing data on employer-sponsored students and their further employment.

OBJECTIVES OF THE CDBPD FOR 2019:

- Expanding the areas of collaboration with potential employers (by means of training centres, corporate master's programmes, personal scholarships, competitions, etc.).
- Increasing control over the employment of graduates who completed employer-sponsored training.
- Participating in the creation of the Atlas of industrial tourism of the Voronezh Region and its active application.
- Creating a database of graduates (surveys among students and collecting data for Infosys, creation of students' profiles at the alumni website and Stazhirovka.ru and HeadHunter web portals).
- Monitoring and conducting surveys among employers, analysing the labour market and demand for specialists who completed secondary vocational education programmes.



5.18. TELECOMMUNICATIONS AND INFORMATION SYSTEM DEVELOPMENT AT VSU IN 2018

DEVELOPMENT OF THE UNIVERSITY'S TELECOMMUNICATION SYSTEM

The University fiber-optics network connects all the buildings and most of the residence halls. Thanks to the modern equipment, the data transfer rate is now up to 10 Gbit/s. The VSU wireless network covers almost all of the University's territory. The network has 206 wifi access points. In 2018, the coverage of the University wireless network was expanded and now involves the Park of Scientists opposite the main university building.

In 2017, the main activities of the university in this sphere were aimed at increasing the stability and optimising the process of monitoring and maintaining the equipment. For example, in 2018, the backup Internet connection channel went into service. This solution based on the provider's communication base which is different from the main channel enhances assured access to MSK-IX.

DEVELOPMENT OF THE UNIVERSITY MULTIMEDIA EQUIPMENT

Prior to its centenary, Voronezh State University did renovations in the conference hall and auditorium where new modern multimedia equipment was installed. The new equipment ensures processing and transmission of FullHD video (1080p resolution).

A video wall with 4 screens (diagonal 55 inches, format 16:9 each) was installed in the conference hall. It allows synchronised and asynchronised transmission of the video on the suspended video walls and the screens on the "round table". The acoustic pressure of the modern loudspeaker system is over 85 dB. Three PTZ cameras transmit the image on the video wall, screens, and displays in the hall. The lectern and the table of the head table are equipped with displays and presentation materials controls. The head table has smart glass with variable transparency (fig. 5.13).

Figure 5.13

MULTIMEDIA EQUIPMENT IN THE CONFERENCE HALL





The auditorium was equipped with two video walls (100 inches each), one more Optoma video projector with a short-focus lens and the operational life of the optical source over 20 thousand hours, a new loudspeaker system, three PTZ cameras, displays, and presentation materials controls at the lectern and on the head table.

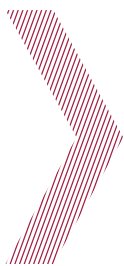
Figure 5.14

MULTIMEDIA EQUIPMENT IN THE AUDITORIUM



The updated equipment enables the following functionality:

- Video conferencing with the help of its own video conference server and such software programmes as TrueConf and Cisco. You can also use Skype.
- Livestreaming the events on YouTube.
- Demonstration of presentation materials from mobile devices on the displays and screens in the hall.
- Broadcasting of combined streams ("picture in picture" effect).
- TV broadcasting with the help of a digital TV tuner.
- Transmission of events held in the conference hall to the display in the hall of the ground floor of the main building.
- Possibility to connect external equipment (laptops, professional video cameras, and additional microphones) to the multimedia equipment.
- Audio and video recording of events.
- Possibility to operate the equipment from the operator's desk and remotely with the help of the operator's tablet computer.



DEVELOPMENT AND SUPPORT OF THE UNIVERSITY'S ELECTRONIC EDUCATIONAL ENVIRONMENT

In 2018, over 9,700 potential VSU students filled in their application forms in the university laboratories. Potential VSU students had the opportunity to fill in their application forms in three computing laboratories holding 50 people, where they were assisted by 116 consultants. An average of 180 applications were processed every day. The most applications processed per day was over 800.

In 2018, the hardware and software system was modernised prior to the national academic accreditation at the Faculty of Pharmacy (fig. 5.15).

Figure 5.15

HARD- AND SOFTWARE SYSTEM FOR THE NATIONAL ACADEMIC ACCREDITATION AT THE FACULTY OF PHARMACY



As a result the equipment was conformed to the new standards of the Ministry of Health of the Russian Federation with regard to this procedure. Experts now have the opportunity to watch the accreditation process from a remote location and have remote communications with the body under accreditation. The modernised equipment can also be used for audio and video recording.

The system was based on the national software Trassir, the bidirectional audio streams (from experts and to the institution under accreditation and back) were transmitted by means of the university's communication system with the help of the free operating system, Linux, and its audio subsystem, PulseAudio. This solution enabled to considerably reduce the cost of the equipment modernisation. High-quality inexpensive domestic



digital microphones STELBERRY were used for transmission of the sound from all accreditation stations. As a result, the experts could hear clearly the people no matter at what accreditation station they were. The duration of modernisation, including planning, design, and commissioning was 8 months.

The University Academic Council decided to introduce a system for an electronic timetable (fig. 5.16).

Figure 5.16

INTERFACE OF THE ELECTRONIC TIMETABLE SYSTEM

Имя	Преподав.	Дисциплина	Кафедра	Семестр	Продолжитель.	Преподаватель	Нагру.	Уч. г.	Объем/дл./от.
злор ОСЭлос	Базовый блок дисциплин	Иностранный язык	0705 Кафедра английского языка гуманитарных	2	18	Карталов Владимир Николаевич	64	05к	
злор ОСЭлос	Базовый блок дисциплин	Иностранный язык	0705 Кафедра английского языка гуманитарных	2	18	Парина Елена Борисовна	128		
злор ОСЭлос	Базовый блок дисциплин	Иностранный язык	0705 Кафедра английского языка гуманитарных	2	18	Селезнева Елена Сергеевна	152		
злор ОСЭлос	Базовый блок дисциплин	Иностранный язык	0705 Кафедра английского языка гуманитарных	2	18	Тюришова Ольга Владимировна	128		
злор ОСЭлос	Базовый блок дисциплин	Иностранный язык (немецкий язык)	0702 Кафедра немецкой филологии	2	18	Борозда Людмила			

День/Интервал	08:00 (1 курс)	09:45 (1 курс)	13:25 (1 курс)	15:10 (1 курс)	16:55 (1 курс)	18:40 (1 курс)	19:25 (1 курс)	21:10 (1 курс)	22:55 (1 курс)
13:25-15:00	Маркетинг (лек) Сова А. Н. в 202а	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102
15:10-16:45	Маркетинг (лек) Сова А. Н. в 202а	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102	Иностранный язык (рус) Селезнева Е. С. в 102
16:55-18:30	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а
08:00-09:35	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а	Иностранный язык (немецкий язык) (рус) Борозда Л. В. в 102а
09:45-11:20	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б	Социология (лек) Давыдов А. В. в 200б



1C configuration: “Automated Timetabling” (Enterprise platform version 8.3) was chosen as the basis for the solution. It was adjusted to the university requirements and integrated into the system for the informational support of the “Contingent” education process, which allowed simplifying routine operations. As a result of the system testing it was decided to put it into operation step-by-step.

DEVELOPMENT AND SUPPORT OF THE UNIVERSITY WEBSITES

In 2018, the number of publication requests on the VSU website (www.vsu.ru) amounted to 1,754, including 1,184 news stories (1,015 in 2017) and 232 announcements (186 in 2017).

The statistics showed that the traffic on the official website was 1.6 times as high as in 2017 (fig. 5.17 and 5.18). The share of visitors that continued to browse the site after viewing the homepage increased by 5%.

Overall, the visitors to the website represented 173 countries, which is 12 countries more than in the previous year (fig. 5.19 and 5.20). There was an increase in the activeness of users from Egypt (3.2 times as high the previous year), China (2.7 times), Vietnam (2.6 times), Austria (2.4 times), Turkey, Spain, and India.

Among the top news stories are, as usual, reports about the admission campaign, materials dedicated to the centenary of VSU, to the Conference of the Student Scientific Society, and military education at VSU.

Figure 5.17

VSU OFFICIAL WEBSITE TRAFFIC IN 2018

VSU official website traffic (01.01.2018 – 01.01.2019)

NUMBER OF VIEWS



1,240,587 visits (1.6 times more than the previous year)
60% of the visitors continued looking through the site after viewing the homepage



3, 212,613 page views



106,368 document downloads (*pdf, ppt, doc, etc.*)



3 minutes 39 seconds was the average time spent on the website

57

Figure 5.18

TRAFFIC SOURCE

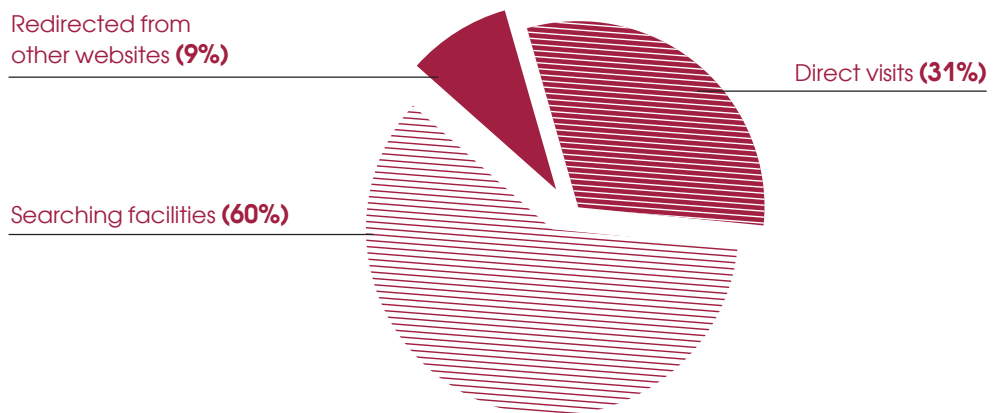


Figure 5.19

VISITS TO THE VSU OFFICIAL WEBSITE BY CONTINENTS

Europe (1,190,554 visits)

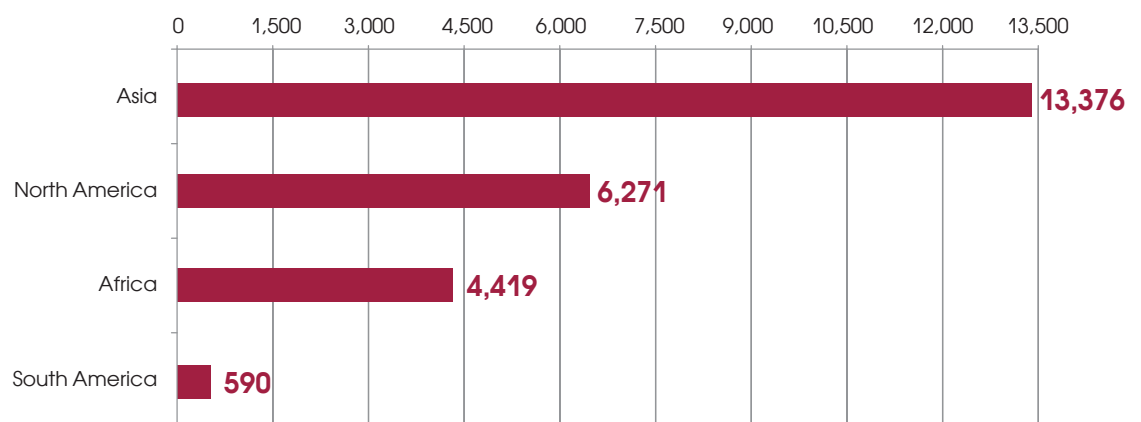




Figure 5.20

VISITS TO THE VSU OFFICIAL WEBSITE BY COUNTRIES

Russia (1,158,833 visits)

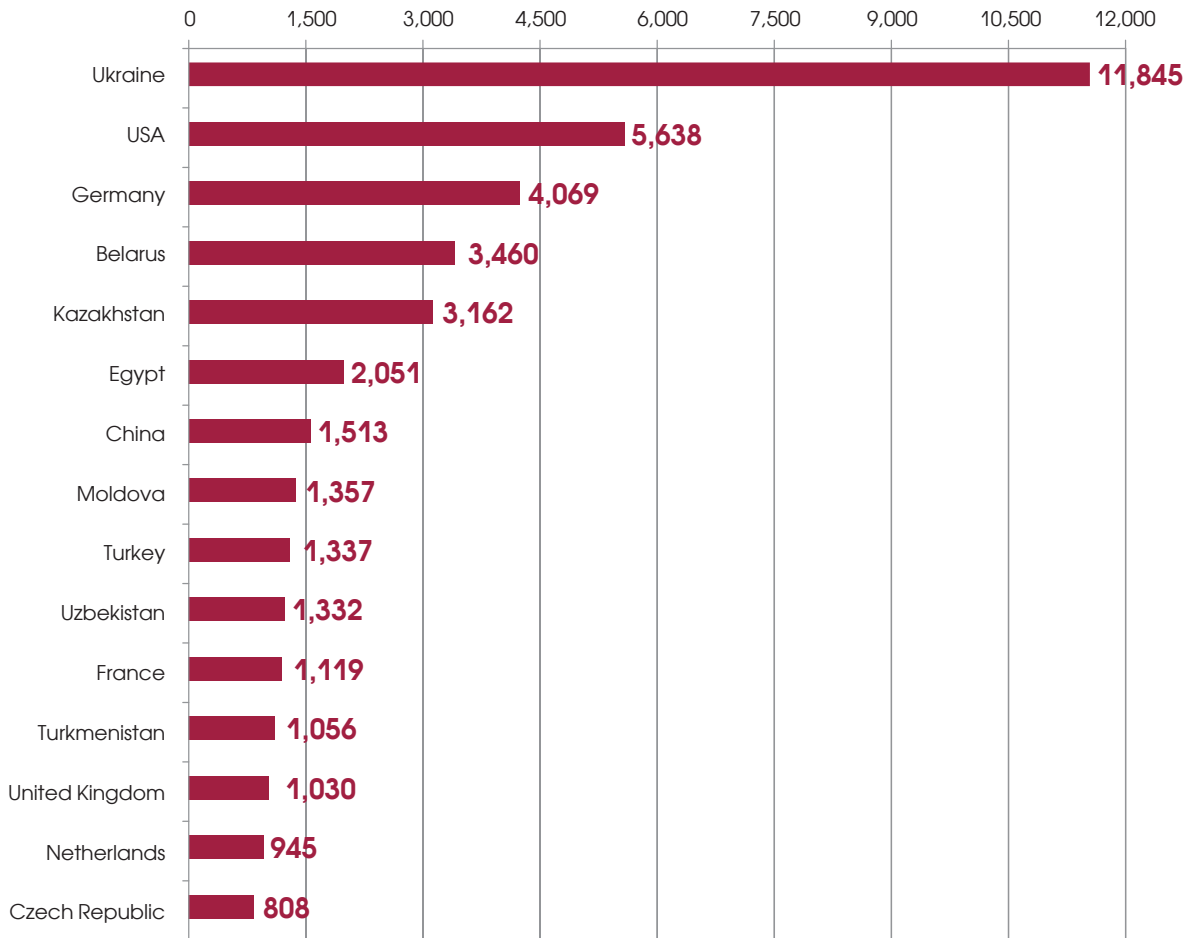
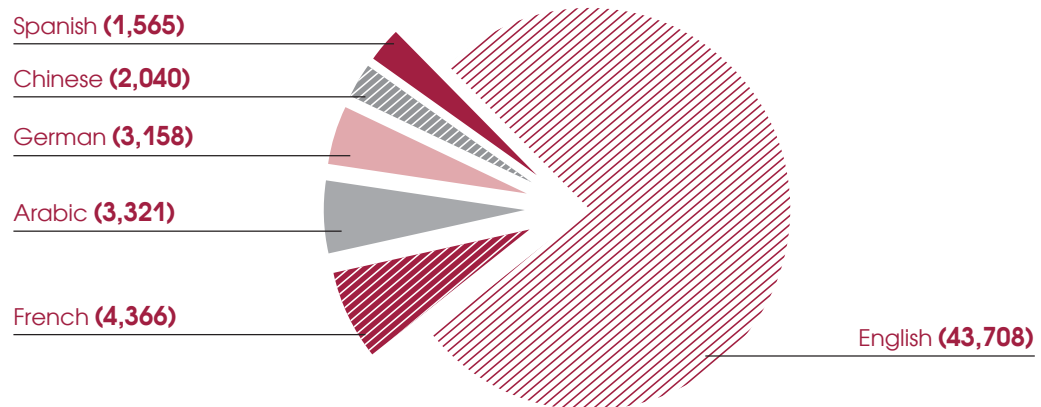


Figure 5.21

TOP FOREIGN LANGUAGES

Russian (1,176,226 visits)



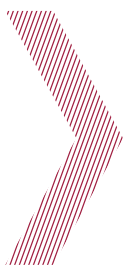


Table 5.18

TOP SECTIONS

Top sections	Visits
University	880,611
Academic Staff	493,748
News	386,217
A question to the Rector	82,174
Announcements	25,591
Calendar	13,245
Articles	9,704
Rankings	8,082
Anti-corruption	2,997

Table 5.19

TOP PAGES

Top pages	Visits
Faculties	108,959
The Faculty of Economics	35,805
The Faculty of Biomedical Sciences	30,015
The Faculty of Law	29,460
The Faculty of International Relations	25,392
The Faculty of Romance and Germanic Philology	25,053
The Faculty of Computer Sciences	22,576
The Faculty of Journalism	22,408
The Faculty of Military Education	23,066
Academic Staff	21,799

TOP DOWNLOADED FILES

1. Timetable of the Faculty of Economics.
2. Tuition fees of secondary vocational education programmes.
3. Campus accommodation procedure.
4. Order about adjustments of state academic scholarship and state social scholarship.
5. Timetable of the Faculty of Geology.
6. Book "E-learning and off-campus educational technologies in the educational process at VSU".
7. Regulations on the procedure and circumstances for the switching from fee-based to free departments for students completing higher educational programmes.
8. Timetable of the Faculty of International Relations.
9. Procedure of providing fee-based services.
10. Timetable of the Faculty of Law.
11. The Conference of the Student Scientific Society and its results, the Borisoglebsk branch, VSU centenary, and training period at the military department.



TRAFFIC ON THE ENGLISH VERSION OF VSU OFFICIAL WEBSITE IN 2018

Overall, the visitors to the website were from 179 countries, which is 11 countries more than in the previous year. There was an increase in the activity of users from Egypt (2.5 times as high as the previous year) and Turkey (2 times).

In 2018, the Arabic and Chinese versions of the official website were fully updated. Now, the users can learn about the history and interesting facts from the life of VSU, its positions in major rankings, its location, structure, educational levels, and faculties.

Figure 5.22

TRAFFIC ON THE ENGLISH VERSION OF THE OFFICIAL VSU WEBSITE IN 2018

VSU official English website traffic (01.01.2018 – 01.01.2019)

NUMBER OF VIEWS

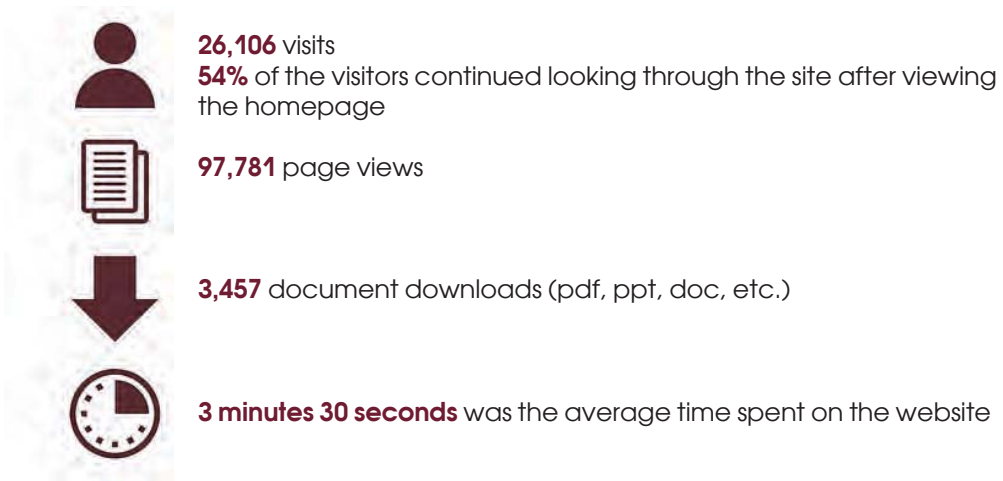
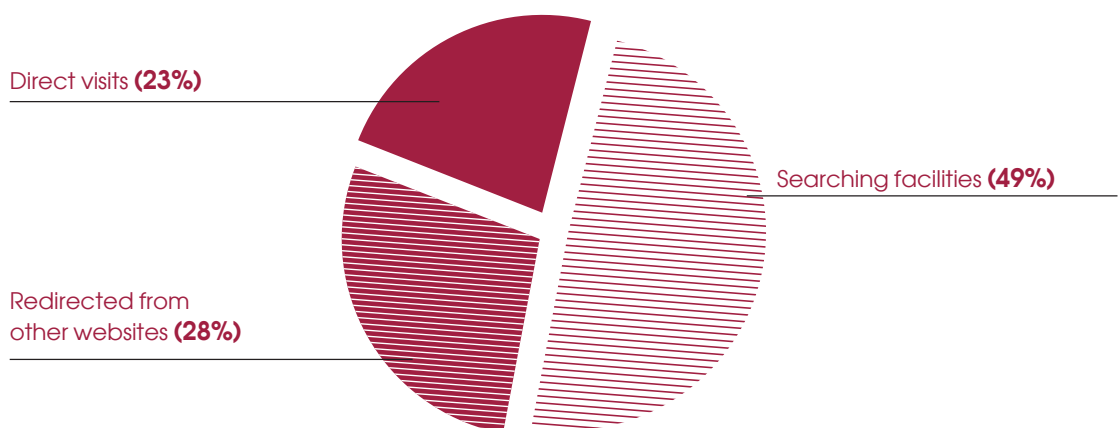


Figure 5.23

TRAFFIC SOURCE ON THE ENGLISH VERSION OF VSU WEBSITE



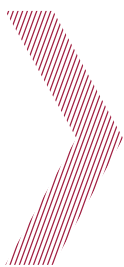


Figure 5.24

VISITS TO THE ENGLISH VERSION OF THE WEBSITE BY CONTINENTS

Europe (13,099 visits)

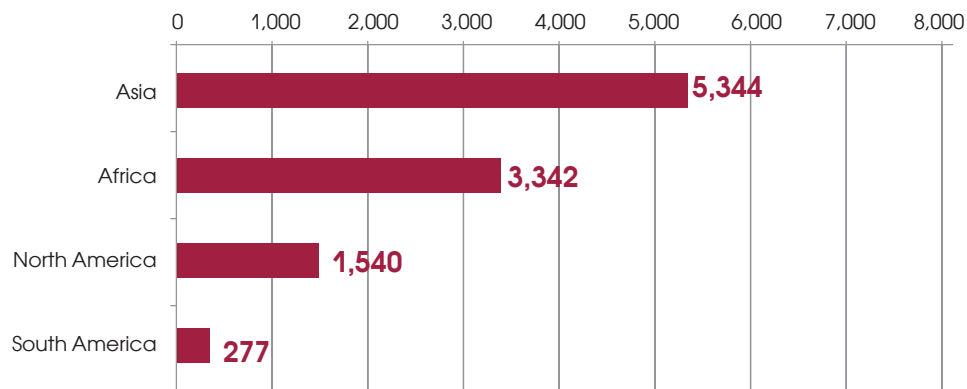


Figure 5.25

VISITS TO THE ENGLISH VERSION OF THE WEBSITE BY COUNTRIES

Russia (8,132 visits)

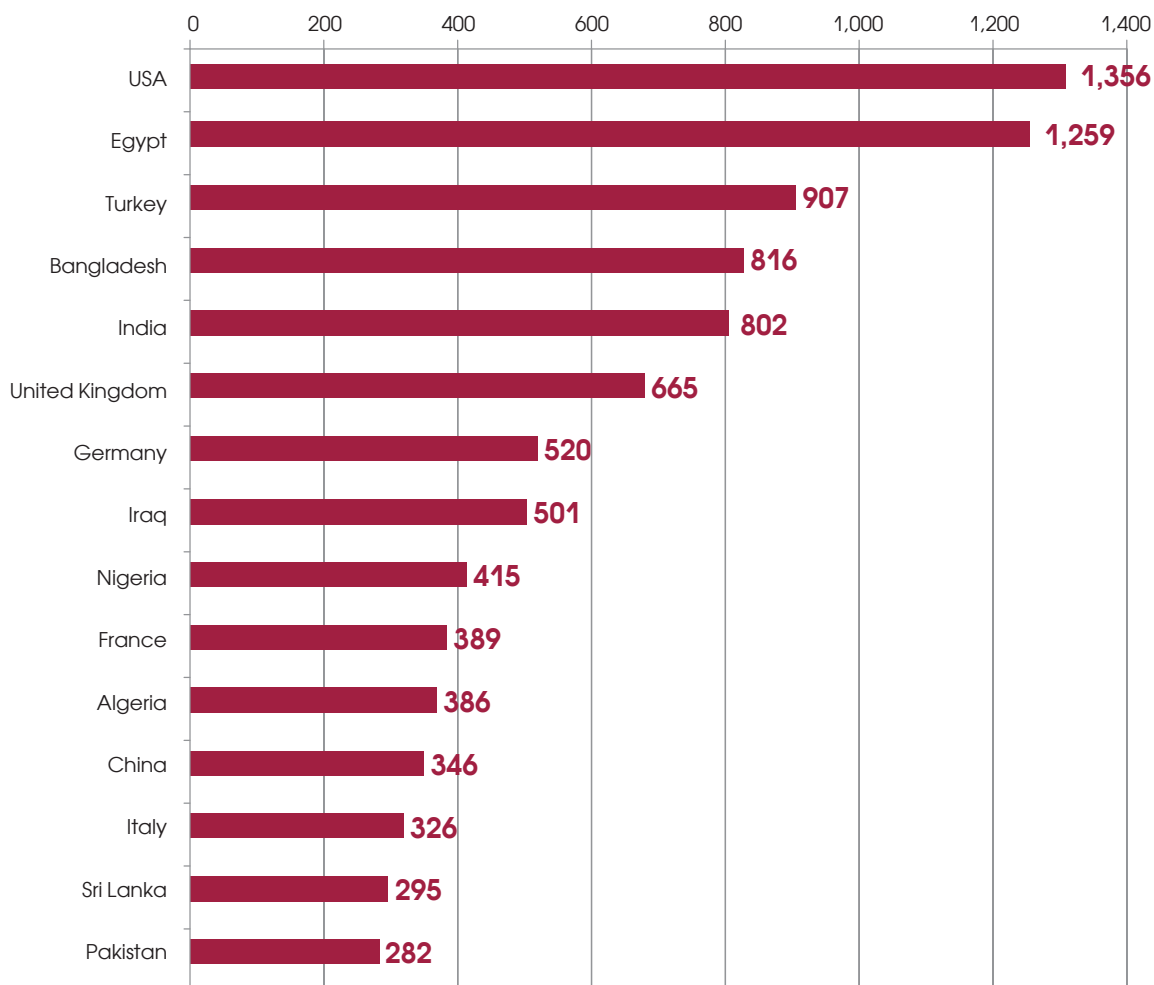




Figure 5.26

TOP FOREIGN LANGUAGES

English (13,524 visits)

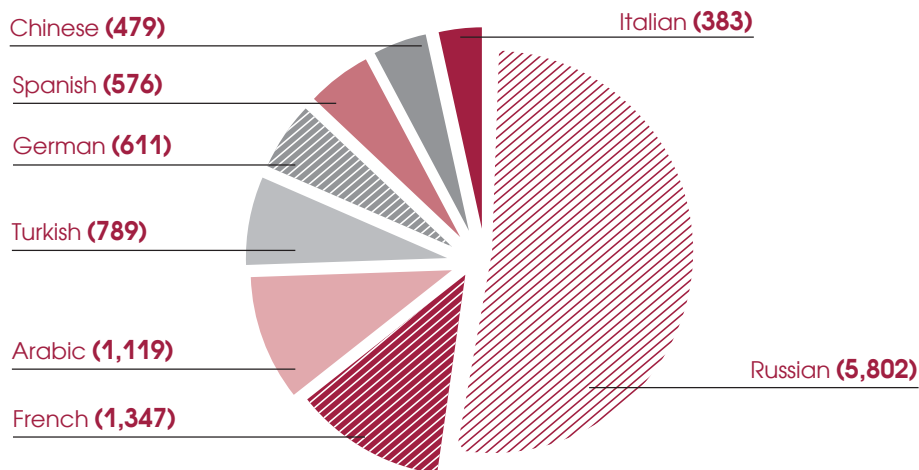


Table 5.20

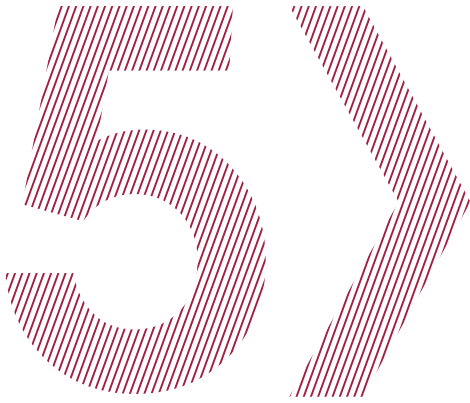
TOP SECTIONS ON THE ENGLISH VERSION OF THE WEBSITE

Top sections	Visits
Training	32,409
Faculty	18,684
About VSU	16,044
News	5,540
Cooperation	1,985
Research	1,965
Video	193

Table 5.21

TOP DOWNLOADED FILES FROM THE ENGLISH VERSION OF THE WEBSITE

Top pages	Visits
Tuition fees	867
Brochure about VSU	589
Courses in Russian	222
Academic staff mobility	28
VSU report	25



“ABITURIENT ONLINE” WEB PORTAL

The “Abiturient Online” web portal (www.abitur.vsu.ru) has been the most popular of the university’s internet resources during the admission campaign for many years (fig. 5.27). In 2018, the portal traffic exceeded 780 thousand visits. Page traffic constituted over 1.9 million views. 86% of the visitors were from Russia, 9.5% from USA, and 1.1% from European countries.

