

ANNUAL REPORT

FSFEI HE "VORONEZH STATE UNIVERSITY" **2017**

| Rector's Address | 3 |
|--|-----|
| University Governance | 9 |
| University Strategic Development | 31 |
| Education | 73 |
| Research, Innovations, and Informatisation | 121 |
| Economics and contract service | 203 |
| International activity | 243 |
| Student Affairs And Social Development | 267 |
| Facilities operations and construction | 295 |
| Military Education at VSU | 305 |
| VSU Regional Scientific Library | 313 |
| The "Galichya Gora" nature reserve | 319 |
| VSU's Centre for Information Policy | 325 |
| Subject index | 336 |

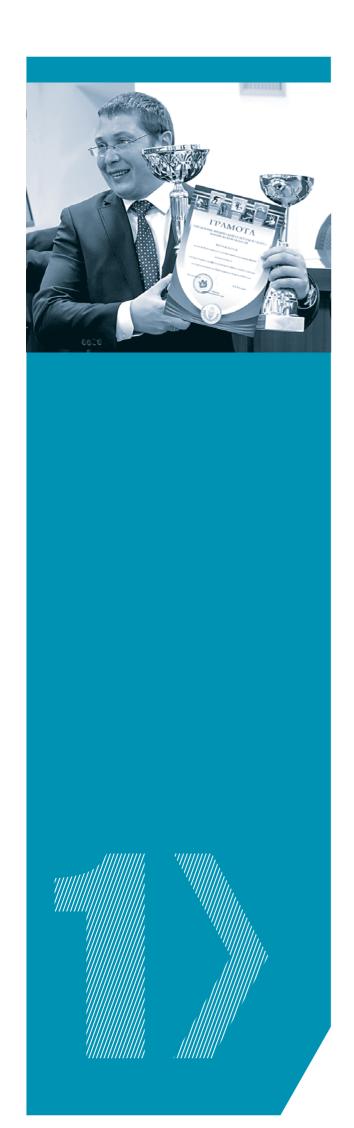












RECTOR'S ADDRESS



D.A. Endovitsky,Rector of VoronezhState University

RECTOR'S ADDRESS

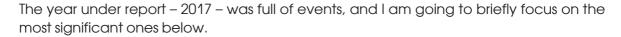
Every time we sum up the results of the year, as required by the university's Charter, we analyse our accomplishments, talk openly about any difficulties and disadvantages, and announce the tasks for the year to come.

In accordance with the usual procedure, before we start the report, I would like to address the previous year – 2017. It was dedicated to active preparation for the university's centenary which we, alongside with the whole of our regional community, are going to celebrate in 2018. It is the university's motto – "VSU for the city, the region, and the country" – that inspired the creative spirit that helped us to:

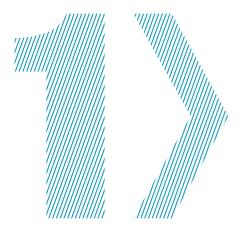
- firstly, overcome the extremely dangerous (and we do not exaggerate this) crises in the country's economy which have definitely made an impact on the university;
- secondly, secure our leadership in the regional academic community, and not to do it the easy way, but instead choose to strengthen and develop collaboration with other universities on the regional and inter regional level;
- thirdly, adhere closely to our "line of development" in all its large-scale and multidimensional components, which include solving internal problems, maintaining international contacts, and collaborating with government, industrial, business, and social structures. We managed to determine the university's strategy in relation to the complex aspects of its influence on the strategy of the city, the region, and the higher education of the country as a whole.

Throughout the year, we assessed our performance using objective indicators of a variety of independent rankings. It was done to form a clear benchmark that is to be maintained so that we could retain our position. Additionally, we had an opportunity to listen to the opinions of highly competent state officials: Alexey Gordeev, Olga Vasilyeva, Galina Karelova, Viktor Sadovnichiy, Alexander Gusev, as well as the rectors of leading national universities.

The invariably high ratings we receive are an objective indicator of the fact that we are on the right track, and we intend to follow it in the future.



- It is the fifth time the university became the winner of the federal competition of student community development programs, and our talented and athletic students won the National Student Marathon for the fourth time. In addition, Voronezh won the title as Russia's best student city.
- VSU became the region's best innovative university, and the university's system of innovative activity and entrepreneurship proved itself to be competitive and forward-minded.
- A number of government officials, scholars, and politicians, were awarded titles of Doctor Honoris Causa of Voronezh State University: Professor Sue Garton from Aston University (UK); Charman of the Constitutional Court of the Russian Federation Valeriy Zorkin; Director of the Institute of Europe of the Russian Academy of Sciences Alexey Gromyko; Professor Ursula Hirschfeld from Martin Luther University (Germany); Full Member of the Russian Academy of Sciences Valeriy Makarov; Michael A. Popp, Chair of the board of Bionorica SE, etc. All these outstanding people took an active part in the university's life and, in their status of honorary doctors, strive to promote VSU's interests in the future as well.
- The university launched an upgraded supercomputer, which is among the top ten most modern supercomputers in Russian universities.
- A major international event "European Higher Education Area" forum was held at VSU.
- VSU became an official partner of the Kvantorium children's technoparks in Voronezh and in Lipetsk.
- The university was also visited by a number of high-profile visitors: Michael Bird, Director of the British Council and Culture Counsellor of the British Embassy; Adrian McDaid, Ambassador Extraordinary and Plenipotentiary of Ireland to the Russian Federation; John F. Tefft, Ambassador Extraordinary and Plenipotentiary of the USA; Hbseyin Dirioz, Ambassador Extraordinary and Plenipotentiary of the Republic of Turkey to the Russian Federation; etc.
- Voronezh State University traditionally achieved high positions in national and international rankings: Webometrics, QS, Times, Expert RA, Interfax, ect.
- A simulation diagnostic and treatment centre was launched by the Faculty of Biology and Soil Sciences of Voronezh State University and the Anatomy Museum.
- A partnership agreement was signed between Voronezh State University and a German pharmacy company, Bionorica SE, whereby a new master's degree programme "Industrial Pharmacy" was created at VSU.



- Voronezh State University was accredited by the Higher Education Council of Turkey, and a forum "Days of Turkish Education in Central Russia" was held at the university.
- Voronezh State University received six projects in various areas of the Erasmus+ programme.
- Vladimir Potanin Foundation donated 5 million roubles to the VSU Endowment Fund.
- Voronezh State University won the contest for the state support of pilot projects for the creation and development of engineering centres.
- VSU won a contract to develop the strategy of social and economic development for the Voronezh Region up to 2035.
- VSU received the status of a university centre for innovative, technological, and social development.
- VSU's development strategy was approved; the university's brand style was updated and its logo was registered by the Federal service for intellectual property.
- Olga Vasilyeva, Minister of Education and Science of the Russian Federation, took part in the meeting for the organisation committee for the 100th anniversary of Voronezh State University and a session of the VSU Academic Board.
- At the VSU Faculty of Physics, a fundamental department and laboratory of JSC Concern "Sozvezdie" was established.



Of course, we have not yet achieved everything that we had planned, but we can clearly see and understand the challenges and difficulties. Moreover, we work hard while increasing personal and collective responsibility. I am convinced that anyone who studies this report will have a chance to see it for themselves.

I cannot fail to mention that 2017 was also a year of several great and bitter losses. Some of our colleagues passed away, and we mourn their loss, while undertaking the responsibility to preserve their memory and be worthy of continuing their service to the university and the country.

Patriotism is a truly powerful concept. It was a priority for those who laid the foundations of our university. It is still a force that drives us today and helps us look forward to the future.

VSU's centenary is one of the reasons for 2018 being declared a Year of Education and Science in the Voronezh Region. Having a close look at the results of this past year, we are to define the large, complex, and important tasks and to work on solving them in a creative and responsible manner. The life of the university is our joint task, as well as a matter of personal importance for each and every one of us.















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 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 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.

VSU Board of Trustees consists of 28 people.

Since 25 May 2016, the position of the Chair of the Board of Trustees has been vacant.

Deputy Chairs

of the Board of Trustees - Alexander Sokolov,

Elena Soboleva, Evgeny Yurchenko

Secretary

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

MEMBERS OF THE VSU BOARD OF TRUSTEES

- Azret Bekkiev, Deputy General Director of AO United Instrument Manufacturing Corporation.
- 2. Vladimir Bubnov, Director General of OOO Kombinat Stroitelnykh Detaley.
- 3. Anton Ganzha, Regional Manager of 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 AO Informsvyaz-Chernozemye data provider.
- 7. Dmitry Endovitskiy, Rector of FSFEI HE VSU.
- 8. Viktor Yenin, Director General of UK IP Perspektiva.
- Valentin levlev, 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 electronic component production activities.
- **11. Dmitriy Lapygin,** Director of Economic Affairs of OOO *RET*.
- **12.** Mikhail Moskaltsov, Deputy Head of the Voronezh branch of VTB.
- 13. Mikhail Nosyrev, attorney, President of ZAO Spartak Cinema.
- **14. Alexey Ponomarev,** Vice President for Strategy & Industrial Cooperation of the Skolkovo Institute of Science and Technology (Moscow).
- 15. Edgars Puzo, Director General of Atos IT Solutions and Services LLC
- **16. 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.
- 17. Vladimir Salmin, Chairman of the Central Black Earth Branch of PAO Sberbank.
- **18. Elena Soboleva**, Director of Educational Projects and Programmes of the Fund for Infrastructure and Educational Programmes (RUSNANO, Moscow).
- 19. Alexander A. Sokolov, Vice Rector for Building Operation and Capital Development.
- 20. Natalia Tretyak, Deputy General Director of OOO StroyGazMontazh.
- **21. Stephen Hagen**, Honorary Professor of the University of South Wales and a higher education expert of the European Commission.
- **22. Heinze Klaus-Dieter,** Head of the chemical/industrial technopark (Dow Olefinverbund GmbH Leiter ValuePark, Germany).
- **23. Andrey Hitskov**, Deputy Head of the branch of VoRU PAO MInBank (public joint-stock company *Moscow Industrial Bank*).
- 24. Valeriy Chernikov, Board Chairman of AO Insurance Business Group.
- 25. Gennadiy Chernushkin, Founder of Angstrem Group.
- **26. Elena Chupandina**, First Vice Rector Vice Rector for Academic Affairs of FSFEI HE VSU.
- 27. Anatoliy Shmygalev, Deputy of the VI Voronezh Regional Duma.
- 28. Evgeniy Yurchenko, Chairman of A.S. Popov Investment Fund (Moscow).



In 2017, there were two sessions of the Board of Trustees focused on the current issues concerning the University's development: the plan for VSU's 100th anniversary celebration; developing VSU's brand book; establishing an engineering centre; the application of funds obtained as revenue from the discretionary management of the assets of the VSU Endowment Managing Fund; building a database of VSU's innovation projects; presenting the innovative projects by VSU scholars, etc.

KEY RESULTS OF THE ACTIVITIES OF THE VSU BOARD OF TRUSTEES IN 2017:

- 1. Proposals were submitted for the Voronezh State University Strategic Development Programme.
- 2. A decision was taken to expand the VSU graduates database.
- 3. The members of the Board of Trustees participated in the work of the competition jury at the VSU innovative project contest for young scholars.
- 4. A decision to establish an engineering centre was approved.
- 5. The Board endorsed the decision to allocate the revenue from the discretionary management of the assets of the VSU Endowment Managing Fund for motivating the best students and the social support for long-service VSU employees.
- 6. There were a number of proposals aimed at commercializing the results of the innovation projects developed by the university scholars.
- 7. Creating VSU's brand book.
- 8. The Board approved the idea of establishing a VSU-based Interregional Association of Childcare Facilities and Child Development Centres.

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

STRUCTURE OF THE ACADEMIC COUNCIL (AS OF 31 DECEMBER 2017)

1. DMITRY ENDOVITSKIY,

Rector, Chairman of the Academic Council.

2. ELENA CHUPANDINA.

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

3. YURIY BUBNOV,

Vice Rector for Strategic Administrative Management.

4. OLEG GRISHAEV,

Vice Rector for Student Affairs and Social Development.

5. LARISA KOROBEINIKOVA,

Vice Rector for Economics and Contract Services.

6. VASILY POPOV.

Vice-Rector for Research and Innovations.

7. VASILY ANOKHIN.

Vice Rector for Building Operation and Capital Development.

8. EDUARD ALGAZINOV,

Dean of the Faculty of Computer Sciences.

9. ALEXANDER ALBEKOV,

Associate Professor of the Department of Mineralogy, Petrology and Geochemistry of the Faculty of Geology.

10. ALEXANDER BAYEV,

Dean of the Faculty of Mathematics.

11. ALEXANDER BELANOV.

Head of the Department of Physical Education and Sports.

12. OLEG BELENOV.

Dean of the Faculty of International Relations.

13. OLGA BERDNIKOVA,

Dean of the Faculty of Philology.

14. ANATOLIY BOBRESHOV,

Dean of the Faculty of Physics.

15. OLGA BORISKINA,

Dean of the Faculty of Romance and Germanic Philology.

16. KIRA VASILIEVA,

Academic Secretary.



17. LYUDMILA VLADIMIROVA,

Chairman of the Trade Union Committee of VSU.

18. KARINA GAIDAR,

Head of the Department of General and Social Psychology.

19. SERGEY GAPONOV,

Head of the Department of Zoology and Parasitology of the Faculty of Biomedical Sciences.

20. VLADIMIR GLAZIEV,

Dean of the Faculty of History.

21. ALEXANDRA GLUKHOVA,

Head of the Department of Sociology and Politology of the Faculty of History.

22. YURIY GORDEEV,

Head of the Department of Theory and Practice of Journalism of the Faculty of Journalism.

23. EVELINA DOMASHEVSKAYA,

Head of the Department of Solid-State Physics and Nanostructures of the Faculty of Physics.

24. VALENTIN IEVLEV,

Head of the Department of Materials Science and the Industry of Nanosystems of the Faculty of Chemistry.

25. PAVEL KANAPUKHIN,

Dean of the Faculty of Economics.

26. MAKSIM KIRCHANOV,

Associate Professor of the Department of Regional Studies and International Economies (the Faculty of International Relations).

27. VLADIMIR KOSTIN,

Head of the Department of Mathematical Modelling of the Faculty of Mathematics.

28. NIKOLAY KURALESIN,

Head of the Department of Safety and Basic Medical Training.



29. SEMYON KUROLAP.

Dean of the Faculty of Geography, Geoecology and Tourism.

30. TATIANA LEDENEVA.

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

31. MIKHAIL MATVEEV.

Head of the Department of Information Technologies in Management of the Faculty of Computer Sciences.

32. ARKADIY MINAKOV,

Director of the Regional Scientific Library of Voronezh State University.

33. VIKTOR NENAKHOV,

Dean of the Faculty of Geology.

34. TAMARA NIKONOVA,

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

35. ELENA NOSYREVA,

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

36. OLEG OVCHINNIKOV.

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

37. LYDIA RADINA,

Associate Professor of the Humanities Department.

38. VLADIMIR RODIONOV.

Director of the International Education Institute.

39. NATALIA SAPOZHNIKOVA,

Head of the Department of Accountancy of the Faculty of Economics.

40. IGOR SVERTKOV,

Director of VSU's Borisoglebsk Branch.

41. VLADIMIR SELEMENEV,

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

42. VIKTOR SEMYONOV,

Dean of the Faculty of Chemistry.

43. NIKOLAY SKOLZNEV,

Director of the Galichya Gora reserve.

44. ALEKSEY SLIVKIN,

Dean of the Faculty of Pharmaceutics.

45. YURY STARILOV.

Dean of the Faculty of Law.



46. ANDREY STARTSEV,

Chairman of the primary trade union organization of VSU students.

47. VLADIMIR TULUPOV,

Dean of the Faculty of Journalism.

48. IGOR CHASTUKHIN,

the Rector's councillor.

49. ALEXANDER SHASHKIN,

Dean of the Faculty of Applied Mathematics, Informatics and Mechanics.

50. ALEXANDER SCHERBAKOV,

Dean of Faculty of Military Education.

51. VLADIMIR SCHERBAKOV,

Head of the Department of Clinical Pharmacology of the Faculty of Pharmaceutics.

52. EKATERINA AKIMOVA,

2nd year Master's degree student of the Faculty of Computer Sciences.

53. ELENA BOLDYREVA,

4th year postgraduate student of the Faculty of Mathematics.

54. ELENA VOLKOVA,

3rd year Master's degree student of the Faculty of Economics.

55. IRINA TRISHINA,

3rd year postgraduate student of the Faculty of Applied Mathematics, Informatics, and Mechanics.

56. ALEXEY ELFIMOV,

1st year Master's degree student of the Faculty of Physics.

57. YAROSLAV ZUBASHCHENKO.

2nd year postgraduate student of the Faculty of Philosophy and Psychology.

58. KRISTINA KULESHOVA,

2nd year Master's degree student of the Faculty of Physics.

59. MARIYA OBRAZTSOVA,

4th year student of the Faculty of Philosophy and Psychology.

60. NIKITA TITARENKO,

2nd year Master's degree student of the Faculty of Applied Mathematics, Informatics, and Mechanics.



LIST OF KEY ISSUES CONSIDERED BY THE ACADEMIC COUNCIL IN 2017

- 1. Report on the results of the University's research and innovative performance in 2016.
- 2. The University's innovation activity in 2016 and the commercialization of the results from R&D projects.
- 3. Inclusive education at the University: current stage of development and way forward.
- 4. Financial and operating performance of VSU: the results of 2016 and adoption of the budget for 2017.
- 5. Rector's report on the results of the University's performance in 2016.
- 6. Promoting VSU in Russian and international rankings.
- 7. Electronic University Project.
- 8. The implementation of the University's property assets modernisation plan in 2016/17.
- 9. The results of the 2017 admission campaign. Approving the admission rules for the main academic programmes offered by VSU in 2018. Allocating the admission quotas among the programmes.
- 10. The results of the educational activity in higher professional and secondary vocational education programmes in 2016/17.
- 11. Report on the results of the performance of the University's branch in Borisoglebsk in 2016/17.
- 12. Report on the University's social development in 2016/17, and approving the plan for the next academic year.
- 13. The partnership between Voronezh State University and industrial enterprises aimed at creating high-tech production plants.
- 14. VSU internationalization: the year in review, upcoming trends.



2.3. RECTOR'S OFFICE

Rector

Dmitry ENDOVITSKIY

DSc in Economics, Professor. Honoured Worker of the Highest Vocational Education of the Russian Federation. The author of 390 research papers and works.

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

E-mail: rector@vsu.ru

First Vice Rector - Vice Rector for Academic Affairs

Elena CHUPANDINA

D.Sc. in Pharmaceutical Sciences, Associate Professor, Head of the Department of Economics and Management in Pharmaceutics and Pharmacognosy. The author of 243 research papers and works. Advisor for 4 PhD theses.

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 Biomedical Sciences, Head of the Department of Genetics, Cytology and Bioengineering. The author of over 300 research papers and works. Advisor for 11 PhD theses.

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

E-mail: popov@vsu.ru



Vice Rector for Economics and Contract Services

Larisa KOROBEINIKOVA

PhD in Economics, Associate Professor, Head of the Department of Economic Analysis and Audit. The author of over 370 research papers and works, including 3 monographs.

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 The author of 150 research papers and works. Advisor for 1 postdoctoral and 8 PhD theses.

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 The author of over 100 research papers and works. Advisor for 1 PhD thesis.

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

E-mail: grishaev@vsu.ru

Vice Rector for Facilities and Capital Development

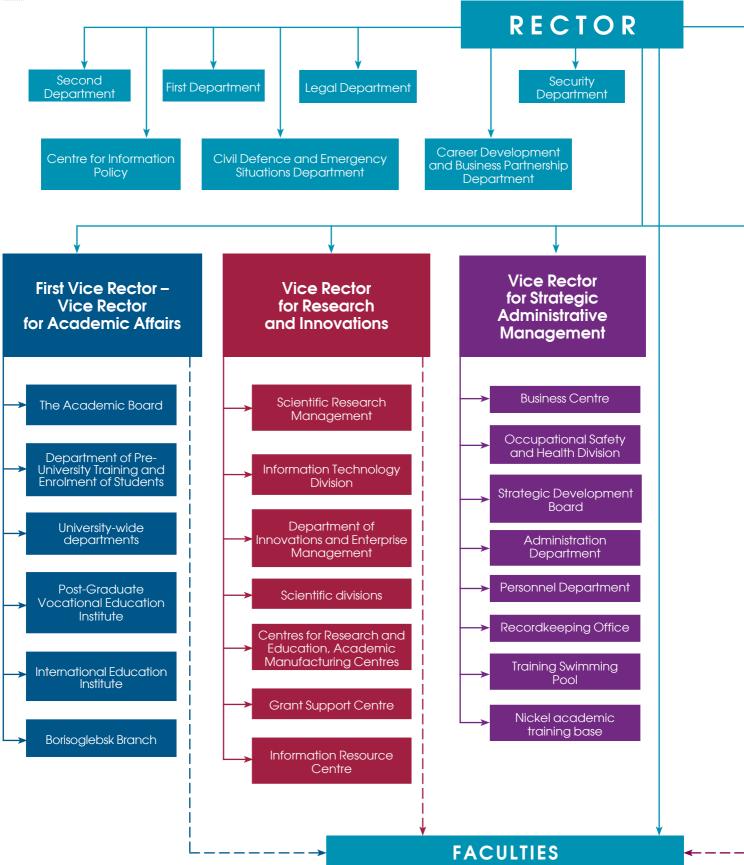
Vasily ANOKHIN

Graduate of Voronezh Engineering and Construction Institute. Started working at VSU in 2013.

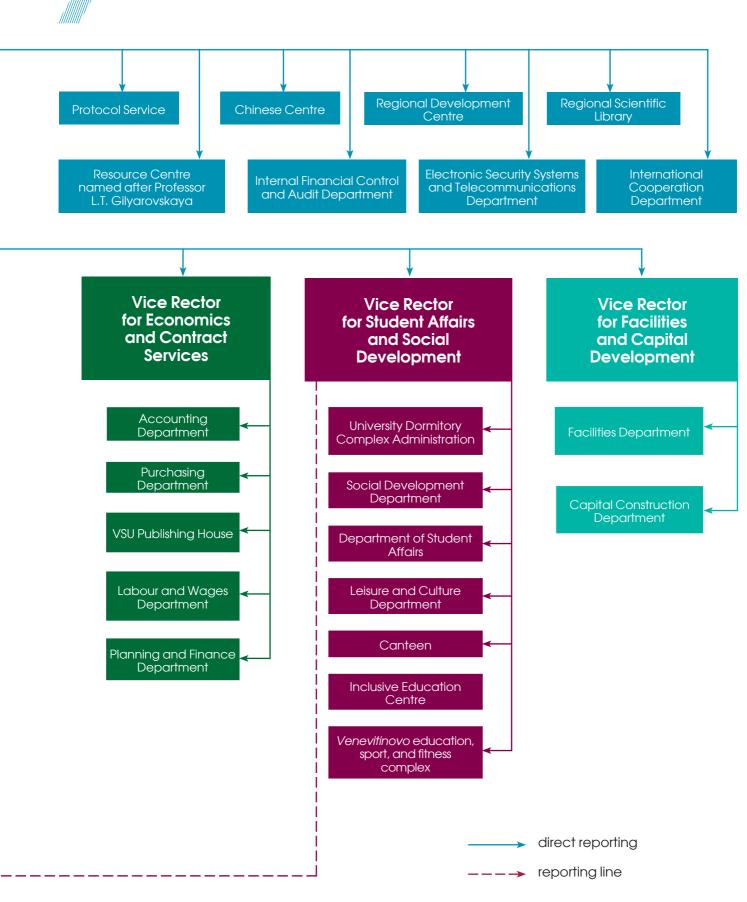
Telephone: +7 (473) 220-75-18

E-mail: anokhin@vsu.ru

2.4. THE GENERAL STRUCTURE OF VORONEZH STATE UNIVERSITY

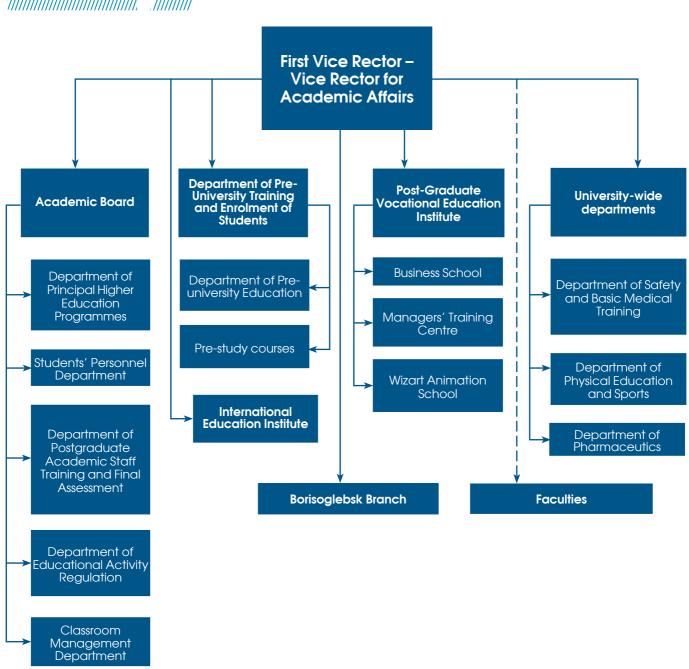






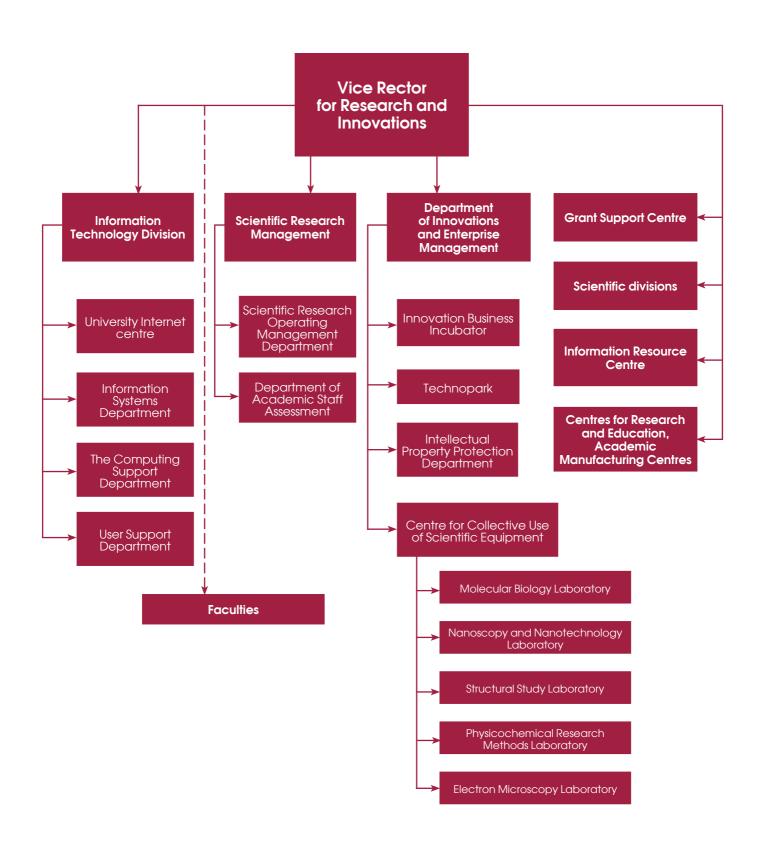


2.5. MANAGEMENT STRUCTURE OF THE FIRST VICE RECTOR – VICE RECTOR FOR ACADEMIC AFFAIRS



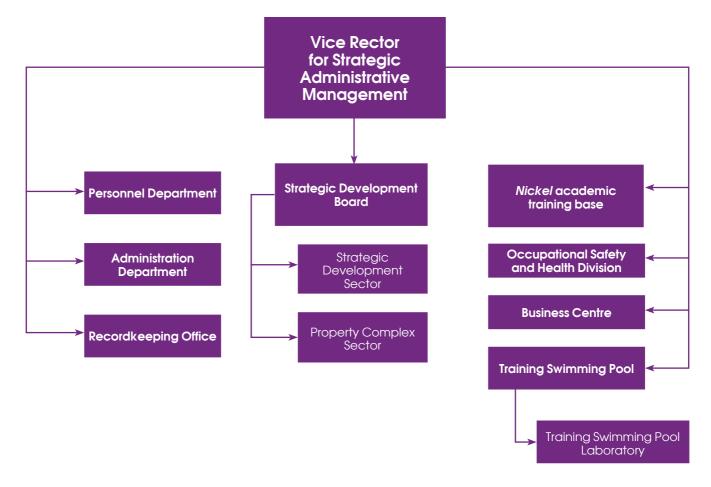


2.6. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR RESEARCH AND INNOVATIONS



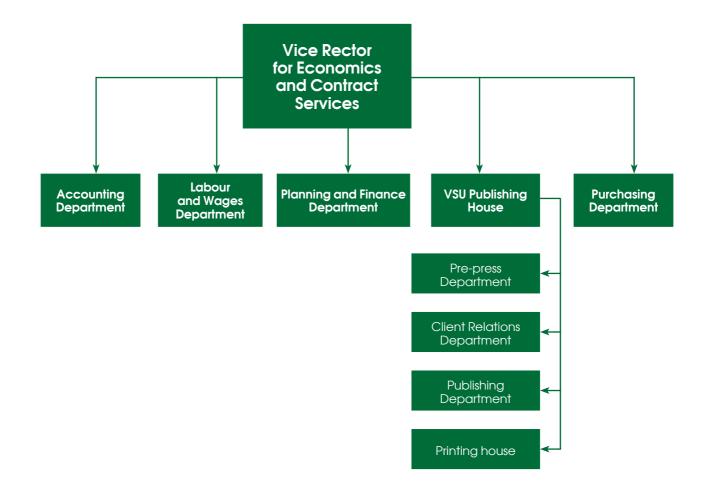


2.7. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STRATEGIC ADMINISTRATIVE MANAGEMENT



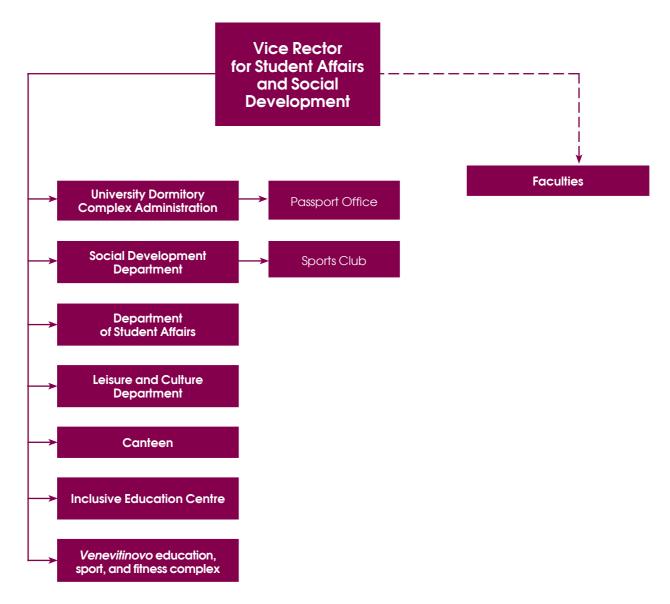


2.8. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR ECONOMICS AND CONTRACT SERVICES



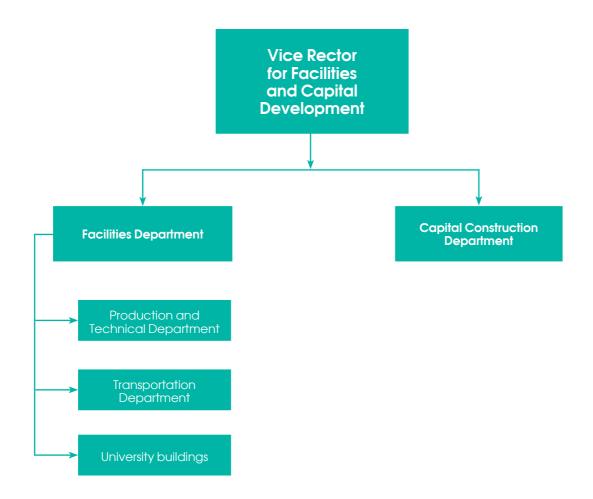


2.9. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STUDENT AFFAIRS AND SOCIAL DEVELOPMENT





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

Telephone: +7 (473) 221-27-47 E-mail: glaziev@hist.vsu.ru

THE FACULTY OF MATHEMATICS

Dean **ALEXANDER BAEV**

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

THE FACULTY OF BIOMEDICAL 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

THE FACULTY OF GEOGRAPHY, GEOECOLOGY, AND TOURISM

Dean **SEMYON KUROLAP**

Telephone: +7 (473) 266-56-54 E-mail: deanery@geogr.vsu.ru

THE FACULTY OF JOURNALISM

Dean VLADIMIR TULUPOV

Telephone: +7 (473) 274-52-71 E-mail: vlvtul@mail.ru

THE FACULTY OF COMPUTER SCIENCES

Dean **EDUARD ALGAZINOV**

Telephone: +7 (473) 220-84-11 E-mail: algazinov@sc.vsu.ru

THE FACULTY OF INTERNATIONAL RELATIONS

Dean **OLEG BELENOV**

Telephone: +7 (473) 239-29-31 E-mail: belenov@ir.vsu.ru

THE FACULTY OF APPLIED MATHEMATICS, INFORMATICS, AND MECHANICS

Dean **ALEXANDER SHASHKIN**

Telephone: +7 (473) 220-82-66 E-mail: shashkin@amm.vsu.ru

THE FACULTY OF ROMANCE AND GERMANIC PHILOLOGY

Dean **OLGA BORISKINA**

Telephone: +7 (473) 220-84-22 E-mail: boriskina@rgph.vsu.ru

THE FACULTY OF PHILOSOPHY AND PSYCHOLOGY

Dean YURIY BUBNOV

Telephone: +7 (473) 220-82-52 E-mail: bubnov@phipsy.vsu.ru

THE FACULTY OF PHARMACEUTICS

Dean **ALEKSEY SLIVKIN**

Telephone: +7 (473) 253-04-28 E-mail: slivkin@pharm.vsu.ru



THE FACULTY OF PHYSICS

Dean **ANATOLIY BOBRESHOV**

Telephone: +7 (473) 220-83-96 E-mail: bobreshov@phys.vsu.ru

THE FACULTY OF PHILOLOGY

Dean OLGA BERDNIKOVA

Telephone: +7 (473) 220-41-38 E-mail: berdnikova@phil.vsu.ru

THE FACULTY OF CHEMISTRY

Dean VIKTOR SEMYONOV

Telephone: +7 (473) 220-87-97 E-mail: semenov@chem.vsu.ru

THE FACULTY OF ECONOMICS

Dean PAVEL KANAPUKHIN

Telephone: +7 (473) 234-90-51 E-mail: kanapukhin@econ.vsu.ru

THE FACULTY OF LAW

Dean YURIY STARILOV

Telephone: +7 (473) 255-84-86 E-mail: starilov@law.vsu.ru

INTERNATIONAL EDUCATION INSTITUTE

Director VLADIMIR RODIONOV

Telephone: +7 (473) 266-33-50 E-mail: rodionov@interedu.vsu.ru

POST-GRADUATE VOCATIONAL EDUCATION INSTITUTE

Director NIKOLAY BATSUNOV

Telephone: +7 (473) 252-45-34 E-mail: batsunov@pdi.vsu.ru

GEOLOGY RESEARCH INSTITUTE

Director KONSTANTIN SAVKO

Telephone: +7 (473) 222-64-19 E-mail: ksavko@geol.vsu.ru

MATHEMATICS RESEARCH INSTITUTE

Director VIKTOR ZVYAGIN

Telephone: +7 (473) 220-86-57 E-mail: zvg@math.vsu.ru

SOCIAL AND POLITICAL STUDIES INSTITUTE

Director ALEXANDRA GLUKHOVA

Telephone: +7 (473) 221-97-43 E-mail: office@case.vsu.ru

PHYSICS RESEARCH INSTITUTE

Director ANATOLIY CHURIKOV

Telephone: +7 (473) 220-83-30 E-mail: churikov@niif.vsu.ru

CHEMISTRY AND PHARMACY RESEARCH INSTITUTE

Director **VLADIMIR SELEMENEV**

Telephone: +7 (473) 220-83-62 E-mail: journal@chem.vsu.ru

BORISOGLEBSK BRANCH

Director IGOR SVERTKOV

Telephone: +7 (473) 546-04-92 E-mail: directorate@bsv.vsu.ru









UNIVERSITY STRATEGIC DEVELOPMENT





Yuriy Bubnov,
Vice Rector for Strategic
Administrative Management

UNIVERSITY STRATEGIC DEVELOPMENT

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, Record № 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; status obtained on 14 December 2017);
- the "roadmap" of events aimed at VSU's transformation into Voronezh Regional University Centre, as well as meeting the target performance indicators (as part of the Transformation Program);
- VSU's Project Roadmap (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, 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 – 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

Modernizing Higher Education Academic Programmes

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

Developing further education programmes

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

Intensifying pre-university training and social work

- 1. Supporting and developing students' and graduates' communities.
- 2. Implementing educational projects for schoolchildren and the general public.
- 3. Identifying, supporting, and attracting talented students to study at VSU.
- 4. Implementing social projects and initiatives.

Enhancing research output

- 1. Supporting grant and research activities of the university's scholars.
- 2. Increasing the university's participation in international research projects.
- 3. Collaborating with the business community to take part in innovative technological projects.
- 4. Organizational and informational support of the scholars' academic mobility.

Integrating with the regional system of innovative development

- 1. Collaborating with regional and federal institutions for innovative development.
- 2. Promoting the university as the core of the regional expert community.
- 3. Introducing elements necessary to pre-accelerate and accelerate innovations.
- 4. Developing the students' business communities.
- 5. Promoting university-based small innovative enterprises.
- 6. Expanding the number and scale of innovation facilities.
- 7. Supporting initiatives aimed at expanding the information infrastructure of innovative development.



Growing the motivation and competencies of university personnel

- 1. Continuous improvement of the criteria of an effective contract for faculty members and senior management.
- 2. Hiring leading Russian and international researchers and lecturers.
- 3. Supporting young scholars and lecturers and aiding in their professional development.

The tasks and events of the 2017–2019 strategic development plans 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 solving 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 around VSU;
- developing the university ecosystem necessary to pre-accelerate innovations;
- 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 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 projectbased approach to education;
- starting new and modernizing existing advanced training programmes in the sphere of innovations.

In accordance with the Transformation Programme, the top-priority areas for VSU's fundamental and applied research in 2017–2019 are the following complex 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", as well as "Mathematics and Computer Sciences".

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 2017

VSU Strategy sets the university's development indicators until 2030. Table 3.1 presents the key performance indices in the reporting year of 2017 compared to 2016, as well as those planned for 2018.

Table 3.1

KEY INDICATORS OF VSU'S DEVELOPMENT IN 2017

| Indicator | 2016 (fact) | 2017 (fact) | 2018 (fact) |
|--|----------------|----------------|----------------|
| Educational activity | | | |
| The number of students enrolled in bachelor's, diploma, and master's degree programmes | 17,810 | 17,515 | 18,000 |
| The total number of postgraduate students | 590 | 595 | 570 |
| The percentage of students in master's degree and postgraduate programmes in the total number of the given contingent, % | 20.17 | 20.03 | 20.50 |
| The percentage of international students enrolled in bachelor's, specialist's, and master's degree programmes, in the given contingent, % | 5.97 | 4.28 | 6.00 |
| The percentage of international postgraduate students, % | 10.33 | 12.98 | 10.00 |
| The number of international exchange students spending at least one semester at VSU, per 100 students of the given contingent | 1.73 | 0.82 | 1.80 |
| The number of winners of national and international academic contests who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes | 2 | 1 | 2 |
| Scientific Research and Innovative Activity | | | |
| The total amount of R&D in the reporting year, million roubles | 306.6 | 258.0 | 260.0 |
| Income from R&D per faculty member, thousand roubles | 214.8 | 211.3 | 195.0 |
| Total amount obtained in the reporting year from the Russian state foundations supporting scientific and technical research and innovations, million roubles | 95.5 | 84.4 | 90.0 |
| The number of publications in Web of Science in the reporting year per 100 academic staff members | 17.44 | 20.48 | 19.50 |
| The number of publications in Scopus in the reporting year per 100 academic staff members | 23.53 | 32.84 | 27.00 |
| The number of citations of the publications issued in the last five years, indexed in Web of Science in the same period | 1,734 | 2,172 | 2,160 |
| The number of citations of the publications issued in the last five years, indexed in Scopus in the same period | 2,143 | 2,839 | 2,695 |
| The number of publications made in collaboration with foreign scholars, according to Web of Science and Scopus, in the reporting year | 69 | 80 | 70 |
| The number of doctoral and PhD dissertations defended at VSU dissertation boards | 112 | 72 | 120 |
| University staff members | | | |
| The total number of the regular FTE staff members as of the end of the reporting period | 1,332 | 1,169 | 1,235 |
| The total number of regular academic staff members as of the end of the reporting period | 96 | 52 | 98 |
| The share of the academic staff members having a PhD or a DSc degree, % | 74.83 | 76.11 | 76.50 |
| The share of foreign citizens as a percentage of the total number of academic staff members, % | 0.37 | 0.41 | 0.40 |
| The number of academic staff members who are foreign citizens | 5 | 8 | 5 |

Abbreviations: R&D-research and development, FTE – Full Time Equivalent

Notes: Web of Science and Scopus are the two most influential databases used internationally to assess research outputs.



MAIN TASKS SET FOR VSU IN THE LEAD-UP TO THE CENTENARY

- 1. Devising and approving VSU's development strategy.
- 2. Establishing VSU-based centre for innovative, technological, and social development of the Voronezh Region as part of the national project by the Ministry of Education of the Russian Federation "Universities as centres for innovation".
- 3. Establishing the Voronezh regional engineering centre.
- 4. Developing the necessary infrastructure:
 - renovating canteens and conference halls;
 - reconstructing the Botanical garden;
 - obtaining approval from the Ministry of Education and Science to design a new hall of residence.

The Committee for Organizing and Preparing VSU's Centenary, approved by the order of the governor of the Voronezh Region No. 169-u of 2 May 2017.

ALEXEY GORDEEV,

Special Representative of the President of the Russian Federation in the Central Federal District since 25 December 2017, member of the Security Council of the Russian Federation since 1 January 2018.

OLGA VASILYEVA,

Minister of Education and Science of the Russian Federation, Co-Chairman of the Committee.

OLEG MOSOLOV.

Head of the Department of Education, Science, and Youth Policy of the Voronezh Region, Executive Secretary of the Committee.

Master SERGIY.

the Metropolitan of Voronezh and Liski.

DMITRY ENDOVITSKY,

Rector of the Federal State-Funded Educational Institution of Higher Professional Education "Voronezh State University".

GALINA KARELOVA.

Deputy Chairperson of the Federation Council of the Federal Assembly of the Russian Federation.



SERGEY LUKIN,

Member of the Federation Council Committee on Federal Structure, Regional Policy, Local Government and Northern Affairs.

ANDREI MARKOV,

Deputy of the State Duma of the Federal Assembly of Russian Federation.

NIKOLAI OLSHANSKIY,

entrepreneur, Board Chairman of DON-AGRO agricultural company.

NIKOLAI PANKOV.

State Secretary – deputy minister of defense of the Russian Federation.

VLADISLAV PUTILIN.

Board Chairman of RUSNANO, JSC

YEVGENY REVENKO.

Deputy of the State Duma of the Federal Assembly of Russian Federation

YANA RYABINSKAYA,

Head of the Media Relations and Administration Management Department of Voronezh Regional government

VLADIMIR SALMIN.

Chairman of the Central Black Earth Branch of PAO Sberbank.

Following the results of the first meeting of the Organisation Committee, which took place on 7 July 2017 in the Ministry of Education and Science, the working group responsible for organizing and preparing VSU's centenary was formed in accordance with the order of the governor. Based on the proposals of the members of the working group, the schedule of activities was adjusted and approved.

Following the results of the second meeting of the Organisation Committee, which took place on 8 December 2017 in the Ministry of Education and Science, it was decided that:

- the Ministry of Education and Science of Russia is to consider, in accordance with the established procedure, the application of Voronezh State University for additional budget allocations aimed at purchasing fixed assets in the amount of 30.0 million roubles, as well as carrying out major repairs in the amount of 70.8 million roubles, in preparation for the celebration of the university's 100th anniversary;
- the rector of Voronezh State University D.A. Endovitsky, together with A.P. Markov, is to organize an exhibition in the State Duma of the Russian Federation, dedicated to the 100th anniversary of the Voronezh State University. a similar exhibition in the Federal Assembly of the Russian Federation and the Ministry of Education and Science of the Russian Federation is to be considered;
- the Executive Secretary of the organizing committee, O. Mosolov, is to schedule the next meeting of the Organizing Committee in August 2018, in order to assess the state of readiness for VSU's centenary celebration;



- the working group responsible for organizing and preparing VSU's centenary is to:
 - make a media plan of organizing and celebrating VSU's centenary;
 - work on the issue of reconstructing the B.M. Kozo-Polyansky Botanical Garden of Voronezh State University, involving Voronezh city district developers;
 - coordinate the dates and venues of the key events for the celebration of the
 100th anniversary of Voronezh State University;
 - in collaboration with the trustees and partners of Voronezh State University, arrange the financing of the activities to celebrate the 100th anniversary of VSU from extrabudgetary funds, including sponsorship.

THE CONCEPT FOR CELEBRATING VSU'S CENTENARY

The program of anniversary events will be truly interesting and unforgettable, not only for students, teachers, and numerous graduates of the university, but for the whole of Voronezh. The Day of the City, combined with the celebration of VSU's centenary, is expected to be the brightest event in Voronezh for many years; after all, its main organizer will be the university itself.

Day of the City, 15 September 2018

On this day, under the aegis of Voronezh State University, concerts, festivals, and large-scale Russian and international alumni meetings will be held. The key venues are: **Admiralteyskaya Square, Sovetskaya Square, Voronezh Concert Hall.** Theme areas at the venues:

- lecture centre;
- popular science;
- dance workshops;
- sports sections (basketball, wall-climbing, etc);
- student parade;



- food court:
- performances by Russian musicians;
- charity fair.

During the whole year, the university's activities will be focused on the motto of the centenary: "VSU for the region, the country, and the world".

An exhibition in the State Duma of the Russian Federation

During its anniversary year, the university will present all its achievements not just in the city, but to the country and the world. The achievements of one on the leading universities of the country will be presented:

- at the annual exhibition in Moscow International Education Salon;
- for the first time in VSU's history, at the exhibition in the State Duma of the Russian Federation on 2–6 July 2018.

Lecture centre

- Educational projects carried out jointly with Russian Foundation Znaniye.
- Saturday University
- Night University
- Open University, Health Triangle (lectures in Amital bookshops).
- Science Park.
- Entertaining Science (interactive lectures for schoolchildren).
- Summer Language School.
- Total dictation, geographical dictation, national laboratory.

Popular science

- The anniversary day in the main building of the university (festivals of science and science films, excursions, exhibitions, announcing the results of competitions, awarding winners).
- Roboart.
- Scientific Film Days.
- Tournament of Three Sciences.
- Innovation League.
- Start-up Factory.
- Research conferences.



Culture

- Exhibition "University Art Museum: Collections and People", publishing the exhibition catalogue.
- "University is our Home" competition.

Children

- Opening VSU experimental school.
- Interregional patriotic festival and competition "Heirs of Victory".
- Creating animation films by Wizart Animation studio.

Patron of Arts

- Making the documentary "Patron of Arts".
- A charity gala concert the final of the "Heirs of Victory" contest.
- A competition for students "Best Socially Relevant Project".
- Opening ceremony of the "VSU's Well-Doers Board".
- Campaigns aimed at the VSU Endowment Fund replenishment.

People's Friendship

- National Cuisine Festival.
- International Art Festival.
- The ceremony of establishing the new International Alumni Association.
- Joint Russian-Chinese scientific conference.
- English video contest "Voronezh State University: Past, Present and Future".
- English essay contest "University in my Life".



Graduates of 2018

- Alumni reunion in September 2018 in all university buildings.
- Establishing the new International Alumni Association.
- "Closed-Door Days" at faculties (meetings between outstanding graduates and students).
- "100 graduates" posters around the city.
- Students' Spring festival, "18th Faculty Spring Festival".
- Interviews with graduates, recording greeting videos.

Sports

- Swimming race in the VSU swimming pool.
- Relays.
- Various sports competitions.
- Motor rally.

Botanical garden

- Alley of Scholars with art objects devoted to Nobel prize winners: Ivan Bunin, Pavel Cherenkov, Nikolai Basov, and Zhores Alferov.
- Reconstruction of the Botanical garden.
- Alley of Graduates.
- Personalized landscape elements, a rosary.
- Setting up a "historical path".



15 SEPTEMBER CENTENARY OF VORONEZH STATE UNIVERSITY KEY EVENTS

| ary | 1.01-31.01 | Innovation League |
|----------|----------------------|--|
| January | 1.01-31.01 | Tournament of Three Sciences |
| 1761 | | Warren Alla |
| <u>~</u> | 1.02-28.02 | Innovation League |
| February | 1.02-28.02 | Tournament of Three Sciences |
| Œ. | 10.02 | National Laboratory Class |
| | (1)/35/2 | A STORY OF THE PARTY OF THE PAR |
| ch | 1.03-31.03 | The "University is Our Home" competition. |
| March | 4.03 | Roboart Festival |
| | | |
| K | 13.04 | Graduates' "18th Faculty Spring Festival" |
| April | 14.04 | Installation of a commemorative plaque |
| ٩ | 27.04-28.04 | dedicated to Professor V. Eytington Patriotic festival and competition |
| | | |
| | 28.04–31.05 | Innovation League final |
| Мау | 1.05-31.05 | Science Park lectures |
| | 14.04 | Installation of a commemorative plaque |
| K | 1 | dedicated to Professor N. Plaksenko |
| Ty | 1.06 | Presentation of the tourist atlas |
| June | 2.06-8.06 | Exhibition dedicated to VSU's 100th anniversary at the State Duma of the Russian Federation |
| turnir | 6.06–17.06 | VSU taking part in the Platonov Arts Festival |
| | V | |
| July | 1.07–31.07 | Summer Language School |
| 7 | 1.07-31.07 | Tournament of Three Sciences rnir.ru |
| vk.c | 1.07–31.07 om/iii | The state of the s |

^{*} Subject to alteration.



^{*} Subject to change. Further information may be found at www.vsu.ru/100



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

Name of the event:

Replicating the model of strategic partnership.

Description:

forming alliances with the largest participants in the process of regional modernization: *Tele2, Lukoil-Chernozemienefteprodukt,* JSC Concern *Sozvezdie, Bionorika* group of companies, *Rosenergoatom* concern represented by the Novovoronezh Nuclear pPwer Plant, and others.

Key results:

signing at least 10 collaboration agreements with the key actors of regional development.

Project duration: 2017.

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

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

Name of the event:

Testing the module-based education model.

Description:

ensuring that educational programs meet the region's demands for human resources for projects aimed at scientific, technological, and socio-economic development.

Key results:

forming VSU's Priority List of Educational Programmes.

Project duration: 2017.

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

Persons in charge: faculty deans.

Name of the event:

Introducing the dialogue-based graduates' employment assistance model.

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 of 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 Nam

Name of the event:

Replicating the creative graduates' work placement model.

Description:

expanding VSU's unique project "Student Tournament of Three Sciences" in the territory of the Russian Federation.

Kev 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.



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 areas critical in terms of personnel shortage.

Key results:

restructuring 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:

implementing at least 4 programmes.

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:

training at least 25 people.

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:

implementing at least 10 international educational projects.

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:

at least 10 corporate education structures functioning on the university's platform.

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, aiming at developing basic competencies for innovative activity.

Key results:

at least 100 participants in the first year of project implementation.

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:

implementing at least 1 programme.

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.



Developing project implementation infrastructure in accordance with the National Technological Initiative.

Description:

building VSU's capacity for using high-performance computing clusters for training personnel in supercomputer computations, and performing contractual research work.

Key results:

commissioning a new supercomputer that will be one of Russia's top 25.

Project duration: 2017.

Amount and sources of funding 15,900,000 roubles from own funds.

Persons in charge: E.K. Algazinov.

Name of the event:

Forming the list of promising regional technological projects.

Description

doing pilot scientific research in areas highly relevant for the region's development, with the financial support of the regional budget.

Key results:

implementing at least 10 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

Name of the event:

Becoming part of the regional import substitution programme.

Description:

preparing and implementing a set of projects relevant due to the investment attractiveness of the regional technological development, in collaboration with industrial partners.

Key results:

preparing and implementing at least 5 projects.

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.

/ K Name of the event:

Electronic University Project.

Description:

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

Key results:

organizing at least 10 events.

Project duration: 2017.

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

Persons in charge: O.V. Grishaev.



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

Description:

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

Kev results:

designing the "Strategy of the Development of the Voronezh Region – 2030". Project duration: 2017.

Amount and sources of funding 2,500,000 roubles from regional budget funds. Persons in charge: I.E. Risin.

7 Name of the event:

Upscaling VSU's expert community.

Description:

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

Key results:

involving at least 10 experts into the group.

Project duration: 2017.

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

Persons in charge: A.N. Kharin.

Name of the event:

Developing VSU's competencies in the area of social planning.

Description:

involving VSU specialists in the group working on assessing the state and dynamics of civil society institutions in the Voronezh Region and their activities.

completing the R&D tasks set by the Voronezh Regional government.

Project duration: 2017.

Amount and sources of funding 460,000 roubles from regional budget funds.

Persons in charge: A.N. Kharin.



Creating "VSU Atlas of Innovations".

Description:

preparing a package of VSU's innovative developments and projects with high commercial potential and presenting them to prospective investors.

Key results:

preparing at least 30 projects.

Project duration: 2017.

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

Persons in charge: A.D. Khvan.

Name of the event:

Developing the system of small innovative enterprises.

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:

at least 30 small innovative enterprises functioning on the university's platform.

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.

Name of the event:

Including the VSU Endowment Fund in the university's project work.

Description:

forming a package of projects and programmes that ensure the implementation of the students' and staff's initiatives in the field of the region's social development.

Key results:

forming at least 6 projects and programmes.

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.

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 VSU's botanical garden a platform for the practical implementation of joint projects in collaboration with the enterprises of the real economy sector in the scientific, educational, innovation, and social spheres.

Key results:

modernizing and reconstructing VSU's botanical garden.

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



Establishing the Regional Project Office.

Description:

developing and implementing a VSU-based office for coordination and control in the field of project management in the Voronezh Region.

Key results:

launching the Regional Development Council project at VSU.

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.

Name of the event:

Structural and organizational support of the Regional Project Office.

Description:

including in structure of VSU an executive body of the Council for Regional Development which develops the tools of public-private partnership for the implementation of innovative, social, and technological projects and initiatives.

Key results:

establishing the Regional Development Centre

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.

Name of the event:

Material and organizational support of the Regional Project Office.

Description:

working with VSU specialists and graduates to create extra-budgetary structures aiming to attracting extrabudgetary funding to implement social, innovative, and technological development projects in the region.

Key results:

establishing NGO Centre for Strategic Communications in the Scientific, Innovative, and Social Spheres.

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.



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 three-plus generation.

Key results:

at least 15% of master's degree students involved in the new programmes.

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.

7 Name of the event:

Developing e-learning elements.

Description:

developing and implementing an electronic further education training programmes "Innovation Technology Entrepreneurship".

Key results:

at least 200 participants.

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.

Q Name of the event:

Continuing Education System Development

Description:

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

Key results:

the proportion of students of advanced training programs in relation to the contingent of full-time students of at least 25%.

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.

Name of the event:

Developing VSU's competencies 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:

establishing the Voronezh regional engineering centre "i-Technology".

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.



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:

establishing the university's innovative culture.

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.

2 1 Name of the event:

Expanding VSU's participation in regional programs of innovation acceleration.

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:

preparing at least 5 projects.

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 of 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:

preparing at least 15 projects.

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.



Q Q 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:

at least 5 grants. 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.

Name of the event:

Developing and upscaling VSU's innovation ecosystem.

Description:

expanding VSU's unique project "Roboart" in the territory of the Russian Federation.

Key results:

involving at least 13 regions of the Russian Federation in the project.

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

2 K 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:

modernising and renovating the university facilities.

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.

Name of the event:

Applying VSU's competences 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 session for talented children at the recreation boarding house "Repnoye".

Key results:

providing the human resources for the projects.

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.



The university's involvement in the social and educational work in the region.

Description:

implementing educational projects "Open University" and "Saturday University" at the Voronezh regional division of the Russian Foundation *Znaniye*.

Key results:

involving at least 3,000 people in the events.

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.

$\mathbf{Q} \mathbf{Q}$ 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 initiatives.

Key results:

making the documentary "Payron of Arts".

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.

Q Name of the event:

Creating VSU's Social Passport.

Description:

preparing a package of VSU's social projects with a high implementation potential and presenting them to prospective partners.

Kev results:

preparing 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.

✓ Name of the event:

Developing the region's intellectual potential.

Description:

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

Key results:

organizing at least 5 events.

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

Наименование мероприятия:

Developing the tools of public-private partnership.

Description:

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

Key results:

implementing at least 5 technological projects developing 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: V.N. Popov, A.N. Kharin.

42

) Наименование мероприятия:

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 the Scientific, Innovative, and Social Spheres.

Key results:

supporting at least 10 projects.

Project duration: 2019.

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

Persons in charge: O.V. Grishaev.

43

Наименование мероприятия:

Introducing the model of self-reproduction of the university community of innovation activity actors.

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 the VSU network innovation accelerator.

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: V.N. Popov, A.N. Kharin.

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:

implementing at least 5 projects.

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: V.N. Popov, A.N. Kharin.



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 programmes.

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.

Name of the event:

Forming the system of integrated education.

Description

focusing advanced training and retraining programmes on 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 of 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: D.A. Zhukalin.

7 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.



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

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 of territorial 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: V.N. Popov, A.N. Kharin.

Name of the event:

Developing VSU's expert community.

Description:

implementing the strategy of scientific and technological development of the Russian Federation by creating conditions for training highly qualified specialists and encouraging graduate students and young academic staff members to opt for employment 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: V.N. Popov, A.N. Kharin.

Name of the event:

Coordinating strategic projects in the Voronezh Region.

Description

monitoring of key projects and programmes of the region by the Regional Development Council and 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: V.N. Popov, A.N. Kharin.



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

Voronezh State University's position in national and international rankings can be seen in Table 3.2.

Table 3.2

VSU'S POSITION IN UNIVERSITY RANKINGS

| Name of the ranking | 2017* |
|---|-------------------|
| Interfax National University Rating: | 24 |
| Education | 19 |
| Research | 31 |
| Socialisation | 35 |
| Internationalization | 46 |
| Brand | 28 |
| Innovations | 60 |
| Innovation activity rating of Russian universities ("Innovation Activity Index") | 50-52 |
| Expert RA Rating of Russian Universities | 45 |
| "Expert RA" Universities reputation rating | |
| Engineering, natural, and exact sciences | 49 |
| Economics and Management | 22 |
| Ranking of most demanded universities of the Russian Federation: classical universities (Social navigator "Rossiya Segodnya") | 28 |
| Top Russian universities, according to the Vladimir Potanin Foundation | 35 |
| Progress Ranking of Top Russian universities, according to the Vladimir Potanin Foundation | 35 |
| Ranking of Russian universities by the salaries of young specialists, according to Sup | perjob: |
| Economic universities | 16 |
| Law universities | 9 |
| Yandex search university ranking | 24 |
| Academic Ranking of World Universities (ARWU) | 801+ |
| Quacquarelli Symonds (QS) World University Ranking | 801–1000 (RF: 22) |
| Quacquarelli Symonds (QS): BRICS | 128 |
| Quacquarelli Symonds (QS): Emerging Europe & Central Asia | 119 |
| Quacquarelli Symonds (QS) STARS University Rating | *** |
| Research | ** |
| Teaching | **** |



End of table 3.2

| Name of the ranking | 2017* |
|---|---------------|
| Internationalization | **** |
| Employability | *** |
| Facilities | *** |
| Innovation | **** |
| Inclusiveness | **** |
| Times Higher Education (THE) World University Ranking | 1001+ (RF: 9) |
| Times Higher Education (THE) BRICS & Emerging Economies University Rankings | 251–300 |
| Times Higher Education (THE) Best Universities in Europe | =404 |
| SCImago Institutions Ranking (SIR) | 676 |
| University Ranking by Academic Performance (URAP) | 2233 (RF: 25) |
| Webometrics Ranking of World Universities | 2241 (RF: 26) |
| Webometrics Transparent Ranking: Top Universities by Google Scholar Citations | 2529 (RF: 23) |
| Round University Ranking (RUR) | 711 (RF: 47) |
| Life Sciences | 536 (RF: 22) |
| Natural Sciences | 516 (RF: 21) |
| Social Sciences | 588 (RF: 27) |
| Technical Sciences | 544 (RF: 32) |
| Round University Ranking (RUR) Reputation Ranking | 733= (RF: 39) |
| Round University Ranking (RUR) Academic Ranking | 697 (RF: 35) |
| Round University Ranking (RUR) Research Performance Ranking | 659 (RF: 12) |
| UI GreenMetric World University Ranking | 241 (RF: 8) |
| Academic Ranking of World Universities – European Standard (ARES) | A+ |
| Worldwide Professional University Ranking (RankPro) | 546 |
| Wikipedia Ranking of World Universities (PageRank / CheiRank) | 767 / 574 |
| U-Multirank (CHE / CHEPS / CWTS Consortium) | + |
| | |

 $[\]ensuremath{^*}$ For global rankings, the position in the world and in Russia is provided.



