2020

ANNUAL REPORT

FSFEI HE “VORONEZH STATE UNIVERSITY”

2020

Voronezh
VSU Publishing House
2021


СБЕРБАНК

RECTOR'S ADDRESS

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D.A. Endovitsky,
Rector of Voronezh
State University

For our university's team, 2020 was a demanding year, one of tireless, concerted effort, multiple tests of endurance and ability to take things in our stride and overcome difficulties. I can state with satisfaction that the people who work at this university, the professors and lecturers, other employees, postgraduate and undergraduate students, dealt with all of those challenges with true patriotism, demonstrating outstanding loyalty to the mission that Voronezh State University undertook more than a century ago: to be a centre of education, research, and culture, on top of its dynamic and proactive attitude to being a leader, developing and strengthening academic collaboration at the national and international level, working with the authorities and business structures, comprehensive and vocational schools, as well as nonprofit companies and organizations.

2020 was also a year of preparing special events for the Year of Memory and Glory, the 75th anniversary of the victory in the Great Patriotic War of 1941–1945. Despite all the hardships arising out of the policy-based responses to the coronavirus pandemic, VSU's staff were able to organize almost all the planned celebrations, in a spirit of solidarity with the whole country. Planning and conducting the festivities commemorating the Great Victory was an incredibly enriching experience, which will definitely set the stage for further enhancing the effectiveness of patriotic education at the university.

According to a number of reputable independent rankings, in 2020 VSU improved its position in the Russian higher education system and the international research and academic community. This cannot but cause feelings of pride and satisfaction, but is also a constant reminder of the fact that now is not the time to rest on our laurels and that, in order to maintain what we have achieved, we need to keep moving forward. Awareness of this vital truth is something that thousands of our employees had in common in 2020 and will hopefully continue to share in 2021.

As I have already said, 2020 was a serious, I would even say gruelling, ordeal due to the pandemic. Sadly, we suffered terrible losses: several of our colleagues passed, many more had bad cases of the disease. Today, we still have to comply with strict and often inconvenient precautionary measures and work in unusual conditions. One of the significant results of our joint efforts from March until December 2020 was the fact that all VSU departments were able to readjust and adapt to the new reality, make use of the required methods of work, accumulate a great deal of experience, ensure that all the scheduled plans and tasks be met, all the while preserving the creative and patriotic spirit of the Russian university, the continuity of generations of scholars and students, as well as loyalty to the great university traditions. I am convinced that this direction in the activities of each and every person who works and studies at VSU will continue, based on the knowledge and experience that we have now gained. This, also, is our duty to those who passed away.

2020 saw an increase in the academic, research, and civic engagement of the university's young people, including its young teachers, scholars, and students. I consider this yet another one of our joint achievements. It is essential that the scale and line of work with the young be maintained through academic and extracurricular activities in 2021, in order to prevent any destructive emotional outbursts and encourage positive student initiatives to further develop the time-tested principles of cooperation pedagogy.

2020 was a noticeable step in implementing digitalization in the work of all the university departments. In this short period of time, much has been done, understood, and planned for the future. We can now say with a great deal of certainty that digitalization is not a passing fashion; nor is it a one-off campaign, but a targeted, multi-faceted task requiring a lot of knowledge and its continuous updating, persistence, a well-weighed scientific and methodological approach. This is what I would like to encourage every one of us to focus on in 2021.

Analysing our accomplishments in 2020, the Rector's office takes notice of the fact that it is also an opportunity to consider the activities, results, challenges, and tendencies of the last five years, since 2021 was the year when the Rector's election was held. I would like to take this opportunity to thank the university team for their confidence in me and that it was a great honour to be re-elected. Reporting to the Academic Council on what was done in 2020, the Rector's office presents our vision of the successes, as well as what is yet to be achieved, in the hope of getting an objective evaluation, critical remarks, suggestions, and recommendations. Asking for those is not a mere formality; it stems from my utmost respect for everyone who studies and works at VSU; for all my colleagues.

In my opinion, the information contained in the following sections of the Annual Report provides its readers with a clear and detailed view of the multiple areas of activity of the Rector's Office, all the university's management structures, and all its employees, thus enabling everyone to form an opinion, make suggestions, and determine their own place in the joint effort of tackling the tasks faced by the university in 2021.

For myself and my colleagues in the Rector's office, I have defined them as follows:

1. Continuing to maintain a high bar for the quality and effectiveness of educational, scientific, social, and cultural activities of the university, based on the research-backed indicators and criteria for each of the university's departments concerning the whole team and each employee in particular, including the staff's salaries and incentives for the young teachers and scholars. It must also be taken into account that December 2021 is the end of our university's National Academic Accreditation.

2. Enhancing and developing the university's digital infrastructure.

3. Increasing the role played by the university's professionals in raising its competitive ability among the leading scientific and educational centres, paying special attention to the publication activities of the teaching staff.