Figure 5.27

“ABITURIENT ONLINE” WEB PORTAL HOMEPAGE

Абитуриент Онлайн

Воронежский государственный университет

График работы Приемной комиссии: пн.-пт.: 9:00–16:00 без перерыва

ИНФОРМАЦИЯ О КОНКУРСЕ

- Приказы о зачислении
- Приказы о зачислении в аспирантуру
- Рейтинговый список
- Список абитуриентов, представивших оригиналы
- Справка о конкурсе

Поступление

Информация о приеме на программы бакалавриата, специалитета, магистратуры

- Правила приема
- Количество бюджетных мест с указанием особой квоты
- Сроки приема документов
- Сроки приема согласий о зачислении
- Перечень вступительных испытаний

Информация о приеме в аспирантуру

- Правила приема в аспирантуру
- Сроки приема документов и проведения экзаменов
- Количество бюджетных мест в аспирантуре
- Количество договорных мест в аспирантуре в 2018 году
- Перечень и приоритетность вступительных испытаний

Обратите внимание

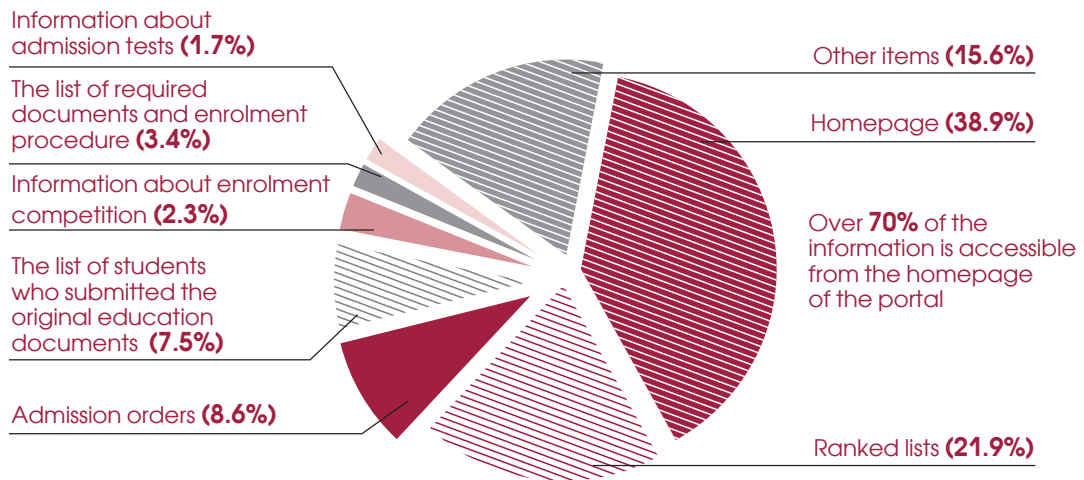
- Аккредитация и лицензирование образовательной деятельности. На что следует обращать внимание при выборе вуза
- Электронное образование

Информация для первокурсников

- Внимание, первокурсники!

Figure 5.28

"ABITURIENT ONLINE" WEB PORTAL TOP SECTIONS IN 2018 (BY VIEWS)



The new principle of the portal (to make the information easily accessible) proved to be a success, as the homepage traffic constituted 38.9% of views. The most popular sections of the portal include: web services of the "Abiturient" information system that allow prospective students to monitor their position in the ranked lists online ("Ranked lists" section – 21.9%); admission orders (8.6%); lists of students who submitted the original education documents (7.5%); information about the number of applications, vacancies and enrolment competition ("Information about enrolment competition" – 2.3%) (fig. 5.28).

DEVELOPMENT OF DATA PROCESSING CENTRE

The VSU Data Processing Centre (hereinafter DPC), opened within the framework of the Electronic University project, continued operations in 2018. The project's objective is to lower the maintenance costs of resource intensive IT-infrastructure, to maximize the effectiveness of shared resources, save energy, broaden the range of opportunities, and reduce downtime. The Data Processing Centre also provides for the functioning of information services crucial for administrative and education support divisions.

In 2018, the centre's computing suit was upgraded. As a result the performance, RAM, and storage capacity were doubled on the servers that provide information and analytical support for the quality financial management system. The VSU photo archive was also modernised and transferred from outdated equipment to the new SuperMicro server platform.

In the reporting year, the DPC's equipment was used to develop a platform for massive open online courses (MOOC) and to deploy a new software solution for preparing and posting documents related to the VSU educational activity.



A research team from the Department of Electronics of the Faculty of Physics used the centre's equipment to make calculations for research projects funded by grants from the Russian Foundation for Basic Research No.16-07-01238 and the grant of the President of the Russian Federation to support young scientists with DSc degrees (project No.MD6872.2018.9). The results of these projects were presented in 7 papers published in peer-reviewed journals in reports given at international conferences.

SUPPORT OF USERS OF VSU'S TELECOMMUNICATION SERVICES

In the reporting year, user support within the university's telecommunications system was performed by the VSU Information Technology Administration. 12,428 user requests, both technical and informational, were processed. In 2017, there were 12,929 requests (fig. 5.29). The portion of successfully solved problems was 97.4%.

Most of the requests (40%) were related to the registration of students and staff on the university's wireless network and fixing telecommunication services issues. Next were VSU information systems requests (27%). And finally, requests related to posting information on websites (fig. 5.29–5.31).

Figure 5.29

NUMBER OF REQUESTS BY USERS OF VSU'S TELECOMMUNICATION SERVICES BETWEEN 2012 AND 2019

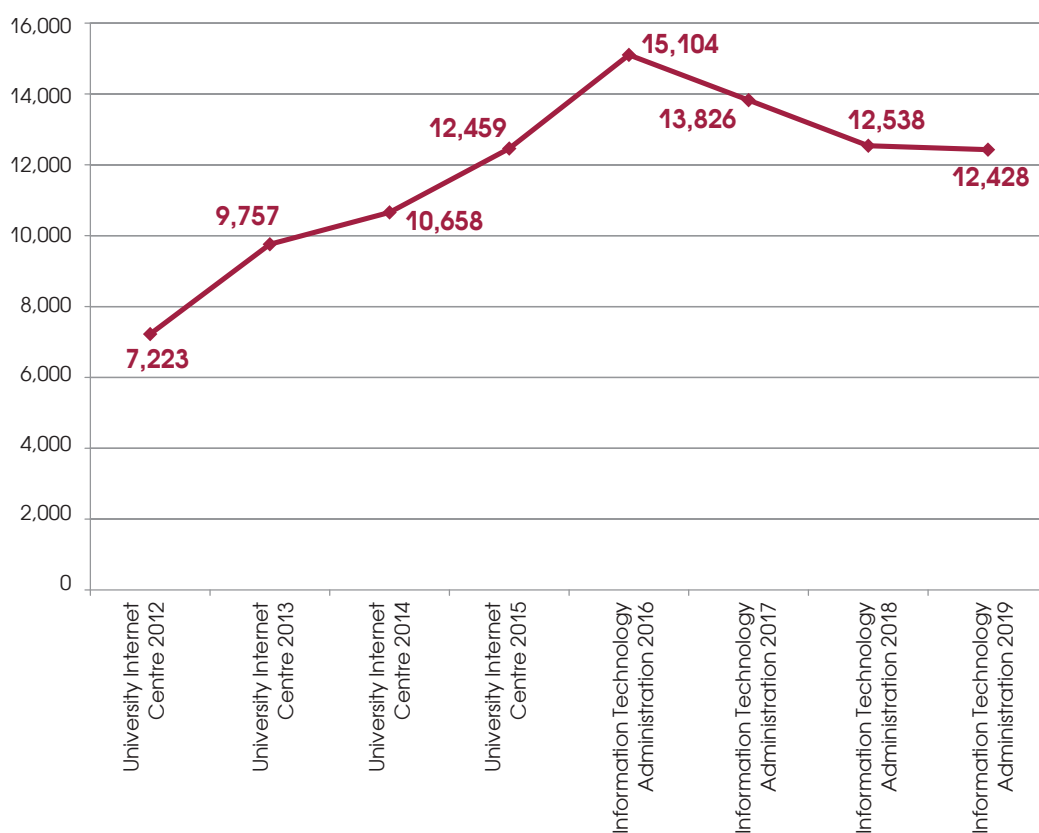




Figure 5.30

DISTRIBUTION OF THE NUMBER OF REQUESTS BY USERS OF VSU'S TELECOMMUNICATION SERVICES IN 2018 BY MONTHS

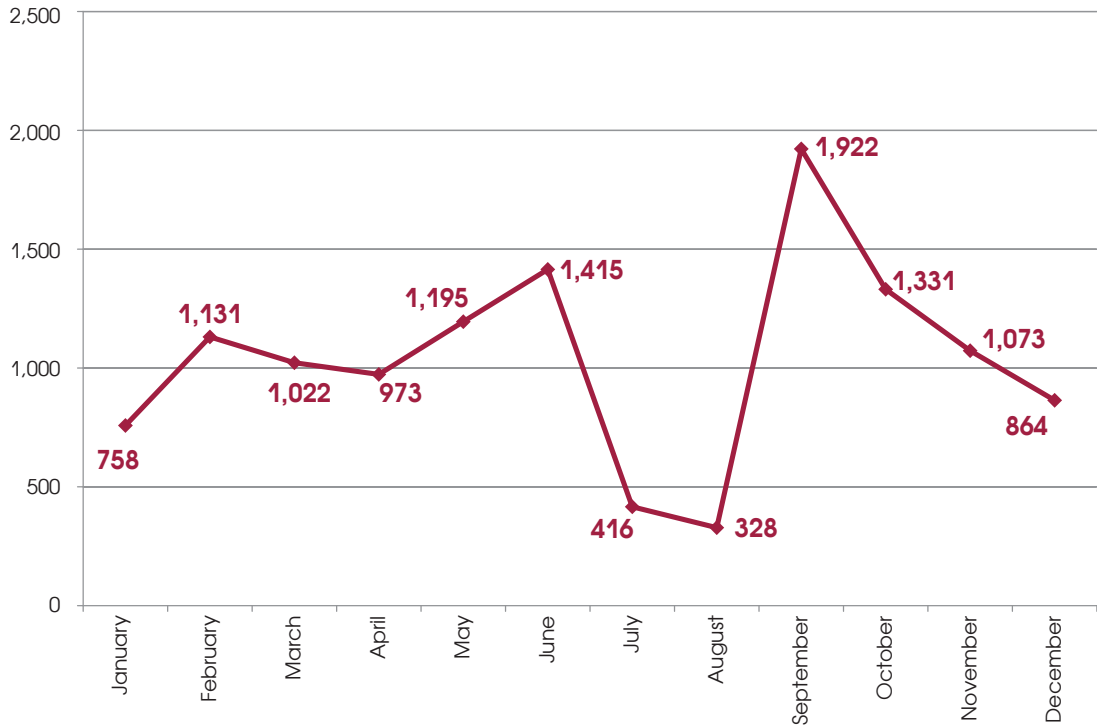
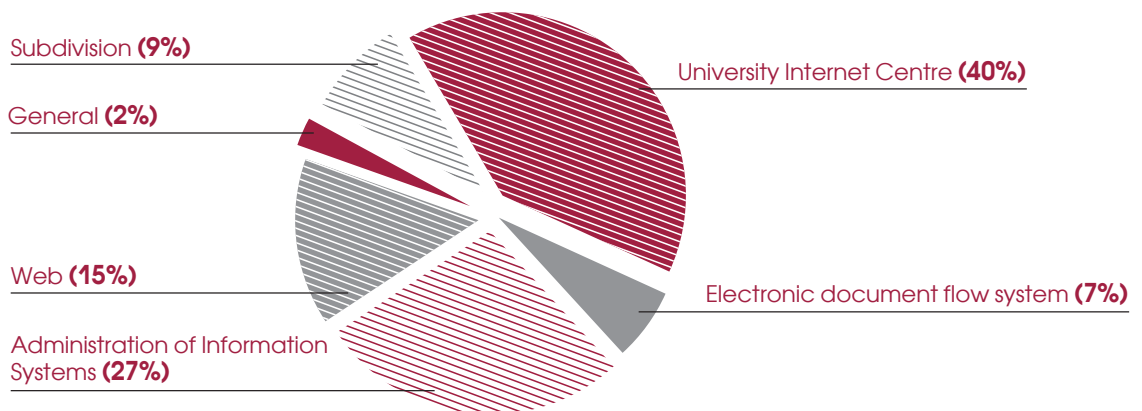


Figure 5.31

DISTRIBUTION OF THE NUMBER OF REQUESTS BY USERS OF VSU'S TELECOMMUNICATION SERVICES IN 2018 BY TYPES



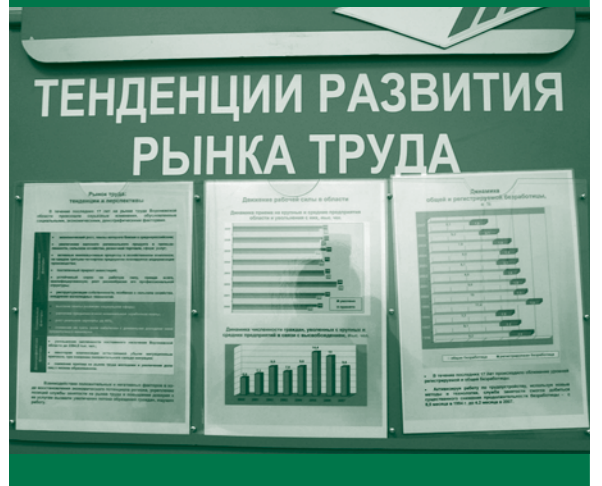


5.19. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2018

- In the area of hydrogen energetics, a method of formation of metal-ceramic composites with a selective layer on the basis of Pd-Cu and Pd-Pb solid solutions was developed. Due to retaining the ordered atomic structure of the foil, the method yields higher hydrogen permeability and selectivity of membrane elements, as compared to the already existing methods (Head Researcher: Professor V.M. Ievlev, Full Member of the Russian Academy of Sciences).
- In the area of nanophase materials science, functional ferroelectric materials were created with extended temperature range of ferroelectric phase and possibility to regulate dielectric dispersion of the material based on the difference in proportion of their components (Head Researcher: Professor A.S. Sidorkin).
- In the area of optics and spectroscopy, new regularities of non-linear light absorption by thiazine dyes were established. The effect of reverse absorption saturation in ethanol solutions of triethylene blue and thionin fading driven by second harmonic pulses Nd:YAG laser (532 μm) with a duration of 10 ns was demonstrated. It was found that the nonlinear effects have a low threshold caused by the high yield of the interspin conversion. It was shown that the type of the optical nonlinearity is determined by the location of the bands of optical absorption and by the system of triplet-triplet transitions which vary widely for triethylene blue and thionin (Head Researcher: Professor O.V. Ovchinniov).
- In the area of physics of intense laser fields, it was theoretically proved that it is possible to manage the yield of the coherent secondary radiation and its polarization properties by changing time delay between the components of intensive bicircular laser field. The theory of the generation of the high harmonics by atomic systems in the intense low frequency laser field was developed. It was used to show that harmonic yield can be enhanced (mitigated) in a chosen energy range and the harmonic polarization can be changed from linear to circular by changing time delay between the components of the impulse bicircular field (Head Researcher: Associate Professor M.V. Frolov).

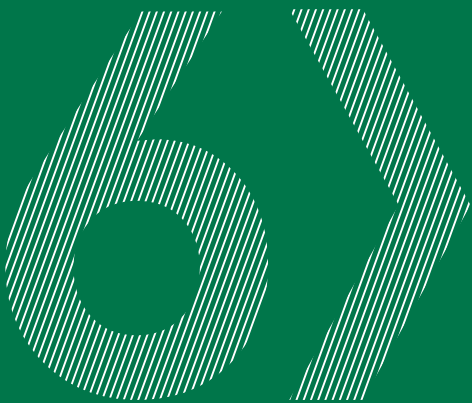


- In the area of nanotechnologies, the method of production of nanocrystalline silicon powder with stable bright photoluminescence was developed, whose intense maximum can be shifted within 750 and 550 nm. The method allows producing particles of nanocrystalline silicon powder that retain their luminescence properties at high temperatures (up to 650 K). What's more, it can be produced in large quantities and without using expensive and highly inflammable substances (Head Researcher: Associate Professor P.V. Seredin).
- In the area of low-temperature plasma physics, the susceptibilities of molecules were calculated and dependence on frequency and geometrical parameters of molecules were obtained. Theoretical formulas for amplitude, ionization cross section, and angular distribution of electrons were obtained. New spectral characteristics were determined and the probabilities of electronic transition for Rydberg states of complex atoms and molecules were calculated. Cross sections of tunnelling ionization of molecules, including excited rovibrational state were obtained (Head Researcher: Professor B.A. Zon).
- In the area of mathematics, invariance criteria of manifold Banachian limits relative to associate operator and new properties of extreme points of invariant limit sets were established and the condition for the convexity of spheres of Banachian limit space were found (Head Researcher: Professor E.M. Semyenov).
- In the area of chemistry, physical and chemical regularities of adsorption processes in the system "hydroxy benzaldehyde solution – highly basic anion exchanger" were established and their mechanism was justified, which involves sorption of vanilline molecules in the process of the protolytic reaction with counter-ions, anionic exchange by transition of the molecular forms into anionic in alkaline medium of the internal filling solution, and non-exchangeable sorption determined by primarily stacking interactions (Head Researcher: Professor V.F. Selemenev).
- In the area of materials science, a method of production of GaAs and InP-based semiconductor and dielectric films was developed with simultaneous interaction of chemostimulators and modifiers of the inner boundary and structure; and a sol-gel method of doping lanthanum and yttrium by elements of group II of the periodic system was developed which allows managing their magnetic properties and the size of nanocrystals (Head Researcher: Professor I.Ya. Mittova).
- In the area of biology, molecular genetic methods for the identification of microorganisms important for the food industry were developed. These methods can be used for the microbial control of food products (Head Researcher: Professor V.N. Popov).
- In the area of geography and geoecology, an electronic medical and environmental atlas of Voronezh was created. It is based on the GIS system ("MED-ECO GIS of Voronezh") which includes storage subsystems for the ecological-geochemical and medical-geographical data for the period between 2009 and 2018 and software and algorithms for the evaluation of ecological risks for the health of the population (Head Researcher: Professor S.A. Kurolap).





ECONOMICS AND CONTRACT SERVICE





ECONOMICS AND CONTRACT SERVICE



L.S. Korobeinikova,

Vice-Rector for Economics
and Contract Services

6.1. VSU MAJOR OBJECTIVES IN THE AREA OF ECONOMICS AND FINANCE IN 2018

The goal of Voronezh State University in terms of economics and contract services is to achieve the best results of the university's financial policy in accordance with the current legislation regarding financial management of universities subordinate to the Ministry of Science and Higher Education of the Russian Federation, the requirements of the purchase legislation, and the need to meet the target values of the employee compensation roadmap.

In order to achieve this aim, the following objectives were set:

- To continue the successful practice from 2017 by using the system of per capita financing to calculate the payroll budget for the academic staff and the payroll budget for other university employees who are not directly involved in rendering state services.
- To adjust the salary of academic staff members to the corresponding values of the roadmap by introducing bonuses in 2018 based on the efficiency levels of the faculties. The amount of the bonuses depends on the academic title.
- To minimise costs in accordance with the university's strategy of finance management, budgeting, and planning of financial and business operations.
- To achieve the optimum total financing of products, works, and services to provide the university's needs.



- To reduce the liabilities to the creditors by decreasing all types of accounts payable.
- To achieve positive financial results from the university's operating activities.
- To strengthen the current level of VSU's financial solvency and financial sustainability.
- To reduce the number of changes introduced in the provisions of the time-schedule for purchases to improve the planning of the university's purchasing activities.
- To improve the purchasing competence of contractual system specialists as part of the programme "Purchase Management in the Contractual System".

6.2. INCOME STRUCTURE BY THE SOURCE OF FINANCING IN 2018

In 2018, the total income amounted to **2,672,676.1 thousand roubles**, including:

- Government order subsidies (**1,103,133.1 thousand roubles**).
- Targeted subsidies (**481,724.5 thousand roubles**).
- Receipts from the provision of services to natural and legal persons on a fee-paying basis (**1,087,818.5 thousand roubles**) (Table 6.1, Figure. 6.1).

Table 6.1

INCOME STRUCTURE BY THE SOURCE OF FINANCING, thousand roubles

Receipts in 2018		Totals
Federal budget	Income-generating activities	
1,584,857.6	1,087,818.5	2,672,676.1



Figure 6.1

INCOME STRUCTURE BY THE SOURCE OF FINANCING, THOUSAND ROUBLES



In 2018, the percentage of income from the federal budget amounted to 59.3%, and 40.7% was from income-generating activities.

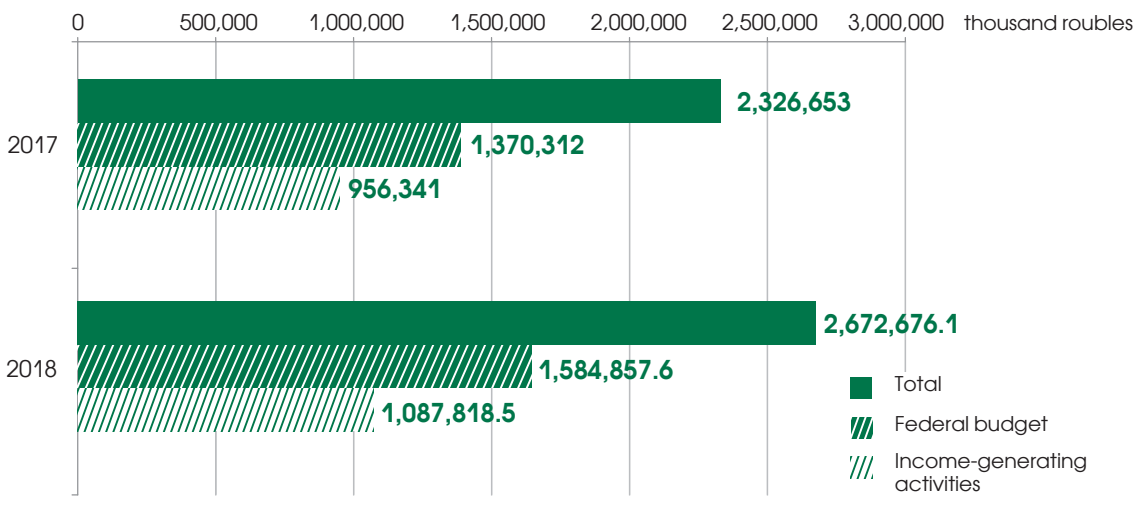
6.3. INCOME IN 2018 COMPARED TO 2017 BY SOURCES OF FINANCING

Compared to 2017, the total income in 2018 increased by **346,023.2 thousand roubles (or by 14.9%)**:

- Subsidies obtained from the Russian Federation state budgetary resources increased by 214,545.5 thousand roubles.
- Extra-budgetary funding from income-generating activities increased by 131,477.7 thousand roubles (fig. 6.2).

Figure 6.2

INCOME IN 2018 COMPARED TO 2017



6.4. AREAS ON WHICH FUNDS WERE SPENT IN 2018 BY SOURCES OF FINANCING

Table 6.2

2018 BUDGET EXPENDITURE REPORT

Name	Total	Governmental order subsidies	Action grants	Income-generating activities
Balance as of 01.01.2019	193,127,222.72	115,716,257.61	2,302,352.71	75,108,612.40
Payment for expenses, total:	2,871,197,222.72	1,218,849,357.61	489,420,752.71	1,162,927,112.40
including: Payments to personnel, total	1,518,996,159.53	854,675,939.49	21,304,064.15	643,016,155.89
among them: Staff compensation and staff compensation payment charges	1,477,754,090.15	836,978,602.69	18,185,510.00	622,589,977.46
among them: Salaries of	1,135,504,748.70	642,840,708.67	14,484,083.34	478,179,956.69
Academic staff	737,512,044.00	410,132,005.00	5,545,852.00	321,834,187.00
Researchers	65,019,408.00	22,977,053.66	8,785,848.34	33,256,506.00
among them: Research staff members	42,119,088.00	15,919,932.75	3,511,614.25	22,687,541.00
Administrative and managerial personnel	115,084,800.00	76,411,197.46	152,383.00	38,521,219.54
Support personnel	217,888,496.70	133,320,452.55	0.00	84,568,044.15
Contributions to social insurance funds regarding compensation to employees and other payments to employees of institutions	342,249,341.45	194,137,894.02	3,701,426.66	144,410,020.77
Other payments to personnel excluding salaries	23,682,354.15	3,157,421.57	3,118,554.15	17,406,378.43
Other payments, excluding salaries to persons employed to perform specific authorities in accordance with the legislation	5,678,750.00	2,694,700.00	0.00	2,984,050.00
Military compensation and compensation for staff members with special ranks	11,880,965.23	11,845,215.23	0.00	35,750.00
Scholarships	363,463,252.71	85,000.00	351,950,752.71	11,427,500.00
Taxes, commissions, and other payments, total	68,922,422.06	28,131,800.00	0.00	40,790,622.06
among them: Property tax and land tax	63,818,509.06	28,131,800.00	0.00	35,686,709.06
Other taxes and commissions	1,238,913.00	0.00	0.00	1,238,913.00
Other payments	3,865,000.00	0.00	0.00	3,865,000.00
Other expenses (excluding expenses for purchase of goods, works, and services)	2,500,000.00	0.00	0.00	2,500,000.00



End of table 6.2

Name	Total	Governmental order subsidies	Action grants	Income-generating activities
Expenses for purchase of goods, works, and services, total	925,645,610.64	335,956,618.12	116,165,935.85	473,523,056.67
among them: Design and experimental works	13,988,500.00	0.00	5,988,500.00	8,000,000.00
Purchase of goods, works, and services for major repairs of state property	78,746,000.00	1,715,000.00	70,800,000.00	6,231,000.00
Purchase of other goods, works, and services for state (municipal) needs	824,580,888.42	334,241,618.12	39,377,435.85	450,961,834.45
among them: Communications services	12,050,000.00	2,850,000.00	0.00	9,200,000.00
Transport services	1,208,090.00	432,000.00	0.00	776,090.00
Utility costs	186,300,594.09	137,700,000.00	0.00	48,600,594.09
Property rental	840,000.00	40,000.00	0.00	800,000.00
Maintenance works and services	58,819,015.05	11,005,015.05	0.00	47,814,000.00
Other works and services	218,379,783.52	95,448,217.31	1,464,157.19	121,467,409.02
Fixed asset value increase	169,224,200.00	56,224,200.00	32,581,814.81	80,418,185.19
Increase in material asset value	177,759,205.76	30,542,185.76	5,331,463.85	141,885,556.15

In 2017, the largest percentage was accounted for by payments to personnel, which amounted to 69.9% of the total amount of financing within the financial support of the government order and income-generating activities (a 0.7% increase compared to 2017), taking into consideration the fact that in 2018, the outsourcing process for security services was finished. Utility costs amounted to 8.5% (a 2.5% increase compared to 2017).



6.5. INCOME BY FACULTY AND ITS PERCENTAGE IN THE TOTAL INCOME

Table 6.3

INCOME BY FACULTY AND ITS PERCENTAGE OF THE TOTAL INCOME FROM EDUCATIONAL ACTIVITIES IN 2018

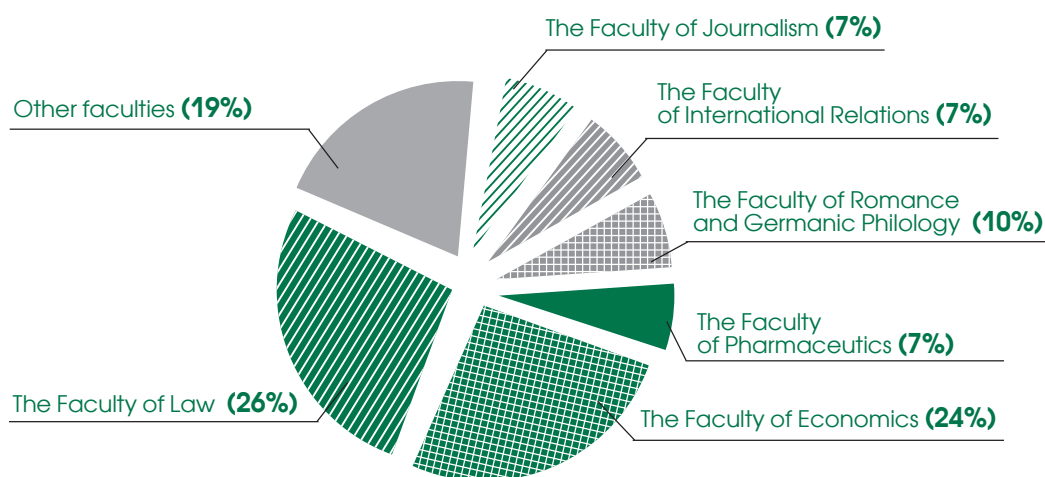
Faculty	Income, thousand roubles	Percentage, %
The Faculty of Law	192,529,217	26.2
The Faculty of Economics	175,043,390	23.9
The Faculty of Romance and Germanic Philology	75,080,800	10.2
The Faculty of Journalism	53,088,790	7.2
The Faculty of International Relations	48,468,700	6.6
The Faculty of Pharmaceutics	47,456,570	6.5
The Faculty of History	21,244,970	3.0
The Faculty of Applied Mathematics, Informatics, and Mechanics	20,342,000	2.8
The Faculty of Computer Sciences	17,507,480	2.4
The Faculty of Philology	17,313,170	2.4
The Faculty of Philosophy and Psychology	15,698,300	2.1
The Faculty of Mathematics	11,303,945	1.5
The Faculty of Biomedical Sciences	11,359,670	1.5
The Faculty of Geography, Geoecology, and Tourism	8,791,300	1.2
The Institute of International Education	8,524,920	1.2
The Faculty of Geology	4,332,200	0.6
The Faculty of Physics	4,010,980	0.5
The Faculty of Chemistry	1,533,830	0.2
Total	733,630,232	100.0



In 2018, The Faculty of Law and The Faculty of Economics are as usual the leaders in commercial educational services: 26.2% and 23.9% respectively in the total income from educational activities (fig. 6.3).