3.6. INFORMATION ON PASSING THE UNIVERSITY EFFICIENCY MONITORING

The Ministry of Education and Science of the Russian Federation holds annual monitoring of the performance of state higher education institutions. In 2017, in order to be recognized effective, a university was required to fulfil at least 4 out of 7 monitoring indicators. Voronezh State University fulfilled all seven (Table 3.3, Fig. 3.1).

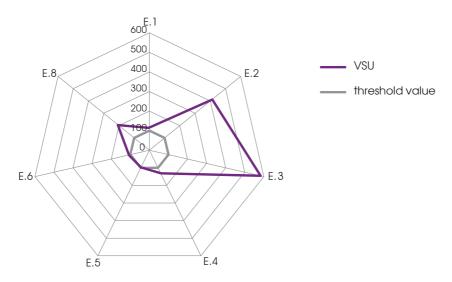
Table 3.3

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

| No. | Indicator title | Values | Threshold value | Change Prior Year Adjustment |
|-----|--|---------|--------------------|------------------------------------|
| E.1 | Educational activity (average state exam score) | 67.43 | 60 | +0.9% |
| E.2 | Research and Development (Research and Development per faculty member, thousand roubles) | 214.82 | 51.28 | -12.1% |
| E.3 | International activities (share of international students among the given contingent, %) | 5.97 | 1 | +16.1% |
| E.4 | Financial and economic activity (the income from all sources per faculty member, thousand roubles) | 1686.02 | 1327.57 | +4.8% |
| E.5 | Salary of the academic staff members (per cent to the average salary in the region) | 150.03 | 150 | +0.5% |
| E.6 | Employment (according to the Pension Fund of the Russian Federation, %) | 75 | 70 | -6.3% |
| E.8 | Additional indicator (staff with PhD per 100 students) | 5.68 | 2.78 | -6.6% |

Figure 3.1

THE ACHIEVEMENT OF TARGET PARAMETERS FOR PERFORMANCE MONITORING, %



The detailed results of the monitoring may be found on the website of the Main Data-Computing Centre of the Ministry of Education and Science of the Russian Federation at (http://indicators.miccedu.ru/monitoring/?m=vpo).



3.7. HUMAN RESOURCES

The high-priority areas of the human resources policy of the university are:

- ensuring the required number of academic, educational support, and administrative personnel;
- creating the conditions necessary for personal fulfilment and professional development of all employees;
- supporting young scholars and postgraduate students;
- supporting initiatives in the area of education;
- raising the university employees' motivation and commitment levels;
- introducing new methods and advanced training and retraining programmes for the academic staff of the university;
- forming the university's personnel reserve;
- introducing methods for talent management using information technologies and automated systems.

Key quantitative characteristics of the university's staff members supply as of 31 December 2017 (figures 3.2, 3.3):

| | total number of employees | 3606 people |
|----|--------------------------------------|-------------|
| an | nong them: | |
| | academic staff | 1532 people |
| | educational support personnel | 778 people |
| | scientific and engineering personnel | 198 people |
| | operating personnel | 846 people |
| | administrative and managerial staff | 308 people |

Figure 3.2

TOTAL NUMBER OF STAFF MEMBERS IN 2015–2017

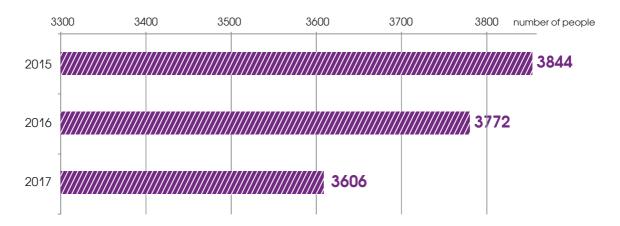
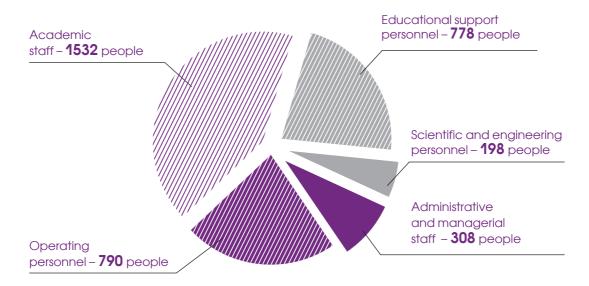




Figure 3.3

COMPARISON OF THE NUMBERS OF STAFF MEMBERS BY FUNCTION IN 2017



Quantitative and qualitative indicator dynamics in the university staff composition in total in 2015–2017 is shown in Table 3.4.

Table 3.4

NUMBER AND COMPOSITION OF THE UNIVERSITY PERSONNEL IN 2015–2017

| The composition of university staff | 2015 | 2016 | 2017 |
|---|------|------|------|
| Total number of employees | 3844 | 3770 | 3606 |
| Academic Staff/faculty | 1576 | 1567 | 1532 |
| including: total number of staff with a degree | 1179 | 1163 | 1150 |
| DSc | 303 | 309 | 306 |
| PhDs | 876 | 854 | 844 |
| Educational support personnel | 868 | 830 | 778 |
| Administrative and managerial personnel | 351 | 327 | 308 |
| Scientific and engineering personnel | 197 | 200 | 198 |
| Operating personnel | 852 | 846 | 790 |

The analysis of the composition of university staff demonstrates that 75% of the total number of the academic staff members have an academic degree (1150 people). There are 306 staff members with a DSc degree (20%). The results of the academic staff numbers are shown in Figures 3.4–3.8 and in Tables 3.5–3.8.

Figure 3.4

COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS IN 2015–2017

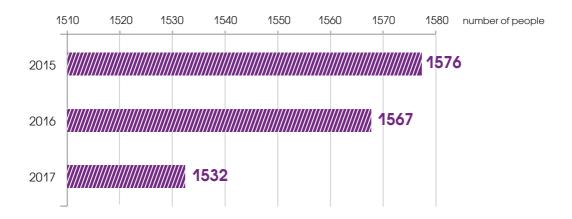


Figure 3.5

THE DISTRIBUTION OF ACADEMIC STAFF BY POST AS OF 1 JANUARY 2018

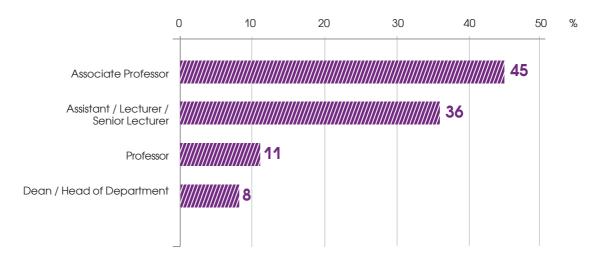


Figure 3.6

THE DISTRIBUTION OF ACADEMIC STAFF BY DEGREE

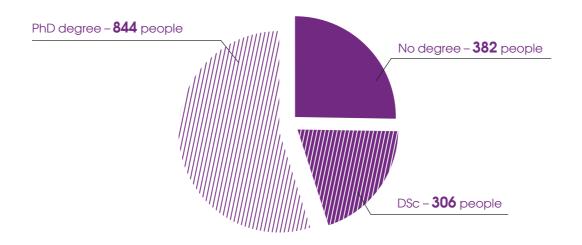




Figure 3.7

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





Figure 3.8

THE COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS WORKING FULL-TIME AND PART-TIME IN 2017

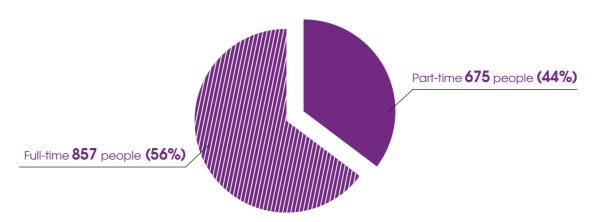


Table 3.5

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITY-WIDE DEPARTMENTS AS OF 1 JANUARY 2017

| Structural subdivision | | umber emic staff nbers |
|--|-----------|------------------------------|
| | full-time | total |
| The Faculty of Biomedical Sciences | 60 | 80 |
| The Faculty of Geography, Geoecology, and Tourism | 29 | 51 |
| The Faculty of Geology | 17 | 64 |
| The Faculty of History | 33 | 61 |
| The Faculty of Mathematics | 31 | 64 |
| The Faculty of Military Education | 27 | 30 |
| The Faculty of Journalism | 29 | 54 |
| The Faculty of Computer Sciences | 35 | 69 |
| The Faculty of International Relations | 16 | 30 |
| The Faculty of Applied Mathematics, Informatics, and Mechanics | 60 | 127 |
| The Faculty of Romance and Germanic Philology | 115 | 197 |
| The Faculty of Philosophy and Psychology | 30 | 52 |
| The Faculty of Pharmaceutics | 22 | 37 |
| The Faculty of Physics | 54 | 129 |
| The Faculty of Philology | 15 | 64 |
| The Faculty of Chemistry | 20 | 63 |
| The Faculty of Economics | 100 | 158 |
| The Faculty of Law | 76 | 108 |
| The Department of Physical Education and Sports | 39 | 41 |
| Department of Safety and Basic Medical Training | 5 | 6 |
| International Education Institute | 44 | 45 |
| Post-Graduate Vocational Education Institute | - | 2 |
| Total | 857 | 1532 |



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

| | | | <u> </u> |
|--|------------------------|---------|----------|
| Structural subdivision | Total number of people | PhDs, % | DSc,% |
| The Faculty of Biomedical Sciences | 80 | 62.5 | 25.0 |
| The Faculty of Geography, Geoecology, and Tourism | 51 | 54.9 | 17.6 |
| The Faculty of Geology | 64 | 65.6 | 23.4 |
| The Faculty of History | 61 | 55.7 | 27.9 |
| The Faculty of Mathematics | 64 | 56.3 | 25.0 |
| The Faculty of Military Education | 30 | 16.7 | 0.0 |
| The Faculty of Journalism | 54 | 68.5 | 14.8 |
| The Faculty of Computer Sciences | 69 | 58.0 | 20.3 |
| The Faculty of International Relations | 30 | 70.0 | 20.0 |
| The Faculty of Applied Mathematics, Informatics, and Mechanics | 127 | 49.6 | 21.3 |
| The Faculty of Romance and Germanic Philology | 197 | 50.3 | 8.1 |
| The Faculty of Philosophy and Psychology | 52 | 57.7 | 23.1 |
| The Faculty of Pharmaceutics | 37 | 51.4 | 16.2 |
| The Faculty of Physics | 129 | 61.2 | 30.2 |
| The Faculty of Philology | 64 | 57.8 | 25.0 |
| The Faculty of Chemistry | 63 | 46.0 | 49.2 |
| The Faculty of Economics | 158 | 58.9 | 20.3 |
| The Faculty of Law | 108 | 62.0 | 18.5 |
| The Department of Physical Education and Sports | 41 | 12.2 | 0.0 |
| Department of Safety and Basic Medical Training | 6 | 66.7 | 0.0 |
| International Education Institute | 45 | 55.6 | 2.2 |
| Post-Graduate Vocational Education Institute | 2 | 50.0 | 50.0 |
| | | | |

Table 3.7

AGE AND ACADEMIC DEGREE OF ACADEMIC STAFF MEMBERS

| Age | Total | under 35 | 36 to 50 | 51 to 70 | over 70 |
|-------------------------------------|-------|----------|----------|----------|---------|
| Total | 1532 | 384 | 500 | 505 | 143 |
| Among them: Have a degree of DSc | 306 | 4 | 55 | 172 | 77 |
| | | | | | |



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

| | ////////// 20 | ////////////////////////////////////// | 20 | ////////////////////////////////////// | ////////////////////////////////////// | ////////// 17 |
|--|---------------------------|--|---------------------------|--|--|-----------------------|
| Structural subdivision | Total number of people | Average age, years | Total number of people | Average age, years | Total number of people | Average age, years |
| The Faculty of Biomedical Sciences | 89 | 49 | 89 | 49 | 80 | 49 |
| The Faculty of Geography, Geoecology, and Tourism | 46 | 49 | 46 | 49 | 51 | 49 |
| The Faculty of Geology | 71 | 48 | 71 | 48 | 64 | 51 |
| The Faculty of History | 67 | 49 | 67 | 49 | 61 | 49 |
| The Faculty of Mathematics | 64 | 51 | 64 | 51 | 64 | 52 |
| The Faculty of Military Education | 26 | 48 | 26 | 48 | 30 | 51 |
| The Faculty of Journalism | 52 | 48 | 52 | 48 | 54 | 50 |
| The Faculty of Computer Sciences | 65 | 45 | 65 | 45 | 69 | 47 |
| The Faculty of International Relations | 32 | 42 | 32 | 42 | 30 | 45 |
| The Faculty of Applied Mathematics, Informatics, and Mechanics | 125 | 45 | 125 | 45 | 127 | 47 |
| The Faculty of Romance and Germanic Philology | 202 | 44 | 202 | 44 | 197 | 45 |
| The Faculty of Philosophy and Psychology | 59 | 46 | 59 | 46 | 52 | 48 |
| The Faculty of Pharmaceutics | 38 | 47 | 38 | 47 | 37 | 46 |
| The Faculty of Physics | 126 | 55 | 126 | 55 | 129 | 54 |
| The Faculty of Philology | 67 | 51 | 67 | 51 | 64 | 50 |
| The Faculty of Chemistry | 68 | 51 | 68 | 51 | 63 | 53 |
| The Faculty of Economics | 154 | 47 | 154 | 47 | 158 | 48 |
| The Faculty of Law | 108 | 44 | 108 | 44 | 108 | 45 |
| The Department of Physical Education and Sports | 42 | 46 | 42 | 46 | 41 | 48 |
| Department of Safety and Basic Medical Training | 6 | 51 | 6 | 51 | 6 | 54 |
| International Education Institute | 53 | 47 | 53 | 47 | 45 | 48 |
| Post-Graduate Vocational Education Institute | 2 | 54 | 2 | 54 | 2 | 55 |

The analysis of the age of academic staff members in 2015–2017 demonstrates that the average age of academic staff members in the university as a whole is:

- as of 31 December 2015, 47.7, whereas the percentage of employees at retirement age was 32.0%.
- as of 31 December 2016, 48.0, whereas the percentage of employees at retirement age was 32.0%.
- as of 31 December 2017, 49.0, whereas the percentage of employees at retirement age was 32.5%.



3.8. VSU DISSERTATION COMMITTEES' PERFORMANCE

In 2017, 16 dissertation boards in 34 fields of study were operating at VSU. There were also 4 joint dissertation boards operating in 7 fields of study (Table 3.9).

In 2017, 87 dissertations were defended in Voronezh State University dissertation boards, including 14 doctoral dissertations and 73 PhD dissertations. By postgraduate students graduating in 2017 – 13 dissertations, by university staff members – 3 DSc and 11 PhD dissertations (Table 3.10).

Over 50% of dissertations were defended by graduate students and employees of other organizations.

1 DSc and 7 PhD dissertations were defended at dissertation boards belonging to other universities.

Members of the dissertation boards are required to publish their articles regularly in journals 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.

Table 3.9

DISSERTATION BOARDS AS OF 1 JANUARY 2017

| | Chairperson, Academic Secretary |
|--|---|
| Code of the dissertation board, fields of study | contact details |
| D 212.038.01 09.00.01 – Ontology and Epistemology 09.00.11 – Social Philosophy | Alexandr Kravets – Chairperson Irina Yu. Tikhonova – Academic Secretary Phone: +7 (473) 255-08-57 E-mail: dekanat@phypsy.vsu.ru |
| D 212.038.03 03/01/2004 – 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 Ovchinnikov – Chairperson Sergey Drozhdin – Academic Secretary Phone: +7 (473) 2208-748, E-mail: zon@niif.vsu.ru |
| D 212.038.07 10.02.01 – Russian Language 10.02.19 – Linguistic Theory | Alexey Kretov – Chairperson Tatiana Golitsyna – Academic Secretary Phone: +7 (473) 276-92-61 E-mail: a_a_kretov@rambler.ru |
| D 212.038.08 02.00.01 – Inorganic Chemistry 02.00.04 – Physical Chemistry 02.00.05 – Electrochemistry | Alexander Vvedensky – Chairperson Boris Sladkopevtsev – Academic Secretary Phone: +7 (473) 220-85-46 E-mail: dp-kmins@yandex.ru |

Table cont. 3.9

| | lable cont. 3.9 |
|---|---|
| Code of the dissertation board, fields of study | Chairperson, Academic Secretary contact details |
| D 212.038.10 01/04/2003 – Radiophysics 01.04.10 – Semiconductor Physics 05.13.01 – System Analysis, Management and Information Processing (Radioengineering, Automatics, Communications) | Andrey Trifonov – Chairperson Vladislav Stepkin – Academic Secretary Phone: (473) 220-82-84 E-mail: stepkin@phys.vsu.ru |
| D 212.038.12 07.00.02 – Russian History 07.00.06 – Archaeology | Mikhail Karpachev – Chairperson Elena 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 Akatkin – Chairperson Alexander 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 Gogoleva – Chairperson Galina Golikova – Academic Secretary Phone: +7 (473) 228-11-60, Ext. 5130 e-mail: tgogoleva2003@mail.ru |
| D 212.038.16 10.02.05 – Romance Languages 10.02.04 – Germanic Languages | Natalia Fenenko – Chairperson Ksenia Shilikhina – Academic Secretary Phone: +7 (473) 220-41-49 E-mail: shilikhina@rgph.vsu.ru |
| D 212.038.18 10.01.10 – Journalism | Vladimir Tulupov – Chairperson Alexander Kazhikin – Academic Secretary Phone: +7 (473) 274-52-71 E-mail: vlvtul@mail.ru |
| D 212.038.19 02.00.02 – Analytical Chemistry 02.00.03 – Organic Chemistry 02.00.21 – Solid State Chemistry | Viktor Semenov – Chairperson Nadezhda Stolpovskaya – Academic Secretary Phone: +7 (473) 220-89-73 E-mail: kcmf@main.vsu.ru |
| D 212.038.20 05.13.17 – Theory of Information 05.13.18 – Mathematical Modelling, Numerical Methods and Program Systems | Alexander Baev – Chairperson Sergey Shabrov – Academic Secretary Phone: +7 (473) 220-86-18 E-mail: pokorny@kma.vsu.ru |
| D 212.038.22 01.01.01 – Substantial, complex and functional analysis 01.01.02 – Differential Equations, Dynamical systems and Optimal Control | Evgeniy Semyonov – Chairperson Yuriy Gliklikh – Academic Secretary Phone: +7 (473) 267-49-03 E-mail: yeg@math.vsu.ru |
| D 212.038.23 08.00.12 – Accounting, Statistics | Dmitry Endovitskiy – Chairperson Tatiana 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 HPE "Voronezh State University" FSFEI HE "Lipetsk State Pedagogical University" FSFMEI HE "Air Force Military Academic Centre" "N.E. Zhukovsky and Yu.A. Gagarin Air Force Academy" (Voronezh) | Irina Berezhnaya – Chairperson Elena 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 HPE "Voronezh State University" FSFEI HE "Oryol State University" | Gennady Borisov – Chairperson Yury Starilov – Vice Chairperson Alexey Niphanov – Academic Secretary Phone: +7 (473) 255-07-19 |



End of table 3.9

| Code of the dissertation board, fields of study | Chairperson, Academic Secretary contact details |
|---|--|
| 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 HPE "Voronezh State University" FSFEI HE "Lipetsk State Technical University" | Semyon Podvalny – Chairperson Tatiana Ledenyova – Vice Chairperson Viktor Burkovsky – Academic Secretary Phone: +7 (473) 220-83-16 |
| D 999.159.03 08.00.05 – Economics and National Economy Management (economics, organization and management of enterprises, industries, and complexes – industry, management) (economic sciences) FSFEI HPE South-West State University, FSFEI HPE Voronezh State University FSFEI HE Oryol State University of Economics and Trade | Yulia Vertakova – Chaiperson Inna Parshutina – Vice Chairperson Vladimir Gurov – Vice Chairperson Yulia Polozhentseva – Academic Secretary Phone: +7 (471) 222-26-46 |
| D 999.191.02 01.02.04 – Solid Mechanics (Physics and Mathematics, technical sciences) FSFEI HPE "Tula State University" FSFEI HPE "Voronezh State University" | Alexey Markin – Chairperson Alexander Shashkin – Vice Chairperson Vadim Glagolev – Academic Secretary |

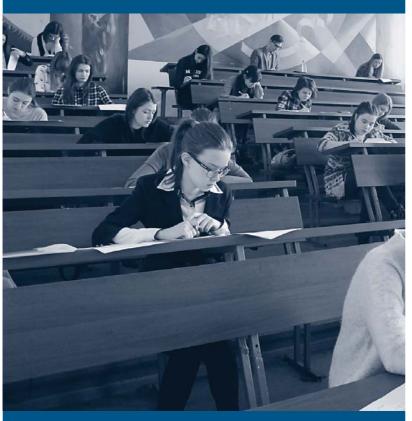
Table 3.10

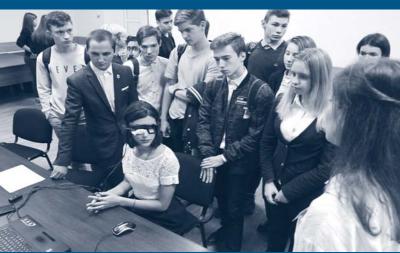
THE NUMBER OF PEOPLE WHO OBTAINED THEIR PHD AND DSC DEGREES IN 2017, BY THE FIELD OF STUDY

| <u> </u> | | Thops | | of disso | rtation | | dorod ir | 2017 |
|-----------------------------------|--|----------------------------------|---------------|--|---------------------|-------------|---------------|---------------------|
| | | The number of dissertations PhD | | | | DSc | | |
| Code of the dissertation board | Code of the fields of study of the board | Total | VSU employees | VSU postgraduate students (graduated in 2017) | External applicants | Total | VSU employees | External applicants |
| D 212.038.01 | 09.00.01 – Ontology and Epistemology 09.00.11 – Social Philosophy | - - | - - | - - | - - | - - | _ _ | - - |
| D 212.038.03 | 03.01.02 – Biophysics 03/01/2004 – Biochemistry | 2 2 | - - | - 1 | 2 | - - | _ _ | - - |
| D 212.038.06 | 01.04.02 – Theoretical Physics 01.04.05 – Optics 01.04.07 – Condensed Matter Physics | 1 1 2 | - 1 1 | - - 1 | 1 - - | - - - | - - - | - - - |
| D 212.038.07 | 10.02.01 - Russian Language 10.02.19 - Linguistic Theory | 3 | - | _ | 3 | 1 | - | 1 |



| <u> </u> | | ///////// | ///////// | | End | d of ta | ble 3.1 | 0 | |
|-----------------------------------|---|-----------------------------------|---------------|--|---------------------|-------------|-------------------|---------------------|--|
| | Code of the fields of study of the board | The number of dissertation PhD | | | | | | | |
| Code of the dissertation board | | Total | VSU employees | VSU postgraduate students (graduated in 2017) | External applicants | Total | DSC seevoldme NSV | External applicants | |
| D 212.038.08 | 02.00.01 – Inorganic Chemistry 02.00.04 – Physical Chemistry 02.00.05 – Electrochemistry | - 1 3 | - 1 1 | - - - | - - 2 | 1 1 - | 1 - - | - 1 - | |
| D 212.038.10 | 01/04/2003 – Radiophysics 01.04.10 – Semiconductor Physics 05.13.01 – System Analysis, Management and Information Processing | - - | - - | - - | - - | - - | - - | - - | |
| D 212.038.12 | 07.00.02 – Russian History 07.00.06 – Archaeology | 5 2 | 1 - | 1 2 | 3 - | 1 – | - - | 1 – | |
| D 212.038.14 | 10.01.01 – Russian literature 10.01.03 – International Literature (literature of the countries of Germanic and Romance language families) | 6 | - - | 2 | 4 – | 1 - | _ | 1 - | |
| 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) | 9 | 2 | 1 | 6 | _ | _ | _ | |
| D 212.038.16 | 10.02.04 - Germanic Languages 10/04/2005 - Romance Languages | 1 2 | - - | - - | 1 2 | _ _ | - - | _ _ | |
| D 212.038.18 | 10.01.10 - Journalism | 5 | - | 2 | 3 | 3 | - | 3 | |
| D 212.038.19 | 02.00.02 – Analytical Chemistry 02.00.03 – Organic Chemistry 02.00.21 – Solid State Chemistry | - 1 - | - - - | _ 1 _ | - - - | - - - | - - - | - - - | |
| D 212.038.20 | 05.13.17 – Theory of Informatics 05.13.18 – Mathematical Modelling, Numerical Methods, and Program Systems | 1 3 | - - | _ 1 | 1 2 | 1 2 | _ 2 | 1 – | |
| D 212.038.22 | 01.01.01 – Substantial, complex and functional analysis 01.01.02 – Differential Equations, Dynamic Systems, and Optimal Control | 1 | 1 – | - | 3 | - 1 | - | 1 | |
| D 212.038.23 | 08.00.12 – Accounting, Statistics | 3 | - | - | 3 | 1 | - | 1 | |
| D 999.010.03 | 13.00.01 – General Pedagogics, History of Pedagogics, and Education 13.00.08 – Theory and methods of vocational education | 6 | 1 – | - | 5 6 | - 1 | - | - 1 | |
| Total: | | 73 | 11 | 13 | 49 | 14 | 3 | 11 | |















EDUCATION



EDUCATION



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

4.1. MAIN OBJECTIVES OF THE ACADEMIC POLICY IN 2017

In the reporting period the academic policy of the university included three main objectives.

- 1. The development of new variable educational programmes based on customisable individual educational paths and project-based learning techniques.
- 2. The modernisation of the existing educational programmes according to professional standards and the requirements of the regional labour market.
- 3. The introduction of independent quality assessment for higher education programmes through the public and professional accreditation of educational programmes.

4.2. GENERAL INFORMATION ABOUT THE ACADEMIC PROGRAMMES IMPLEMENTED AT VSU IN 2017

In 2017, the aggregate (normalized) contingent of students within higher professional education programmes totalled over 14.5 thousand including:

- 9,880 bachelor's degree students;
- 1,692 diploma degree students;
- 2,418 master's degree students;
- 495 postgraduate students;
- and 16 residents.

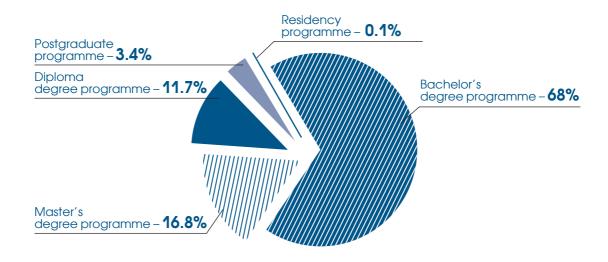


Figure 4.1 demonstrates the structure of the normalized contingent within bachelor's, diploma, master's degree and postgraduate programmes.

In 2017, the number of master's degree students and postgraduate students in the normalized contingent amounted to 20%, which is typical for leading Russian universities.

Figure 4.1

THE STRUCTURE OF THE NORMALIZED CONTINGENT WITHIN BACHELOR'S, DIPLOMA, MASTER'S DEGREE AND POSTGRADUATE PROGRAMMES IN 2017, %



In 2017, higher education programmes included 275 bachelor's degree programmes (51 specialities), 35 diploma degree programmes (12 specialities), 236 master's degree programmes (40 specialities), 89 fields of scientific studies (17 research areas), and 1 residency programme (see Table 4.1).



Table 4.1

ACADEMIC PROGRAMMES IMPLEMENTED AT VSU IN 2017

| <u> </u> | | | | | | | | | | |
|---------------------------------|--|--------------|----------------|--------------|----------------|------------------|----------------|------------------|----------------|-----------------------|
| | | | elor's gree | | ster's gree | Diplo deç | | Postgro train | aduate ning | Residency training |
| Codes of fields of education | Titles of fields of education | Specialities | Programmes | Specialities | Programmes | Major speciality | Specialisation | Specialities | Programmes | Major speciality |
| 01.00.00 | Mathematics and Mechanics | 4 | 13 | 4 | 13 | 1 | 2 | 1 | 3 | |
| 02.00.00 | Computer and Information Sciences | 3 | 7 | 3 | 8 | - | - | - | - | |
| 03.00.00 | Physics and Astronomy | 2 | 11 | 2 | 12 | - | _ | 1 | 5 | |
| 04.00.00 | Chemistry | 2 | 7 | 2 | 7 | 1 | 1 | 1 | 8 | |
| 05.00.00 | Geosciences | 3 | 11 | 3 | 15 | _ | _ | 1 | 11 | |
| 06.00.00 | Biological Sciences | 2 | 10 | 2 | 8 | - | - | 1 | 9 | |
| 09.00.00 | Informatics and Computer Facilities | 4 | 9 | 1 | 6 | - | - | 1 | 4 | |
| 10.00.00 | Information Security | 1 | 1 | _ | - | 2 | 3 | - | - | |
| 11.00.00 | Electronics, Radioengineering, and Communication Systems | 1 | 2 | 1 | 2 | _ | - | 1 | 1 | |
| 12.00.00 | Photonics and Engineering | 1 | 1 | - | - | - | - | - | - | |
| 14.00.00 | Nuclear Energy and Nuclear Technologies | 1 | 1 | - | - | - | - | - | - | |
| 30.00.00 | Fundamental Medicine | - | - | - | - | 3 | 3 | - | - | |
| 33.00.00 | Pharmacy | - | - | - | - | 1 | 1 | 1 | 3 | 3 |
| 37.00.00 | Psychological Sciences | 1 | 4 | 1 | 2 | 1 | 1 | 1 | 2 | |
| 38.00.00 | Economics and Management | 5 | 19 | 6 | 21 | 1 | 2 | 1 | 5 | |
| 39.00.00 | Sociology and Social Development | 1 | 1 | - | - | - | - | - | - | |
| 40.00.00 | Jurisprudence | 1 | 4 | 1 | 19 | _ | _ | 1 | 10 | |
| 41.00.00 | Political Sciences and Regional Studies | 3 | 7 | 3 | 4 | - | - | 1 | 1 | |
| 42.00.00 | Mass Media and Library Science | 4 | 8 | 3 | 5 | - | - | - | - | |
| 43.00.00 | Tourism and Service | 1 | 1 | 1 | 1 | - | - | - | - | |
| 44.00.00 | Education and Pedagogical Sciences | 1 | 2 | 2 | 3 | _ | - | 1 | 1 | |
| 45.00.00 | Linguistics and Literary Studies | 3 | 12 | 2 | 9 | 1 | | 1 | 9 | |
| 46.00.00 | History and Archaeology | 2 | 2 | 1 | 4 | - | _ | 1 | 4 | |
| 47.00.00 | Philosophy, Ethics, and Religion Studies | 1 | 2 | 1 | 1 | - | - | 1 | 4 | |
| 50.00.00 | Art Studies | 1 | 1 | 1 | 1 | _ | _ | _ | _ | |
| 51.00.00 | Culture Studies and Sociocultural Projects | 1 | 1 | 1 | 1 | | | 1 | 1 | |
| 56.00.00 | Military Operation | _ | _ | _ | _ | 1 | 1 | _ | _ | |
| 58.00.00 | Asian and African Studies | 1 | 1 | - | - | - | - | - | - | |
| Total | | 50 | 138 | 41 | 142 | 12 | 14 | 17 | 81 | 3 |



A wide range of top-qualified academic staff training programmes (postgraduate and residency programmes) is a prerequisite for a university to be considered a leading educational institution.

In 2017, VSU postgraduate students were trained within 17 research areas and 89 fields of study (see Table 4.2).

Table 4.2

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

| <u> </u> | | /////////////////////////////////////// | /////////////////////////////////////// | /////////////////////////////////////// | /////////////////////////////////////// |
|---|--|---|---|---|---|
| ဟ | ; | | of postg | raduate : | students |
| area of | | | Including | | |
| Codes of research areas and fields of study | Titles of research areas and fields of study | Total | RF citizens | CIS | Foreign citizens |
| | Total | 595 | 527 | 15 | 54 |
| 01.06.01 | Mathematics and Mechanics | 55 | 53 | 0 | 2 |
| | Substantial, Complex, and Functional Analysis | 11 | 11 | 0 | 0 |
| | Differential Equations, Dynamical systems, and Optimal Control | 33 | 32 | 0 | 1 |
| | Solid Mechanics | 11 | 10 | 0 | 1 |
| 03.06.01 | Physics and Astronomy | 61 | 57 | 0 | 4 |
| | Theoretical Physics | 7 | 6 | 0 | 1 |
| | Radiophysics | 20 | 20 | 0 | 0 |
| | Optics | 8 | 7 | 0 | 1 |
| | Condensed Matter Physics | 13 | 12 | 0 | 1 |
| | Semiconductor Physics | 13 | 12 | 0 | 1 |
| 04.06.01 | Chemical Sciences | 41 | 37 | 0 | 4 |
| | Inorganic Chemistry | 5 | 5 | 0 | 0 |
| | Analytical Chemistry | 10 | 7 | 0 | 3 |
| | Organic Chemistry | 6 | 5 | 0 | 1 |
| | Physical Chemistry | 8 | 8 | 0 | 0 |
| | Electrochemistry | 4 | 4 | 0 | 0 |
| | High-molecular Compositions | 3 | 3 | 0 | 0 |
| | Colloid Chemistry | 0 | 0 | 0 | 0 |
| | Solid State Chemistry | 5 | 5 | 0 | 0 |
| 05.06.01 | Geosciences | 40 | 37 | 0 | 3 |
| | General and Regional Geology | 3 | 3 | 0 | 0 |
| | Palaeontology and Stratigraphy | 0 | 0 | 0 | 0 |
| | Petrology and Volcanology | 4 | 4 | 0 | 0 |
| | Lithology | 2 | 2 | 0 | 0 |
| | Geohydrology | 3 | 3 | 0 | 0 |
| | Geological Engineering, Permafrostology, and Soil Science | 2 | 2 | 0 | 0 |



| <u> </u> | | | | 30H. 4.2 | |
|---|---|--------|-------------------------------------|-----------------|---------------------|
| f areas Is of | Titles of research areas and fields of study | Number | of postgraduate students Including | | |
| Codes of research areas and fields of study | study study | | RF citizens | CIS citizens | Foreign citizens |
| | Geophysics and Geophysical Methods in Mineral Deposit Exploration | 3 | 2 | 0 | 1 |
| | Geology, Solid Mineral Deposits Exploration, and Minerageny | 4 | 4 | 0 | 0 |
| | Physical Geography and Biogeography, Soil Geography, and Landscape Geochemistry | 2 | 2 | 0 | 0 |
| | Economic, Social, Political, and Recreational Geography | 5 | 4 | 0 | 1 |
| | Geoecology | 12 | 11 | 0 | 1 |
| 06.06.01 | Biological sciences | 64 | 56 | 0 | 8 |
| | Biophysics | 6 | 4 | 0 | 2 |
| | Biochemistry | 16 | 14 | 0 | 2 |
| | Phytophysiology and Phytochemistry | 0 | 0 | 0 | 0 |
| | Botany | 5 | 5 | 0 | 0 |
| | Zoology | 5 | 4 | 0 | 1 |
| | Entomology | 3 | 3 | 0 | 0 |
| | Genetics | 13 | 11 | 0 | 2 |
| | Ecology | 13 | 13 | 0 | 0 |
| | Soil Studies | 3 | 2 | 0 | 1 |
| 09.06.01 | Informatics and computer facilities | 66 | 61 | 0 | 5 |
| | System Analysis, Management, and Processing of Information | 9 | 9 | 0 | 0 |
| | Management in Social and Economic Systems | 4 | 4 | 0 | 0 |
| | Theory of Informatics | 27 | 26 | 0 | 1 |
| | Mathematical Modelling, Numerical Methods, and Programme Systems | 26 | 22 | 0 | 4 |
| 11.06.01 | Electronics, Radioengineering, and Communication Systems | 6 | 5 | 0 | 1 |
| | Solid-state Electronics, Radioelectronic Components, Microelectronics, Nanoelectronics, and Quantum Effect Devices | 6 | 5 | 0 | 1 |
| 33.06.01 | Pharmacy | 8 | 6 | 0 | 2 |
| | Pharmacology and Clinical Pharmacology | 0 | 0 | 0 | 0 |
| | Pharmaceutical Chemistry and Pharmacognosy | 6 | 4 | 0 | 2 |
| | Pharmacy Business Organisation | 2 | 2 | 0 | 0 |
| 37.06.01 | Psychological Sciences | 6 | 5 | 0 | 1 |
| | Social psychology | 3 | 3 | 0 | 0 |
| | Pedagogical Psychology | 3 | 2 | 0 | 1 |
| 38.06.01 | Economics | 62 | 55 | 2 | 5 |
| | Economics Theory | 9 | 9 | 0 | 0 |
| | Economics and National Economy Management | 28 | 24 | 1 | 3 |
| | Finance, Currency Circulation, and Credit | 4 | 4 | 0 | 0 |
| | Accounting and Statistics | 15 | 12 | 1 | 2 |
| | Mathematical and Instrumental Techniques in Economics | 6 | 6 | 0 | 0 |



End of table 4.2

| <u> </u> | | | | | |
|--|--|-------------|----------------|------------------------------|---------------------|
| SS | | Number | | raduate : | |
| Codes of research areas and fields of study | Titles of research areas and fields of study Titles of research areas and fields of study | | RF citizens | Including CIS citizens | Foreign citizens |
| 40.06.01 | Jurisprudence | 73 Totol | 65 | 2 | 6 |
| | Theory and History of State and Law, History of State and Law Studies | 6 | 6 | 0 | 0 |
| | Constitutional Law, Constitutional Proceedings, and Municipal Law | 7 | 5 | 1 | 1 |
| | Finance Law, Tax Law, and Budget Law | 4 | 3 | 0 | 1 |
| | Labour Law and Social Security Law | 0 | 0 | 0 | 0 |
| | Criminal Law, Criminology, and Correctional Law | 11 | 10 | 0 | 1 |
| | Criminal Procedure | 6 | 6 | 0 | 0 |
| | International and European Law | 3 | 2 | 0 | 1 |
| | Criminalistics, Judicial and Expert Activity, and Operational Investigations | 4 | 4 | 0 | 0 |
| | Administrative Law and Procedure | 20 | 19 | 1 | 0 |
| | Civil and Arbitral Procedure | 12 | 10 | 0 | 2 |
| 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 | 11 | 11 | 0 | 0 |
| | General Pedagogics, History of Pedagogics and Education | 11 | 11 | 0 | 0 |
| 45.06.01 | Linguistics and Literary Studies | 62 | 39 | 11 | 12 |
| | Russian Literature | 11 | 9 | 1 | 1 |
| | International Literature | 1 | 1 | 0 | 0 |
| | Journalism | 16 | 8 | 3 | 5 |
| | Russian Language | 11 | 6 | 0 | 5 |
| | Slavic Languages | 0 | 0 | 0 | 0 |
| | Germanic Languages | 9 | 6 | 3 | 0 |
| | Romance Languages | 9 | 6 | 3 | 0 |
| | Linguistic Theory | 5 | 3 | 1 | 1 |
| | Comparative, Typological, and Contrastive Linguistics | 0 | 0 | 0 | 0 |
| 46.06.01 | Historical Sciences and Archaeology | 23 | 23 | 0 | 0 |
| | Russian History | 15 | 15 | 0 | 0 |
| | General History | 5 | 5 | 0 | 0 |
| | Archaeology | 3 | 3 | 0 | 0 |
| | Historiography, Source Studies, and Methods of Historical Research | 0 | 0 | 0 | 0 |
| 47.06.01 | Philosophy, Ethics, and Religion Studies | 8 | 8 | 0 | 0 |
| | Ontology and Epistemology | 3 | 3 | 0 | 0 |
| | Ethics | 2 | 2 | 0 | 0 |
| | Philosophy of Science and Technology | 0 | 0 | 0 | 0 |
| | Social Philosophy | 3 | 3 | 0 | 0 |
| 51.06.01 | Cultural Studies | 5 | 5 | 0 | 0 |
| | Theory and History of Culture | 5 | 5 | 0 | 0 |



The percentage of CIS citizens among the university's postgraduate students is 2.5%, and the percentage of foreign citizens is 8.9% in the total number of normalized contingent from postgraduate programmes.

In 2017, the first students of postgraduate academic staff training programmes completed the programme and obtained postgraduate diplomas. The distribution of PhD graduates according to the research areas is presented in Table 4.3.

Table 4.3

NUMBER OF GRADUATES OF POSTGRADUATE ACADEMIC STAFF TRAINING PROGRAMMES ACCORDING TO THE RESEARCH AREA AND INFORMATION ABOUT PHD THESIS DEFENCE

| Research area | Number of graduates | Number of defended PhD theses |
|---|------------------------|----------------------------------|
| Mathematics and Mechanics | 7 | 1 |
| Chemical Sciences | 6 | 2 |
| Geosciences | 6 | 0 |
| Biological Sciences | 12 | 0 |
| Informatics and Computer facilities | 5 | 0 |
| Pharmacy | 3 | 1 |
| Psychological Sciences | 1 | 0 |
| Economics | 8 | 0 |
| Jurisprudence | 9 | 0 |
| Political Sciences and Regional Studies | 1 | 0 |
| Linguistics and Literary Studies | 16 | 5 |
| Historical Sciences and Archaeology | 5 | 3 |
| Philosophy, Ethics, and Religion Studies | 1 | 0 |
| Totals | 80 | 12 |
| Number of foreign citizens from the total number of postgraduate students | 16 | 2 |

In 2017, the university obtained a licence for a new postgraduate programme 33.08.02 "Economics and Management of Pharmacy" and recruited first 18 students for the residency programme.



The reporting period saw a significant increase in the number of variable educational programmes on the basis of customisable individual educational paths and project-based learning techniques. This became possible due to a larger number of collaboration agreements with international partner universities.

All the academic programmes implemented in 2017 were modernised and conformed to professional standards.

Following the requirements of the labour market, as well as the changes in the form and content of the education process, the university opened a number of new fundamental departments which would provide for closer collaboration with prospective employers. Thus, jointly with the agricultural company Efko, the university opened the Department of Molecular Biotechnology which trains students of the Faculty of Biomedical Sciences and the Faculty of Chemistry. The Department of Telecommunication system and Electronic Warfare for students of the Faculty of Physics was opened in collaboration with AO Concern Sozvezdie.

GENERAL INFORMATION ABOUT THE SECONDARY VOCATIONAL EDUCATION PROGRAMMES IMPLEMENTED AT VSU IN 2017

In 2017, the university implemented primary-level programmes, designed for secondary vocational education specialists, within six Federal State Educational Standards including:

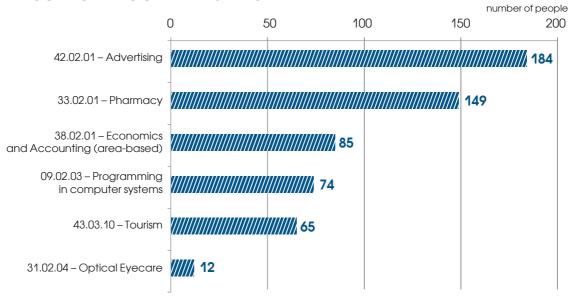
- 09.02.03 Programming in computer systems (basic level),
- 31.02.04 Optical Eyecare (advanced level),
- 33.02.01 Pharmacy (basic level),
- 38.02.01 Economics and Accounting (area-based) (basic level),
- 42.02.01 Advertising (basic level),
- and 43.03.10 Tourism (basic level).



As of 1 October 2017, the number of secondary vocational education students of all years of study totalled 569. Figure 4.2 shows their distribution by programmes.

Figure 4.2

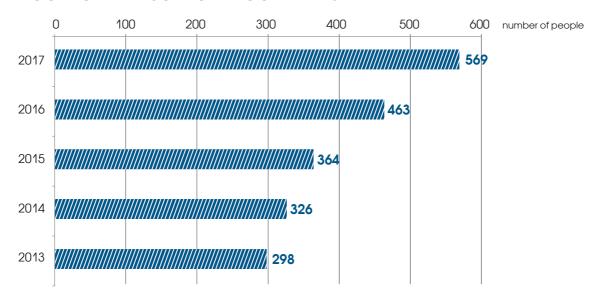
DISTRIBUTION OF STUDENTS ACCORDINGTO SECONDARY VOCATIONAL EDUCATION PROGRAMMES IN 2017



The dynamics in the admission to secondary vocational educationprogrammes is generally positive, with the number of students having increased by 52% over the last five years (Fig. 4.3).

Figure 4.3

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



The grade point average (GPA) of students enrolled on all VSU secondary vocational education programmes was above the nationwide GPA which amounted to 3.7. For VSU students it was the following: Pharmacy – 4.44, Tourism – 4.07, Economics and Accounting (area-based) – 4.21, Advertising – 4.00, and Programming in Computer Systems – 3.94.



In 2017, the number of graduates of the secondary vocational education programmes totalled 99, including 8 students who graduated with honour degrees (Table 4.4).

Table 4.4

NUMBER OF GRADUATES ACCORDING TO THE SECONDARY VOCATIONAL EDUCATION PROGRAMME IN 2017

| | | Results | | | | | |
|--|---------------------|-------------------|--|------------------------------------|---|--|--|
| Secondary vocational education programme | Number of graduates | Honours degree | Excellent mark for thesis defence | Good mark for thesis defence | Satisfactory mark for thesis defence | | |
| Programming in computer systems | 12 | 2 | 11 | 1 | 0 | | |
| Pharmacy | 9 | 0 | 4 | 2 | 3 | | |
| Economics and Accounting (area-based) | 21 | 1 | 6 | 11 | 4 | | |
| Advertising | 29 | 2 | 9 | 14 | 6 | | |
| Tourism | 28 | 3 | 16 | 11 | 1 | | |
| Total | 99 | 8 | 46 | 39 | 14 | | |

In 2017, the Secondary Vocational Education Monitoring programme demonstrated that VSU's performance in the field of educational activity, infrastructure development, financial and economic activities, and implementation of continuing professional education programmes was above average. VSU also improved its position as to the normalised contingent by 12 points among the educational institutions of the Voronezh Region as compared to the results of 2016.

On the request of the regional ophthalmological hospital and the chain of optical stores Tochka Zrenia, VSU obtained a licence for a new programme 31.02.04 "Optical Eyecare (advanced level)" and has already started enrolling students.

VSUstudents studying secondary vocational education programmes were for the first time awarded the Russian Federation Government Scholarships for 2017/18 in top-priority areas of modernisation and technological development of the economy of the Russian Federation. The scholarships were awarded to three students of the pharmacy programme, and one student of the programming in computer systems programme.

For the first time 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 programming in computer systems also won the regional stage in the nomination "Creative approach to a professional problem". The winner of the qualifying stage in pharmacy showed good results at the national (final) stage.



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 both in its traditional areas of focus and a number of new areas.

COLLABORATION WITH OTHER EDUCATIONAL INSTITUTIONS

In the reporting period, VSU was in active e-mail correspondence with 710 schools in Voronezh, the Voronezh Region, the Lipetsk Region, the Orel Region, the Tambov Region, the Rostov Region, and the Kursk Region. The university maintained communication with teachers, parents, heads of school libraries, 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.

In 2017, seven events were held in collaboration with the education departments of Voronezh and 33 events in collaboration with the heads of municipal districts of the Voronezh Region.

VSU also collaborated on a regular basis 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 on organising various competitions and conducting Basic State Examination (BSE) and Unified State Examination (USE).

VSU information stands at 15 schools were regularly updated with new information.

The admission board representatives and vice-deans for the pre-university work participated regularly in teacher-parent meetings at schools, collaborative events, and school scientific societies. During the year, the university also organised a series of open lectures by VSU researchers, as well as various festivals, master classes, and competitions, such as "We grow up with books", "Rhetoric Festival", a reading competition "The Most Literate", a poetry workshop, festivals of the Russian language at schools and kindergartens, local history lessons, etc.

A new field of cooperation with schools by attracting school children to volunteer for VSU events proved to be very successful.

In order to attract gifted children, VSU held a scientific school for teenagers which was attended by about 200 high school pupils from Voronezh and the Voronezh Region. The university also organised scientific workshops for teachers of geography, history, Russian language and literature, mathematics, physics, and informatics.



Over 50 tours of the university, its faculties, museums, and the library were organised for schoolchildren.

In 2017, the staff of the Department of Pre-University Training and Enrolment of Students were members of the organisation committee for the All-Russian conference "Cognitive ability of children and teenagers. Modern methods of assessment and correction".

Among the new fields of activity for the university this year was the collaboration with preschool educational institutions. VSU held a festival of Russian language at kindergarten No.115. Several pre-school teachers also participated in two scientific conferences held by VSU.

Supported by the city's administration, VSU held the graduation party in the Alye Parusa park for students of kindergarten No.109 for children with speech disorders.

The university also actively collaborated with further education institutions in Voronezh and the Voronezh Region. VSU teachers contributed to the opening of the Kvantorum children's technopark.

The university also organised the largest festival of children's literature with over 30 thousand participants.

ACADEMIC COMPETITIONS

Organising academic competitions is a vital part of pre-university work aimed at the identification and support of talented young people. In 2017, VSU held the following academic competitions.

- A multidisciplinary engineering academic competition among schoolchildren called "Star" organised by the Russian Engineering Union and the Ministry of Education and Science of the Russian Federation. The final stage of the competition included the following disciplines: Machine Building (25 participants), Russian (361 participants), Natural Sciences (251 participants), History (112 participants), Social Studies (200 participants), Psychology (5 participants), Law (7 participants), and Economics (4 participants).
- Engineering Academic Competition for Schoolchildren from Central Russia with 112 participants in Mathematics section and 90 participants in Physics section.
- The final stage of Moscow Academic Competition in Chemistry in March (20 participants).
- The final stage of Saint-Petersburg Online Academic Competition in Physics (65 participants).
- The Academic Competition in Journalism "Admission Score" (virtual qualifying stage).
- Smart Start Competition in programming. Virtual qualifying stage of Smart Start Competition in Physics. Academic Competition in theory of informatics.
- VIII Information Technologies Marathon with over 1400 participants.

The university is currently running a number of other projects to support talented children.



TOURNAMENTS

In 2017, over 200 people participated in the Tournament of Young Physicists, including 120 pupils of 8–11 forms, about 40 teachers, 20 students, and 10 VSU lecturers. Eight teams including 40 children of various age and level took part in tournaments held in other cities, such as Moscow, St.Petersburg, Novosibirsk, and Minsk.

VSU also held the Tournament of Young Naturalists – an intellectual competition for younger schoolchildren (aged over 12). To date, VSU has organised two National Tournaments of Young Naturalists.

Teams of schoolchildren supervised by VSU lecturers also participated in international Tournaments of Young Naturalists in Bulgaria, Serbia, Iran, and China. They also took part in the Tournament of Young Physicists in Austria. All the participants gave their speeches in English.

50 pupils from Voronezh, the Voronezh Region, and the Lipetsk Region participated in the III Interregional Tournament in Chemistry for Schoolchildren.

The Tournament of Young Naturalists received a large incentive thanks to the collaboration between VSU, the *Kvantorum* children's technopark, and the governor's fund *Rozhdestvenskiye Vstrechi*.

"INNOVATION LEAGUE"

VSU launched a new joint long-term project "Innovation League" for 100 talented pupils from Voronezh schools. During the year they were developing their own project under the supervision of VSU researchers. The research areas were physics and mathematics, chemistry and biology, IT, and social and economic sciences. The participants of the project also attended training sessions and master classes by the leading experts, as well as meetings with the most successful businessmen in the region.

INTERNATIONAL BIG EUROPEAN SCHOOL GAMES TOURNAMENT

The tournament is an intellectual game for schoolchildren. The final stage included the best Russian teams as well as teams from Belarus, Germany, Latvia, Lithuania, and Estonia.

"ROBOART" FESTIVAL

An annual festival of robotics for children between 4 and 18 years old. In 2017, the number of participants totalled 1277.

STUDENT SCIENTIFIC SOCIETY

The XXXII Conference of the Student Scientific Society had 24 sections and 104 subsections, which were participated in by over 2,600 schoolchildren from forms 2–11, about 300 teachers, more than 100 parents, and 300 university lecturers, postgraduate and undergraduate students. The participants of the conference represented about 300 educational institutions. Over 800 teachers from various educational institutions, as well as VSU lecturers, helped children prepare their papers. The participants of the conference came from Voronezh, almost all districts of the Voronezh region includingvillages, Lipetsk, and the Lipetsk Region.



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 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 Physics Correspondence School, and the School of Young Managers.

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". Information messages were also broadcast by regional and city radio.

Online consultations of prospective students on the questions of the University admissions process were carried out regularly on the official VSU website, in social networks, and via email.

PATRIOTIC EDUCATION

VSU organised a series of patriotic lectures and meetings with writers, members of the *Voinskoye Sodruzhestvo* union, and army officers. The university also held a number competitions involving the performance of patriotic songs.

CAREER GUIDANCE FOR UNIVERSITY ENTRANTS

Three University-wide open days were held in January, April, and October 2017. An open day for prospective master's degree students took place in March 2017.

12 off-site open days were organised in Voronezh, Lipetsk, and Tambov regions.

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

In April 2017, the university delegation headed by the Rector took part in Moscow International Education Fair, 18th Kazakhstan exhibition "Education and Career", a vacancy fair "Choose your own profession", and in October 2017, participated in an expo-forum "Education and professional qualifications 2017".

Computer-based testing of schoolchildren was organised at the VSU Testing Centre within the programme "Proforientator" in collaboration with the Centre of Testing and Development "Humanitarian Technologies", Moscow. The number of people tested amounted to 65.

Open career guidance lessons were organised for students of Voronezh educational institutions.

University scientists gave open popular-science lectures at various public spaces in Voronezh and other regions (Amital bookshop, Petrovskiy book club, Novovoronezh Children Creativity Centre, museums, schools, and libraries in Anna, Kamenka, Usman, as well as Bartenev library in Lipetsk, a lyceum and a children's library in Novaya Usman,



a local history museum in Borisoglebsk, a school in the Petropavlovsk Region, and various museums in the Rostov Region. The total number of lectures exceeded 30.

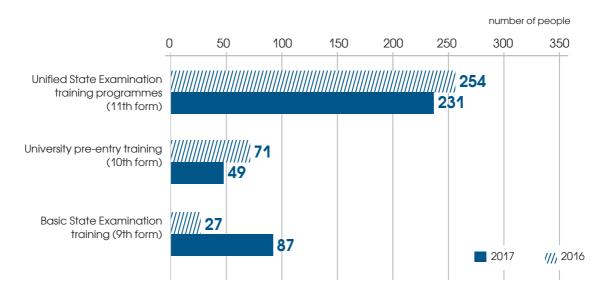
20 lectures for schoolchildren were delivered and published online within the framework of the project "Saturday University". The project is coordinated by Anna Zorina, PhD in Chemistry, the vice-dean for the pre-university work of the Faculty of Chemistry.

PRE-STUDY COURSES (ADDITIONAL GENERAL DEVELOPMENT PROGRAMMES)

In 2017, 367 students took fee-paying pre-study courses within additional general development programmes ("University pre-entry training", Basic State Examination training", and "Remote Training for the Unified State Examination") aimed at improving the level of proficiency in general subjects and university pre-entry training. Figure 4.4 represents the dynamics of the number of students taking pre-study courses.

Figure 4.4

FREQUENCY DISTRIBUTION OF STUDENTS ACCORDING TO THE PROGRAMMES OF PRE-STUDY COURSES



In September 2014, the programme "Preparation for the Final Essay" was opened for the 11th form students. In 2017, the programme was completed by 18 students.

In the reporting period, 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.

Pre-study courses continued the practice of conducting mock USEs which were followed by consultations on the examination results held by USE expert lecturers. 15 examinations taken by over 638 students were conducted overall.

The analysis of USE results for the graduates of pre-study courses as well as their enrolment results allowed a qualitative assessment of the training provided at the courses (see Tables 4.5, 4.6).



Table 4.5

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

| Subject | Average score in the Russian Federation | Average score for the graduates of VSU pre-study courses | | | | |
|----------------------------|---|--|--|--|--|--|
| | 2016 | | | | | |
| Russian Language | 64.3 | 81.65 | | | | |
| Mathematics | 51.9 | 62.6 | | | | |
| Biology | 52.8 | 62.46 | | | | |
| Geography | 49.6 | 67.45 | | | | |
| Foreign Language (English) | 64.2 | 77.19 | | | | |
| Informatics and ICT | 53.0 | 69.27 | | | | |
| History | 48.1 | 61.6 | | | | |
| Literature | 58.4 | 72.15 | | | | |
| Social Studies | 59.5 | 62.72 | | | | |
| Physics | 51.2 | 59.8 | | | | |
| Chemistry | 56.1 | 57.67 | | | | |
| | 2017 | | | | | |
| Russian Language | 67.8 | 78.8 | | | | |
| Mathematics | 47.1 | 61.4 | | | | |
| Biology | 52.6 | 53.7 | | | | |
| Geography | 55.2 | 70.7 | | | | |
| Foreign Language (English) | 70.1 | 72.1 | | | | |
| Informatics and ICT | 59.2 | 71.9 | | | | |
| History | 56.9 | 58.1 | | | | |
| Literature | 59.7 | 70.3 | | | | |
| Social Studies | 55.4 | 64.2 | | | | |
| Physics | 53.2 | 62.7 | | | | |
| Chemistry | 56.1 | 63.5 | | | | |

Table 4.6

ENROLMENT RESULTS DEMONSTRATED BY THE GRADUATES OF PRE-STUDY COURSES

| Indicator | 2016 | 2017 |
|--|------|-------|
| Number of graduates: | 254 | 231 |
| enrolled at VSU | 148 | 140 |
| enrolled at other higher educational institutions in Voronezh | 84 | 71 |
| enrolled at higher educational institutions in other cities | 7 | 5 |
| Results of enrolment at higher educational institution | ons: | |
| total number of students enrolled at higher educational institutions | 239 | 216 |
| percentage wise | 94% | 93,5% |



4.4. MAIN RESULTS OF THE 2017 ADMISSION CAMPAIGN

In 2017, following the results of an open public competition, Voronezh State University was allocated 2,507 state-funded places for bachelor's, diploma, and master's degree programmes, including 2,241 places for full-time students.

Population statistics showed that in 2017, the number of graduates of secondary schools reached its all-time maximum.

The diagrams in Figures 4.5–4.13 show the admission of first-year students in 2017 according to degree levels, modes of study, and forms of financing.

The diagram "Number of full-time students enrolled on bachelor's and diploma degree programmes" (Figure 4.5) demonstrates that Jurisprudence and Economics remained the priority specialities for the graduates of secondary schools and institutions of secondary vocational education, even though the number of state-funded places within these specialities is constantly decreasing. The list of top 5 specialities, however, was a bit different with pharmacy substituting for geology. The number of students who enrolled on full-time bachelor's degree and diploma degree programmes on a fee-paying basis also increased and totalled 1665 as compared to 1586 in 2016.