4. Ensuring consistent implementation of the university's strategic development program, including the components regarding student affairs.

5. Maintaining the university graduates' competitive ability in the labour market, as well as the new intakes of students, including to target programmes.

6. Taking the full scope of measures aimed at protecting student and employee health and preventing the spread of the coronavirus infection.

7. Preserving and strengthening the staff's morale and spirit, implementing the full scope of social support measures for the employees, students, and veterans.

I hope that these tasks will be supported by the university's staff in a businesslike, creative, and responsible manner, and will channel into practical solutions.

Russian President Vladimir Putin declared 2021 the Year of Science and Technology, which, quite naturally, is directly related to all of us, as it opens up new opportunities and horizons, and instils optimism in these difficult times, one based on state policy, university traditions, accumulated experience, creative and responsible attitude to the work of all those who make up the university team. From here we will move forward.


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UNIVERSITY ADMINISTRATION

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UNIVERSITY ADMINISTRATION

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

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

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

As one of the university's management bodies whose activities are aimed at streamlining its functioning, the Board of Trustees assists in:

- Addressing the university's development issues and goals.
- Attracting finances and material resources to support the university's development and activities, as well as controlling resource allocation.
- Enhancing the university facilities.
- Developing higher education and postgraduate professional training programmes provided by the university to make sure they are in line with the requirements set by employers.

The VSU Board of Trustees consists of 32 people.

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

Deputy Chairs of the Board of Trustees:

- **Alexander Sokolov,**
- **Elena Soboleva,**
- **Evgeny Yurchenko.**

Secretary of the Board of Trustees:

- **Dmitriy Zhukalin.**

MEMBERS OF THE VSU BOARD OF TRUSTEES

1. **Azret Bekkiev,** Deputy General Director of AO *United Instrument Manufacturing Corporation*.
2. **Anton Ganzha,** Regional Manager of *Vnesheconombank.*
3. **Yury Goncharov**, President of the Voronezh Regional Chamber of Commerce and Industry.
4. **Alexander Gusev**, Governor of the Voronezh Region.
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 Endovitsky**, Rector of VSU.
8. **Viktor Yenin**, Director General of *Perspektiva Group*.
9. **Valentin Ievlev**, Full Member of the Russian Academy of Sciences, DSc in Physics and Mathematics, Professor, Head of the Department of Materials Science and Nanotechnology 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. **Valeriy Lukinov**, Director General of OOO *Stel-Invest*.
13. **Mikhail Mamuta**, Head of Consumer Rights Protection and Financial Services Accessibility Service, Bank of Russia.
14. **Nadezhda Mazalova**, General Director of OOO *Region-Terminal*.
15. **Mikhail Moskaltsov**, Head of the main Voronezh regional office of the Central Black Earth Branch of PAO *Sberbank*.
16. **Mikhail Nosyrev**, President of ZAO *Spartak Cinema*.
17. **Alexey Ponomarev,** Vice President for Strategy & Industrial Cooperation of the Skolkovo Institute of Science and Technology (Moscow).
18. **Edgars Puzo**, Director General of *Atos IT Solutions and Services* LLC.
19. **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 VSU.
20. **Vladimir Salmin**, Chairman of the Central Black Earth Branch of PAO *Sberbank*.
21. **Elena Soboleva**, Director of Educational Projects and Programmes of the Fund for Infrastructure and Educational Programmes (RUSNANO, Moscow).
22. **Alexander Sokolov**, Vice Rector for Building Operation and Capital Development of VSU.

23. **Denis Stoliarov**, Director of student admissions at the Skolkovo Institute of Science and Technology (Moscow).
24. **Natalia Tretyak**, First Vice President of AO Gazprombank.
25. **Stephen Hagen**, Honorary Professor of the University of South Wales and a higher education expert of the European Commission (Great Britain).
26. **Heinze Klaus-Dieter**, Head of the chemical/industrial technopark (Dow Olefinverbund GmbH Leiter ValuePark, Germany).
27. **Andrey Khitskov**, Director of the *Voronezhsky* VTB operations office.
28. **Valeriy Chernikov**, Board Chairman of AO Insurance Business Group.
29. **Gennadiy Chernushkin**, Founder of Angstrem Group.
30. **Elena Chupandina**, First Vice Rector – Vice Rector for Academic Affairs of FSFEI HE VSU.
31. **Anatoliy Shmygalev**, Deputy of the VI Voronezh Regional Duma.
32. **Evgeniy Yurchenko**, Chairman of A.S. Popov Investment Fund (Moscow).

Due to the unfavourable epidemiological situation in 2020, in-person meetings of the Board of Trustees were not held. The relevant issues of the university's development were therefore discussed with the board members through remote bilateral negotiations.

The negotiations were aimed at discussing the following issues:

- Developing VSU's innovation infrastructure.
- Research and education laboratories organized in collaboration with the university's industrial partners.
- Presenting the innovative projects by VSU scholars.
- Establishing and developing a regional centre for research and education.
- VSU's participation in the programme of strategic and academic leadership.