Figure 6.3

INCOME STRUCTURE BY FACULTY IN 2018



6.6. PROCUREMENT SERVICE REPORT

In 2018, 2,411 agreements were signed by the procurement service, which is 249 agreements more than in 2017. The sources of financing were subsidies obtained from the Russian Federation state budget resources, grants, funds provided to fulfil contracts, as well as the funds obtained from individuals and legal entities through other income-generating activities.

Under the completed contracts, upon the placement of the orders for purchasing goods, works, and services, the main sources of financing for the purchasing activities were grants, the funds provided to fulfil contracts, as well as the funds obtained from individuals and legal entities through other income-generating activities. The analysis of the number and structure of the contracts signed in 2018 by source of financing is shown in Tables 6.4 and 6.5 and Figure 6.4.

Table 6.4

THE ANALYSIS OF THE NUMBER AND STRUCTURE OF THE CONTRACTS SIGNED IN 2017–2018 BY THE SOURCE OF FINANCING

No.	Source of financing	Volume of the contracts signed in 2017–2018					Percentage variation, points
		Number, items		Difference (+, –), items	Percentage of the total, %		
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	1,769	2,031	+262	81.80	81.04	–0.76
2	Subsidies obtained from the state budget of the Russian Federation	393	475	+82	18.20	18.96	+0.76
Totals		2,162	2,506	+344	100.00	100.00	–

We can state that compared to 2017, the number of contracts signed in 2018 increased by 344 or by 15.9%. The growth is caused by an increase of the percentage of purchasing activity financing by subsidies obtained from the state budget of the Russian Federation, by grants, funds provided to fulfil state contracts, and as a result of other income-generating activities.

Table 6.5

THE ANALYSIS OF THE VALUE AND STRUCTURE OF THE CONTRACTS SIGNED IN 2017–2018 BY SOURCE OF FINANCING

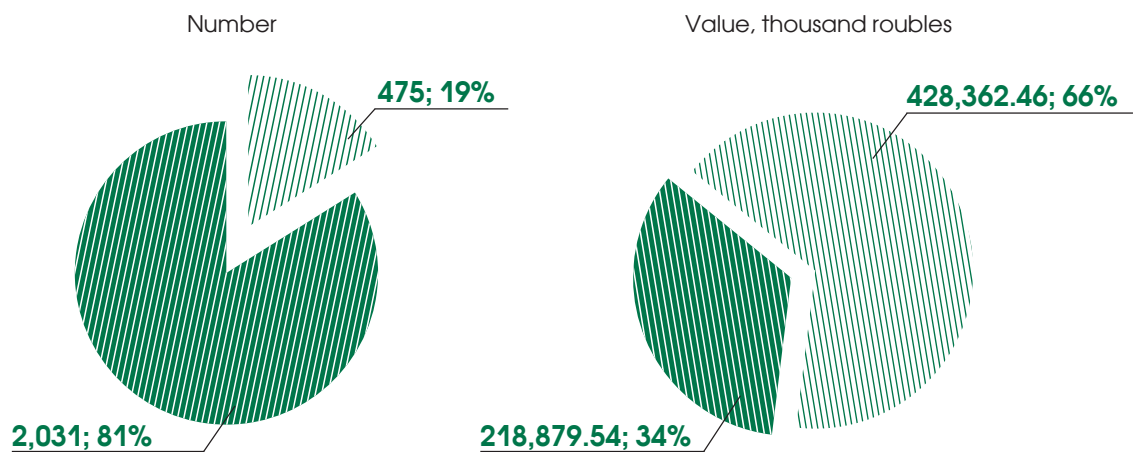
No.	Source of financing	Volume of the contracts signed in 2017–2018					Percentage variation, points
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	137,644.17	218,879.54	+81,235.37	47.1	33.61	–13.49
2	Subsidies obtained from the state budget of the Russian Federation	154,593.93	428,362.46	+273,768.53	52.9	66.39	+13.49
Totals		292,238.10	647,242.00	+355,003.9	100.00	100.00	–



As for the total financing of products, works, and services, its volume increased in 2018 by 353,029.12 thousand roubles or 220.8%. The financing of the purchasing activities through subsidies amounted to 66.39% of the total volume of purchases in the reporting period, while the amount of funds obtained from grants and other financing sources was 33.61% of the total volume of purchases.

Figure 6.4

VOLUME AND STRUCTURE OF THE CONTRACTS SIGNED IN 2018



▨ Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities

▧ Subsidies obtained from the state budget of the Russian Federation

Information about the contracts signed through various methods of competitive selection of suppliers is shown in Tables 6.6, 6.7, and 6.8 and Figure 6.5.

Table 6.6

ANALYSIS OF THE VOLUME AND STRUCTURE OF THE CONTRACTS SIGNED
AS PART OF THE ORDER PLACEMENT FOR PURCHASING GOODS,
WORKS AND SERVICES IN 2018

No.	Source of financing	Volume of the contracts signed upon a competitive selection of the supplier					
		Value, thousand roubles		Absolute difference, thousand roubles (+, -)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	31,679.43	64,179.57	+32,500.14	25.67	26.12	+0.45
2	Subsidies obtained from the state budget of the Russian Federation	91,718.91	181,487.70	+89,768.79	74.33	73.88	-0.45
Totals		123,398.34	245,667.27	+122,268.93	100.00	100.00	-

Table 6.7

ANALYSIS OF THE VOLUME AND STRUCTURE OF THE PURCHASE CONTRACTS
FROM A SINGLE SUPPLIER IN 2018

No.	Source of financing	Volume of the contracts of purchase from a single supplier					
		Value, thousand roubles		Absolute difference, thousand roubles (+, -)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	105,964.74	152,725.18	+46,760.44	62.76	38.23	-24.53
2	Subsidies obtained from the state budget of the Russian Federation	62,875.02	246,787.09	+183,912.07	37.24	61.77	+24.53
Totals		168,839.76	399,512.27	+230,672.51	100.00	100.00	-



Table 6.8

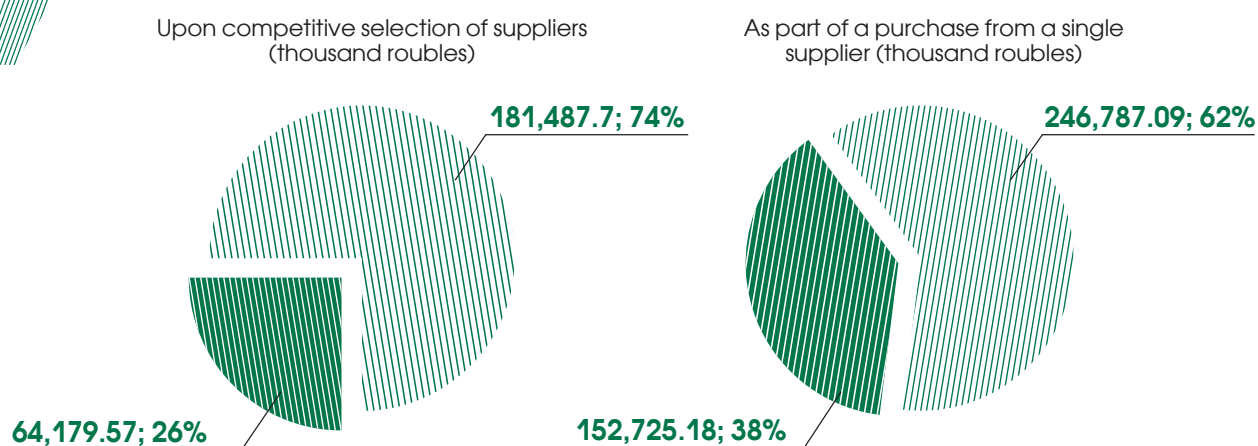
ANALYSIS OF VOLUME AND STRUCTURE OF THE CONTRACTS SIGNED IN 2018

No.	Source of financing	The volume of the signed contracts					
		Value, thousand roubles		Absolute difference, thousand roubles (+, -)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	137,644.17	216,904.75	+79,260.58	47.10	33.61	-13.49
2	Subsidies obtained from the state budget of the Russian Federation	154,593.93	428,362.47	+273,768.54	52.90	66.39	+13.49
Totals		292,238.10	645,267.22	+353,029.12	100.00	100.00	-

In 2018, the maximum percentage of purchases was accounted for by contracts signed with a single supplier. There were 1.63 times as many of them as there were contracts with a competitive selection of supplier, contractor, or agent. These contracts were primarily (61.8%) financed by subsidies obtained from the state budget of the Russian Federation. The contracts signed based upon a competitive selection of supplier, contractor, or agent were primarily financed by the subsidies obtained from the state budget of the Russian Federation, which accounted for 74.33% of the total amount of the contracts signed based upon a competitive selection of the supplier, contractor, or agent. The existing financial structure has been in action since 2016.

Figure 6.5

VOLUME OF THE CONTRACTS SIGNED IN 2018



/// Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities

/// Subsidies obtained from the state budget of the Russian Federation

Let us analyse the volume and structure of the contracts signed in 2018 and financed through subsidies obtained from the Russian Federation state budget resources, signed through various methods of competitive selection of the supplier (Tables 6.9 and 6.10, fig. 6.6 and 6.7).

Table 6.9

ANALYSIS OF THE VOLUME AND STRUCTURE OF THE CONTRACTS FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES, SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER

No.	Methods of supplier selection	Volume of the contracts signed in 2017–2018					
		Number, items		Absolute difference, items (+, -)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Online auction	78	78	-	19.85	16.42	-3.43
2	Competition	0	2	+2	0.00	0.42	+0.42
3	Invitation to tender	18	15	-3	4.58	3.16	-1.42
4	Purchase from a single supplier (contractor, agent), with the information uploaded into the Integrated Information System	42	75	+33	10.69	15.79	+5.1
5	Purchase from a single supplier (contractor, agent) (up to 100 thousand roubles)	187	226	+39	47.58	47.58	0
6	Purchase from a single supplier (contractor, agent) (up to 400 thousand roubles)	68	79	+11	17.30	16.63	-0.67
	Totals	393	475	+82	100.00	100.00	-



Table 6.10

ANALYSIS OF THE VOLUME AND STRUCTURE OF THE CONTRACTS FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES, SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER

No.	Methods of supplier selection	Volume of the contracts signed in 2017–2018					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Online auction	88,353.59	171,983.31	+83,629.72	57.15	40.15	–17
2	Competition	0.00	3,900	+3,900	0.00	0.91	+0.91
3	Invitation to tender	3,365.3	5,604.40	+2,239.07	2.18	1.31	–0.87
4	Purchase from a single supplier (contractor, agent), with the information uploaded into the Integrated Information System	42,029.20	219,097.85	+177,068.65	27.19	51.17	23.98
5	Purchase from a single supplier (contractor, agent) (up to 100 thousand roubles)	3,130.01	7,748.10	+4,618.09	2.02	1.81	–0.21
6	Purchase from a single supplier (contractor, agent) (up to 400 thousand roubles)	17,715.82	19,941.14	+2,225.32	11.46	4.66	–6.8
Totals		154,593.92	428,274.80	+273,680.85	100.00	100.00	–

Based on the statistics presented in Table 6.9 and 6.10 we can see that the contracts funded with subsidies obtained from the state budget of the Russian Federation were mainly signed as a result of purchases from single suppliers (contractors, agents), with the information uploaded into the Integrated Information System (57.17% of the total volume of the contracts signed). Then came online auctions (40.15% of the total volume of the contracts signed using this source of financing). As for the number of the contracts signed, the maximum percentage was accounted for by the contracts signed as a result of purchases from single suppliers (contractors, agents) up to 100 thousand roubles, i.e. 47.58% of the total number of the contracts funded with subsidies obtained from the state budget of the Russian Federation.

Figure 6.6

VOLUME OF THE CONTRACTS SIGNED IN 2018 AND FINANCED THROUGH SUBSIDIES OBTAINED FROM THE STATE BUDGET OF THE RUSSIAN FEDERATION SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER, items.

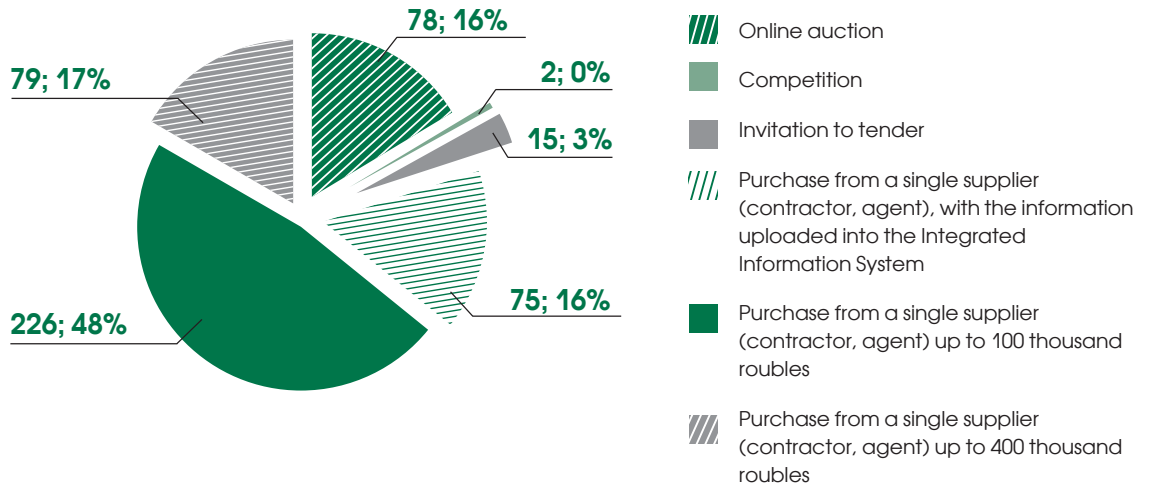
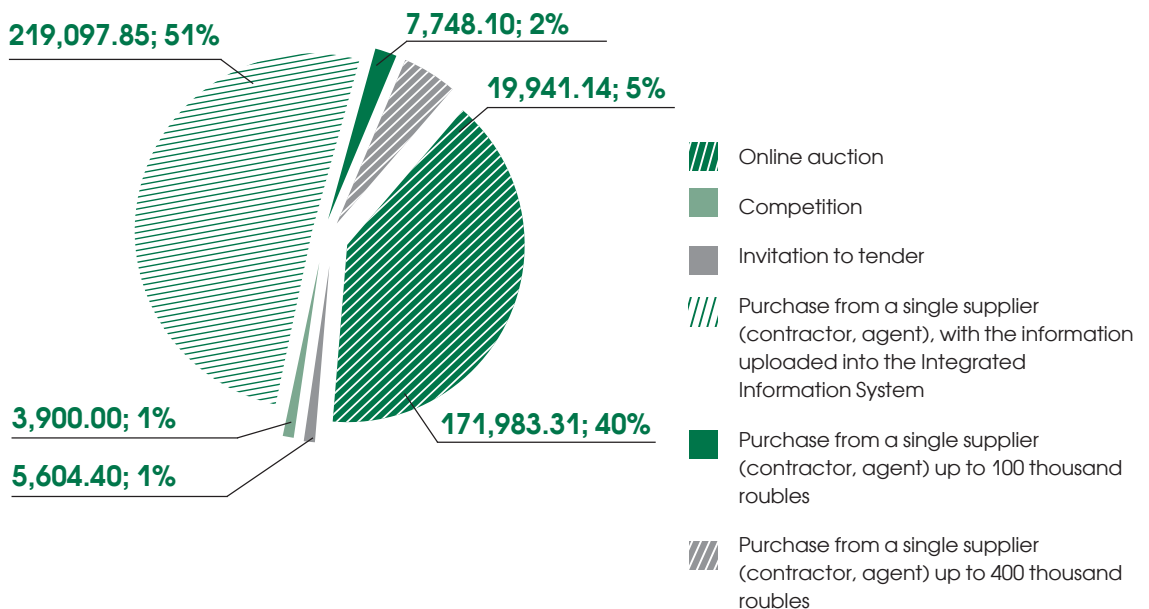


Figure 6.7

VOLUME OF THE CONTRACTS SIGNED IN 2018 AND FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER, thousand roubles





Other sources of financing were grants; the funds provided to fulfil contracts; as well as the funds obtained from individuals and legal entities through other income-generating activities. The analysis of the structure of the contracts of purchase from a single supplier, in quarterly periods of 2018, is shown in Tables 6.11 and 6.12 and fig. 6.8 and 6.9.

Table 6.11

ANALYSIS OF THE VOLUME AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

No.	Quarter periods	Volume of the contracts signed in 2017–2018 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
		Number, items		Absolute difference, items (+, –)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	1st quarter	200	299	+99	17.04	15.44	–1.6
2	2nd quarter	276	599	+323	23.50	30.94	+7.44
3	3rd quarter	214	416	+202	18.23	21.49	+3.26
4	4th quarter	484	622	+138	41.23	32.13	–9.10
	Totals	1,174	1,936	+762	100.00	100.00	–

Table 6.12

ANALYSIS OF THE VOLUME AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

No.	Quarter periods	Volume of the contracts signed in 2017–2018 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	1st quarter	14,606.48	20,026.32	+5419.84	14.7	12.93	–1.77
2	2nd quarter	15,031.72	29,573.70	+14,541.98	15.1	19.09	+3.99
3	3rd quarter	28,822.15	37,392.51	+8,570.36	29.0	24.14	–4.86
4	4th quarter	40,928.46	67,895.20	+26,966.74	41.2	43.84	+2.64
	Totals	99,388.81	154,887.73	+55,498.92	100.0	100.0	–

Based on the statistics presented in Tables 6.11 and 6.12 we can state that, as for the number of purchase contracts from a single supplier, the maximum percentage (32.13%) was accounted for by purchases in the 4th quarter of 2018. As regards this indicator in terms of value, the maximum share of the contracts were also signed in the 4th quarter of 2018 (43.84%).



It should be noted that in 2017, the maximum percentage of purchase contracts from a single supplier (41.23%) was also accounted for by purchases in the 4th quarter. The quarterly value of goods, works, and services purchased exceeded the average by +16.2%. As for the same value in 2018, the deviation from the average quarterly purchase values in the 4th quarter in 2017 was +18.84%.

Figure 6.8

ANALYSIS OF THE STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT), items.

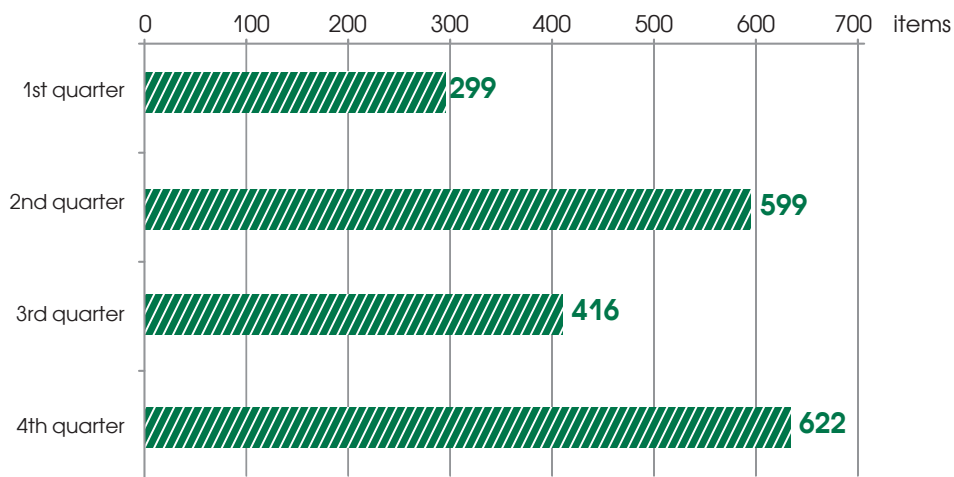
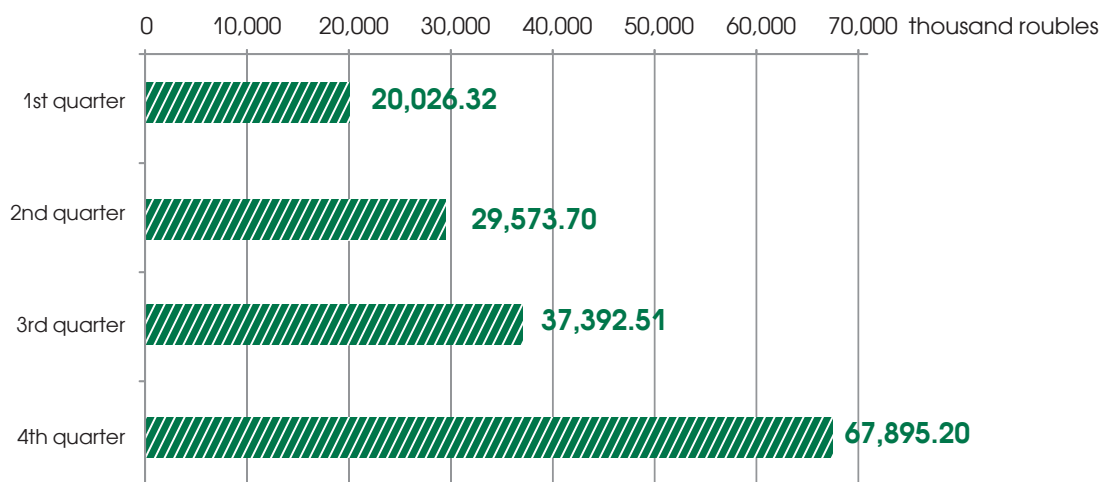


Figure 6.9

ANALYSIS OF THE STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT), thousand roubles





Tables 6.13 and 6.14 demonstrate the volume and structure of the contracts of purchase from a single supplier by main items of expenditure of FGBOU VO VSU (property, plant, and equipment, expendable materials, research, renovations, utility services, teaching services provided by third-party employees, as well as other expenses).

Table 6.13

THE ANALYSIS OF THE NUMBER AND STRUCTURE OF THE CONTRACTS OF PURCHASE FROM A SINGLE SUPPLIER BY THE MAIN ITEMS OF EXPENDITURE

No.	Item of expenditure	Volume of the contracts signed in 2017–2018 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
		Number, items		Absolute difference, items (+, –)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Additions to property, plant, and equipment	45	36	–9	2.54	1.86	–0.68
2	Materials	464	496	+32	26.23	25.62	–0.61
3	Research	71	171	100	4.01	8.83	+4.82
4	Renovations	30	37	+7	1.69	1.91	+0.22
5	Utility costs	6	20	+14	0.34	1.04	+0.7
6	Teaching services provided by non-payroll employees	543	454	–89	30.70	23.45	–7.25
7	State fees and membership dues	211	245	+34	11.93	12.65	+0.72
8	Other operating expenses	399	477	+78	22.56	24.64	+2.08
Totals		1,769	1,936	+167	100.00	100.00	–

Table 6.14

THE ANALYSIS OF THE VALUE AND STRUCTURE OF THE CONTRACTS
OF PURCHASE FROM A SINGLE SUPPLIER BY MAIN ITEMS OF EXPENDITURE

No.	Item of expenditure	Volume of the contracts signed in 2017–2018 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
		Value, thousand roubles		Absolute difference, thousand roubles (+/-)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Additions to property, plant, and equipment	3,155.39	5,370.02	+2,214.62	3.05	3.52	+0.47
2	Materials	56,717.41	44,556.84	-12,160.58	54.83	29.17	-25.66
3	Research	8,518.78	43,941.96	+35,423.18	8.24	28.77	+20.53
4	Renovations	3,228.15	3,532.05	+303.90	3.12	2.32	-0.8
5	Utility costs	3,557.25	10,388.44	+6,831.19	3.44	6.8	+3.36
6	Teaching services provided by non-payroll employees	6,575.93	8,135.97	+1,560.04	6.36	5.33	-1.03
7	State fees and membership dues	1,091.55	1,974.79	+883.24	1.06	1.29	+0.23
8	Other operating expenses	20,589.70	34,825.12	+14,235.42	19.90	22.8	+2.9
Totals		103,434.16	152,725.19	+49,291.01	100.00	100.00	-

The analysis of the contents and structure of purchase contracts from a single supplier by the main items of expenditure shown in Table 6.8 demonstrates that the majority of expenses were related to contracts signed for purchase of materials to provide the university's needs (25.62% of the total number of contracts for purchase of goods, works, and services from a single supplier). A considerable percentage was accounted for by contracts signed for teaching services provided by non-payroll employees (23.45% by the number of contracts and 5.33% by total value of the purchase contracts from a single supplier (contractor, agent)) (fig. 6.9 and 6.10).



Figure 6.10

THE ANALYSIS OF THE NUMBER AND STRUCTURE OF THE CONTRACTS OF PURCHASE FROM A SINGLE SUPPLIER BY THE MAIN ITEMS OF EXPENDITURE, items.

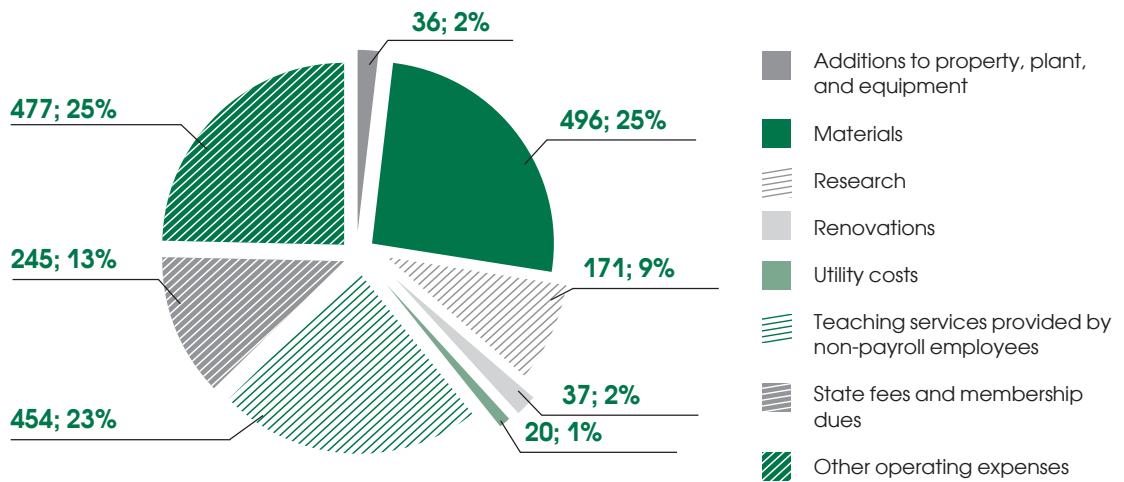
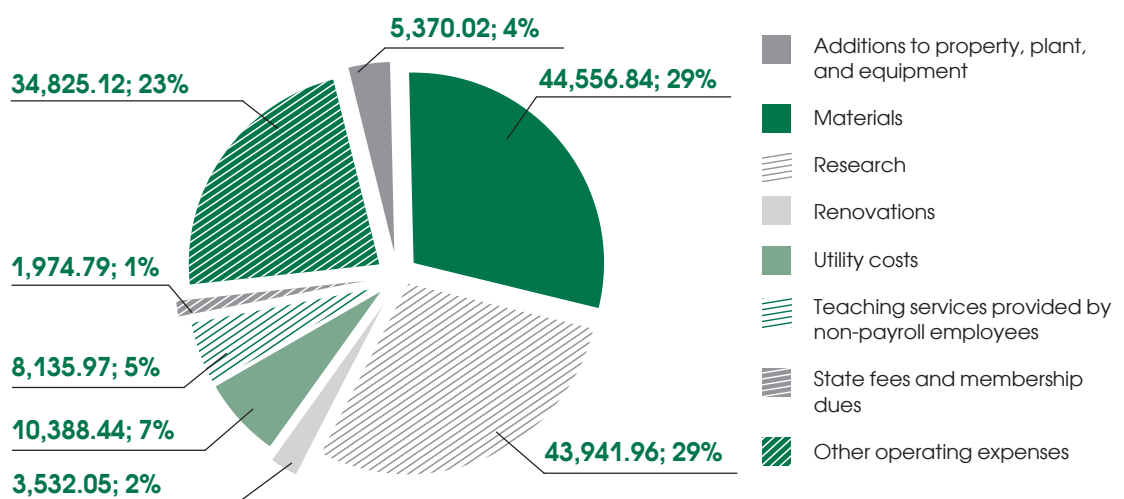


Figure 6.11

THE ANALYSIS OF THE VALUE AND STRUCTURE OF THE CONTRACTS OF PURCHASE FROM A SINGLE SUPPLIER BY THE MAIN ITEMS OF EXPENDITURE, thousand roubles





The unified schedule of orders from Voronezh State University subdivisions was created using a unified purchasing request form, which may be found on the VSU website. In the reporting period, 1,510 requests were accepted from the structural subdivisions as part of the registration procedure. We can state that compared to 2017, the number of requests decreased by 277 or 22.47%.

Certain structural subdivisions did not submit requests during the fixed planning dates. These types of purchase requests were to be included in the time-schedules based on the written statements from the subdivisions and the changes to the time-schedules in the shared information space (the purchasing website). Tables 6.15 and 6.16 and fig. 6.12 present information about the number of submitted requests and their modifications.