Figure 4.5

NUMBER OF FULL-TIME STUDENTS ENROLLED ON BACHELOR'S AND DIPLOMA DEGREE PROGRAMMES

AND DIPLOMA DEGREE PROGRAMMES number of people 50 100 450 500 32/432 Jurisprudence Economics **Economic Security** 45/107 Linauistics Pharmacy Applied Mathematics and Informatics 100/13 100/5 Geology **//////**75/29 Information Systems and Technologies Translation and translation studies 90/6 Mathematics and computer science 85/4 Biology 80/2 Radiophysics 73/9 Pedagogical Education (with two specialisations) Management Journalism 60/1 Applied computer science 51/9 International Relations **/////////**0/57 Psychology **//////**20/33 Ecology and natural resource management Philology //////20/32 Geography 50/0 Mathematical support and administration **/////** 30/20 of information systems History //////21/27 42/2 Chemistry Fundamental Informatics and Information 30/10 **Technologies** 25/14 Software engineering ///////0/32 Advertising and public relations /////// 0/31 International regional studies 30/0 Computer Security 30/0 Mechanics and Mathematical Modelling 24/5 Psychological and Pedagogical Education Philosophy 20/8 13/13 Political science 25/0 Mathematics **//////**0/24 State and municipal management 23/0 Fundamental and applied chemistry Electronics and nanoelectronics 20/2 0/22 Television 20/1 Informatics and computer facilities 16/5 Sociology Fundamental Mathematics and Mechanics 15/5 20/0 Information Analysis Security Systems 10/8 Medical Cybernetics Chemistry, physics, and mechanics of materials 18/0 Fundamental and applied linguistics 0/18 Human Resource Management **/////** 0/18 Applied Information Science in Economics 0/18 Medical Biochemistry 10/7 Soil Studies 15/1 0/16 Information security Applied Mathematics 15/1 Records and Archives Management **///** 0/12 War Journalism 12/0 Fee-paying places Medical Biophysics 10/2 Nuclear physics and nuclear technologies 12/0 Publishing /// 0/11 State-funded places Asian and African Studies **///** 0/11 Psychology of Employment Activity 10/0



The results for the first-year students enrolled on bachelor's and diploma degree programmes within part-time and extramural modes of study demonstrated a clear trend in reduced admissions (see Fig. 4.6–4.7).

Рисунок 4.6

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

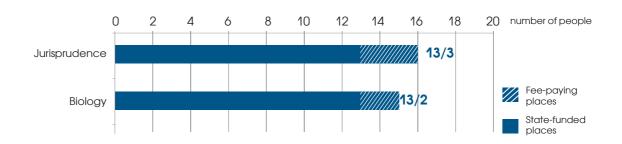
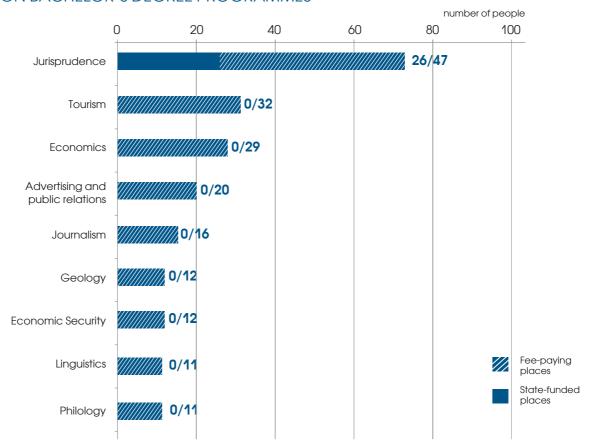


Figure 4.7

NUMBER OF EXTRAMURAL STUDENTS ENROLLED ON BACHELOR'S DEGREE PROGRAMMES

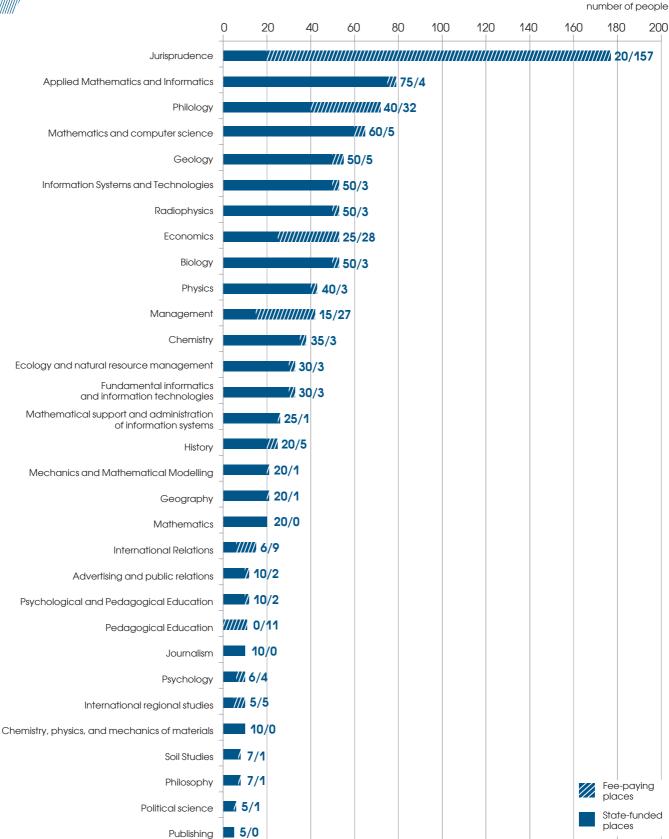


In 2017, the number of full-time students enrolled on master's degree programmes slightly decreased (1079 students) as compared to the 2016 record figure of 1190 (Figure 4.8). The number of part-time and extramural master's degree students, however, remained at its maximal level with 712 first-year students as compared to 708 in 2016 (Figure 4.9–4.10).



Figure 4.8

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





The Faculty of Law and the Faculty of Economics once more enrolled the largest number of master's degree students of all the three modes of study. The largest number of full-time master's degree students were enrolled by the Faculty of Applied Mathematics, Informatics, and Mechanics (programme "Applied mathematics and informatics") (see Fig. 4.9).

Figure 4.9

NUMBER OF PART-TIME STUDENTS ENROLLED ON MASTER'S DEGREE PROGRAMMES

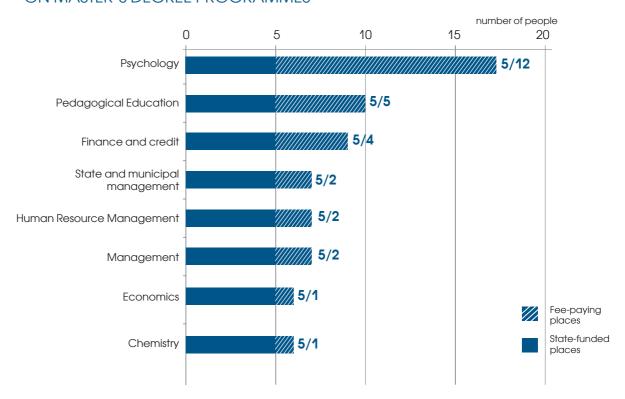
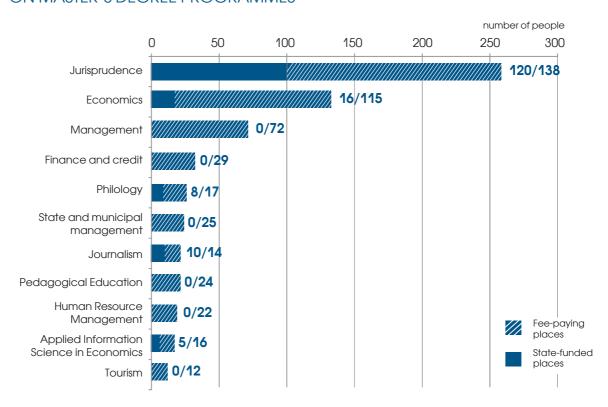




Figure 4.10

NUMBER OF EXTRAMURAL STUDENTS ENROLLED ON MASTER'S DEGREE PROGRAMMES

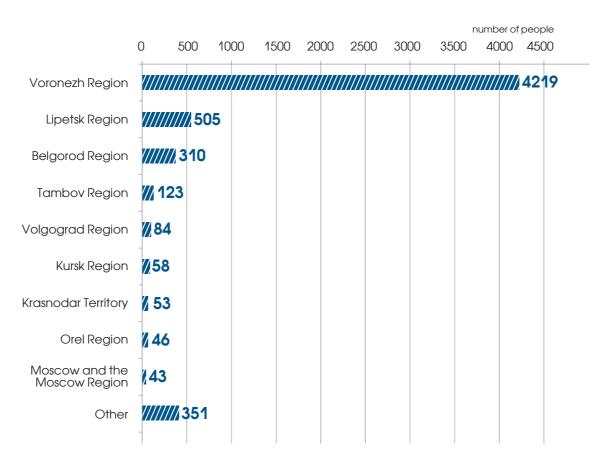


In 2017, similarly to the previous years, applicants from over 70 subjects of the Russian Federation filed their documents with VSU. Representatives of 69 Russian regions were enrolled (67 regions in 2016). Figure 4.11 shows their distribution according to regions.



Figure 4.11

DISTRIBUTION OF THE FIRST-YEAR STUDENTS ACCORDING TO REGIONS



The regions providing the largest number of first-year students remained the same as the last year, with the Krasnodar Territory substituting for the Rostov Region in the top 10.

In the reporting period, VSU enrolled 18 winners and awardees of academic competitions held among schoolchildren. The greatest number of talented school leavers were attracted by the programme "Linguistics" as opposed to "Jurisprudence", which was the most popular in 2016. The most popular faculty proved to be the Faculty of Computer Sciences, particularly "Software engineering" and "Information Systems and Technologies" programmes (Figure 4.12).



Figure 4.12

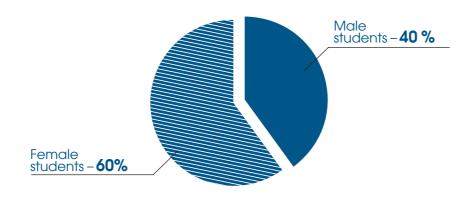
DISTRIBUTION OF THE ACADEMIC COMPETITION WINNERS AND AWARDES ADMITTED TO VSU ACCORDING TO THE SPECIALITIES



The gender composition of the admitted students underwent some changes, and the number of male students rose by 2% (see Figure 4.13).

Figure 4.13

GENDER COMPOSITION OF THE FIRST-YEAR STUDENTS





4.5. INFORMATION ON THE SCHOLARSHIP PROGRAMMES IMPLEMENTED AT VSU

In the reporting year, VSU supported talented students by means of scholarship programmes financed from the federal and regional budgets as well as the university's own funds (see Table 4.7).

Table 4.7

TYPES OF UNIVERSITY SCOLARSHIP PROGRAMMESFOR UNDERGRADUATE AND POSTGRADUATE STUDENTS IN 2017

| Scholarship programme | Number of scholarships for undergraduate and postgraduate students |
|--|--|
| Funded from the federal budget | |
| Scholarship of the President of the Russian Federation | 1 |
| Scholarship of the Government of the Russian Federation | 5 |
| Scholarship of the President of the Russian Federation in priority areas | 12 |
| Scholarship of the Government of the Russian Federation in priority areas | 17 |
| Grant of the President of the Russian Federation (within the programme "Talent and Success") | 1 |
| Funded by the long-term regional target programme "Education Development in the Voronezh Region in 2011–201 | 15″ |
| Scholarship of the Government of the Voronezh Region | 7 |
| Funded by VSU | |
| Scholarship of the VSU Academic Board | 5 |
| Scholarship named after Professor L. D. Kokorev | 2 |
| Scholarship named after Professor G. F. Gorsky | 2 |
| Scholarship named after Professor I. A. Galagan | 1 |
| Scholarship named after Professor V. S. Osnovin | 2 |
| Professor V. A. Panushkin Scholarship | 2 |
| Professor A. M. Abramov Scholarship | 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 |
| Professor Yu. A. Rylov Scholarship | 1 |
| Scholarship named after Professor G. Ye. Vedel | 1 |
| Scholarship named after Professor L. T. Gilyarovskaya | 2 |
| Scholarship named after Professor V. N. Eytingon | 2 |
| Scholarship named after Professor M. A. Krasnoselskiy | 1 |
| Scholarship named after Professor V. I. Sobolev | 1 |
| Funded by employers | |
| Scholarship of the data provider Informsvyaz-Chernozemye | 7 |
| Novolipetsk Steel PAO NLMK Scholarship | 10 |
| Personal scholarships of the Angstrem manufacturing company | 4 |
| OOO LUKOIL-Chernozemienefteprodukt Scholarship | 5 |
| AO PricewaterhouseCoopers Audit Scholarship | 2 |



4.6. INFORMATION ABOUT INNOVATIVE EDUCATIONALTECHNOLOGIES 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.

In 2017, in order to improve the quality of education and accumulate the best experience of the international educational institutions, VSU signed a partnership agreement with Martin Luther University of Halle-Wittenberg (Germany) on the networking the education programme "Business Communication in the field of Economics: the German language". 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 education 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.

An integrated education and information system is now an essential part of the education 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.

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. The number of requests to the portal grew from 6.08 million in 2016 to 9.43 million in 2017. The number of unique visitors increased by 27% and totalled 97 thousand per year.

In the reporting period the portal transferred to a new version of the Moodle platform, which helped to reduce the time required to render pages and to improve the speed of downloads. In 2016, rendering a single page took 2.015 seconds, while in 2017, this process took only 0.745 seconds.

The interface and the layout of the portal were modernised and adapted to mobile devices – smart phones and tablets. The share of requests from mobile devices increased to 18.1% as compared to 2.5% in 2016.

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



A service which automatically processes students' and teachers' requests on access permission was developed (see Fig. 4.14–4.15). This made the registration process much easier. The security system was also improved in order to prevent brute-force attacks.

Figure 4.14

NUMBER OF TEACHER REQUESTS FOR ACCESS PERMISSION

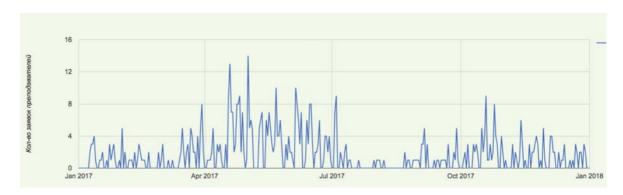
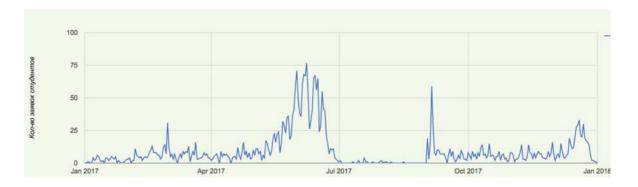


Figure 4.15

NUMBER OF STUDENT REQUESTS FOR PASSWORD RECOVERY





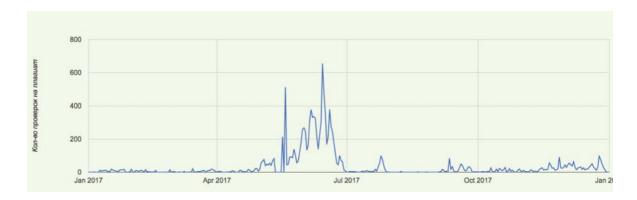
The portal has special services for uploading, downloading, and publishing the following documents regulating the education process:

- 246 State Educational Standards;
- 2051 main academic programmes implemented by VSU;
- 1806 main academic programmes curricula;
- 44,880 course syllabuses.

In the reporting year, a service for uploading graduate qualification papers and checking them by the Antiplagiat system was improved. Over 5020 graduate qualification papers of senior students and postgraduate students were uploaded and checked (4356 papers in 2016) (see Fig. 4.16).

Figure 4.16

NUMBER OF PAPERS CHECKED FOR PLAGIARISM BETWEEN 1 JANUARY 2017 AND 1 JANUARY 2018 (12 844 IN TOTAL)

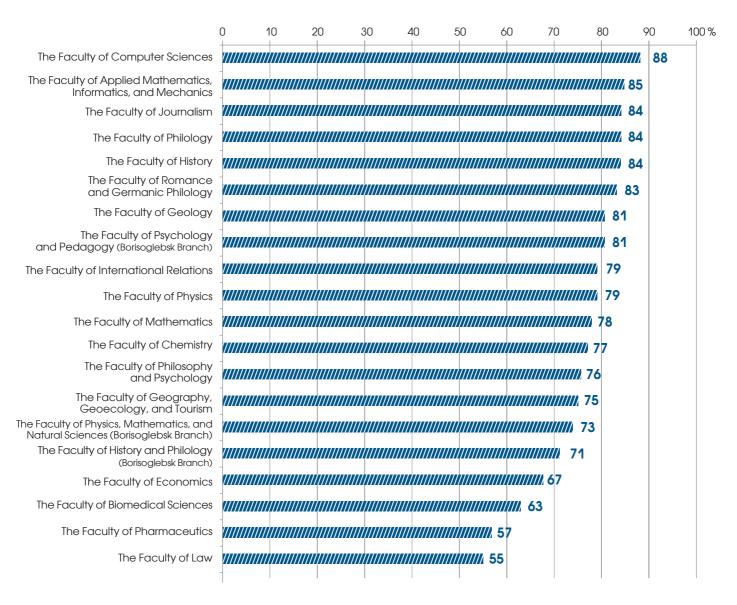




The percentage of original parts in graduate qualification papers varied from 55 to 89% (see Fig. 4.17).

Figure 4.17

AVERAGE NUMBER OF ORIGINAL PARTS IN GRADUATE QUALIFICATION PAPERS BY FACULTIES



INNOVATIVE EDUCATIONAL TECHNOLOGIES AND DISTANCE EDUCATION

The resources and tools of the "Electronic University VSU" portal allow any part of the education process to be implemented electronically, the creation of all sorts of informative and multimedia elements, as well as the distribution and control of academic assignments by the faculty.

The portal now stores 912 e-courses created by lecturers of various faculties, of which 379 courses are actually active (judging by the number of access requirements by registered students last year). Figures 4.18 and 4.19 demonstrate the dynamics of the number of e-courses and their distribution according to faculties.



In the reporting period 15,620 students applied for access to e-courses, with the total number of requests being about 3.4 million (216 requests per student).

In 2016 and 2017, university lecturers obtained 87 certificates verifying that their e-courses were officially acknowledged as teaching aids. 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 USE 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".

A portal for VSU open online courses (https://mooc.vsu.ru) was created.

The university also purchased computer and video equipment for filming Massive Open Online Courses. The first video lectures were filmed.

Figure 4.18

DYNAMICS OF THE NUMBER OF E-COURSES FROM 2013 TO 2017

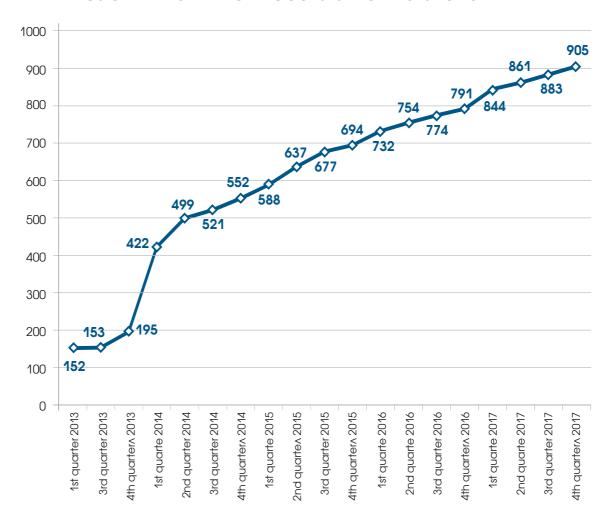
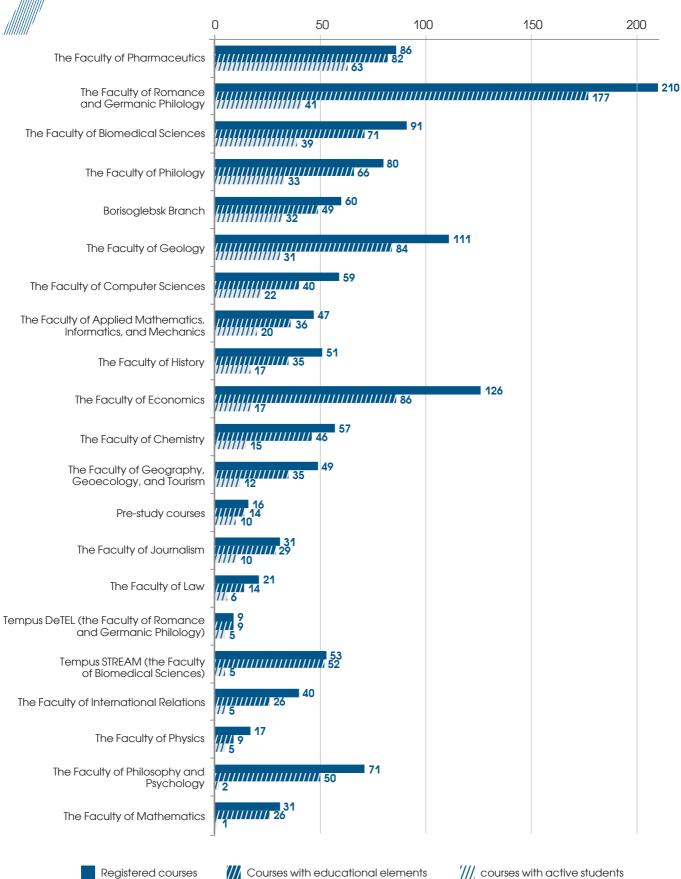




Figure 4.19

DISTRIBUTION OF THE E-COURSES ACCORDING TO FACULTIES





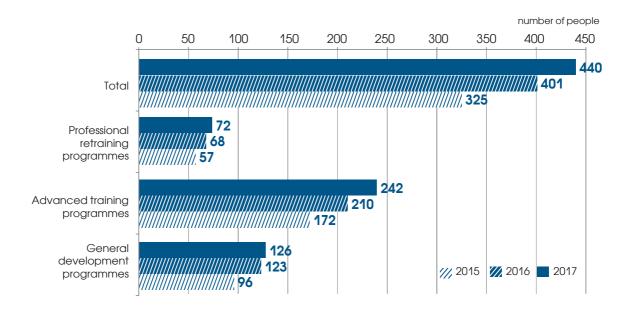
4.7. QUANTITATIVE AND QUALITATIVE DATAON FURTHER EDUCATION

As of the beginning of 2017, there were 440 further education programmes implemented at VSU including:

- 126 general development programmes;
- 242 advanced training programmes;
- and 72 professional retraining programmes (see Fig. 4.20).

Figure 4.20

QUANTITATIVE DYNAMICS OF VSU FURTHER EDUCATION PROGRAMMESIN 2015–2017



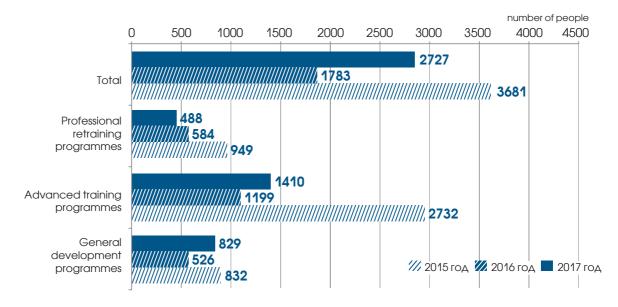
In 2017, 87 further education programmes were implemented at VSU including:

- 25 general development programmes with 829 students;
- 42 advanced training programmes with 1,410 students;
- and 20 professional retraining programmes with 488 students, of whom 276 obtained a new profession (see Fig. 4.21).



Figure 4.21

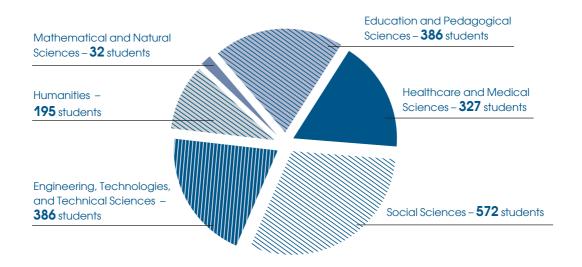
QUANTITATIVE DYNAMICS OF THE GRADUATES OF VSU FURTHER EDUCATION COURSES IN 2015–2017



Distribution of students who completed advanced training and professional retraining courses according to the fields of education is represented in Figure 4.22.

Figure 4.22

DISTRIBUTION OF THE GRADUATES OF FURTHER VOCATIONAL EDUCATION COURSES ACCORDING TO FIELDS OF EDUCATION





In the reporting period the contingent of the students of further education programmes included:

- 540 employees of enterprises and businesses;
- 602 employees of educational institutions;
- 362 civil servants,
- 394 students enrolled on the main academic programmes of higher education.

Further education programmes were financed from various sources, including:

- federal budget, which provided financing for 193 people;
- regional budget, which provided financing for 240 people;
- funds obtained from commercial educational services financing for 1,465 people; among them:
- education services paid for by individuals 605 people;
- education services paid for by legal entities 860 people.

Figure 4.23 represents the frequency distribution of students according to degree levels.

Figure 4.23

DISTRIBUTION OF THE GRADUATES OF FURTHER VOCATIONALEDUCATION COURSES ACCORDING TO DEGREE LEVELS

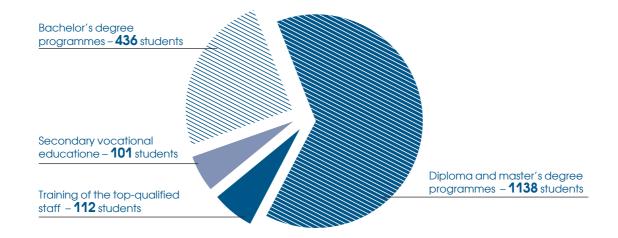
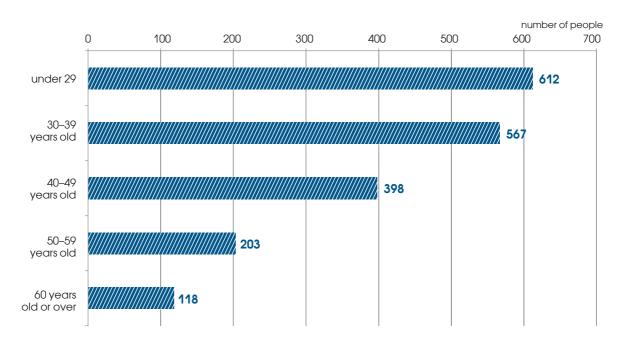




Figure 4.24 demonstrates that most students of further education programmes in 2017 were between 29 and 39 years old.

FIGURE 4.24 FREQUENCY DISTRIBUTION OF STUDENTS WITHIN FURTHER EDUCATION PROGRAMMES ACCORDING TO AGE



Besides the main academic programmes, the university's faculties are successfully implementing various professional retraining programmes. In 2017, the Faculty of Physics awarded 61 diplomas to the graduates of the programme "Teacher of Physics", the Faculty of Geography, Geoecology, and Tourism – 49 diplomas to the graduates of the programme "Teacher of Geography", the Faculty of Chemistry – 43 diplomas to the graduates of the programme "Teacher of Chemistry", the Faculty of Romance and Germanic Philology – 53 diplomas to the graduates of the programme "Translation for professional communication", the Faculty of Philosophy and Psychology – 18 diplomas to the graduates of the programme "Teacher of Higher School", and the Faculty of Philology – 14 diplomas to the graduates of the programme "Teacher of Philology".



In 2017 ,VSU participated actively in academic training of civil servants. 48 heads of public institutions and organisations completed their training at Professor L.T. Gilyarovskaya Resource Centre, 239 civil servants – at the Legal Innovations and Conciliation Procedures Centre, 50 at the Communication Studies Centre, 63 at the Radiation Safety Centre, and 40 at the Finances, Taxes and Natural Resources Research and Education Practical Centre.

In 2017, 70 heads of various organisations of Voronezh and the Voronezh Region completed their training on the programme "The State Plan for the Training of Management Personnel for the Organizations of the National Economy of the Russian Federation (Presidential Program)".

In the reporting period 42 students obtained their BBA bachelor's diplomas and 10 students obtained their MBA master's diplomas at the VSU Business School. 46 VSU staff members completed their training at the programmes "Purchase Management in the Contractual System" and "Human Resource Management" at the VSU Business School.

VSUcontinued to conduct the professional training of experts with a university degree in Pharmacy. In 2017, 198 participants completed their further education training at the Faculty of Pharmacy, including 162 pharmacists who were trained within the certification cycle programme, and 36 pharmacists within the certification cycle programme "Pharmacy Economics and Management".

Further education programmes in ecology were also very popular. In 2017, 142 participants completed their further education within two programmes at the Faculty of Biomedical Sciences, and 59 within three programmes at the Faculty of Geology.

The International Projects and Programmes Office of VSU regularly organises employee training at the annual professional development course "International scientific and educational projects aimed at improving the quality of education" for the staff members of educational institutions of the Russian Federation and the CIS. In 2017, 72 people took part in the course.

Voronezh State University implements further education programmes as well as opens the new ones in cooperation with Atos corporation. These programmes include: "Expert in financial statements and controlling" (17 graduates), "Consultant on the management systems and enterprise resource planning" (7 graduates), and "IT engineer" (4 graduates).



4.8. EDUCATION QUALITY ASSESSMENT SYSTEM

The University education quality assessment system includes the internal assessment and the external independent expert evaluation of the quality of educational 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 2017

In the 2016–2017 academic year 15,572 students (93.8%) took the mid-year examinations. 84% of the students who were allowed to sit their examinations managed to pass them well which exceeded the rate of the previous mid-year examinations by 9%. Academic performance by faculties and with allowance forattempts to re-sit the examinations is shown in Figure 4.25.

Among full-time students, the best academic performance was demonstrated by the students of the Faculty of International Relations, the worst – the Faculty of Physics. The average grade throughout the university was 76.37.

Among part-time students, the best academic performance was demonstrated by the students of the Faculty of Philology, the worst by the Faculty of Applied Mathematics, Informatics, and Mechanics. The average grade throughout the university was 67.62.

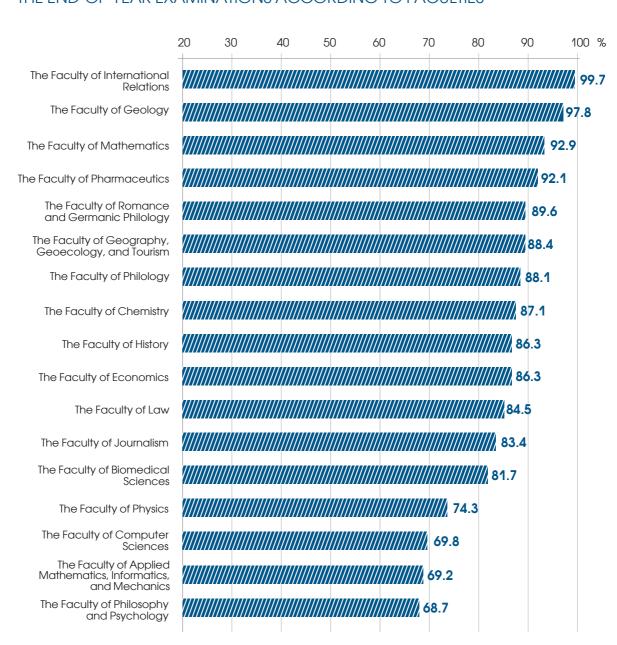
Among extramural students, the best academic performance was demonstrated by the students of the Faculty of Romance and Germanic Philology, with the grade throughout the university university being 68.63. The worst academic performance was demonstrated by extramural students of the Faculty of Applied Mathematics, Informatics, and Mechanics.

In the 2016–2017 academic year, the average grade for the mid-year examinations amounted to 3.97, which is 0.01 lower than the figure of the previous mid-year examinations.



Figure 4.25

ACADEMIC PERFORMANCE OF ALL UNIVERSITY STUDENTSIN THE END-OF-YEAR EXAMINATIONS ACCORDING TO FACULTIES



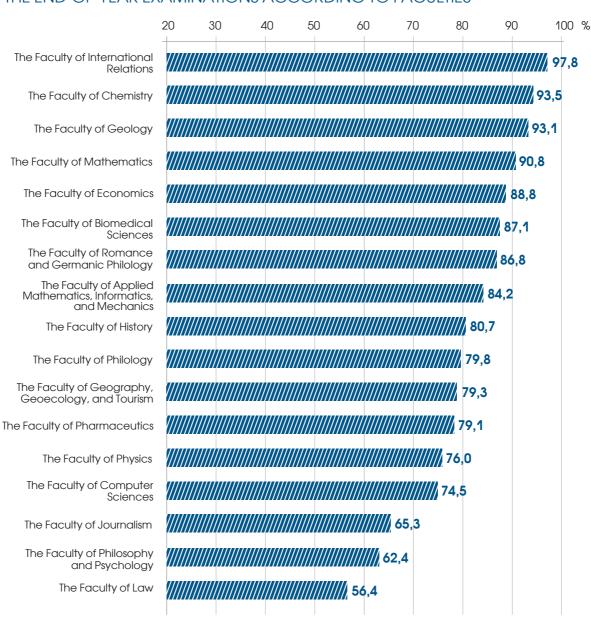


In the 2016–2017 academic year, 14,551 students (89.1%) took the end-of-year examinations. 79.55% of the students who were allowed to sit their examinations managed to pass them well, which exceeded the rate of the previous end-of-year examinations by 3.85%.

Academic performance by faculties and with allowance for attempts to re-sit examinations is shown in Figure 4.26.

Figure 4.26

ACADEMIC PERFORMANCE OF ALL UNIVERSITY STUDENTSIN THE END-OF-YEAR EXAMINATIONS ACCORDING TO FACULTIES





Among full-time students, the best academic performance was demonstrated by the students of the Faculty of International Relations (97.8%) and the Faculty of Economics (97.1%), the worst by the Faculty of Law (56.6%) and the Faculty of Philosophy and Psychology (63.2%).

The average grade throughout the university was 82.95%.

Among part-time students, the best academic performance was demonstrated by the students of the Faculty of Philology (100%), the worst by the Faculty of Applied Mathematics, Informatics, and Mechanics (34.8%). The average grade throughout the university was 74.03%.

Among extramural students, the best academic performance was demonstrated by the students of the Faculty of Applied Mathematics, Informatics, and Mechanics, the Faculty of International Relations, and the Faculty of Pharmaceutics (100%). The worst results were demonstrated by students of the Faculty of History (55.4%). The average grade throughout the university was 67.71%.

In the 2016–2017 academic year, an average grade for the end-of-year examinations amounted to 4.01, which exceeded the figure of the previous end-of-year examinations by 0.04.

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 2017, the survey was participated in by 2,041 students. The obtained results demonstrated that the level of satisfaction of students remained stable over the last three years (see Table 4.8).

Students, as usual, highly praised the attitude shown by the teaching staff at their faculties. The level of satisfaction of students with the quality of catering and medical services also increased.



Table 4.8

SATISFACTION OF VSU STUDENTS WITH ASPECTS OF THE EDUCATIONAL PROCESS IN 2017

| Assessed aspects | Satisfaction indices |
|--|----------------------|
| Quality of academic timetables (accuracy, layout) | +0.50 |
| Attitude to students shown by the lecturers of the same faculty | +0.73 |
| Attitude to students shown by the lecturers of other faculties | +0.58 |
| Educational facilities (availability, accessibility, etc) | +0.56 |
| Attitude of the dean's office personnel to the difficulties which students might experience with their studies | +0.47 |
| Level of teaching special disciplines (application of new methods, facilities, interactivity, etc) | +0.61 |
| Level of teaching general theoretical disciplines | +0.75 |
| Level of teaching Social Sciences and Humanities | +0.74 |
| Content of disciplines within the speciality (the question is answered only by the students who study these disciplines) | +0.68 |
| Attitude to students shown by the educational support personnel | +0.62 |
| Availability of study materials at the library | +0.54 |
| Availability of the electronic materials within the speciality from PC | +0.52 |
| Attitude to students shown by the library personnel | +0.66 |
| Availability of modern computers at the faculty | +0.40 |
| Access to computer software and its quality | +0.41 |
| 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) | +0.02 |
| Volume of the study load | +0.43 |
| Gaps in the timetable | +0.35 |
| Availability of elective courses | +0.51 |
| Availability of tools and equipment in laboratories | +0.42 |
| Availability of places in classrooms | +0.74 |
| General assessment of the educational process | +0.74 |



The survey among the academic staff members demonstrated similar results. It was established that the index of the academic staff members satisfied with their job amounts to 0.4 which is 0.09 lower than the 2016 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.

In April 2017, the university passed a current supervisory audit of the quality management system to confirm its compliance with the requirements of the ISO international standard. NQA auditors highlighted that VSU focused on the intensification of the education process, the development of new types of training, the personal growth of students, advanced training for lecturers, and the improvement of study facilities.

In 2017, VSU twice won the local stage of the competition – "Voronezh Quality", a local stage of the national contest "100 Best Russian Products".





In 2017, the quality of education continued to undergo independent assessment by the employers and representatives of professional communities. 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.

In 2017, the European Network for Accreditation of Engineering Education and Association for Engineering Education of Russia

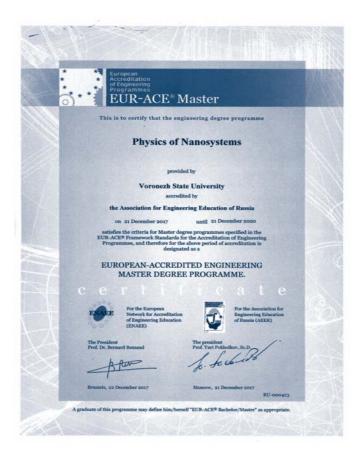
accredited six higher education programmes of the Faculty of Physics.

- 03.03.02 Physics: "Solid-state physics" (a bachelor's degree programme).
- 03.04.02 Physics: "Physics of nanosystems" (a master's degree programme).
- 11.03.04 Electronics and Nanoelectronics: "Nanotechnologies in Electronics" and "Integrated Electronics and Nanoelectronics" (bachelor's degree programmes).
- 11.04.04 Electronics and Nanoelectronics: "Nanotechnologies in Electronics" and "Integrated Electronics and Nanoelectronics" (master's degree programmes).





Accreditation certificates of public and professional accreditation as well as the EUR-ACE® Label granted by the European Network for Accreditation of Engineering Education demonstrate that the quality of education in the programmes listed above is highly praised by the professional community. They were included in the list of accredited programmes of the Association for Engineering Education of Russia and the European Network for Accreditation of Engineering Education.



In the reporting period VSU participated in the independent assessment of the students' knowledge (the Faculty of Economics and the Faculty of Law) and received a certificate proving the objectiveness of the assessment.





In 2017, the legal and regulatory framework at VSU was kept in line with the federal laws and international management standards.

In the reporting period, VSU continued to develop and introduce new local documents regulating the activities of the university's divisions. The number of documents which were put into effect totalled 330 (Table 4.9).

Table 4.9

LOCAL UNIVERSITY DOCUMENTS PUT INTO EFFECT IN 2017

| Type of the document | Number | |
|--|--------|--|
| Concept | 1 | |
| Standards | 35 | |
| Documented procedures | 2 | |
| Regulations | 104 | |
| Regulations on structural subdivisions | 116 | |
| Documented procedures | 2 | |
| Instructions | 15 | |
| Rules | 5 | |
| Job descriptions | 6 | |
| Forms | 44 | |

4.9. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2017

1. There was consistent growth in the number of educational programmes in all degree levels, including network programmes.

In 2017, VSU obtained licence for the following new programmes: 31.02.04 – Optical Eyecare, 01.04.04 – Applied Mathematics, 14.04.01 – Nuclear physics and nuclear technologies, 33.08.01–Pharmaceutical Engineering, 33.08.02–Pharmacy Economics and Management, and 33.08.03 – Pharmaceutical Chemistry and Pharmacognosy. The license for the programme 58.03.01 – Asian and African Studies was reissued.

The university developed and approved:

2 new bachelor's degree modules: "Automatic systems for information processing and management" (01.03.02 – Applied mathematics and informatics) and "Business administration" (38.03.02 – Management);



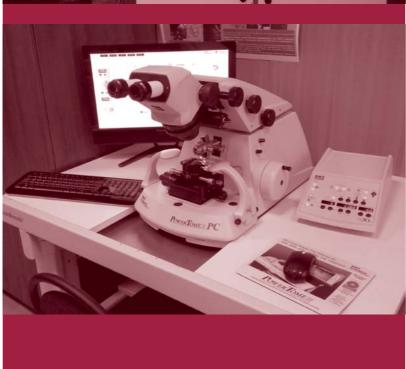
9 master's degree programmes: "Power electronics" and "Telecommunication system and electronic warfare" (03.04.03 – Radiophysics), "Legal defense in Administrative and Administrative Procedure Law", "Labour, Social and Land Law attorney", "Public bodies attorney", "Corporate attorney", "Criminal Procedure", "Criminalistics, Operational Investigations, and Judicial and Expert Activity", and "Financial and tax law" (40.04.01 – Jurisprudence).

Two network master's degree programmes in philology and pedagogics were implemented jointly with international partner universities.

- 2. The admission quotas and the number of students admitted to the main higher education programmes on a fee-paying basis met the state requirements. The Faculty of Pharmaceutics opened the first residency programme "Pharmacy Economics and Management".
- 3. The following specialities successfully underwent accreditation: 10.03.01 Information Security (the Faculty of Computer Sciences), 12.03.03 Photonics and Optical Informatics (the Faculty of Physics), 10.05.01 Computer Security (the Faculty of Applied Mathematics, Informatics, and Mechanics and the Faculty of Computer Sciences), 10.05.04 Information Analysis Security Systems (the Faculty of Mathematics), 56.05.01 War Journalism (the Faculty of Journalism), 11.04.04 Electronics and Nanoelectronics (the Faculty of Physics), 43.04.02 Tourism (the Faculty of Geography, Geoecology, and Tourism), and 50.04.01 Arts and Humanities (the Faculty of Philology).
- **4.** Three bachelor's degree programmes and three master's degree programmes implemented by the Faculty of Physics successfully underwent accreditation by the European Network for Accreditation of Engineering Education and Association for Engineering Education of Russia.
- 5. VSU students studying at secondary vocational education programmes of the Faculty of Pharmaceutics and the Faculty of Computer Sciences were for the first time awarded the Russian Federation Government Scholarship for 2017–2018 in toppriority areas of modernisation and technological development of the economy of the Russian Federation.
- **6.** In 2017, 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.

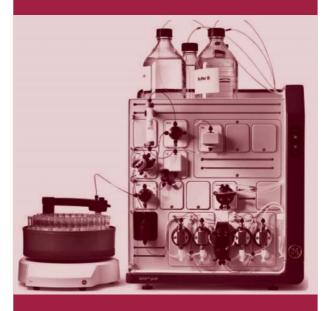














RESEARCH,
INNOVATIONS,
AND INFORMATISATION



RESEARCH, INNOVATIONS, AND INFORMATISATION



V.N. Popov,
Vice rector for Research
and Innovations

5.1. MAIN OBJECTIVES OF VSU IN THE AREA OF RESEARCH, INNOVATIONS, AND INFORMATISATION IN 2017

In 2017, the main objectives of VSU in the area of research, innovations, and informatisation were the following.

- 1. To encourage VSU researchers specialising in Humanities to take part in various scientific contests and competitions organized by Russian research foundations, international and national projects, and federal target programmes (FTP).
- 2. To continue improving the scientific indices and publication records in Web of Science, Scopus, and the Russian Science Citation Index databases.
- 3. To create a student research society and assist student teams in preparing for various Russian and international contests.
- 4. To develop and apply incentives for cooperation between VSU and industrial enterprises in the region and the whole country. To monitor the effectiveness of applications for competitions within the framework of the Decrees of the Russian Government No. 218 and No. 220, federal target programmes, and the Innovation Cup regional competition.
- 5. To arrange for timely submission of the application for the national project by the Ministry of Education of the Russian Federation "Universities as centres for innovation".
- 6. To control and coordinate preparations for the university's 100th anniversary.



In 2017, in order to reach VSU's strategic goals through to 2020 – to achieve international recognition of the university as one of the leading traditional centres of education and research in Russia – the VSU administration and academic staff ran the following projects in the area of research and innovations.

Project "VSU JOURNALS INCLUDED IN INTERNATIONAL DATABASES, SUCH AS WOS AND SCOPUS"

The university publishes 15 journals that are included in the list of referenced scholarly journals recommended by the State Commission for Academic Degrees and Titles, which makes VSU the leader among universities in Voronezh.

Three of the VSU-published journals are now included in international databases.

The board of experts of eLIBRARY.ru has recently published the list of journals included in the Russian Science Citation Index (RSCI) based on Web of Science. Among them are four journals by Voronezh State University.

In 2017, steps were taken for VSU-published journals to be included in international databases. In order to comply with the requirements of Web of Science and Scopus databases VSU started using DOI to identify articles published in its journals. Two VSU-published journals – "Contemporary economics: science and experience" and "Condensed Matters and Interphase Boundaries" already use the DOI system.

According to the Russian Science Citation Index database, the science indices of Voronezh State University increased. Among the 761 universities in Russia, VSU takes

- 15th position according to the number of articles published over the last five years (26,338),
- 37th position by the number of citations (22,560),
- and 25th position according to the Hirsh index (108).

The impact factors and the Hirsh index of VSU-published journals increased. Thus, over the last two years, the impact factor of the "Vestnik Voronezhskogo Gosudarstvennogo Universiteta, series 'Physics. Mathematics.' reached 0.713, "Vestnik Voronezhskogo Gosudarstvennogo Universiteta, series 'Economics and Management' – 0.587. The Hirsh index over the last 10 years for the journal "Adsorption and Chromatography Processes" was 11, for "Condensed Matters and Interphase Boundaries" – 10, and for "Vestnik Voronezhskogo Gosudarstvennogo Universiteta, series 'Physics. Mathematics." – 9.



Project "ENTREPRENEURIAL UNIVERSITY"

In 2017, Voronezh State University won the contest within the national project by the Ministry of Education of the Russian Federation "Universities as centres for innovation" and received the status of innovative university.

VSU's project for the creation of an engineering centre won a competition held by the Ministry of Education and Science of the Russian Federation.

VSU for the third time won the regional Innovation Cup competition.

The main activities were focused on the following objectives:

- Increasing the number of students and staff involved in innovative and entrepreneurial activities.
- Introducing elements necessary to ramp up and accelerate innovations, including participation of high school pupils in the VSU project "Innovation League".
- Organising business education (social and technology-oriented entrepreneurship).
- Collaborating with regional bodies and business entities, inorder to introduce technological and social innovations at the university.
- Optimisation and development of existing small innovative businesses (SIBs).

Project "PROMOTING TOP-RATED PUBLICATIONS OF VSU RESEARCHERS"

In 2017, over 100 VSU academic staff members received bonuses for publishing their articles in highly ranked journals. Although previously bonuses were only given for papers published in journals with an impact factor of at least 2 according to the Web of Science Citation report, in 2017 the required impact factor varied based on different research areas (see Table. 5.1).



Table 5.1

PUBLICATION BONUSES FOR ACADEMIC STAFF MEMBERS IN 2017

| Research | | |
|---|--|---------------|
| Web of Science | Scopus | Impact factor |
| Life Sciences & Biomedicine Physical Sciences (with the exception of Mathematics) Technology (with the exception of Computer Science) | Physical Sciences (with the exception of Computer Science and Mathematics) Health Sciences Life Sciences | 2.000 |
| 1. Computer Science | 1. Computer Science | 1.500 |
| Mathematics Arts & Humanities Social Sciences | Mathematics Social Sciences & Humanities | 1.000 |

Project "ELECTRONIC DOCUMENT FLOW MANAGEMENT"

In 2017, the following tasks were accomplished within the project:

- Ensuring 100% coverage of the divisions with the university's telecommunication system.
- Maintaining and developing the information systems for the university's management, the university's official website, and all the web portals.
- Developing the Data Processing Centre of Voronezh State University.
- Developing electronic education technologies, e-learning, and distant learning.

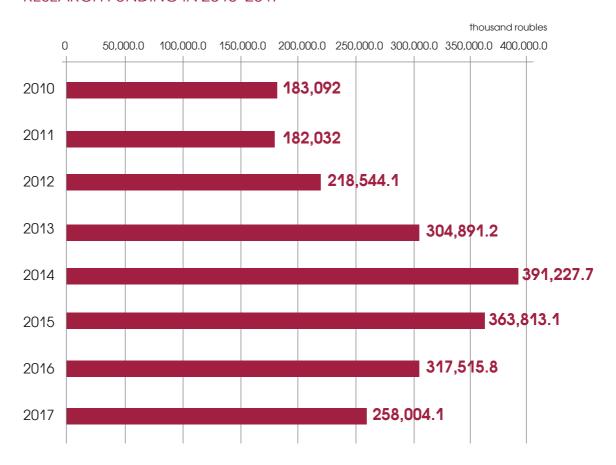


5.2. RESEARCH FUNDING IN 2010–2017

In 2017, the total funding for research projects amounted to 258.0 million roubles (see Fig. 5.1). The decrease in funding (compared to the figures of 2014–2015) is due to the fact, that the university finished two large research projects implemented within the Decree of the Government of the Russian Federation of 9 April 2010 No.218 (the project's funding in 2014 amounted to 100.0 million roubles, in 2015 – 76.0 million roubles, and in 2016 - 30.0 million roubles). Unfortunately, despite a significant increase in other sources of funding, it was not sufficient to cover the shortfall.

Figure 5.1

RESEARCH FUNDING IN 2010–2017





5.3. VSU RESEARCH FUNDING SOURCES IN 2017

Of the total sum invested in research: 48.5 million roubles (18.8%) 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; 30 million roubles (11.6%) – for funding of research and development in top-priority areas of science and technology in Russia for the 2014–2020 Federal Target Programme. Grants of the Government of the Russian Federation for the state support of research conducted by the leading scientists in universities, research institutions, and state research centres constituted 28 million roubles (10.8%), and grants from the Russian foundations supporting scientific and technical research and innovations constituted 84.4 million roubles (32.7%).

In 2017, state funding constituted 76.6% of the total funding. 19.0% 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 5.2.

Table 5.2

SOURCES OF VSU'S RESEARCH FUNDS IN 2017

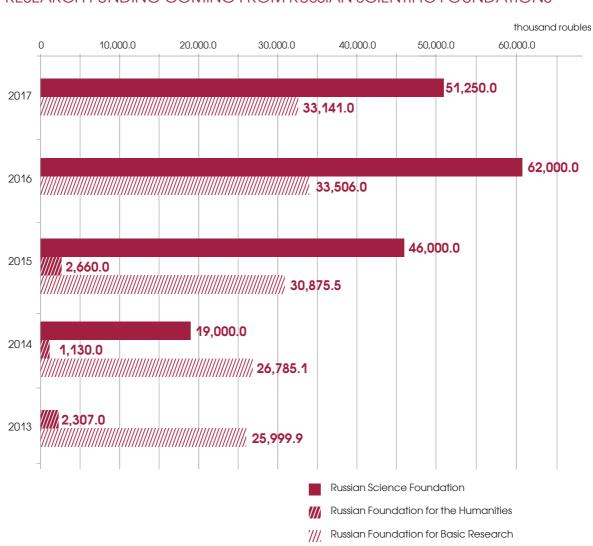
| Sources of funding | % |
|--|------|
| Ministry of Education and Science of the Russian Federation | 42.8 |
| Russian foundations supporting scientific and technical research and innovations | 32.7 |
| Federation subjects and local budget | 1.1 |
| Russian Economic Entities | 19.0 |
| Other non-governmental organisations in Russia and VSU funds | 3.0 |
| International sources | 1.4 |



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 AS OF 21 FEBRUARY 2018

Table 5.3

PAPERS PUBLISHED BY THE VSU'S ACADEMIC STAFF IN 2017

| No | Indicator | 2017 |
|----|---|--------|
| 1 | Published articles (Academic staff articles database) | 5318 |
| 2 | Published articles (Russian Science Citation Index database) | 4346 |
| 3 | Total number of citations (Russian Science Citation Index database) | 11 839 |
| 4 | Total H-index (Russian Science Citation Index database) | 108 |
| 5 | Articles published in journals indexed by Web of Science | 253 |
| 6 | Total number of citations per year (Web of Science) | 1871 |
| 7 | Articles published in journals indexed by Scopus | 401 |
| 8 | Total number of citations per year (Scopus) | 395 |

Some more data from the Academic staff articles database:

- number of published monographs 80;
- number of published textbooks 394.

Table 5.4

AUTHORS LISTED ACCORDING TO THE HIRSH INDEX

| No | Name | Hirsh index | |
|----|-------------------------------|-------------|--|
| 1 | losif A. Sternin | 47 | |
| 2 | Yury N. Starilov | 35 | |
| 3 | Dmitry A. Endovitsky | 32 | |
| 4 | Oleg Ya. Baev | 30 | |
| 5 | Zinaida D. Popova | 27 | |
| 6 | Arkady D. Savko | 26 | |
| 7 | Marina V. Sentsova (Karaseva) | 26 | |
| 8 | Yury I. Treschevsky | 26 | |
| 9 | Nikolay L. Manakov | 25 | |
| 10 | Natalia V. Sirotkina | 25 | |
| 11 | Evelina P. Domashevskaya | 22 | |
| 12 | Nikolay P. Lyubushin | 22 | |
| 13 | Vladimir B. Mikhno | 21 | |
| 14 | Mikhail V. Frolov | 21 | |
| 15 | Vyacheslav V. Provotorov | 20 | |
| 16 | Vladimir F. Selemenev | 20 | |



Table 5.5

FACULTIES LISTED ACCORDING TO THE HIRSH INDEX

| <u> </u> | | (((((((((((((((((((((((((((((((((((((((|
|----------|--|---|
| No | Faculty | Hirsch index |
| 1 | The Faculty of Law | 64 |
| 2 | The Faculty of Philology | 54 |
| 3 | The Faculty of Economics | 48 |
| 4 | The Faculty of Biomedical Sciences | 39 |
| 5 | The Faculty of Romance and Germanic Philology | 37 |
| 6 | The Faculty of Physics | 36 |
| 7 | The Faculty of Chemistry | 32 |
| 8 | The Faculty of Mathematics | 32 |
| 9 | The Faculty of History | 31 |
| 10 | The Faculty of Geology | 31 |
| 11 | The Faculty of Applied Mathematics, Informatics, and Mechanics | 26 |
| 12 | The Faculty of Geography, Geoecology, and Tourism | 24 |
| 13 | The Faculty of Journalism | 23 |
| 14 | The Faculty of Computer Sciences | 22 |
| 15 | The Faculty of Philosophy and Psychology | 22 |
| 16 | International Education Institute | 17 |
| 17 | The Faculty of Pharmaceutics | 16 |
| 18 | The Faculty of International Relations | 13 |
| 19 | The Faculty of Military Education | 3 |

The above information was taken from the eLibrary's section on the publications records of the VSU departments (elibrary.ru).



Figure 5.3

PUBLICATION DATA ACCORDING TO WEB OF SCIENCE CORE COLLECTION

5881

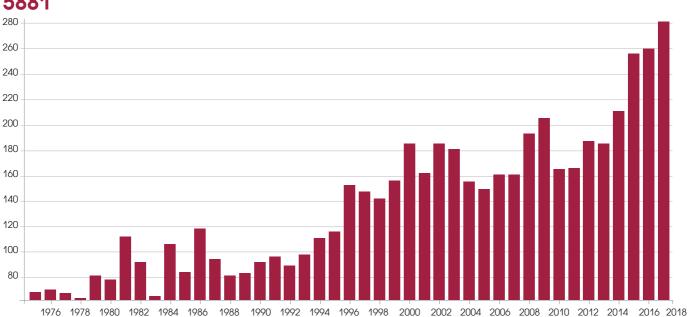
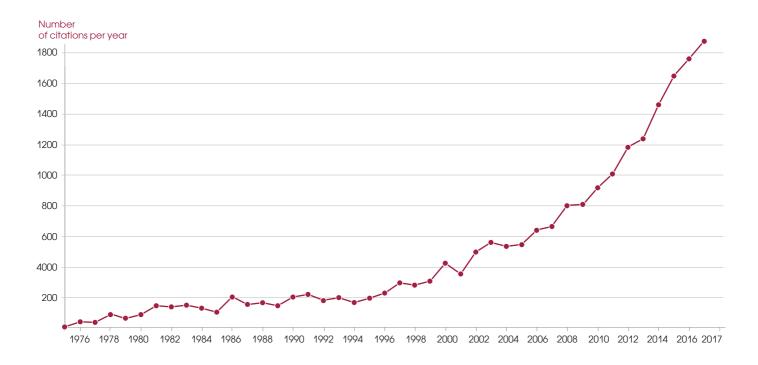


Figure 5.4

CITATION DATA ACCORDING TO WEB OF SCIENCE CORE COLLECTION AS OF 20 FEBRUARY 2018





5.5. VSU ACADEMIC AND SCIENTIFIC SCHOOLS AND RESEARCH AREAS

RESEARCH IS CARRIED OUT WITHIN 28 MAJOR AREAS

- 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, colloidals 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 practices.
- 18. Economics management system: emergence and development.
- 19. Individuals as subjects of social change: social, humanitarian, and psychological issues.
- 20. Archaeology and ethnography of the Central Black Earth Region.
- 21. Russian and European History.
- 22. International literatures and languages and their interactions. The issue of international communications.