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

MEMBERS OF THE VSU ACADEMIC COUNCIL

1. Dmitry ENDOVITSKY,
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. Oleg KOZADEROV,
Vice-Rector for Research and Innovations.

6. Larisa KOROBEINIKOVA,
Vice Rector for Economics and Contract Services.

7. Alexander SOKOLOV,
Vice Rector for Building Operation and Capital Development.

8. Leonid AKIMOV,
Head of the Department of Nature Management
of the Faculty of Geography, Geoecology and Tourism.

9. Alla AKULSHINA,
Head of International Relations Office.

10. Eduard ALGAZINOV,
Dean of the Faculty of Computer Sciences.

11. Elena ALEKSEEVA,
Head of the Department of French Philology
of the Faculty of Romance and Germanic Philology.

12. Alexander ALBEKOV,
Head of the Department of Mineralogy, Petrology and Geochemistry
of the Faculty of Geology.

13. Alexander BAYEV,
Dean of the Faculty of Mathematics.

14. Alexander BELANOV,
Head of the Department of Physical Education and Sports.

15. Oleg BELENOV,
Dean of the Faculty of International Relations.

16. Olga BORISKINA,
Dean of the Faculty of Romance and Germanic Philology.

17. Lydia BORISOVA,
Associate Professor of the Department of Translation
and Professional Communication of the Faculty of Romance and Germanic Philology.

18. Kira VASILIEVA,
Academic Secretary of the Academic Council.

19. Lyudmila VLADIMIROVA,
Head of the trade union of the university employees.

20. Alexey VLASOV,
Head of the University Dormitory Complex Administration.

21. Karina GAIDAR,
Head of the Department of General and Social Psychology,
Vice Dean of the Faculty of Philosophy and Psychology.

22. Sergey GAPONOV,
Professor of the Department of Zoology and Parasitology
of the Faculty of Biomedical Sciences.

23. Vladimir GLAZIEV,
Dean of the Faculty of History.

24. Alexandra GLUKHOVA,
Head of the Department of Sociology and Politology of the Faculty of History.

25. Zhanna GRACHEVA,
Dean of the Faculty of Philology.

26. Evelina DOMASHEVSKAYA,
Head of the Department of Solid-State Physics and Nanostructures
of the Faculty of Physics.

27. Valentin IEVLEV,
Head of the Department of Materials Science and Nanotechnology of the Faculty of Chemistry, member of the Russian Academy of Sciences.

28. Alexander KAZHIKIN,
Associate Professor of the Department of Public Relations, Advertising, and Design of the Faculty of Journalism.

29. Pavel KANAPUKHIN,
Dean of the Faculty of Economics.

30. Liudmila KOLTSOVA,
Head of the Department of the Russian Language of the Faculty of Philology.

31. Liudmila KONOVALOVA,
Head of the Department of Academic Staff Assessment.

32. Yury KORENCHUK,
Head of the Military Training Centre.

33. Vladimir KOSTIN,
Head of the Department of Mathematical Modelling of the Faculty of Mathematics.

34. Liubov KOT,
Associate Professor of the Humanities Department of the International Education Institute.

35. Artem KRIVOSHEYEV,
Head of the Planning and Finance Department.

36. Andrey KUDRYAVTSEV,
Head of the Department of Criminal Law of the Faculty of Law.

37. Olga KUPRYUSHINA,
Associate Professor of the Department of Economic Analysis and Audit of the Faculty of Economics.

38. Semyon KUROLAP,
Dean of the Faculty of Geography, Geoecology and Tourism.

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

40. Arkadiy MINAKOV,
Professor of the Department of Russian History of the Faculty of History.

41. Grigoriy NAGIRNYAK,
Director of the Training Swimming Pool.

42. Viktor NENAKHOV,
Dean of the Faculty of Geology.

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

44. Elena NOSYREVA,
Head of the Department of Civil Law and Procedure of the Faculty of Law.

45. Oleg OVCHINNIKOV,
Dean of the Faculty of Physics.

46. Tatiana POPOVA,
Dean of the Faculty of Biomedical Sciences.

47. Alexey PROKHORCHENKO,
Head of the User Support Department.

48. Vladimir RODIONOV,
Director of the International Education Institute.

49. Natalia SAPOZHNIKOVA,
Head of the Department of Accountancy of the Faculty of Economics.

50. Igor SVERTKOV,
Head of the Borisoglebsk Branch of Voronezh State University.

51. Vladimir SELEMENEV,
Visiting Professor of the Department of Analytical Chemistry of the Faculty of Chemistry.

52. Viktor SEMYONOV,
Dean of the Faculty of Chemistry.

53. Alexander SIROTA,
Head of the Department of Information Security and Processing Technologies of the Faculty of Computer Sciences.