Table 6.15

THE ANALYSIS OF THE NUMBER OF SUBMITTED REQUESTS FOR ALL SOURCES OF FINANCING FOR THE PURCHASING ACTIVITIES

No.	Source of financing	Information on the requests submitted					
		Number, items		Absolute difference, items (+, -)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Grants; funds provided to fulfill contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	1,117	1,262	+145	90.59	83.58	-7.01
2	Subsidies obtained from the state budget of the Russian Federation	116	248	+132	9.41	16.42	+7.01
Totals		1,233	1,510	+277	100.00	100.00	-

Table 6.16

THE ANALYSIS OF THE NUMBER OF CHANGES TO THE TIME-SCHEDULE FOR ALL SOURCES OF FINANCING FOR THE PURCHASING ACTIVITIES

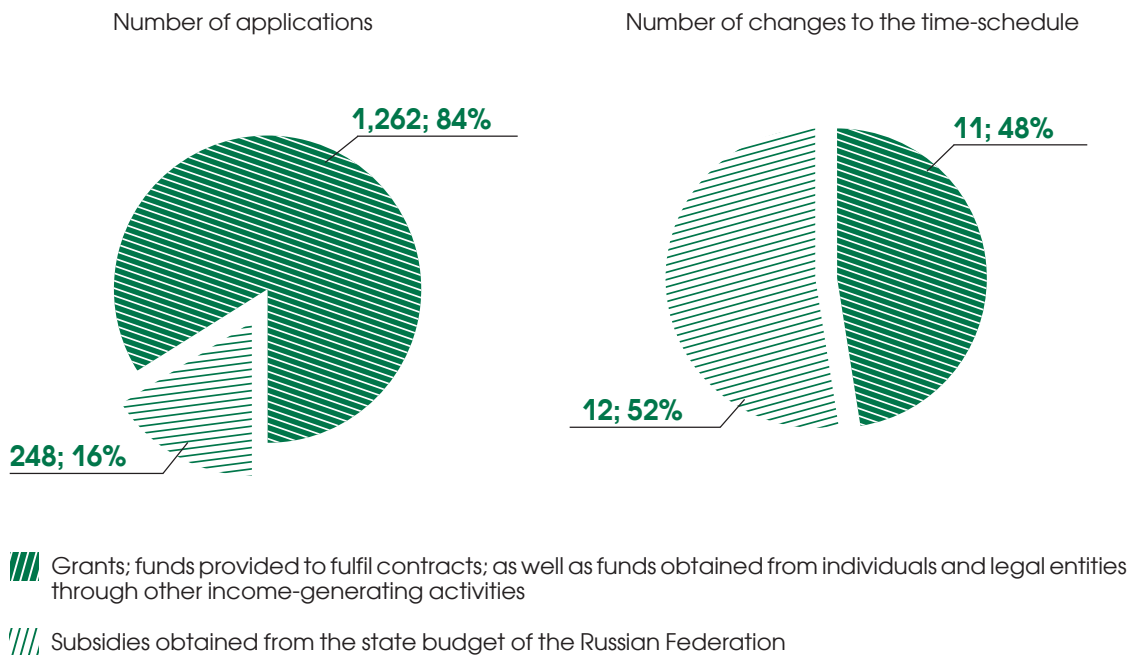
No.	Source of financing	The number of changes to the time-schedule					
		Number, items		Absolute difference, thousand roubles (+, -)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Grants; funds provided to fulfill contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	10	11	+1	47.62	47.83	+0.21
2	Subsidies obtained from the state budget of the Russian Federation	11	12	+1	52.38	52.17	-0.21
Totals		21	23	+2	100.00	100.00	-



The time-schedule for purchases using the subsidies obtained from the Russian Federation state budget resources was modified 12 times during the calendar reporting period, i.e. once per month. Thus, the 11 modifications to the time-schedule mean that 50% of the items on the financial document were modified. There were 11 modifications to the provisions of the time-schedule for purchases as part of the implementation of the Federal Law No.223-FZ "Purchases of goods and services by certain categories of legal entities", i.e. fewer than 1 modification per month. Compared to 2017, the number of modifications increased by 2 or by 9.52%. In 2016, the time-schedule for purchases was modified 54 times. The number of modifications of the provisions of the time-schedule for purchases decreased by 57.5%, due to the improved quality in the planning of the university's purchase activities.

Figure 6.12

INFORMATION ON THE NUMBER OF REQUESTS AND THEIR MODIFICATIONS





As a part of the implementation of Federal Law No. 223-FZ of 18 July 2011, 1,262 requests were accepted and 1,936 contracts were signed for the amount of 218,879.5 thousand roubles. Thus, the amount of money saved as a result of following the procedure amounted to 7,136.3 roubles, or 10.1% of the initial maximum cost of the submitted requests.

During the formation of a unified purchasing plan as part of the implementation of Federal Law No. 44-FZ "On contract systems in the sphere of procurement of goods, works, and services for provisioning governmental and municipal needs", 248 requests were accepted and 475 contracts were signed for the total amount of 428,362.47 thousand roubles. Thus, the amount of money saved as a result of following the procedure amounted to 9,320.86 roubles, or 4.9% of the initial maximum cost of the submitted requests (Tables 6.17–6.19).

Table 6.17

ANALYSIS OF THE VOLUME OF THE CONTRACTS SIGNED UPON A COMPETITIVE SELECTION OF THE SUPPLIER, BY THE SOURCE OF FINANCING

No.	Source of financing	Volume of the contracts signed upon a competitive selection of the supplier					
		Value, thousand roubles		Absolute difference, thousand roubles (+/-)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	31,679.43	64,179.57	+32,500.14	25.67	26.12	+0.45
2	Subsidies obtained from the state budget of the Russian Federation	91,718.91	181,487.70	+89,768.79	74.33	73.88	-0.45
Totals		123,398.34	245,667.27	+122,268.93	100.00	100.00	-

Table 6.18

ANALYSIS OF THE VOLUME OF THE CONTRACTS SIGNED AT ITS INITIAL (MAXIMUM) PRICE UPON A COMPETITIVE SELECTION OF THE SUPPLIER, BY THE SOURCE OF FINANCING

No.	Source of financing	Initial maximum price of the contracts					
		Value, thousand roubles		Absolute difference, thousand roubles (+, -)	Percentage of the total, %		Percentage of the total, %
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	40,442.72	71,315.87	+30,873.15	28.74	27.21	-1.53
2	Subsidies obtained from the state budget of the Russian Federation	100,279.88	190,808.56	+90,528.68	71.26	72.79	+1.53
Totals		140,722.60	262,124.73	+121,401.83	100.00	100.00	-

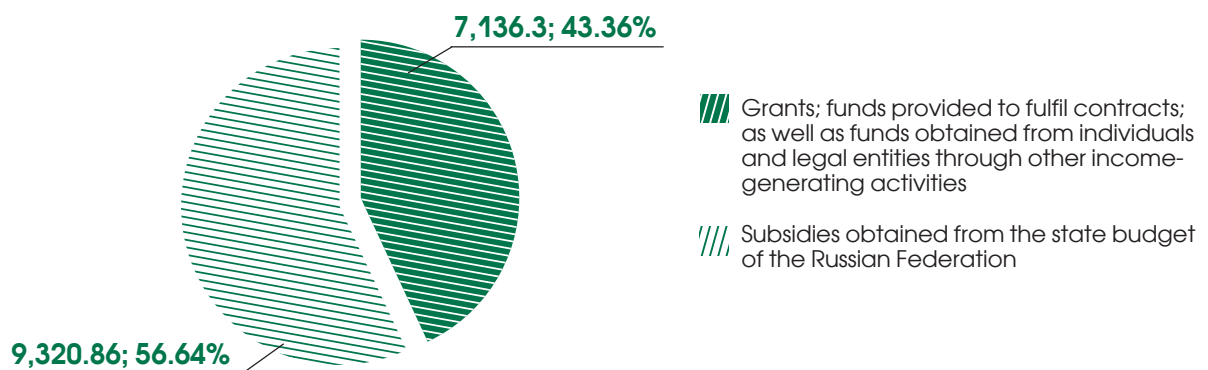
Table 6.19

AMOUNT OF MONEY SAVED THROUGH THE COMPETITIVE SELECTION OF SUPPLIERS BY SOURCE OF FINANCING

No.	Source of financing	Amount of money saved					
		Value, thousand roubles		Absolute difference, thousand roubles (+, -)	Percentage of the total, %		Percentage variation, points
		2017	2018		2017	2018	
1	Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities	8763,29	7136,30	-1626,99	50,58	43,36	-7,22
2	Subsidies obtained from the state budget of the Russian Federation	8560,97	9320,86	+759,89	49,42	56,64	+7,22
Totals		17,324,26	16,457,16	-867,1	100,00	100,00	-

Figure 6.13

AMOUNT OF MONEY SAVED THROUGH THE COMPETITIVE SELECTION OF SUPPLIERS (CONTRACTOR, AGENT) BY SOURCE OF FINANCING



The data presented in Table 6.19 and fig. 6.13 demonstrate that in the reporting period, the amount of financial savings in the source of financing “subsidies obtained from the state budget of the Russian Federation” increased and was 56.64% of the total cost savings. The money saved amounted to 9,320.86 roubles, or 4.9% of the initial maximum cost of the contracts included in the purchasing time-schedule. The purchases made as part of the implementation of Federal Law No. 223-FZ resulted in financial savings of 7,136.3 thousand roubles, which is 43.36% of the total cost savings. The decrease in all financial sources for the purchase of goods, works, and services is due to the decrease in the competitive selection of suppliers, contractors, and agents and the increase in purchase contracts from a single supplier.



6.7. VSU FINANCIAL ACTIVITIES ANALYSIS

VSU's financial standing may be characterized by the use of funds obtained from various financial sources, as well as the use of assets.

In accordance with the balance sheet statistics, the aggregate structure and change in VSU's assets and the sources of their formation are demonstrated in Tables 6.20 and 6.21.

Table 6.20

VSU ASSET DYNAMICS IN 2018 (ACCORDING TO THE DATA FROM THE BALANCE SHEET)

No.	Asset items	As of the beginning of 2018	As of the end of 2018	Absolute difference,	Growth ratio, %
I. Non-financial assets, thousand roubles					
1	Property, plant, and equipment (residual value)	1,478,893.7	1,474,555.7	-4,338.0	99.7
2	Intangible assets (residual value)	119.8	52.1	-67.7	43.5
3	Non-produced assets	3,989,388.2	1,880,579.0	-2,108,809.2	48.2
4	Material inventories	31,894.2	24,404.4	-7,489.8	76.5
5	Rights to use assets	0	15.5	+15.5	-
6	Investments in non-financial assets	60,767.1	64,117.7	+3,350.6	105.5
7	Prepaid expenses	2,572.6	2,292.3	-280.3	89.1
8	Total non-financial assets	5,563,635.6	3,446,016.7	-2,117,618.9	61.9
II. Financial assets, thousand roubles					
9	Cash and cash equivalents	206,667.2	408,760.5	+202,093.3	197.8
10	Accounts receivable for the settlement of revenues	19,474.9	28,738.7	+9,263.8	147.6
11	Accounts receivable for payments	3,478.1	28,211.7	+24,733.6	811.1 (8.1 times)
12	Other settlements with creditors	4,565.8	4,244.8	-321.0	92.9
13	Total financial assets	234,186.0	469,955.7	+235,769.7	200.7
13	Total VSU assets (grand total)	5,797,821.6	3,915,972.4	-1,881,849.2	67.5

In 2018, the grand total was 3,915,972.2 thousand roubles, an increase of 1,881,849.2 thousand roubles (67.5%). The decrease can be accounted for the decision taken by management to equate the cadastral value of the land with its market value (the decrease amounted to 2,108,809.2 thousand roubles), which will allow decreasing tax liability expenses in future periods.

Table 6.21

**VSU ASSET DYNAMICS IN 2018
(ACCORDING TO THE DATA FROM THE BALANCE SHEET)**

No.	Liability items	As of the beginning of 2018	As of the end of 2018	Absolute difference,	Growth ratio, %
I. Liabilities, thousand roubles					
1	Accounts payable for payments	22,846.2	18,610.5	-4,235.7	81.5
2	Settlement of payments into the budget	16,139.3	7,277.0	-8,862.3	45.1
3	Other settlements (settlement of loans)	6,434.6	4,974.2	-1,460.4	77.3
4	Accounts payable for revenues	221,822.4	262,179.0	+40,356.6	118.2
5	Settlements with founders	5,868,246.4	3,807,360.9	-2,060,885.5	64.9
6	Deferred income	1,110.7	3,148.1	+2,037.4	283.4
7	Provisions for future liabilities	78,107.3	108,751.4	+30,644.1	139.2
8	Total liabilities	6,214,706.9	4,212,301.1	-2,002,405.8	67.8
II. Financial results, thousand roubles					
9	Financial results of an economic entity	(416,885.3)	(296,328.7)	+120,556.6	140.6
10	Total sources of VSU assets (grand total)	5,797,821.6	3,915,972.4	-1,881,849.2	67.5

It should be noted that the most mobile part of VSU assets (monetary funds and accounts receivable) doubled (235,769.7 thousand roubles).

As of the end of 2018, the largest percentage in VSU's asset structure was accounted for by non-produced assets (land) (48.0%) and property, plant, and equipment (37.7%). A reduction in non-produced assets and growth in net book value of fixed assets and financial assets in the reporting period led to a decrease in the percentage of non-financial assets from 95.8 to 87.9% (Table 6.22).

Table 6.22

VSU ASSET STRUCTURE IN 2018
(ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

No.	Indicator	Percentage, %		Difference (+, -)
		as of the beginning of 2018	as of the end of 2018	
1	Non-financial assets, total	95.8	87.9	-7.9
	including: Property, plant, and equipment (residual value)	25.5	37.7	+12.2
	Non-produced assets	68.8	48.0	-20.8
	Material assets	0.5	0.6	+0.1
	Investments in non-financial assets (capital investments)	1.0	1.6	+0.6
2	Financial assets, total	4.2	12.1	+7.9
	including: Cash and cash equivalents	3.6	10.5	+6.9
	Settlements with debtors	0.6	1.6	+1.0
3	Total Assets	100.0	100.0	-

In 2018, a 32.5% decrease in the sources contributing to the formation of VSU's assets was against the background of a decrease in the liabilities to the founder regarding the property assigned to the university to operate and administer (land, real estate, and most valuable assets), resulting from the decrease in the cadastral value of non-produced assets. Also, there was a reduction in the liabilities to the creditors by decreasing all types of accounts payable.

In 2018, the financial result was positive due to a net operating profit in the reporting period and a corresponding reduction in loss from the operating activities of previous reporting periods. In 2018, the financial result was 120,556.6 thousand roubles.

In 2018, the structure of the formation of VSU's assets include liabilities to the founder regarding the land, property, plant, and equipment assigned to the University to operate and administer, liabilities to the creditors, and financial result (Table 6.23).

Table 6.23

**STRUCTURE OF THE SOURCES OF THE FORMATION OF VSU ASSETS IN 2018
(ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)**

No.	Indicator	Percentage, %		Difference (+, -)
		as of the beginning of 2018	as of the end of 2018	
1	Liabilities to the founder	101.2	97.2	-4.0
2	Liabilities to the creditors, total	6.0	10.4	+4.4
	including: Settlement of revenues	3.9	6.7	+2.8
	Settlement of accepted obligations	1.7	3.3	+1.6
	Settlement of payments into the budget	0.3	0.2	-0.1
	Other accounts payable	0.1	0.2	+0.1
3	Financial results (internal funds), total	(7.2)	(7.6)	-0.4
4	Total sources of asset formation	100.0	100.0	-

In 2018, the year of the university's centennial, there was an increase in additions to property, plant, and equipment of 126,584.8 thousand roubles. 39.1% of additions to property, plant, and equipment was financed by VSU and non-repayable receipts and 60.9% was financed from federal subsidies, including targeted subsidies for purchasing property, plant, and equipment (30,000 thousand roubles). In 2018, the share of internal funds in total investment increased by 39,293.7 thousand roubles (Table 6.24).

Table 6.24

**STRUCTURE AND DYNAMICS OF THE ADDITIONS TO PROPERTY, PLANT,
AND EQUIPMENT BY FINANCIAL SOURCES**

Financial source	2017		2018		Difference (+, -)	
	thousand roubles	Percentage, %	thousand roubles	Percentage, %	thousand roubles	Percentage, %
Property, plant, and equipment purchased, total	75,945.9	100.0	126,584.8	100.0	+50,638.9	100.0
including: Funded by VSU	10,199.3	13.4	49,493.0	39.1	+39,293.7	77.6
By federal subsidies	65,746.6	86.6	77,091.8	60.9	+11,346.2	22.4



Table 6.25

THE ANALYSIS OF VSU'S FIXED ASSET DEPRECIATION

No.	Indicator	As of the beginning of 2018	As of the end of 2018	Absolute difference (+, -)	Growth ratio, %
1	Book value of fixed assets, thousand roubles	2,694,054.9	2,796,432.6	+102,377.7	103.8
	including:				
	Real estate of the establishment	1,442,823.5	1,435,800.4	-7,023.1	99.5
	Most valuable movable assets	505,838.0	550,198.3	+44,360.3	108.8
2	Depreciation of fixed assets, thousand roubles	1,215,161.2	1,321,877.0	+106,715.8	108.8
	including:				
	Real estate of the establishment	242,665.3	315,427.8	+72,762.5	130.0
	Most valuable movable assets	289,963.2	326,570.7	+36,607.5	112.6
3	Net value of property, plant, and equipment, thousand roubles	1,478,893.7	1,474,555.7	-4,338.0	99.7
	including:				
	Real estate of the establishment	1,200,158.2	1,120,372.6	-79,785.6	93.4
	Most valuable movable assets	215,874.8	223,627.7	+7,752.9	103.6
4	Coefficient of depreciation, %	45.1	47.3	+2.2	×
	including:				
	Real estate of the establishment	16.8	22.0	+5.2	×
	Most valuable movable assets	57.3	59.4	+2.1	×

In 2018, due to capital investments into property, plant, and equipment the depreciation coefficient of these assets was at the same level as in the previous year (47.3%). As for VSU's real estate, this figure was 22.0%. The book value of fixed assets increased by 102,377.7 thousand roubles, or 3.8%.

Table 6.26

THE ANALYSIS OF VSU'S CURRENT FINANCIAL SOLVENCY

No.	Indicator	As of the beginning of 2018	As of the end of 2018	Absolute difference (+, -)
I. Initial values for analysis, thousand roubles				
1	Cash and cash equivalents	206,667.2	408,760.5	+202,093.3
2	Resources in settlements with debtors	27,518.8	61,195.2	+33,676.4
3	Material inventories	31,894.2	24,404.4	-7,489.8
4	Total operating assets (Art. 1 + Art. 2 + Art. 3)	266,080.2	494,360.1	+228,279.9
5	Total liabilities to the creditors	267,242.5	293,040.7	+25,798.2
II. Current solvency ratio				
6	Absolute liquidity ratio (covering liabilities to creditors using monetary funds)	0.77	1.39	+0.62
7	Marginal liquidity ratio (covering the liabilities to the creditors using monetary funds and the resources in settlements with debtors)	0.88	1.60	+0.72
8	Current liquidity ratio (covering liabilities to creditors using operating assets)	1.0	1.69	+0.69

An increase in financial assets in 2018 (by 2 times), including monetary funds (by 1.97 times), had a positive impact on the current level of VSU's financial solvency (Table 6.26). At the end of the reporting period, the university was able to discharge of its liabilities to the creditors in full through available funds.

In 2018, there is an improvement in financial stability of the university (Table 6.27).

Table 6.27

THE ANALYSIS OF VSU'S FINANCIAL STABILITY

No.	Indicator	As of the beginning of 2018	As of the end of 2018	Absolute difference (+, -)
I. Initial values for analysis, thousand roubles				
1	Liabilities to the creditors	267,242.5	293,040.7	+25,798.2
2	Financial results (internal funds)	(416,885.3)	(296,328.6)	+120,556.7
3	Total value of the sources of financing for the university's activities (excluding liabilities to the founder)	(149,642.8)	(3,287.9)	+146,354.9
II. Financial solvency coefficients				
4	Equity to total assets ratio (the share of equity capital (financial result) in the total value of sources of financing for university activities)	2.8	90	87.2
5	Dependency ratio (share of liabilities in the total value of sources of financing for university activities)	(1.8)	(89.0)	(87.2)



In the assessment of financial stability, there is a special emphasis on determining the coverage of the fixed assets and other non-current assets having the greatest percentage in the property of the university by long-term sources of financing, i.e. liabilities to the founder and internal funds in the form of the financial result (from operating activities, accrual of depreciation, and provisions for future liabilities). As of the beginning of 2018, this indicator amounted to 98.6%. At the end of the reporting period, there is a significant increase in the long-term sources of financing (by 4.1%) (Table 6.28).

Table 6.28

THE COVERAGE OF THE FIXED ASSETS AND OTHER NON-CURRENT ASSETS BY LONG-TERM SOURCES OF FINANCING

No.	Indicator	As of the beginning of 2018	As of the end of 2018	Absolute difference (+, -)
1	Net value of property, plant, and equipment, thousand roubles	1,478,893.7	1,474,555.7	-4,338.0
2	Net value of intangible assets, thousand roubles	119.8	52.1	-67.7
3	Balance value of non-produced assets, thousand roubles	3,989,388.2	1,880,579.0	-2,108,809.2
4	Investments in the non-financial assets, thousand roubles	60,767.1	64,117.7	+3,350.6
5	Total non-current assets (Art. 1 + Art. 2 + Art. 3 + Art. 4), thousand roubles	5,529,168.8	3,419,304.5	-2,109,864.3
6	Liabilities to the founder, thousand roubles	5,868,246.4	3,807,360.9	-2,060,885.5
7	Financial results (internal funds), thousand roubles	(416,885.3)	(296,328.6)	+120,556.7
8	Total value of the sources of non-current asset formation (Art. 6 + Art. 7), thousand roubles	5,451,361.1	3,511,032.3	-1,940,328.8
9	Ratio of the coverage of the fixed assets by long-term sources of financing, % (Art. 8 : Art. 5)	98.6	102.7	+4.1

Table 6.28 shows a significant decrease in total non-current assets which again happened as a result of a revaluation of land assigned to the university on the basis of operational management account. A 0.3% decrease in the estimated value of property, plant, and equipment affected slightly the final result of capital assets coverage.

Table 6.29

VSU ASSET TURNOVER ANALYSIS

No.	Indicator	2018
I. Initial values for analysis, thousand roubles		
1	Average annual cash balance	307,713.9
2	Average annual amount of funds in settlements with debtors (accounts receivable)	44,356.9
3	Average annual amount of material assets	28,149.3
4	Total average annual amount of operating assets	380,220.1
5	Average annual amount of total assets	4,856,897.0
6	Average annual amount of total assets without non-produced assets	1,921,913.4
7	Total income of the university	2,672,676.1
II. Asset turnover ratio, days		
8	Turnover period for total assets	663
9	Turnover period for total assets without non-produced assets	262
10	Turnover period for operating assets	52
11	Turnover period in settlements with debtors (accounts receivable)	6
12	Turnover period for material assets	4

Considering the fact that the largest percentage in VSU's property structure is land and property, plant, and equipment, which are long-term assets, the level of the asset turnover remains at an acceptable level (262 days, which is less than a year, and 663 days if land is taken into consideration). The turnover period for the operating assets was 52 days, whereas the period of settlements with debtors was 6 days (Table 6.29).



Table 6.30

ANALYSIS OF VSU OPERATING PROFITABILITY

No.	Indicator	2018
I. Initial values for analysis, thousand roubles		
1	Average annual amount of total assets (residual value)	4,456,885,9
2	Average annual amount of total assets without non-produced assets (residual value)	1,567,402,3
3	Average annual amount of fixed assets (carrying value)	2,745,243,8
4	Total income	2,672,676,1
5	Total expenditures	2,477,178,6
6	Net operating financial result (loss)	120,556,8
II. Profitability of the university's activities, %		
7	Profitability of total assets	2,7
8	Profitability of total assets without non-produced assets	7,7
9	Profitability of property, plant, and equipment	4,4
10	Profitability of the university's revenue	4,5
11	Profitability of the university's expenditures	4,9

In 2018, the minimisation of expenditure led to a positive net operating financial result in the amount of 120,556.6 thousand roubles. There was a growth in revenue from each rouble of total assets (not including the non-produced assets) of 7.7 kopeks, of fixed assets (4.4 kopeks), revenue (4.5 kopeks), and expenditures (4.9 kopeks) (Table 6.30).



6.8. THE DYNAMICS OF THE STAFF REWARD SYSTEM IN 2017–2018

In 2018, the payroll budget of the university (not including the branches) amounted to 1,105,144.7 thousand roubles, including:

- from subsidies (623,135.9 thousand roubles);
- from targeted subsidies (14,479.5 thousand roubles);
- from extra-budgetary funds (467,529.3 thousand roubles) (fig. 6.14).

Compared to 2017, the payroll budget of the university increased by 16.2%, including:

- 21.8% from subsidies.
- 28.5% from targeted subsidies.
- 9.1% from extra-budgetary funds (fig. 6.15).

Figure 6.14

THE COMPARATIVE ANALYSIS OF THE PAYROLL BUDGET IN 2017–2018

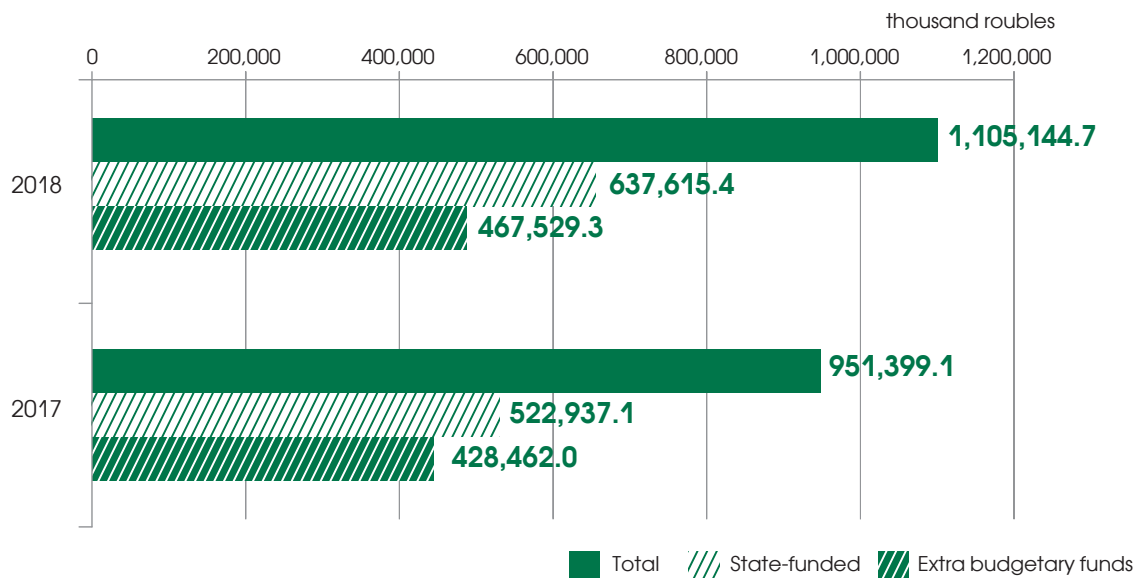


Figure 6.15

PAYROLL BUDGET STRUCTURE BY THE SOURCE OF FINANCING IN 2018



In 2018, the average monthly salary of university staff members (including payments from all sources) amounted to 32,552 roubles. The average salary of academic staff members was 56,202.7 roubles, researchers (67,386.7 thousand roubles), and other employees (16,391 roubles).

MEASURES TAKEN TO RAISE THE SALARIES AND SOCIAL WELFARE OF UNIVERSITY STAFF

In 2018, the practice of using the system of per capita financing to calculate the payroll budget for the academic staff and the payroll budget for other university employees who are not directly involved in rendering state services was continued. This system allowed keeping the salary of academic staff and researchers in compliance with the "roadmap".

In 2018, the basic salaries of these categories increased twice: on 1 January and 1 September.

The minimum monthly wage also increased twice in the reporting year:

- on 1 January, the minimum monthly wage in the Voronezh region reached the federal level and was 9,489 roubles.
- since 1 May, the minimum monthly wage in the Voronezh region was 11,163 roubles

Compared to 2017, the minimum monthly wage increased by 43.1%.

In 2018, payments within the effective contract amounted to 593.8 thousand roubles (an increase of 85.6%).

In 2018, the employees received a bonus on the occasion of the university's centennial and a performance-based bonus which was paid for the first time in the recent four years.



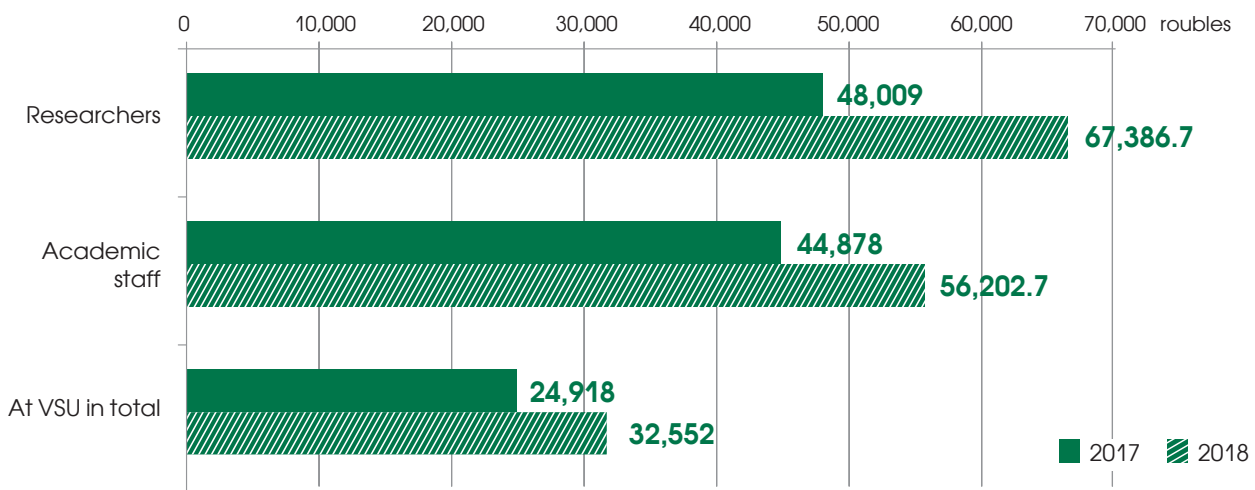
6.9. ANALYSIS OF THE AVERAGE SALARY OF ACADEMIC STAFF MEMBERS AT VSU COMPARED TO THE AVERAGE SALARY IN THE VORONEZH REGION

In 2018, the average salary of university staff members (including payments from all sources) amounted to 32,552 roubles, including:

- The average salary of academic staff members was 56,202.7 roubles, which is 207% of the average salary in the region and exceeds the target value of the 2018 roadmap, which was 200%.
- The average salary of researchers was 67,386.7 thousand roubles, which is 248.2% of the average salary in the region and exceeds the target value of the 2018 roadmap, which was 200% (fig. 6.16).