- 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. Semenov, 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 recieving equipment and its elements)

Head Researcher - Professor E.K. Algazinov, 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, Assosiate member of the Russian Academy of Sciences



11. Nuclear and condensed matter physics

Head Researcher – Professor S.G. Kadmensky, 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. Invertebrate animal classification, fauna and ecology: 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, a 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. Akhtyrtsev, DSc in Biology, Honoured Scientist of the Russian Federation

Head Researcher - Professor T.A. Devyatova, DSc in Biology

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

Founded by Professor N.M. Chernyshov, DSc in Geology, Associate Member of the Russian Academy of Sciences, Honoured Scientist of the Russian Federation

The school is ranked among the top scientific schools of the Russian Federation (in 2008–2009 was included in the state support programme for the leading scientific schools in Russia)



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

Head Researcher – professor V.M. levlev, DSc in Physics and Mathematics, Full Member of the Russian Academy of Sciences

The school is ranked among the top scientific schools of the Russian Federation (in 2006–2010 it was included in the state support programme for the leading scientific schools in Russia)



5.6. RESEARCH PROJECTS CARRIED OUT AT VSU WITHIN THE FRAMEWORK OF THE FEDERAL TARGET PROGRAMME, THE RUSSIAN FOUNDATION FOR HUMANITIES GRANT, AND THE RUSSIAN FOUNDATION FOR BASIC RESEARCH GRANT

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

3.7514.2017/BCh Research project No.17015 for 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 Theoretical Physics)

6.6927.2017/BCh Research project No.17012 for 2017–2019

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

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

4.7972.2017/BCh Research project No.17010 for 2017–2019

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

Head Researcher – Professor V.M. levlev, 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 for 2017–2019

Studying the 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 for 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 for 2017–2019

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

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

3.4826.2017/BCh Research project No.17018 for 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.17018 for 2017–2019

Developing and studying ultra-wideband radioelectronic and location systems using ultrashort impulse signals of subnanosecond durations

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 for 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 for 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 for 2017–2019

Semiconductor nanoheterostructures with unprecedentedly high indices: new approaches to synthesizing and basic research

Head Researcher – Professor P.V. Seredin, DSc in Physics and Mathematics (Faculty of Physics, the Department of solid-state physics and nanostructures)

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

3.1761.2017/PCh Research project No.17003 for 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 Research project No.17005 for 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 Research project No.17006 for 2017–2019

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

Head Researcher – Professor A.A. Sirota, DSc in Technical Sciences (Faculty of Computer Sciences, Department of Information Security and Processing Technologies

4.3633.2017/PCh Research project No.17004 for 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)



ENT OF THE RUSSIAN FEDERATION

for the state support of research conducted by the leading scientists in universities, research institutions, and state research centres as a part of the sub-programme "Institutional development of the research sector" of the state programme of the Russian Federation "Science and technologies development for 2013–2020" (MEGA-GRANT)

14.50.31.0037 Research project No.17022 for 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 TO SUPPORT YOUNG RUSSIAN SCIENTISTS WITH DSC DEGREES (1 POJECTS)

MD-188.2017.2 Research project No.17027 for 2017–2018

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

Head Researcher – Associate Professor P.V. Seredin, DSc in Physics and Mathematics (Faculty of Physics, Department of solid-state physics and nanostructures)

MD-7902.2016.9 Research project No.16041 for 2016–2017

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

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

GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION TO SUPPORT YOUNG RUSSIAN SCIENTISTS WITH PHD DEGREES (4 POJECTS)

MK-4865.2016.2 Research project No.16042 for 2016–2017

Control of the morphology, surface structure, and functional properties of silicon-based low-dimensional oxide systems

Head Researcher – A.S. Lenshin, PhD in Physics and Mathematics, senior research fellow (Faculty of Physics, Department of solid-state physics and nanostructures)



FEDERAL TARGET PROGRAMME "RESEARCH AND DEVELOPMENT IN TOP-PRIORITY AREAS OF SCIENCE AND TECHNOLOGY IN RUSSIA FOR 2014–2020" (2 PROJECTS)

14.577.21.0182 Research project No.15054 for 2015–2017

Development of energy-saving technologies used in the process of production of emulsifiers and emulsifying systems for food and non-food industries based on raw materials and their derivative products

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

14-577.21.0257 Research project No.17047 for 2017–2018

Developing biomolecular methods for quality control of milk and fat-and-oil products 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)

RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING BASIC RESEARCH AND PILOT STUDY BY RESEARCH GROUPS (2 PROJECTS)

14-14-00721-P Research project No. 17032 for 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.16056 for 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)

RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING BASIC RESEARCH AND PILOT STUDY IN TOP PRIORITY SPECIAL RESEARCH AREAS (3 PROJECTS)

16-14-00176 Research project No.16005 for 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 for 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, Department of Solid-State Physics and Nanostructures)



15-15-00137 Research project No.15016 for 2015-2017

Investigation of amniotic lavage mechanism in treatment of threatened premature delivery of infectious genesis

Head Researcher – Professor M.N. Chirikov, DSc in Medicine (Faculty of Biomedical Sciences, Department of Genetics, Cytology and Bioengineering)

RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING BASIC RESEARCH AND PILOT STUDY WITH THE PARTICIPATION OF YOUNG SCIENTISTS (2 PROJECTS)

15-13-10036 Research project No.15019 for 2015-2017

Development of new potentiometric sensors based on hybrid membranes for express analysing of aminoacids and vitamins in water and nutritional solutions

Head Researcher – Professor O.V. Bobreshova, DSc in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

15-11-10022 Research project No.15024 for 2015-2017

Statistical methods of signal location and extent of signal detection for signals and images in the domain of their existence

Head Researcher – Professor A.P. Trifonov, DSc in Technical Sciences (Faculty of Physics, Department of Radiophysics)

RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING RESEARCH WITH THE PARTICIPATION OF YOUNG SCIENTISTS, WITHIN THE PRESIDENTIAL PROGRAMME FOR CONDUCTING RESEARCH BY LEADING SCIENTISTS, INCLUDING YOUNG SCIENTISTS

17-72-20105 Research project No.17073 for 2017-30.06.2020

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

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



RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING INITIATIVE RESEARCH BY YOUNG SCIENTISTS WITHIN THE PRESEDENTIAL PROGRAMME FOR CONDUCTING RESEARCH BY LEADING SCIENTISTS, INCLUDING YOUNG SCIENTISTS (4 PROJECTS)

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

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

Head Researcher – E.V. Parinova, PhD in Physics and Mathematics, research fellow (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

17-75-10046 Research project No.17072 for 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 – D.L. Goloschapov, PhD in Physics and Mathematics, senior engineer (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

17-72-10225 Research project No.17058 for 2017-30.06.2019

Nonlinear media for low limiting optical threshold based on associates of Ag₂S 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 for 2017-30.06.2019

Developing methods and algorithms for combined optimum processing of signals with unknown parameters and irregular distortions

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

THE RUSSIAN FOUNDATION FOR BASIC RESEARCH GRANTS

INITIATIVE PROJECTS (26 PROJECTS)

15-06-06295 Research project No.15009 for 2015-2017

Modelling the sustainable development process of social and economic systems basing on the tool for managing the functioning, evolution, and interaction of social and economic objects, taking into account energy conservation and energy efficiency

Head Researcher – Professor N.P. Lyubushin, DSc in Economics (Faculty of Economics, Department of Economic Analysis and Audit)

15-03-09186 Research project No.15012 for 2015-2017

Comparative analysis of the growth, structure, and properties of calcium phosphate coating on titanium during magnetron sputtering and biomimetic subsidence

Head Researcher – Professor V.M. levlev, DSc in Chemistry (Faculty of Chemistry, Department of Materials Science and Nanosystems Technologies)



15-02-03402 Research project No.15005 for 2015-2017

Describing dual, triple and tetradic fission and 2-proton decay as multistage nuclear processes Head Researcher – Professor S.G. Kadmensky, DSc in Physics and Mathematics (Faculty of Physics, Department of Nuclear Physics)

15-02-04280 Research project No.15006 for 2015-2017

Developing methods for controlling the luminescence properties of ${\rm Ag_2S}$ colloid quantum dots in various environments

Head Researcher – Professor O.V. Ovchinnikov, DSc in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

15-08-05031 Research project No.15011 for 2015-2017

The influence of temperature on the transport-structural parameters of heterogeneous ionexchange membranes and on the electrical convection during electrodialysis under a highintensity current

Head Researcher - Professor V.I. Vasilieva, DSc in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

15-04-03749 Research project No.15008 for 2015-2017

Molecular and boichemical basis of the mechanism of catabolic pathway of thiosulfate oxidation by sulphur bacteria

Head Researcher – Professor M.Yu. Grabovich, DSc in Biology (Faculty of Biology and Soil Sciences, Department of Biochemistry and Cell Physiology)

15-01-05315 Research project No.15003 for 2015-2017

Indefinite space operators and their application

Head Researcher – Associate Professor M.S. Denisov, PhD in Physics and Mathematics (Faculty of Mathematics, Department of Geometry and Functional Theory)

15-04-02326 Research project No.15007 for 2015–2017

Studying the taxonomy of existing and ancient Tingoidea (Heteroptera) of the Eastern Palearctic and analysing their zoogeography, paleogeography, evolution, and phylogeny Head Researcher – Professor V.B. Golub, DSc in Biology (Faculty of Biomedical Sciences, Department of Ecology and Systematics of Invertebrates)

15-01-00620 Research project No.15004 for 2015-2017

Developing stochastic and global analysis methods in order to study equations and inclusions with mean derivatives and their applications

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



16-07-01238 Research project No.16018 for 2016-2018

Developing methods and equipment for high-speed radio communication based on ultrashort impulse signals of nano and subnanosecond durations

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

16-05-00975 Research project No.16029 for 2016-2017

3D comprehensive geophysical model of the Voronezh crystalline upper and middle crust Head Researcher – Professor V.N. Glaznev, DSc in Geology (Faculty of Geology, Department of Geophysics)

16-06-00535 Research project No.16014 for 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)

16-02-01167 Research project No.16016 for 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)

16-05-01044 Research project No.16022 for 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 for 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 for 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 for 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 for 2016-2018

Modulation of mitochondrial respiration and reactive oxygen intermediates's 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 for 2016-2018

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

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

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

Intracellular mechanism of transduction of photoreceptor signal regulating the functioning of the key enzymes of the tricarboxylic acid cycle in plants under varied lighting 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 for 2017-2019

Studying the nature of microplasticity and variability of magnetic properties of multicomponent iron based amorphous alloys

Head Researcher – Professor S.B. Kuschev, DSc in Physics and Mathematics (Faculty of Chemistry, Department of Materials Science and Nanosystems Technologies)

17-01-00251 Research project No.17036 for 2017-2019

Models of technical systems with hysteresis characteristics in conditions 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 for 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)

CONTEST OF BASIC RESEARCH PROJECTS, ORGANISED BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE VORONEZH REGION (9 PROJECTS)

16-46-360686 Research project No. 16044 for 2016-2017

The Voronezh Region social and economic development information analysis system

Head Researcher - Professor N.V. Yakovenko, DSc in Geography (Faculty of Geography, Geoecology, and Tourism, Department of Physical Geography and Landscape Optimization)

16-42-360612 Research project No.16051 for 2016-2017

Synthesis, modification, atomic and electron structure, and evolution of ${\rm SnO}_2$ filamentary nanocrystal properties

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

16-43-360281 Research project No.16050 for 2016–2017

Physical and chemical foundations for the low-temperature synthesis of silicon-carbide nanostructures for use in extreme temperature electronics components

Head Researcher – Professor L.A. Bityutskaya, DSc in Physics and Mathematics (Faculty of Physics, Department of Semiconductor Physics and Microelectronics)

16-45-360284 Research project No.16049 for 2016-2017

The Voronezh Region urbanised territories biotechnosphere monitoring as a factor of the region's sustainable development

Head Researcher – Associate Professor S.A. Epryntsev, PhD in Geography (Faculty of Geography, Geoecology, and Tourism, Department of Geoecology and Environmental Monitoring)

16-42-360381 Research project No.16048 for 2016–2017

Development and research of synthesis and analysis techniques for components and assembly units of transmitter-receiver systems using ultra-wideband impulse signals

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

16-45-360486 Research project No. 16045 for 2016–2017

Geoinformation technologies for the Voronezh Region natural hazards monitoring and forecasting

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

16-43-360595 Research project No.16043 for 2016-2017

GaAs, GaP, and InP surface modification as a method of controlling nanastructure and optical electrophysical properties of nanoscale thickness oxide films for microelectronics

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



16-42-360888 Research project No.16047 for 2016–2017

Generation and study of new ferroelectric nanomaterials with size dependent physical and chemical properties

Head Researcher – Professor A.S. Sidorkin, DSc in Physics and Mathematics (Faculty of Physics, Department of Experimental Physics)

16-46-360424 Research project No.16046 for 2016-2017

The Voronezh region social and economic development forecasting methods and models

Head Researcher - Professor V.V. Davnis, DSc in Economics (Faculty of Economics, Department of Information Technology and Mathematical Methods for Economics)

RESEARCH PROJECTS CONTEST FOR YOUNG SCIENTISTS (MY FIRST GRANT)

16-34-01141 Research project No.16012 for 2016-2017

Supramolecular control over structural and functional features of proteolytic enzymes – theory and practice

Head Researcher – Associate Professor M. G. Kholyavkaa, PhD in Biology (Faculty of Biology and Soil Sciences, Department of Biophysics and Biotechnology)

16-34-01097 Research project No.16010 for 2016-2017

Genomics, taxonomy, and metabolism of a new type of sulfur-oxidizing bacteria of Beggiatoaceae family

Head Researcher – E.V. Belousova, PhD in Biology, lecturer (Faculty of Biology and Soil Sciences, Department of Biochemistry and Cell Physiology)

16-38-00572 Research project No.16025 for 2016-2017

Electroconvective instability in stratified systems with heterogeneous ion-exchange membranes as a result of temperature modification

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

16-32-00926 Research project No.16026 for 2016-2017

Spin polarization for electrons in clean and carbon doped ultrashort nanotubes within a stationary electric field

Head Researcher – G.I. Glushkov, post-graduate student (Faculty of Physics, Department of Semiconductor Physics and Microelectronics)

16-32-00860 Research project No.16002 for 2016-2017

Ab initio modelling and parallel study of electronic energy structure of ultra-thin tin films Head Researcher – M.D. Manyakin, post-graduate student (Faculty of Physics, Department

16-32-00503 Research project No.16019 for 2016-2017

of Solid-State Physics and Nanostructures)

Singlet oxygen photosensibilization by means of associates of thiazine dyes with Ag₂S colloid quantum dots

Head Researcher – A.S. Perepelitsina, post-graduate student (Faculty of Physics, Department of Optics and Spectroscopy)

16-32-00020 Research project No.16011 for 2016-2017

Structural and optic properties of nanoprofiled heterostructures based on A3B5, A3B6, and silicon semiconductors

Head Researcher – Associate Professor V.E. Ternovaya, PhD in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)



16-31-00182 Research project No.16009 for years 2016-2017

Non-standard boundary value problems for non-Newtonian hydrodynamics models

Head Researcher – Associate Professor E.S. Baranovsky, PhD in Physics and Mathematics (Faculty of Applied Mathematics, Informatics, and Mechanics, Department of Software Development and Information Systems Administration)

16-31-00027 Research project No.16027 for 2016-2017

Studying mathematical physics problems with the help of spectral and topological methods Head Researcher – D.M. Polyakov, post-graduate student, research fellow (Research Institute for Metallurgy)

CONTEST OF BASIC RESEARCH PROJECTS CARRIED OUT BY YOUNG SCIENTISTS WITH PHD OR DSC DEGREES IN SCIENTIFIC ORGANISATIONS OF THE RUSSIAN FEDERATION

16-31-60075 Research project No.16001 for 2016-2018

Studying resolvability, attractors, and optimal feedback control in various tasks for non-Newtonian hydrodynamics

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

DIRECTED BASIC RESEARCH CONTEST FOCUSED ON CONTEMPORARY INTERDISCIPLINARY PROBLEMS (3 PROJECTS)

16-29-08342 Research project No.16058 for 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 for 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 for 2017-2020

Molecular genetic features determining the effectiveness of eye tracking systems and brainmachine interfaces

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

CONTEST OF BASIC RESEARCH PROJECTS CARRIED OUT BY GROUPS
OF YOUNG RUSSIAN AND BELURUSSIAN SCIENTISTS, ORGANISED
BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE BELURUSSIAN
REPUBLICAN FOUNDATION FOR FUNDAMENTAL RESEARCH

17-52-04090 Research project No.17041 for 2017-2018

Studying 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)



PROJECT CONTEST FOR ORGANISING LOCAL AND INTERNATIONAL EVENTS FOR YOUNG RESEARCHERS (4 PROJECTS)

17-31-10042 Research project No. 17026 for 2017

Project of the 25th spring school of Mathematics "Modern solutions to boundary value problems in honour of Lev Pontryagin"

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

17-31-10009 Research project No. 17002 for 2017

Project of the winter school of Mathematics "Modern methods of function theory and related problems"

Head Researcher – Professor A.D. Baev, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Mathematical Analysis)

17-38-10259 Research project No. 17044 for 2017

Project of the 4th workshop for young scientists "Basic problems of system security" dedicated to the 60th anniversary of the launch of the first sputnik

Head Researcher – Professor I.I. Kosinova, DSc in Geology (Faculty of Geology, Department of Ecological Geology)

17-31-10301 НИЧ-17048 2017 год

Project of an 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)

ORGANISING AND HOLDING CONFERENCES AND OTHER SCIENTIFIC EVENTS (4 PROJECTS)

17-01-20506 Research project No. 17076 for 2017

Organising an international conference dedicated to the 100h birthday of Selim Krein

PHead Researcher – Professor A.D. Baev, DSc in Physics and Mathematics (Faculty of Mathematics, Department of Mathematical Analysis)

17-06-20537 Research project No. 17043 for 2017

Organising the 40th international scientific conference (Scientific Workshop) "Social and Economic Processes System Modelling" in 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)

17-03-20490 Research project No. 17075 for 2017

Organising the 15th international scientific conference "Physical and chemical principles of ion exchange and chromatographic processes 'lon-exchangers 2017" dedicated to the 100th anniversary of Voronezh State University and the 115th anniversary of the invention of chromatography

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



17-05-20532 Research project No. 17045 for 2017

Organising the 5th international scientific conference "Ecological geology – theory, practice, and local problems"

Head Researcher - Professor I.I. Kosinova, DSc in Geology (Faculty of Geology, Department of Ecological Geology)

JOINT INITIATIVE RESEARCH PROJECTS CONTEST OF THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE GERMAN RESEARCH COMMUNITY

17-52-12034 Research project No.17049 for 2017–2019

Generation of higher harmonics using quantum dots

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

CONTEST OF RESEARCH PROJECTS CARRIED OUT BY YOUNG SCIENTISTS UNDER THE LEADERSHIP OF PHD AND DSC DEGREES HOLDERS (2 PROJECTS)

17-32-50062 Research project No. 17050 for 2017

Studying the nature of dielectric dispersion within lead free modified ferroelectric ceramic based on (K, Na) NbO₃

Head Researcher – Professor A.S. Sidorkin, DSc in Physics and Mathematics (Faculty of Physics, Department of Experimental Physics)

17-32-50004 Research project No. 17042 for 2017

Studying the structure, morphology and optical properties of porous silicon nanopowder for medical applications

Head Researcher – A.S. Lenshin, PhD in Physics and Mathematics, senior research fellow (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

GRANT OF THE RUSSIAN FOUNDATION FOR BASIC RESEARCH (HUMANITIES AND SOCIAL SCIENCES) (11 PROJECTS)

15-04-00250 Research project No.15021 for 2015-2017

Meaning as an aspect of active linguistic consciousness of the language speaker (theory and lexicography problems)

Head Researcher – Professor I.A. Sternin, DSc in Philology (Faculty of Philology, Department of General Linguistics and Stylistics)

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

Juridification as a legal regulation issue

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

16-11-36002 Research project No.16038 for 2016-2017

Studying mounds in the lower reaches of the Elan River (Voronezh Region)

Head Researcher – Professor A.P. Medvedev, DSc in History (Faculty of History, Department of Archaeology and Ancient History

17-03-14026 Research project No. 17030 for 2017

International scientific conference "Law and power – the main models of cooperation in a multipolar world"

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 for 2016-2018

Formation of the landowning servicemen class in the southern parts of Russia in the XVII century

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

16-12-36007 Research project No.16040 for 2016-2017

Developing the methodology for analysis of municipal development areas and their influence on social and economic growth of the Voronezh Region (by means of comprehensive analysis of the regional and municipal statistics databases)

Head Researcher - Associate Professor I.N. Schepina, DSc in Economics (Faculty of Economics, Department of Information Technology and Mathematical Methods for Economics)

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

Voronezh Region's culture in the middle of the XIX 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 XX–XXI Centuries, the Theory of Literature, and Folklore)

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

"Poetry in Voronezh on the turn of the XX century – sensor and affective codes"

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

17-11-36501 Research project No.17040 for 2017-2018

Scientific conference "Voronezh as an outpost of the Russian state" dedicated to the 840th anniversary of the first reference to Voronezh in chronicles

Head Researcher – Professor V.N. Glazyev, DSc in History (Faculty of History, Department of Russian History)

17-03-00702 Research project No.17038 for 2017-2018

Tax Sovereignty and Protection of Taxpayers' Rights in the EU an the EEU

Head Researcher – Professor M.V. Sentsova, DSc in Law (Faculty of Law, Department of Financial Law)

17-02-00435 Research project No.17055 for 2017-2018

Control over vocational adjustment of cadets and young specialists working at units subordinate to the the Ministry of Emergency Situations

Head Researcher – I.V. Shershen, PhD in Economics, senior research fellow (Institute of Extramural Economic Education)

INITIATIVE RESEARCH PROJECTS COMPETITION BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND ALL-RUSSIAN NON-GOVERNMENTAL FOUNDATION RUSSIAN GEOGRAPHICAL SOCIETY

17-05-41072 Research project No.17056 for 2017

Geoinformation support of regional systems for medico-ecological monitoring of large industrial centres

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



5.7. CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT

ABOUT THE CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT

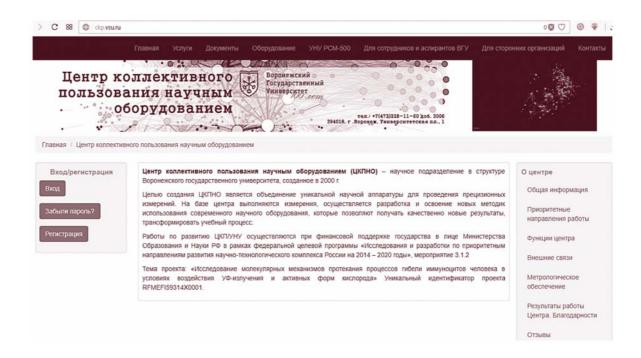
The Centre for Collective Use of Scientific Equipment of Voronezh State University is a scientific and organisational division housing 35 units of modern scientific and analytical equipment, such as the unique computer-assisted laboratory facilities PCM-500. The centre employs highly qualified researchers who are able to carry out scientific studies and provide services (research, experiments, measurements) to various customers including external agencies. The centre also uses research laboratories, as well as research, manufacturing, and academic facilities of the university. The centre was opened in 2000, and since then has been receiving support by the federal target programme of the Ministry of Education and Science of the Russian Federation.

Being a key unit of the university's research infrastructure, the centre served as a basis for creation of the I-Technology engineering centre – a new division which provides engineering and advisory services for industrial enterprises of the Voronezh Region and the Central Black Earth Region.

The Centre for Collective Use of Scientific Equipment is one of the official research units of the Russian Federation registered on the www.ckp-rf.ru website. Its activity is monitored by the Ministry of Education and Science of the Russian Federation.

IN 2017, THE CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT ACHIEVED THE FOLLOWING RESULTS

1. The new official website of the centre was launched.

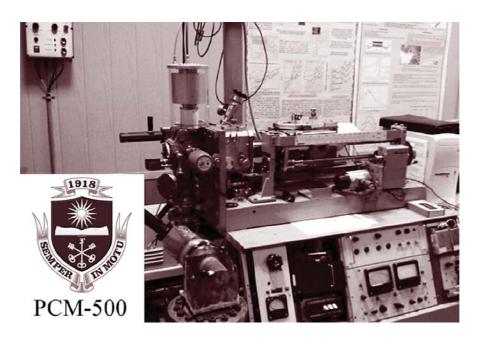




The main features of the new site include the following:

- Conformance to the requirements of the Ministry of Education and Science of the Russian Federation and the Order No. 871 dated 18 July 2016 "On the approval of the requirements to the content and funding of official websites of centres for the collective use of scientific equipment and (or) unique research devices, creation and (or) functioning of which is financed from the federal budget, and which function by means of the Internet information network and (or) web pages of the official websites of research and (or) academic institutions where these centres were opened".
- Transition to using the electronic document flow system when providing services to VSU divisions.
- Creation of personal accounts for VSU staff members using corporate VSU e-mail and personnel database.
- Automated registration of user request and statistical processing.
- Adjustment to mobile devices.
- 2. The centre acquired a unique laboratory facility PCM-500.

Computer-assisted laboratory facilities PCM-500 allow researchers to study the atomic and electronic structure and the phase composition of functional materials and alloys obtained using aluminium, silicon, phosphorus and their compounds without surface destruction on the depth of up to 120 nm in the wavelength range of 0.5–50 nm.



Head researchers working with the PCM-500 facilities are world-famous scientists:

- Professor Evelina P. Domashevskaya, DSc in Physics and Mathematics, Head of the Department of Solid-State Physics and Nanostructures, Honoured Scientist of the Russian Federation,
- and Professor Vladimir A. Terekhov, DSc in Physics and Mathematics, professor at the Department of Solid-State Physics and Nanostructures.



THE MOST VALUABLE AND IN DEMAND EQUIPMENT OF THE CENTRE



Zeiss LIBRA 120 transmission electron microscope

A Zeiss LIBRA 120 transmission electron microscope with a built-in omega filter is a high-tech research facility with a unique design of the electron optics. The microscope can be used for various types of research in materials science (metal, semiconductor, and polymeric samples), and bioscience (cell material, etc.).

Application: determining phase compositions, and structural analysis of materials (thin films, nanopowders, thinned bulk material, biomaterials) as thin as 0.20 nm.



PT-PC 75840 RMC-Boeckeler ultramicrotome

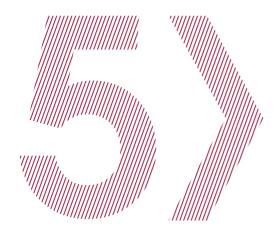
A PC controlled ultramicrotome performs ultrathin sectioning for their further study by means of transmission scanning electron microscopy, atomic-force microscopy, scanning probe microscopy, or optical microscopy. The precise feed technology allows to obtain sections with thickness from 5 nm to 10 μ m. The device uses glass or diamond knives.



JSM-6510LV Series scanning electron microscope and Bruker X-flash energy dispersive system

A compact multifunctional SEM combines user friendliness and excellent optics.

Application: obtaining nanometre resolution images of conductor and nonconductor materials; determining the thickness of alloys and separate layers of heterostructures by means of scanning electron microscopy; performing element composition analysis of conductor and dielectric materials.





PANalyticalEmpyrean X-ray diffractometer

The diffractometer is intended for high speed and quantitative phase analysis with great precision and automatic search in ICDD PDF-2 databases.

Can be used to analyse powders, films on substrates, and monoliths.

The diffractometer can perform semiquantitative (Reference Intensity Ratio) and quantitative analysis,

identify X-ray diffraction patterns, and specify crystal lattice parameters using various methods including the Rietveld method.

BRUKER S8 TIGERX-RAY DIFFRACTOMETER

Performs X-ray fluorescence wavelengthdispersive qualitative and quantitative analysis of chemical elements of F-U range and their stoichiometric compounds. The analysis can be performed in vacuum, low pressure helium (liquids and loose samples), and atmospheric pressure (volatile liquids).





IonPersonal Genome Machine (DNA sequencing system)



A highly reliable DNA sequencing system.

Application: sequencing of genes of humans, animals, and plants (up to thousands of genes); targeted sequencing of genome regions of any organism; search for somatic and genetic mutations; complete repeated sequencing of genomes of bacteria, viruses, and fungi (search for SNP, structural rearrangements and abundance variations); RNA-sequencing for small genomes.

Bruker Vertex-70 spectrometer

Determining

Investigation of chemical interactions within various chemical processes when measuring the transmission and absorption spectra in solid and liquid samples of organic and incorganic origin in mid-infrared region (4000–400 cm-1).





Developing express methods of quality control of medical products when measuring the scattering absorption spectra. Creating databases of pharmaceuticals spectra of the near-infrared region.



5.8. VSU INNOVATION FINANCIAL SUPPORT IN 2016–2017

Table 5.6

VSU INNOVATION FINANCIAL SUPPORT IN 2016–2017

| | | | | | Funding, th | nousand ro | ubles |
|----|---|---|---------------------------------|----------------------|--|----------------------|---|
| | | Head | Duration | : | 2016 | | 2017 |
| No | Projects | Researcher | of the project | Federal financing | Independent entrepreneurs co-financing | Federal financing | Independent entrepreneurs co- financing |
| | The Decree of the Government of the Russ government order for rendering state serv | | ut works) by | federal sta | | | |
| 1 | Development of new corrosion inhibitors for copper and its functionally-substituted triazole alloys to be used in heat-exchange equipment. Industrial Partner OOO Nafta EK | Professor Kh.S. Shikhaliev, DSc in Chemistry | 2017–2019 | - | - | 10,377.7 | 4,300 |
| 2 | Development of methods for the 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 Technical Sciences | 2017–2019 | - | - | 8,325.2 | 3,500 |
| | amme "Research and Developme | | al target prog reas of Scier | | chnology in Ru | ssia for 201 | 4-2020" |
| 3 | Development of energy-saving technologies used in the process of production of emulsifiers and emulsifying systems for food and nonfood industries based on raw materials and their derivative products. Industrial Partner OAO Efirnoye | Professor Kh.S. Shikhaliev, DSc in Chemistry | 2015–2017 | 12,000 | 12,000 | 15,000 | 15,000 |
| 4 | Development of biomolecular methods for quality control of milk and fat-and-oil products by means of high-performance DNA analysis. Industrial Partner OAO Efirnoye | Professor V.N. Popov, DSc in Biology | 2017–2018 | - | - | 15,000 | 15,000 |



End of table 5.6

| <u> </u> | | | | | | /////////////////////////////////////// | |
|----------|---|--|-------------------|----------------------|---|---|--|
| | | | Duration | | | thousand roubles | |
| No | Projects | Head Researcher | of the project | Federal financing | 2016 Independent entrepreneurs co-financing | Federal financing | 2017 Independent entrepreneurs co- financing |
| | The Programme of the F | und for Infrastructu | re and Educ | ational Pro | grammes (ROS | SNANO). | |
| 5 | Development of an advanced training programme of further education in the field of biotechnologies, biochemistry, and genetic engineering for the creation of producer strains of enzymes used in the food industry. Industrial Partner GK Efko | Professor V.N. Popov, DSc in Biology | 2017–2018 | - | - | 5,664 | - |
| | Agreement No. 4-VG dated 31 July 2017 | | | | | | |
| 7 | 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 | - |
| | Agı | eement No. 02-K/ | 17 dated 23 (| October 20 | 17 | | |
| 8 | Carrying out research and developing a technology for electrodialysis with continuous-flow demineralisation of lactose-containing products. Designing a technical specification for the creation of an experimental-industrial electrodialysis machine. Designing technical documentation for the 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 |



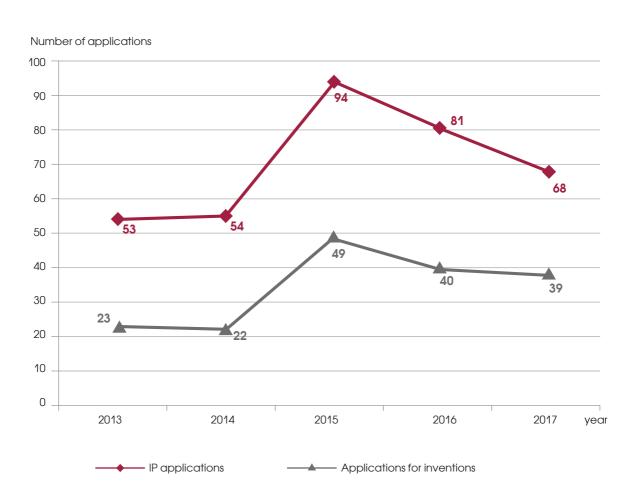
5.9. VSU PATENT ACTIVITY IN 2013–2017

In 2017, patent and license activity enhancement was continued. In total, VSU academic staff created 70 copyrightable intellectual property items. 68 patent and registration certificates applications were filed. The results of intellectual property activities were used to create 2 new SIBs.

The decrease in the number of applications can be accounted for by the introduction of a case-specific approach to the choice of protection strategies and the character of preliminary examination of market potential of the suggested copyrightable intellectual property items. Of the total number of applications filed, the number of applications for inventions rose from 49 to 60% and totalled 39 (see Fig. 5.5).

Figure 5.5

APPLICATIONS FOR IPS AND INVENTIONS (2013–2017)

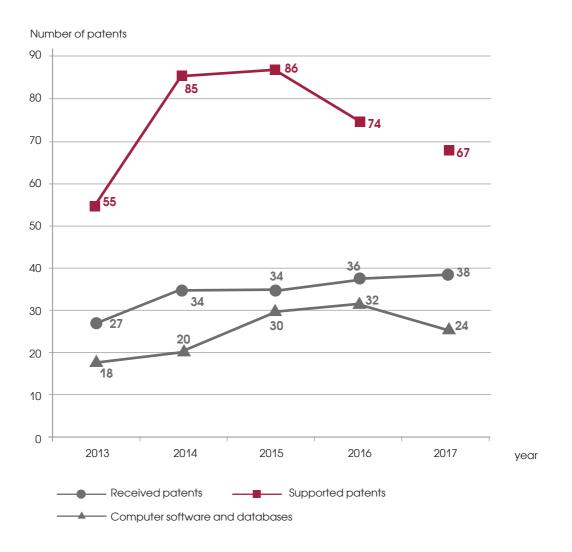




In 2017, VSU researchers received 24 computer programs and data bases certificates. The number of invention and utility model patents was continuously growing over the last years and reached 38. Patent activities played a great role in the implementation of the University Strategic Development Programme (see Fig. 5.6).

Figure 5.6

VSU PATENT ACTIVITY (2013-2017)



As of the end of 2017, VSU holds intellectual property rights for 67 patents with high commercial potential.

In 2017, over 460 thousand roubles were spent on state patent dues.



5.10. IP APPLICATIONS DYNAMICS PER FACULTY

The monitoring of patent activity per faculty has been carried out over the last eight years. The Faculty of Chemistry and 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 kept their leadership in the number of applications submitted (see Table 5.7).

Table 5.7

IP APPLICATIONS DYNAMICS

| Faculty | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|------|------|------|------|------|
| The Faculty of Biomedical Sciences | 2 | 1 | 10 | 11 | 12 |
| The Faculty of Computer Sciences | 8 | 11 | 23 | 8 | 9 |
| The Faculty of Pharmaceutics | 6 | 7 | 13 | 4 | 7 |
| The Faculty of Physics | 12 | 12 | 6 | 11 | 8 |
| The Faculty of Chemistry | 15 | 18 | 15 | 19 | 11 |
| The Faculty of Applied Mathematics, Informatics, and Mechanics | 11 | 9 | 13 | 22 | 13 |
| The Faculty of Geology | _ | _ | _ | 2 | - |
| The Faculty of Geography | - | - | 1 | - | 3 |
| Other units | | 3 | 13 | 4 | 5 |
| Total | 54 | 61 | 94 | 81 | 68 |

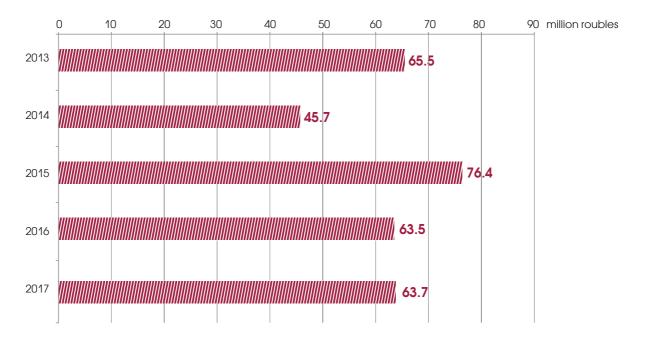


5.11. INNOVATIVE VENTURES DEVELOPMENT: SIB ACTIVITIES, THE BEST SIBS, SIBS EFFECTIVENESS INDEX

In 2017, the SIB entrepreneurial activity at VSU remained similar to that of the previous year. Cash assets turnover from SIBs amounted to 63.7 million roubles. The dynamics of cash assets turnover from SIBs in 2013–2017 is shown in Fig. 5.7.

Figure 5.7

CASH ASSETS TURNOVER FROM SIBs



The university continued detecting and closing down SIBs that have remained ineffective for several years. In 2017, five slow-moving SIBs were closed, including two SIBs which had been functioning until the end of the reporting year.

Along with the closing of slow-moving SIBs, two new SIBs were created. Therefore, 31 SIBs were functioning in 2017. Table 5.8. presents the list of all SIBs. Table 5.9 presents the list of the most effective SIBs in 2017.



SIBs FUNCTIONING IN 2017

| <u> </u> | | |
|----------|---|------------|
| No | SIB's name | Founded in |
| 1 | OOO Plasma innovetion technologies | 2010 |
| 2 | OOO AKMA-Universal | 2010 |
| 3 | OOO TeknoKhim | 2010 |
| 4 | OOO Institute of corrosion | 2010 |
| 5 | OOO Pharmaceutical Innovations | 2011 |
| 6 | OOO Centre for consulting services and innovative technological solutions for geology "Tsitrin" | 2011 |
| 7 | OOO NanoImpulse | 2011 |
| 8 | OOO Voronezh enterprise of ecological soil monitoring | 2011 |
| 9 | OOO Technologies of Bumblebee-Keeping | 2011 |
| 10 | OOO Innovation Expert Enterprise Ecotechnologies | 2012 |
| 11 | OOO RPE Hydrogeocentre – VSU | 2012 |
| 12 | OOO PlazmoSil | 2012 |
| 13 | OOO Bioint | 2012 |
| 14 | OOO Institute of System Biotechnologies | 2012 |
| 15 | OOO Regional Centre for Efficient Use of Resources | 2012 |
| 16 | OOO Basic Information Technologies B | 2013 |
| 17 | OOO Efficient Management Centre | 2013 |
| 18 | OOO New Technologies Spectrum | 2013 |
| 19 | OOO START | 2013 |
| 20 | OOO VSU Consulting Centre | 2013 |
| 21 | OOO Magnesian Materials Plant | 2014 |
| 22 | OOO Optoferronanosilicide | 2014 |
| 23 | OOO NPO Membranes | 2014 |
| 24 | OOO I-Expert Group | 2015 |
| 25 | OOO RST | 2015 |
| 26 | OOO Proftsentr Perspektiva | 2015 |
| 27 | OOO Krousoft | 2015 |
| 28 | OOO Smileoptic | 2016 |
| 29 | OOO Centre for the transfer of technologies in high molecular compounds chemistry | 2016 |
| 30 | OOO BFSoft | 2017 |
| 31 | OOO A-Systems | 2017 |



SIBs THAT SHOWED THE BEST RESULTS IN 2017

| <u> </u> | | <u>/////////////////////////////////////</u> |
|--|------|--|
| SIB's name | | Cash assets turnover in 2017 million roubles |
| OOO VPPEM (No.8) | 7.2 | 20.7 |
| OOO Tsitrin (No.6) | 29.5 | 14.3 |
| OOO Technologies of Bumblebee-Keeping (No.9) | 3.9 | 9.0 |
| OOO AKMA-Universal (No.2) | 6.5 | 6.8 |
| OOO RPE Hydrogeocentre – VSU (No.11) | 3.3 | 3.8 |
| OOO TeknoKhim (No.3) | 4.4 | 2.1 |

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 activities classified as trade secrets. These rights were transferred under license agreements concluded with the SIBs. In 2017, two license 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 2017, two agreements were concluded with OOO *Voronezhselmash* and one agreement was concluded with OOO *Manufacturing Company Tekhpromsyntez*.

The dynamics of the university's intellectual property transfers and acquisition activities can be seen in Table 5.10.



VSU INTELLECTUAL PROPERTY TRANSFER (ACQUISITION) ACTIVITY DYNAMICS

| <u> </u> | /////////////////////////////////////// | | | | <u>/////////////////////////////////////</u> |
|--|---|--|---|---|--|
| Indicator | 2013 | 2014 | 2015 | 2016 | 2017 |
| 1. Number of SIBs created | 5 | 4 | 4 | 2 | 2 |
| 2. Number of license agreements (agreements on the cession of rights) concluded | 5 | 4 | 5 | 10 | 5 |
| 2.1. Number of SIB-referenced license agreements concluded | 4 | 2 | 3 | 5 | 2 |
| 2.2. Number of concluded license agreements (agreements on the cession of rights) with no reference to SIB | 1 | 2 (including 1 agreement on the cession of rights) | 2 agreements on the cession of rights | 5 (including 2 agreements on the cession of rights) | 3 |
| 3. Number of existing license agreements (agreements on the cession of rights) – increment total | 26 | 29 | 31 | 39 | 39 |
| 4. Economic benefits (revenue, cost-cutting) of acquisition/selling of license agreements (agreements on the cession of rights), roubles | 33,322 | 28,322 | 6,800 (by reducing costs due to non-reciprocal acquisition) | 270,000 | - |

Table 5.11 demonstrates the results achieved in intellectual property commercialisation using various mechanisms.

Table 5.11

TECHNOLOGY COMMERCIALISATION MECHANISMS

| | | | | | /////////////////////////////////////// |
|--|------|------|------|------|---|
| Indicator | 2013 | 2014 | 2015 | 2016 | 2017 |
| SIBs | 26 | 30 | 31 | 32 | 31 |
| License agreements | 5 | 3 | 3 | 8 | 5 |
| Agreements on the alienation of rights | - | 1 | 2 | 2 | - |



5.12. OVERVIEW OF THE VSU ENGINEERING CENTRE

Voronezh State University won the open public contest for the 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. The project requires the creation of a university-based engineering centre I-Technology which will provide engineering and advisory services for industrial enterprises of the Voronezh Region and the Central Black Earth Region. Head Researcher–Professor V.M. Nenakhov, DSc in Geology.

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 value of the project is justified by the need of the region's industrial sector for an engineering centre which would encourage and intensify modernisation of industrial enterprises manufacturing glass, pottery clay and fire-clay goods, as well as enterprises working in steel, construction, and chemical industries.

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.

The priority areas of the Engineering Centre's activities are the following.

- Natural resources management.
- Ecological Safety.
- Employee training.
- Import substitution (in 2015, the portion of imported quartz sand amounted to 97%).
- 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.

The research infrastructure of the centre includes VSU Science Park, the Centre for Collective Use of Scientific Equipment, and VSU-based small innovative businesses.



The major clients of the engineering centre will 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 5.12).

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 in budgets of different levels for the whole period of the project will exceed 60 million roubles.

Table 5.12

SERVICES PROVIDED BY THE ENGINEERING CENTRE AND SALES MARKET CHARACTERISTICS

| <u> </u> | | | | |
|----------|--|---|---|---|
| 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 | 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 | Production of ilmenine and rutile concentrates | Chemical and steel industries, pottery clay and fire-clay goods manufactures | 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. |
| | complex) | Production of zirconium concentrate | | 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 | | a) refractory products; b) porcelain manufacture. |



5.13. OVERVIEW OF INNOVATION BUSINESS INCUBATOR

VSU's innovator business incubator is not only a university facility but also 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.

In 2017, the following areas were developed:

- 1. Concluding contracts with contracting organizations to enable efficient business of the VSU business incubator: contracts with OOO *Stroipozhservis* (fire protection service), OAO *SKBKM* (water supply and sewerage), OOO *Centre for preventive disinfection* (disinfection and deraturation services), and ZAO *Quant-telecom* (telephony).
- 2. Promotion of key R&D projects by VSU researchers and small innovation businesses at exhibitions and presentation platforms: Moscow International Education Salon (Moscow, 12–15 April), Voronezh Industrial Forum (Voronezh, 23–24 May), Wilhelm Stoll Entrepreneurship Forum (Voronezh, 25 May), Startup Village conference (Moscow, Skolkovo Foundation, 6–7 July), International Military Technical Forum ARMY-2017 (Moscow Region, 22–28 August), Exposition of VSU innovative projects organised for a Japanese delegation (Voronezh, August 2017), international forum "Open Innovations" (Moscow, Skolkovo Foundation, 16–18 October), Russian-Chinese Forum of High Technologies (Moscow, 24–25 November), VuzPromExpo international exhibition (Moscow, 13–14 December). Over 25 key R&D projects by SIBs and VSU researchers were presented at least at 10 exhibitions and presentation events. VSU researchers were also awarded various prizes for their projects, including the Region Cup "For contribution to development of inventions and efficiency promotion in the region". Each project involved the preparation of exhibition materials and computer presentations.
- 3. Participation of employees in the following workshops:
 - Workshop "Intellectual property for small and medium innovative businesses" (a certificate of participation was received).
 - Workshop "Engineering of innovative projects and enterprises commercialisation strategy and economic model of an innovative project/enterprise".
 - Training session "Engineering of innovative projects and enterprises commercialisation and business plan".
- 4. Full-scale support of the VSU Innovation Projects Contest "Start-up Factory". The Contest was held at the innovation business-incubator by theRector's directive of 28th February 2017, No.0107. 26 applications by VSU students and young researchers were submitted for the contest. The qualifying stage took place in spring 2018, and best projects will be presented in the final in September 2018.
- Consultative and administrative support of innovation projects by VSU students and staff submitted for the contest held between Voronezh universities "Innovation cup – 2017".



In 2017, VSU played an active part in the annual innovation project contest held between Voronezh universities "Innovation Cup" – VSU's young researchers submitted 5 innovation projects for this contest. During the process of preparation, each project received individual consultative support. Voronezh State University was announced to be the best innovative university of the Voronezh region in 2017. The university was awarded with a trophy. The winners of the Innovation Cup include:

- Igor Koltakov for the project "MRI contrast agent Lipocsan" (2nd place).
- German Komarov for the project "Fuel processing device Knyaz-1".

All the winners were awarded grants with total amount of 650 thousand roubles.

- 6. Since 2009, the year of its foundation, 55 VSU students has become the winners of the programme "Participant of the Youth Scientific and Innovation Competition" "U.M.N.I.K." In 2017, 15 VSU's students presented their projects in the final in all the 5nominations-InformationTechnologies, Medicine of the Future, Advanced Materials and Technologies, New Devices and Hardware Systems, and Biotechnologies. The winners include:
 - Andrey Boronnikov, bachelor's degree student at the Department of Digital Technologies of the Faculty of Computer Sciences. Research supervisor – Yaroslav Turovsky (award in Information Technologies).
 - Mechislav Prinev, first-year bachelor's degree student at the Department of Software Development and Information Systems Administration of the Faculty of Applied Mathematics, Informatics, and Mechanics. Research supervisor – Irina Voronina (award in Information Technologies).
 - Anna Myndra, lecturer at the Department of Economics and Management in Pharmaceutics and Pharmacognosy of the Faculty of Pharmaceutics. Research supervisor – Nina Diyakova (award in Boitechnologies).
 - Alexey Perepelitsa, lecturer at the Department of Optics and Spectroscopy of the Faculty of Physics. Research supervisor – Oleg Ovchinnikov (award in Advanced Materials and Technologies).
- 7. Monitoring and support of VSU SIBs activities. In 2016, 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 SIBs performance was carried out, and a number of legal and formal issues were



settled. Several SIB's 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 28.06.2017. The cost of consulting services for SIBs totalled 95 thousand roubles.

- 8. There was an increase in the activity of VSU's and SIB's researchers aimed at intellectual property rights protection: applications submitted to the Federal Institute of Industrial Property received full-scale support in order to make the process quicker.
- 9. Atlas of Innovations of VSU The goal of the VSU Innovative Projects Atlas is to enhance introduction of the university R&D projects into production as a result of increased marketing efficiency aimed at fulfilling VSU's innovative potential.

In order to achieve this aim, the following objectives were performed:

- Full-scale monitoring of the university innovation potential was carried out.
- Most promising and in demand R&D projects were detected.
- Procedures for preparation of electronic or printed presentations for the university's most promising innovation R&D projects were developed.

VSU Atlas of Innovations is available in three forms:

- An electronic version published on the university official website and innovation portal.
- An illustrated printed brochure.

In 2017, a new redesigned version of the Atlas was published.

VSU Atlas of Innovations will be continuously updated with new innovative projects.

10. Bilateral cooperation with the following organisations providing support for the Voronezh region small business and innovation structure development was developed: State Foundation for Assistance to the Voronezh Region Small Innovative Enterprises, OKU Innovations and Development Agency, GBU Voronezh Region Cluster Development Centre, the Economic Department, the Entrepreneurship and Trade Development, and the Department of Industry of the Voronezh region, VPRSP OPORA, GS Leader. A project was implemented under the contract with OKU AIR for the amount of 30 thousand roubles.



5.14. VSU R&D PROJECT DATABASE

1. The project "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".

Head Researcher – Professor A.A.Sirota, DSc in in Technical Sciences. Industrial partner – OOO *Voronezhselmash*.

2. The project "Development of new corrosion inhibitors for copper andits functionally-substituted triazole alloys to be used in heat-exchange equipment".

Head Researcher – Professor Kh.S. Shikhaliev, DSc in Chemistry. Industrial partner – OOO *Naftaeko EK*.

3. The project "Development of 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. Industrial partner – OOO *Efirnoye*.

4. The project "Development of energy-saving technologies used in the process of production of emulsifiers and emulsifying systems for food and non-food industries based on raw materials and their derivative products".

Head Researcher – Professor Kh.S. Shikhaliev, DSc in Chemistry. Industrial partner – OOO *Efirnoye*.

5. The project "Development of an advanced training programme of further education in the field of biotechnologies, biochemistry, and genetic engineering for the creation of producer strains of enzymes used in the food industry".

Head Researcher – Professor V.N. Popov, DSc in Biology. Industrial partner – GK *EFKO*.



5.15. 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 infrastructural programmes and projects.

The founders of the fund

- Rector Dmitry A. Endovitsky on behalf of Voronezh State University;
- Elena O. Ivashinenko on behalf of 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 Angstrem Group, member of the Board of Trustees of VSU.

The Fund Management Board

- Dmitry A. Yendovitsky, Chairperson, Rector of Voronezh State University;
- Alexander A. Sokolov, Vice Rector for Building Operation and Capital Development;
- Gennadiy V. Chernushkin, Founder of Angstrem Group;
- Evelina P. Domashevskaya, Head of the Department of Solid-State Physics and Nanostructures of VSU.

The Fund's Board of Trustees

- Evgeniy V. Yurchenko, Chairman of A.S. Popov Investment Fund.
- 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.

The supreme corporate body of the Managing Fund is the Management Board that makes decisions regarding the main issues concerning the Fund's activities, including expenditure targets of the previous year's revenue.

Director of the VSU Endowment Fund

Elena O. Ivashinenko – Head of the Career Development and Business Partnership Department.

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



The Fund Management Board decided to spend the revenue on the following measures:

- Providing grants to the young scholars; covering the research and internship costs.
- Providing grants to VSU's leading scientists.
- Personalized retirement benefits to VSU's outstanding lecturers and scholars (the benefactor may choose a specific person to receive the benefit).
- A special-purpose contribution to sponsor the education of talented students.
- Personalized scholarships for undergraduate and postgraduate students.
- Purchasing unique equipment for increasing the innovative capacity of the research.
- Remote pre-entry training for school leavers.
- Organizing academic competitions for VSU applicants.
- Supporting the innovative educational Youth Centre for Scientific Creativity.
- Development of the VSU Botanical Garden.
- Development of the VSU's biocentre and recreation facility "Venevitinovo": completing the construction of the new building for winter recreation.
- Development of the reserve "Galichya Gora".
- Leisure facilities for VSU students and staff members.
- Enhancement of the university facilities.
- Other uses in compliance with VSU's development strategy and the objective set by the charter of the fund.

As of 31 December 2017, the endowment's assets held under trust (without income) reached 20.4 million roubles. The value of net assets of the fund reached 26.3 million roubles.

The revenue from the discretionary management of the VSU Endowment Fund in 2017 was 11.11 %, i.e. 1,850,248.93 roubles in absolute terms (excluding the remuneration of the management company).

The expenses of the management company in connection with holding the endowment's assets on trust in 2017 amounted to 207,257.89 roubles. The remuneration of ZAO *Gazprombank – Assets Management* in 2017 was 205,583.21 roubles.

New donations made in 2017 amounted to 7,536,249.74 roubles, which is 10 times more than last year (see Table 5.13).



Donations structure:

- 167,614.74 roubles from individuals (VSU graduates and staff members);
- 7,368,635 roubles from organisations such as Vladimir Potanin Foundation, UGMK Kholding, GK Angstrem, OAO Tyazhmekhpress, OOO Voronezh Katering, AO IK Informsvyaz-Chernozemye, and OOO Strekh.

Table 5.13

VSU ENDOWMENT FUND VALUE AND CONTRIBUTIONS

| Year Indices | 2013 | 2014 | 2015 | 2016 | 2017 |
|--|------------|------------|------------|------------|------------|
| The endowment's assets by the end of the year, roubles | 12,692,750 | 13,069,550 | 14,687,000 | 15,283,685 | 20,440,447 |
| Augmentation of the endowment, roubles | 12,692,750 | 376,800 | 1,617,791 | 596,685 | 7,536,250 |
| Net asset value by the end of the year, roubles | 13,025,000 | 13,378,000 | 17,248,000 | 18,647,000 | 26,362,269 |
| The revenue from the discretionary management, roubles | 437,309 | 400,144 | 2,735,000 | 1,565,000 | 1,850,249 |
| Annual effective yield, % | 8.4 | 3.5 | 22 | 10.5 | 11.11 |
| Inflation, % (according to the Russian Federal State Statistics Service) | 6.45 | 11.4 | 13 | 5.4 | 2.5 |
| Amount of contribution, roubles | - | 393,667 | 360,129 | 707,800 | 1,404,400 |

In 2017, the Fund Management Board decided (Record No.9 of 19 May 2017) to spend some of the 2016 revenues – 1,404,400 roubles – as modified by the revaluation (Record No.10 of 15 December 2017) on some of the projects carried out by Voronezh State University. The projects include:

- Financial aid to long-service employees with the length of service to the university over 50 years.
- A competition for students "Best Socially Relevant Project" with a grant of 50 thousand roubles for each of the three best projects, and an additional prize of 30 thousand roubles for the absolute winner.
- "Walk of Graduates" in the VSU Botanical Garden.
- Social and educational projects carried out jointly with a Russian Foundation Znaniye.

In accordance with the fund's charter, the fund is not required to use all the earnings from the endowment. As 2018 is the centenary year for VSU, the fund's authorities decided to use a portion of 2016 revenue, while the rest of the earnings will remain with the management company, so that in 2017–2018 academic year they can be spent on organising the celebrations of the 100th anniversary of VSU.



In 2017, the key principles of the fund's activities were publicity and transparency. In order to fulfil these principles, the following measures were taken.

- Modernisation of the fund's official website.
- Participation in the annual reports competition organised by NGO Tochka otscheta. As a results, VSU Endowment Fund was awarded Bronze Standard certificate. The award ceremony took place in October 2017 at the Civic Chamber of the Russian Federation.
- The director of the fund took part in a round table discussion for the fund's directors and sponsors, and gave an interview to the Dorogoye Udovolstviye magazine about the problems of developing non-profit sector (November 2017, article "Why us?").
- Filming a series of shows "Test interviews with graduates" which give detailed description of the fund's projects and activities. The project received a grant from Vladimir Potanin Charitable Foundation.

A series of fund raising events were organised including:

- Botsad Challenge campaign (collected over 30 thousand roubles).
- A charity concert organised jointly with the Dobrosvet foundation (collected over 80 thousand roubles).
- Public fund raising as a part of the reunion meeting for graduates "All Together". The meeting was attended by over 1,000 graduates of various years from all faculties. As part of the meeting, the Endowment Fund was awarded a certificate for 5 million roubles from Vladimir Potanin CHaritable Foundation.

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

- selling dessert at the Shokoladnitsa chain of coffee houses,
- and a special plan for VSU students and academic staff provided by the Tele2 company.

In 2017, VSU members for the second time won a grant for 200 thousand roubles within the framework of the Charitable Programme for endowment funds development support in Russia "Endowment funds: growth strategy" organised by Vladimir Potanin Charitable Foundation. The grant will be used to implement a new project – a series of shows "VSU Centenary Chronicles" which will demonstrate the activities of the Fund and their connection to the university's activities. VSU members also completed a study course at SKOLKOVO Moscow management school where they learned the techniques of effective project implementation.

Current data about the Fund's activity can be found on the Fund's website www.vsu.ru/endowment-fund



5.16. VSU ALUMINI ASSOCIATION

The VSU Alumni Association was founded in December 2012 in order to maintain contacts with the 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 websitecurrently stands at over 5.5 thousand people (in 2016, this figure was just slightly over 900). In 2017, the Association collected a lot of new data and established contacts with a large number of graduates. Thus, the reunion meeting for graduates which was held on 30 September 2017, provided information about 818 graduates and extended the Association's database (Table 5.14).

The Association is currently collecting information about the graduates of 2017-2018 academic year. It is expected that 5 thousand more graduates will be included in the database.

Table 5.14

NUMBER OF REGISTERED MEMBERS ACCORDING TO THE YEAR OF GRADUATION

| 4////////////////////////////////////// | |
|--|--------------------------------|
| Year of graduation | Number of registered graduates |
| Before 1980 | 72 |
| 1981–1990 | 81 |
| 1991–2000 | 111 |
| 2001–2010 | 206 |
| 2010/11 | 56 |
| 2011/12 | 70 |
| 2012/13 | 85 |
| 2013/14 | 142 |
| 2014/15 | 188 |
| 2015/16 | 1235 |
| 2016/17 | 4132 |
| Other years (information from the website) | 238 |
| Total | 6616 |



The main activities of the VSU Alumni Association in 2017.

- On 22 November 2017, the Coordination committee for contests for grants of the President of the Russian Federation aimed at the development of civil society finalised the results of the second contest. VSU Alumni Association was selected as one of the winners. The number of projects submitted for the contest was 8,610, including 2,243 which became winners. The grant amounted to 2,718,660 roubles and was spent on the project suggested by a VSU graduate Dmitry Kouda "Tournament of Three Sciences 2018". Regional qualifying stages of the Tournament were held in spring of 2018 in 8 federal districts of the Russian Federation. The final stage will take part in autumn of 2018 at VSU within the framework of the celebrations dedicated to the 100th anniversary of the university. The final stage of the last year's Tournament was held in September 2017. It was also supported by a 1,951,000-rouble grant from the President of the Russian Federation.
- A series of shows "Test interviews with graduates" was filmed. The graduates tell about their university years, their further careers, and the way they keep in touch with their alma mater. The show was broadcast by KT-Voronezh channel every week. The recordings of the show are available on the channel's website, the Alumni Association website, the Endowment Fund website, and YouTube). A radio version of the show was broadcast by radio "Melodiya" (Voronezh, 106.8 fm).
- On 30 September 2017, the university held the reunion meeting for graduates "All Together". It was attended by over 1,000 gradates of all the faculties and received wide coverage by the local Mass Media. Among the participants there were a large number of notable alumni who also took part in a round table discussion of endowment funds development. Oxana Oracheva, the CEO of Vladimir Potanin Charitable Foundation was a guest of honour and awarded the rector with a 5,000,000-rouble certificate for the VSU Endowment Fund.

Current data about the Association's activity, photos and videos of the organised events, and information about the forthcoming celebrations of the 100th anniversary of VSU can be found on the Association's website at www.alumni.vsu.ru and on a public page on Vkontakte social networking site at https://vk.com/alumni_vsu.



5.17. GRADUATES EMPLOYMENT ASSISTANCE ACTIVITIES

Followingthe Order of the Rector No.35 dated 27.01.2017, the Centre for Career Development opened the Career Development and Business Partnership Department (CDBPD). Career guidance and graduate employment assistance present the priority area for CDBPD. In order to improve the university's efficiency, in 2017, the CDBPD started collaborating with business partners and regional authorities regarding the implementation of various regional projects and programmes, attraction of partners, fund raising for the VSU Endowment Fund, and graduates' employment.

EMPLOYMENT ASSISTANCE RESULTS (VSU INNER SYSTEM)

- A job bank.
- A graduates bank containing graduates' CVs.
- Information and professional orientation events for students.
- Individual consulting of students on career determination, planning and development.
- Psychological support for students aimed at successful self-determination in the labour market.
- Employment monitoring within one calendar year after the year of graduation.

Organizational and methodological support of the Department's activities in 2017 included:

- 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 the 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, presentations by employers, round table discussions with employers, etc.).
- 4) The work of faculty employees responsible for helping students find jobs and contacts aimed at obtaining information about the jobs of the employed graduates and providing the unemployed graduates with information from the job bank and employment assistance.



In 2017, the following services of the Career Development and Business Partnership Department were the most demanded:

- Employment assistance for VSU graduates (consulting, participation in negotiations with employers).
- Finding jobs for VSU graduates.
- Preparing and proofreading the CVs of VSU graduates and students.
- Sending newsletters with information about vacancies and services.
- Custom vacancy search.

INFORMATION RESOURCES

Career Development and Business Partnership Department established an effective graduate employment assistance system:

- Centre of Career Development official VKontakte group was functioning effectively (the number of followers 1,212 people).
- In 2017, the electronic database was extended by 5,000 CVs, and now contains 6,378 CVs. The VSU graduate databases on interactive portals include 238 people on www.alumni.vsu.ru, and over 4,500 people on Стажировка.Ру.

ORGANISATION OF GRADUATES' EMPLOYMENT ASSISTANCE EVENTS

VSU has partnership agreements with over 200 enterprises. According to these agreements the enterprises provide for students' practical training and take part in various career guidance events (over 50 career fairs, career days, and excursions to partner enterprises) aimed at assisting graduates find employment (Table 5.15).