54. Nikolay SKOLZNEV,
Director of the Galichya Gora reserve.

55. Aleksey SLIVKIN,
Dean of the Faculty of Pharmaceutics.

56. Yury STARILOV,
Dean of the Faculty of Law.

57. Andrey STARTSEV,
Chairman of the Students' Union.

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

59. Vladimir TULUPOV,
Dean of the Faculty of Journalism.

60. Olga URYVSKAYA,
Chief Accountant.

61. Konstantin FEDUTINOV,
Engineer at the computer equipment laboratory.

62. Ekaterina TSEBEKOVA,
Associate Professor of the Department of International Economics and International Business at the Faculty of International Relations.

63. Viktor SHAMAEV,
Professor of the Department of General Military Training of the Military Training Centre.

64. Alexander SHASHKIN,
Dean of the Faculty of Applied Mathematics, Informatics and Mechanics.

65. Alla SHESTERINA,
Professor of the Department of Electronic Media and Speech Communication at the Faculty of Journalism.

66. Khidmet SHIKHALIEV,
Head of the Department of Organic Chemistry of the Faculty of Chemistry.

67. Igor SHUMSKIKH,
VSU main building officer.

68. Viktoria DOROKHINA,
3rd year student of the Faculty of Pharmaceutics.

69. Elena KRETININA,
1st year Master's degree student of the Faculty of Philosophy and Psychology.

70. Viktoria PEREVOZNIKOVA,
2nd year Master's degree student of the Faculty of Mathematics.

71. Mariya RUSANOVA,
1st year postgraduate student of the Faculty of Philosophy and Psychology.

72. Raisa SHAMAILOVA,
1st year Master's degree student of the Faculty of Geography, Geoecology and Tourism.

LIST OF KEY ISSUES CONSIDERED BY THE ACADEMIC COUNCIL IN 2019/2020

AUGUST

1. Approving the educational programmes implemented by the university (executive in charge – E. Chupandina).

SEPTEMBER

1. The results of the 2019 admission campaign (executive in charge – E. Chupandina).
2. Approving the admission rules for the main academic programmes offered by VSU in 2020. Allocating the admission quotas among the programmes (executive in charge – E. Chupandina).
3. Implementing the development strategy for further professional education programmes at the university (executive in charge – N. Batsunov).
4. Cold weather adaptation of the university buildings and facilities (executive in charge – A. Sokolov).

OCTOBER

1. The results of the educational activity in higher professional and secondary vocational education programmes in 2018/19 (executive in charge – E. Chupandina).
2. Report on the results of the performance of the University's branch in Borisoglebsk in 2018/19 (executive in charge – I. Svertkov).
3. The formation of the unified time-schedule for purchases for 2020 (executive in charge – L. Korobeinikova).
4. Awarding badges of honour (executive in charge – Yu. Bubnov).

NOVEMBER

1. Report on the implementation of the programme "VSU as an innovative space for innovation" (executive in charge – O. Kozaderov).
2. Approving the plan for streamlining the system of the university's financial management (executive in charge – L. Korobeinikova).
3. Report on the implementation of the University Strategic Development Plan (executive in charge – Yu. Bubnov).
4. Awarding academic titles (executive in charge – K. Vasilieva).

DECEMBER

1. International collaboration: results for 2019, main objectives for 2020 (executive in charge – O. Belenov).
2. The results of international students' admissions to the main educational programmes and further education programmes in 2019: achievements and challenges (executive in charge – V. Rodionov).
3. Report on the implementation of the University Strategic Development Programme (executive in charge – Yu. Bubnov).
4. Organizational changes at VSU (executive in charge – Yu. Bubnov).

JANUARY

1. Report on the results of the university's research and innovative performance in 2019 (executive in charge – O. Kozaderov).

2. Report on the university's social development in 2019, and approving the plan for the next academic year (executives in charge – O. Grishaev and L. Vladimirova).
3. Inclusive education at the university: results and key tasks for 2020 (executive in charge – O. Grishaev).
4. Competition, selection (executive in charge – Yu. Bubnov).

FEBRUARY

1. Report on the implementation of the strategic plan of the Faculty of Economics (executive in charge – P. Kanapukhin).
2. Report on the condition of the university's property assets and developing the programme of their modernization (executive in charge – A. Sokolov).
3. Promoting VSU in Russian and international rankings (executive in charge – Yu. Bubnov).

MARCH

1. Financial and operating performance of VSU: the results of 2019 and the plan of financial and business operations for 2020 (executive in charge – L. Korobeinikova).
2. Report on the condition of the university's property assets and developing the programme of their modernization (executive in charge – A. Sokolov).
3. Report on the implementation of the strategic development plan of the Faculty of Physics (executive in charge – O. Ovchinnikov).
4. Awarding badges of honour (executive in charge – Yu. Bubnov).

APRIL

1. Rector's report on the results of the university's performance in 2019 (executive in charge – D. Endovitsky).
2. Approving the tuition fees for each of the categories of the university students in the 2020/21 academic year (executive in charge – L. Korobeinikova).
3. Preparing university training bases (Venevitinovo, Nickel) for practice training (executive in charge – A. Sokolov).
4. Awarding academic titles (executive in charge – K. Vasilieva).