Figure 6.16

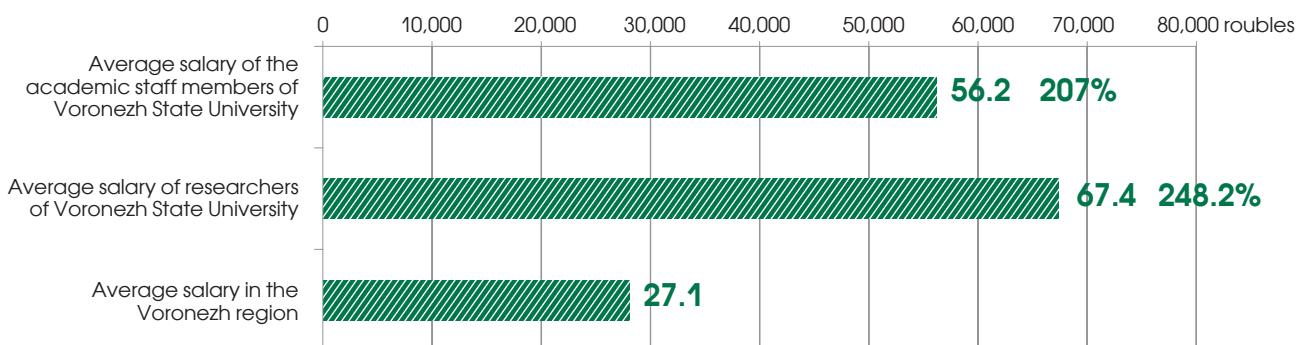
THE AVERAGE SALARY IN 2017–2018



In 2018, the average salary of university staff members increased by 30.6%. The average salary of academic staff members increased by 25.2%, and researchers – by 40.4% (fig. 6.17).

Figure 6.17

AVERAGE SALARY OF VSU ACADEMIC STAFF AND RESEARCHERS AND THE AVERAGE SALARY IN THE VORONEZH REGION IN 2018





6.10. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2018

Financial and operating activities:

- Minimised costs in accordance with the university's strategy of finance management, budgeting, and planning of financial and business operations.
- Upgraded university facilities using such additional sources of financing as subsidies and sponsored support.
- A decrease in the cadastral value of VSU's non-produced assets (considerable decrease in tax payments) and an increase in the most mobile part of VSU assets, i.e. financial assets (monetary funds and accounts receivable).
- Reduced liabilities to the creditors due to decreasing all types of accounts payable.
- The minimisation of expenditure for a second year in a row led to a positive net operating financial result in the amount of 120,556.6 thousand roubles.
- Increased expenditure on purchasing property, plant, and equipment funded by all sources of financing.
- The coefficient of depreciation (47.3% by the end of the year) nearly remained at the same level as compared to the previous year, which had a positive impact on the book value relating to the technical condition of assets.
- Successful financial and business operations led to an increase in the current level of VSU's financial solvency.
- At the end of 2018, the university was able to discharge of its liabilities to the creditors in full through available funds.
- Improved financial solvency for the second year in a row is due to positive equity to total assets ratio.
- In 2018, the period of settlements with debtors was 6 days.

**Purchase activities:**

- A 11.5% growth in the total number of the contracts is caused by an increase in the percentage of purchasing activities financing by subsidies obtained from the state budget of the Russian Federation, by grants, funds provided to fulfil state contracts, and as a result of other income-generating activities.
- Total financing of products, works, and services increased by 121.5% with most purchase of products, works, and services financed through subsidies obtained from the Russian Federation state budget resources, which was 66.4% of the total volume of purchases.
- Number of contracts signed as a result of purchases from single suppliers (contractors, agents) up to 100 thousand roubles grew to 47.58% of the total number of the contracts.
- The majority of expenses were related to contracts signed for purchase of materials to provide the university's needs (25.62% of the total number of contracts for purchase of goods, works, and services from a single supplier).
- The number of modifications to the provisions of the time-schedule for purchases increased by 9.52%, they were made less than twice a month, due to stabilised planning of the university's purchase activities.
- The specialists of the Purchasing Department took an active part in organizing advanced training classes for contractual system specialists as part of the programme in Purchase Management in the Contractual System (108 hours) at the VSU Business School (two groups were taught).

Salaries and social welfare of the university staff:

- Continued practice of using the system of per capita financing to calculate the payroll budget for the academic staff and the payroll budget for other university employees, which allowed keeping the salary of academic staff and researchers in compliance with the "roadmap".
- The minimum wages were adjusted to meet the requirements of the legislation regarding the level of salaries (the minimum monthly wage in the Voronezh region increased up to 11,163 roubles).
- Payments within the effective contract amounted to 593.8 thousand roubles (a growth of 85.6%) and the number of employees who received them increased.
- Renewed system of bonuses for all categories of employees.





INTERNATIONAL ACTIVITIES





O. N. Belenov,

Head of the Department
for International Cooperation

7.1. VSU OBJECTIVES IN THE SPHERE OF INTERNATIONAL COOPERATION IN 2018

In 2018, VSU's international activities were focused on enhancing the following areas:

- To internationalise all areas of activities, from educational and research to administrative and organisational activities, and to engage all university staff into the process of internationalisation.
- To improve the university's standing in the international market for educational services.
- To enhance the academic mobility of academic staff, students, and researchers.
- To develop strategic partnerships with international universities.
- To create international network programmes.
- To develop and implement international educational and research projects and enable the process of their successful implementation by the university's subdivisions.
- To increase the number of international students.



7.2. DEVELOPING CONTACTS THROUGH DIRECT CONTRACTS AND AGREEMENTS WITH INTERNATIONAL UNIVERSITIES

In 2018, contacts were developed through 200 existing contracts and cooperation agreements with international universities.

In 2018, Voronezh State University signed 5 agreements with universities from Europe, Asia, and the CIS (Table 7.1).

Table 7.1

LIST OF COOPERATION AGREEMENTS WITH INTERNATIONAL UNIVERSITIES SIGNED IN 2018

No.	Country	Programme (project title), university, country	Type of agreement
1	Belarus	A cooperation agreement between FSFEI HE VSU and the Centre for Belarus Culture, Language, and Literature at the National Academy of Sciences of Belarus (Minsk).	Scientific cooperation
2	Vietnam	Memorandum of understanding between FSFEI HE VSU and Ho Chi Minh City Pedagogical University	Academic cooperation and student exchange programmes
3	Kyrgyz Republic, the Republic of Turkey	A cooperation agreement between FSBEI HE VSU and Kyrgyz and Turkish Manas University	Academic cooperation and student exchange programmes
4	Romania	A cooperation agreement between FSFEI HE VSU and the Danubius University (Galati, Romania)	Academic cooperation and student exchange programmes
5	Portugal	A cooperation agreement between FSFEI HE VSU and the Polytechnic University of Tomar (Portugal)	Academic cooperation and student exchange programmes

The goal of the cooperation agreement between FSFEI HE VSU and the Centre for Belarus Culture, Language, and Literature of the National Academy of Sciences of Belarus (Minsk) is to conduct joint research in the top-priority areas of linguistics; enable the involvement of young researchers and postgraduate students in joint research and events; organise and hold internships for specialists, and hold scientific and cultural events.



The university agreement between FSFEI HE VSU and Ho Chi Minh City Pedagogical University (Vietnam) provides for mutually beneficial and fruitful cooperation in the area of education, science, art, and culture. The partners agree to assist with the development of exchange programmes for students and academic staff within the consortium of partner universities and/or academic programmes aimed at enhancing cooperation in the area of education and science.

The participants of the agreement are expected to seek cooperation opportunities in the following areas:

- Planning and organisation of joint research projects.
- Academic exchange of researchers and lecturers, heads of departments, and administrative personnel.
- Literature exchange.
- Student exchanges at undergraduate, graduate, and post-graduate levels (including internship placements and summer courses for students).
- Joint organisation of scientific events (conferences, seminars, schools, etc.).
- Special academic programmes (joint educational/academic programmes for specified disciplines).
- Cultural events.

One of the aims of the cooperation between VSU and Ho Chi Minh City Pedagogical University is to enhance student mobility by implementing potential opportunities for exchange of undergraduate and postgraduate students, and post-doctoral students.

The main goal of the agreement between Kyrgyz and Turkish Manas University and Voronezh State University is to develop cooperation in various areas of academic, research, and cultural activities which are of interest for both parties. The priority areas of cooperation include:

- Student exchange programmes.
- Joint research.
- Participation in seminars and conferences.
- Regular exchange of academic materials and other academic, scientific, technological, and pedagogical information and documentation.
- Implementation of joint research projects.

Both universities are interested in bilateral exchange programmes for undergraduate and postgraduate students, lecturers, post-doctoral students, and other research staff members and in enhancing student mobility. The planned events are aimed at the development of joint educational activities and network educational programmes.

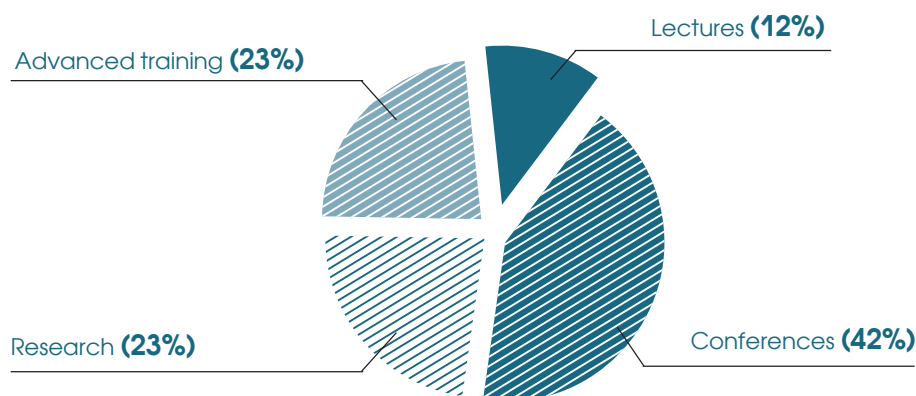


ACADEMIC MOBILITY OF VSU STAFF

In 2018, academic staff of VSU took an active part in international scientific conferences, research, advanced training programmes, and lectures. The total number of staff members who were sent abroad was 130 people. 55 people were sent abroad based on individual invitations to participate in international and national scientific forums, 30 staff members were sent to universities in Germany, France, Croatia, Spain, the Kingdom of Morocco, the Republic of Belarus, Poland, China, and Macedonia based on individual invitations to conduct research, 30 representatives of VSU completed advanced training abroad, and 15 lecturers from VSU were sent to partner universities to give lectures (fig. 7.1).

Figure 7.1

NUMBER OF ACADEMIC STAFF MEMBERS SENT ON BUSINESS TRIPS, BY AIMS



Special attention should be paid to events aimed at the development of cultural relations and the promotion of the Russian language in the neighbouring countries. The staff and lecturers from the Faculty of Philology of VSU dealt with the challenges described in the national top-priority project "Development of the Export Potential of the Russian System of Education" during the ten days' off-site educational events in CIS countries, dedicated to the anniversaries of prominent Russian writers, artists, and scientists:

- Reports dedicated to 200th anniversary of I.S. Turgenev, 215th anniversary of F.I. Tutchev (Astana, Chemkent, the Republic of Kazakhstan).
- A session of scientific and methodological events and lectures dedicated to the works of A.I. Solzhenitsen (Yerevan, the Republic of Armenia), L.N. Tolstoy, N.G. Chernyshevsky (Gyumri, the Republic of Armenia).
- Methodological seminar dedicated to the people with anniversary in 2018: A.I. Solzhenitsen, G.R. Derzhavin, S.V. Mikhalkov, I.S. Turgenev, L.N. Tolstoy, and F.I. Tutchev (Ganja, the Republic of Azerbaijan).



- Advanced training courses and lectures for teachers and librarians dedicated to prominent Russian poets held in Moscow culture and business centre “Moscow House” and the National library in the Republic of Abkhazia.

All the events were held with the financial and organisational support of the Federal Agency for CIS Affairs “Rossotrudnichestvo”.

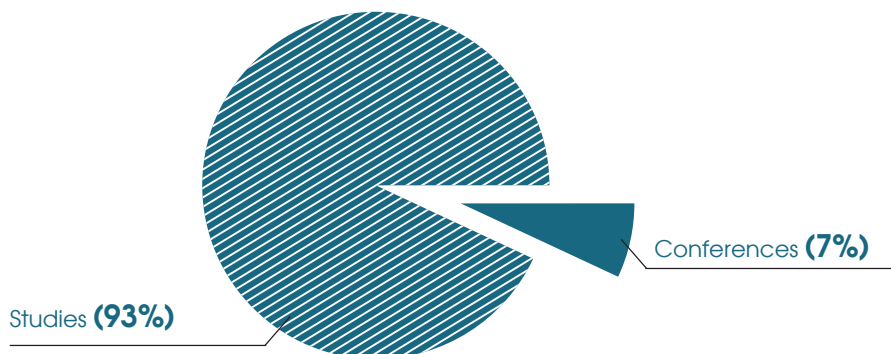
It is recommended to perform these highly beneficial events again.

DYNAMICS OF EXCHANGE PROGRAMMES COMPLETED BY UNDERGRADUATE AND POSTGRADUATE STUDENTS IN PARTNER UNIVERSITIES

137 VSU students completed a variety of exchange programmes (one-year, one-semester, language courses, internships, and pre-graduation practical training) (fig. 7.2).

Figure 7.2

DYNAMICS OF EXCHANGE PROGRAMMES COMPLETED BY VSU STUDENTS IN INTERNATIONAL UNIVERSITIES (BY AIMS)

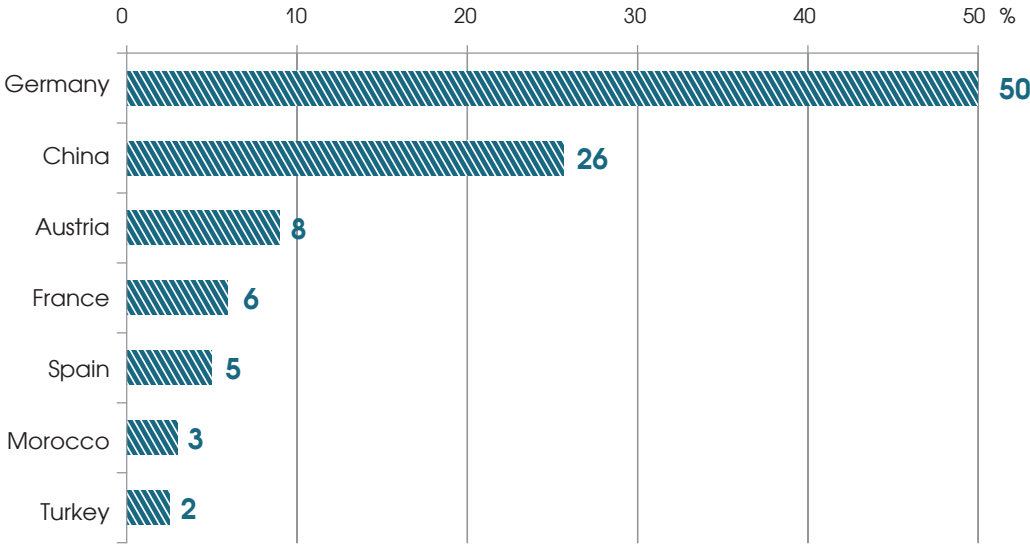




The most popular countries among the participants of exchange programmes were Germany, China, Estonia, France, Spain, Morocco, Croatia, Portugal, Austria, and Turkey. The keen interest of VSU students in exchange programmes in German, Chinese, French, and Turkish universities can be explained, not only by the number of places provided to the students by international universities, but also by close contacts between researchers, by grants offered by German and French partner universities and by the comfortable accommodation for VSU exchange students in China (fig. 7.3).

Figure 7.3

COUNTRIES VISITED BY STUDENTS AS A PART OF EXCHANGE PROGRAMMES



The development of academic mobility is one of the priorities of VSU’s international activities. Despite political instability and economic barriers, over 1,200 representatives of academic staff had international business trips over the last 4 years. As for students, in 2015, 351 people took part in exchange programmes, in 2016 there were 272 people, in 2017 – 340 people, and in 2018 – 267 people.

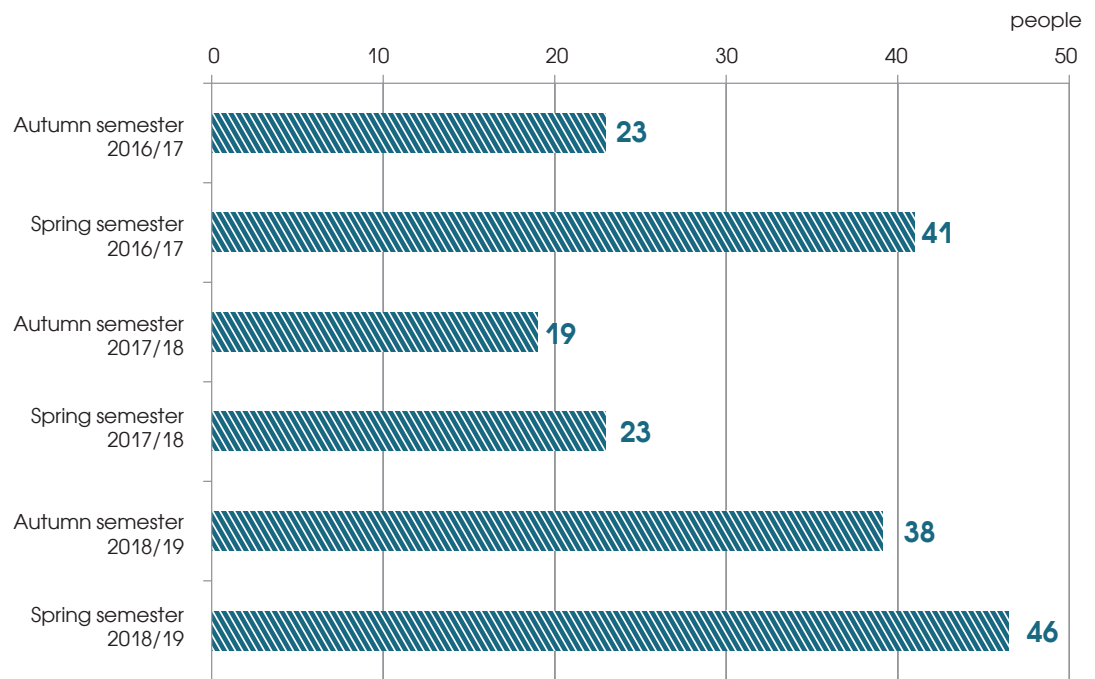


ACADEMIC MOBILITY OF INTERNATIONAL STUDENTS AS A PART OF STUDENT EXCHANGE PROGRAMMES

In the reporting period, international students were enrolled on one-semester and one-year programmes as a part of student exchange programmes implemented as a result of cooperation between universities. In 2018, 84 international students completed programmes at VSU. 46 international students from China, Germany, Great Britain, Spain, the USA, Greece, Japan, Morocco, and Turkey are planning to come to study at VSU in the spring semester of the 2018/19 academic year (fig. 7.4).

Figure 7.4

ACADEMIC MOBILITY OF INTERNATIONAL STUDENTS THROUGH DIRECT CONTRACTS AND AGREEMENTS WITH INTERNATIONAL UNIVERSITIES



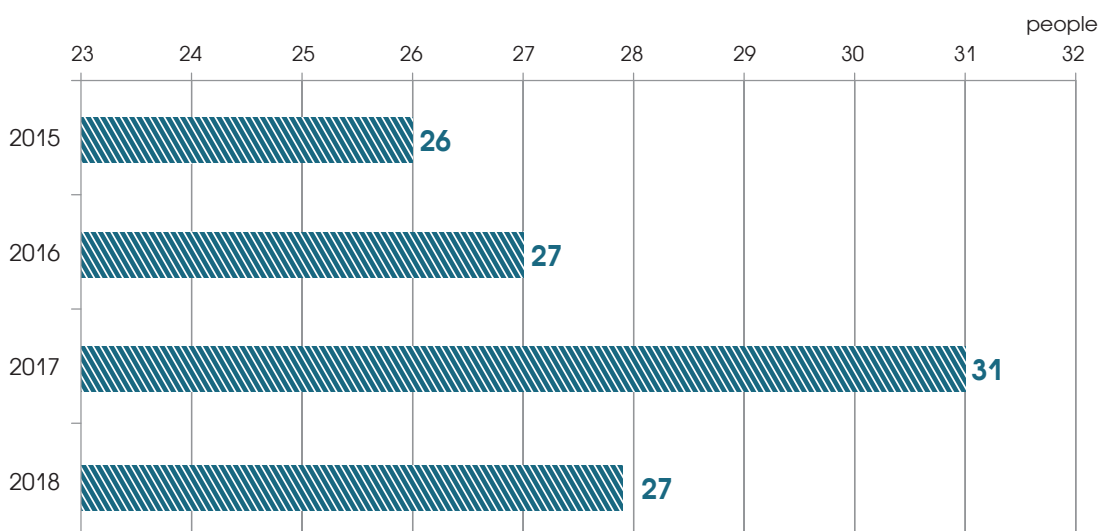


THE NUMBER OF INTERNATIONAL EXPERTS INVOLVED IN ACADEMIC AND RESEARCH ACTIVITIES

In the reporting period, over 30 international specialists took part in the educational process and research at VSU (fig. 7.5).

Figure 7.5

ACADEMIC MOBILITY OF INTERNATIONAL SPECIALISTS THROUGH DIRECT CONTRACTS AND AGREEMENTS WITH INTERNATIONAL UNIVERSITIES



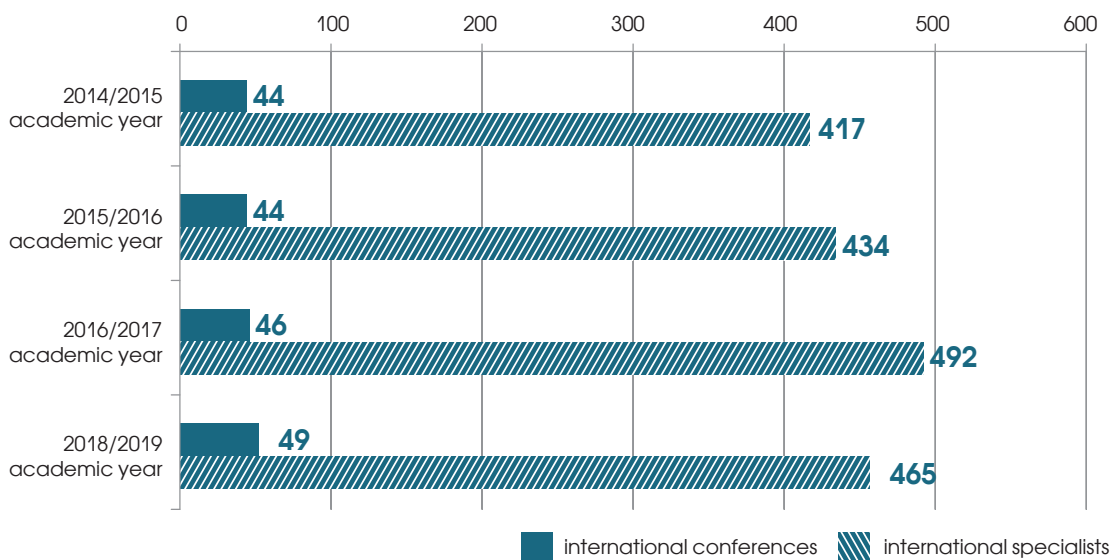
INTERNATIONAL CONFERENCES AT VSU WITH THE PARTICIPATION OF INTERNATIONAL SPECIALISTS

In the reporting period, 49 international conferences took place in VSU. Among the participants were 465 international scientists and leading specialists from 12 countries: the Republic of Armenia, the Republic of Belarus, Belgium, Germany, Spain, the Republic of Tajikistan, Ukraine, Great Britain, Greece, Portugal, Morocco, and Austria (fig. 7.6 and 7.7).



Figure 7.6

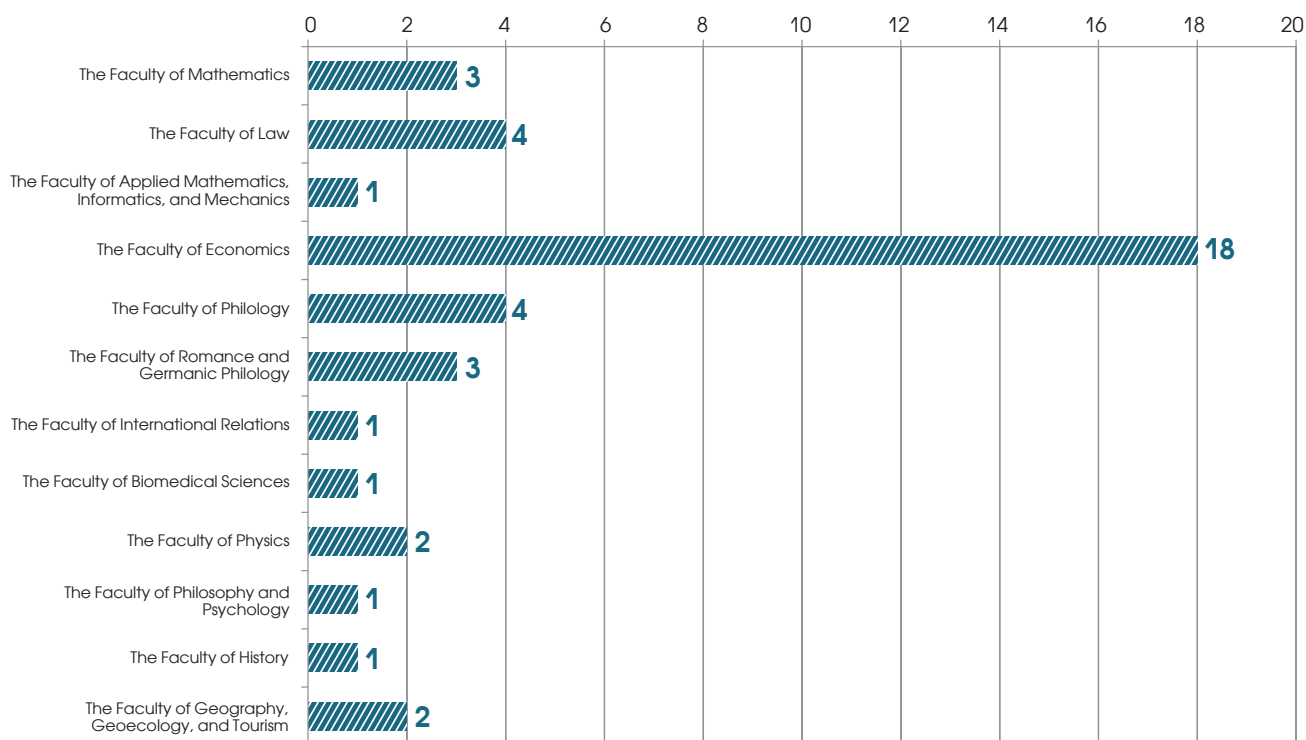
PARTICIPATION OF INTERNATIONAL SPECIALISTS IN INTERNATIONAL CONFERENCES IN VSU



In the reporting year, most of the conferences with the participation of international scientists were held at the Faculty of Economics.

Figure 7.7

THE NUMBER OF CONFERENCES AT VSU FACULTIES





7.3. IMPLEMENTATION OF JOINT EDUCATIONAL PROGRAMMES WITH EU UNIVERSITIES

VSU continues its activities aimed at the introduction of educational programmes developed in collaboration with international partner universities.

In 2018, VSU offered 7 joint programmes to its students (Table 7.2).

Table 7.2

JOINT EDUCATIONAL PROGRAMMES AT VSU IN 2018

No.	Name of the programme at VSU	Level of education	VSU subdivision	Partner university
1	Business in the Emerging markets	Master's degree	The Faculty of International Relations	FH Joanneum University of Applied Sciences (Graz, Austria)
2	Business communications in economics: German	Master's degree	The Faculty of Romance and Germanic Philology	Martin Luther University of Halle-Wittenberg, (Halle, Germany)
3	Russian Literature in the European Context	Master's degree	The Faculty of Philology	The University of Göttingen (Göttingen, Germany)
4	International Tourism Management	Master's degree	The Faculty of Economics	University of Girona (Spain)
5	General Management	Master's degree	ISC Paris	Business School (France)
6	Linguistics. Teaching Italian as a Foreign Language	Diploma degree	The Faculty of Romance and Germanic Philology	University for Foreigners of Perugia (Italy)
7	Contrastive Philology	Master's degree	The Faculty of Romance and Germanic Philology	University of Leon (Spain)

The total number of students enrolled on joint programmes in 2018 was 40 people, the number of existing students was 58 people, and the number of graduates was 28 people.

The Russian Literature in the European context master's programme had seven graduates this year. As a result the students from Voronezh received a degree from the University of Göttingen (Göttingen, Germany)

In August 2018, Voronezh State University signed a framework agreement with the University of Göttingen aimed at the development of the joint bachelor's programme "World Literature". It was agreed to launch the programme in the 2020/21 academic year.



In 2018, the joint master's programme "Business Communication in Economics: the German Language" was continued. This programme received the status of a network programme which was recorded in the corresponding documentation. This allowed the German partner to learn more about the education at VSU and the Russian university to learn more about the competences acquired at the German university. These united actions contributed to the further integration of the educational programme. In 2018, students completing the programme received financial support from the Erasmus+ programme.

In March, Voronezh State University and ISC Paris Business School launched the double degree programme "General Management" as part of the Executive MBA professional retraining. The graduates of the programme will get two diplomas: "Executive MBA" diploma of ISC Paris Business School and a diploma of the VSU Business School.