CONTRIBUTION BY EMPLOYERS

| Company | Date of event and number of hours dedicated by employer | Event |
|---|---|--|
| Erasmus+ project within Jean Monnet Actions | 13.01.2017 8 hours | Educational Module "Migration in the European Union: concerns and prospects" for students of the Faculty of International Relations and the Faculty of Philosophy and Psychology |
| FSBSI "Institute for Strategy of Education Development of the Russian Academy of Education" | 20.01.2017 4 hours | Workshop "Problems of higher professional education – traditions and innovations" A talk by Professor Vladislav Serikov, DSc in Pedagogics, director of the institute |
| Consulting company ALGA, premium cheese company "Cheese sommelier" | 27.01.2017 8 hours | Vocationally-oriented master class "Path to success" for students of the Faculty of Philosophy and Psychology |
| Research project of the Russian Foundation for Basic Research | 03.02.2017 8 hours | International conference "Legal crisis in a transitional society" with participation of experts in jurisprudence and students and teachers of the Faculty of Law |
| Social research and educational project "Russian analytical school" | 17.02.2017 4 hours | Open lecture for VSU students and staff members on "Analytics and a graduate's intellectual weapon" by Yury Kurnosov, expert in national administration and head of the project |
| Institute of English Studies of Freiburg University of Education (Germany) | 11.02.2017 – 18.02.2017 32 hours | Scientific workshops within the framework of the TEMPUS project on "Modernising European Language Teaching through the Introduction of Online Technologies in the Process of Teacher Training" at the Faculty of Romance and Germanic Philology. The workshops were moderated by Dr. Thomas Manfred Raith, director of the institute |
| Dmitry Pozharsky University | 03.03.2017 8 hours | Workshop "Contemporary economics: theoretical problems, applied research, analysis, and modelling" moderated by Alexey Savvateev, director of the university |
| Centre for German Political Studies of the Faculty of International Relations together with the German Studies Club of the Moscow State Institute of International Relations | 14.03.2017 4 hours | Interregional video conference "Relations between Russia and German-speaking countries – facts, signs, and their perception" |
| DataArt company | 18.03.2017 4 hours | Innovation ideas competition "Pharmacy of the Future 2017" |
| Burdenko Voronezh State Medical University, DataArt | 23.03.2017 4 hours | Scientific marathon "Medtech Hackathon" for medical and IT students aimed at searching for IT solutions to medical problems |
| Flerov Laboratoryof Nuclear Reactions (Dubna) | 30.03.2017 2 hours | Open lecture by Vladimir Maslov, the laboratory's staff member, for students and teachers of the Faculty of Physics |
| Recruitment agencies. Master classes in writing CVs and job interviews | 01.04.2017 | Forum "Mathematician as a profession" |
| National Research Nuclear University MEPhI with support form the Ministry of Education and Science of the Russian Federation and National Club of Young Researchers | 30.03.2017 – 02.04.2017 24 hours | Regional stage of the Federal Student Tournament of Three Sciences for Science students of the Central Federal District |
| DSR Corporation&OTSL, Inc. (Japan) | 04.04.2017 4 hours | Open lecture by Mr. Hatano, CEO of the OTSL corporation on "What do embedded-systems software technologies include?" for students of the Faculty of Computer Sciences |
| Institute of Oriental Studies of the Russian Academy of Sciences, Military University of the Ministry of Defence | 06.04.2017 – 07.04.2017 8 hours | Open lectures in the Russian and Arabic languages by Oleg Penkov, an expert from the university, for students of the Asian Studies programme of the Faculty of History. |
| GS Leader, Erasmus+ programme (Jean Monnet Actions) within the Educational Module "Migration in the European Union: Concerns and Prospects". | 08.04.2017 6 hours | Conference "6th International Student's Model United Nations" for students of the Faculty of International Relations |
| The Institute of Radio-engineering and Electronics of RAS, Voronezh State University, and AO Concern <i>Sozvezdie</i> | 18.04.2017 8 hours | 23rd International scientific and technical conference "Radioelectronics, navigation, and location" for students and teachers of the Faculty of Physics, the Faculty of Applied Mathematics, Informatics, and Mechanics, and the Faculty of Computer Sciences. |
| FH Joanneum University of Applied Sciences (Graz, Austria) | 16.04.2017 - 21.04.2017 24 hours | Open lectures by Lilian Todter, a teacher at FH Joanneum University of Applied Sciences, for students and academic staff of the Faculty of International Relations |

| | Date of event and | |
|--|--|---|
| Company | number of hours dedicated by employer | Event |
| High Institute of Commerce of Paris | 10.04.2017 – 22.04.2017 72 hours | Two lecturers of ISC Paris Business School were invited to give lectures for students of the joint programme "Executive MBA". The students include senior officers of various Voronezh enterprises. Ramon Shivre gave several lectures on "Communication management" |
| Institute of Oriental Studies of the Russian Academy of Sciences and Moscow State Institute of International Relations | 22.04.2017 8 hours | Professor Irina Zvyagelskaya gave lectures on the conflicts in the Middle East, and Professor Elena Melkumyan, one of the leading experts on the Syria conflict, told the audience about the current situation in the country. Open lectures were held at the Faculty of History for students studying at "Asian and African Studies" programme |
| Internet resource Stazhirovka.ru jointly with RIF-Voronezh, Atos, Tele2, DataArt, Surf, and Netcracker | 12.05.2017 2 hours | Regional Internet forum RIF-Voronezh for VSU's students |
| Erasmus+ project within Jean Monnet Actions "EHE PRS – Higher Education in Europe from Viewpoint of Russian Students. Investigation of Barriers for Successful Studies Caused by Differences in Educational Processes in Russia and the EU". | 17.05.2017 8 hours | Open lectures by Rafael Wagner, head of the International Students Office of the Department of International Relations of the University of Seville (Spain), Camille Dulour, head of the Department of International Relations of the University Paris-Est Marne-la-Vall (France), Maria Catroga, head of the Department of International Relations of the Polytechnic Institute of Tomar (Portugal), and Jyzsef Goretity, director of the Institute of Slavic Studies at the University of Debrecen (Hungary) |
| The COMPLETE project "Creating Employment Competences and Skills Development Centres" as part of the European Erasmus+programme | 18.05.2017 4 hours | Opening an Employment Competences and Skills Development Centre – COMPLETE |
| Angstrem company | 20.05.2017 4 hours | A festival for gifted school children "Success Story" organised within the framework of the company's social project "Big Game" involving students and academic staff of the Faculty of Economics |
| Westfälische Wilhelms-Universität Münster (Münster, Germany) | 24.05.2017 4 hours | A series of open lectures by Jörg Becker, Vice-Rector for strategic planning and a Quality Assurance Manager of Westfällische Wilhelms-Universität Münster, an Honorary Doctor of VSU and the head of the Department of ERP Systems and Business Processes Management of the Faculty of Applied Mathematics, Informatics, and Mechanics since 2015 |
| Toyota Motor Corp research centre | 25.05.2017 2 hours | Open lecture by the general manager of the centre Mr. Shigeru Kuroyanagi on "Technology trend of advanced safety assist and autonomous car" for students of the Faculty of Computer Sciences |
| Atos company | 18.07.2017 2 hours | 12thcertificate award ceremony for students of the Faculty of Computer Sciences – graduates of the Atos training centre |
| GK Efko, OOO Voronezhselmash, OAO Turbonasos | 25.07.2017 4 hours | A meeting of the Council for the Industrial Policies of the Government of the Voronezh Region on collaboration between universities and enterprises |
| DataArt company | 10.07.2017 – 22.07.2017 23 hours | Results of the three-week summer introductory training for students of the Faculty of Computer Sciences |
| Department of Education, Science, and Youth Policy of the Voronezh Region | 06.09.2017 4 hours | An open lecture by a deputy of the State Duma of the Federal Assembly of Russian Federation, Yevgeny Revenko, for the Voronezh youth. The event was held as part of the project name "Students' discussion clubs: talking as equals". |
| The Ministry of Digital Development, Communications and Mass Media of the Russian Federation and "Ekho Mosckvy" radio | 08.09.2017 4 hours | Open lectures by the Deputy Minister Aleksei Volin and the radio's Chief Editor Aleksei Venediktov on the problem "Do journasits need professional education?" |
| Google Developer Experts | 09.09.2017 6 hours | The annual IT specialists' conference GDG DevFest Voronezh 2017 |
| KPMG company | 18.09.2017 4 hours | Career day at KPMG Natalia Samoilova, senior manager at the company, talked about the job of an auditor, after which students of the Faculty of Economics took a professional test |
| GK Efko | 21.09.2017 8 hours | Open Day at GK Efko Students of the Department of Finance and Credit of the Faculty of Economics learned a lot about the company's major activity areas as well as about their own future profession and potential jobs |

End of table 5.15

| Company | Date of event and number of hours dedicated by employer | Event |
|--|---|--|
| The Court of Eurasian Economic Union | 06.10.2017 4 hours | An international scientific and practical conference "Contemporary Issues of International and Eurasian Justice" for students and academic staff of the Faculty of Law |
| Russian Geographical Society | 04.10.2017 – 06.10.2017 18 hours | An international scientific conference "Modern ecology – education, science, and reality" for students and academic staff of the Faculty of Geography, Geoecology, and Tourism. The conference was dedicated to the Year of Ecology in Russia |
| Managers' Training Centre "Presidential Programme" | 13.10.2017 550 hours | Diploma award ceremony for the graduates of the "Presidential Programme" dedicated to its 20th anniversary |
| Voronezh Division of the Bank of Russia Main Branch for the Central Federal District | 14.10.2017 4 hours | Open Day at the Voronezh Division of the Bank of Russia Main Branch for the Central Federal District for students of the Faculty of Economics |
| T-Systems company | 27.10.2017 8 hours | SAP Community Day conference Over 130 SAP specialists and students of IT programmes came to the conference. Among the speakers were representatives of the leading companies in Voronezh and Moscow – Atos, Teamidea, Sberbank-Technology, Severstal-Infokom, Asapio, and T-Systems. |
| ENGEX company | 02.11.2017 8 hours | A master class by Valery Maltsev (Moscow), marketing director at the engineering and consulting company <i>ENGEX</i> |
| Voronezh Region Economic Development Department | 02.11.2017 8 hours | A scientific conference "Long-term Social and Economic Development of the Voronezh Region: Strategic Priorities, Objectives, Mechanisms" for students and academic staff of the Faculty of Economics |
| OOO LandshaftLesProyekt, Kvantorum children's technopark, and OOO Trest Inzhenerno-stroiteInykh izyskanyi | 10.11.2017 8 hours | Career day for students and schoolchildren who want to specialise in soll sciences organised by the Department of Soil Studies and Land Resources Management of the Faculty of Biomedical Sciences within the framework of the Autumn University programme. The event was participated in by academic staff members, bachelor's and master's degree students, as well as prospective students and VSU graduates who work in the sphere |
| Biruch-NT Innovation Centre (R&D centre of GK Efko) | 18.11.2017 4 hours | Open lecture "Biotechnologies – a key to the future" by Tatiana Sanina, the CEO of the centre, PhD in Technical Sciences, as part of the project "Saturday University". |
| Aktion-MTsFER Mediagroup | 24.11.2017 8 hours | A qualifying stage of a competition held by VSU following the agreement with the mediagroup |
| Donostia International Physics Centre (Spain) and the Russian and German Helmholtz Zentrum Berlin BESSY II megafacilities laboratory (Berlin) | 27.11.2017 4 hours | An open lecture by Denis Vyalykh, professor at Donostia International Physics Centre (Spain) and Head of the Russian and German Helmholtz Zentrum Berlin BESSY II megafacilities laboratory (Berlin) |
| Office of Criminal Investigations of the Investigative Committee of the Russian Federation in the Voronezh Region | 06.12.2017 4 hours | A meeting with Lieutenant General of Justice Kirill Levit, Head of the Investigative Committee, for students and academic staff of the Faculty of Law |
| Communication group <i>Gurov</i> and <i>Partners</i> and concern <i>Rosenergoatom</i> | 09.12.2017 4 hours | Talks by Filipp Gurov, the managing partner of the communication group, and Andrey Timonov, director of the Department of Information and Public Relations at the concern, which were very popular with master's degree students, postgraduate students, and teachers of the Faculty of Journalism |
| KPMG company | 14.12.2017 4 hours | A workshop "Key changes in RAR and taxation" organised by the auditing and consulting company KPMG for students and academic staff of the Faculty of Economics |
| Ministry of Education and Science of the Russian Federation, Voronezh State University, and the Russian Foundation for Basic Research | 18.12.2017 8 hours | An international conference "Current issues in applied mathematics, informatics, and mechanics" |
| Aston University (Birmingham, the UK) | 27.12.2017 4 hours | A video conference with an Honorary Doctor of VSU, professor Sue Garton from Aston University for master's degree students and academic staff of the Faculty of Romance and Germanic Philology |
| State Deposit Insurance Agency | 29.12.2017 4 hours | A contest of students' projects at the Faculty of Economics |



The number of graduates who applied to employment service bodies reduced from 71 in 2016 to 55 in 2017, and the graduates registered unemployed fell from 23 to 15. Table 5.16 demonstrates the data presented by the Voronezh Region Employment Department about graduates of 2017.

Table 5.16

GRADUATES WHO APPLIED TO EMPLOYMENT SERVICE BODIES AND WERE REGISTRERED UNEMPLOYED AS OF 1 JANUARY 2018

| | | | s who | | Including those who were unregistered due to: | | | |
|---------------------|---|---|--|---|---|---------------------|---------------------------|------------------|
| Major | Speciality | Education programme | Number of graduates who applied to employment service bodies | Including number of graduates registered unemployed | employment | vocational training | long period of absence | Registered as of |
| | Higher pr | ofessional education | | | | | | |
| Specialist's degree | Geology | Master's degree | 4 | 2 | 2 | | 1 | 1 |
| | Geography | Master's degree | 2 | | 1 | | 1 | |
| | Applied geodesy | Specialist's degree | 1 | 1 | 1 | | | |
| | Ecology and natural resource management | Master's degree, bachelor's degree | 3 | 2 | 1 | 1 | | 1 |
| | Economics | Specialist's degree | 2 | 2 | | 1 | | 1 |
| | Jurisprudence | Bachelor's degree | 4 | 3 | 2 | | | 2 |
| | Publishing | Bachelor's degree | 1 | 1 | | | | 1 |
| | Physics | Specialist's degree | 2 | 2 | 2 | | | |
| | Chemistry, physics and mechanics of materials | Bachelor's degree | 2 | 1 | | 2 | | |
| | Television | Bachelor's degree | 1 | 1 | 1 | | | |
| | Management | Bachelor's degree | 1 | 1 | | | | 1 |
| | Advertising | Bachelor's degree, specialist's degree | 3 | 3 | 1 | | 1 | 1 |
| | Geosciences | Postgraduate training | 1 | 1 | | | | 1 |
| | State and municipal management | Bachelor's degree | 2 | | 1 | | 1 | |
| | Mathematics | Specialist's degree | 1 | 1 | | 1 | | |
| Psychologist | Psychology | Bachelor's degree, master's degree, specialist's degree | 6 | 4 | 2 | 1 | | 3 |
| Programmer | Software engineering, informatics | Bachelor's degree, specialist's degree | 2 | | 1 | | 1 | |
| eacher | Geography, history, pre-school pedagogics and psychology | Bachelor's degree, specialist's degree | 3 | 1 | 1 | 1 | 1 | |
| eacher-psychologist | Pedagogics and Psychology | Specialist's degree | 1 | | 1 | | | |
| eacher | Mathematics, informatics, history, Russian language and literature | Bachelor's degree, specialist's degree | 7 | 3 | 2 | | 3 | 2 |
| Biologist | Biology | Master's degree | 1 | 1 | 1 | | | |
| Conomist | Economics | Bachelor's degree, specialist's degree | 3 | 3 | | 1 | 1 | 1 |
| Manager | Management | Bachelor's degree | 1 | | 1 | | | |
| Chemist | Chemistry | Specialist's degree | 1 | 1 | 1 | | | |
| otal: | | | 55 | 34 | 22 | 8 | 10 | 15 |



The data presented by the graduate employment portal of the Ministry of Education and Science demonstrates that in 2016, 80% of VSU's graduates were employed, of whom 75% completed full-time education programmes, and 64% found jobs in the Voronezh Region. The number of employed graduates in 2016 fell from 85% in 2015. The average salary of the graduates also decreased from 27,466 in 2015 to 26,026 in 2016. (See Table 5.17).

Table 5.17

VSU GRADUATES EMPLOYMENT ACCORDING TO THE DATA PROVIDED BY THE MINISTYR OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATON

| | 2016 | 2015 |
|--|--------|--------|
| Employed graduates, % | 80 | 85 |
| Average salary of the graduates, roubles | 26,026 | 27,466 |

In 2018, in order to enhance the effectiveness of graduates' employment, the university is going to introduce new mechanisms and tools of interaction with prospective employers which will provide for better communication between VSU graduates and their employers. These tools and mechanisms include the following:

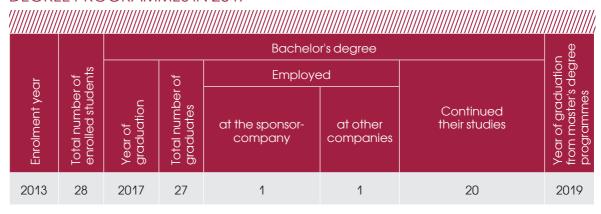
- Students' profiles at Stazhirovka.ru and HeadHunter the most popular websites used by recruitment agencies.
- Collecting and processing of data about the graduates' employment, their jobs, and average salary by means of surveys at the region's enterprises. This will help to attract attention of partner companies, create a competitive environment at the graduates market, and encourage VSU graduates to work within their speciality for VSU's partner companies.
- Organising career guidance events at university and its faculties with participation of potential employers.



ANALYTICAL DATA ABOUT THE EMPLOYMENT OF GRADUATES WHO COMPLETED EMPLOYER-SPONSORED TRAINING

Table 5.18

DATA ABOUT THE EMPLOYMENT OF GRADUATES WHO COMPLETED EMPLOYER-SPONSORED TRAINING AT BACHELOR'S DEGREE PROGRAMMES IN 2017



In 2018, the university will continue collecting and analysing data on employer-sponsored student and their further employment.

OBJECTIVES OF THE CDBPD FOR 2018:

- 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 employersponsored training.
- Participating in the creation of the Atlas of industrial tourism of the Voronezh Region and its active application.
- Creating a graduate database (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 2017

In 2017, the informatisation of VSU's activities were focused on the following objectives:

- Maintaining the university's telecommunication system.
- Maintaining and developing the information systems for the university's management, the university's official website, and all the web portals.
- Developing the Data Processing Centre of Voronezh State University, as well as the user support system.
- Developing electronic education technologies, e-learning, and distant learning.

MAINTAINING THE UNIVERSITY'S TELECOMMUNICATION SYSTEM

The University fibre-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. 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.

The university also introduced DNSSEC – a set of extensions to DNS which protect applications from using forged or manipulated DNS data. DNSSEC provides DNS clients with authenticated responses and ensures their integrity. DNSSEC uses public-key cryptography.

INFORMATION SYSTEMS IN UNIVERSITY MANAGEMENT

In the reporting period, Voronezh State University conducted activities within the framework of the project on utilisation of the system for information and analytical support of the quality of financial management. The system was functioning using 1C: Enterprise 8 software.

Main objectives:

- To enhance the effectiveness of the university's financial and business operations management by elaborating, introducing and developing informationcomputing systems.
- To reduce the time and resources spent on planning and financial analysis of the university's activities.
- To ensure due collection, analysis and presentation of data on the financial and operational activities of the university for managerial decisions.
- To reduce the risk of presenting incorrect or controversial information and take them into consideration when making managerial decisions.
- To ensure optimal financial relations with the federal budget, banks, and other financial institutions.
- To ensure financial security of the university, increase financial control, and order the university's activities.



- To develop a mechanism for the alignment of the budget.
- To forecast additional expenses.

In 2017, the university began implementing the subsystem for keeping track of enrolment contracts (SS Contracts). The system allows:

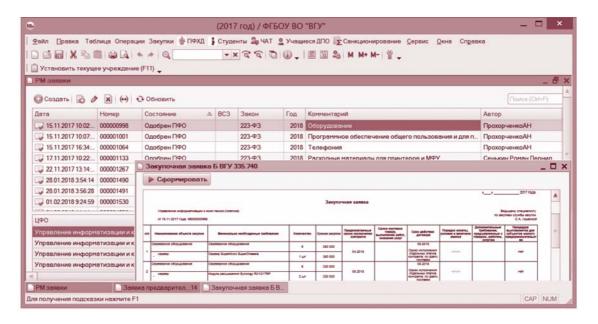
- Payment transfer and accounting by financial responsibility centres, including payments from legal entities, with details on each of the payments (main academic programmes, further education programmes, assessments, etc.) including discounts.
- Transfer information about payments from bank statements.
- Keeping track of liabilities for each of the services and applying penalties according to the terms of enrolment contracts.

Integration of the SS Contracts and the "Abiturient" information system enabled the admission committee of the university to register over 5,000 enrolment contracts and enrol over 3,000 students on a fee-paying basis at minimum labour cost.

In the reporting period, the university also introduced a new component of the information system – a subsystem for maintenance of procurement procedures (SS Procurement). The subsystem's functions include planning, processing and tracking procurement procedures. The system also allows each centre of financial responsibility to plan their procurement procedures separately within their own financial limits. Another feature of the system is the automatic exchange of data with the National Information System for Procurement Procedures (www.zakupki.gov.ru) (see Fig. 5.8).

Figure 5.8

THE INTERFACE OF THE SUBSYSTEM FOR MAINTENANCE OF PROCUREMENT PROCEDURES





Access to the system was granted to 210 users. 350 purchase requests have already been registered. Based on this data, a procurement plan for 2018 was developed.

The university is currently elaborating the function of automatic calculation of salaries and scholarships.

Information support of education process

The "Abiturieent 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. 5.9). In 2017, the portal traffic exceeded 700 thousand. Page traffic constituted over 1.9 million views. 97.6% of the visitors were from Russia, 0.7% – from Ukraine, 0.26% – from Kazakhstan, and 0.24% from Belarus.

Figure 5.9

"ABITURIENT ONLINE" WEB PORTAL HOMEPAGE

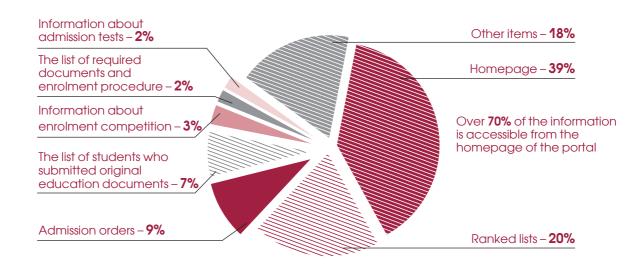




The new principle of the portal – to make the information easily accessible – proved to be a success, as the homepage traffic constituted 39 % of views. The most popular sections of the portal include: web services of the "Abiturient" information system that allow prospective students to monitor their position in the ranked lists online ("Ranked lists" section – 20%); admission orders (9%); lists of students who submitted the original education documents (7%); information about the number of applications, vacancies and enrolment competition ("Information about the enrolment competition" – 3%) (see Fig. 5.10).

Figure 5.10

"ABITURIENT ONLINE" WEB PORTAL TOP SECTIONS IN 2017 (BY TRAFFIC)

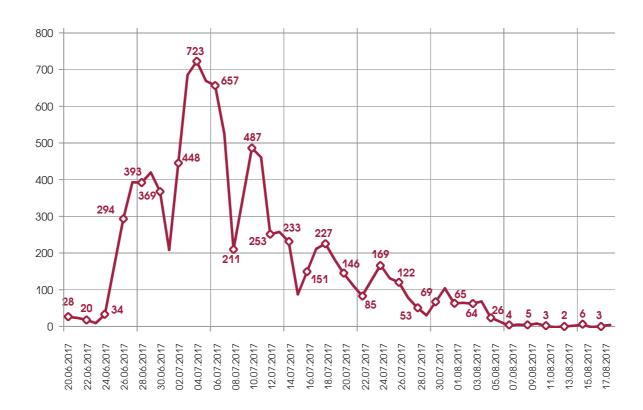




In 2017, over 9,000 potential VSU students filled in their application forms in the university laboratories. Potential VSU students had the opportunity to fill in their application forms in three university laboratories with 50 computers in each, where they were assisted by 170 operators. An average of 180 applications were processed every day. The most applications processed per day was over 700 (see Fig. 5.11).

Figure 5.11

APPLICATIONS SUBMISSION INTENSITY

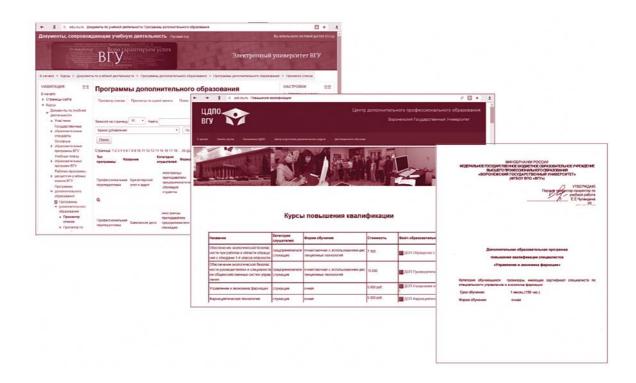




An electronic repository for further professional education programmes was created as a part of the project for the automation of academic activities (see Fig. 5.12). The repository stores over 200 advanced training programmes, professional retraining programmes, and general development programmes implemented at Voronezh State University. The information is available on the Electronic University VSU web portal (https://edu.vsu.ru) and the website of the Centre for Further Professional Education of VSU (https://pdi.vsu.ru).

Figure 5.12

REPOSITORY OF FURTHER PROFESSIONAL EDUCATION PROGRAMMES

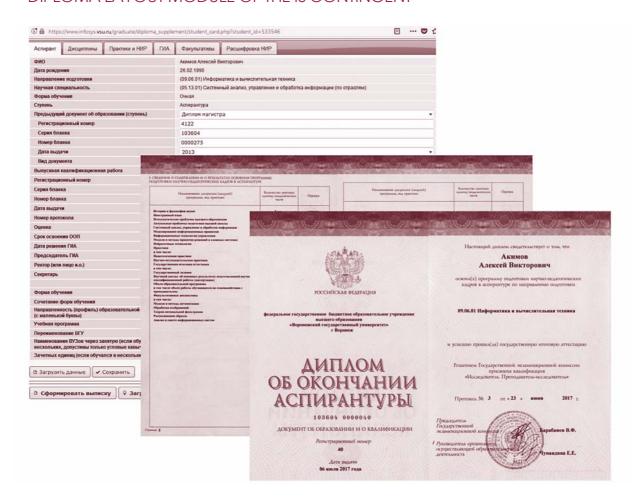




In the reporting period, the university's system for the informational support of the education process "Contingent" was modernised. The system now allows for the automated layout of diplomas for postgraduate and secondary vocational education programmes by using the data from the digital assessment sheets formed over the whole period of training. Over 180 diplomas were produced using the new system (see Fig. 5.13).

Figure 5.13

DIPLOMA LAYOUT MODULE OF THE IS CONTINGENT





VSU'S OFFICIAL WEBSITE

In 2017, the number of publication requests on the VSU website (www.vsu.ru) amounted to 1,947 (in 2016 - 1,872), including 1,015 news articles (in 2016 - 1,303) and 186 announcements (in 2016 - 204).

The statistics showed that the traffic remained on its usual high level. In 2017, more documents were downloaded than in 2016. The number of direct visits and the traffic of top sections of the leading faculties also increased. Thus, the traffic of the top pages of the Faculty of Economics, the Faculty of Law, and the Faculty of Biomedical Sciences increased by over 3 times.

The activity of users from Turkey, Egypt, and Saudi Arabia was twice as high as last year.

TRAFFIC ON VSU'S OFFICIAL WEBSITE (01.01.2017 - 01.01.2018)

- 772,902 visits;
- 2,053,498 page views;
- 151,222 document downloads (pdf, ppt, doc, etc.);
- 55% of visitors continued browsing the site after viewing the homepage (see Fig. 5.14–5.17).

Figure 5.14

TRAFFIC SOURCE

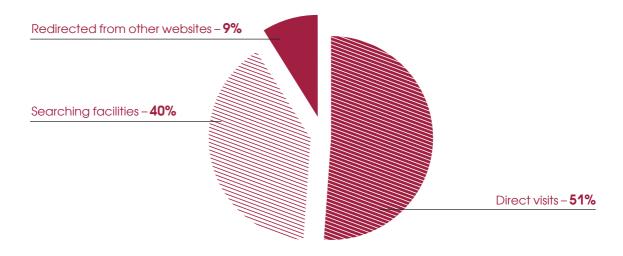




Figure 5.15 CONTINENTS

Europe - 750,300 visits

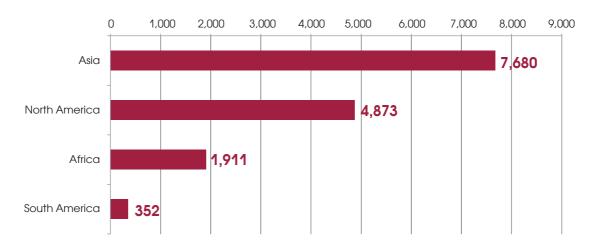


Figure 5.16

GEOGRAPHICAL DISTRIBUTION OF THE WEBSITE VISITORS – 161 COUNTRIES

Russia - 727,837 visits

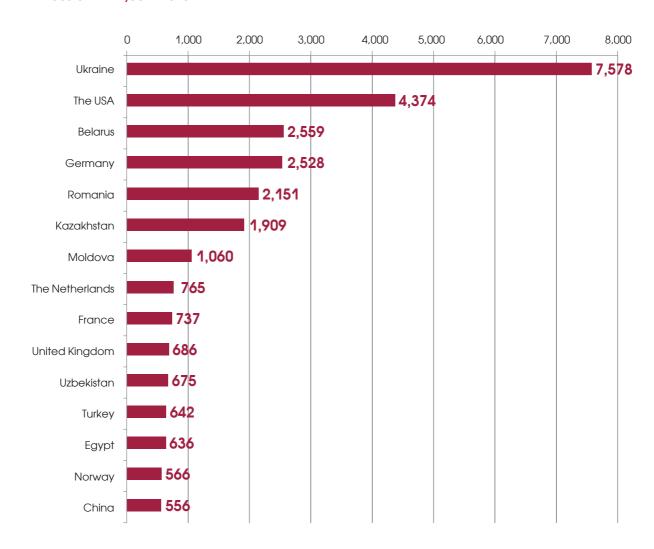
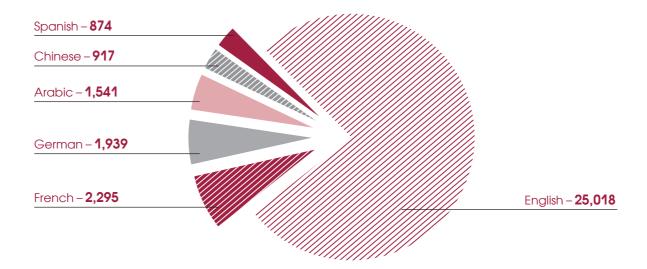




Figure 5.17

TOP FOREIGN LANGUAGES

Russian - 737,414 visits



| Top sections | Visits |
|-------------------|---------|
| University | 834,631 |
| Academic Staff | 433,853 |
| News | 384,924 |
| Announcements | 45,899 |
| Calendar | 14,056 |
| Ratings | 8,825 |
| Articles | 4,946 |
| Anti-corruption | 2,042 |
| Figure of the Day | 1,930 |

| Number of views | Visits |
|---|--------|
| Faculties | 98,431 |
| Timetable | 58,231 |
| Tuition fees | 43,717 |
| The Faculty of Economics | 31,082 |
| The Faculty of Law | 30,550 |
| The Faculty of Biomedical Sciences | 30,461 |
| Contacts | 29,039 |
| The Faculty of Romance and Germanic Philology | 25,519 |
| The Faculty of International Relations | 23,662 |
| The Faculty of Military Education | 23,645 |
| Halls of Residence | 21,320 |
| The Faculty of Computer Sciences | 20,506 |



TRAFFIC ON THE ENGLISH VERSION OF VSU'S OFFICIAL WEBSITE (01.01.2017 – 01.01.2018)

- 23,526 visits;
- 91,640 page views;
- 3,297 document downloads (pdf, ppt, doc, etc.);
- 54% of visitors continued browsing the site after viewing the homepage (see Fig. 5.18–5.20).

Figure 5.18

TRAFFIC SOURCE

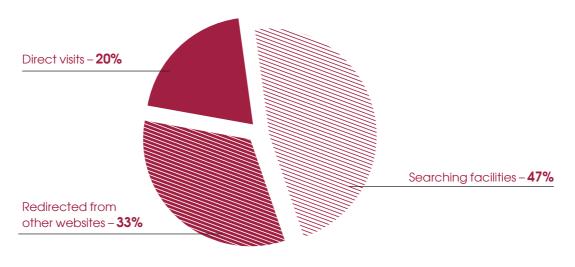


Figure 5.19

CONTINENTS

Europe - 12,121 visits

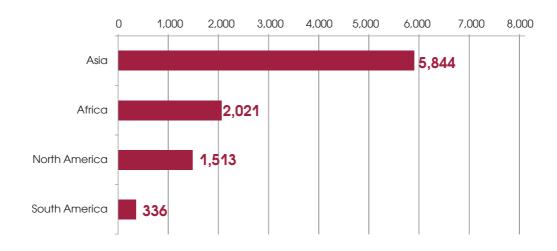
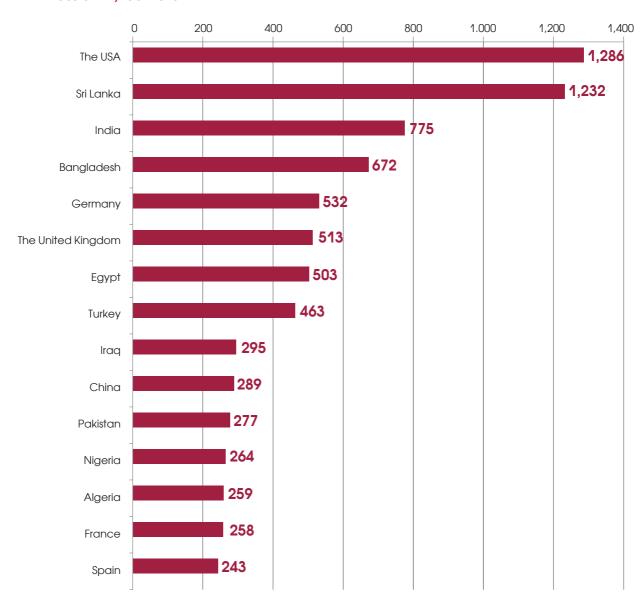




Figure 5.20

GEOGRAPHICAL DISTRIBUTION OF THE WEBSITE VISITORS – 168 COUNTRIES

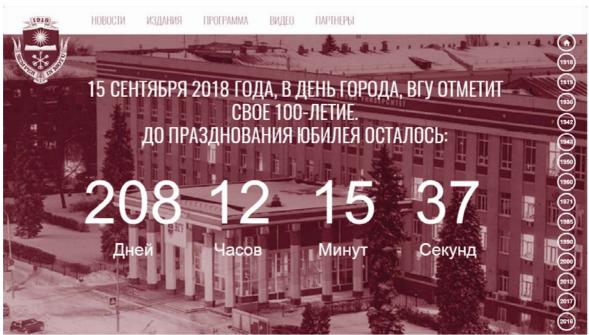
Russia – 7,938 visits





In November 2017, VSU continued developing the project to design a website for English-speaking VSU graduates in order to present all the necessary information in a convenient form. A web page with countdown widget dedicated to the 100th anniversary of VSU was created. The German, French, and Spanish versions of the official website were modernised.







DATA PROCESSING CENTRE OF VORONEZH STATE UNIVERSITY

The VSU Data Processing Centre (DPC), opened within the framework of the Electronic University project, successfully started operations in 2017. The project's objective is to lower maintainance of the 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 information services crucial for administrative and education support divisions. In 2017, equipment of the the university's Internet Centre (45 items), three faculties (37 items) and the library (7 items) was incorporated in the monitoring system of the Data Processing Centre. In order to implement the project for the creation of Massive Open Online Courses at VSU, a virtual server for e-courses, indexing system, and video streaming was configured using three physical servers. Some of the resources of the centre were used by the Faculty of Physics for scientific purposes.

In 2017, using the centre's equipment, a research team from the Department of Electronics modelled electrodynamic structures for investigation of ultra-wideband signals within the framework of the Russian Foundation for Basic Research project No. 16-42-360381p and 16-07-01238, and the grant of the President of the Russian Federation to support young scientists with DSc degrees – MD7902.2016.9. As a result of the research, the team won another grant from the President of the Russian Federation to support young scientists with DSc degrees – MD6872.2018.9. 16 articles were published concerning the project.

In 2017, a research team from the Department of Solid-State Physics and Nanostructures performed ab initio computer modelling of the electronic structure of 3D and nanostructured materials of Sn–O and Fe–O systems. The modelling was performed using the equipment of the centre. As a result, band diagram of the studied objects were calculated, as well as the spectra of full and partial density of electron states, and the spectra of X-ray absorption (XANES). 7 articles were published following the results of the research project.

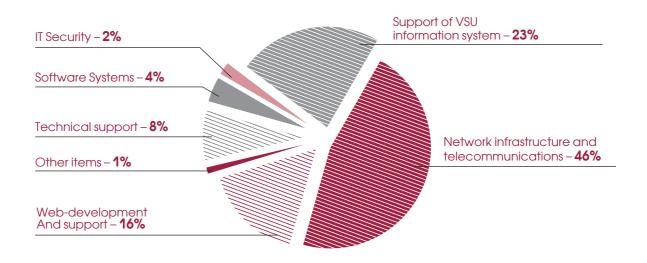


USER SUPPORT

In 2017, user support within the university's telecommunications system was performed by VSU Information Technology Administration. 12,929 user requests, both technical and informational, were processed. In 2016 this figure was 13,786. The portion of successfully solved problems was 97.2% (see Fig. 5.21).

Figure 5.21

USER REQUESTS ACCORDING TO THE PROBLEM TYPE



ELECTRONIC EDUCATION TECHNOLOGIES

The "Electronic University VSU" web portal (https://moodle.vsu.ru) forms an integrated education and information system of the university 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 24/7 from any part of the world. The number of requests to the portal grew from 6.08 million in 2016 to 9.43 million in 2017. The number of unique visitors increased by 27% and totalled 97 thousand per year.

In 2017, the portal transferred to a new version of the Moodle platform, which helped to reduce the time required to render pages and to improve the speed of downloads. In 2016, rendering a single page took 2.015 seconds, while in 2017, this process took only 0.745 seconds.

The interface and the layout of the portal were modernised and adapted to mobile devices – smart phones and tablets. The share of requests from mobile devices increased to 18.1% as compared to 2.5% in 2016.

For more information about electronic education technologies, e-learning, and distant learning, see part 4.5 of the "Education" section.



5.19. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2017

- Material Science. A new system of potentiometric sensors based on nanomodified membranes was developed for reagentless express analysing of aminoacids and vitamins in water and nutritional solutions. The system is required for the quality analysis of food and pharmaceutical products (Head Researcher Professor O.V. Bobreshova).
- Radiophysics. New methods and algorithms were suggested for reducing the duration of ultra-short impulses in ultra-wideband generators using front pulse sharpener. These methods allow for creation of ultra-short impulses of 100 ps with an amplitude of 20 V (Head Researcher Professor A.M. Bobreshov).
- Chemical engineering. The advantages of neutralization dialysis with solution recirculation system were determined. The dialysis allows for complete partition of mixtures of neutral amino acids and mineral carriers into target products. A method to control of selectivity of the transmembrane transfer of the partitioned components by varying their concentration was suggested. Rational conditions for demineralization of water solutions of aromatic amino acid by means of electrodialysis and electrodeionisation were determined. It was demonstrated that the process of organic poisoning of membranes by aromatic amoni acids is revertable by means of electrochemical regeneration at high current density (Head Researcher Professor V.F. Selemenev).
- Nanotechnologies. A new method was suggested for the production of nanoprofiled ultra-thin film of Al₂O₃ on the surface of porous silicon. The method includes deposition of nanoscale films of Al₂O₃ in the form of 80–100 nm long nanowires aligned in the same direction at 300–500 nm intervals as well as anode electrochemical etching in an electrolyte of the original single-crystalline silicon in the electrochemical etching cell and ion-plasma sputtering of Al₂O₃ films on the porous silicon surface (Head Researcher Associate Profesor P.V. Seredin).



- Organic Chemistry. New technological solutions were suggested for the formation of a wide range of components of emulsifying systems including those that are present in the market monoglycerides, glycerol esters, sorbitan as well as unique ones such as polyglycerol esters, hydroxyderivative fatty acids, sulfocationites of fatty acids monoglycerides, and heterocyclic emulsifiers based on triazine. Among the produced emulsifiers there are some with a wide range of iodine numbers and specific physical and chemical properties such as their melting point. This broadens the sphere of application of the synthesized products due to various content of fatty acids in oils. Preparation of polyol esters of different esterification degrees allows the creation of a wide range of emulsifiers with better parametres as compared to their commercial analogues (Head Researcher Professor Kh.S. Shikhaliev).
- Chemistry. New methods were developed for modification of the surface of AllIBV semiconductors with sulphur, phosphates, and complex phosphate-vanadates. The modification can be used for controlling the nanastructure and optical electrophysical properties of nanoscale thickness oxide films for microelectronics (Head Researcher Professor I.Ya. Mittova).
- Information technologies. New laboratory units were designed for express spectrum analysis of elements of grain mixture and studying the informational value of spectral properties in order to classify the components of grain mixtures for varietal purity testing and identifying the pathologies coused by fungus diseases (Head Researcher Professor A.A. Sirota).
- **Geology**. A 1: 2,500,000 geological map of Russia in the Precambrian age was created using modern scientific methods and the most recent data on the Precambrian Earth crust structural and compositional complex in order to improve the effectiveness of geologic studies of the territory of Russia and enhance the reliability of the forecasts and estimated of mineral resources potential in the Precambrian crystalline basement (Head Researcher Professor K.A. Savko).















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 2017

The goal of Voronezh State University in terms of economics and contract services is to reach 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 Education and Science 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 use 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 based on the efficiency levels of the faculties. The amount of 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 decrease the total financing of products, works, and services.



- To reduce the liabilities to 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 in the provisions of the time-schedule for purchases to improve the planning of the university's purchase activities.
- To improve the purchase 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 2017

In 2017, the total income amounted to **2,326,652.9 thousand roubles**, including:

- Government order subsidies 989,154.7 thousand roubles.
- Targeted subsidies 381,157.4 thousand roubles.
- Receipts from the provision of services to natural and legal persons on a feepaying basis 956,340.8 roubles. (Table 6.1, Figure. 6.1).

Table 6.1

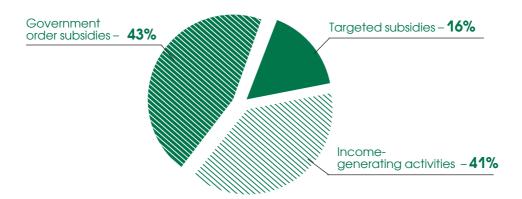
INCOME STRUCTURE BY THE SOURCE OF FINANCING, thousand roubles

| <u> </u> | | |
|----------------|------------------------------|-------------|
| | Receipts in 2017 | Totals |
| Federal budget | Income-generating activities | Iolais |
| 1,370,312.1 | 956,340.8 | 2,326,652.9 |



Figure 6.1

INCOME STRUCTURE BY THE SOURCE OF FINANCING, thousand roubles



In 2017, the percentage of income from the federal budget amounted to 58.9%, and 41.1% was from income-generating activities.

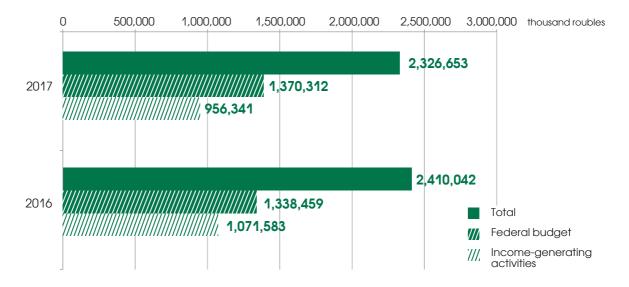
6.3. INCOME IN 2017 COMPARED TO 2016 BY SOURCES OF FINANCING

Compared to 2016, the total income in 2017 decreased by **83,389.0 thousand roubles**, or 3.46%:

- Subsidies obtained from the Russian Federation state budgetary resources increased by **31,853.2 thousand roubles**.
- In 2017, extra-budgetary funding from income-generating activities reduced by 115,242.2 thousand roubles. (fig. 6.2).

Figure 6.2

INCOME IN 2017 COMPARED TO 2016

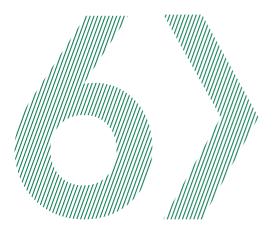


6.4. AREAS WHICH FUNDS WERE SPENT ON IN 2017 BY SOURCES OF FINANCING

Table 6.2

2017 BUDGET EXPENDITURE REPORT

| Total | Governmental order subsidies | Action grants | Income-generating activities |
|------------------|---|------------------|---|
| 2,401,332,589.33 | 1,059,478,019.33 | 381,157,400.00 | 960,697,170.00 |
| 1,413,932,277.39 | 784,468,344.33 | 17,416,363.06 | 612,047,570.00 |
| 1,056,265,279.13 | 597,739,426.33 | 11,271,832.80 | 447,254,020.00 |
| 583,589,532.33 | 350,699,355.33 | 0.00 | 232,890,177.00 |
| 79,870,936.80 | 25,704,553.00 | 11,271,832.80 | 42,894,551.00 |
| 48,271,832.80 | 17,000,000.00 | 11,271,832.80 | 20,000,000.00 |
| 157,674,577.00 | 87,812,751.00 | 0.00 | 69,861,826.00 |
| 235,130,233.00 | 133,522,767.00 | 0.00 | 101,607,466.00 |
| 21,981,653.06 | 1,649,900.00 | 2,777,003.06 | 17,554,750.00 |
| 3,889,100.00 | 1,944,100.00 | 0.00 | 1,945,000.00 |
| 331,796,245.20 | 183,134,918.00 | 3,367,527.20 | 145,293,800.00 |
| 337,967,400.00 | 0.00 | 330,557,400.00 | 7,410,000.00 |
| 337,967,400.00 | 0.00 | 330,557,400.00 | 7,410,000.00 |
| 84,745,075.00 | 6,640,075.00 | 0.00 | 78,105,000.00 |
| 850,000.00 | 0.00 | 0.00 | 850,000.00 |
| 850,000.00 | 0.00 | 0.00 | 850,000.00 |
| 83,895,075.00 | 6,640,075.00 | 0.00 | 77,255,000.00 |
| 76,576,075.00 | 6,640,075.00 | 0.00 | 69,936,000.00 |
| 739,000.00 | 0.00 | 0.00 | 739,000.00 |
| 6,580,000.00 | 0.00 | 0.00 | 6,580,000.00 |
| 3,335,000.00 | 1,500,000.00 | 0.00 | 1,835,000.00 |
| | 2,401,332,589.33 1,413,932,277.39 1,056,265,279.13 583,589,532.33 79,870,936.80 48,271,832.80 157,674,577.00 235,130,233.00 21,981,653.06 3,889,100.00 337,967,400.00 337,967,400.00 84,745,075.00 850,000.00 850,000.00 76,576,075.00 739,000.00 6,580,000.00 | 2,401,332,589.33 | 2,401,332,589,33 1,059,478,019.33 381,157,400.00 1,413,932,277.39 784,468,344.33 17,416,363.06 1,056,265,279.13 597,739,426.33 11,271,832.80 583,589,532.33 350,699,355.33 0.00 79,870,936.80 25,704,553.00 11,271,832.80 48,271,832.80 17,000,000.00 11,271,832.80 157,674,577.00 87,812,751.00 0.00 235,130,233.00 133,522,767.00 0.00 21,981,653.06 1,649,900.00 2,777,003.06 337,967,400.00 1,944,100.00 0.00 337,967,400.00 0.00 330,557,400.00 337,967,400.00 0.00 330,557,400.00 84,745,075.00 6,640,075.00 0.00 850,000.00 0.00 0.00 850,000.00 6,640,075.00 0.00 76,576,075.00 6,640,075.00 0.00 739,000.00 0.00 0.00 6,580,000.00 0.00 0.00 |



| End | tah | ا حا | 62 |
|-----|-----|------|-----|
| | IUD | | 0.2 |

| End of table | Total | Governmental order subsidies | Action grants | Income-generating activities | | | | |
|--|----------------|---------------------------------|---------------|------------------------------|--|--|--|--|
| Construction (reconstruction) of immovable property by state (municipal) institutes | 3,335,000.00 | 1,500,000.00 | 0.00 | 1,835,000.00 | | | | |
| Purchase of goods, works, and services | 561,352,836.94 | 266,869,600.00 | 33,183,636.94 | 261,299,600.00 | | | | |
| among them: Purchase of other goods, works, and services for state (municipal) needs | 561,352,836.94 | 266,869,600.00 | 33,183,636.94 | 261,299,600.00 | | | | |
| among them: Design and experimental works | 4,900,000.00 | 0.00 | 1,400,000.00 | 3,500,000.00 | | | | |
| Purchase of goods, works, and services for major repairs of state property | 49,600,000.00 | 20,800,000.00 | 20,000,000.00 | 8,800,000.00 | | | | |
| Purchase of other goods, works, and services for state (municipal) needs | 506,852,836.94 | 246,069,600.00 | 11,783,636.94 | 248,999,600.00 | | | | |
| among them: Communications services | 9,749,600.00 | 549,600.00 | 0.00 | 9,200,000.00 | | | | |
| Utility costs | 137,700,000.00 | 108,600,000.00 | 0.00 | 29,100,000.00 | | | | |
| Property rental | 717,600.00 | 0.00 | 0.00 | 717,600.00 | | | | |
| Maintenance works and services | 59,832,000.00 | 28,000,000.00 | 0.00 | 31,832,000.00 | | | | |
| Other works and services | 168,575,511.70 | 70,910,000.00 | 5,615,511.70 | 92,050,000.00 | | | | |
| Fixed asset value increase | 37,423,380.13 | 14,100,000.00 | 5,323,380.13 | 18,000,000.00 | | | | |
| Increase in material asset value | 92,849,915.11 | 23,910,000.00 | 839,915.11 | 68,100,000.00 | | | | |

In 2017, the largest percentage was accounted for by payments to personnel, which amounted to 69.2% in the total amount of financing within the financial support of the government order and income-generating activities, utility costs amounted to 6.81%, and taxes, commissions, and other payments – to 4.2%.



6.5. INCOME BY FACULTY AND ITS PERCENTAGE OF THE TOTAL INCOME

Table 6.3

INCOME BY FACULTY AND ITS PERCENTAGE OF THE TOTAL INCOME FROM EDUCATIONAL ACTIVITIES IN 2017

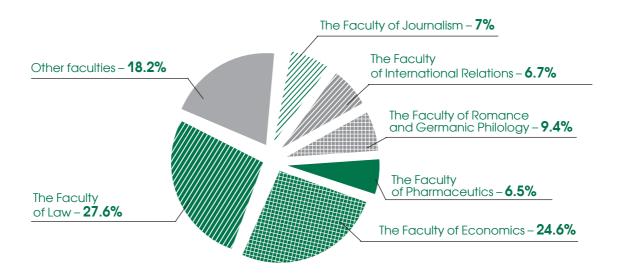
| 4///////////////////////////////////// | | | | | | | |
|--|--------------------------|--------------|--|--|--|--|--|
| Faculty | Income, thousand roubles | Percentage,% | | | | | |
| The Faculty of Law | 202,341,920 | 27.6 | | | | | |
| The Faculty of Economics | 180,556,974 | 24.6 | | | | | |
| Faculty of Romance and Germanic Philology | 68,735,155 | 9.4 | | | | | |
| The Faculty of Journalism | 51,222,182 | 7.0 | | | | | |
| The Faculty of International Relations | 49,371,987 | 6.7 | | | | | |
| The Faculty of Pharmaceutics | 47,367,093 | 6.5 | | | | | |
| The Faculty of History | 20,128,565 | 2.7 | | | | | |
| The Faculty of Applied Mathematics, Informatics, and Mechanics | 18,493,263 | 2.5 | | | | | |
| The Faculty of Philology | 17,677,624 | 2.4 | | | | | |
| The Faculty of Philosophy and Psychology | 15,959,246 | 2.2 | | | | | |
| The Faculty of Computer Sciences | 16,200,604 | 2.2 | | | | | |
| The Faculty of Mathematics | 9,738,163 | 1.3 | | | | | |
| The Faculty of Biomedical Sciences | 9,364,160 | 1.3 | | | | | |
| The Faculty of Geography, Geoecology, and Tourism | 8,107,500 | 1.1 | | | | | |
| The Faculty of Geology | 5,480,340 | 0.7 | | | | | |
| The Faculty of Physics | 5,106,608 | 0.7 | | | | | |
| The Institute of International Education | 4,971,440 | 0.7 | | | | | |
| The Faculty of Chemistry | 2,593,407 | 0.4 | | | | | |
| Total | 733,416,231 | 100.0 | | | | | |



In 2017, The Faculty of Law and The Faculty of Economics are as usual the leaders in commercial educational services: 27.6% and 24.6% respectively in the total income from educational activities (fig. 6.3).

Figure 6.3

INCOME STRUCTURE BY FACULTY IN 2017



6.6. PROCUREMENT SERVICE REPORT

In 2017, 2,162 agreements were signed by the procurement service. 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 contents and structure of the agreements signed in 2017 by source of financing is shown in Table 6.4 and Figure 6.4.



Table 6.4

THE ANALYSIS OF THE CONTENTS AND STRUCTURE OF THE AGREEMENTS SIGNED IN 2017 BY SOURCE OF FINANCING

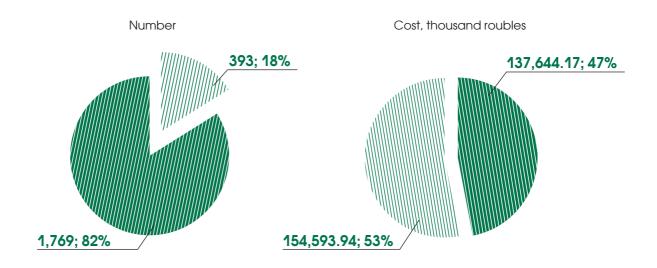
| <u> </u> | Volume of contracts signed in 2017 | | | | | | |
|----------|--|--------|----------------------------------|------------------------------|----------------------------------|--|--|
| No | Source of financing | number | percentage of the total, % | cost, thousand roubles | percentage of the total, % | | |
| 1 | Grants; the funds provided to fulfil contracts; as well as the funds obtained from individuals and legal entities through other income-generating activities | 1,769 | 81.8 | 137,644.17 | 47.1 | | |
| 2 | Subsidies obtained from the Russian Federation state budget resources | 393 | 18.2 | 154,593.94 | 52.9 | | |
| | Totals | 2,162 | 100.0 | 292,238.11 | 100.0 | | |

We can state that compared to 2016, the number of contracts signed in 2017 increased by 290 or by 15.5%. The growth is caused by an increase of the percentage of financing from purchasing activities by grants, funds provided to fulfil state contracts, and as a result of other income-generating activities. As for the total financing of products, works, and services, its volume decreased in 2017 by 58.1%.

The financing of purchasing activities through subsidies amounted to 47.1% of the total volume of purchases in the reporting period, from grants and other financing sources, was 52.9%.

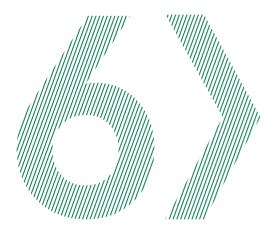
Figure 6.4

VOLUME AND STRUCTURE OF THE CONTRACTS SIGNED IN 2017



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 Table 6.5 and Figure 6.5.

Table 6.5

THE VOLUME OF THE CONTRACTS SIGNED AS A PART OF THE ORDER PLACEMENT FOR PURCHASING GOODS, WORKS, AND SERVICES IN 2017

| <u> </u> | | | | | <u>/////////////////////////////////////</u> | | <u>/////////////////////////////////////</u> |
|----------|---|---|-------------------------------|---|--|------------------------|--|
| No | Source of financing | Volume of the signed upon a selection of tl | competitive | Volume of the signed upon the from a single | ne purchase | Total v of signed | |
| | or in one rig | cost, thousand roubles | percentage of the total, % | cost, thousand roubles | percentage of the total, % | cost, thousand roubles | percentage of the total, % |
| 1 | Grants; funds provided to fulfil contracts; as well as funds obtained through other income-generating activities obtained from individuals and legal entities | 31,679.42 | 25.67 | 105,964.74 | 62.76 | 137,644.17 | 47.10 |
| 2 | Subsidies obtained from the state budget of the Russian Federation | 91,718.91 | 74.33 | 62,875.02 | 37.24 | 154,593.93 | 52.90 |
| | Totals | 123,398.33 | 100.0 | 168,839.76 | 100.0 | 292,238.10 | 100.0 |

In 2017, the maximum percentage of purchases was accounted for by contracts signed with a single supplier. There were 1.37 times as many of them as there were contracts with a competitive selection of supplier, contractor, or agent. These contracts were primarily (62.76%) financed by grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities. 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.

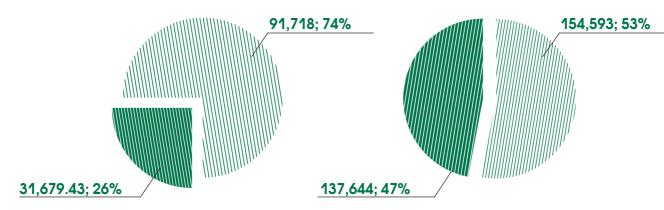


Figure 6.5

VOLUME OF THE CONTRACTS SIGNED IN 2017

Upon competitive selection of suppliers (thousand roubles)

As part of a purchase from a single supplier (thousand roubles)



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 contents and structure of the contracts singed in 2017 and financed through subsidies obtained from the state budget of the Russian Federation, signed through various methods of competitive selection of the supplier (Table 6.6, fig. 6.6 and 6.7).

Table 6.6

ANALYSIS OF THE CONTENTS AND STRUCTURE OF THE CONTRACTS SINGED IN 2017 AND FINANCED THROUGH SUBSIDIES OBTAINED FROM THE STATE BUDGET OF THE RUSSIAN FEDERATION, SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER

| Methods of selection | Volume of the contracts signed in 2017 | | | |
|---|--|-------------------------------|------------------------|-------------------------------|
| of the supplier | number | percentage of the total, % | cost, thousand roubles | percentage of the total, % |
| Online auction | 78 | 19.85 | 88,353.58 | 57.15 |
| Invitation to tender | 18 | 4.58 | 3,365.32 | 2.18 |
| Purchase from a single supplier (contractor, agent), with the information uploaded into the Integrated Information System | 42 | 10.69 | 42,029.19 | 27.19 |
| Purchase from a single supplier (contractor, agent) up to 100 thousand roubles | 187 | 47.58 | 3,130.00 | 2.02 |
| Purchase from a single supplier (contractor, agent) up to 400 thousand roubles | 68 | 17.30 | 17,715.81 | 11.46 |
| Totals | 393 | 100.0 | 154,593.9 | 100.0 |



Based on the statistics presented in Table 6.6, 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 online auctions (57.15% of the total volume of the contracts signed), and by purchases from single suppliers (contractors, agents), with the information uploaded into the Integrated Information System (27.19% 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 the subsidies obtained from the state budget of the Russian Federation.

Figure 6.6

CONTENTS OF THE CONTRACTS SINGED IN 2017 AND FINANCED THROUGH SUBSIDIES OBTAINED FROM THE STATE BUDGET OF THE RUSSIAN FEDERATION SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER

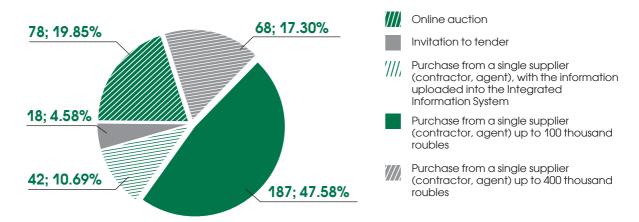
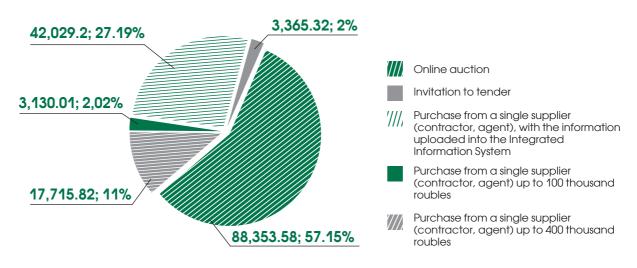


Figure 6.7

CONTENTS OF THE CONTRACTS SINGED IN 2017 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 purchase contracts from a single supplier, in quarterly periods of 2017, is shown in Table 6.7, fig. 6.8 and 6.9.

Table 6.7

ANALYSIS OF THE CONTENT AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

| Quarterly periods of | Volume of the contracts signed in 2017 using grants, funds provided to fulfil contracts; as well as the funds obtained from individuals and legal entities through other incomegenerating activities | | | | | |
|----------------------|--|-------------------------------|---------------------------|--------------------------|--|--|
| 2017 | number | percentage of the total, % | cost, thousand roubles | percentage of the total, | | |
| 1st quarter | 200 | 17.04 | 14,606.47 | 14.7 | | |
| 2nd quarter | 276 | 23.50 | 15,031.72 | 15.1 | | |
| 3rd quarter | 214 | 18.23 | 28,822.15 | 29.0 | | |
| 4th quarter | 484 | 41.23 | 40,928.46 | 41.2 | | |
| Totals | 1,174 | 100 | 99,388.80 | 100 | | |

Based on the statistics presented in Table 6.7, we can state that, as for the number of purchase contracts from a single supplier, the maximum percentage (41.2%) was accounted for by purchases in the 4th quarter of 2017. As regards this indicator in terms of value, the maximum percentage of the contracts was also signed in the 4th quarter of 2017 (41.2%).

It should be noted that in 2016, the maximum percentage of purchase contracts from a single supplier (29.5%) was also accounted for by purchases in the 4th quarter. The quarterly value of goods, works, and services purchased exceeded the average by 4.5%. As for the same value in 2017, the deviation from the average quarterly purchase values in the 4th quarter in 2017 was +16.2%.

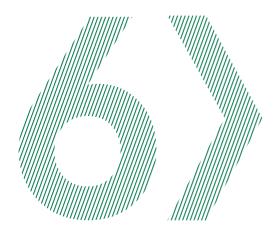


Figure 6.8

ANALYSIS OF THE CONTENT AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

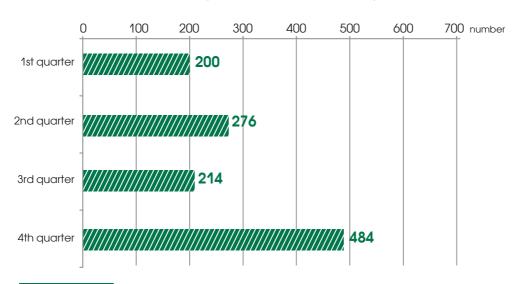


Figure 6.9

ANALYSIS OF THE CONTENT AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT), thousand roubles

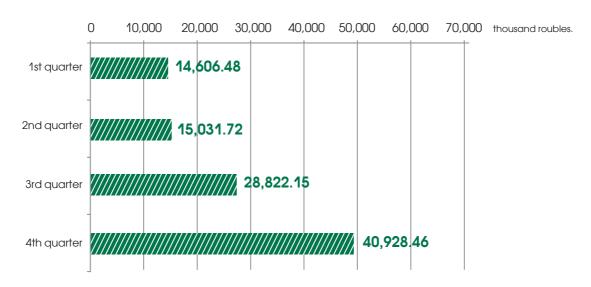




Table 6.8 demonstrates the contents and structure of the purchase contracts from a single supplier by main items of expenditure of FGBOU VO VSU (property, plant, and equipment, expendable materials, research, renovations, utility services, teaching services provided by third-party employees, as well as other expenses).