MAY

1. Report regarding the implementation of the plan of anti-corruption measures at the university in 2019, and the plan for 2020 (executive in charge – A. Kudriavtsev).
2. Report on the student affairs at the university in 2018/19, and approving the plan for the next academic year (executive in charge – O. Grishaev).
3. The achievements of VSU's Student Board and ways of developing their work (executive in charge – O. Grishaev).
4. Organizational changes at VSU (executive in charge – Yu. Bubnov).

JUNE

1. The current state and development prospects for the university's informatisation (executive in charge – O. Kozaderov).
2. The implementation of the Academic Council's decisions in 2019–2020, and approving the plan for the council's activities in 2020/2021 (executive in charge – E. Chupandina).
3. The implementation of the strategic development plan of the Faculty of Law (executive in charge – Yu. Starilov).
4. Competition, selection (executive in charge – Yu. Bubnov).

2.3. RECTOR'S OFFICE

Rector

Dmitry ENDOVITSKY

DSc in Economics, Professor. Honoured Worker of higher professional education of the Russian Federation. The author of 696 research papers and works. Advisor for 4 postdoctoral and 63 PhD theses.

Phone: +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, Professor, Head of the Department of Economics and Management in Pharmaceutics and Pharmacognosy. The author of 314 research papers and works. Advisor for 4 PhD theses.

Phone: +7 (473) 220-87-31
E-mail: chupandina@vsu.ru

Vice Rector for Research and Innovations

Oleg KOZADEROV

DSc in Chemistry, Associate Professor, Head of the Department of Physical Chemistry. The author of 191 research papers and works.

Phone: +7 (473) 220-75-33
E-mail: kozaderov@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 554 research papers and works, including 5 monographs. Advisor for 1 PhD thesis, 1 more PhD thesis is currently being prepared for defence.

Phone: +7 (473) 222-60-92
E-mail: korobeinikova@vsu.ru

Vice-Rector for Strategic Administrative Management

Yuriy BUBNOV

DSc in Philosophy, Professor, Dean of the Faculty of Philosophy and Psychology, Head of the Department of History of Philosophy and Culture of the Faculty of Philosophy and Psychology. The author of 159 research papers and works. Advisor for 1 postdoctoral and 9 PhD theses.

Phone: +7 (473) 220-77-73
E-mail: bubnov@vsu.ru

Vice Rector for Student Affairs and Social Development

Oleg GRISHAEV

PhD in History, Associate Professor, Head of the Department of Contemporary Russian History, Historiography, and Records Management. The author of over 100 research papers and works. Advisor for 1 PhD thesis.

Phone: +7 (473) 239-06-86
E-mail: grishaev@vsu.ru

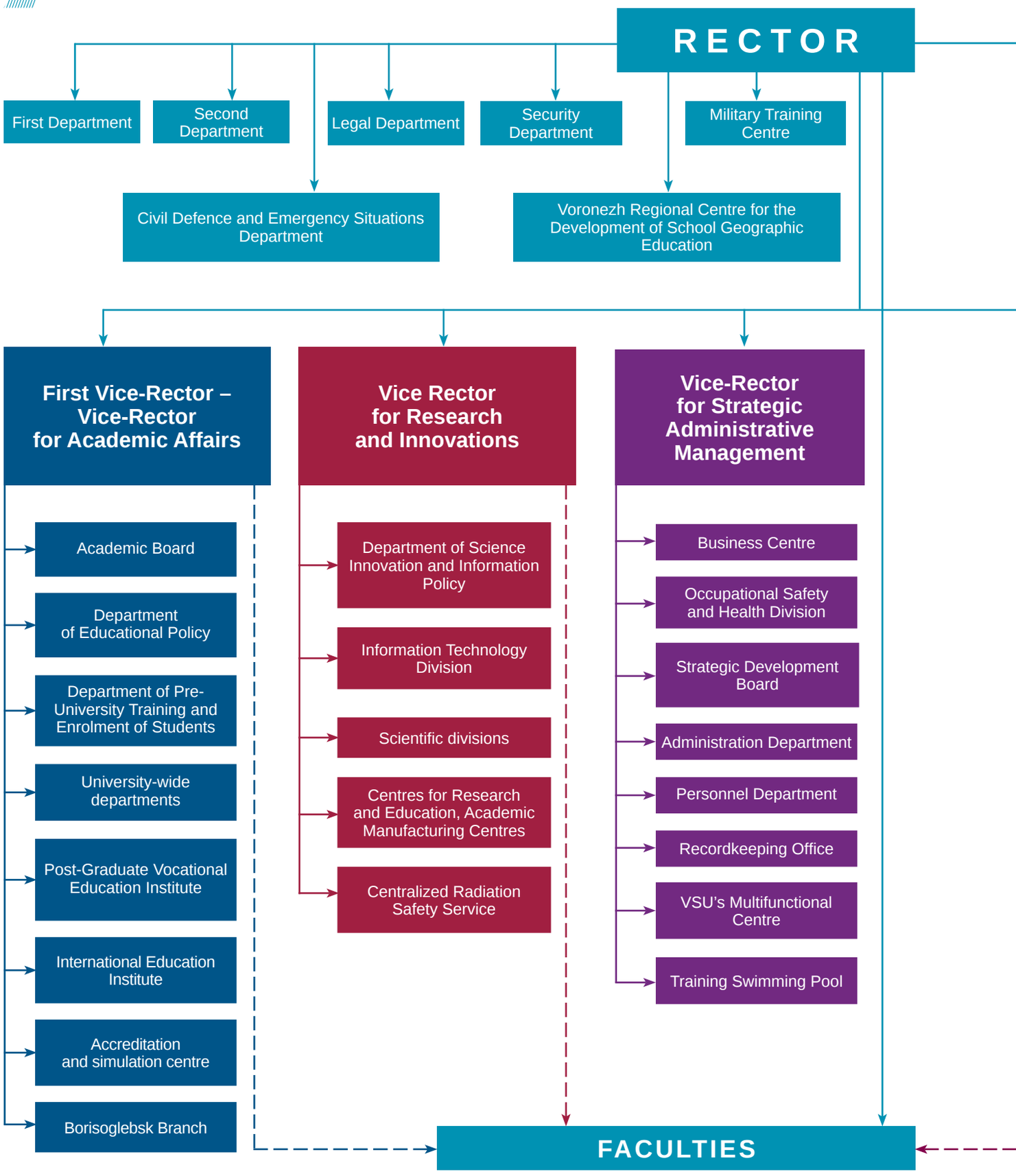
Vice Rector for Facilities and Capital Development