In the reporting year, the joint master's programme between VSU and the University of Girona (Spain) "International Tourism Management" was started at Voronezh State University. The graduates of the programme will get two diplomas: a diploma from the University of Girona and a diploma from Voronezh State University. Such a project demonstrates the high international academic profile and good quality of education services at Voronezh State University. Among the lecturers of the programme are highly qualified Russian teachers, professors from the University of Girona, and practising specialists from well-known international and Russian companies and government institutions involved in the area of tourism.

In 2018, the master's programme "Business in Emerging Markets" was continued, which was developed in cooperation with Joanneum University of Applied Sciences (Graz, Austria).



7.4. VSU'S PARTICIPATION IN THE COMPETITIONS FOR INTERNATIONAL FUNDS AND PROGRAMMES

An important area of the university's activities in 2018 was the development of international educational cooperation and academic mobility within international educational projects. VSU took part in the implementation of 36 Erasmus+ projects:

- 23 projects aimed at the organisation of academic mobility
- 6 projects aimed at the development of capacity building in the area of higher education
- 7 projects aimed at the development of European studies (fig. 7.8).

The projects aimed at the development of the capacity building in the area of higher education:

- HARMONY – Developing Approaches to Internationalisation Strategy Harmonising in the Area of Higher Education, Science and Innovation in the EU, Russia, Belarus, and Armenia (2015–2018)
- COMPLETE – Creating Employment Competences and Skills Development Centres” (2015–2018)
- INSPIRE – Internalisation of Electronic Engineering Master's Programmes in Russia and China (2016–2019)
- RUECVET – Piloting ECVET to the National VET System of Russia and Uzbekistan (2016–2019)
- TAURUS – Capacity Building in Agriculture and the Cooperation between Urban and Rural Areas for Sustainable Development of Metropolises (2017–2020)
- MAGNUS – Developing Master's Programmes in Mobile Applications and Game Design (2018–2021).

Projects in the field of European studies:

- Research network: War and Peace in European Security Challenges. (2018–2021)
- EHE PRS – Higher Education in Europe from Viewpoint of Russian Students (2016–2018).

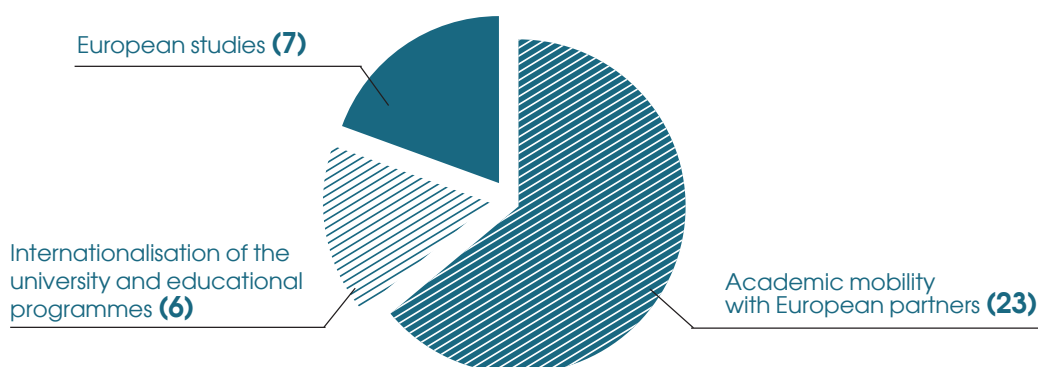
Modules:

- EULap – Approximation of Legal Systems of the EU and Russia (2015–2018)
- PolidEU – European Identity in Terms of Language Policy of the European Union (2015–2018)
- EUMig – Migration in the European Union: Concerns and Prospects (2016–2019)
- SHEXP – Reducing the Shadow Economy: Adapting European Experience in Russia (2016–2019);
- EURexp – Refugee Law: Application of European Standards and Experience in Russia (2017–2020).



Figure 7.8

KEY ERASMUS+ AREAS IMPLEMENTED BY VSU SUBDIVISIONS IN 2018



In 2018, 7 projects with the participation of Voronezh State University were supported as a result of Erasmus+ competition, including 5 projects in the area "International Credit Mobility", 1 project in the area "Capacity Building in the Field of Higher Education", and 1 project in the area "Jean Monnet Actions".

In the reporting year, for the first time, Voronezh State University became the coordinator of the research network "War and Peace in European Security Challenges". The network united the University of Göttingen (Germany), the Institute of Political Studies of Bordeaux (France), the University of Seville (Spain), the Kore University of Enna (Sicily), Dokuz Eylül University (Turkey), the Centre for strategic studies in Jordan, Kuban State University (Russia), and Perm State National Research University (Russia).

ERASMUS+ ACADEMIC MOBILITY IN 2018

27 VSU students and 8 students from partner universities received Erasmus+ scholarships to take part in academic mobility programmes. Total financing for student mobility in 2018 amounted to 145,625 Euro.

52 VSU employees and 47 international teachers from partner universities received support within Erasmus+ programme and gave lectures and completed internships at the university. Total financing of academic mobility of academic staff and employees in 2018 amounted to 110,385 Euro.

THE WEEK OF INTERNATIONAL EDUCATION "VSU'S 100TH YEAR IN HISTORY"

The week of international education "VSU's 100th Year in History" was held as part of the festive events dedicated to the 100th anniversary of VSU (12–16 September 2018). The participants enjoyed a varied programme of events:

- The implementation of Tempus and Erasmus+ projects by Voronezh State University: institutional monitoring of VSU's projects
- International conference "Internationalisation of Higher Education: Strategies and Tools"
- International forum "Russian Foreign Policy: the Youth's Opinion"
- Round table discussion "Russia and Great Britain: a Setback in Relationship?"



Among the 160 participants of the event were 110 representatives from partner universities and 50 international experts from leading universities of Spain, France, Germany, Great Britain, Italy, Portugal, Austria, the Netherlands, Greece, Hungary, Turkey, Serbia, Macedonia, China, the Republic of Belarus, and Armenia.

In the framework of the Week of International Education at VSU, the university was visited by professor Anne Spanhemacher from the Education, Audiovisual and Culture Executive Agency of the European Commission (Brussels) and the administration of the National Erasmus+ Office Russia. A total of 12 TEMPUS/Erasmus+ projects were discussed and analysed by the working team.

The experts praised the efficient work, the results, and the stability of the projects in general.

The highlight of the Week of International Education was the conference "Internationalisation of Higher Education: Strategies and Tools". Among its participants were university rectors and vice rectors, experts in the internationalisation of higher education, and scientists in various knowledge areas representing such well-known universities as the University of Seville, the Sapienza University of Rome, Albert Ludwig University in Freiburg, Lille University, Birmingham University, Martin Luther University of Halle-Wittenberg, the University of Granada, Oxford University, the University of Leon, the University of Kassel, the Tuscia University, Belarusian State University, and Southern Federal University.

At the same time with the conference, International forum "Russian Foreign Policy: the Youth's Opinion" took place at the university. In the framework of the forum, a round table discussion was held with British alumni "Russia and Great Britain – a Setback in Relationship?" monitored by A.A. Gromyko, Director of the Institute of Russian Academy of Sciences and an Honorary Doctor of VSU. Scientists from Birmingham University, Oxford University, University College London, and the University of Manchester led a discussion between students and lecturers from VSU.

During the international conference, over 50 participants completed advanced training courses in "International Scientific and Educational Projects: Education Quality Management".

In December 2018, the Department of International Cooperation at VSU took part in organising and holding of the international conference "Internationalisation Strategies of Higher Education" (Moscow). 137 delegations, including 27 international participants, representatives of 55 universities from all federal districts of the Russian Federation, leading specialists and experts from the Ministry of Science and Higher Education, and the Delegations of the EU in the Russian Federation took part in the conference. The staff of Voronezh State University presented the results of the international HARMONY project dedicated to the development of the framework internationalisation strategy and the plan of action of the university. The participants of the conference and experts highly praised the significance of the project results, both for the system of higher education and for the reformation of the international activity management in some universities.



7.5. COOPERATION BETWEEN VSU AND TURKISH UNIVERSITIES

In the reporting year, VSU continued active cooperation with Turkish universities in accordance with the concluded agreements.

The cooperation involved academic exchange of students and academic staff. Lecturers and students from VSU took part in the grant competition of the Mevlana programme financed by the Turkish government. As a result, 10 students and 10 lecturers received Mevlana scholarships and the right to complete an internship or a course in Turkish universities.

In 2018, lecturers and employees from Ataturk University (Erzurum, Turkey), Kocaeli University (Izmit), and Osmanganzi University (Eskişehir) visited VSU. In the reporting year, 4 Turkish students completed a course at our university as a part of exchange programme.

The university's active internationalisation policy and its participation in the Erasmus+ Programme are cornerstones of its development strategy. Erasmus+ projects offered a number of advantages to the university both in terms of intellectual development the development of facilities (Table 7.3).

Table 7.3

CONTRIBUTION OF EUROPEAN PROJECTS TO THE MODERNISATION OF THE UNIVERSITY (ACCORDING TO THE RESULT OF PROJECTS IMPLEMENTED IN 2013–2018)

Indicator	Number
Agreements concluded with international universities, including Erasmus+ agreements	42 29
Master's programmes developed and modernised, including joint programmes	13 7
New courses developed	150
Articles	over 300
Dissertations defended (including master's dissertations)	112
Rooms equipped	17
Research and training centres created	5



7.6. TRAINING OF INTERNATIONAL STUDENTS AND INFORMATION ON THE INTERNATIONAL STUDENT POPULATION AND DYNAMICS

Student population in 2017–2018:

- Bachelor's degree – 363 people (271 state-funded, 92 fee-paying)
- Master's degree – 106 people (58 state-funded, 48 fee-paying)
- Diploma degree – 45 people (27 state-funded, 18 fee-paying)
- PhD degree – 73 people (62 state-funded, 11 fee-paying)
- Pre-university training programmes – 171 people (80 state-funded, 91 fee-paying).

Total: 758 people (498 state-funded, 260 fee-paying)

To see the dynamics, let us compare the data with the student population in 2016–2017:

- Bachelor's degree – 417 people (308 state-funded, 109 fee-paying)
- Master's degree – 142 people (84 state-funded, 58 fee-paying)
- Diploma degree – 37 people (23 state-funded, 14 fee-paying)
- PhD degree – 71 people (57 state-funded, 14 fee-paying)
- Pre-university training programmes – 186 people (84 state-funded, 102 fee-paying).

Total: 853 people (556 state-funded, 297 fee-paying.)

As a result of 2017/18 academic year 41 people were expelled.

Graduated in 2018:

- Bachelor's degree students (90 people)
- Master's degree students (41 people)
- Diploma degree students (4 people).

Total: 135 people (42 honours degree).

Enrolled in 2018:

- Bachelor's degree students (83 people)
- Master's degree students (63 people)
- Diploma degree students (19 people)
- PhD students (19 people).

Total: 184 people.



In 2018, Pre-university training of international students involved three types of further education programmes:

- 1008 programme – further education programmes aimed at preparing foreign residents and stateless individuals for professional education programmes in the Russian language (at least 1,008 academic hours of in-class work).
- 1368 programme – extended modules with additional disciplines (1,368 academic hours of in-class work).
- 360 programme – professionally-oriented modules with additional disciplines (360 academic hours of in-class work).

The curriculum for each programme includes 5 training profiles: humanities, natural sciences, engineering and technology, medicine and biology, and economics.

Three further education programmes have 19 educational programmes in the Russian language and general scientific disciplines.

The academic project “Russian digital class” was continued. It is aimed at developing an integrated education and information environment at the International Education Institute and supporting the educational process with modern e-learning. The academic project “Russian digital class” enables students to work efficiently and independently within the framework of blended learning using traditional learning techniques and the education and information environment of the International Education Institute.

E-learning aids are developed in a form of software products: “Interactive Library of the International Education Institute” and “Training and Testing System of the VSU Institute of International Education”.

In 2018, the software platform “Interactive Library of the International Education Institute” was used to develop the following e-learning aids aimed to complement and extend printed educational publications of the International Education Institute:

- interactive multimedia grammar study materials for the course “Russian cases”: “Accusative case”, “Genitive case”, “Prepositional case”, and “Dative case”. The study materials have illustrated and voiced presentations, interactive exercises, reference books, and tests.
- Interactive lesson “Which university to choose?” (“Accusative case of adjectives”) has a training video, a video lecture, interactive exercises, and a test.



- Interactive application to the printed study material “Russian cases in texts and tables” has voiced dialogues, follow-up exercises, and a grammar test.
- Electronic audio tests for the textbook “Time to learn Russian – 2”.

These materials can be used by students for independent work in a computer class or at home.

The multimedia course “Ruso comunicativo/Russian for communication” was created using the “Interactive Library of the International Education Institute” software platform. It is used to teach Russian as a foreign language to Spanish speaking students at the initial stage in the Foreign Languages Teaching and Certification Centre at the Autonomous University of Nuevo Leon (Monterrey, Mexico).

In 2018, an agreement about target training of students from the largest Jinan School of Foreign Languages (China) for further training at VSU was concluded for the first time. A second group of future students of VSU was recruited. VSU lecturers gave preliminary lessons. Now, more teachers from the Institute of International Education need to go to China on fly-in fly-out visits (2–3 months) to provide the teaching process.

In the 2018/19 academic year, students from the Sanya University (China) were invited to complete one semester pre-study programmes to be able to enrol on Master’s programmes of Voronezh State University in 2019 (33 students).

As a result of the visit of the delegation from the Institute of International Education of Voronezh State University to Iraqi Kurdistan supported by the Minister of Higher Education and Research of Kurdistan, Dr. Yusif Goran, VSU received a grounded proposal from the President of Sulaimani Polytechnic University to create the Department of Russian as a Foreign Language and a Training Centre for Resource Industries (minerals, oil, gas, energy) and High Technologies at Sulaimani Polytechnic University.

The youth policy involved the following types of activities aimed at international students:

- Building a favourable environment for the balanced development of young people.
- Faster social, cultural, and academic adaptation.
- Creating “soft power” instruments, teaching Russian history, culture, traditions, etc.
- Participation in social, cultural, and sport life of VSU and the region.
- Holding large high-profile federal and regional events.

Within 2018:

- The 17th International Song and Dance Festival was organised in collaboration with the Department of Culture of the Voronezh Municipal Government. The number of participants of the festival grew to 800 people. The VSU team prepared 23 songs and dances for the qualifying stage, many of which were selected for the gala concert.



- In cooperation with the administration of the Levoberezhny district the international festival “So Different, but so Alike” was organised and held.
- The National Chamber of the Voronezh region invited VSU students to take part in the friendship festivals “Multinational Voronezh”, “Voronezh – the city of friendship”, and the youth forum “Seventh Sky”.
- International students continued the tradition of visiting educational institutions of the city (school No.47, Voronezh College of Food Processing Industry, and Electromechanical College, and gymnasium No.1).
- The following annual extra-curricular events were held: a New Year party, the final concert of the students of the pre-university training programme, the students’ contests “Miss Institute of International Education”, “Mister Institute of International Education”, meeting of the “Russian club”, the Russian language competition, and the official graduation ceremony for international students.
- Trips to Saint Petersburg, Moscow, Karelia, Ramon, and Caucasus were organised for international students.

PUBLICATIONS BY THE STAFF OF THE INSTITUTE OF INTERNATIONAL EDUCATION

The total number of publications (articles) is 112:

- Articles published in journals indexed by the Russian Science Citation Index (108).
- Articles published in the leading journals included in the list of referenced scholarly journals recommended by the State Commission for Academic Degrees (7).
- Articles written in cooperation with international specialists (3).
- Collections of scientific works by lecturers and staff members of the Institute of International Education (3), including collections of scientific works presented at international conferences (2), and other collections of works (1).
- Textbooks (14).



PARTICIPATION IN CONFERENCES

The number of conferences with the participation of the staff members of the Institute of International Education: total (27), international conferences (17).

The number of staff members of the Institute of International Education who took part in scientific conferences: total (42), in international scientific conferences (26).

The staff of the Institute of International Education took an active part in the organisation of festive events dedicated to the celebration of VSU's centennial.

The staff members of the Institute of International Education organised and held festive events for the veterans of the Institute and its staff, meetings with VSU graduates, and a festive concert which was held at the Nikitinskaya square.

They also organised the visit of a large group of former VSU graduates of the 1970-1980's.

The Institute of International Education organised and held the 7th student conference "Student Research as a Resource of Innovative Potential for Development" (Voronezh, VSU's Institute of International Education, 23 May 2018), dedicated to the 100th anniversary.

Anniversary editions of books of reminiscences of lecturers and international students and brochures were published for the international graduates and guests:

- University without borders. Half a century of international education at VSU, by E.F. Akatkina, ed. by V.V. Rodionov, Voronezh State University, the Institute of International Education. – Voronezh: VSU Publishing House, 2018. – 140 p. (print and cover by VSU Publishing House).
- Have a nice journey! VSU planet, by E.E. Orekhova, S.L. Savvina, Voronezh State University, the Institute of International Education. - Voronezh: VSU Publishing House, 2018. – 92 p. (print and cover by VSU Publishing House).
- Our Russia. Internship at VSU 2017–2018, by E.E. Orekhova, Voronezh State University. - Voronezh: VSU Publishing House, 2018. – 28 p. - Access mode: <http://interedu.vsu.ru/images/pdf-files/News/FullDocument.pdf> (print and cover by VSU Publishing House).



7.7. BRIEF SUMMARY OF KEY RESULTS OF INTERNATIONAL ACTIVITIES AT VSU

In 2018, VSU concluded 5 agreements with leading international universities: from Romania, Portugal, the Republic of Belarus, Vietnam, Kyrgyz Republic, and Turkey.

In the reporting period, 130 representatives of academic staff were involved in academic mobility programmes, including 65 people supported by international funds and programmes.

In the reporting year, over 84 international students took part in courses at VSU as a part of student exchange programmes.

Over 30 international specialists took part in the educational process and research at VSU.

The university continues its activities aimed at the introduction of educational programmes developed in collaboration with international partner universities. In the reporting year, VSU successfully continued collaboration with 7 international universities regarding development and implementation of joint educational programmes. VSU students had a chance to choose from 7 joint programmes.

An important area of the university's activities in 2018 was the development of international educational cooperation and academic mobility within international educational projects. VSU took part in the implementation of 36 Erasmus+ projects.

The week of international education "VSU's 100th Year in History" was held as part of the festive events dedicated to the 100th anniversary of VSU. Among its participants were 160 people, including 110 representatives of partner universities and 50 international experts.

The cooperation between VSU and Turkish universities involved academic exchange of students and academic staff. Lecturers and students from VSU took part in the grant competition of the Mevlana programme financed by the Turkish government. As a result, 10 students and 10 lecturers received Mevlana scholarships and the right to complete an internship or a course in Turkish universities.

The university's active internationalisation policy and its participation in European programmes provided it with a number of advantages:

- An improved image of VSU on the national and international levels.
- A leading position in the region and in the country.
- Increased international awareness worldwide.
- Mastery of the Bologna tools and student-centred approaches to the academic process.
- Active introduction of modern teaching techniques.
- Implementation of Modern Programmes, including accredited double degree Bachelor's and Master's programmes.



- Establishment of new structural divisions to promote and support e-learning, ODL, and blended learning.
- Development of new textbooks and learning materials which are used at the departments.
- Enhanced human resources, specifically the pool of international project managers.

In 2018, the software platform “Interactive Library of the International Education Institute” was used to develop the following e-learning aids, interactive multimedia grammar study materials for the course “Russian cases”: “Accusative case”, “Genitive case”, “Prepositional case”, and “Dative case”, interactive video lesson “Which university to choose?” (“Accusative case of adjectives”), interactive application to the printed study material “Russian cases in texts and tables”, electronic audio tests for the textbook “Time to learn Russian – 2”.

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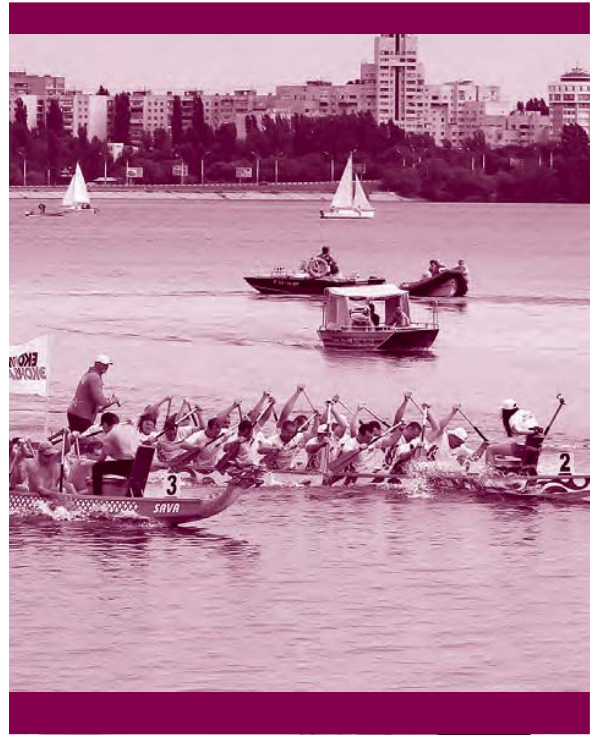
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The staff members of the Institute of International Education organised and held festive events for the veterans of the Institute and its staff, meetings with VSU graduates, and a festive concert which was held at Nikitinskaya square.

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STUDENT AFFAIRS AND SOCIAL DEVELOPMENT





STUDENT AFFAIRS AND SOCIAL DEVELOPMENT



O.V. Grishaev,

Vice-Rector for Student Affairs
and Social Development

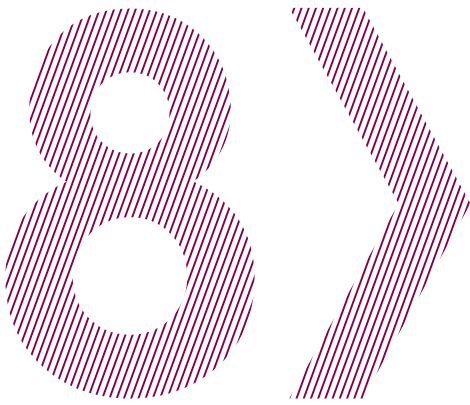
MAIN OBJECTIVES IN THE FIELD OF STUDENT AFFAIRS AND SOCIAL DEVELOPMENT IN 2018

Alongside educational activities, student affairs and social development are an integral part of the university's activities. Among its major goals and objectives are:

- To create a comfortable social, psychological, educational, and cultural environment which contributes to building cultural and professional competencies among students.
- To support the personal development and personal fulfilment of students and to provide them with opportunities to gain a wide spectrum of social and professional experience.
- To develop personal integrity among students and their commitment to the accepted behavioural norms.
- To develop the university's corporate culture governing the core values of its students, employees, and academic staff and to strengthen and develop the best university traditions.
- To shape the civic mindedness and patriotic consciousness of students.
- To enhance the cultural awareness and behaviour, aesthetic sense, behavioural philosophy, speech, communication skills of students.
- To improve the system for the adaptation of first year students to the academic lifestyle.



- To create an environment for the continued development of student creativity, to help organise their leisure activities, to engage them in Russian culture, amateur performances, and the university's creative teams.
- To develop student clubs and communities aimed at the professional and personal development of students.
- To improve the motivation of students and to promote a healthy lifestyle among them, and to engage students in sports clubs.
- To implement a set of preventive measures to combat the spread of drugs, alcoholism, tobacco, and any manifestations of nationalism and extremism among students.
- To develop and enhance the activities of student self-governing bodies and volunteer, environmental, and construction brigades.
- To engage a wide range of university students in the organisation of socially relevant extra-curricular activities, to provide student activists with the basics of management, and to develop leadership skills among the university graduates.
- To create an environment for the development of student initiatives and the implementation of various student projects.
- To search for efficient forms of educational and cultural leisure activities and to enhance the activities of academic group supervisors.
- To provide social security and psychological support to the university's students.
- To organise summer holidays for students and staff.
- To control the payment of bursaries, allowances, and other types of financial aid for students.
- To enhance the pedagogical and social activities in the university's halls of residence.
- To organise cooperation between universities in the field of pedagogical and social activities.



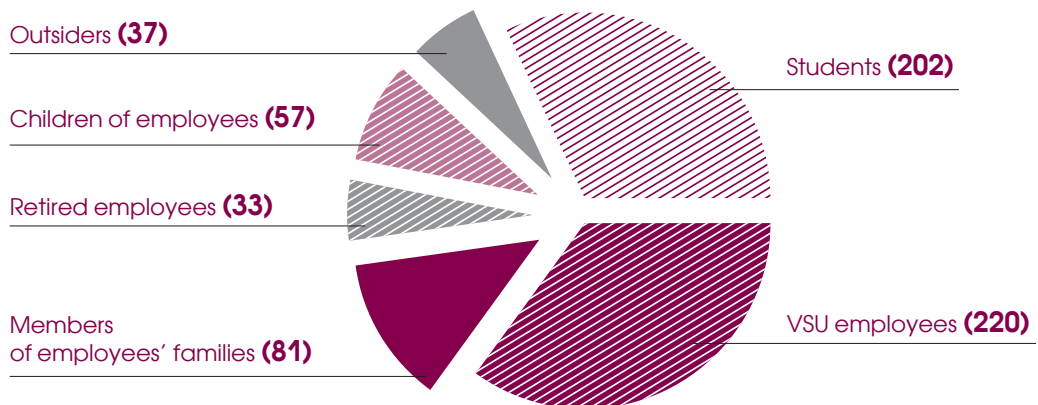
8.2. ORGANISATION OF SUMMER HOLIDAYS FOR VSU STUDENTS AND STAFF IN 2018

The Department for Social Development organized summer holidays and recreation for University staff members and students at the “Venevitinovo” sport and fitness complex.

In summer 2018, the number of people who spent their holidays at the “Venevitinovo” recreation facility totalled 630 people including: 220 VSU employees, 81 members of their families, 33 retired VSU employees, 57 children of VSU employees, 37 outsiders who paid the full price, and 202 students (fig. 8.1).

Figure 8.1

HOLIDAYS AT THE “VENEVITINOVO” RECREATION FACILITY



In summer 2018, 600 university students had rest at the Black Sea coast (Rosa Khutor, the Republic of Crimea).



8.3. FINANCIAL AID FOR STUDENTS AND VSU EMPLOYEES, 2017 VS. 2018

In 2018, based on the Regulations regarding the Terms and Conditions of Rendering Financial Aid to the Employees of Voronezh State University and the Regulations regarding Social Support of the Single Retired VSU Employees, 479 current and retired University employees received financial aid which amounted to 2,107,950 roubles.

Many students received financial aid.

Importantly, the distribution and expenditure of monetary funds that affected the interests of students (scholarships and other bursaries, cultural events, sport, and recreation) was supervised by faculty scholarship committees and the trade union organization of VSU students.

In 2018, the amount of money spent on financial aid to undergraduate and postgraduate students totalled 62,485,523.99 roubles.

8.4. STUDENTS' BURSARIES

It should be noted that the administration of the university provides social support to both its employees and students. Based on the Regulations regarding Scholarships and Other Forms of Financial Aid for Undergraduate, Postgraduate, and Post-doctoral Students of Voronezh State University, the Social Development Department pursues a graded social policy with respect to VSU students in need of help.

To provide students with social support, the administration allocates bursaries for the following categories of students:

- Orphaned children and children without parental care.
- Disabled students of the first and second disability groups and disabled children under 18 years old.
- Students exposed to radioactive contamination as a consequence of the Chernobyl nuclear power plant accident and other radiological accidents (as per submitted documents).
- Students whose families are entitled to social support and with an average income below the poverty line.

In 2018, the sum of bursaries paid to 1,279 students totalled 27,904,040.92 roubles.



8.5. INTERACTION WITH THE TRADE UNION

The Collective Contract (CC) between the VSU and its employees signed in 2012 and renewed in 2015, expired in June 2018. In accordance with the law and following Order of the Rector No. 0255 of 27 March 2018, a negotiation committee was established and started work on 9 April 2018 to develop the Collective Contract project for a three-year period (2018-2021). The co-chairpersons of the negotiation committee representing the employer (Vice-rector Grishayev) and employees (co-chairperson of the trade union L.V. Vladimirova) coordinated the working teams and called meetings to discuss the materials developed by the teams. The negotiation committee held seven main sessions and over ten meetings with the working teams. The agreed-on part of the CC project was then published on the website to be discussed by university employees and on 29 June 2018 it was adopted at a conference of university staff and students. The parties agreed to further develop the CC provisions, which had caused disagreements. The CC adopted at the conference was signed by the parties and registered in the Employment Department of the Voronezh region on 20 July 2018 (letter No.84-113645 of 23 July 2018). According to the Agreement of 31 August 2018, concluded between the CC parties, the CC was updated and supplemented with Appendix 5 stipulating the right of employees holding positions with adverse or unsafe working conditions to additional leave or a reduced working day. The agreement about CC amendments was registered on 12 September 2018, for which the university was provided written notice by the Employment Department of the Voronezh region (letter No.84-114383 of 17 September 2018). The parties continue work aimed at improving the CC.

Within 2018, a joint social committee regularly made decisions regarding the rendering of financial aid to employees. Financial aid was regularly paid based on the regulations regarding the Terms and Conditions of Rendering Financial Aid to the Employees of Voronezh State University and the regulations regarding Social Support of the Single Retired VSU Employees.

In 2018, in accordance with the Collective Contract, Clause 5.8.2, the joint social committee repeatedly considered the possibility of sending the Rector a reasoned request to increase non-recurrent severance payments to the oldest retiring university employees with a length of service to the university of over 40 years (50 people received upon request fivefold and fourfold severance payments in compliance with the CC active before 29 July 2018 and the new CC).

The CC adopted on 29 June 2018 has a reduced list of Occupational Safety appendices. In November and December 2018, a special evaluation study of the working conditions (ESWC) of employees was conducted. The certifying authority was requested to provide the corresponding documents before 28 February 2019. According to the results of the ESWC, the CC parties will decide upon the benefits for employees with adverse or unsafe working conditions.