Table 6.8

THE ANALYSIS OF THE CONTENTS AND STRUCTURE OF THE CONTRACTS OF PURCHASE FROM A SINGLE SUPPLIER BY THE MAIN ITEMS OF EXPENDITURE

| Object of expenditure | | | | legal entities through |
|---|--------|-------------------------------|---------------------------|----------------------------|
| | number | percentage of the total, % | cost, thousand roubles | percentage of the total, % |
| Additions to property, plant, and equipment | 45 | 2.54 | 3,155.39 | 3.05 |
| Materials | 464 | 26.23 | 56,717.41 | 54.83 |
| Research | 71 | 4.01 | 8,518.77 | 8.24 |
| Renovations | 30 | 1.69 | 3,228.14 | 3.12 |
| Utility costs | 6 | 0.34 | 3,557.24 | 3.44 |
| Teaching services provided by non-payroll employees | 543 | 30.70 | 6,575.92 | 6.36 |
| State fees and membership dues | 211 | 11.93 | 1,091.54 | 1.06 |
| Other operating expenses | 399 | 22.56 | 20,589.70 | 19.90 |
| Totals | 1,769 | 100.0 | 103,434.11 | 100.0 |

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 teaching services provided by non-payroll employees (30.7% of the total value of contracts for purchase of goods, works, and services from a single supplier). A considerable percentage was accounted for by contracts for the purchase of materials (26.23% by the number of contracts and 54.83% by total value of the purchase contracts from a single supplier).



Figure 6.10

THE ANALYSIS OF THE CONTENTS AND STRUCTURE OF THE CONTRACTS OF PURCHASE FROM A SINGLE SUPPLIER BY THE MAIN ITEMS OF EXPENDITURE

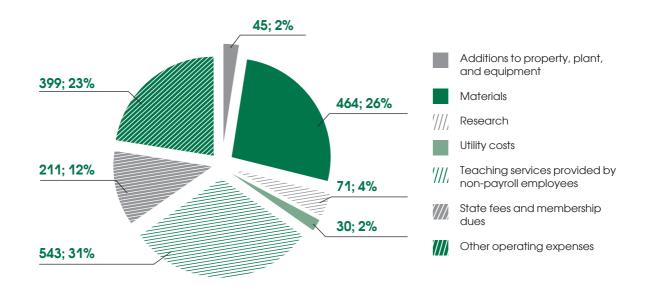
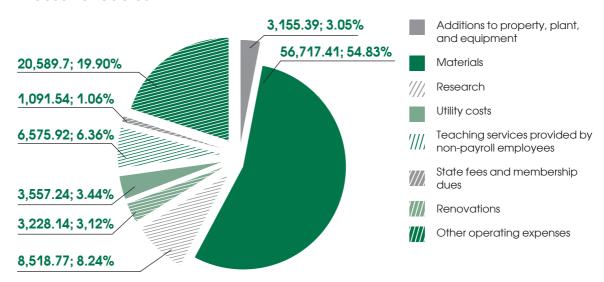


Figure 6.11

THE ANALYSIS OF THE CONTENTS 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, the template for which may be found on the VSU website. In the reporting period, 1,233 requests were accepted from the structural subdivisions as part of the registration procedure. We can state that compared to 2016, the number of requests decreased by 19 or 1.5%.

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 purchases website). Table 6.9 and Figure 6.12 present information about the number of submitted requests and their modifications.

Table 6.9

INFORMATION ON THE NUMBER OF REQUESTS AND THEIR MODIFICATIONS

| <u> </u> | | | | | | | | | | |
|----------|--|--------|-------------------------------|--------|--|--|--|--|--|--|
| No | Source of financing | | on the requests omitted | | The number of changes to the time-schedule | | | | | |
| INO | Jource of fill all cirrly | number | percentage of the total, % | number | percentage of the total, % | | | | | |
| 1 | Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities | 1,117 | 90.59 | 10 | 47.62 | | | | | |
| 2 | Subsidies obtained from the state budget of the Russian Federation | 116 | 9.41 | 11 | 52.38 | | | | | |
| | Totals | 1,233 | 100.0 | 21 | 100.0 | | | | | |

The time-schedule for purchases using the subsidies obtained from the state budget of the Russian Federation was modified 11 times during the calendar reporting period, i.e. 0.9 times per month. Thus, as a result of 11 modifications 50% of items on the time-schedule were corrected. There were 10 modifications to the provisions of the time-schedule for purchases as a part of the implementation of Federal Law No. 223-FZ, i.e. fewer than 2 modifications per month.

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 61.1% due to the improved quality in the planning of the university's purchase activities.

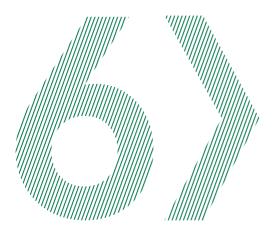
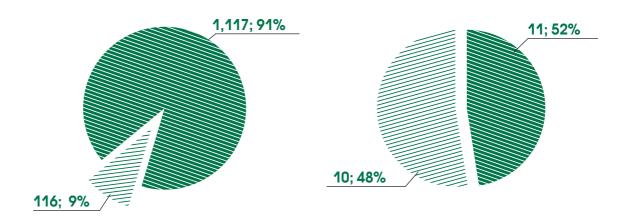


Figure 6.12

INFORMATION ON THE NUMBER OF REQUESTS AND THEIR MODIFICATIONS

Number of applications

Number of changes to the time-schedule



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

As a part of the implementation of Federal Law No. 223-FZ of 18 July 2011, 1,117 requests were accepted and 1,769 contracts were signed for the amount of 137,644.17 thousand roubles. Thus, the amount of money saved as a result of following the procedure amounted to 8,763.29 roubles, or 6.4% 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. 223-FZ of 18 July 2011, 116 requests were accepted and 393 contracts were signed for the amount of 154,593.9 thousand roubles. Thus, the amount of money saved as a result of following the procedure amounted to 8,560.96 roubles, or 8.3% of the initial maximum cost of the submitted requests.

Information regarding the cost savings as a result of a competitive selection of the supplier is shown in Table 6.10 and Figure 6.13.



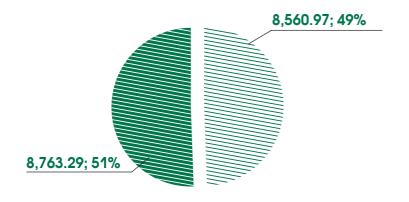
Table 6.10

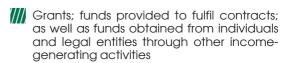
AMOUNT OF MONEY SAVED THROUGH THE COMPETITIVE SELECTION OF SUPPLIERS BY SOURCE OF FINANCING

| | | | /////////////////////////////////////// | /////////////////////////////////////// | /////////////////////////////////////// | /////////////////////////////////////// | <u>/////////////////////////////////////</u> |
|----|--|---|---|---|---|---|--|
| No | Source of financing | Volume of the contracts signed upon a competitive selection of the supplier | | Initial maximum price of the contracts | | Amount of money saved | |
| | | cost, thousand roubles | percentage of the total, % | cost, thousand roubles | percentage of the total, % | cost, thousand roubles | percentage of the total, % |
| 1 | Grants; funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities | 31,679.42 | 25.67 | 40,442.72 | 28.74 | 8,763.29 | 50.58 |
| 2 | Subsidies obtained from the state budget of the Russian Federation | 91,718.91 | 74.33 | 100,279.87 | 71.26 | 8,560.96 | 49.42 |
| | Totals | 123,398.33 | 100.0 | 140,722.59 | 100.0 | 17,324.25 | 100.0 |

Figure 6.13

AMOUNT OF MONEY SAVED, thousand roubles





"||| Subsidies obtained from the state budget of the Russian Federation

The data presented in Table 6.10 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" decreased compared to 2016 and was 49.4% of the total cost savings. The money saved amounted to 154,593.9 roubles, or 8.3% of the initial maximum cost of the contracts included in the purchasing time-schedule. The purchases made as a part of the implementation of the Federal Law No. 223-FZ resulted in financial savings of 137,644.17 thousand roubles, which is 50.6% 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. INFORMATION ON LEASESM

In 2017, the Department of Property and Land Relations prepared and submitted for approval to the Ministry of Education and Science of the Russian Federation the following documents:

- Eight packages of documents regarding the lease of immovable properties for catering purposes.
- Two packages of documents granting the gratuitous use of immovable properties in order to create a first aid room where health related services will be provided for students.

All document packages which were submitted to the Ministry of Education and Science of the Russian Federation were approved.

On 10 May 2017, the Ministry of Education and Science of the Russian Federation granted approval of the deals for the land-lease of the following immovable properties:

- 42 Kholzunov street, Voronezh (hall of residence \mathbb{N}^{2} 6): the basement and non-residential premises \mathbb{N}^{2} 7, 8, 9 with a total area of 45.4 \mathbb{m}^{2} to create a laundry room.
- 50 Kholzunov street, Voronezh (hall of residence № 5): the basement and non-residential premises № 271, 272 with a total area of 40.1 m2 to create a computer centre.

To conclude agreements regarding the above mentioned immovable properties the Department of Property and Land Relations developed auction documentation in accordance with article 17.1 of the Federal Law N $^{\circ}$ 135-FZ of 26 July 2006 "Competition Law", according to the order by the FAS of the Russian Federation N $^{\circ}$ 67 of 10 February 2010 "On tender and auction procedures regarding lease agreements, gratuitous use agreements, agreements on the fiduciary management of assets and other agreements that provide for the transfer of rights regarding property of central or local government and on the list of types of property for which the above mentioned agreements can be concluded by tender or auction".

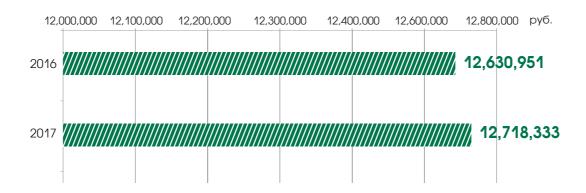
In 2017, the income from the leasable property was 12,718,332.83 roubles.

In 2016, it was 12,630,951 roubles (fig. 6.14).



Figure 6.14

INCOME FROM LEASABLE PROPERTIES IN 2017



In the fourth quarter 2017, the Department of Property and Land Relations started preparing document packages to submit for approval the lease of areas for vending machines in all university buildings and self-service laundry rooms in some halls of residence.

In 2017, technical documentation for university buildings was updated.

Therefore, in 2017 the goal of the Department of Property and Land Relations was to enhance cooperation with the Ministry of Education and Science of the Russian Federation regarding approval of deals for land-lease of the federal property and to increase payments to the university budget.

The management system of the Department of Property and Land Relations is quite efficient, which can be proved by the increased number of deals for land-lease of the federal property approved by the Ministry of Education and Science of the Russian Federation.



6.8. ANALYSIS OF VSU FINANCIAL ACTIVITY

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 shown in Tables 6.11 and 6.12.

Table 6.11

VSU ASSET DYNAMICS IN 2017 (ACCORDING TO THE DATA FROM THE BALANCE SHEET)

| `////// | (ACCORDING 10 THE DATA TROWN THE BALANCE SHEET) | | | | | | | | | | |
|---------|--|-----------------------------|--------------------------|--------------------|-------------------------|--|--|--|--|--|--|
| No | Asset items | As of the beginning of 2017 | As of the end of 2017 | Absolute change | Growth ratio, % | | | | | | |
| | I. Non-financial assets, thousand roubles | | | | | | | | | | |
| 1 | Property, plant, and equipment (residual value) | 1,528,457.6 | 1,489,980.0 | -38,477.6 | 97.4 | | | | | | |
| 2 | Intangible assets (residual value) | 192.2 | 119.8 | -72.4 | 62.3 | | | | | | |
| 3 | Non-produced assets | 2,893,393.6 | 3,989,388.2 | +1,095,994.6 | 137.9 | | | | | | |
| 4 | Material inventories | 28,414.8 | 31,894.2 | +3,479.4 | 112.2 | | | | | | |
| 5 | Investments in non-financial assets | 58,421.6 | 60,767.1 | +2,345.5 | 104.0 | | | | | | |
| 6 | Total non-financial assets | 4,508,879.8 | 5,572,149.3 | 1,063,269.5 | 123.6 | | | | | | |
| | II. F | inancial assets, thou | usand roubles | | | | | | | | |
| 7 | Cash and cash equivalents | 19,661.6 | 206,667.2 | +187,005.6 | 1,051.1 (10.5 times) | | | | | | |
| 8 | Settlement of revenues | 6,921.9 | 18,269.2 | +11,347.3 | 263.9 (2.6 times) | | | | | | |
| 9 | Settlements of advance paid out | 3,971.0 | 3,333.6 | -637.4 | 83.9 | | | | | | |
| 10 | Settlements with accountable persons | 118.5 | 27.7 | -90.8 | 23.4 | | | | | | |
| 11 | Settlements of property damaged | 35.0 | 107.6 | +72.6 | 307.4 (3.7 times) | | | | | | |
| 12 | Settlement of VAT | 4,381.7 | 4,565.8 | +184.1 | 104.2 | | | | | | |
| 13 | Settlements with founders (residual value of most valuable assets) | (4,208,646.9) | (5,308,079.4) | +(1,099,432.5) | 126.1 | | | | | | |
| 14 | Settlement of payments into the budget | 614.4 | 116.8 | -497.6 | 19.01 | | | | | | |
| 15 | Total financial assets | (4,172,942.8) | (5,074,991.6) | +(902,048.8) | 121.6 | | | | | | |
| 16 | Total VSU assets (grand total) | 335,937.0 | 497,157.8 | +463,564.1 | 147.99 | | | | | | |



Table 6.12

VSU ASSET DYNAMICS IN 2017 (ACCORDING TO THE DATA FROM THE BALANCE SHEET)

| <u> </u> | | | | | | | | | | | |
|----------|--|-----------------------------|--------------------------|--------------------|----------------------|--|--|--|--|--|--|
| No | Liability items | As of the beginning of 2017 | As of the end of 2017 | Absolute change | Growth ratio, % | | | | | | |
| | I. Liabilities, thousand roubles | | | | | | | | | | |
| 1 | Accounts payable to bond creditors | 14,000.0 | 0 | -14,000.0 | 0.0 | | | | | | |
| 2 | Settlement of accepted obligations | 66,895.3 | 18,313.1 | -48,582.2 | 27.38 | | | | | | |
| 3 | Settlement of payments into the budget | 48,784.0 | 16,139.3 | -32,644.7 | 33.08 | | | | | | |
| 4 | Settlement of revenues | 230,184.1 | 221,769.0 | -8,415.1 | 96.34 | | | | | | |
| 5 | Settlement of loans | 7,300.0 | 6,434.7 | -865.3 | 88.15 | | | | | | |
| 6 | Settlement with bailors | 3,607.7 | 4,533.1 | +925.4 | 125.65 | | | | | | |
| 7 | Settlements with accountable persons | 41.5 | 0 | -41.5 | 0.0 | | | | | | |
| 8 | Settlements of damage claims and other revenues | 0 | 65.9 | +65.9 | X | | | | | | |
| 9 | Total liabilities | 370,812.6 | 267,255.1 | -103,557.5 | 72.07 | | | | | | |
| | II. Finar | ncial results, thousand r | oubles | | | | | | | | |
| 10 | Financial results of the previous reporting periods | (621,126.7) | (405,799.0) | +215,327.7 | 134.7 | | | | | | |
| 11 | Financial results from accrual of depreciation of most valuable assets | 509,341.6 | 560,166.9 | +50,825.3 | 109.98 | | | | | | |
| 12 | Prepaid expenses | (3,691.3) | (2,572.6) | +1,118.7 | 130.31 | | | | | | |
| 13 | Provisions for future liabilities | 80,600.8 | 78,107.3 | -2,493.5 | 96.91 | | | | | | |
| 14 | Total financial results of VSU | (34,875.6) | 229,902.6 | +264,778.2 | 759.2 (7.6 times) | | | | | | |
| 15 | Total sources of VSU assets (grand total) | 335,937.0 | 497,157.8 | +161,220.8 | 147.99 | | | | | | |

In 2017, the grand total was 497,157.8 thousand roubles, an increase of 161,220.8 thousand roubles (47.99%). However, the value does not reflect the real cost of VSU assets. It can be explained by the fact that a large part of it is real estate and especially valuable movable assets that are assigned to the university by the founder (the Ministry of Education and Science of the Russian Federation) to operate and administer. In accordance with the budgetary accounting and accounting reporting rules for state-funded institutions, the cost of such assets should be shown in the balance sheet as payables, i.e. settlements with founders (Section II Financial assets) and should be marked with a negative sign.



The economic substance of the accounts payable to the founder shown in the balance sheet implies, on the one hand, the liabilities which are fully secured by the assets assigned to the university on the basis of the long-term operational management account and do not require settlement using monetary funds or funds expected from the debtors, while on the other hand they may be assumed to be equivalent to the founder's contribution to the authorized fund (capital) like in the case of for-profit organizations. The dynamics of the real total asset and the sources of their formation are shown in Table 6.13.

Table 6.13

VSU REAL ASSET DYNAMICS IN 2017 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

| <u> </u> | | | | | | | | | | |
|----------|---|--------------------------------|--------------------------|--------------------|-------------------------|--|--|--|--|--|
| No | Asset items | As of the beginning of 2017 | As of the end of 2017 | Absolute change | Growth ratio, % | | | | | |
| | I. Non-financial assets, thousand roubles | | | | | | | | | |
| 1 | Property, plant, and equipment (residual value) | 1,528,457.6 | 1,489,980.0 | -38,477.6 | 97.4 | | | | | |
| 2 | Intangible assets (residual value) | 192.2 | 119.8 | -72.4 | 62.3 | | | | | |
| 3 | Non-produced assets | 2,893,393.6 | 3,989,388.2 | +1,095,994.6 | 137.9 | | | | | |
| 4 | Material inventories | 28,414.8 | 31,894.2 | +3,479.4 | 112.2 | | | | | |
| 5 | Investments in the non-financial assets | 58,421.6 | 60,767.1 | +2,345.5 | 104.0 | | | | | |
| 6 | Total non-financial assets | 4,508,879.8 | 5,572,149.3 | 1,063,269.5 | 123.6 | | | | | |
| | II. Fino | ıncial assets, thousar | nd roubles | | | | | | | |
| 7 | Cash and cash equivalents | 19,661.6 | 206,667.2 | +187,005.6 | 1,051.1 (10.5 times) | | | | | |
| 8 | Settlement of revenues | 6,921.9 | 18,269.2 | +11,347.3 | 263.9 (2.6 times) | | | | | |
| 9 | Settlements of advance paid out | 3,971.0 | 3,333.6 | -637.4 | 83.9 | | | | | |
| 10 | Settlements with accountable persons | 118.5 | 27.7 | -90.8 | 23.4 | | | | | |
| 11 | Settlements for damages to property | 35.0 | 107.6 | +72.6 | 307.4 (3.7 times) | | | | | |
| 12 | Settlement of VAT | 4,381.7 | 4,565.8 | +184.1 | 104.2 | | | | | |
| 13 | Settlement of payments into the budget | 614.4 | 116.8 | -497.6 | 19.01 | | | | | |
| 14 | Total financial assets | 35,704.1 | 233,087.9 | +197,383.8 | 652.83 (6.5 times) | | | | | |
| 15 | Total VSU assets | 4,544,583.9 | 5,805,237.2 | +1,260,653.3 | 127.74 | | | | | |



In 2017, the aggregate value of assets, including the ones assigned by the founder to operate and administer, increased significantly by 1,260,653.3 thousand roubles (27.74%), and by the end of the reporting period amounted to 5,805,237.2 thousand roubles. The dynamics in VSU assets came against the background of an increase in the cadastral value of non-produced assets (of +1,095,994.6 thousand roubles or 37.9%) and an increase of 197,383.8 thousand roubles (or 6.5 times) in the most mobile part of VSU assets – financial assets (monetary funds and accounts receivable).

As of the end of 2017, the largest percentage in VSU's asset structure was accounted for by non-produced assets (land) (68.7%) and property, plant, and equipment (25.6%). A reduction in net book value of fixed assets and growth in financial assets in the reporting period led to a decrease in the percentage of non-financial assets from 99.2 to 99.9% (Table 6.14).

Table 6.14

VSU ASSET STRUCTURE IN 2017 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

| <u> </u> | | | | |
|----------|---|-----------------------------|-----------------------|------------------|
| | | Percenta | Chango | |
| No | o Indicator | at the beginning of 2017 | at the end of 2017 | Change (+, –) |
| 1 | Non-financial assets – total | 99.2 | 95.98 | -3.22 |
| | including: property, plant, and equipment (residual value) | 33.6 | 25.67 | -7.93 |
| | non-produced assets | 63.7 | 68.72 | +5.02 |
| | material assets | 0.6 | 0.55 | -0.05 |
| | investments in non-financial assets (capital investments) | 1.3 | 1.04 | -0.26 |
| 2 | Financial assets – total | 0.8 | 4.02 | +3.22 |
| | including: cash and cash equivalents | 0.4 | 3.56 | +3.16 |
| | settlements with debtors | 0.4 | 0.46 | +0.06 |
| 3 | Total Assets | 100.0 | 100.0 | - |

In 2017, an increase in the sources contributing to the formation of VSU's assets of 1,260,653.3 thousand roubles (27.74%) was against the background of an increase 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 increase in the cadastral value of non-produced assets due to a large-scale revaluation of land assigned to the university to operate and administer.

Also, there has been a decrease in the liabilities to the creditors of 103,557.5 thousand roubles, or 27.9%, resulting from a decrease in all accounts payable and a closed line of credit.



In 2017, 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 2017, the financial result was 229,902.6 thousand roubles, which made it possible to compensate the negative financial result of 2016 and to increase the financial result by 7.6 times (Table 6.15).

Table 6.15

DYNAMICS OF THE SOURCES OF FORMATION OF VSU ASSETS IN 2017 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

| No | Asset items | As of the beginning of 2017 | As of the end of 2017 | Absolute change | Growth ratio, % | | | | | | |
|----|--|--------------------------------|--------------------------|--------------------|----------------------|--|--|--|--|--|--|
| | I. Liabilities to the founder, thousand roubles | | | | | | | | | | |
| 1 | Settlement with founders (residual value of most valuable assets) | 4,208646.9 | 5,308,079.4 | +1,099,432.5 | 126.1 | | | | | | |
| | II. Liabilities to | o the creditors, thous | and roubles | | | | | | | | |
| 2 | Accounts payable to bond creditors | 14,000.0 | 0 | -14,000.0 | 0.0 | | | | | | |
| 3 | Settlement of accepted obligations | 66,895.3 | 18,313.1 | -48,582.2 | 27.38 | | | | | | |
| 4 | Settlement of payments into the budget | 48,784.0 | 16,139.3 | -32,644.7 | 33.08 | | | | | | |
| 5 | Settlement of revenues | 230,184.1 | 221,769.0 | -8,415.1 | 96.34 | | | | | | |
| 6 | Settlement of loans | 7,300.0 | 6,434.7 | -865.3 | 88.15 | | | | | | |
| 7 | Settlement with bailors | 3,607.7 | 4,533.1 | +925.4 | 125.65 | | | | | | |
| 8 | Settlements with accountable persons | 41.5 | 0 | -41.5 | 0.0 | | | | | | |
| 9 | Settlements of damage claims and other revenues | 0 | 65.9 | +65.9 | × | | | | | | |
| 10 | Total liabilities to the creditors | 370,812.6 | 267,255.1 | -103,557.5 | 72.07 | | | | | | |
| | III. Financial resu | lts (internal funds), th | ousand rouble | es | | | | | | | |
| 11 | Financial results of the previous reporting periods | (621,126.7) | (405,799.0) | +215,327.7 | 134.7 | | | | | | |
| 12 | Financial results from the accrual of depreciation of the most valuable assets | 509,341.6 | 560,166.9 | +50,825.3 | 109.98 | | | | | | |
| 13 | Prepaid expenses | (3,691.3) | (2,572.6) | +1,118.7 | 130.31 | | | | | | |
| 14 | Provisions for future liabilities | 80,600.8 | 78,107.3 | -2,493.5 | 96.91 | | | | | | |
| 15 | Total financial results of VSU | (34,875.6) | 229,902.6 | +264,778.2 | 759.2 (7.6 times) | | | | | | |
| 16 | Total sources of asset formation | 4,544,583.9 | 5,805,237.1 | +1,260,653.2 | 127.74 | | | | | | |



In 2017, the structure of the formation of VSU's assets includes liabilities to the founder regarding the land, property, plant, and equipment assigned to the University to operate and administer (91.4%), liabilities to the creditors (4.6%), and financial result (4.0%) (Table 6.16).

Table 6.16

STRUCTURE OF THE SOURCES OF VSU ASSET FORMATION IN 2017 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

| | | (((((((((((((((((((((((((((((((((((((((| <u> </u> | <u>/////////////////////////////////////</u> |
|----|--|---|------------------------|--|
| No | Indicator | Percenta at the beginning | at the end | Change (+,-) |
| 1 | Liabilities to the founder | of 2017 92.6 | of 2017 91.4 | +1.2 |
| 2 | Liabilities to the creditors – total | 8.2 | 4.6 | -3.6 |
| | including: Settlement of revenues | 5.1 | 3.8 | -1.3 |
| | Settlement of accepted obligations | 1.5 | 0.3 | -1.2 |
| | Settlement of payments into the budget | 1.1 | 0.3 | -0.8 |
| | Other accounts payable | 0.5 | 0.2 | -0.3 |
| 3 | Financial results (internal funds) – total | (8.0) | 4.0 | +4.8 |
| | including: Financial results of the previous reporting periods | (13.7) | (7.0) | +6.8 |
| | Financial results from accrual of depreciation of most valuable assets | 11.2 | 9.6 | -1.6 |
| | Provisions for future liabilities | 1.8 | 1.4 | -0.4 |
| 4 | Total sources of asset formation | 100.0 | 100.0 | - |

As a result of changes in VSU's strategy of budgeting and activities planning and absence of targeted subsidies for fixed asset value increase in 2017 only 13.4% of additions to property, plant, and equipment and 47.1% of expenditure for capital construction and other fixed asset investment was financed by VSU. The percentage of subsidies was 86.6% and 52.9% respectively. The previous year, the share of internal funds in total investment was less significant. Such favourable conditions allowed the use of subsidies to raise employees' salaries. Considerably lower capital expenditures in the amount of 226,674.0 thousand roubles is one of the main reasons for the growth in the University's funds and the improvement in its liquidity (Table 6.17 and 6.18).

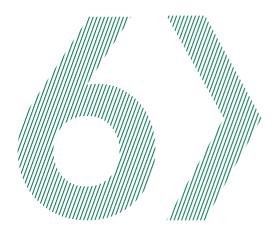


Table 6.17

STRUCTURE AND DYNAMICS OF THE ADDITIONS TO PROPERTY, PLANT, AND EQUIPMENT BY FINANCIAL SOURCES

| 4////////////////////////////////////// | <u> </u> | /////////////////////////////////////// | /////////////////////////////////////// | /////////////////////////////////////// | <u>/////////////////////////////////////</u> | /////////////////////////////////////// |
|--|------------------|---|---|---|--|---|
| | 2 | 016 | 2017 | | Change (+, -) | |
| Financial source | thousand roubles | Percentage, % | thousand roubles | Percentage, % | Thousand roubles | Percentage, % |
| Property, plant, and equipment purchased – total | 375,770.9 | 100.0 | 75,945.9 | 100.0 | -299,825.0 | - |
| including: Funded by VSU | 81,644.9 | 21.7 | 10,199.3 | 13.4 | -71,445.6 | -8.3 |
| Through governmental order subsidies | 294,126.0 | 78.3 | 65,746.6 | 86.6 | -228,379.4 | +8.3 |

Table 6.18

STRUCTURE AND DYNAMICS OF DEVELOPMENT EXPENDITURES AND OTHER INVESTMENTS INTO PROPERTY, PLANT, AND EQUIPMENT, BY FINANCIAL SOURCES

| | 2 | 016 | 2 | 017 | Change (+, -) | | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|--|--|
| Financial source | thousand roubles | Percentage, % | thousand roubles | Percentage, % | Thousand roubles | Percentage, % | | |
| Development expenditures and other investments into property, plant, and equipment – total | 353,831.8 | 100.0 | 127,157.8 | 100.0 | -226,674.0 | - | | |
| including: Funded by VSU | 49,564.8 | 14.0 | 59,808.7 | 47.1 | +10,243.9 | +33.1 | | |
| Through governmental order subsidies | 254,186.7 | 71.8 | 67,349.1 | 52.9 | -186,837.6 | -18.9 | | |
| Other subsidies | 50,080.3 | 14.2 | _ | | -50,080.3 | -14.2 | | |
| Capital expenditure subsidies | - | - | - | - | - | - | | |



In 2017, capital investments into property, plant, and equipment had a positive impact on the depreciation of these assets (as of the end of the year it reached 46.5%). As for VSU's real estate, this figure is even smaller – 19.9%. The book value of fixed assets increased by 53,187.4 thousand roubles, or 1.9% (Table 6.19).

Table 6.19

THE ANALYSIS OF VSU'S FIXED ASSET DEPRECIATION

| <u> </u> | | | | /////////////////////////////////////// | /////////////////////////////////////// |
|----------|---|-----------------------------------|--------------------------|---|---|
| No | Indicator | As of the beginning of 2017 | As of the end of 2017 | Absolute change (+, –) | Growth ratio, % |
| 1 | Book value of fixed assets, thousand roubles | 2,733,514.4 | 2,786,701.8 | +53,187.4 | 101.9 |
| | including: real estate of the establishment | 1,384,305.1 | 1,433,449.7 | +49,144.6 | 103.6 |
| | most valuable movable assets | 523,986.3 | 530,118.0 | +6,131.7 | 101.2 |
| 2 | Depreciation of premises and equipment, thousand roubles | 1,205,056.8 | 1,296,721.8 | +91,665.0 | 107.6 |
| | including: real estate of the establishment | 255,041.5 | 284,808.5 | +29,767.0 | 111.7 |
| | most valuable movable assets | 310,737.3 | 308,078.9 | -2,658.4 | 99.1 |
| 3 | Net value of property, plant, and equipment, thousand roubles | 1,528,457.6 | 1,489,980.0 | -38,477.6 | 97.5 |
| | including: real estate of the establishment | 1,129,263.6 | 1,148,641.2 | +19,377.6 | 101.7 |
| | most valuable movable assets | 213,249.0 | 222,039.2 | +8,790.2 | 104.1 |
| 4 | Coefficient of depreciation, % | 44.1 | 46.5 | 2.4 | × |
| | including: real estate of the establishment | 18.4 | 19.9 | +1.5 | × |
| | most valuable movable assets | 59.3 | 58.1 | -1.2 | × |

An increase in financial assets in 2017 (by 6.5 times), including monetary funds (by 10.5%), primarily due to the reduction in capital expenditures, had a positive impact on the current level of VSU's financial solvency. At the end of the reporting period, the university was able to discharge 77.3% of its liabilities to the creditors through available funds. What is more, other active assets (funds expected from the debtors and material assets) are sufficient to almost fully satisfy the accounts payable (99.1%) (Table 6.20).



Table 6.20

ANALYSIS OF VSU'S CURRENT FINANCIAL SOLVENCY

| No | Indicator | As of the beginning of 2017 | As of the end of 2017 | Absolute change (+, –) | |
|----|---|--------------------------------|--------------------------|---------------------------|--|
| | I. Initial values for ana | ysis, thousand roubl | es | | |
| 1 | Cash and cash equivalents | 19,661.6 | 206,667.2 | +187,005.6 | |
| 2 | Resources in settlements with debtors | 16,042.5 | 26,420.6 | +10,378.1 | |
| 3 | Material inventories | 28,414.8 | 31,894.2 | +3,479.4 | |
| 4 | Total operating assets (Art. 1 + Art. 2 + Art. 3) | 64,118.9 | 264,982.0 | +200,863.1 | |
| 5 | Total liabilities to the creditors | 370,812.6 | 267,255.1 | -103,557.5 | |
| | II. Current sc | lvency ratio | | | |
| 6 | Absolute liquidity ratio (covering liabilities to creditors using monetary funds) | 0.053 | 0.773 | +0.72 | |
| 7 | Marginal liquidity ratio (covering the liabilities to the creditors using monetary funds and the resources in settlements with debtors) | 0.096 | 0.872 | +0.776 | |
| 8 | Current liquidity ratio (covering liabilities to creditors using operating assets) | 0.173 | 0.991 | +0.818 | |

A decrease in the accounts payable and positive financial result in 2017 led to the improvement of financial stability of the university. In the reporting period, the equity to total assets ratio became positive and increased by 0.56 points (Table 6.21).

Table 6.21

THE ANALYSIS OF VSU'S FINANCIAL STABILITY

| No | Indicator | As of the beginning of 2017 | As of the end of 2017 | Absolute change (+, –) | |
|-------------------------------------|--|-----------------------------------|--------------------------|---------------------------|--|
| | I. Initial values for analysis, | thousand roub | les | | |
| 1 | Liabilities to the creditors | 370,812.6 | 267,255.1 | -103,557.5 | |
| 2 | Financial results (internal funds) | (34,875.6) | 229,902.6 | +264,778.2 | |
| 3 | Total value of the sources of financing for the university's activities (excluding liabilities to the founder) | 335,937.0 | 497,157.7 | +161,220.7 | |
| 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) | (0.10) | 0.46 | +0.56 | |
| 5 | Dependency ratio (share of liabilities in the total value of sources of financing for university activities) | 1.10 | 0.54 | -0.56 | |



In the assessment of financial stability, there is a strong emphasis placed on determining the coverage of the fixed assets and other non-current assets which have the greatest percentage in the property of the university by long-term sources of financing – 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 2017, this indicator amounted to 93.2%. At the end of the reporting period, there is a significant increase in the ratio of the coverage of the fixed assets by long-term sources of financing (by 6.76%) due to the increasing costs of non-current assets and improved financial result (Table 6.22).

Table 6.22

COVERAGE OF THE FIXED ASSETS AND OTHER NON-CURRENT ASSETS BY LONG-TERM SOURCES OF FINANCING

| No | Indicator | As of the beginning of 2017 | As of the end of 2017 | Absolute change (+,-) | |
|----|---|-----------------------------------|--------------------------|-----------------------------|--|
| 1 | Net book value of fixed assets, thousand roubles | 1,528,457.6 | 1,489,980.0 | -38,477.6 | |
| 2 | Net value of intangible assets, thousand roubles | 192.2 | 119.8 | -72.4 | |
| 3 | Balance value of non-produced assets, thousand roubles | 2,893,393.6 | 3,989,388.2 | +1,095,994.6 | |
| 4 | Investments in the non-financial assets, thousand roubles | 58,421.6 | 60,767.1 | +2,345.5 | |
| 5 | Total non-current assets (Art. 1 + Art. 2 + Art. 3 + Art. 4), thousand roubles | 4,480,465.0 | 5,540,255.1 | +1,059,790.1 | |
| 6 | Liabilities to the founder, thousand roubles | 4,208,646.9 | 5,308,079.4 | +1,099,432.5 | |
| 7 | Financial results (internal funds), thousand roubles | (34,875.6) | 229,902.6 | +264,778.2 | |
| 8 | Total value of the sources of non-current asset formation (Art. 6 + Art. 7), thousand roubles | 4,173,771.3 | 5,537,982.0 | +1,364,210.7 | |
| 9 | Ratio of the coverage of the fixed assets by long-term sources of financing, (Art. 8 : Art. 5), % | 93.2 | 99.96 | +6.76 | |

As a result of the growth in the university's total assets (of 13.9%) with a simultaneous 5.2% increase in revenue asset turnover (not including the non-produced assets – land) did not change (Table 6.23).



Table 6.23

VSU ASSET TURNOVER ANALYSIS

| No | Indicator | 2016 | 2017 | Absolute change (+, –) | Growth ratio, % |
|----|--|--------------------|-------------|---------------------------|-------------------------|
| | I. Initial values fo | r analysis, thouse | and roubles | | |
| 1 | Average annual cash balance | 21,624.9 | 113,164.4 | +91,539.5 | 523.3 (5.2 times) |
| 2 | Average annual amount of funds in settlements with debtors (accounts receivable) | 21,415.5 | 21,231.5 | -184.0 | 99.0 |
| 3 | Average annual amount of material assets | 25,640.4 | 30,154.5 | +4,514.1 | 117.6 |
| 4 | Total average annual amount of operating assets | 68,680.8 | 164,550.4 | +95,869.6 | 239.6 |
| 5 | Average annual amount of total assets | 4,544,673.6 | 5,174,910.6 | +630,237.0 | 113.9 |
| 6 | Average annual amount of total assets without non-produced assets | 1,646,493.7 | 1,733,519.7 | +87,026.0 | 105.2 |
| 7 | Total income of the university | 2,304,525.8 | 2,424,760.8 | +120,234.2 | 105.2 |
| | II. Asset | turnover ratio, do | ays | | |
| 8 | Turnover period for total assets | 710 | 768 | +58 | 108.2 |
| 9 | Turnover period for total assets without non-produced assets | 257 | 257 | 0 | 100.0 |
| 10 | Turnover period for operating assets | 11 | 24 | +13 | 218.2 |
| 11 | Turnover period in settlements with debtors (accounts receivable) | 3 | 3 | 0 | 100.0 |
| 12 | Turnover period for material assets | 4 | 4 | 0 | 100.0 |

Considering the fact that the largest percentage in VSU's property structure is covered by land and property, plant, and equipment, which are long-term assets, the level of the asset turnover remains at an acceptable level (257 days, and 768 days if land is taken into consideration). The turnover period for the operating assets increased by 13 days, whereas the period of settlements with debtors did not change.

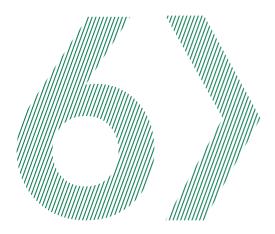


In 2017, the minimisation of expenditure led to a positive net operating financial result in the amount of 213,952.8 thousand roubles At the same time there was a growth in revenue of 362,776.6 thousand roubles or by 2.4 times compared to the previous year. It caused a considerable growth in revenue from each rouble of total assets (not including the non-produced assets) from -9.0 to +12.4 kopeks, of fixed assets – from 5.7 to +7.8 kopeks, income – from 6.5 to +8.8 kopeks, expenditures – from 6.0 to +9.8 kopeks, and operating assets by 6.1 times (Table 6.24).

Table 6.24

ANALYSIS OF VSU OPERATING PROFITABILITY

| 4/4/2019 OF ERATING FROM THE STATE OF THE ST | | | | | |
|--|---|-------------------|------------------|------------------------|----------------------|
| No | Indicator | 2016 | 2017 | Absolute change (+, -) | Growth ratio, % |
| | I. Initial values | for analysis, tho | usand roubles | | |
| 1 | Average annual amount of total assets (residual value) | 4,544,673.6 | 5,174,910.6 | +630,237.0 | 113.9 |
| 2 | Average annual amount of total assets without non-produced assets (residual value) | 1,646,493.7 | 1,733,519.7 | +87,026.0 | 105.2 |
| 3 | Average annual amount of current assets | 68,680.8 | 164,550.4 | +95,869.6 | 239.6 |
| 4 | Average annual amount of fixed assets (carrying value) | 2,590,534.6 | 2,760,108.1 | +169,573.5 | 106.5 |
| 5 | Total income | 2,304,525.8 | 2,424,760.8 | +120,234.2 | 105.2 |
| 6 | Total expenditures | 2,464,302.2 | 2,190,375.1 | -273,927.1 | 88.9 |
| 7 | Net operating financial result (loss) | (148,823.8) | 213,952.8 | +362,776.6 | 243.8 (2.4 times) |
| | II. Profitability | of the university | 's activities, % | | |
| 8 | Profitability of total assets (loss per 1 rouble of total assets) (Art.7 : Art. 1) | (3.3) | 4.1 | +7.4 | × |
| 9 | Profitability of total assets without non-produced assets (loss per 1 rouble of total assets without non- produced assets) (Art.7: Art. 2) | (9.0) | 12.4 | +21.4 | × |
| 10 | Profitability of current assets (loss per 1 rouble of current assets) (Art. 7: Art. 3) | (216.7) | 130.0 | +346.7 | × |
| 11 | Profitability of fixed assets (loss per 1 rouble of fixed assets) (Art. 7: Art. 4) | (5.7) | 7.8 | +13.5 | × |
| 12 | Profitability of the university's income (loss per 1 rouble of income) (Art. 7 : Art. 5) | (6.5) | 8.8 | +15.3 | × |
| 13 | Profitability of the university's expenditures (loss per 1 rouble of expenditures) (Art. 7 : Art. 6) | (6.0) | 9.8 | +15.8 | × |



6.9. THE DYNAMICS OF THE STAFF REWARD SYSTEM IN 2016-2017

In 2017, the payroll budget of the university (not including the branches) amounted to 951,399.1 thousand roubles, including:

- from subsidies 511,665.3 thousand roubles
- from targeted subsidies 11,271.8 thousand roubles
- from extra-budgetary funds 428,462 thousand roubles

Compared to 2016, the payroll budget of the university decreased by 5.5%, including by 12.1% from extra-budgetary funds and increased by 0.7% from subsidies (fig. 6.15 and 6.16).

Figure 6.15

THE COMPARATIVE ANALYSIS OF THE PAYROLL BUDGET IN 2016 AND 2017

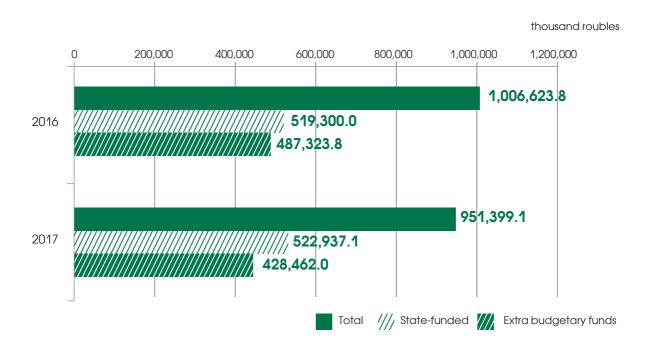
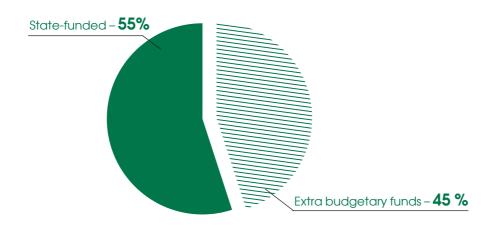




Figure 6.16

PAYROLL BUDGET STRUCTURE BY THE SOURCE OF FINANCING IN 2017



In 2017, the average monthly salary of university staff members (including extrabudgetary fund payments) amounted to 24,918 roubles. The average salary of academic staff members was 44,878 roubles, researchers - 48,009 thousand roubles, and other employees - 11,207 roubles.

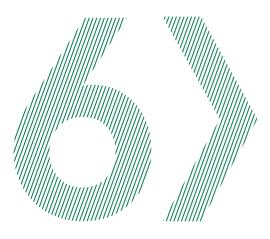
Measures to raise the salaries and social welfare of the university staff

In 2017, the system of per capita financing was used for the first time 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 which resulted in a more sustainable and efficient distribution of salaries among different categories of staff.

Since 1 July 2017, the minimum monthly wage in the Voronezh region increased up to 7,800 roubles (an increase of 23.8%). In accordance with the legislation of the Russian Federation the salaries provided to its employees by FGBOU VO VSU exceeded the minimum monthly wage.

Since 1 September 2017, to adjust the salaries of academic staff members to the corresponding values of the roadmap, bonuses based on the level of faculties' efficiency were introduced. For the first time, the amount of bonuses depended on academic titles.

In 2017, payments within the effective contract amounted to 320.1 thousand roubles and the number of employees who received them increased by several times compared to 2016.



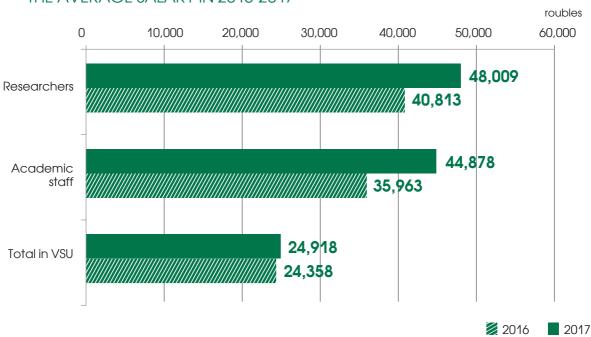
6.10. ANALYSIS OF THE AVERAGE SALARY OF ACADEMIC STAFF MEMBERS AT VSU COMPARED TO THE AVERAGE SALARY IN THE VORONEZH REGION

In 2017, the average salary of university staff members (including extra-budgetary fund payments) amounted to 24,918 roubles, including:

- The average salary of academic staff members was 44,878 roubles, which is 180.2% of the average salary in the region and exceeds the target value of the 2017 roadmap, which was 180%.
- The average salary of researchers was 48,009 roubles, which is 192.8% of the average salary in the region and exceeds the target value of the 2017 roadmap, which was 180% (fig. 6.17).

Figure 6.17

THE AVERAGE SALARY IN 2016-2017



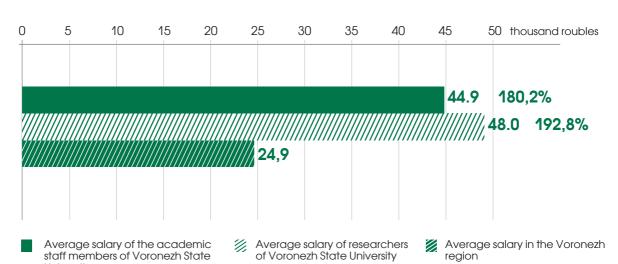


In 2017, the average salary of university staff members increased by 2.2%. The average salary of academic staff members increased by 24.7%, and researchers – by 17.6% (fig. 6.18).

Figure 6.18

University

AVERAGE SALARY OF VSU ACADEMIC STAFF AND RESEARCHERS AND THE AVERAGE SALARY IN THE VORONEZH REGION IN 2017





6.11. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2017

Financial and operating activities:

- To minimise costs in accordance with the university's strategy of finance management, budgeting, and planning of financial and business operations.
- A growth in total assets due to an increase in the cadastral value of non-produced assets of VSU and in the most mobile part of VSU's assets financial assets (monetary funds and accounts receivable).
- A reduction in the liabilities to the creditors by decreasing all types of accounts payable.
- Positive financial results from the university's operating activities, which made it possible to compensate the negative financial result of 2016 and to increase the financial result by 7.6 times.
- A reduction in capital expenditures and the absence of targeted subsidies increasing the value of fixed assets led to a decrease in expenditure on purchasing property, plant, and equipment and financing them by income-generating activities.
- At the end of the year, the coefficient of depreciation decreased by 46.5% which had a positive impact on the book value relating to the technical condition of assets.
- An increase in financial assets by 6.5 times, including a 10.5 times increase in monetary funds led to an increase of the current level of VSU's financial solvency.
- Available funds and other active assets (funds expected from the debtors and material assets) were enough for the satisfaction of 99.1% of accounts payable.
- Improved financial solvency due to positive equity to total assets ratio and its growth by 0.56 points.
- The period of settlements with debtors did not change whereas the turnover period for the operating assets increased by 13 days.



Purchase activities:

- 15.5% growth in the total number of the contracts due to an increase in the percentage of financing for the purchasing activities by grants, the funds obtained as a result of execution of state contracts, and as a result of other income-generating activities.
- Total financing of products, works, and services decreased by 58.1% with most purchase of products, works, and services financed by grants and other sources of financing 52.9% 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%.
- The majority of expenses were related to contracts signed for teaching services provided by non-payroll employees and was 30.7% by value of the total value of contracts for the purchase of goods, works, and services from a single supplier.
- The number of modifications to the provisions of the time-schedule for purchases decreased by 61.1%, they were made less than twice a month due to improved quality of the 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:

- 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 used, which resulted in a more sustainable and efficient distribution of salaries among different categories of staff.
- The salaries were adjusted to meet the requirements of the labour legislation (the minimum monthly wage in the Voronezh region increased up to 7,800 roubles), which led to a 23.8% growth in labour costs.
- To adjust the salary of academic staff members to the corresponding values of the roadmap, bonuses based on the level of faculties' efficiency were introduced. The amount of bonuses depended on the academic title.
- Payments within the effective contract amounted to 320.1 thousand roubles and the number of employees who received them increased.















INTERNATIONAL ACTIVITIES





INTERNATIONAL ACTIVITIES



O. N. Belenov,
Head of the Department
for International Cooperation

7.1. VSU OBJECTIVES IN THE AREA OF INTERNATIONAL COOPERATION IN 2017

In 2017, VSU's international activities were focused on enhancing the following areas:

- Developing contacts through direct contracts and agreements with international universities.
- Developing and implementing joint education programmes with international partner universities.
- VSU's participation in competitions for international funds and programmes.
- Preparing documentation for VSU's accreditation with the Higher Education Council of Turkey.
- Preserving a common education environment for foreign residents by extending pre-university training at VSU.



7.2. DEVELOPING CONTACTS THROUGH DIRECT CONTRACTS AND AGREEMENTS WITH INTERNATIONAL UNIVERSITIES

Contacts are developed through 195 contracts and cooperation agreements with international universities

In 2017, Voronezh State University signed 10 agreements with universities from Asia, the CIS, and the Middle East (Table 7.1).

Table 7.1

LIST OF COOPERATION AGREEMENTS WITH INTERNATIONAL UNIVERSITIES SIGNED IN 2017

| No | Country | Programme (project title), university, country | Type of agreement | | |
|----|------------------------------|--|--|--|--|
| 1 | Israel | A framework partnership agreement for academic cooperation between FSFEI HE VSU and the University of Haifa | Academic cooperation and student exchange programmes | | |
| 2 | The Kingdom of Morocco | A cooperation agreement between FSFEI HE VSU and International Open Sup'Management University (Fez) | Academic cooperation and student exchange programmes | | |
| 3 | Mongolia | A cooperation agreement between FSFEI HE VSU and Wuyuan County Academy of Agriculture and Stockbreeding | Research cooperation and joint scientific and technological projects | | |
| 4 | The USA | A programme agreement between FSFEI HE VSU and the University of Texas Rio Grande Valley | Cooperation and student exchange programmes | | |
| 5 | Tajikistan | A cooperation agreement between FSFEI HE VSU and the State Institution "Centre for International Programmes" supported by the Ministry of Education and Science of the Republic of Tajikistan (Dushanbe) | Cooperation in the sphere of education | | |
| 6 | Turkey | A cooperation agreement between FSFEI HE VSU and the University of Marmara (Istanbul) | Academic cooperation and student exchange programmes | | |
| 7 | Turkey | A cooperation agreement between FSFEI HE VSU and Atatürk University (Erzurum) | Academic cooperation and student exchange programmes | | |
| 8 | Turkey | An agreement (protocol) for academic cooperation between FSFEI HE VSU and the University of September 9th (Izmir) | Academic cooperation and student exchange programmes | | |
| 9 | Uzbekistan | An agreement for international cooperation in the area of education and science between FSFEI HE VSU and Tashkent State Economic University | Academic cooperation and student exchange programmes | | |
| 10 | Japan | A memorandum of understanding for scientific cooperation between FSFEI HE VSU and Sophia University | Academic cooperation | | |



The agreement between Voronezh State University and the University of Haifa (Israel) sets the terms for joint research to study the internal waves of Lake Kinneret with the help of VSU's equipment. The University of Haifa will provide its research premises, deck watch time, and computational capacities. The proposed research will be of importance for studying water pollution, the peculiarities of the ichthyosphere, and oil field and oil platform safety.

In line with the university agreement between FSFEI HE VSU and International Open Sup'Management University (Fez, the Kingdom of Morocco) the cooperation is conducted by the Faculty of Romance and Germanic Philology. However, the scale of the agreement requires the participation of other university faculties. In June and July 2017, a group of university students visited Sup'Management University where they had practice training. Students from the Faculty of Romance and Germanic Philology (2nd year) did an internship in French (first foreign language) and Arabic (second foreign language). The Arabic was taught with the help of French. Thanks to the students' good knowledge of the French language they completed successfully an intensive course in the Arabic language, did a test in it, and received certificates. Among other participants of the trip were students from the Faculty of International Relations who took part in practical training in French. The training took place in an administrative establishment of the partner university. The students took part in the university events and learnt about the offshore economic zone of Fez and the port logistics of Nador.

In 2018, five students from the Faculty of Romance and Germanic Philology, who study Arabic, are planning to study a course of the Arabic language at the University of Fez, and two students from the Faculty of International Relations are going to do their pre-graduate practical training at the partner university. The themes of their graduation papers are connected with Morocco and the cooperation between our countries.

The partner university offers Russian courses at their university to prepare students from Morocco for further studies at VSU or other Russian universities.

The current results of the agreement highlight its efficiency and promise of good results.

As a part of a cooperation agreement between VSU and Wuyuan County Academy of Agriculture and Stockbreeding, VSU and the Mongolian enterprise Erdenet discussed the possibilities of cooperation in November 2017. As a result of the discussion the parties agreed to conduct joint geological prospecting by the university specialists and geologists from Erdenet in 2018 and in the future.



In 2017, VSU and the University of Texas-Rio Grande Valley (Texas, USA) concluded a programme agreement about student exchange programmes, i.e. semester exchange of 6 students per year. In May 2017, Dr. Peter Kranz from the University of Texas-Rio Grande Valley spent 3 months at VSU where he gave a series of lectures on Psychology at the Faculty of Philosophy and Psychology of Voronezh State University and also assisted a VSU lecturer as a native speaker at English classes.

The existing agreement between VSU and the State Institution "Centre for International Programmes", supported by the Ministry of Education and Science of the Republic of Tajikistan (Dushanbe), is aimed at joint organisational, educational, and cultural activities. The Republic of Tajikistan is aimed at expending cooperation and has defined the following areas of activity:

- To hold advertising campaigns and perform information dissemination activities by the Centre for International Programmes among citizens of the Republic of Tajikistan within its area of competence.
- To organise educational fairs and exhibitions to attract citizens of the Republic of Tajikistan to studying at VSU.
- To hold competitions among prospective students to offer to the citizens of the Republic of Tajikistan opportunities to do bachelor's, master's, postgraduate, and doctoral programmes, internships, and advanced training programmes at VSU.

Taking into consideration the experience gained by VSU in training national and international specialists and the high level expertise of the academic staff, VSU has a commitment to train residents of the Republic of Tajikistan who will do bachelor's, master's, postgraduate, and doctoral programmes, to organise internships for students and specialists, to give presentations for residents of the Republic of Tajikistan at annual international educational exhibitions and fairs.

In the nearest future, events in the above mentioned areas of cooperation will be held.

An agreement for international cooperation in the area of education and science between FSFEI HE VSU and Tashkent State Economic University sets the terms for student and academic staff exchanges.

In accordance with the agreement between FSFEI HE VSU and Sophia University (Japan), student exchange programmes will be implemented since 2018. Two students from the Japanese partner university are planning to come and do a spring term at VSU in 2018.

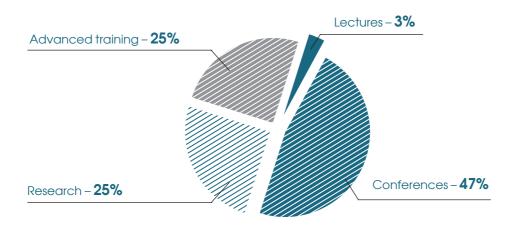


ACADEMIC MOBILITY OF VSU STAFF

In 2017, academic staff of VSU took an active part in international scientific conferences, research, advanced training programmes, and lecturing. The total number of staff members who were sent abroad was 186 people. 87 people were sent abroad based on individual invitations to participate in international and national scientific forums, and 99 staff members were sent to universities in Germany, France, Croatia, Spain, the Kingdom of Morocco, Israel, Mongolia, Ukraine, and the Republic of Belarus, under agreements between universities (fig. 7.1).

Figure 7.1

NUMBER OF ACADEMIC STAFF MEMBERS SENT ON BUSINESS TRIPS, BY AIMS

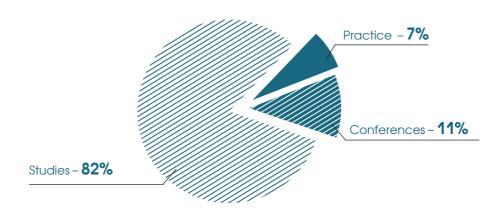


DYNAMICS OF EXCHANGE PROGRAMMES COMPLETED BY UNDERGRADUATE AND POSTGRADUATE STUDENTS IN PARTNER UNIVERSITIES

154 VSU students completed different types of exchange programmes (one-year, one-term, language courses, internships, pre-graduation practical training) (fig. 7.2).

Figure 7.2

DYNAMICS OF EXCHANGE PROGRAMMES COMPLETED BY VSU STUDENTS IN INTERNATIONAL UNIVERSITIES (BY AIMS)

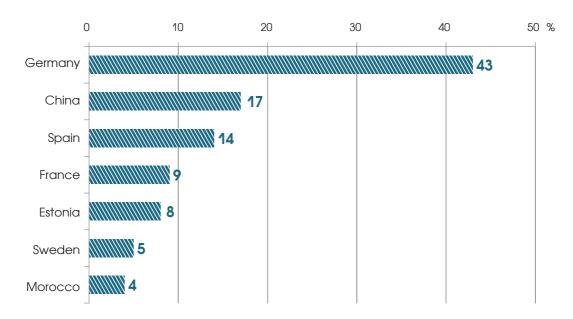




The most popular countries among the participants of exchange programmes were Germany, China, Estonia, France, Spain, Morocco, and Sweden. The keen interest of VSU students in exchange programmes in German, Chinese, and French universities can be explained, not only by the number of places provided by international universities, but also by grants offered to our students in German and French partner universities and by the comfortable accommodation for VSU exchange students in China (fig. 7.3).

Figure 7.3

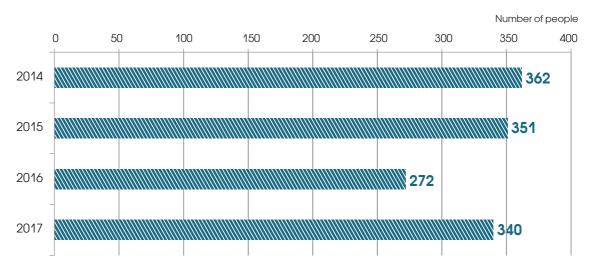
COUNTRIES VISITED BY STUDENTS AS A PART OF EXCHANGE PROGRAMMES



Over the last 4 years, 1,300 people (students and academic staff members) were sent on academic trips abroad (fig. 7.4).

Figure 7.4

ACADEMIC MOBILITY OF VSU STUDENTS AND STAFF





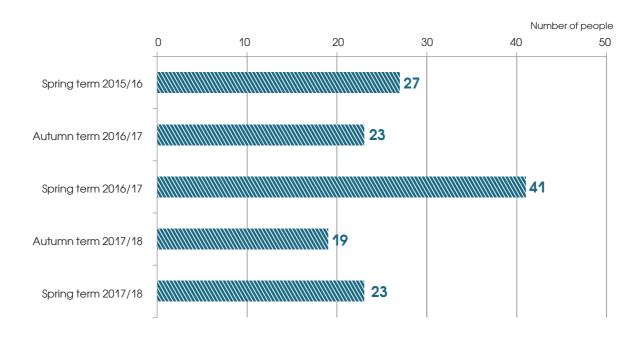
ACADEMIC MOBILITY OF INTERNATIONAL STUDENTS AS A PART OF STUDENT EXCHANGE PROGRAMMES

In the reporting period, international students were enrolled on one-term and one-year programmes as a part of student exchange programmes implemented as a result of cooperation between universities. 60 international students studied at VSU, among them 41 students took part in programmes in the spring term and 19 in the autumn term. 23 international students from China, Germany, Great Britain, Spain, the USA, Greece, and Japan are planning to come to study at VSU in the spring term of the 2017/18 academic year (fig. 7.5).