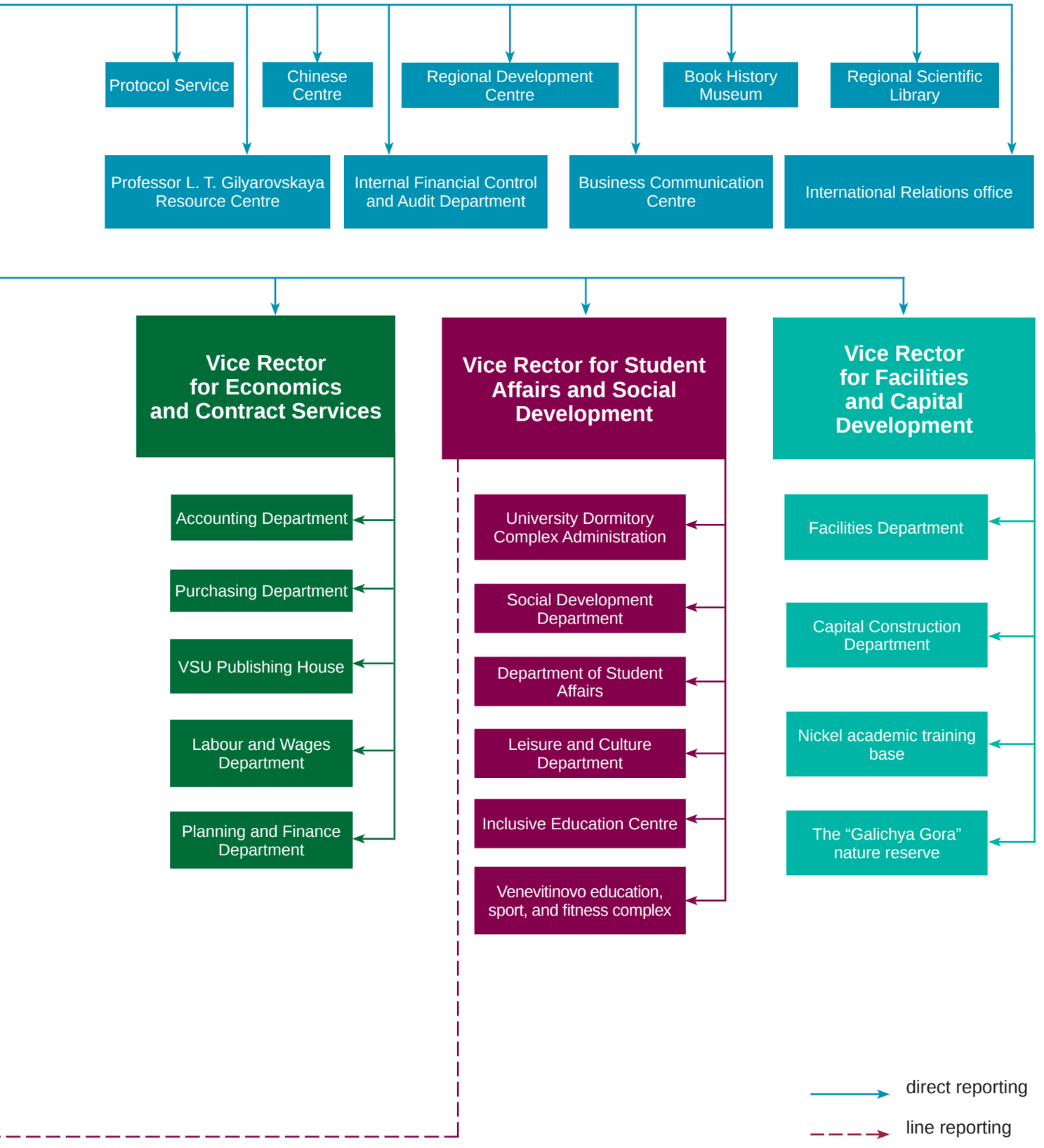
Alexander SOKOLOV

DSc in Economics, Associate Professor. The author of over 51 research papers and