In the 2017/18 academic year, graded load levels for different categories of academic staff continued to be used.



The Leader of the Year expert committees on internal grants that included Trade Union representatives continued their work and chose winners in all nominations.

In the reporting year, the Social Development Department (SDD) and the Trade Union took care of single VSU pensioners, the list of whom was based on the data provided by structural subdivisions. In accordance with an order by the Rector, 47 pensioners, who have no relatives received aid on the International Day of Older Persons. Upon a request by the Council of Veterans, the Endowment Fund decided to pay a lump sum of 6 thousand roubles to single retired veterans of VSU who are over 80 years old. 23 single veterans received such financial aid in the reporting year.

The Trade Union, in collaboration with the SDD, developed and agreed proposals for pricing holiday packages to the "Venevitinovo" recreation facility in 2018, continuing to use the system of perquisites for University employees, their children of pre-school and school age, other members of their families, and VSU retired employees. The work of the "Venevitinovo" complex was regularly monitored throughout the holiday season:

- A joint committee visited the recreation facility at various times before the start of the summer holiday season in order to draw up a list of urgent works to prepare the facility for the opening.
- During the summer holidays, the joint committee visited the site to examine the recreation conditions for employees and immediately eliminate any problems.

In September and May 2018, the traditional concerts of the Voronezh Academic Symphony Orchestra and Voronezh Youth Symphony Orchestra took place in the University Hall. On 12 November 2018, the concert of Voronezh Youth Symphony Orchestra with the participation of the men's choir "Russian Format" took place at the same venue. The concert, which followed the celebration in honour of VSU veterans, was dedicated to the centenary of Voronezh State University.

The celebration of the 73rd Victory Day anniversary was organised in collaboration with the University administration and the Trade Union. Prior to Victory Day, the university's festive events traditionally started with a meeting near the memorial dedicated to the university staff and students who died in the Great Patriotic War. The participants were welcomed by the Rector and congratulated by the university staff and students. War songs were played and the veterans had a chance to talk to each other, which made the atmosphere of the event even more festive. The veterans continued to celebrate Victory Day at the Rector's reception in the university canteen. All the staff commemorated this wonderful event, which is of great importance for all generations, on a high patriotic note. The veterans were given presents.

The Administration and the Trade Union continued to implement the programme of weekend trips. The university provided transport and organisation of the events and the guides were provided by the Trade Union of Employees. In the spring semester of 2018, VSU employees visited the Voronezh biosphere reserve, the Archaeological Museum in the village of Kostenki in the Voronezh region, and the university nature reserve "Galichya Gora", and in the autumn semester, they had a trip to Khrenovoye stud farm and the Palace of the Princess of Oldenburg in Ramon.



8.6. PROGRESS REPORT ON THE GRANT OF THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION FOR THE DEVELOPMENT OF STUDENT COMMUNITIES

Table 8.1

INFORMATION ABOUT THE IMPLEMENTATION OF THE PROGRAMME FOR THE DEVELOPMENT OF STUDENT COMMUNITIES FOR 2018

Event	Status	Number of participants	Dates
Research and Innovation			
Tournament of Three Sciences	Federal	700	25–30 October 2018
Saturday University	University	1,000	August – December 2018
Student sport and tourism			
The programme for the development of the students' sports club "Khitschnye Bobry" (Rapacious Beavers) "Doing Sport together with Beavers"	Between universities	1,250	August – December 2018
Culture and creativity			
School for student activists	University	250	10–16 December 2018
Student Information resources			
Media school	Between universities	800	September – December 2018
Patriotic education and intercultural communication			
Buddy Club programme	University	270	August – December 2018
VSU Student Teams			
Meeting and spartakiad of student teams from the Central Federal District	Interregional	300	October 2018



The Tournament of Three Sciences is an annual team competition between students from higher education institutions of the Russian Federation. It involves solving problems in the field of natural sciences and technologies which were published in advance, and presenting their solutions and defending them against the participants of the other teams.

- It covers 6 federal districts (Central, Urals, Siberian, Far Eastern, Volga, and Southern districts).
- Following the results of the tournament, 35 resumes were received from participants willing to complete internships at partner companies.
- For the first time, the tournament involved job interviews between the participants and representatives from various companies, who exchanged contact details with the students and agreed to provide internships for 20 people.

Saturday University provides popular science lectures aimed at stimulating student interest in the deeper study of natural and humanitarian sciences.

The programme of development of the student sports club “Khitschnye Bobry” (Rapacious Beavers). “Doing Sport together with Beavers” is a session of events organised by the student sport club aimed at the development of student sport clubs in Voronezh and the promotion of sport among the students of Voronezh and the Voronezh region. The programme is unique because it holds tournaments and competitions not only in classic sports but also in new sports that attract a lot of students: bumper ball and laser tag. They also create student leagues.

School for student activists. The skills and competencies acquired by its participants will help them solve professional tasks on a whole new level, be sociable, feel more at ease when presenting their projects, and to use a creative approach when solving problems.

Media school. The participants learn the basics of journalism and the theory of mass communication, which teaches them to think and treat information critically.

Buddy Club Programme is a volunteer club helping international students adapt, promoting dialogue between cultures, and introducing its members to the international diversity of Voronezh.

Student Teams are an efficient way to provide secondary employment. What is more, they organise leisure activities, offer opportunities for creative self-expression, promote sport and patriotic education, and assist in the socialisation of young people. The system of collective self-government develops a sense of responsibility, decision-making skills, and provides good schooling for future specialists, which complements the theoretical knowledge acquired at the university and prepares the students for independent activity on the labour market.

Following the results of the abovementioned events, it may be said that students have a lot of interest in the events of the programme. In the previous years, the Students’ Board formed well-established and consistent student communities, which allowed them to year-on-year win grant competitions for the implementation of the programme. From May 2018, the Students’ Board took an active part in preparing for VSU’s centenary. The team spirit was at the core of the success of a number of events.



8.7. OVERVIEW OF STUDENTS COMPETITIONS

The promotion of creative festivals has always been an important aspect of student affairs policy at the university. For example, **the First-Year Student contest**, traditionally held in the autumn semester, is aimed at promoting creativity among first year students, involving them in the university's cultural life, developing their creativity, and helping them to adapt to the new environment. In 2018, the festival took place in November. Among the prizewinners were:

- 3rd place – the Faculty of Law.
- 2nd place – the Faculty of Computer Sciences.
- 1st place – the Faculty of Applied Mathematics, Informatics, and Mechanics.

After the university stage of the First-Year Student contest 2018, the VSU team "Top Rate" took part in the National students' dancing project **"In Motion"** and was among its winners. The team from VSU was highly praised by the jury.

The organising committee and representatives of the VSU intellectual club have often been among the winners of interuniversity, regional, national, and even international intellectual tournaments. Dozens of tournaments and hundreds of games and training session meetings have been organised and held.

"What? Where? When?":

- over 40 international synchronised tournaments without age restrictions.
- 24 stages of regional tournaments between schools and universities.
- 3 regional qualifying stages of the open championship between Russian universities.
- 3 stages of the premier and first league of the regional championship without age restrictions.
- A qualifying stage and the final of the regional championship between schools, lyceums, and gymnasiums.
- A qualifying stage and the final of the regional championship between universities.
- Participation in the Russian championship in Saint Petersburg.



Voroshilovskiy Strelok quiz show (in cooperation with the regional office of the game):

- 5th and 6th regional Students' Cups.
- 3rd Open Cup of the Black Earth Region
- Winter, Spring, Summer, and Autumn Cups of the Voronezh region.
- 5 stages of the 5th and 3rd stages of the 6th championships of the Voronezh region between schoolchildren, students, and in the overall competition.
- 5 stages of the 5th and 3rd stages of the 6th synchronised championship of Russia between schoolchildren, students, and in the overall competition.
- Exhibition games for schoolchildren and students.
- VSU First Year Cups.
- VSU Faculties Cups.
- Participation in national tournaments in Moscow and TV filming.

“Svoya Igra”:

- 6 regional stages of the championship between students in the overall competition.
- 2 qualifying regional stages of the World Cup without age restrictions.
- 7 stages of the city tournament without age restrictions.
- Trips to Moscow for TV filming.

The **Student Marathon** has been held since 2014 and the VSU team has traditionally taken part in it. The VSU team “Doctor of Sciences, Professor Shvarzengolt” is a veteran and an absolute leader of the students marathon. In the overall competition, our students have won the event for several years in a row and 2018 was not an exclusion. The team “Doctor of Sciences, Professor Shvarzengolt” became the absolute champion of the students marathon. They took first places in overall competition in the sports, intellectual, and creative programmes.

8.8. BRIEF OVERVIEW OF THE EVENTS HELD TO DEVELOP PATRIOTISM AND THE CIVIC POSITION

The patriotic education of the young generation is a part and parcel of the student affairs policy of the university. For example, VSU regularly holds events timed to the commemorative dates of the Great Patriotic War, such as laying flowers in front of the monument of the VSU employees and students who died during the war, organising themed games for students, helping veterans, and cleaning up memorable places.

VSU volunteers joined the movement “Volontery Pobedy” (Volunteers of Victory) (50 people). In 2018, both VSU students and staff took part in the Immortal Regiment event (about 200 people). On 22 June, students and staff always participate in the event “Candle of memory”, which takes place at Pobeda square at 4 am.



8.9. OVERVIEW OF STUDENT FESTIVALS, CONCERTS, CAMPAIGNS, AND CHARITY

On 16 September 2018, VSU students took part in the National Parade of Studentship. Participants from different cities were united by means of the live broadcasting of the event. VSU students were actively engaged in volunteer clean-ups and marches, dedicated to the Day of the City and Victory Day.

Numerous events dedicated to the beginning of the first classes at VSU were held. The students were treated with a dessert. VSU students took part in the charity events "White Flower", "The Dream from the Picture", events held by the charity foundations "DobroSvet" and "Podary Zhizn". They also organised a charity concert in cooperation with the family centre "Mamina Radost".

A lot of students represented VSU at the "Volunteer 2018" award.

VSU students were among the finalists of the contest "Youth Leader of the Year".

Every year, more and more attention is being paid to the physical education of university students. Physical culture and sport is an effective way to develop your physical fitness, improve your health, to communicate with other people, and to be socially active. Moreover, without a doubt they also influence other aspects of a student's life: their image and status in society, work, intellectual and ethical characteristics, ethical ideals, and values.

The student sport club "Khitschnye Bobry" contributes significantly to the promotion of sport and a healthy lifestyle. In 2018, they held a number of major events:

- Students sport leagues.
- The interuniversity championship of the Association of the student sports clubs of Russia.
- VSU night laser tag tournament "Light Battle".
- Weekly event "Pop Sport" and the interuniversity "Ready for Labour and Defence" festival.



Student teams organise such events as “Snow Assault Forces”. The volunteer movement is being actively developed. In the reporting period, over 50 volunteer events of different levels (from faculty to municipal) were held at university. 80% of the Platonov festival volunteers are representatives of VSU. The founders highly praised their work, communication and organising skills, and their excellent knowledge of foreign languages.

8.10. MAIN ACHIEVEMENTS OF 2018

- The VSU team won first place at the youth festival “All-Russian Student Marathon”.
- 7 VSU projects won the grant contest of the Ministry of Education and Science of the Russian Federation for the Development of Student Communities.
- VSU students took part in such events as “Development Pathway”, “Territory of the Meaning”, and “Tavrida”.
- VSU participated in the Dragon boat race (3rd place).
- VSU organised 2 hiking tours and 2 rafting tours along the rivers of the Voronezh region. The “Tourist’s Basic Training” project continues to promote sport and tourism among young people.
- The press centre UKNOW covered over 40 events in the university and the city.
- VSU volunteer club organised over 30 events, including “Total Dictation”, “the Innovation League”, etc.

All the events held in 2018 as a part of student affairs policy were successful. New areas of work have been set, all the performance targets were fully achieved and in some areas they were even exceeded.





OPERATION AND CONSTRUCTION OF FACILITIES





OPERATION AND CONSTRUCTION OF FACILITIES



A.A. Sokolov,

Vice Rector for Facilities
and Capital Development

9.1. VSU MAJOR BUILDING OPERATION AND CONSTRUCTION GOALS FOR 2018

- To maintain and develop the university's property assets.
- To maintain and operate facilities in accordance with the requirements of technical procedures, design documentation, laws, and regulations of the Russian Federation.
- To provide the infrastructure for educational activities, and to maintain the normal operation of utility systems: electricity, gas, heat, water supply, and the system for water disposal.
- To create a safe learning environment, ensuring the health of students and employees, and to monitor compliance with industrial safety requirements in dangerous production areas at Voronezh State University.
- To render transport services to support educational, social, and business activities.



9.2. ACHIEVEMENT OF GOALS REGARDING THE MAINTENANCE AND THE DEVELOPMENT OF THE UNIVERSITY'S PROPERTY ASSETS

To achieve the goals regarding the maintenance and the development of the university's property assets, technical documentation regarding the most important repair works in 2018 was developed, including repairs to the canteen, the fourth floor, and the roof in the main university building, repairs to the facade in university building No. 9, and major repairs to the heating system manifold in university building No. 4 which totalled 4,641 thousand roubles. To ensure the proper functioning of the engineering structures, dormitory No. 1 was examined and design projects were carried out for the facade of the main university building and the meeting room in VSU's book museum.

Design estimate documentation was developed and 32 auction applications for repair works were submitted with a total cost of 70,800 thousand roubles.

The priority stands with creating the necessary environment for educational activities. In the reporting year, rooms, public spaces, lavatories in university buildings No. 1, 1a, 2, 6, 7, and 8 were repaired at a cost of 19,370 thousand roubles.

Social assets were renovated and major repairs to the canteen, facade, dorm rooms in dormitory No. 2 and the roof in dormitory No. 3 were completed at a cost of 24,970 thousand roubles.

Minor and major repair works in the university buildings and dormitories were conducted using modern energy saving technologies. Energy saving lamps were fitted, the heating system manifold in university building No. 4 was repaired, 290 new windows were installed at a cost of 5,560 thousand roubles.

Due to numerous requests, a large number of roofs and the heating systems for roof drains were repaired. The repairs to the roofs in the canteen, conference hall in the main building, university buildings No. 2 and No. 5, and dormitory No. 3 totalled 10,951 thousand roubles.

The university buildings located in the central part of the city form its architectural ensemble. In 2018, the repairs to the facade of the main university building, landscaping of its inner grounds, and minor repairs of the facade of building No. 9 were completed at a cost of 12,722 thousand roubles.

Major repairs to the skiing lodge room to be converted into the university engineering centre were conducted, including the renovation of all energy saving systems at a cost of 1,988 thousand roubles (Table 9.1).



Table 9.1

LIST OF COMPLETED MAJOR AND MINOR REPAIRS WORK

No.	Work item	Source of financing	
		State-funded, roubles	Extra-budgetary financing, roubles
1	Main university building No. 1 and university building No. 1a		
1.1	Repairs to the main and inner facade (plastering, painting, filling expansion grooves), replacement of roofing sheets around roof drains, replacement of drainpipes.	5,656,020.99	
1.2	Heating systems for roof drains	488,452.74	
1.3	Repairs to the asphalt covering in the main yard, replacement of the power supply cable connecting the electrical control room and the canteen	1,414,147.45	
1.4	Major repairs to the halls, rooms, and engineering and technical systems on the 3rd floor	6,945,518	
1.5	Major repairs to rooms and utility systems	16,149,814.89	
1.6	Space planning and furnishing of the meeting room in the Book museum	643,896.61	
1.7	The hall of the Internet centre	593,325.02	
1.8	Major repairs to the lavatories in university building No. 1a	2,395,612.37	
1.9	Major repairs to the auditorium	140,708.83	
1.10	Major repairs to the roof in the canteen	2,500,366.82	
1.11	Major repairs to the roof in the conference hall	245,106.06	
1.12	Replacement of windows	1,710,368.29	
1.13	Major repairs in room 363	256,711.35	
1.14	Major repairs in rooms 176, 186, and 215	618,731	
2	University building No. 2		
2.1	Major repairs to the metallic roof and ledges	1,389,351.32	
2.2	Major repairs to lavatories	831,230.88	
2.3	Major repairs to the lavatory in the printing house	69,652.62	
2.4	Major repairs in halls and rooms	1,178,716.57	
2.5	Electrical works in rooms 110a, 50, 103, 104, and 93	155,319.91	
2.6	Repairs in the ladies' room	62,646.03	

End of table 9.1

No.	Work item	Source of financing	
		State-funded, roubles	Extra-budgetary financing, roubles
3	University building No. 4		
3.1	Major repairs to the heating system manifold	1,583,117.5	
4	University building No. 5		
4.1	Repairs to the roof, crossover passage, and auditorium	3,227,589.35	
5	University building No. 6		
5.1	Major repairs to the lavatories on the ground, 1st, and 2nd floor (for staff and students), replacement of the staircase flooring at the entrance	1,938,828.23	
6	University building No. 7		
6.1	Major repairs to the lavatories on the 1st and 3rd floors, room 114, and the electrical control room	1,002,231.59	
6.2	Major repairs to halls, rooms, and engineering and technical systems	704,367.87	
6.3	Replacement of windows	449,577.44	
7	University building No. 8		
7.1	Major repairs to lavatories	1,987,790.48	
8	University building No. 9		
8.1	Major repairs to the roof and the facade, restoration of architectural elements on the facade	5,652,755.52	
9	Dormitory No. 2		
9.1	Major repairs to the facade, replacement of windows, repairs in the dorm rooms, and electrical works	5,720,125.95	
10	Dormitory No. 3		
10.1	Major repairs to the roof and plumbing	3,099,999.99	
11	Ski lodge		
11.1	Major repairs in rooms on the ground floor, water supply networks, sewage, heating system, facades, roof drain, electrical works (replacement of lamps, light switches, sockets, and wiring)	1,987,918.33	
Totals		70 800,000	



The results of major and minor repairs are shown in fig. 9.1–9.8.

Figure 9.1

THE MAIN FACADE OF UNIVERSITY BUILDING No. 1



Figure 9.2

HALL ON THE 3RD FLOOR IN UNIVERSITY BUILDING No. 1





Figure 9.3

HALL IN UNIVERSITY BUILDING No. 1. INTERNET CENTRE



Figure 9.4

MEETING ROOM IN THE BOOK MUSEUM





Figure 9.5

THE MAIN FACADE OF UNIVERSITY BUILDING No. 9





Figure 9.6

FACADE AND NEW WINDOWS OF UNIVERSITY BUILDING No. 2





Figure 9.7
FASADE OF THE SKI LODGE



Figure 9.8
HALLS IN UNIVERSITY BUILDING No. 7





In 2018, the Facilities Department implemented works with a cost of 5,175.71 thousand roubles and bought materials and protective gear at a cost of 803.1 thousand roubles financed from extra-budgetary funds.

A large amount of work was performed with regard to repairing the boiler-house and heating system equipment in the university buildings. To meet the requirements of technical procedures, flushing and pressure testing and repairs to the heating systems were implemented and corresponding certificates of readiness were prepared and signed.

Following the energy saving programme, the university used its own resources to conduct electrical works, i.e. the replacement of lamps with energy saving LED lamps with a cost of 1,334.6.

The works performed by the maintenance department of the Facilities Administration included: production and installation of window sills, door and window units, mouldings, tables, metallic racks, containers for solid domestic waste; glass cutting, and pattern cutting of laminated particle boards.

9.3. OVERVIEW OF WORK PERFORMED BY THE TRANSPORT DEPARTMENT

The staff of the transport department were involved in many activities.

They provided transport services for:

- Student summer practices in the Voronezh, Lipetsk, Kursk, Tambov, Rostov regions, the Republic of Crimea, and the Republic of Adygea.
- 16 conferences.

Passenger turnover amounted to 904 thousand passengers. Cargo turnover amounted to 58.7 tonnes. Total kilometres amounted to 141.6 thousand km.

In 2018, fuel consumption was as follows:

- Petrol A-95 – 20,236 litres.
- Petrol A-92 – 13,240 litres.
- Diesel fuel – 25,195 litres.
- Liquefied gas – 2,800 litres.



9.4. MAJOR REPAIRS AND MAINTENANCE FINANCING BY SOURCE OF FUNDING

Subsidies provided to VSU to fund major repairs and maintenance are shown in fig. 9.9.–9.12.

Figure 9.9

FINANCING OVER 3 MILLION ROUBLES IN 2017

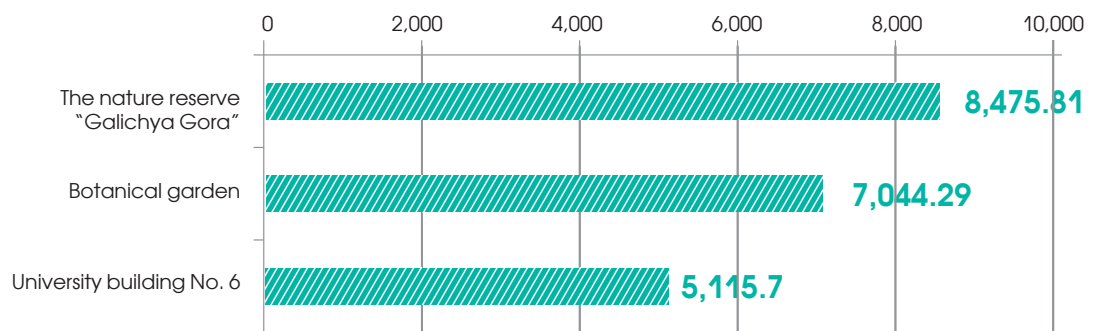


Figure 9.10

FINANCING OVER 3 MILLION ROUBLES IN 2018

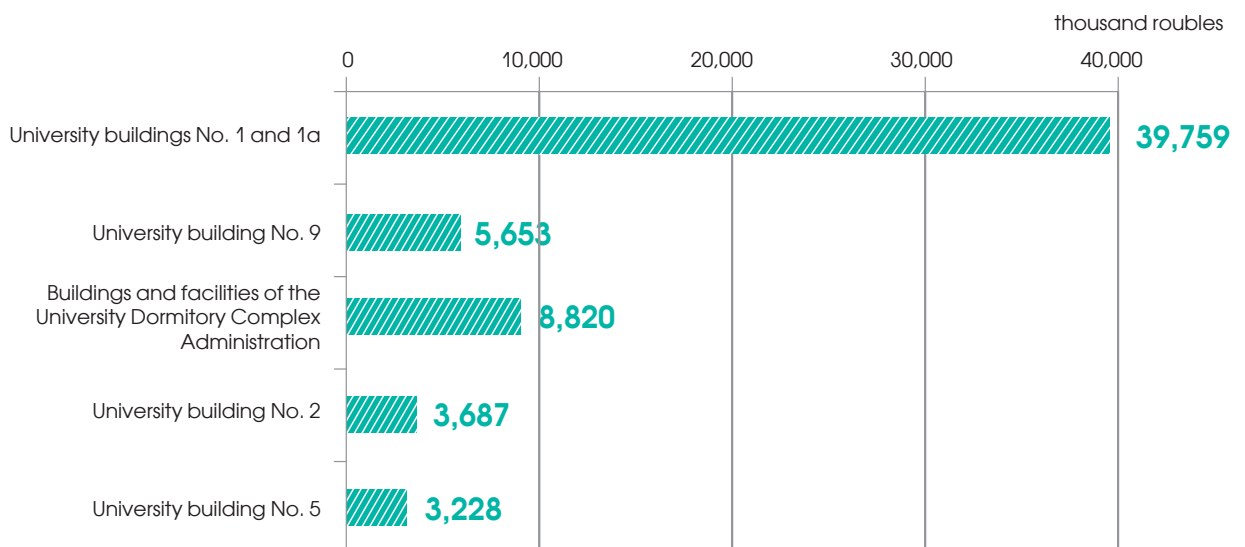




Figure 9.11

AREAS WHERE SUBSIDIES WERE SPENT IN 2018, thousand roubles

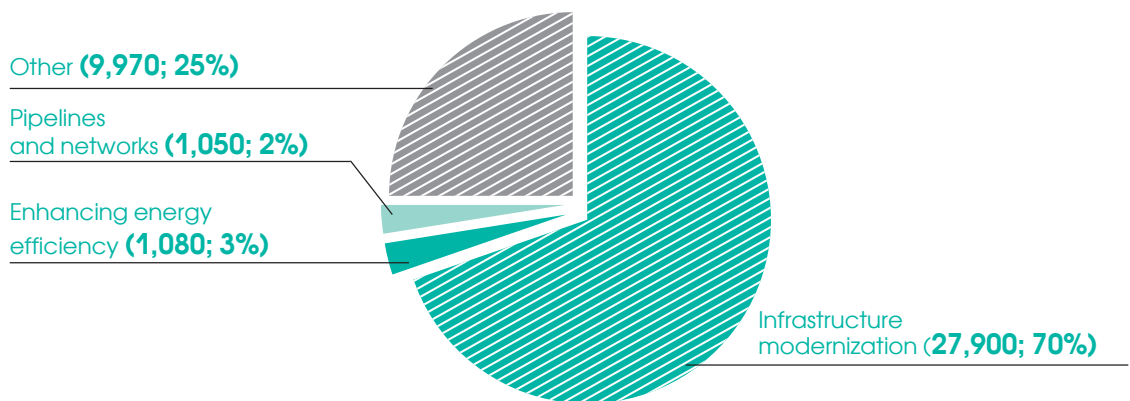
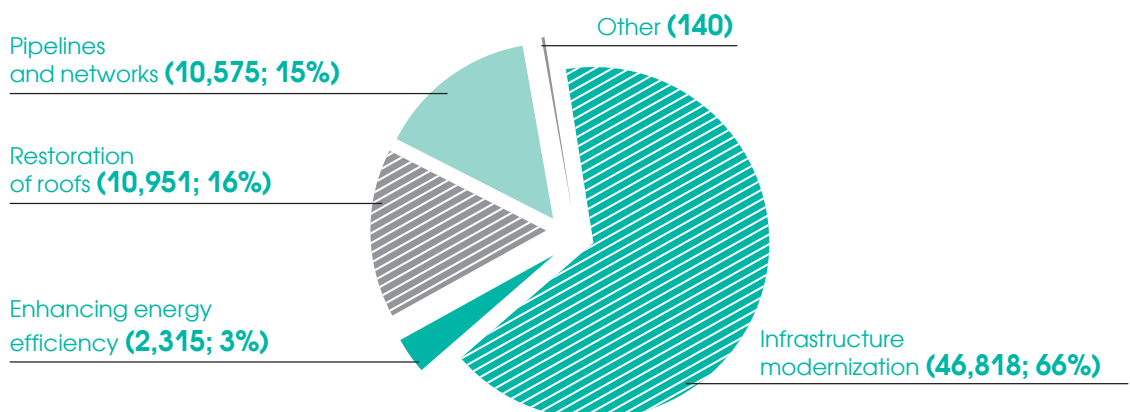


Figure 9.12

AREAS WHERE SUBSIDIES WERE SPENT IN 2018, thousand roubles





Funds received by VSU to pay utility bills are shown in fig. 9.13.

Figure 9.13

STRUCTURE OF EXPENDITURE ON UTILITY BILLS IN 2017 AND 2018, roubles

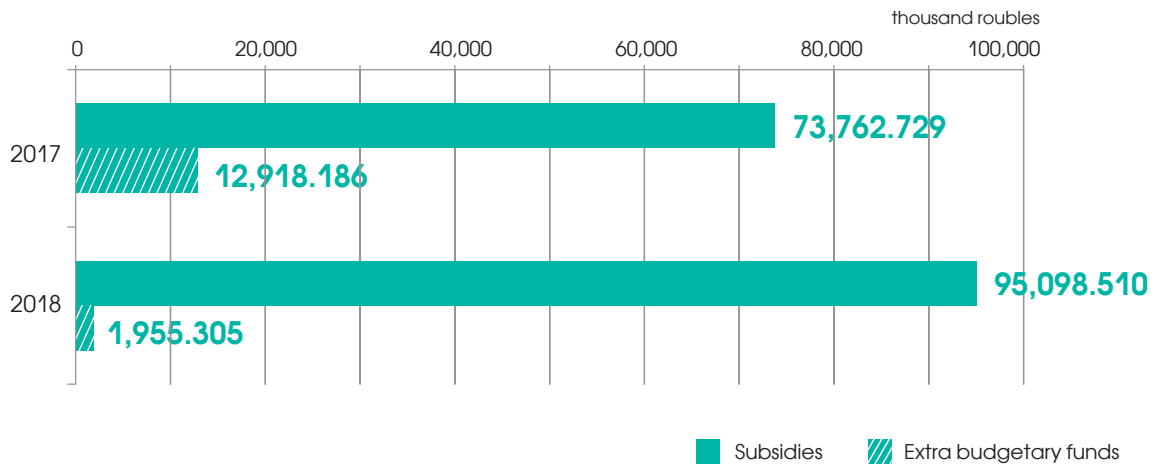


Table 9.2

COST OF CONSUMED RESOURCES

Type of payment, energy resource	Amount for 2016, roubles	Amount for 2017, roubles	Amount for 2018, roubles
Electrical energy	42,533,490	41,288,498	43,210,851
Natural gas	9,867,720	9,202,395	11,408,795
Heating, including hot water	25,061,460	25,949,931	29,391,143
Water, water disposal	11,206,200	11,341,376	13,043,026
Totals	88,668,870	87,782,200	97,053,815



9.5. MAIN RESULTS OF THE ACTIVITIES IN 2018

A large part of the major and minor repairs in university buildings and dormitories were conducted as a part of the preparations for VSU's centenary. The energy saving and energy efficiency programme for buildings, facilities, and equipment was continued.

The works were conducted with due consideration of the programme for creating an accessible environment for physically challenged people.

Engineering Services provided the essential services for buildings and facilities.