Figure 7.5

ACADEMIC MOBILITY OF INTERNATIONAL STUDENTS THROUGH DIRECT

CONTRACTS AND AGREEMENTS WITH INTERNATIONAL UNIVERSITIES



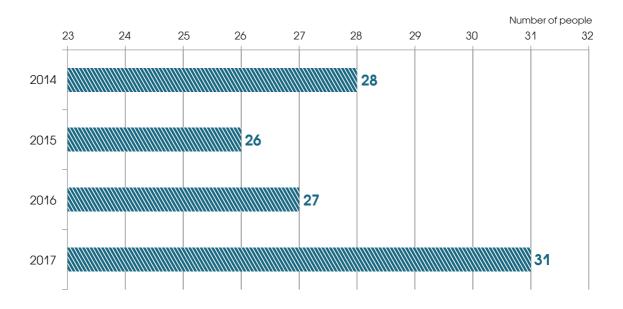


THE NUMBER OF INTERNATIONAL EXPERTS INVOLVED IN ACADEMIC AND RESEARCH ACTIVITIES

In the reporting period, 31 international specialists, 50 students, and 23 graduates took part in the educational process and research at VSU (fig. 7.6).

Figure 7.6

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, 46 international conferences took place in VSU. Among their participants were 492 international specialists from 22 countries: Algeria, Armenia, Bulgaria, Bosnia and Herzegovina, Hungary, Vietnam, Germany, Indonesia, Spain, the Kyrgyz Republic, China, the Kingdom of Cambodia, Mongolia, the Pridnestrovian Moldavian Republic, the Republic of Belarus, the Republic of Haiti, the Republic of Kazakhstan, the Republic of Tajikistan, the Republic of Uzbekistan, Serbia, Ukraine, and Sri Lanka (fig. 7.7 and 7.8).



Figure 7.7

PARTICIPATION OF INTERNATIONAL SPECIALISTS IN INTERNATIONAL CONFERENCES IN VSU

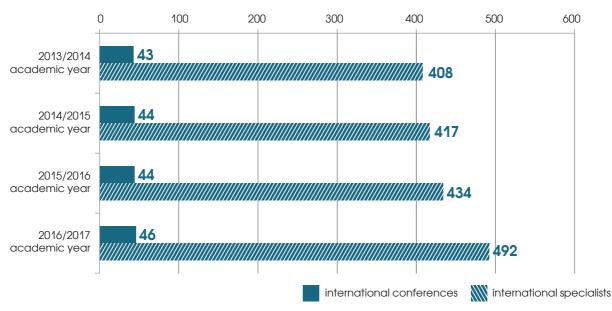
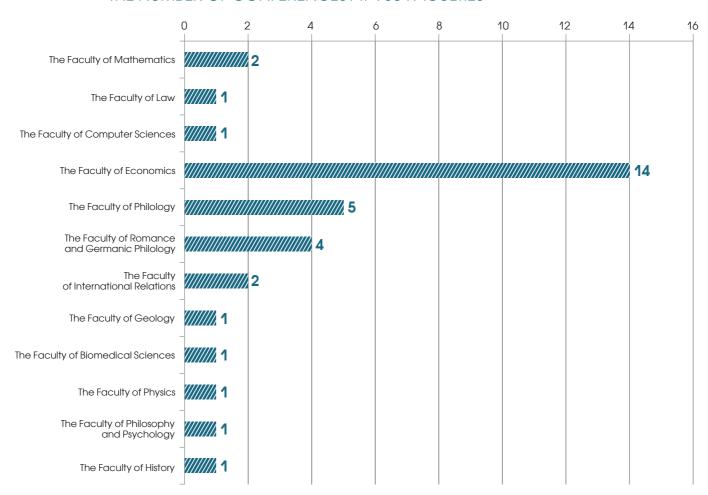


Figure 7.8

THE NUMBER OF CONFERENCES AT VSU FACULTIES





7.3. INFORMATION ABOUT JOINT ACADEMIC (DOUBLE DEGREE) PROGRAMMES IMPLEMENTED AT VSU IN 2017

VSU continues developing and improving cooperation with partner universities by developing and introducing joint programmes in the educational process.

In 2017, the university offered 12 joint programmes (Table 7.2).

Table 7.2

JOINT EDUCATIONAL PROGRAMMES AT VSU IN 2017

| <u> </u> | | | | |
|----------|--|----------------------|---|---|
| No | Programme | Study option | Faculty | International 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 | Tourism Management | Master's degree | The Faculty of International Relations and the Faculty of Romance and Germanic Philology | The University Paris-Est Marne-la-Vallée (Marne-la-Vallée, France) |
| 3 | Contrastive Philology | Master's degree | The Faculty of Romance and Germanic Philology | The University of Leon (Spain) |
| 4 | Business Communication in Economics: the German Language | Master's degree | The Faculty of Romance and Germanic Philology | Martin Luther University of Halle- Wittenberg (Halle, Germany) |
| 5 | Linguistics. Teaching Italian as a Foreign Language. | Master's degree | The Faculty of Romance and Germanic Philology | University for Foreigners (Perugia, Italy) |
| 6 | Optics and Nanophotonics | Master's degree | The Faculty of Physics | The University of Texas Rio Grande Valley |
| 7 | Mathematics and Mathematics and Computer Sciences | Master's degree | The Faculty of Mathematics | The University of Texas Rio Grande Valley |
| 8 | Russian Literature in the European Context | Master's degree | The Faculty of Philology | The University of Göttingen (Göttingen, Germany) |
| 9 | Commercial Network Management | Bachelor's degree | The Faculty of International Relations | The University of Sciences and Technologies Lille 1 (Lille, France) |
| 10 | International Tourism Management | Master's degree | The Faculty of International Relations | University of Girona (Spain) |
| 11 | General Management | Master's degree | Business School | High Institute of Commerce of Paris |
| 12 | European and International Law in Eastern Europe | Master's degree | The Faculty of Law | The University of Zagreb (Croatia) |



In 2017, the focus was on an analysis of the existing programmes and the improvement of their organisational and methodological approaches to their implementation, rather than to the opening of new programmes. In accordance with recommendations of the Ministry of Education and Science of the Russian Federation, the university developed regulations to network the various education programmes, which were offered for discussion at Research and Methodology Boards of VSU faculties, and a roadmap for the organisation of cooperation between Voronezh State University and international partner universities aimed at the development of joint programmes. To enhance cooperation, eliminate problems, and improve the quality of education, VSU and partner universities modernised their administrative approaches and updated the curriculums for the programmes which are most stable and most supported by European partners: "Business Communication in Economics: the German Language" and "Russian Literature in the European Context".

In 2017, first students of the master's programme "Russian Literature in the European Context" completed the programme. Three students presented and defended their master's dissertations in the University of Göttingen. Master students who enrolled on the programme in 2016 (7 students from VSU) did a one-term course at the University of Göttingen. A participant of the programme from Germany took part in a course at Voronezh State University in the second term of 2016/17. In September 2017, students were recruited for the master's programme for the third time – 7 students from Voronezh State University were also immatriculated as students of the University of Göttingen.

The Voronezh University Relation Coordinator, the Deputy Dean of the Faculty of Philosophy of the University of Göttingen, M. Friese, conducted two courses for master's students of the joint programme at Voronezh State University (in April and December 2017). In January 2018, academic staff members of Voronezh State University, Associate Professor E.O. Kozura, Professor S.V. Savinkov, and Professor A.A. Faustov, conducted basic courses in Göttingen.

Cooperation in the framework of the joint programme gave way to research cooperation between the two universities. In November 2017, Professor M. Friese gave a presentation at the international conference "Russian Literature Universals" which was organised by the Department of Russian and Foreign Literature of the Faculty of Philology. A collection of articles edited by Professor M. Riese and Professor A.A. Faustov "A Dialogue between Russian and German Literature" was prepared in cooperation with the University of Göttingen.



In 2017, the joint master's programme "Business Communication in Economics: the German Language" was continued. 8 people enrolled on this programme and were sent to Martin Luther University to do a two term course. In 2017, educational programmes of the two universities were harmonised which 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 programmes.

In 2017, 6 students successfully completed the programme and defended their projects. Their research was devoted to comparing economic terminology, the phonostylistic features of business language, rhetoric, and phonetics of the German language.

Students of the programme "Business Communication in Economics: the German Language" had a chance to attend lectures of the leading specialists in business communication and business rhetoric. In October 2017, professors from Martin Luther University, Ursula Hirschfeld and Baldur Neuber, gave lectures at the German Department of the Faculty of Romance and Germanic Philology. The colleagues from Martin Luther University, the VSU staff members who implement the programme, and VSU's administration hold video-conferences and offer consultations on the programme.

In 2017, programmes that involve acquiring degrees at French universities were actively developed: In March 2017, Voronezh State University and ISC Paris Business School launched the double degree programme "General Management" within 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. Such a project in the area of business education demonstrates the high international academic profile and good quality of education services at Voronezh State University. The "Executive MBA" programme implemented by ISC Paris Business School is accredited by the international organisation AACSB. Being a member of the AACSB, the ISC Paris Business School accredited the lecturers of the VSU Business School and delegated them with the right to implement the joint academic programme. As a result, the participants of the programme will get the Executive MBA diploma with international accreditation. Another advantage is that all the lectures are given in Russian by the lecturers of the VSU Business School. Some of the disciplines, following the decision of the joint academic council of both universities, are taught by the lecturers of ISC Paris Business School gave



lectures for students of the joint Executive MBA programme. Professor R. Shivre gave lectures as a part of the course "Communication Management" which is dedicated to the basic communication principles and their applications, management and leadership, Intercultural communication, and communication between people of different generations. The lectures were practice-oriented and included active teaching methods. R. Shivre praised the students for being highly motivated and appreciated the quality of translation performed by Evgeniya Lapaeva, lecturer of the Department of French Philology of the Faculty of Romance and Germanic Philology. Vyacheslav Avitunsky, lecturer from ISC Paris Business School, gave a series of lectures and workshops on "Cross-Cultural Management". During his classes the students improved their intercultural communication competence, analysed and solved a number of professional problems. Our colleagues from France were pleased to see that the students were interested, and could analyse European entrepreneurship principles as applied to their own enterprises.

In 2017, VSU and the University of Marne-la-Vallée continued to implement double degree programmes. VSU students (Tatiana Sukhova and Natalia Golovanova, the Faculty of Romance and Germanic Philology) presented and defended their master's dissertations within the programme "Tourism Management" of the University of Marne-la-Vallée.

In 2017, the partnership agreement with Joanneum University of Applied Sciences (Graz, Austria) was renewed. It sets terms for one of the oldest double degree programmes "Business in the Emerging Markets" (has been implemented at the Faculty of International Relations since 2011). The parties agreed to harmonise their courses and modernise the curriculum. Two students from the Faculty of International Relations (D. Klimkin and B. Belyakin) successfully defended their master's dissertations and got diplomas from VSU and Joanneum University of Applied Sciences. As usual, the defence ceremony was in English with the participation of Austrian partners by video conference. Today, 10 students are doing the programme, including 5 students who will get an Austrian diploma if they successfully complete the programme and defend their master's dissertations in 2018.



7.4. VSU'S PARTICIPATION IN THE COMPETITIONS FOR INTERNATIONAL FUNDS AND PROGRAMMES

In 2017, 12 projects with the participation of Voronezh State University were supported as a result of Erasmus+ competition, including 10 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".

The following section presents data about the supported projects.

1. ERASMUS+ PROGRAMME "INTERNATIONAL CREDIT MOBILITY"

- 1. Academic Mobility with FH Joanneum University of Applied Sciences (Graz, Austria)
- 2. Academic Mobility with the University of Girona (Spain)
- 3. Academic Mobility with Martin Luther University (Germany)
- 4. Academic Mobility with the University of Marne-la-Vallée (France)
- 5. Academic Mobility with the Consortium of Polytechnic Universities of Portugal
- 6. Academic Mobility with the University of Zagreb (Croatia).
- 7. Academic Mobility with Piraeus University of Applied Sciences (Greece).
- 8. Academic Mobility with the Aristotle University in Thessaloniki (Greece).
- 9. Academic Mobility with Ataturk University (Turkey).
- 10. Academic Mobility with the University of Marmara (Turkey).

According to the results of the 2016/17 academic year, over 40 students and 12 lecturers received Erasmus scholarships and had internships abroad and about 20 students and 11 lecturers from European partner universities did internships at VSU.



2. ERASMUS+ PROGRAMME "CAPACITY BUILDING IN THE FIELD OF HIGHER EDUCATION"

TAURUS (Training Capacities in Agriculture and Urban-Rural Interactions for Sustainable Development of Megacities).

3. ERASMUS+ PROGRAMME "JEAN MONNET ACTIONS"

The Educational Module "EURexp - Refugee Law: Application of European Standards and Experience in Russia".

In the framework of the open competition for Erasmus+ programme in 2018 the International Cooperation Department offers support to all faculties and structural subdivisions of the university, including consultations about the competition, documentation, and applications.

7.5. OVERVIEW OF VSU'S INTERNATIONAL ACCREDITATION IN THE HIGHER EDUCATION COUNCIL OF TURKEY

On 28 July, Voronezh State University submitted documentation for accreditation with the Higher Education Council of Turkey. According to the results of the enquiry of 18 August 2017, Voronezh State University received accreditation (the corresponding document and its translation are attached to the report), which made it possible to take part in the academic mobility programme "Mevlana" financed by the Turkish government.

VSU and the government of the Voronezh region jointly organised the forum "Days of Turkish Education in Central Russia" to promote cooperation with Turkish universities (29-30 November 2017). The forum resulted in a number of agreements: 4 cooperation agreements, 2 Erasmus+agreements between institutions, 3 Mevlana agreements, an agreement concerning creation of a Turkish educational and cultural centre in VSU, and a memorandum of understanding with the airline "Turkish airlines".



7.6. INFORMATION ON THE INTERNATIONAL STUDENT POPULATION AND DYNAMICS

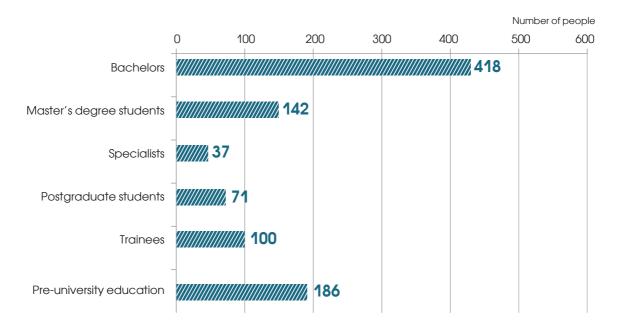
In 2017, implementation of further education programmes that prepare foreign residents for professional education programmes in the Russian language included 49 educational programmes and 5 profiles taught at the Institute of International Education (fig. 7.9).

The main issues that were solved in the reporting period included:

- To preserve the common education environment of pre-university training for foreign residents in Russia (external task).
- To retain the status of the Institute of International Education as a multidisciplinary interuniversity centre of pre-university training for foreign residents.
- To create an efficient education pattern for international students who want to do postgraduate studies after they have received higher education in a foreign language.
- To increase the profitability of training given to international students by increasing the number of students and improving the attractiveness of high quality education.
- To find instruments that stimulate a growth in the number of international students who study on a state-subsidized and fee-paying basis and are highly motivated to get a high quality education.
- To develop the material resources of the Institute of International Education to extend e-learning and distant learning.
- To provide legal and migration support for foreign residents during the whole period in which the student studies at VSU.
- To assist with the social adaptation of international students at VSU and to organise extra-curricular activities.
- Interaction with faculties and structural subdivisions of VSU while international students study at VSU.
- To provide Russian language support to international students while they are mastering the basic education programmes.



INTERNATIONAL STUDENT POPULATION IN 2017



RESEARCH AND METHODOLOGY EVENTS

- The 6th International Student Conference "Student Research as a Resource of Innovative Potential for Development" (Voronezh, the Institute of International Education of Voronezh State University, 17 May 2017) was held at the VSU Institute of International Education.
- The conference had 8 sub-forums. Over 130 people students and lecturers from Voronezh universities and Kalmyk State University took part in the conference. They presented 126 reports. Among the participants of the conference were representatives of the Russian Federation, CIS states and neighbouring countries, China, Vietnam, African states, the Middle East countries, Indonesia, Spain, Hungary, Mongolia, Sri Lanka, Serbia, and Haiti.
- 3 collections of scientific works by lecturers and staff members of the Institute of International Education were published.



- 103 articles and 23 teaching publications (194.5 printing sheets) were published.
- The number of publications in Russian Science Citation Index is 126, and the number of publications in the reviewed journals of the Russian Federation is 16.

The lecturers of the Institute of International Education took part in 26 conferences, including 15 international conferences.

The Publishing House of the Institute of International Education published 16 teaching publications.

ELECTRONIC RESOURCES CREATED AT THE LABORATORY OF NEW EDUCATIONAL TECHNOLOGIES OF THE INSTITUTE OF INTERNATIONAL EDUCATION IN 2017

ELECTRONIC STUDY GUIDES

- 1. "Verbs of motion. Part 1, 2". Software platform "Interactive Library of the International Education Institute". Link to the software installation page http://interedu.vsu.ru/rvc/install-ru.html
- 2. "Verbs of motion with prefixes". Software platform "Interactive Library of the International Education Institute". Link to the software installation page http://interedu.vsu.ru/rvc/install-ru. html
- 3. "Verb aspect". Software platform "Interactive Library of the International Education Institute". Link to the software installation page http://interedu.vsu.ru/rvc/install-ru.html
- 4. "Prepositional case of nouns". Software platform "Interactive Library of the International Education Institute". Link to the software installation page http://interedu.vsu.ru/rvc/install-ru. html
- 5. "Genitive case of nouns". Software platform "Interactive Library of the International Education Institute". Link to the software installation page http://interedu.vsu.ru/rvc/install-ru.html
- 6. Interactive lesson "VSU. Genitive case. Plural nouns". Supplement to the study guide "Russian grammar for you". Software platform "Interactive Library of the International Education Institute". Link to the software installation page http://interedu.vsu.ru/rvc/install-ru.html

ELECTRONIC TESTS

Subtests to the comprehensive examination in the Russian language, history, and the legislation of the Russian Federation (Vocabulary. Grammar. Reading. Russian history. The legislation of the Russian Federation) for working migrants. Software platform "Training and testing system of the VSU Institute of International Education" – https://cyberleninka.ru/article/v/uchebno-testovayasistema-imo-vgu

AUDIO

Audio supplement to the study guide "Russian cases in texts and tables". Access mode: http://interedu.vsu.ru/index.php/ru/audiomaterialy-k-posobiyu-russkie-padezhi-v-tekstakh-testakh-idialogakh



In the reporting period, the Institute of International Education performed the following extracurricular activities:

- Building favourable environment for balanced development of international students.
- Faster social, cultural, and academic adaptation.
- Using "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.
- Working with foreign student fraternities' council and fraternity leaders.
- Developing internationalisation of students' halls of residences.
- Interactions with the embassies of foreign states.
- Close interactions with VSU's Security Department and VSU's task unit/security group.
- Interactions with bodies of the Ministry of the Interior and Federal Security Service.

Key results of extra-curricular work with VSU international students in 2017:

- 14th International Song and Dance Festival was organised in collaboration with the Department of Culture of the Voronezh Municipal Government. The number of the participants of the festival was 800. There were over 2,000 spectators at the closing concert in the Voronezh Durov Circus.
- 12th International Festival of National Cuisine with 23 participating teams from 21 countries: representatives of Voronezh universities, other educational institutions, the Semiluksky Centre for Psychological, Pedagogical, Medical, and Social Services, and the national diasporas of the Voronezh region.
- At the initiative of the administration of the Levoberezhny district the international festival "So Different, but so Alike" was held in "Raduga" Centre for Youth Artistic Development. Among the participants of the event were 53 international students.
- Participation in the 19th Youth Forum of the Ramon region "Dialogue between Generations".



- International students continued the tradition of visiting educational institutions of the city: they held "friendship lessons", took part in joint events and concerts in school No51, Voronezh College of Food Processing Industry, and Electromechanical College (a branch of the Moscow State University of Railway Transport). Joint events were held with the Law College as a part of the cooperation agreement.
- The international students visited the Semiluksky Centre for Psychological, Pedagogical, Medical, and Social Services as a part of an annual charity event aimed at providing help to orphans. They gave a concert and provided financial support.
- Cooperation with the youth department of the Kominternovsky municipal council was continued. As a part of this cooperation, the leaders of VSU international students met with the Head of the municipal council, A. Medvedev, and a number of sport and cultural events were held: a concert in the trading centre "Aksioma", a concert dedicated to the Victory Day in the Voronezh Cultural Centre, and other events.
- 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", and the official graduation ceremony for international students.
- A Festival of Vietnamese Youth was held for the first time in cooperation with the fraternity of the Social Republic of Vietnam.
- A number of excursions were organised for international students around Russia and the Voronezh region.
- Monthly visits to the Theatre of Opera and Ballet, Voronezh Philharmonic Hall, and the Voronezh museums were organised.
- The "Russian Club" was very active, 3 rounds of the Russian language competition were held for students of the pre-university training programmes.
- Chess, table tennis, indoor soccer competitions were held.
- Meeting of the leaders of foreign student fraternities were held regularly.
- International students, as usual, took part in concerts on the Victory Day and the Day of the City.
- The international students took part in the following city events: "Farewell to Winter", the festival of patriotic song "Defender of the Motherland", New Year concerts, and university events "First Year Student" and "University Spring" festivals.

All in all, in the reporting period, 83 social and cultural events were held at both regional and municipal levels.



7.7. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2017

- 10 cooperation agreements were concluded with the leading universities from Asia, the CIS, and the Middle East.
- There is a considerable growth in academic mobility. The number of students and academic staff members who were sent on business trips abroad was 340 people. The number of foreign specialists who took part in the educational process and research in VSU was about 40 people.
- Over 60 international students took part in courses in VSU as a part of student exchange programmes.
- 46 international conferences with 492 international participants from 22 countries were held in VSU.
- To improve the organisational and methodological approaches to the implementation of joint academic programmes, the university developed regulations to network the various education programmes and a roadmap for organisation of cooperation between Voronezh State University and international partner universities.
- Training in 12 joint programmes was organised (over 100 students).
- The "Executive MBA" programme implemented by ISC Paris Business School is accredited by the international organisation AACSB. Being a member of the AACSB, the ISC Paris Business School accredited the lecturers of the VSU Business School and delegated them with the right to implement the joint academic programme. The graduates of the programme will get the Executive MBA diploma of ISC Paris Business school and a diploma of the VSU Business School.



- 12 projects with the participation of Voronezh State University were supported as a result of the Erasmus+ competition, including 10 projects in the area of "International Credit Mobility", 1 project in the area of "Capacity Building in the Field of Higher Education", and 1 project in the area of "Jean Monnet Actions".
- In August, Voronezh State University was accredited by the Higher Education Council of Turkey, which made it possible to take part in the academic mobility programme "Mevlana" financed by the Turkish government.
- As a result of the forum "Days of Turkish Education in Central Russia" (29 and 30 November), the university signed a number of agreements: 4 cooperation agreements, 2 Erasmus+ agreements between institutions, 3 Mevlana agreements, an agreement concerning creation of a Turkish educational and cultural centre in VSU, and a memorandum of understanding with the airline "Turkish airlines".
- The number of international students is about 1,000 people.
- The implementation of further education programmes that prepare foreign residents to professional education programmes in the Russian language included 49 educational programmes and 5 profiles taught at the Institute of International Education.
- To build a favourable environment for the balanced development of international students and to speed up their social, cultural, and academic adaptation, 83 social and cultural events were held and both regional and municipal levels.



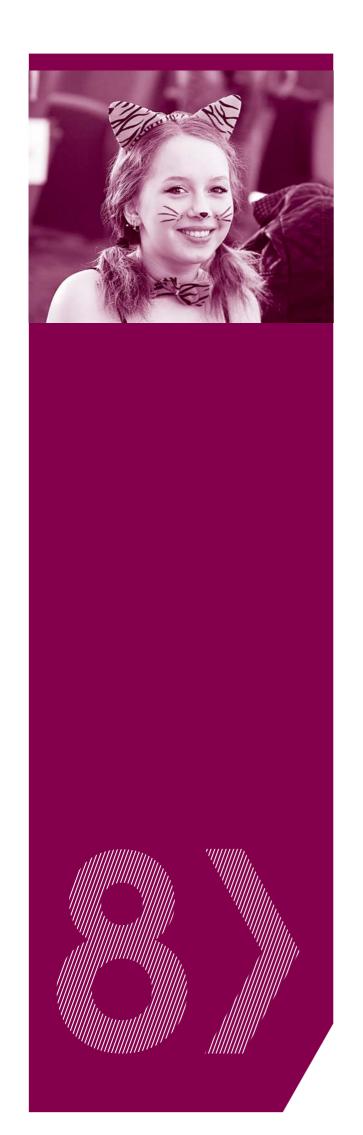




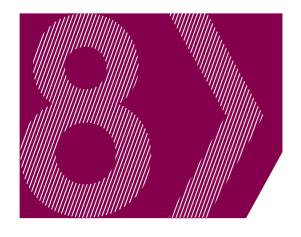








STUDENT AFFAIRS AND SOCIAL DEVELOPMENT



STUDENT AFFAIRS AND SOCIAL DEVELOPMENT



O.V. Grishaev,
Vice-Rector for Student Affairs
and Social Development

8.1. MAIN OBJECTIVES IN THE FIELD OF STUDENT AFFAIRS AND SOCIAL DEVELOPMENT IN 2017

The following objectives were set for student affairs and social development in 2017:

- To continue interaction with the heads of the national diasporas of the Voronezh region aimed at developing tolerance among students, stopping extremism and incitement of ethnic hatred.
- To enhance the control of compliance with campus policies and to develop a regulatory mechanism for prompt response in case of their violation.
- To organise a number of events aimed at improving the quality of nutrition and services provided to VSU employees and students.
- To further develop student councils.
- To continue events held by the Leisure and Culture Centre at the VSU concert hall and to develop the mechanism for the internal financing of these activities.
- To organise quarterly cultural and sport events for both VSU staff and students (university competitions, festivals, celebrations).
- In cooperation with Trade Union Committee of VSU to develop and approve a new edition of the Collective Contract.
- To develop and implement a set of measures aimed at promoting a healthy lifestyle and to combat the spread of drugs and alcoholism, and tobacco.
- To study and to introduce at VSU the experience of the Belgorod region in creating student IT teams that monitor social networks to detect expressions of extremism, encourgement of suicide, and propaganda of terrorism.



8.2. ORGANISATION OF SUMMER HOLIDAYS

The Department for Social Development was involved in the organisation of summer holidays and recreation for University staff members and students at the Venevitinovo sport and fitness complex and the Black Sea coast (Sochi and the Republic of Crimea).

All in all, in the summer of 2017, 485 people went on holiday to the Venevitinovo recreation facility, including 237 VSU employees and 92 members of their families, 37 retired VSU employees, 69 children of the VSU employees, 50 outsiders who paid the full price, and 202 students.

In summer 2017, 600 students went on holiday to the Black Sea coast (fig. 8.1–8.4).

Figure 8.1

ORGANISATION OF SUMMER HOLIDAYS FOR STUDENTS

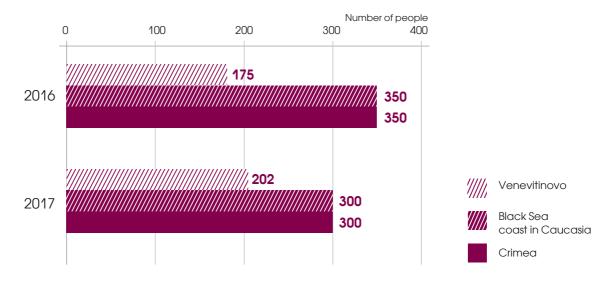


Figure 8.2
MONEY SPENT ON THE ORGANISATION

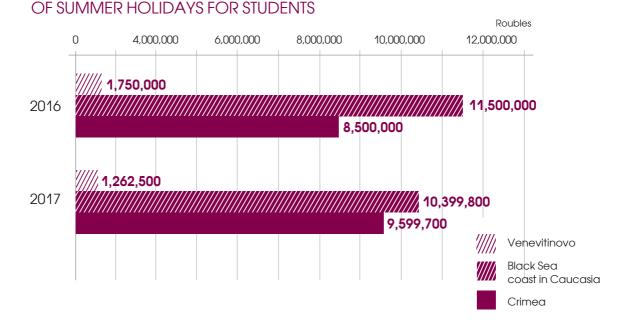




Figure 8.3

ORGANISATION OF SUMMER HOLIDAYS FOR UNIVERSITY EMPLOYEES AT THE VENEVITINOVO SPORT AND FITNESS COMPLEX

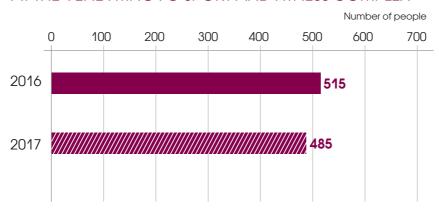
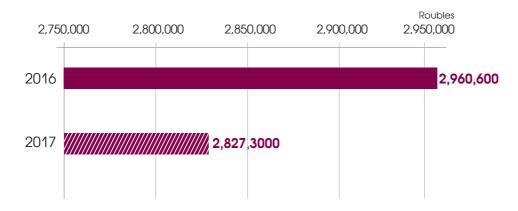


Figure 8.4

MONEY SPENT ON THE ORGANISATION OF SUMMER HOLIDAYS FOR UNIVERSITY EMPLOYEES AT THE VENEVITINOVO SPORT AND FITNESS COMPLEX



In 2017, the fence around the complex was extended, some of the houses and amenity buildings were refurbished, the children's playground was fitted with extra equipment, the sauna was refurbished, and the boathouse and a hard-surface parking lot were developed.



8.3. FINANCIAL AID

In 2017, on the ground of the Regulations on Terms and Conditions of Rendering Financial Aid to the Employees of Voronezh State University and the Regulations on Social Support of the Single Retired VSU Employees 533 current and retired University employees received financial aid which amounted to 4,204,240 roubles (fig. 8.5 and 8.6).

FINANCIAL AID TO EMPLOYEES

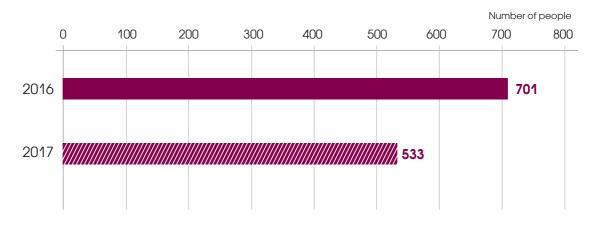
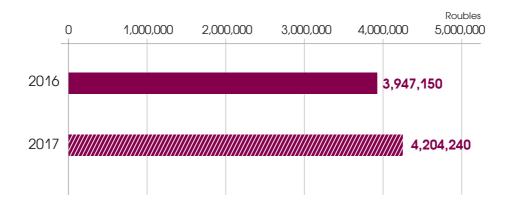


Figure 8.6

MONEY SPENT ON THE FINANCIAL AID TO EMPLOYEES





In 2017, the amount of money spent on the financial aid to students totalled 81,429,623 roubles. The aid was rendered to 13,458 people (fig. 8.7 and 8.8).

Figure 8.7

FINANCIAL AID TO STUDENTS

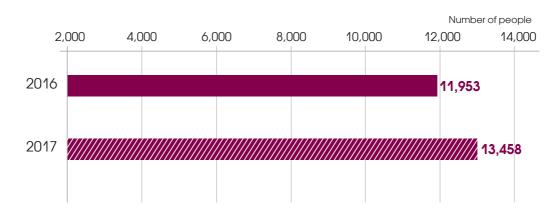
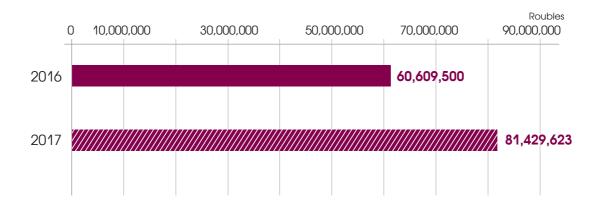


Figure 8.8

MONEY SPENT OF THE FINANCIAL AID TO STUDENTS





8.4. BURSARIES

In 2017, the sum of bursaries paid to students totalled 27,216,800 roubles (fig. 8.9 and 8.10).

Figure 8.9

NUMBER OF STUDENTS WHO RECEIVED BURSARIES

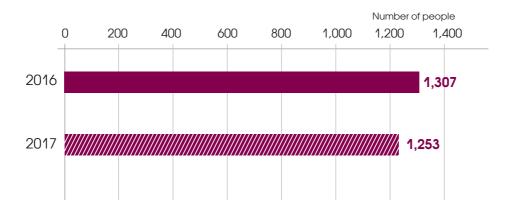
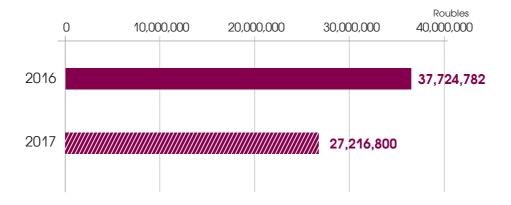


Figure 8.10 MONEY SPENT ON BURSARIES





8.5. INTERACTION WITH THE VSU TRADE UNION

- 1. In 2017, a permanent joint negotiation committee continued to register and analyse all incoming suggestions regarding additions and changes to the Collective Contract. Approved additions and changes were negotiated and recommended by the committee to be signed by the parties. Namely, Clause 5.2.11 was added to the text of the Collective Contract "List of positions and professions that have summarized recording of working time", changes were made to the Appendix No1 "Regulations on the compensations and benefits to the employees of Voronezh State University" and to the Appendix No3 "Work and academic policies at the federal state-funded educational establishment of higher professional education "Voronezh State University". Observance of the Collective Contract is regularly controlled by the parties at the Academic Council meetings and the trade union meetings.
- 2. A joint social committee regularly made decisions on the grounded rendering of financial aid to employees. During the year, until December, financial aid was regularly paid on the ground of the Regulations on Terms and Conditions of Rendering Financial Aid to the Employees of Voronezh State University and the Regulations on Social Support of the Single Retired VSU Employees. Between January and November, 458 current and retired University employees received financial aid which amounted to 2,259,150 roubles.
- 3. In 2017, in accordance with the Collective Contract, Clause 5.8.2, the joint social committee repeatedly solicited the Rector for increased non-recurrent severance payments to the oldest retiring University employees with a length of service to the university over 40 years (14 people received fivefold severance payments upon request).
- 4. The Trade Union, together with the Department of Health and Safety, regularly monitored the working conditions of employees. VSU formulated and implemented consensual proposals to increase the number of perquisites for university employees whose working conditions are not normal (in 2017,



113 people were paid compensatory incentive increments in the amount of 12% above the official monthly salary in accordance with the federal legislation and 99 people were paid increments in the amount of 24% in accordance with the Collective Contract. The total amount of increments was 2,622,395 roubles). 112 employees received reimbursement for milk required because of the adverse or unsafe working conditions with the total amount of 720,348.7 roubles. In 2017, the university spent over 1,000,000 roubles on regular occupational health examinations of employees. The university continued a special evaluation study of the working conditions – 25,300 roubles were spent on the special evaluation study of the working conditions of the employees at the Centre for Collective Use of Scientific Equipment. The university purchased protective clothes and protective gear in the amount of 89,440 roubles.

- 5. In the 2016/17 academic year, a differentiated load for different categories of the academic staff was established and was used.
- 6. The Leader of the Year expert committees on internal grants that included the Trade Union representatives continued their work and chose winners in all nominations.
- 7. For many years, DSASD, together with the Trade Union, has been caring for single pensioners. In the reporting period, in accordance with the Order of the Rector, 50 pensioners, who have no relatives received aid on the International Day of Older Persons. The university provided refurbishment works for the pensioners in desperate need and helped them in difficult situations including financial aid and legal assistance.
- 8. The Trade Union in collaboration with the Department for Student Affairs and Social Development developed grounded proposals for pricing holiday packages to the Venevitinovo recreation facility in 2017 and establishing 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.



- 9. A long-standing joint programme was prolonged, which enables university employees and students to attend classical music concerts of the Voronezh Academic Symphony Orchestra and Voronezh Youth Symphony Orchestra, held at the Philharmonic Hall and the University Hall respectively. Twice a year from up to 100 VSU employees and retired employees and 150 students buy season tickets at reduced prices (annual expenses for the project amounted to 200,000 roubles). In September and May 2017, the traditional concerts of the Voronezh Academic Symphony Orchestra and Voronezh Youth Symphony Orchestra took place in the University Hall. Thanks to the active interaction with these symphony orchestras our employees can get free invitations to visit extra concerts.
- 10. The celebration of the 72nd Victory Day anniversary was thoroughly prepared in collaboration between the University administration and the Trade Union. The traditional University celebration held in honour of veterans was particularly warm and heartfelt. The meeting which started the celebration was attended by a great number of VSU employees and students. During the Victory Day celebration, war songs were played, the veterans had a chance to talk to each other and to the Rector and employees of the university, who gave them a warm welcome. Victory Day was celebrated at VSU on a high patriotic note. The veterans received presents from the university.
- 11. The Administration and the Trade Union continued to implement the programme of weekend trips. The university provides the transport for the excursions and the organisation and guides are handled by the Trade Union of Employees. In 2017, University employees visited the birthplace of the composer S.V. Rakhmaninov in the village of Ivanovka in the Tambov region, I.N. Kramskoy museum in Ostrogozhsk, D.M. Venevitinov museum, and the Nunnery of Our Saviour in Kostomarovo. Also, the walking excursion "Familiar Unfamiliar Voronezh" was organised for university employees and their children of school age.
- 12. The university administration assists in organising health check-ups. In 2017, it continued to organise health check-ups and treatment of the university employees in compliance with the agreement between VSU and the Voronezh healthcare institutions, i.e medical treatment contracts with clinical hospital No17 and Russian Railways' clinical hospital were renewed.



8.6. PROGRESS REPORT ON THE GRANT OF THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION FOR THE DEVELOPMENT OF STUDENT COMMUNITIES

In 2017, the Programme for the Development of Student Communities included 5 events in the following areas: "Research and Innovations", "Expertise", and "Student Information Resources". All the planned events were fully implemented, all the performance targets were fully achieved (Table 8.1).

Table 8.1

INFORMATION ABOUT IMPLEMENTATION OF THE PROGRAMME FOR THE DEVELOPMENT OF STUDENT COMMUNITIES FOR 2017

| | | | <u> </u> | | | | | | | | |
|---|----------------------|-------------------------|--------------------|--|--|--|--|--|--|--|--|
| Event | Status | Numbers of participants | Dates | | | | | | | | |
| Research and Innovation | | | | | | | | | | | |
| Tournament of Three Sciences | Federal | 700 | 14–17 September | | | | | | | | |
| Expertise | | | | | | | | | | | |
| Home-like virgin land for VSU students' teams | University | 200 | May 2017 | | | | | | | | |
| Culture and creativity | | | | | | | | | | | |
| School for student activists | University | 250 | 4–10 September | | | | | | | | |
| Student Information resources | | | | | | | | | | | |
| Media school | Between universities | 800 | March-April | | | | | | | | |
| Interregional students' agricultural team "Black Earth Region" | Interregional | 400 | July-August | | | | | | | | |

Based on the results of the programme it may be said that students have a lot of interest in the events of the programme. In 2017, the number of events was much lower compared to those of previous years, which allowed them to be held with a higher standard. The Joint 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, to hold events, and to successfully report on them.



8.7. BRIEF OVERVIEW OF THE CONTESTS "FIRST-YEAR STUDENT" AND "STUDENTS' SPRING"

The Students' Spring contest is traditionally held in late March/early April and is now not only a platform for student creativity, but also for the selection of best performances for the contests of the regional ("Regional Spring – Youth Creativity") and the national ("Russian Students' Spring") levels (Table 8.2).

Table 8.2

RESULTS OF THE STUDENTS' SPRING FESTIVAL - 2017

| <u> </u> | | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|--|--|
| Place | Faculty | | | | | | | | | |
| The Premier League | | | | | | | | | | |
| 1st place | The Faculty Of Geology | | | | | | | | | |
| 2nd place | The Faculty of Computer Sciences | | | | | | | | | |
| 3rd place | The Faculty of Physics | | | | | | | | | |
| 4th place | The Faculty of Applied Mathematics, Informatics, and Mechanics | | | | | | | | | |
| 5th place | The Faculty of Romance and Germanic Philology | | | | | | | | | |
| 6th place | The Faculty of History | | | | | | | | | |
| 7th place | The Faculty of Economics | | | | | | | | | |
| The First League | | | | | | | | | | |
| 1st place | The Faculty of Law | | | | | | | | | |
| 2nd place | The Faculty of Mathematics | | | | | | | | | |
| 3rd place | The Faculty of Journalism | | | | | | | | | |
| 4th place | The Faculty of Philology | | | | | | | | | |
| 5th place | The Faculty of Chemistry | | | | | | | | | |
| 6th place | The Faculty of International Relations | | | | | | | | | |
| 7th place | The Faculty of Philosophy and Psychology | | | | | | | | | |
| 8th place | The Faculty of Geography, Geoecology, and Tourism | | | | | | | | | |
| 9th place | The Faculty of Biomedical Sciences | | | | | | | | | |
| 10th place | The Faculty Of Pharmaceutics | | | | | | | | | |



Following the results of the university festival the performers took part in the Students' Spring – Youth Creativity festival. According to its results, VSU students won the grand prize and received awards in the following nominations: "Best Vocal Performance", "Best Sketch", "Best Popular Dance", and "Best Street Dance".

The First-Year Student contest is aimed at promoting creativity among students who just entered the university, involving them in the university's cultural life, developing their creativity, and helping them to adapt to the new environment. In 2017, the festival took place in November. The final places are shown in Table 8.3.

Table 8.3

THE FIRST-YEAR STUDENT – 2017 CONTEST RESULTS

| <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> | |
|--|--|
| Place | Faculty |
| 1st place | The Faculty of Journalism |
| 2nd place | The Faculty of Physics |
| 3rd place | The Faculty of Applied Mathematics, Informatics, and Mechanics |
| 4th place | The Faculty of Philosophy and Psychology |
| 5th place | The Faculty of Economics |
| 6th place | The Faculty of Law |
| 7th place | The Faculty of Mathematics |
| 8th place | The Faculty of Computer Sciences |
| 9th place | The Faculty of Romance and Germanic Philology |
| 10th place | The Faculty of International Relations |
| 11th place | The Faculty of History |
| 12th place | The Faculty of Geography, Geoecology, and Tourism |
| 13th place | The Faculty of Philology |
| 14th place | The Faculty Of Pharmaceutics |
| 15th place | The Faculty Of Geology |
| 16th place | The Faculty of Chemistry |
| 17th place | The Faculty of Biomedical Sciences |



INFORMATION ABOUT THE ORGANIZATION AND POPULARIZATION OF INTELLECTUAL GAMES AND INTELLECTUAL LEISURE

From the very beginning of their work with the grant of the Ministry of Education and Science of the Russian Federation, the Joint Students' Board of VSU set the goal to make VSU one of the most prominent intellectual gaming centres. Every year, both regional and international championships were held. Information about events in the area of intellectual leisure development that were held in VSU in 2017 is shown in Table 8.4.

Table 8.4

INFORMATION ABOUT INTELLECTUAL CHAMPIONSHIPS HELD IN 2017

| Name | Status | Dates | Numbers of participants |
|---|----------------------|-------------------------|-------------------------|
| VSU Intellectual Games Championship | Between universities | 15 February – 25 May | 120 |
| Qualifying competition for the European School Games tournament | Regional | 23 September | 160 |
| Synchronised tournament "What? Where? When?" dedicated to VSU's centenary | International | 20-24 October | 1,000 |
| European School Games | International | 25-26 November | 510 |
| National Cup "People's Friendship" | International | 9-10 December | 150 |

YOUTH FESTIVAL "ALL-RUSSIAN STUDENT MARATHON"

The All-Russian Youth Marathon festival has been held since 2012 and the VSU team has traditionally taken part in it. In 2012, the VSU team "Doctor of Sciences, Professor Shvarzengold" took 1st place. Then it did not take part in the marathon for 2 years but returned with a triumph in 2015 when it took 1st place once again. It also won the event in 2016. In 2017, students from 16 Russian regions took part in the event. The total number of participants was about 450 people. According to the results of the event, VSU students took the following places:

- 2nd place in the intellectual contest "What? Where? When?"
- 3rd place in the cyber tournament Mortal Kombat X
- 3rd place in the mini-lapta tournament
- 1st place in the badminton tournament
- 1st place in the laser tag tournament
- 1st place in the billiards tournament
- 2nd place in the FISAF HIP HOP competition
- 2nd place in the contest "KVN" (the Club of the Cheerful and Sharp-Witted)
- 2nd place in the shadow theatre competition
- 2nd place in the signing contest
- 3rd place in the intellectual contest "Svoya Igra".

As a result: 1st place in the sport programme, 3rd place in the creativity programme, and 1st place in the overall competition, which was the third victory in a row.



8.8. SPORTS AND A HEALTHY LIFESTYLE

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 student's life: their image and status in the society, work, intellectual and ethical characteristics, ethical ideals, and values.

A trilateral cooperation agreement between the Ministry of Sports of the Russian Federation, the Ministry of Education and Science of the Russian Federation, and Russian students' Sport Union was an essential step towards the successful implementation of the Development Strategy of Physical Culture and Sports up to 2025, the development of physical culture and sports among students of educational institutions of higher education of the Russian Federation and promotion of a healthy lifestyle.

The university has all the prerequisites for this: sport facilities and equipment, highly qualified specialists, trainers, and academic staff members. At the Department of Physical Education and Sports there are 54 members of staff, including 42 teachers. The Faculty has highly-qualified academic teaching staff, including 5 PhDs, 20 senior teachers, and 19 teachers. The Department of Physical Education and Sports currently has 13 Masters of Sport of the USSR and Russia and 2 International Class Masters of Sports. 12 academic staff members were awarded with the Ministry Badge "High Achiever of Physical Culture" and the honour badge "For Merit in the Development of Physical Culture and Sports".

Many VSU students do various sports, achieve outstanding results in them, and have sport ranks and titles. In 2017, 189 athletes entered the university, including 43 students with the 3rd rank, 56 students with the 2nd rank, and 52 students with the 1st rank. Among them there are 31 candidate masters of sports and 5 masters of sport of Russia.

The Department of Physical Education and Sports has sport clubs for 30 kinds of sport that are included in the programme of the Universiade between universities of the Voronezh region. Moreover, the university has sport clubs for sports which are not included in the programme of the Universiade: rhythmic gymnastics, shaping, aerobics, tourism, wushu, lawn tennis, military hand-to-hand combat, and aikido.

All in all, 630 students are members of sport clubs: 220 women and 410 men.



The sport facilities and gyms are 100% utilized. The following training sessions and health activities are held in VSU.

- 1. Training sessions in 30 kinds of sport that are included in the programme of the Universiade between universities of the Voronezh region which take place every day, from Monday to Saturday, from 18.30 till 22.00.
- 2. Training sessions for first year students in 8 kinds of sport to prepare them for Spartakiad for first year students (September December).
- 3. Training sessions in 14 kinds of sport to prepare students for Spartakiad between university faculties (September June).
- 4. Training sessions of:
 - The sports tourism centre "Belaya Gora"
 - VSU task unit
 - The students' sports club "Khitschnye Bobry" (Rapacious Beavers)
 - The weekend club "Mummy, Daddy, and me are a sporty family"

703 VSU students (excluding postgraduate students) have sport ranks and titles: 3rd rank – 111 students, 2nd rank – 206 students, and 1st rank – 224 students. There are 138 candidate masters of sports and 21 masters of sport of Russia.

VSU students regularly represent the university at national tournaments, such as "Russian Ski Track" and "Nation's Cross-country Race". In 2017, they took 2nd place at the national student games "Ready for Labour and Defence" held among university students of the Voronezh region.

1,562 VSU students reached the qualifying standards for the Ready for Labour and Defence programme.

The Department of Physical Education and Sports, VSU Sport Club at the Department of Student Affairs, and the students' sports club "Khitschnye Bobry" (Rapacious Beavers) hold many sport competitions every year. One of the key sport indicators for each faculty is the Spartakiad between faculties. In the reporting period, the Spartakiad was held with 13 different sports and the number of participants exceeded 1,100. The results of the Spartakiad are shown in Table 8.5.



Apart from sport competitions at VSU, VSU students take part in the Voronezh Universiade. In 2017, the VSU team took part in all 30 sports included in the programme, earned 191 points, and took 2nd place. First place was taken by the team from Voronezh State Technical University who earned 243 points over the 30 sports. The Voronezh State Institute of Physical Training team was third with 182 points over 27 sports.

In 2017, the VSU team took 20 prize-winning places in the Universidae among universities of the Voronezh region: 3 first places, 5 second places, and 12 third places.

Table 8.5

VSU SPARTAKIAD RESULTS

| | | <u>////////</u> | <u>////////</u> | <u> </u> | /////// | <u>///////</u> | | <u> </u> | <u> </u> | | //////// | //////// | <u>////////</u> | <u>////////</u> | <u>///////</u> | <u>////////</u> |
|--|------------------|-----------------------|------------------|-----------------------|-------------------------|-----------------------|--------------|--------------|--------------------|--------------|--------------|---------------|--------------------------------|----------------------------------|----------------|-----------------|
| Sport | Basketball (men) | Basketball (women) | Volleyball (men) | Volleyball (women) | Speed skiing (women) | Speed skiing (men) | Badminton | Chess | Kettlebell lifting | Table tennis | Bench press | Indoor soccer | Cross country running (men) | Cross country running (women) | Points | Ranking |
| The Faculty of Applied Mathematics, Informatics, and Mechanics | 1 /7 | 2 /6 | 2 /16 | 8/10 | 2 /8 | 1 /11 | 1 /13 | 3 /11 | 2 /7 | 4/13 | 2 /11 | 3 /10 | 1 /13 | 1 /14 | 150 | 1 |
| The Faculty of Law | - | 4/4 | 1 /17 | 4/14 | 3 /7 | 5/7 | 2 /12 | 2 /12 | 3 /6 | 2 /15 | 9/4 | 2 /11 | 2 /12 | 6/9 | 130 | 2 |
| The Faculty of Economics | 3 /5 | 3 /5 | 8/10 | 9/9 | 1 /9 | - | 5/9 | 12/2 | _ | 1 /16 | 12/1 | 1 /12 | 7/7 | 8/7 | 92 | 4 |
| The Faculty of Physics | 2 /6 | 5/3 | 5/13 | 5/13 | 5/5 | 3 /9 | 11/3 | 9/5 | 5/4 | 6/11 | 1 /12 | 10/3 | - | 12/3 | 90 | 5 |
| The Faculty of Computer Sciences | 5/3 | - | 3 /15 | 10/8 | - | 9/3 | _ | 4/10 | 4/5 | 10/7 | 5/8 | 6/7 | - | _ | 66 | 9 |
| The Faculty of Biomedical Sciences | 7/1 | - | 7/11 | 6/12 | - | 11/1 | 10/4 | 7/7 | 6/3 | 12/5 | - | 8/5 | - | 7/8 | 57 | 10 |
| The Faculty of Philosophy and Psychology | - | - | 12/6 | 11/7 | - | - | - | _ | _ | _ | _ | - | 10/4 | _ | 17 | 17 |
| The Faculty of Chemistry | - | - | 11/7 | 2 /16 | 7/3 | 10/2 | 9/5 | 5/9 | - | 5/12 | 4/9 | - | 11/3 | 3 /12 | 78 | 7 |
| The Faculty of History | _ | _ | 14/4 | 12/6 | _ | _ | - | 6/8 | _ | 16/1 | _ | 9/4 | 5/9 | 5/10 | 42 | 13 |
| The Faculty of Geography, Geoecology, and Tourism | - | - | 9/9 | 14/4 | 8/2 | 7/5 | 7/7 | - | _ | 15/2 | 8/5 | - | 4/10 | 9/6 | 50 | 12 |
| The Faculty of International Relations | 6/2 | - | 17/1 | 17/1 | 9/1 | 6/6 | 8/6 | 13/1 | - | 8/9 | 10/3 | 5/8 | 13/1 | _ | 39 | 14 |
| The Faculty of Mathematics | 4/4 | 6/2 | 6/12 | 7/11 | - | 2 /10 | 4/10 | 1 /13 | 1 /8 | 7/10 | 11/2 | 4/9 | 3/11 | 10/5 | 113 | 3 |
| The Faculty of Pharmaceutics | _ | 7/1 | 13/5 | 1 /17 | 6/4 | _ | - | 11/3 | 7/2 | 13/4 | _ | - | 8/6 | 4/11 | 53 | 11 |
| The Faculty of Geology | - | - | 4/14 | 15/3 | - | 4/8 | 3 /11 | 8/6 | 8/1 | 3 /14 | 3 /10 | 11/2 | 6/8 | 13/2 | 79 | 6 |
| The Faculty of Romance and Germanic Philology | _ | 1 /7 | 10/8 | 3 /15 | 4/6 | 8/4 | 6/8 | 10/4 | _ | 9/8 | 6/7 | 7/6 | - | 14/1 | 74 | 8 |
| The Faculty of Philology | - | - | 15/3 | 13/5 | - | - | 13/1 | - | - | 14/3 | 7/6 | - | 9/5 | 2 /13 | 36 | 15 |
| The Faculty of Journalism | _ | - | 16/2 | 16/2 | _ | _ | 12/2 | - | - | 11/6 | - | 12/1 | 12/2 | 11/4 | 19 | 16 |
| Numbers of participants | 63 | 58 | 181 | 163 | 33 | 41 | 49/31 | 60/18 | 27 | 46/26 | 33 | 120 | 84 | 74 | | |



8.9. BRIEF OVERVIEW OF THE EVENTS HELD TO DEVELOP PATRIOTISM AND CIVIC POSITION

25 January

Laying flowers at Pobeda Square to commemorate the Day of Voronezh Liberation from Nazi Invaders.

1-25 February

The patriotic activity "Snow Assault Forces" aimed at fostering patriotism among the youth, providing help to the Voronezh region citizens, raising the spirits of the people from the countryside, and developing business connections with the administrations of the districts (the Ramon and Povorinsk municipal districts of the Voronezh Region).

23 February

Laying flowers and wreaths in front of the Tomb of an Unknown Soldier (Pobeda Square), laying flowers in front of the Monument of Glory.

18 March

A rally dedicated to the anniversary of Crimea joining Russia.

4 April

The antitobacco event "Quitting Smoking is Tasty".

5 April

A performance in kindergarten No90.

14 April

A festival of the Voronezh student teams.

15 April

A volunteer clean-up in the children's rest camp "Polet".

20 April

Forum "Civil Society Combating Terrorism Ideology".

22 April

The forum "Dialogue between Generations".

22 April

The 4th National forum of student's pedagogical teams.

26 Apri

A volunteer clean-up in the Dinamo central park.

26 April

A volunteer clean-up in the Ramon district.

1 May

A march dedicated to the 1st of May.

9 May

The Immortal Regiment event.

12 May

Participation in a special operation organised by the Main Department of Internal Affairs and student teams.

January-December

Policing in VSU.



12 May

A volunteer clean-up in the Student teams' lane in the Voronezh region.

1 June

The social event "International Children's Day" in a welfare shelter in Voronezh.

12 June

Day of Russia celebration.

22 June

The event "Candle of Memory" (Pobeda Square).

10 September

A volunteer clean-up in VSU.

6 October

The closing ceremony of the meeting and the spartakiad of the Voronezh students' teams – 2017.

6 December

Participation in the award ceremony for laureates of the national award "Volunteer of Russia – 2017".

8.10. BRIEF OVERVIEW OF STUDENT FESTIVALS, CONCERTS, CAMPAIGNS, AND CHARITY EVENTS

- On 25 January, our university celebrated two important holidays the Day of Voronezh Liberation from Nazi Invaders and Russian Students Day. VSU students and staff gathered at the memorial dedicated to the university staff and students who died in the Great Patriotic War. The university administration informally congratulated the students who gathered in the hall of the main university building. The students were treated with a traditional dessert and the music by the cover band Cover Brothers.
- On 22 February, staff, lecturers and students of Voronezh State University celebrated Maslenitsa festival. The traditional folk group "Terem" made the audience feel the atmosphere of the traditional Maslenitsa festival they sang songs, played games, danced circle dances, and put Lady Maslenitsa to the flames. VSU's foreign students participated too. In the university hall everybody could help themselves to pancakes with jam.
- Between 27 March and 11 April, "Students' Spring" annual festival was held.
- On 21 April, a traditional celebration was held in the honour of war veterans. A concert took place in the concert hall of Voronezh State University in cooperation with members of the National Chamber under the aegis of the governor of the Voronezh Region.
- On 22 April, the traditional closing concert of the "University Spring 2017" annual festival took place in the concert hall of Voronezh State University.
- Between 25 and 27 April, the qualifying rounds of the regional festival "University Spring – Youth Creativity" took place in the concert hall of Voronezh State University.
- On 4 May, the annual entertainment contest, Miss Physics 2017, was held by the Faculty of Physics in the University Hall.



- On 16 May, a concert dedicated to the International Day of Families was organised and held in cooperation with the Nikitin gymnasium.
- On 31 May, a musical event, which has become a great tradition for our university, was held in the University Hall. The musicians from the Academic Symphony Orchestra of Voronezh Philharmonic Hall led by maestro Igor Verbitsky congratulated students and staff on the end of the academic year. On 4 September, a concert by the Voronezh Youth Symphony Orchestra was held to congratulate all VSU employees and students on the beginning of the new academic year.
- On 23 June, a concert dedicated to the awarding of Certificates of Secondary Education to the graduates of lyceum No2 was held.
- On 1 July, the graduation ceremony for the master's students of Voronezh State University was held in a new format in Admiralteyskaya Square. Before the official part of the ceremony a column of master's students wearing official academic gowns and caps paraded from the main university building to Admiralteyskaya Square accompanied by the music performed by the combined orchestra of Voronezh Philharmonic Hall.
- On 7 July, the official graduation ceremony for international students was held in the University Hall of Voronezh State University.
- On 1 September, VSU students and staff celebrated the Day of Knowledge. A concert by the "Cover Brothers" cover band, held at the entrance of the main building, was the university's present to its students.
- On 4 October, the event dedicated to the celebration of the Teacher's Day, organised by the Department of Education, Science, and Youth Policy of the Voronezh Region was held in Voronezh State University.
- On 26 and 27 October, PAO "Interregional Grid Distribution Company" held a festival of KVN (the Club of the Cheerful and Sharp-Witted) "Innovative Path to 2020" in the concert hall of Voronezh State University.
- Between 1 and 10 November, "The First-Year Student" festival was held, and on 18 November, a closing concert took place in Voronezh State University.
- On 24 November, a concert dedicated to the 55th anniversary of Nikitin Gymnasium was held.
- On 28 November, as part of the Generous Tuesday campaign, a charity concert was held in the concert hall of Voronezh State University.
- On 1 December, a concert dedicated to the 55th anniversary of the Faculty of Romance and Germanic Philology was held.
- On 3 December, the qualifying rounds of the international song and dance festival "Let's Join Hands" took place in VSU concert hall.
- On 21 December, Voronezh State University together with the Voronezh philharmonic hall with the support the Ministry of Culture of the Russian Federation, the Department of Culture of the Voronezh region, the Department of Social Security of the Voronezh region, and Moscow state philharmonic hall as a part of the project "National Digital Concert Hall" broadcast a concert dedicated to the 85th anniversary of Rodion Stchedrin. The concert was organised for the Voronezh labour veterans, students, and employees of Voronezh State University.



- On 24 December, a meeting of the members of the Federation of Orienteering of the Voronezh region dedicated to the results of 2017 was held.
- On 25 December, a New Year concert was organised for children studying at preschool institutions of Voronezh.
- During the year, games of KVN's Voronezh regional league were held in VSU concert hall.
- Various dancing teams from Voronezh regularly gave concerts in VSU's University Hall.
- The VSU folk music group "Terem" supervised by the art director of the Leisure and Culture Department, G.M. Khristova: took part in:
 - The Festival of Science held at VSU in the framework of the 7th National Festival of Science prior to the Day of Russian Science.
 - Events dedicated to Maslenitsa festival organised by the Department of Culture of the Voronezh Municipal Government.
 - Events dedicated to the celebration of City Day.
 - The opening ceremony of the Pokrovskaya fair in the municipal Creativity Centre for Children and Young People.
 - A concert, dedicated to the opening of Platonov aesthetic centre in the central municipal library.
 - The Club of Folk Culture Fans in the Voronezh Cultural Centre.
 - A concert at the meeting of the club "In the World of Beauty" in the Platonov central municipal library.
 - The organisation of a number of cultural events at the festival "Low Sunday" in the settlement Tatarino in the Kamensky district of the Voronezh region.
 - The organisation of off-site charity events as a part of the project "Music of Kindness" for pupils of the Semiluki orphan boarding school.
 - The organisation of off-site concerts as a part of the project "Coming Back" in settlements and villages of the Voronezh region.
 - The 18th regional youth folk festival of traditional Slavic culture "On Trinity Sunday" that was held in Novaya Usman in the Voronezh region.
 - The 4th international folk festival "Desnynsky Round Dance", which took place in the Bryansk region and Bryansk.
 - The regional folk art festival "Sing, my Bolshebykovo", which took place in the settlement Bolshebykovo of the Belgorod region.
 - A concert at the opening ceremony of the exhibition "Old Voronezh as Seen from the Window of I.S. Nikitin's House".
 - The celebration of the Intercession of the Holy Virgin by the Cathedral of the Intercession of the Holy Virgin.
 - A big folk and ethnographic festival "At Our Lady of Kazan Day in Khokhol".