works, including 2 monographs. Advisor for 2 PhD theses.

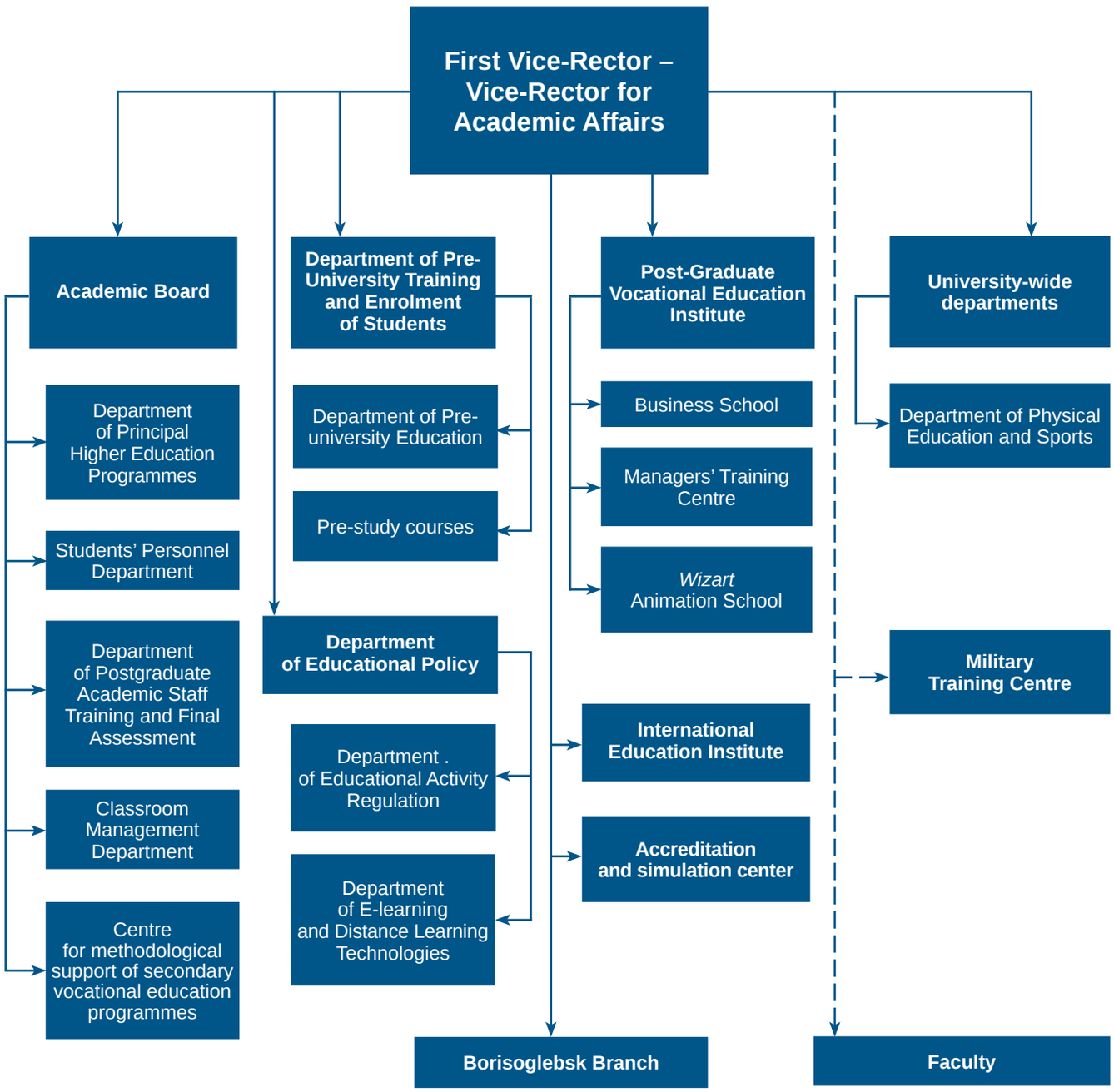
Phone: +7 (473) 220-75-18
E-mail: sokolov@vsu.ru