9.6. OVERVIEW OF PROMISING PROJECTS IN THE AREA OF DEVELOPMENT OF PROPERTY ASSETS IN 2019

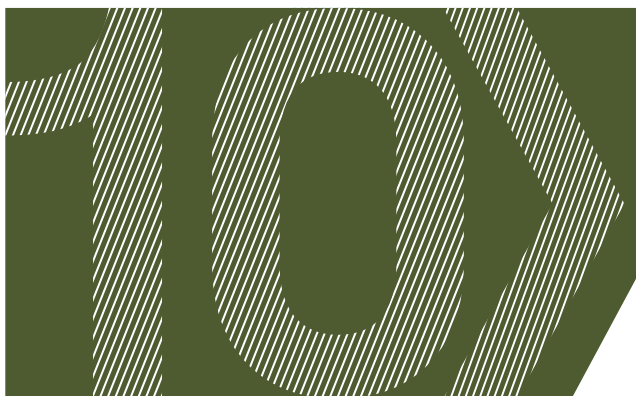
- To organise the design of a new 8,000 m² dormitory for 400 students.
- To finish repairs to the facade of university building No. 9. To install aesthetic lighting around university buildings No. 1 and No. 9.
- To design a multifunctional sports stadium with open-air stands and auxiliary rooms on the territory located at 42a Kholzunov St.
- To start the design of a new energy efficient gas boiler-house (main university building).
- To continue necessary works aimed at improving the fire safety infrastructure and enhancing the energy efficiency of VSU buildings and facilities.
- To continue the reconstruction of buildings and facilities in the "Galichya Gora" nature reserve and to finish reconstruction of the Visitor Centre.
- To conclude restoration and repairs to the storage facilities for training military equipment at the Faculty of Military Education so they can be used.
- To prepare the buildings and facilities of the "Venevitinovo" recreation facility for the summer season of 2019.
- To outsource most of the support and service divisions.





MILITARY EDUCATION AT VSU





MILITARY EDUCATION AT VSU



Colonel A.A. Scherbakov,

Dean of the Faculty of Military
Education

10.1. MAIN OBJECTIVES IN THE FIELD OF MILITARY EDUCATION IN 2018

- Implementation of the military education programme and training officers for further military service under contract.
- Implementation of educational programmes in military occupational specialities for reserve officers at the Reserve Officer Training Department.
- Implementation of educational programmes in military occupational specialities for reserve sergeants at the Reserve Officer Training Department.
- Participation in patriotic educational campaigns dedicated to the university's centenary.

10.2. INFORMATION ABOUT THE MILITARY OCCUPATIONAL SPECIALITIES IMPLEMENTED AT THE VSU FACULTY OF MILITARY EDUCATION

The following tasks were accomplished in the field of training students at the Faculty of Military Education:

- Revision of the staff list and organisational structure of the Military Training Centre and the Reserve Officer Training Department.
- Implementation of military training programmes for the Faculty students and organisation of the training period ending with the Military Oath Ceremony for the fourth-year students of the Reserve Officer Training Department of the Military Training Centre.

- Organisation of the final assessment of the students who completed the training period and internships.
- Organisation of the certification of the graduates to be assigned as commissioned officers. Preparation of the orders to allot service numbers to the graduates and award them the military rank of reserve lieutenant and sergeant.

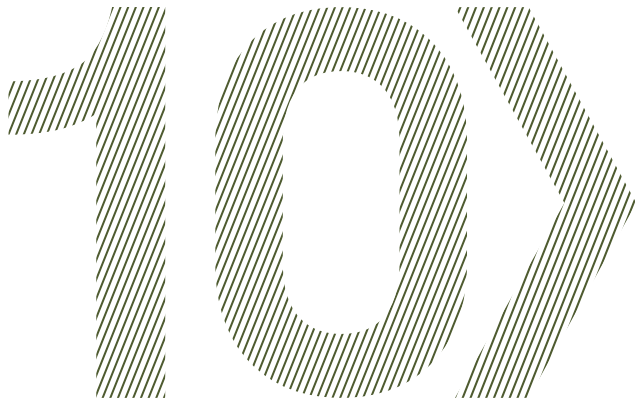
The following events were held in the field of new admissions to the Military Training Centre and the Reserve Officer Training Department:

- Organisation of PR-campaigns to attract university entrants to the Military Training Centre and university students to the Reserve Officer Training Department.
- Revision of the educational process documentation at the Military Training Centre and the Reserve Officer Training Department with its further approval by the partners.
- Organisation of the admission campaign at the Military Training Centre and the Reserve Officer Training Department.
- Matriculation of the University entrants fitting the requirements of the Military Training Centre and students fitting the requirements of the Reserve Officer Training Department (Table 10.1).

Table 10.1

INFORMATION ABOUT THE MILITARY OCCUPATIONAL SPECIALITIES
IMPLEMENTED AT THE FACULTY OF MILITARY EDUCATION IN 2018

No.	Military speciality	Number of students	
		Military Training Centre	Reserve Officer Training Department
1	Linguistic Support of Military Activities	22	–
2	Military Unit and Anti-Tank Artillery Warfare	94	65
3	Military Unit and Ground Artillery Warfare	–	28
4	Anti-Tank Guided Missile (ATGM) Warfare	100	129
5	Mortar Warfare	40	85
6	IT Support of Military Activities	19	–
7	Information and Psychological Support of Military Activities	29	–
8	Information Support Organisation	18	–
9	Psychological and Moral Support of Forces' Combat Activity	8	–
10	Artillery Piece Commander	–	35
11	Anti-tank Artillery Crew Chief	–	43
12	ATGM Commander	–	78
13	Mortar Detachment Commander	–	33



10.3. MILITARY TRAINING CENTRE REPORT

- Between 26 February and 27 March 2018, a military internship was organised in Troop Unit 2394 located in Belgorod and Troop Unit 31969 located in Tambov, according to the Orders of the Commander of the Western Military District Troops No. 831 dated 7 December 2017 and No. 55 dated 3 February 2017 “On the Organisation of the Training Period and Final Assessment of Students Undergoing Military Training at Reserve Officer Training Departments of FSEI HPE in the Western Military District Troops in 2018”.
- Between 25 June and 8 July 2018, the training period was organised in Troop Unit 31895 located in Voronezh and Troop Unit 31969 located in Tambov ending with the Military Oath Ceremony.
- The students were admitted to the Centre by the Order of the Rector after they had passed a military medical examination, psychological tests, a fitness level examination, and had signed the contract with the university. The list of the military occupational specialities is given in Table 10.2.

Table 10.2

ADMISSION TO THE MILITARY TRAINING CENTRE IN 2018

No.	Military occupational speciality	Programme	Number of students
1	Military Unit and Mortar Warfare	38.05.01 – Economic security	20
2	Information and Psychological Support	45.05.01 – Translation and Translation Studies	10
Total			30

The decrease in the admission quotas can be explained by the fact that the specialities “Information Analysis Security Systems” and “Computer Security” were not accredited on time.



10.4. RESERVE OFFICER TRAINING DEPARTMENT REPORT

According to the Orders of the Commander of the Western Military District Troops No. 831 dated 7 December 2017 and No. 55 dated 9 February 2017 "On the Organisation of the Training Period and Final Assessment of Students Undergoing Military Training at Reserve Officer Training Departments of FSEI HPE in the Western Military District Troops in 2018", the training period was organised in Troop Unit 30683 located in the settlement of Mulino in the Nizhniy Novgorod Region, ending with the Military Oath Ceremony.

68 graduates of the University were allotted service numbers and officer ranks (non-commissioned) by the order of the Ministry of Defence of the Russian Federation.

In 2018, 471 students submitted their applications to the Reserve Officer Training Department. The number of admitted students amounted to 252 (Table 10.3).

Table 10.3

PROGRAMMES IMPLEMENTED AT THE RESERVE OFFICER TRAINING DEPARTMENT

No.	Name The military occupational speciality	Number of students		
		2nd year	3rd year	4th year
1	Military Unit and Anti-Tank Artillery Warfare	–	–	17
2	Military Unit and Ground Artillery Warfare	48	28	–
3	Anti-Tank Guided Missile (ATGM) Warfare	48	45	36
4	Military Unit and Mortar Warfare	48	20	17
5	Anti-tank Artillery Commander	–	–	43
6	Artillery Piece Commander	36	35	–
7	ATGM Commander	36	35	43
8	Mortar Detachment Commander	36	33	–

10.5. EVENTS AND MEETINGS HELD BY THE VSU ADMINISTRATION AND THE FACULTY OF MILITARY EDUCATION IN ORDER TO DEVELOP THE VSU MILITARY TRAINING SYSTEM

- On 26 June 2018, the State Duma passed the Federal Law "On Introducing Amendments to Certain Legislative Acts of the Russian Federation Regarding Enhancement of Military Training of Students in Federal State Educational Institutions of Higher Education" which abolishes the terms "reserve officer training department" and "training military centre" since 2019 and introduces the term "military training centre" which will assume the functions of the training military centre and the reserve officer training department.

This gave way to changes in the staff list and the organizational structure.



Upon the request of the Rector, Major General R. Vasiliev, the Head of the second Directorate of the Main Personnel Directorate of the Ministry of Defence of the Russian Federation visited Voronezh State University.

During the meeting, the participants discussed issues regarding the functioning of the new Military Training Centre, which will be created instead of the Reserve Officer Training Department and the Training Military Centre.

R. Vasiliev explained that the Ministry of Defence of the Russian Federation will provide all the necessary support to VSU for the reform.

Additionally, D. Endovitsky proposed to start a new military occupational speciality at VSU dealing with cyber security.

- The Rector of VSU was also invited by the Main Directorate of the General Staff of the Armed Forces of the Russian Federation to take part in the events dedicated to the centenary of the Directorate. It was then that the discussion of the development prospects of the military occupational specialities was held.
- The Rector of Voronezh State University was elected a full member of the Academy of Military Science of the Russian Federation. On 26 October, the Faculty of Military Education of VSU held the graduation ceremony. Among the participants of the event were representatives of the regional branch of the Academy of Military Science of the Russian Federation.

The Academy conducts fundamental and applied research in the area of military science. Among its members are leading scientist of the Armed Forces, Federal Security Service of the Russian Federation, the Ministry of the Interior of the Russian Federation, and other law enforcement agencies and defence industry institutions, and civilian scientist.

10.6. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2018

- A number of events were organised to celebrate VSU's centenary.
- After a long break, the graduation ceremony was held for officers who will serve under contract after graduating from the Reserve Officer Training Department of VSU. Out of 58 graduates 15 are women. The graduates received officer's identification certificates and identity numbers.
- To meet the strategic development goals, the Reserve Officer Training Department was focused on selecting candidates for staff members' positions. A letter regarding the 5 selected candidates was sent to the Main Personnel Directorate of the Ministry of Defence of the Russian Federation. Linguist officer K. Budnikova, who is experienced in serving in special forces units, arrived to serve under contract.
- The admission quotas were approved and allocated for the training of commissioned officers in 2019 (Table 10.4).

Table 10.4

QUOTAS FOR THE TRAINING OF COMMISSIONED OFFICERS IN 2019

No.	Military speciality	Speciality	Number
1	Military Unit and Mortar Warfare	38.05.01 – Economic security	20
2	Military Unit and Anti-Tank Artillery Warfare	10.05.01 – Computer Security	20
3	Anti-Tank Guided Missile (ATGM) Warfare	10.05.04 – Information Analysis Security Systems	20
4	Information and Technical Support	10.05.01 – Computer Security	10
5	Information and Psychological Support	45.05.01 – Translation and Translation Studies	12
6	Information Support Organisation	56.05.05 – War Journalism	12
Total			94

- A clear system of military education for the non-military university includes the following stages:
 - 2 years of studies at the Reserve Officer Training Department for reserve soldiers.
 - 2.5 years of studies at the Reserve Officer Training Department for reserve soldiers.
 - 5 years of studies at the Military Training Centre for commissioned officers.
- VSU became the first university in the region to carry out scheduled training of reserve sergeants.
- New military occupational specialities were opened at the Reserve Officer Training Department. An admission campaign was held for the training programmes designed for reserve officers and sergeants.
- An admission campaign was held for the Main Personnel Directorate of the Ministry of Defence of the Russian Federation and the Main Missile and Artillery Directorate of the Ministry of Defence. These specialities include:
 - Translation and Translation Studies.
 - Economic Security.
- The following draft documents regarding the reform of the military education at VSU was developed:
 - The organisational structure of the Military Training Centre.
 - The staff list of the Military Training Centre.
- To meet the strategic development goals regarding cooperation with communities and to provide patriotic education to students, cooperation agreements were concluded with Voronezh patriotic organisation “Sila v – edinstve” (“United we stand”) and Voronezh regional public organisation of veterans of the Kremlin (Presidential) Regiment “Soiuz Kremliovtsev” (“Kremlin Union”).





VSU REGIONAL SCIENTIFIC LIBRARY





VSU REGIONAL SCIENTIFIC LIBRARY



A. Yu. Minakov,

Director of the VSU Regional
Scientific Library

The Regional Scientific Library of Voronezh State University is the largest university library in the Voronezh region and is a regional methodology centre for libraries of state higher education institutions in the Central Black Earth Region. In 2018, it provided methodological assistance and consultations to regional university libraries and organised advanced training courses for their staff members. The library rendered its services to various groups of subscribers. It manages a universal multi-purpose collection, which houses both Russian and foreign books and documents, diligently preserves this collection for the future generations, and provides access to local and remote information resources on the Internet. The full list of services can be found on the library's website: www.lib.vsu.ru.

The services are provided in full compliance with the ISO international standards. The library was granted with an international quality certificate for its services.

As of 1 November 2018, the unified library collection of Voronezh State University was comprised of 3,178,228 books and documents in various languages and formats. The collection was completed with the sources necessary for all educational and scientific programmes implemented at VSU according to the Thematic and Typological Acquisition Plan: www.lib.vsu.ru/Преподавателям. The education materials meet the approved requirements for the minimal number of available sources required to ensure an efficient educational process as well as the requirements set in the State Educational Standards. The library is also subscribed to relevant periodicals within the educational and scientific scope of the University. In 2018, the library collection was increased by 15,912 items. The acquisition expenses amounted to 7,217,652.62 roubles. On average, the aggregate collection contained about 121 items per subscriber.



The collection was increased by a ratio of 0.5 and the study books collection ratio increased by 0.8. The majority of items in the collection are books, journals, scientific and educational literature (see fig. 11.1–11.4).

Figure 11.1

COLLECTION STRUCTURE ACCORDING TO THE TYPES OF ITEMS

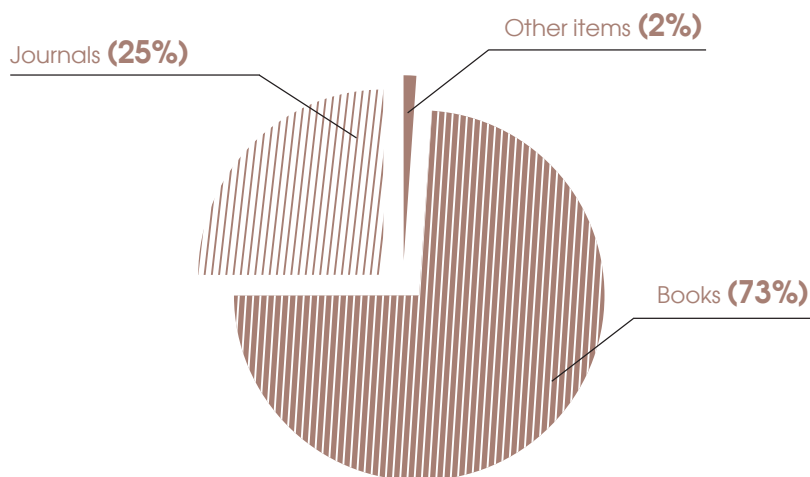


Figure 11.2

COLLECTION STRUCTURE ACCORDING TO THE PURPOSE OF ITEMS

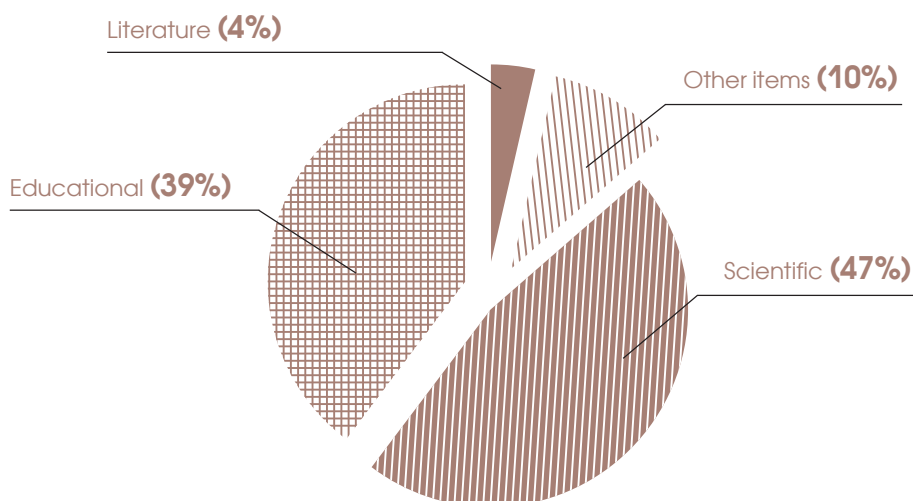




Figure 11.3

NUMBER OF NEW ITEMS IN THE COLLECTION

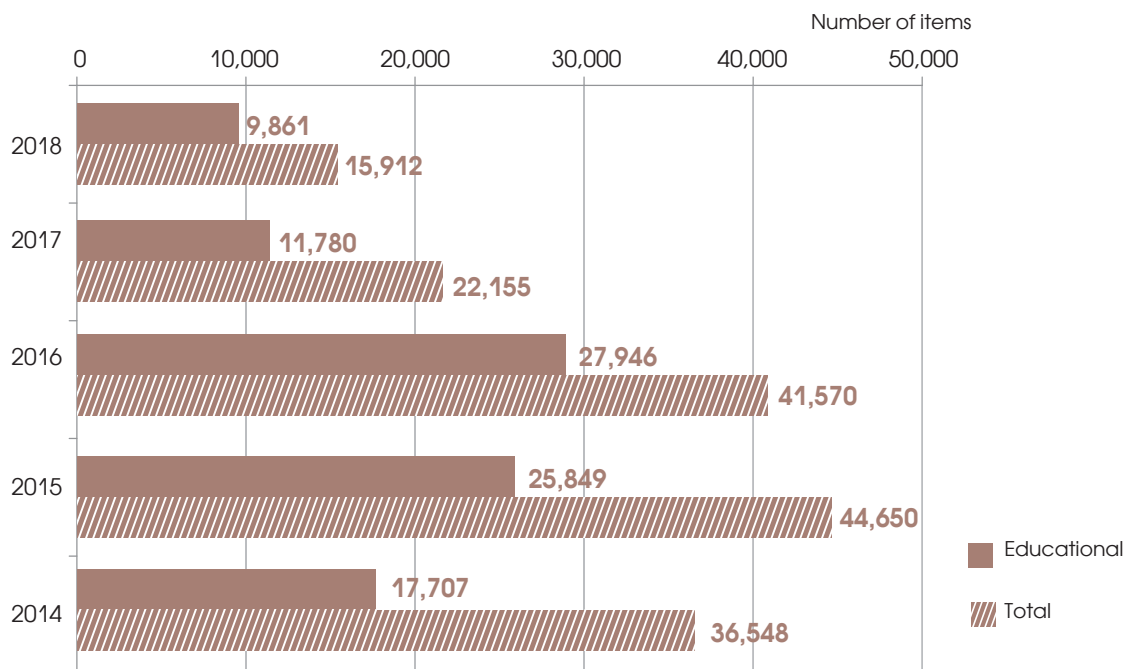
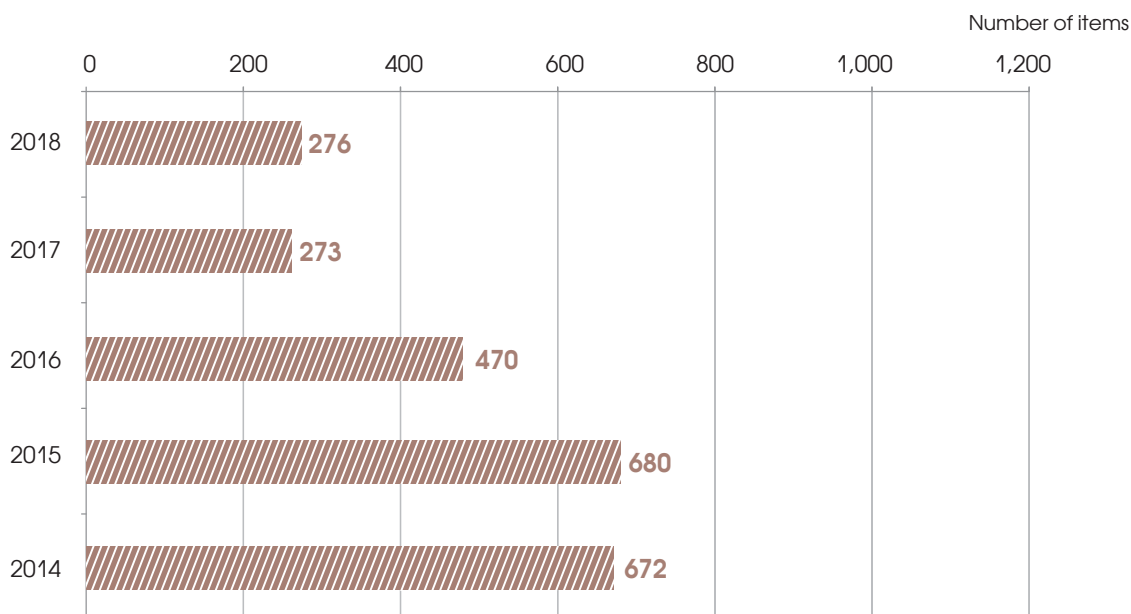


Figure 11.4

NUMBER OF NEW SUBSCRIPTION PERIODICALS IN THE COLLECTION



The library houses a unique collection of rare documents, which is comprised of about 100,000 items. It consists of Russian and foreign editions from the 16th–21st centuries represented by manuscripts, books, and periodicals.

The library actively collaborates with other libraries in Russia and abroad. It also exchanges books with 45 organisations in 18 countries.



In 2018, library subscribers were able to gain remote access to 2,728,752 items. To achieve this, the library provided access via coordinated subscription to foreign databases of Springer Nature and Elsevier, databases provided by the Oxford Russia fund (e-library Myllibrary). In addition, library subscribers were able to use such e-library systems as "University Library Online", "Student Assist", "Lan Publishing", "IPRbooks", and "Urait". The library continues to manage the VSU collection at the National digital resource Rucont (<http://rucont.ru>), as well as a full-text database "VSU E-Library".

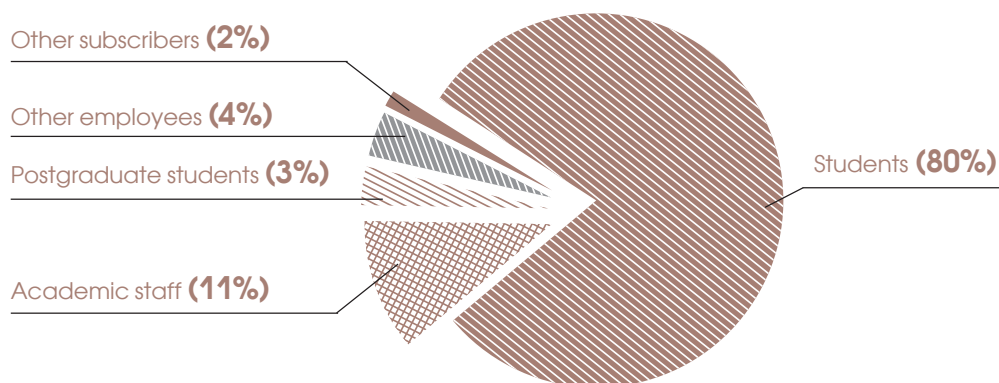
The library maintains its e-catalogue, which provides information about the items in the collection, and can be found on the library website. As of 1 December 2018, the catalogue contained 1,021,996 entries.

To conserve the University's scientific heritage, the library keeps an electronic index of the works published by VSU staff members. As of 1 December 2018, the index included 202,345 entries. To improve the University's academic and scientific rating, the library provides access to the Web of Science and Scopus databases and uploads the information about the VSU staff publications to the eLIBRARY database. As of 28 December 2018, the University was ranked 17th among Russian universities by such an essential bibliometric parameter as the number of publications.

In the reporting year, there were 26,322 entries in the unified registration catalogue of the library subscribers (fig 11.5). Altogether, the library provided its services to 89,267 subscribers. 93,749 subscribers were served remotely via their personal accounts.

Figure 11.5

COMPOSITION OF THE LIBRARY SUBSCRIBERS IN 2018

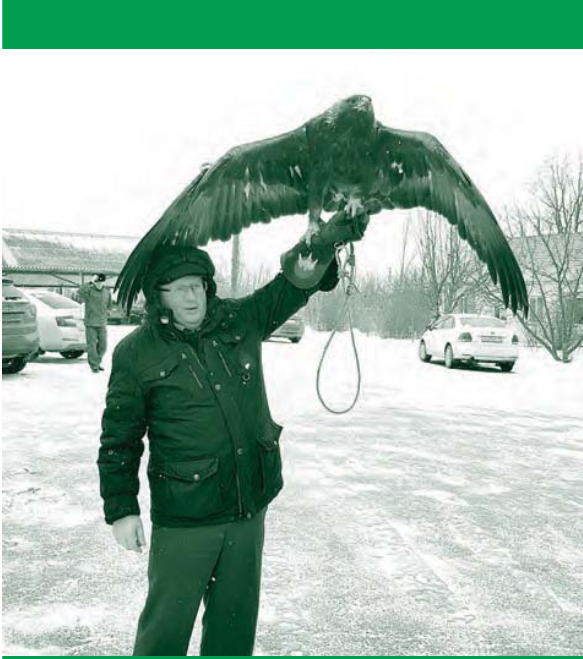


In 2018, library subscribers had access to 606,502 items, whereas the number of items read online amounted to 57,529.

The library was building accessible environment for students with disabilities. For example, modern equipment for visually impaired students was installed in the reading halls.

In 2018, the reading hall in university building No. 3 was fitted with video conferencing equipment.





THE “GALICHYA GORA” NATURE RESERVE





THE “GALICHYA GORA” NATURE RESERVE

PROGRESS REPORT FOR 2018



N.Ya. Skolznev,
Director of the “Galichya Gora”
nature reserve

The “Galichya Gora” nature reserve was founded in 1925 on the territory of what is today the Lipetsk region for the conservation and study of the uncharacteristic flora of the area. In 1936, the reserve was handed over to Voronezh State University.

It is now comprised of seven separate sectors of 11 to 96 hectares each, located in four administrative districts of the Lipetsk Region. The total area of the reserve is 234.4 hectares. **“Galichya Gora” is included in the Guinness Book of World Records as the smallest nature reserve in the world.** The protected territory is in the centre of the River Don region with unique landscapes and a variety of flora and entomofauna.

The reserve is the leading research, educational, and conservation centre of Voronezh State University in the Lipetsk region. High-profile specialists in botany, zoology, and ecology work at the reserve’s research centre.

The collection contains internationally well-known exhibits, such as the Herbarium of the Middle Russian Hills and Contiguous Territories (42.66 thousand items), the Collection of Invertebrate Animals (298.4 thousand items), and the Mycological Collection (4.65 thousand items). There is also a weather station and a scientific library.

In 1990, a nursery was created for carnivorous birds registered in the Red Book of the Russian Federation. About 400 saker falcons were released into the wild. Most offspring are bought by falconry lovers from Russia and abroad. The reserve also functions as a rehabilitation centre for confiscated carnivorous birds. The old Russian tradition of hawking is gradually being revived.

The reserve was granted a badge of honour for serving Voronezh State University.

“Galichya Gora” is the only nature reserve in the Russian education and research system.

Last year the reserve’s staff members continued to monitor the state and dynamics of the natural habitats. Such monitoring has been regularly carried out since 1974. Materials for the 45th volume of “Nature records of the nature reserve “Galichya Gora” have been collected and are being placed.



The general research theme "Scientific basis and methods of conserving the variety of landscapes and ecosystems of the specially protected territories of the Upper Don river" was divided into 9 sub-themes, covering the main taxon biota of the region: fungi, plants, invertebrate, and vertebrate animals.

The size of the collection has been increased.

As a result of the research conducted in 2018, the staff published the following works:

- 1 monograph (29.75 printed sheets)
- 1 collection of research papers (21.5 printed sheets)
- 1 study guide
- 31 scientific articles, of which, 2 papers were published in the leading journals included in the list of referenced scholarly journals recommended by the State Commission for Academic Degrees and Titles, 24 papers were published in journals indexed by the Russian Science Citation Index, and 1 was published in a journal indexed by Web of Science.

The researchers took part in 10 international and federal conferences with 18 reports.

They also received 2 patents of the Russian Federation and submitted 1 application for an invention.

The most important results of the research conducted in 2018 include:

- Preparation and publication of the final summary reports "Ecological and faunistic analysis of Coleoptera imago of the Central Russian forest-steppe" (M.N. Tsurikov. – Voronezh. Nauchnaya kniga, 2018. – 472p.).
- Preparation and publication of the collection of articles "Study and conservation of invertebrates in the Central Black Earth region of Russia": a collection of articles dedicated to the memory of M.N. Tsurikov (Voronezh: Nauchnaya kniga, 2018. – 170p.).
- In 2018, experts affiliated with the Institute of Soil Studies of the Russian Academy of Sciences, the Russian Entomological Society, the Russian Geographical Society, the Russian Birds Conservation Union, the All-Russian Research Institute of Medicinal and Aromatic Plants, and various Russian universities and state reserves, visited "Galichya Gora" in order to perform both individual and collaborative research.
- The research staff of the Department participated in practice training of students from the Faculty of Biomedical Sciences and the Faculty of Geography, Geoecology, and Tourism.
- The positioning of the measured points and boundaries of all protected natural areas were marked in-situ based on geodetic survey data and an entry sign was installed. Volunteers repaired the enclosures for carnivorous birds. The bulk of work regarding bringing documentation in line with the requirements for state nature reserves of the Russian Federation was completed. Repair works in the former canteen and its transformation into a visit centre were continued.



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