- A holiday of the Russian fairy tale in Nikitin Library.
- Russian folk festival "Podserednensky Village".
- Events and master-classes at the International folk festival "Glorious Voronezh".
- The traditional festival of the Russian fairy tale dedicated to the 165th anniversary of D. N. Mamin-Sibiryak and the 12th anniversary of the book of fairy tales "Aleynushka's Tales" in Voronezh State University.
- During the year, the TeremOK folk-club held theme parties with the participation of VSU students, international students, and students from other educational institutions of Voronezh.

8.11. INCLUSIVE EDUCATION AT THE UNIVERSITY

Inclusive education is an integrated process aimed at providing equal access to high quality training by means of using learner-centred techniques that take into consideration individual features of each student in any activity at an educational institution. The best ways and means for the introduction of inclusive education are defined by regulatory, academic, human resources, infrastructure, and information guidelines.

The main goal for the Centre of Inclusive Education at Voronezh State University is to create an environment which allows providing inclusive education opportunities to people with disabilities.

The tasks of the structural subdivision include inclusive education management, dealing with issues of development and the maintenance of the information technology system for inclusive education and social and cultural rehabilitation.

The Inclusive Education Centre at Voronezh State University systematically studies and summarises the experience of the inclusive educational environment, works on creating the most comfortable environment for prospective students and students with disabilities. To accomplish these tasks, the readiness of the educational institution to implement inclusive an approach was assessed.

An important aspect of the work is providing instructions to all VSU employees who might be in contact with people with disabilities at their workplaces (educational support personnel, academic staff, etc.).

Records are kept of people with disabilities at the stage of entering the university, during their training, and upon graduation (separately for each year and speciality). To provide a special environment for inclusive education, requests regarding special equipment required for the educational process, specialized adaptation academic programmes of higher professional education (bachelor's, master's or specialist's programmes), and methodological support for the educational process are collected.

From 1 January 2017, all data regarding people with disabilities have been recorded in the federal inter-departmental student contingent record-keeping system.



Currently, Voronezh State University has 114 students with disabilities, including 11 students who need adaptive equipment. There are 5 students with hearing disabilities (including 1 person who needs adaptive equipment at the Faculty of Philosophy and Psychology), 7 students with visual disabilities (1 person who needs adaptive equipment at the Faculty of Philosophy and Psychology), 31 students with muscle-skeleton disorders (including 9 people who need adaptive equipment), and 6 people that require wheelchairs: 1 person at the Borisoglebsk Branch, 2 people study full-time at the Faculty of Applied Mathematics, Informatics, and Mechanics (one of them has an individual programme), 1 person studies full-time at the Faculty of Computer Sciences, 1 person studies part-time and 1 person does extramural studies at the Faculty of Law; 3 people have restricted activity: 1 person at the Faculty of Biomedical Sciences and 2 people at the Faculty of Journalism; 71 have have no category.

Thus, in accordce with the state programme of the Russian Federation "Accessible Environment" for 2016-2020, Voronezh State University is building a barrier-free environment and takes into consideration the needs of the following categories of disabled people:

- People with visual disabilities
- People with hearing disabilities
- People with muscle-skeleton disorders

In 2016, 5,137,200 roubles was allocated to develop education for students with disabilities, including 2,000,000 roubles for equipment and 3,137,200 roubles for major repairs. In 2017, the financing was finished.

The university has sound-amplifying, multimedia, and special computer training equipment. There is special equipment for visually impaired students. These are modern screen magnification systems, screen readers (that convert text data into audio data), speech and Braille script recognizers, in other words the unique complex with a screen magnification function, a voice synthesizer, a possibility to type/display text in Braille script, and to convert text data into audio data.

Moreover, there are innovative reading devices for people with visual disabilities, i.e. Braille printers and scanning devices, keyboards adapted for people with visual disabilities, etc..

People with disabilities can study in groups with other students or can follow individual programmes.

VSU continues works aimed at enhancing accessibility of the territory around the university, entrance to the buildings, and travel paths inside the buildings. Lavatories for students with disabilities are being equipped.



Voronezh State University provides access to its buildings (ramps – university buildings No1, 3, 5, 8, 9, residence hall No1; wheelchair transfer system (staircase lift and wireless assistant call system) – university building No1 and hall of residence No9; lavatories for students with various ICD diseases – university buildings No1 (ground floor), 8 (ground floor), and 9 (ground floor)).

Students with disabilities receive career guidance, which includes social, psychological, and pedagogical support over the whole training period: in addition to academic scholarships they receive bursaries, extra bursaries and, if necessary, financial aid; they are also offered free holiday packages. Students with disabilities have priority in receiving accommodation at student halls of residence. VSU also organises for them service and employment consultations with representatives of the Voronezh regional rehabilitation centre.

There is a closed group for VSU students with disabilities (Inclusive Education Centre at Voronezh State University) in a social network. Today, it has 164 members. The page presents the latest information about employment, competitions, forums, etc. It also provides the Centre's contacts details. Every participant can write a message and ask a question or arrange an appointment. Among the documents of the group there are forms for financial aid and bursaries, and normative and legal documents.

The Centre for Inclusive Education assists in the employment of people with disabilities.

In 2017, students with disabilities took part in the contest "On your Way to your Career" organised by the Regional Educational Resource Centre "Accessible Environment".

On 22 March 2017, the Centre took part in the meeting with representatives of state higher education institutions. The meeting was dedicated to issues regrading sharing of academic qualification data of people with disabilities. The participants of the meeting discussed the regulatory and technical issues regarding the transfer of data relating to the academic qualifications of people with disabilities from the informational systems of universities to the Contingent database and the federal government Federal Register of Disabled People system.

In April, students with disabilities (3 people) took part in the national integrated youth forum "Overcoming" which was dedicated to the system of fulfilling the potential of young people with disabilities in various areas of life. They participated in master classes, workshops, competitions of youth projects, and the School of Community Action.



The Centre for Inclusive Education took part in the national research conference "Autism. Strategy of Assistance to Children with ASD in the System of Education" (Moscow, 29-30 May 2017).

In August, a project for the resource and education centre providing education for people with disabilities at Voronezh State University was developed and submitted to the Ministry of Education and Science of the Russian Federation. It aimed at the creation of Inter-Departmental network of resource and education centres.

The volunteer centre "Abilimpix" is being built in Voronezh State University.

VSU students took part in professional skills competitions among disabled people (September-October 2017, the competitions were held in the regions of the Russian Federation and in November, there was the National championship). The programme of the championship included contests and business, cultural, and career oriented parts. Between 1 and 8 September, the Head of the volunteer centre "Abilimpix", E.A. Kozinova, completed the advanced training course "Modern Technologies for the Management of Volunteer Activities and the Development of Professional Skills of the Heads of Abilimpix Volunteer Centres" (Moscow, FSFEI HE Russian State Social University).

Also, the centre was actively engaged in the organisation of the round table discussion "Employment Issues and Solutions for Disabled Graduates of Educational Institutions" (Voronezh, the Molodezhnyi employment centre, 10 November 2017).

The 8th National Forum "Health Saving Education: Experience, Issues, and Development Prospects" supported by the Ministry of Education and Science of the Russian Federation and the Voronezh Committee for education and science of the State Duma of the Russian Federation, took place in Voronezh. The head of the volunteer centre "Abilimpix" gave a talk "Inclusive Education at University" at the plenary session of the event (Education Development Institute, 30 November 2017).

On 15 December 2017, the VSU Research and Methodology Board discussed the issue "Research and Methodological Issues" for the implementation of inclusive education at VSU: Issues of the Development, Psychological and Pedagogical Support, and the Development of Adapted Academic Programmes for Students with Disabilities".



In December, the Centre in cooperation with disabled students (11 people) took an active part in preparing the international inclusive project "1 + 1 Learning to Live Together". The goal of the project is to unite people with and without disabilities by means of joint activities, aimed at self-development and the development of the society as a whole.

During the year, the centre monitors the employment support of young people with disabilities, the activities of educational institutions of higher education regarding enrolment, training, providing special environment for training and employment of people with disabilities.

Cooperation with the participants of the inclusive educational environment shows the dynamics of the cooperation mechanism. Therefore, in 2018, human resource problem will need to be solved: according to the methodological requirements the following positions should be introduced: a tutor, an educational psychologist, and a specialist in training software and tools for people with disabilities.

A plan of activities for the Centre of Inclusive Education for 2018 was developed. Its goal is to continue building the environment for providing inclusive education of disabled people and to enforce the rights of disabled students to get accessible high-quality education at VSU.

All information about services provided at VSU is publicly available on the university official website that has a version for visually impaired people.

The VSU website has a special section with the information about the availability of the environment required for disabled people, types of education support, availability of special educational hardware and software, barrier-free environment, etc.. Access mode: http://www.vsu.ru/sveden/objects/



8.12. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2017

The information presented here can be divided in two groups: the achievements in the sphere of student affairs and creative activity and the achievements in the sphere of social development.

THE ACHIEVEMENTS IN THE SPHERE OF STUDENT AFFAIRS AND CREATIVE ACTIVITY:

- The victory of the VSU team at the annual festival "Students' Spring in the Voronezh Region".
- The victory of the VSU team at the youth festival "All-Russian Student Marathon".
- The VSU dance team became a second-degree laureate at the festival "Russian Students' Spring".
- The VSU dance team performed at the gala concert of the festival "Russian Students' Spring" in the Kremlin.
- Leadership in the Dragon boat race in Petrine regatta.
- VSU became the six-time winner in the Contest of Programmes for the Development of Student Communities organised by the Ministry of Education and Science of the Russian Federation.
- Participation in the festival of student teams from the universities of the Central Federal District.
- The victory in the 4th contest of Voronezh Region Youth Government Award aimed at the support of youth programmes and projects.
- The Buddy Club VSU project became a finalist of the programme for the development of social projects "People Need you!".

THE ACHIEVEMENTS IN THE SPHERE OF SOCIAL DEVELOPMENT:

- New Scholarship Regulations were updated.
- Rest and recreation was provided for students in winter and in summer.
- The programme of weekend trips for university employees was implemented.
- Performances for employees were organised in the VSU concert hall.
- Social benefits for students and staff were maintained.















MANAGEMENT OF BUILDINGS AND CAPITAL CONSTRUCTION





MANAGEMENT OF BUILDINGS AND CAPITAL CONSTRUCTION



A.A. Sokolov,
Vice Rector for Facilities
and Capital Development

9.1. MAIN OBJECTIVES IN THE AREA OF MANAGEMENT OF BUILDINGS AND CAPITAL CONSTRUCTION FOR 2017

- To further 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 the dangerous production units at Voronezh State University.
- To provide transport services for the university's educational and operational activities.

To achieve the goals regarding the maintenance and the development of the university's property assets technical documentation was developed and 43 auction applications for repair works were submitted with the total amount of 35,035,864 roubles. (32,248,007 roubles is from federal financing and 2,787,857 roubles is from extra-budgetary financing) (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 building | | | |
| 1.1. | Major repairs of the second and third floor lavatories and the conference hall, set-up of the heating system for the roof and the roof drain | 2,705,349 | | |
| 1.2 | Major repairs of rooms No401–403, 430, 437, 462, and 463, Instalment of a partition wall and reconstruction design works for the façade and the roof | 370,288 | 2,007,603 | |
| 2 | University building No2 Major repairs of rooms to comply with fire safety requirements, replacement of doors | 2,227,116 | | |
| 3 | University building No3 Major repairs of the façade, roof, roof space above the library rooms | 1,263,397 | | |
| 4 | University building No9 Major repairs of the auditorium and repairs of lavatories | 1,564,700 | 780,254 | |
| 5 | University building No6 Major repairs of the roof and lavatories | 4,539,081 | | |
| 6 | University building No7 Major repairs of the rooms and lavatories | 1,595,600 | | |
| 7 | University building No5, 6, and 9 Major repairs of canteens | 1,729,700 | | |
| 8 | Dormitory No6 and 7 Major repairs of common facilities and the sewage system | 4,176,000 | | |
| 9 | Botanical garden | | | |
| 9.1 | Works regarding the development of the visualisation, reconstruction, and landscaping project | 1,764,544 | | |
| 9.2. | Major repairs of the greenhouse complex, store and utility rooms, and the garage and instalment of an automatic watering system | 3,218,366 | | |
| 10 | The reserve "Galichya Gora" | | | |
| 10.1 | Major repairs of the reserve: paving, repairs of the former boiler station | 3,162,026 | | |
| 10.2 | Fencing along the perimeter of the land at the area "Smoked stone" | 1,011,359 | | |
| 10.3 | Reconstruction design works for the canteen, utility systems of the laboratory building unit, landscaping of the residential and administrative zones. | 1,256,699 | | |
| 11 | Venevitinovo sport and fitness complex: Major repairs of the roof and the canteen building | 556,113 | | |
| 12 | Nickel academic training base Technological integration works | 1,107,669 | | |
| | Total | 32,248,007 | 2,787,857 | |

In 2017, the Facilities Department implemented works with the total amount of 8,171.1 thousand roubles and bought materials and protective gear with the total amount of 1,328.676 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 of the heating systems were implemented and corresponding certificates of readiness were prepared and signed. These works required 728.298 thousand roubles of extra-budgetary funding.

The following works were performed: 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.

9.2. OVERVIEW OF WORK PERFORMED BY THE TRANSPORT DEPARTMENT

The staff of the transport department were involved in many activities.

They supported student summer practices in the Voronezh, Lipetsk, Kursk, Krasnodar regions, the Republic of Crimea, and the Republic of Adygea.

Passenger turnover amounted to 892 thousand passengers.

Cargo turnover amounted to 59.9 thousand tonnes.

Total kilometres amounted to 36.8 thousand km.

The fuel consumption was as follows:

- Petrol A-95 34,600 litres.
- Petrol A-92 31,182 litres.
- Petrol A-80 6,850 litres.
- Diesel fuel 28,600 litres.
- Liquefied gas 6,000 litres.



9.3. MAJOR REPAIRS AND MAINTENANCE FINANCING BY SOURCE OF FUNDING

Figure 9.1

FINANCING OVER 3 MILLION ROUBLES IN 2016

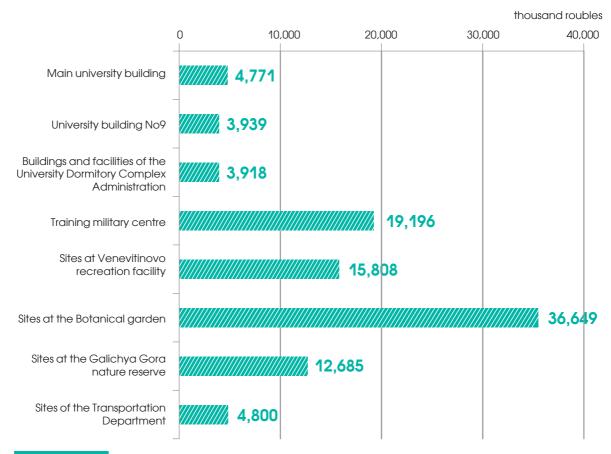


Figure 9.2

FINANCING OVER 3 MILLION ROUBLES IN 2017

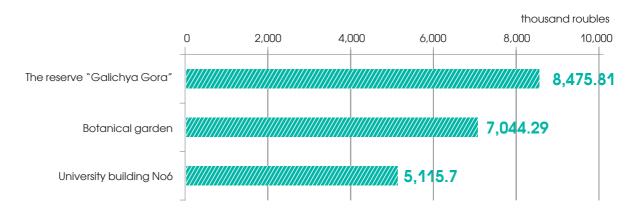




Figure 9.3

FINANCIAL STRUCTURE OF REPAIR AND MAINTENANCE WORKS IN 2016 AND 2017, million roubles

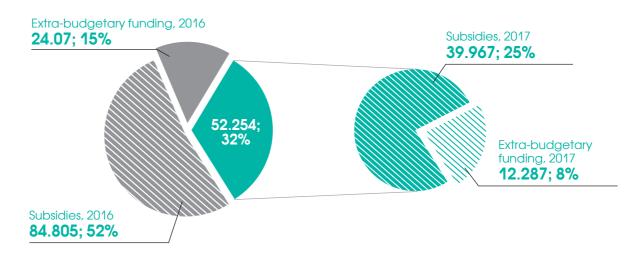


Figure 9.4

AREAS WHERE SUBSIDIES WERE SPENT IN 2016, million roubles

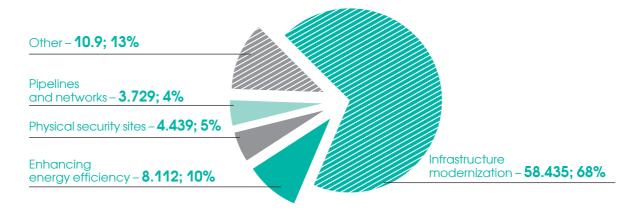


Figure 9.5

AREAS WHERE SUBSIDIES WERE SPENT IN 2017, million roubles

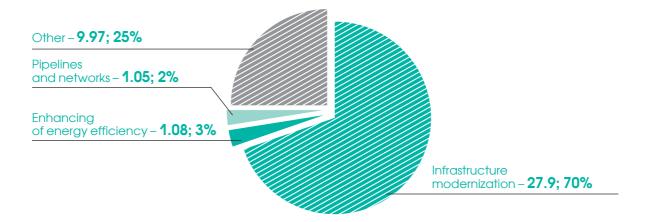




Figure 9.6

AREAS WHERE EXTRA-BUDGETARY FUNDS WERE SPENT IN 2016, million roubles

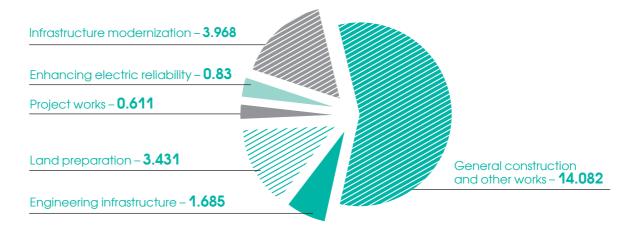


Figure 9.7

AREAS WHERE EXTRA-BUDGETARY FUNDS WERE SPENT IN 2017, million roubles

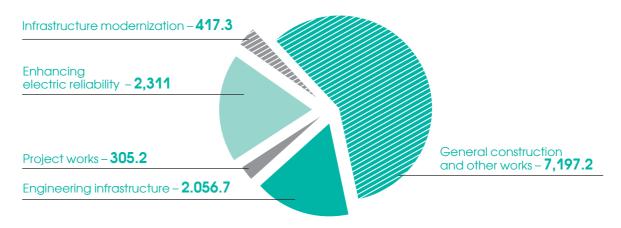


Figure 9.8

STRUCTURE OF UTILITY BILLS EXPENDITURE IN 2016 AND 2017, thousand roubles

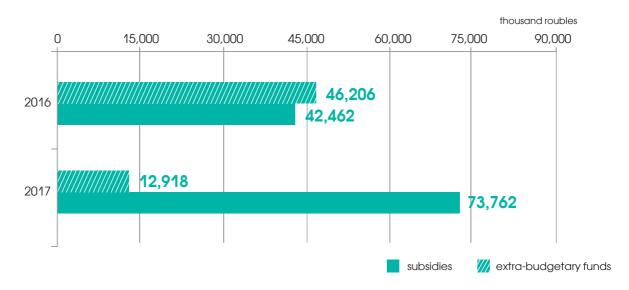




Table 9.2

COST OF CONSUMED RESOURCES

| | /////////////////////////////////////// | | <u> </u> |
|----------------------------------|---|--------------------------|--------------------------|
| Type of payment, energy resource | Amount for 2015, roubles | Amount for 2016, roubles | Amount for 2017, roubles |
| Electrical energy | 39,759,200 | 42,533,490 | 41,288,498 |
| Natural gas | 10,072,100 | 9,867,720 | 9,202,395 |
| Heating, including hot water | 22,787,100 | 25,061,460 | 25,949,931 |
| Water, water disposal | 12,505,800 | 11,206,200 | 11,341,376 |
| Total | 85,123,200 | 88,668,870 | 86,680,915 |

9.4. MAIN RESULTS OF THE ACTIVITIES IN 2017

Many major repairs were performed.

The energy saving and energy efficiency programme for buildings and facilities was continued.

The programme for creating an accessible environment for physically challenged people was continued.

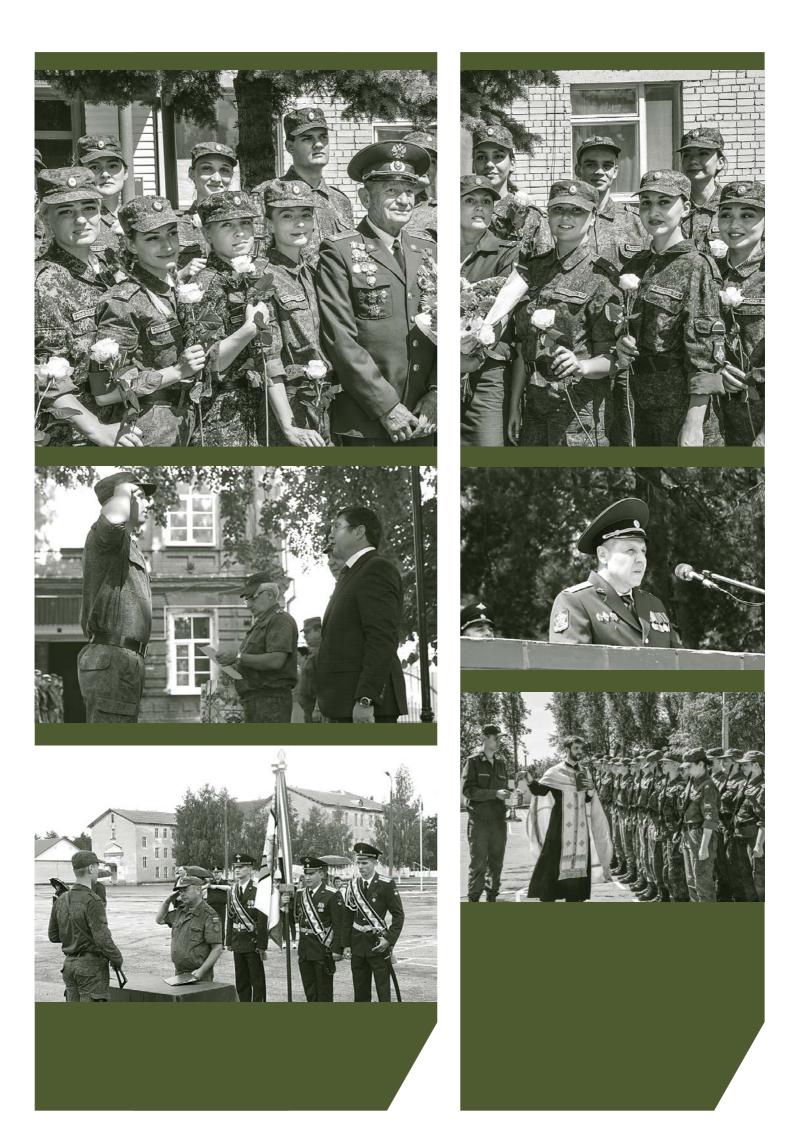
Engineering Services provided the essential services for buildings and facilities.

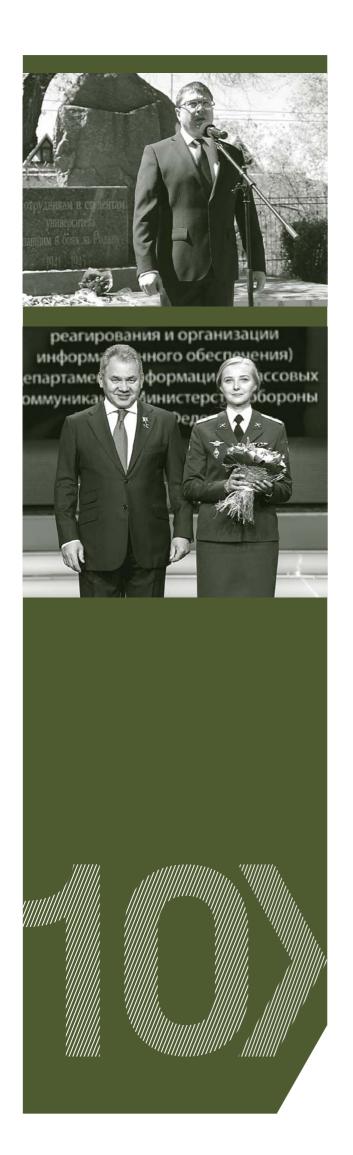


9.5. MAIN PROMISING PROJECTS IN THE AREA OF DEVELOPMENT OF PROPERTY ASSETS IN 2018

Renovation works of properties in the framework of the programme of preparing for VSU's 100th anniversary, including:

- Repairs of the façade, canteen, and third floor lavatories in university building No1.
- Repairs of the façade, roof in university building No9.
- Repairs of the roof, lavatories, and rooms in university building No7.
- Repairs of the façade, roof, canteen, and third floor lavatories, water supply, sewage, and electrical power supply systems in halls of residence No2, 3, and 5.
- Improved energy efficiency of the university's buildings and facilities.
- Continuation of the programme for creating an accessible environment for physically challenged people.
- Feasibility study of the main areas of the development of property assets regarding the construction of the information technologies university building, hall of residence No10, the educational laboratory facility in the Botanical garden, and the track and field stadium.





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 2017

- Implementing the military education programme at the VSU Military Training Centre 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 soldiers and sergeants at the Reserve Officer Training Department.
- Participation in the memorial mass meeting dedicated to the victims of terrorism "Say "No" to Terror!"
- Participation in patriotic educational campaigns dedicated to the 72nd anniversary of the Victory in the Great Patriotic War.

Prior to the Victory Day celebration, a meeting with an honourable state security employee, retired colonel of the Committee for State Security, A. Nikiforov, took place in the auditorium of the main building of Voronezh State University.

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.
- Organisation of the final assessment of the students who completed the training period.
- 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.

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 2017

| <u>////</u> | //// | | <u> </u> | | |
|-----------------------------------|----------------------------------|--|--|-----|--|
| | | | Number of students | | |
| No | Military occupational speciality | Military Training Centre | Reserve Officer Training Department | | |
| 1 | 1 | Linguistic Support of Military Activities | 41 | _ | |
| | 2 | Anti-Tank Artillery Warfare | 98 | 61 | |
| 3 | 3 | Anti-Tank Guided Missile (ATGM) Warfare | 114 | 129 | |
| 4 | 4 | Mortar Warfare | - | 50 | |
| 5 6 7 8 9 10 11 | 5 | IT Support of Military Activities | 10 | _ | |
| | 5 | Information and Psychological Support of Military Activities | 10 | - | |
| | 7 | Information Support Organisation | 10 | _ | |
| | 3 | Anti-Tank Artillery Commander | - | 36 | |
| | 9 | Anti-tank Artillery Crewman | _ | 40 | |
| | ATGM Commander | - | 64 | | |
| | 1 | ATGM Operator | - | 32 | |
| 1 | 2 | Mortar Gun-Layer | - | 27 | |
| | | | | | |



10.3. MILITARY TRAINING CENTRE REPORT

- The students were admitted to the Centre by the Rector's order 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.
- 3 new military occupational specialities were opened.

Table 10.2

ADMISSION TO THE MILITARY TRAINING CENTRE IN 2017

| <u> </u> | | | | |
|----------|---|---|-----------------------|--|
| No | Military occupational speciality | Programme | Number of students | |
| 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 | |
| 7 | Psychological and Moral Support of Forces | , , , | | |
| | Total | | 104 | |



10.4. RESERVE OFFICER TRAINING DEPARTMENT REPORT

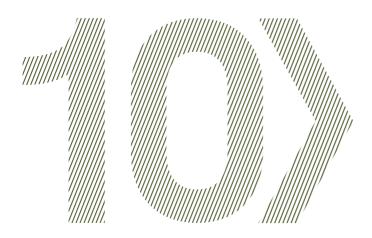
The training period was organised in Troop Unit 30683 located in the settlement of Mulino in the Nizhniy Novgorod Region, according to the Orders of the Commander of the Western Military District Troops No 741 dated 13 November 2016 and No 55 dated 3 February 2017 "On the Organisation of the Training Period and Final Assessment of Students Undergoing Military Training at Reserve Officer Training Departments of FSEI HPE in the Western Military District Troops in 2017". The number of students who completed their training period amounted to 128.

80 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. 265 students submitted their applications to the Reserve Officer Training Department in the reporting period. The number of admitted students amounted to 201 (Table 10.3).

Table 10.3

PROGRAMMES IMPLEMENTED AT THE RESERVE OFFICER TRAINING DEPARTMENT

| | ///// | | | | ////////////////////////////////////// |
|----|-------|---|--|----------------|--|
| No | | Name of the military occupational speciality | Number of students 2nd year 3rd year 4th year | | |
| | 1 | Military Unit and Anti-Tank Artillery Warfare | 2nd year 20 | 3rd year 20 | 21 |
| | 2 | Anti-Tank Guided Missile (ATGM) Warfare | 40 | 46 | 43 |
| | 3 | Military Unit and mortar Warfare | 20 | 11 | 19 |
| | 4 | Anti-tank Artillery Commander | 47 | 23 | - |
| | 5 | Anti-tank Artillery Crewman | _ | 10 | _ |
| | 6 | ATGM Commander | 45 | 21 | - |
| | 7 | ATGM Operator | _ | 32 | _ |
| | 8 | Mortar Gun-Layer | 27 | - | - |



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 17 March, the official award ceremony for the winners and prize-winners of the 3rd International War History Competition among Cadets of Higher Education Institutions took place in the Theatre of Opera and Ballet.
 - The governor of the Voronezh region, Alexei Gordeyev, took part in the official award ceremony. The Rector of Voronezh State University, Dmitry Endovitsky, and the Commander of the 20th guards army, Major General, Alexander Peryazev, awarded the prizes to the winners of one of the nominations.
- The Dean of the Faculty of Military Education retired Colonel, A.A. Scherbakov, and the Assistant of the Rector, professor at the Reserve Officer Training Department, V.G. Shamayev, visited the military units where cadets of the Military Training Centre gave the Military Oath.

10.6. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2017

- Senior lieutenant M. Okuneva was awarded the medals "For Battle Honours" and "To a Participant of the War Operation in Syria". She was promoted to the rank of captain by the Minister of Defence, Sergey Shoigu.
- A number of events were organised to celebrate the 72nd anniversary of the Victory in the Great Patriotic War.
- A book dedicated to the 90th anniversary of military training at VSU was published in cooperation with the Rector of VSU, D.A. Endovitsky.
- A clear system of military education was developed for the non-military university. It includes the following stages:
 - 1.5 years of studies at the Reserve Officer Training Department for reserve soldiers.
 - 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 is the only university in the region to carry out scheduled trainings of reserve soldiers and 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 newly introduced specialities to serve the interests of the Department of Media Affairs and Information of the Ministry of Defence of the Russian Federation, the Main Directorate of the General Staff of the Armed Forces of the Russian Federation, the Main Missile and Artillery Directorate of the Ministry of Defence of the Russian Federation, and the Main Personnel Directorate of the Ministry of Defence of the Russian Federation. These specialities include:
 - War Journalism
 - Translation and Interpreting
 - Economic Security
 - Information Analysis Security Systems
 - Computer Security
 - Psychology of Employment Activities
- The admission quotas were approved and allocated for the training of commissioned officers in 2018.
- Documentation was developed for the newly introduced military occupational specialities. The documents include:
 - The organisational structure of the Military Training Centre.
 - Qualification requirements to the graduates within each military occupational speciality.
 - An overall calculation of academic hours for each educational programme and their distribution.
 - Curricula, course, practice, training period, and final assessment syllabuses within the military training course.











EVTROPII BREVIARIVM

ROMANAE HISTORIAE

AD VALENTEM AVGVSTVM,

ab vrbe condita ad illius vsque & fratris valentiniani tem-pora deductum:

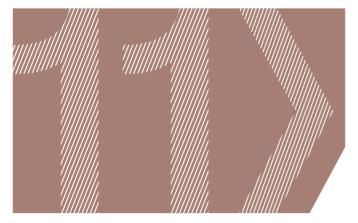
MetaphrafiGræca PAEANII. CHRISTOPHORVS CELLARIVS recensuit iterum,

& Commentariis vbique auctis ac reformatis, nec non crum & verborum Indicibus pleniori-bus locupletant

Sumru 10. BIEL WII, Bibl M DC X CV (IL



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 2017, 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 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 2017, the unified library collection of Voronezh State University is comprised of **3,188,520** books and documents in various languages and formats. The collection is comprised of the sources necessary for all the education 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 2017, the library collection was increased by **22,155** items. The acquisition expenses amounted to **7,902,180** roubles **12** kopecks. On average the collection contains about **119** items per subscriber.



The collection was increased by a ratio of 0.7 and the study books collection ratio increase was 0.9. The majority of items in the collection are books, journals, scientific and educational literature (see Figures 11.1–11.4).

Figure 11.1

COLLECTION STRUCTURE ACCORDING TO THE TYPES OF ITEMS

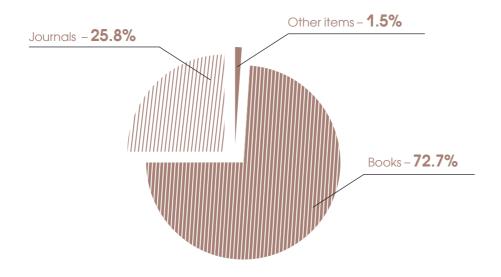


Figure 11.2

COLLECTION STRUCTURE ACCORDING TO THE PURPOSE OF ITEMS

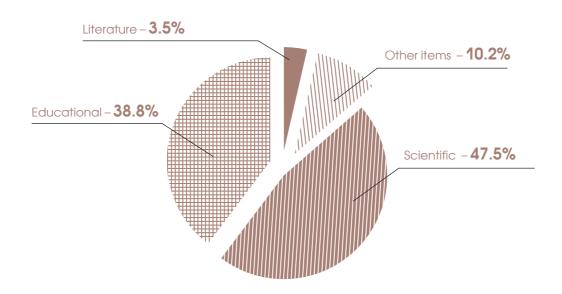




Figure 11.3

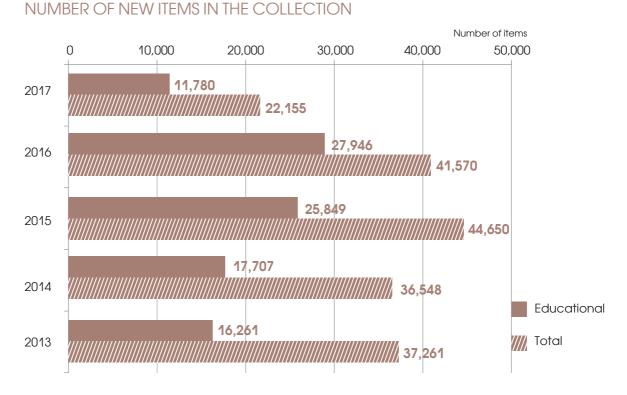
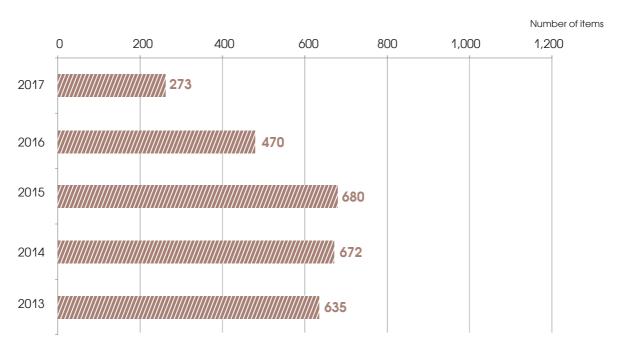


Figure 114

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 of the XVI–XXI centuries represented by manuscripts, books, and periodicals.

The library actively collaborates with other libraries in Russia and abroad. It also exchanges books with **47** organisations in **18** countries.



In 2017, library subscribers were able to gain remote access to **2,137,703** items. To achieve this, the library provided access to foreign scientific journals including the databases of **Springer Publishing** Company and **Cambridge University** provided by **Oxford Russia fund** (e-library Myilibrary). Besides, the library subscribers were able to use such e-library systems as "University Library Online", "Student Assist", and "Lan Publishing". 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".

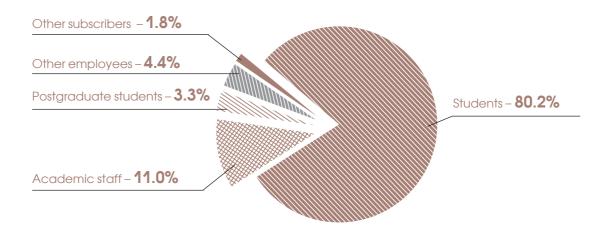
The library maintains its e-catalogue, which provides information about the items in the collection, and can be found on the library website. As of 1 December 2017, the catalogue contained **995,961** entries.

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 2017, the index included 193,935 entries. To improve the University's academic ranking, the library provided access to Web of Science and Scopus international databases and updated information about the publications by VSU staff members and uploaded it to the eLIBRARY database. As of 28 December 2017, the University was ranked the 14th among Russian universities by such an essential bibliometric parameter as the number of publications.

In 2017, there were 26,589 entries in the unified registration catalogue of the library subscribers (Figure 11.5). Altogether, the library provided its services to 104,711 subscribers. 102,212 subscribers were served remotely via their personal accounts.

Figure 11.5

COMPOSITION OF THE LIBRARY SUBSCRIBERS IN 2017



In 2017, library subscribers had access to **623,424** items, whereas the number of items read online amounted to **53,789**.

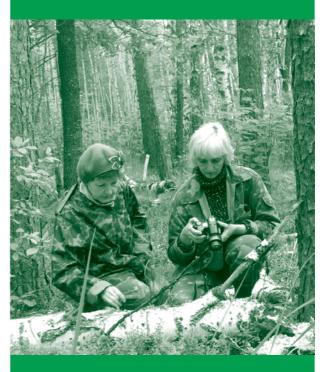


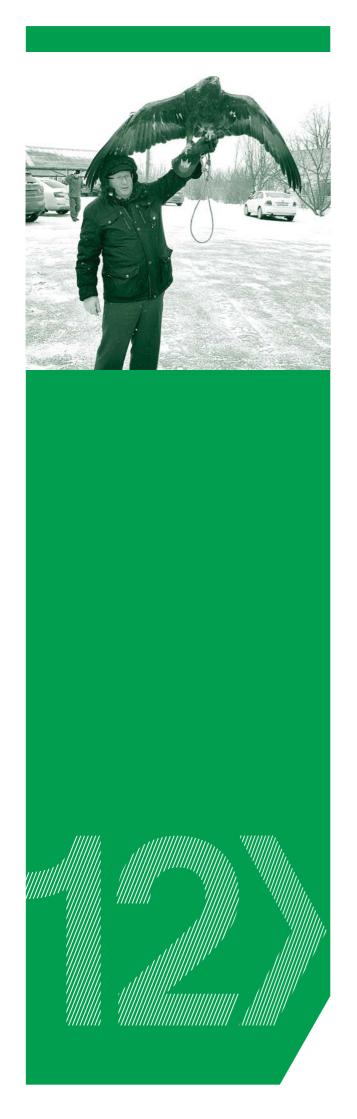




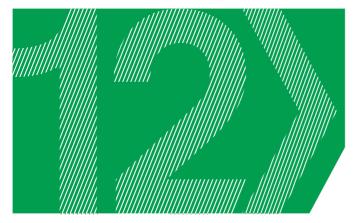








THE RESERVE "GALICHYA GORA"



THE RESERVE "GALICHYA GORA"

N.Ya. Skolznev,
Director of the "Galichya Gora"
nature reserve

PROGRESS REPORT FOR 2017

The "Galichya Gora" reserve was founded in 1925 on the territory of what is today the Lipetsk region for conservation and studying 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 reserve in the world. The protected territory is 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 staff members continued to monitor the state and dynamics of the natural habitats. Such monitoring has been regularly carried out since 1974. The 44th volume of "Letopis Prirody" was published.

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 2017, our scientists published the following works:

- 3 monographs (51.7 printed sheets)
- 1 collection of research papers (6.7 printed sheets)
- 2 study guides
- 42 scientific articles, of which 4 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 and 25 papers were published in journals indexed by the Russian Science Citation Index.

Our researchers took part in 8 international and federal conferences with 15 reports.



The most important results of the research conducted in 2017 include:

- Preparation and publication of the final summary reports "Lepidopteran (Insecta: Lepidoptera) of the "Galichya Gora" Reserve" (L.V. Bolshakov, M.N. Tsurikov, I.Yu. Kostrikin, S.G. Mazurov, V.I. Piskunov, V.V. Anikin, A.Yu. Matov. Voronezh: Nauchnaya kniga, 2017. 330 p.), series "Biota of the "Galichya Gora" Reserve".
- Preparation and publication of the multi-authored monograph "Nature in the Valleys of the River Sukhaya Lubna" (Voronezh: Nauchnaya kniga, 2017. 354 p.), series "Unique Natural Areas in the Lipetsk Region"







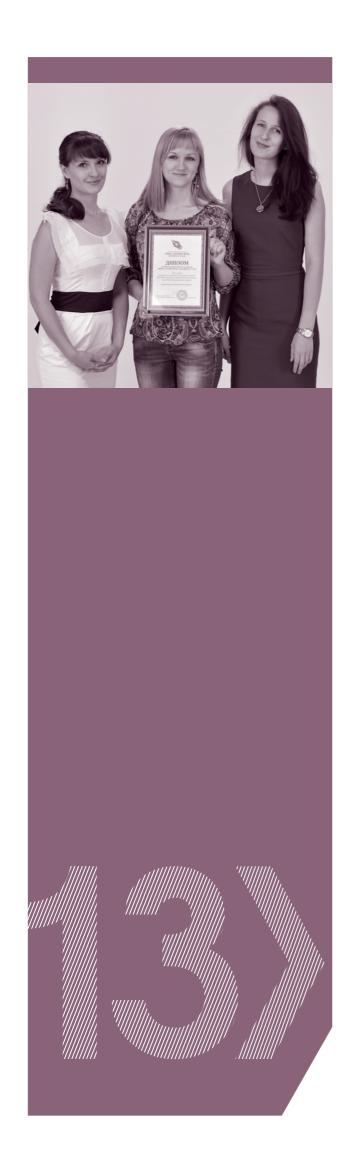
- Participation in the preparation and publication of the multi-authored monograph "Estimate of the Birds' Abundance and its Dynamics in the European Part of Russia" (results of the project "European Red List of Birds") (A.L. Mistchenko, V.P. Belik, O.V. Borodin, V.S. Sarychev, O. V. Sukhanova, Yu.V. Krasnov, Ye.S. Preobrazhenskaya, L.V. Malovichko, A.I. Shepel, M.V. Yakovleva, V.V. Morozov, S.V. Volkov, A.V. Sharikov, G.V. Grishanov, S.Yu. Rykova, V.A. Yakovlev, A.A. Yakovlev, S.N.Spiridonov, A.S. Lapshin, I.I. Rakhimov, A.N. Moskvichev, I.V. Karyakin, V.V. Piskunov, A.N. Antonchikov, I.V. Muraviev, S.A. Korkina, V.V. Frolov, ed. by A.L. Mistchenko. M.: Russian Birds Conservancy and Research Society, 2017. 63 p.)
- Participation of the research staff in practice training of students from the Faculty of Biology and Soil Sciences (Biomedical Sciences) and the Faculty of Geography, Geoecology, and Tourism.

In 2017, 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.

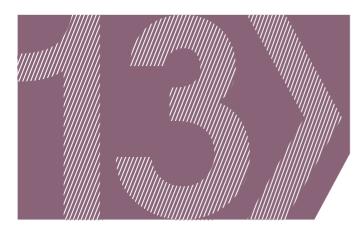
Finally, the following works were performed at the site: the authorities of the reserve continued to overhaul the building of the former canteen converting it into a Visit Centre, built fencing along the perimeter of the land at the area "Smoked Stone", bought fire-fighting equipment and machinery (a tractor and detachable equipment) and two cars for operational activities of the security team, bought furniture for the Visit-centre and conference hall, finished the construction of the educational conservation centre (geophysical observatory for international standard research), and built new aviaries.







VSU'S CENTRE FOR INFORMATION POLICY



VSU'S CENTRE FOR INFORMATION POLICYY



A.S. Kondratova,
Head of the Centre
for Information Policy

13.1. VSU IN THE INFORMATION SPACE

The university's website news feed (www.vsu. ru) is a regularly updated source of information about the university's eventful life. It is one of the most popular sections of the university's website. Between 1 January 2017 and 1 January 2018, it had 384,924 views (according to the data provided by the University Internet Centre). Every day, between three to eight articles about events that were held at the university and the achievements of students and academic staff are published. In 2017, 956 news stories were published on the website. The most eventful months were April, May, and December. These months, the news feed was updated with over 100 articles.

The journalists continued to publish content about the innovative projects of Voronezh State University in the "Science" section. Such articles attract a lot of interest from both regional and federal media.

VSU is preparing for its centenary and is holding a number of memorable events. A special column for news stories dedicated to the anniversary, "VSU's centenary", was created in the news feed. This tag is also used for the news feed at the website dedicated to the university's centenary (http://www.vsu.ru/100/), it is also used to publish materials in the university's social networks.

Many news stories are also translated and posted to the English version of the Voronezh State University website (http://www.vsu.ru/english/). Thanks to this fact, many students from international universities who would like to take a course or an internship at VSU as well as international partners can track the news about the university's activities.



The media provide extensive coverage of the activities of Voronezh State University.¹ News stories about the university are also presented in regional, federal, and international news. In 2017, 80 news stories about VSU were published in international online media, information agencies, newspapers, and magazines (Figure 13.1 and 13.2).

Figure 13.1

REFERENCES TO VSU BY THE SOURCE LEVEL

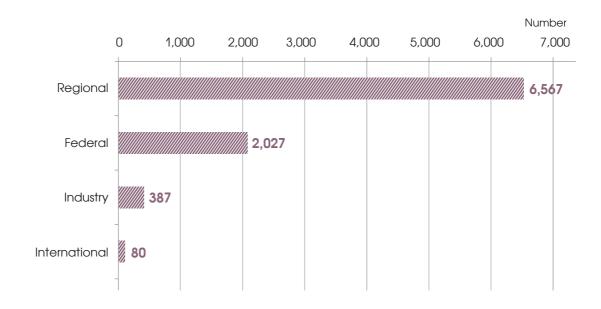
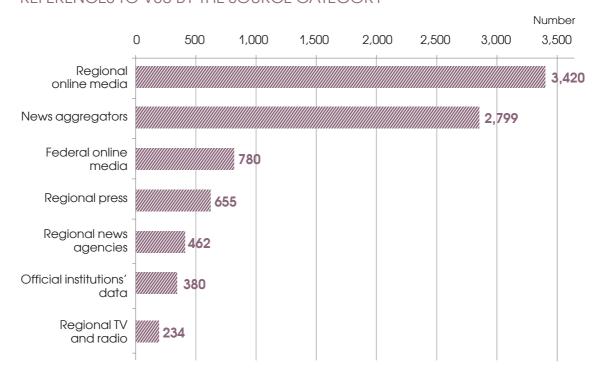


Figure 13.2

REFERENCES TO VSU BY THE SOURCE CATEGORY



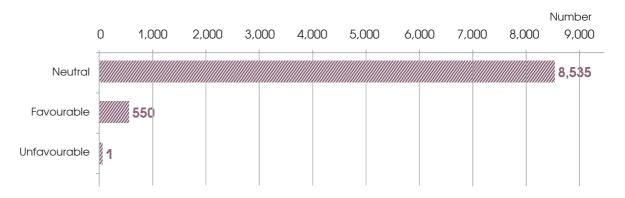
¹ According to the data provided by Integrum.



The majority of references are neutral or favourable. The number of unfavourable references is very low (Figure 13.3).

Figure 13.3

CHARACTER OF REFERENCES

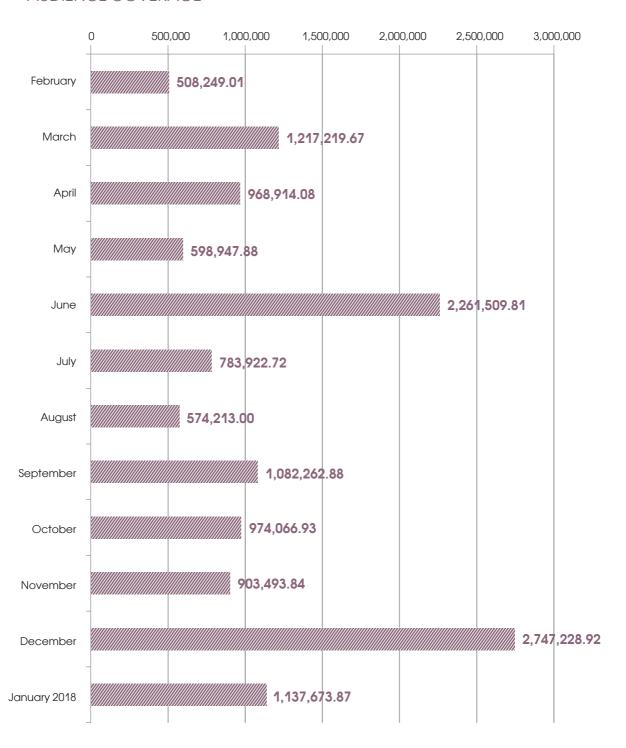


News stories about Voronezh State University published by the Media appeal to a great number of readers. The greatest interest was recorded in June and December (Figure 13.4). It can be explained by a number of high-profile events covered by the media. For example, the admission campaign, the visit of the Minister of Education and Science of the Russian Federation, Olga Vasilyeva, to VSU, and gaining the status of centre for innovative, technological, and social development.



Figure 13.4

AUDIENCE COVERAGE





13.2. VORONEZH STATE UNIVERSITY NEWSPAPER

12 issues of Voronezh State University newspaper, including special issues, were published in 2017.

Voronezh State University newspaper is published in magazine format (A4, between 24 and 32 columns) and in full colour. All issues were published by VSU's Publishing House. The newspaper is issued once a month. The newspaper production cycle uses two types of production: scheduled editions are published by means of offset printing and special editions with the help of digital equipment.

The paper contained mainly official information and brief reports regarding the most important events at the University. Most materials published by the Voronezh State University newspaper are exclusive and do not appear on VSU's official website. Freelance authors also take an active part in the production of the newspaper. For example, the newspaper considerably expanded the number of themes thanks to regular news stories by the methodologist of the Fiction Department of the Regional Scientific Library, Angelica Makarova, VSU's conservator, Vladimir Ryapolov, and a staff member of the Faculty of Journalism, Anna Litovskaya. The paper continues to publish articles about interesting people and events, and reports about the work of university lecturers and researchers.

Moreover, the newspaper started publishing stories dedicated to the university's upcoming 100th anniversary. For example, photos depicting the construction of the main university building (early 1960ies) and the second university building (late 1950ies) and of Professor Ilia Borozdin (1950ies) were found and published. To celebrate the Year of Ecology in Russia the newspaper published a series of materials dedicated to the recycling of various wastes, man-made factors of environmental pollution, and GMO products. The list of vacancies for the academic staff provided by the Board of Human Resources and Administrative Policy is published regularly in special issues of the newspaper.



The English-language supplement "Never Before" continued to be published. The numbering of issues was adjusted in accordance with the instructions of the Voronezh Department of the Federal Service for Supervision of Communications, Information Technology, and Mass Media. A special 32 column issue for prospective students was published prior the admission campaign 2017. It provided detailed information about the university and the admission procedure. It was distributed among prospective students of all VSU's faculties during the campaign. It also attracted a lot of interest from prospective students and their parents.

At the end of 2017, the newspaper was renovated and was brought into line with the new branding and style guidelines of the university. The first issue in 2018 had the new format and its material was broken down by sections and was made available on VSU's website.



Old version of the Voronezh State University newspaper



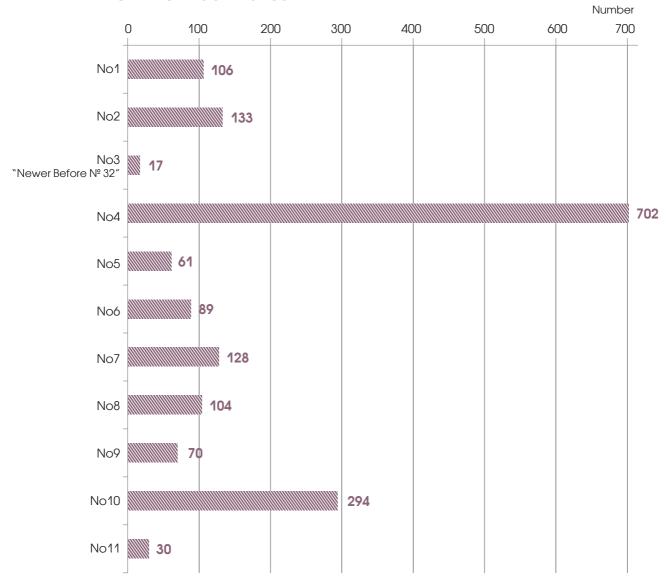
Renovated version of the Voronezh State University newspaper



The digital version of the newspaper is available on the VSU website. Figure 13.5 shows statistics regarding downloads by unique visitors (excluding downloads from the same IP address) of 24 January, provided by the web laboratory of the University Internet Centre.

Figure 13.5

DOWNLOADS STATISTICS





13.3. SOCIAL NETWORKS

Today, social networks are one of the most popular sources of information. For universities, they offer extra opportunities to attract the attention of their students and prospective students to its activities and also to receive feedback from the target audience. The leading media publish the news from their official websites on social networks and popular messengers, which allows a considerable increase in coverage. Leading Russian and international universities, state institutions, governmental authorities, including the Ministry of Education and Science of the Russian Federation have accounts on social networks. VSU's Centre for Information Policy communicates with subscribers of the university's accounts, publishes content, and distributes information among users of social networks, thus increasing their loyalty to the VSU brand.

VSU's official group on VKontakte

(https://vk.com/vsumain)

In February 2018, the number of subscribers of VSU group was 19,947 people (an increase of 2,968 people compared to February 2017). Users of the social network are highly interested in the data published in the group. The maximum number of unique visitors per day is 11,750 people. The visitors to the group come from various regions. First place traditionally belongs to the visitors from Voronezh and the Voronezh region (74.99%). Visitors from other cities and regions also show an interest in the VSU group: Lipetsk – 2.42%, Moscow – 2.35%, Stary Oskol – 0.96%, and Saint Petersburg – 0.94%.

Every day, at least seven posts are published in the group – "Media about us", news from the official website, news of the faculties and university organisations, previews of events, greetings, VSU innovations, video reports, competitions, international activities of the university, the VSU swimming pool, students' organisations activities, VSU's centenary, etc.. Many of the topics have special hashtags.

Following the most interesting events that were held in the university, a photo report is made and uploaded to the group. To provide feedback from VKontakte users, a user can send a message to the administrators and they will send a quick response to questions about enrolment, events, academic programmes, and information cooperation. The section "Photo of the Month" is continued: at the end of each month, a post with the most spectacular photos about the university's life is published. In 2017, a new column was added – "VSU through your Eyes". It publishes weekly photos dedicated to university life from the personal Instagram accounts of students and academic staff. A tradition to post brand style cards to congratulate subscribers with various international and national holidays was introduced. Posts relevant for students are made from the official VKontakte groups of the Ministry of Education and Science of the Russian Federation and the Federal Service for Supervision in the Sphere of Science and Education of the Russian Federation.



VSU's VKontakte group "Prospective students in touch with VSU" (https://vk.com/abitur_vsu)

In February 2018, the number of subscribers to the VSU group was 10,320 people. Most subscribers are users from the Voronezh region (65.02%). Representatives of other cities and regions also show an interest in the information about enrolment to VSU's programmes: Lipetsk – 4.86%, Moscow – 2.39%, Stary Oskol – 1.62%, and Saint Petersburg – 0.89%. Every day, over three posts are published in the group - news from the official website and the "Abiturieent Online" web portal (www.abitur.vsu. ru), previews of events organised by faculties for schoolchildren, information about "Open Day" events, enrolment to VSU's programmes, VSU's achievements, prestudy courses, and competitions for school children. Users can write a message to the staff of the Department of Pre-University Training and Enrolment of Students who every day answer questions of potential university entrants about enrolment to the university's programmes.

VSU's Facebook group

(https://www.facebook.com/vsumain)

In February 2018, the number of subscribers was 1,054 people. Every day, at least seven posts are published in the group - "Media about us", news from the official website and the "Abiturieent Online" web portal (www.abitur.vsu.ru), news from university's faculties and subdivisions, previews of events, greetings, information about VSU's innovations, "Open Day" events, VSU's achievements, pre-study courses, competitions for school children, VSU's swimming pool, video reports, competitions, announcements, and information about international activities of the university. Every day, the group publishes one or two news stories from the English version of the Voronezh State University website (http://www.vsu.ru/english) for the English speaking audience of the group. A tradition to post brand style cards to congratulate subscribers with various international and national holidays was introduced.



VSU's official account on Instagram

(http://instagram.com/vsumain)

The new account was created on 31 August 2016, it is steadily developing and the number of its subscribers today is 1,425 people. High-quality photos depicting university events and students' activities are published every week. The administrators broadcast from the university's festive events and every month they republish the section "Photo of the Month" from VSU's official VKontakte group.

VSU's official account on Twitter

(https://twitter.com/vsumain)

The account was created 6 years ago. 29,500 tweets have been made since then. Major university events are broadcast on a regular basis. Every day, the news feed has at least 10 posts and reposts from the English version of the VSU website (https://twitter.com/vsumainE) and the official Twitter accounts of the Ministry of Education and Science of the Russian Federation and the Federal Service for Supervision in the Sphere of Science and Education of the Russian Federation. On average, VSU's tweets are viewed at least 90,000 times per month.

Prior to the university's centenary, a new photo section "Then and Now" was created and is published in all social networks. In this section, archival photos of the university buildings and the university's memorable places are compared to modern images.



SUBJECT INDEX

Academic and scientific schools - 133

Academic Council – 13 Academic mobility – 248

Achieving the objectives of the VSU strategic

development programme – 35 Admission campaign – 90

Analysis of VSU's financial activities – 224

Asset turnover – 234 Average salary – 238 Board of Trustees – 10

Bursaries – 273

Business incubator - 167 Capital development - 296

Centre for Collective Use of Scientific Equipment - 151

Contracts and agreements with international

universities - 245

Data Processing Centre – 198 Dissertation committees – 68

Education quality assessment system – 110 Endowment (Endowment Fund) – 171

Faculties and institutes - 28

Faculty of Military Education - 306

Financial aid – 273 Financial stability – 232

Funding of capital development and major repairs – 299

Further professional education – 105 Galichya Gora nature reserve – 320 Graduates' employment – 177

High school graduates from other constituent territories of the Russian Federation – 96

Human resources – 61 Inclusive education – 288 Innovations' funding – 156 International projects – 245 International students – 259

Leases - 222

Major repairs - 297

Military occupational speciality - 307

Military Training Centre - 308

Mission and strategic objectives – 32 National and international ratings – 58

Personnel compensation – 236 Postgraduate training – 77 Pre-university work – 84

Programme of Strategic Development – 33 Projects within the FTP, the Russian Foundation for Humanities, and the Russian Foundation

for Basic Research – 136

Publications by academic staff - 129

Rector's address - 4

Regional Scientific Library - 314

Research funding – 126 Research grants – 138

Reserve Officer Training Department - 309

Scholarship programmes - 98

Senior officers - 18

Small innovative businesses - 161

Social networks – 333 Student's Spring festival

and First-Year Student festival - 278

Students' communities – 277 Summer vacation – 269

Voronezh State University newspaper – 330

VSU Alumni Association – 175 VSU effectiveness monitoring – 60

VSU expenditures - 207 VSU garage - 298 VSU income - 207

VSU patent activity – 158 VSU structure – 20–21 VSU trade union – 274 VSU's objectives for 2017 – 7