2.4. THE GENERAL STRUCTURE OF VORONEZH STATE UNIVERSITY

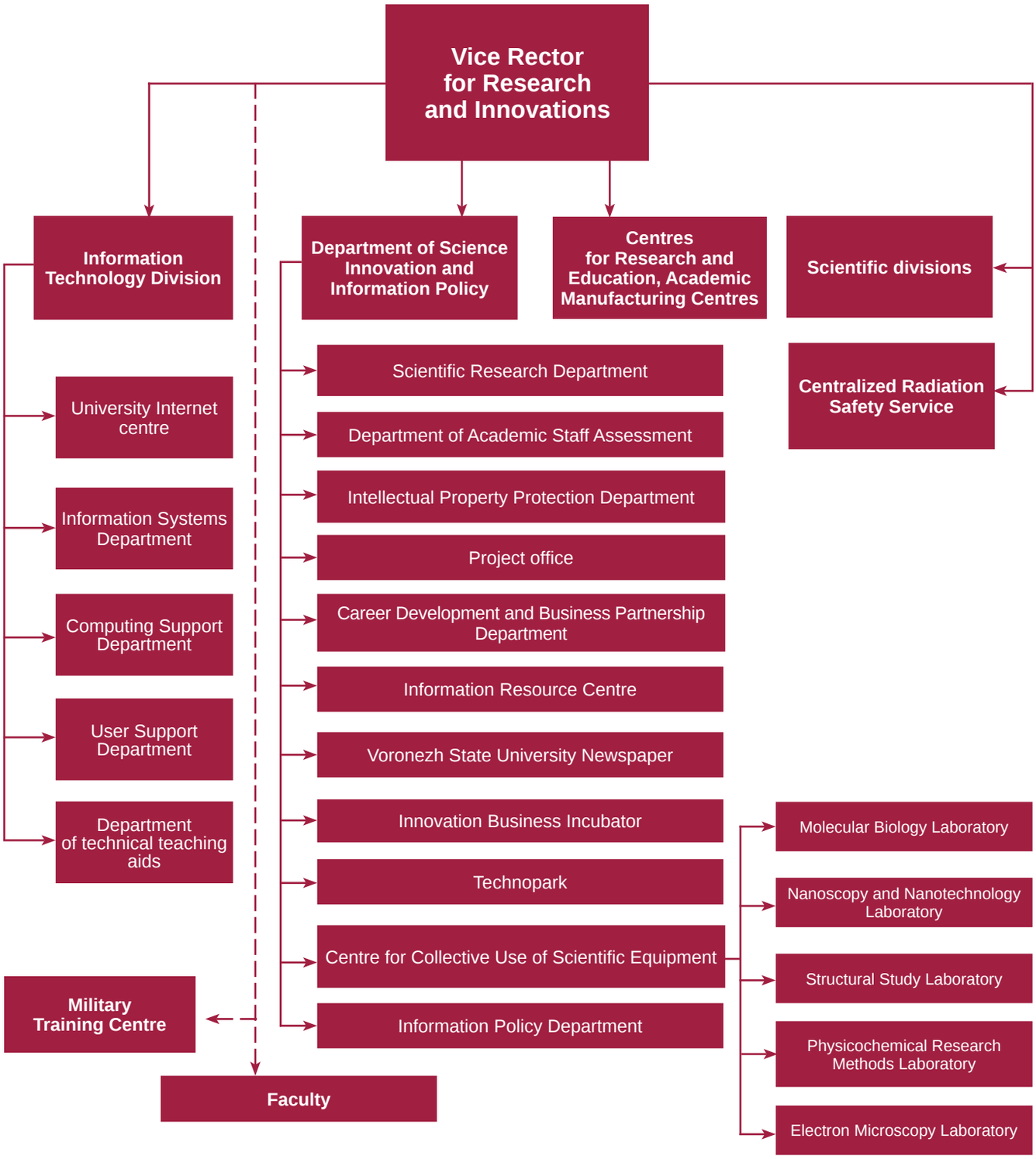



Protocol Service
Chinese Centre
Regional Development Centre
Book History Museum
Regional Scientific Library
Professor L. T. Gilyarovskaya Resource Centre
Internal Financial Control and Audit Department
Business Communication Centre
International Relations office
Vice Rector for Economics and Contract Services
Vice Rector for Student Affairs and Social Development
Vice Rector for Facilities and Capital Development
Accounting Department
Purchasing Department
VSU Publishing House
Labour and Wages Department
Planning and Finance Department
University Dormitory Complex Administration
Social Development Department
Department of Student Affairs
Leisure and Culture Department
Inclusive Education Centre
Venevitinovo education, sport, and fitness complex
Facilities Department
Capital Construction Department
Nickel academic training base
The “Galichya Gora” nature reserve
direct reporting
line reporting

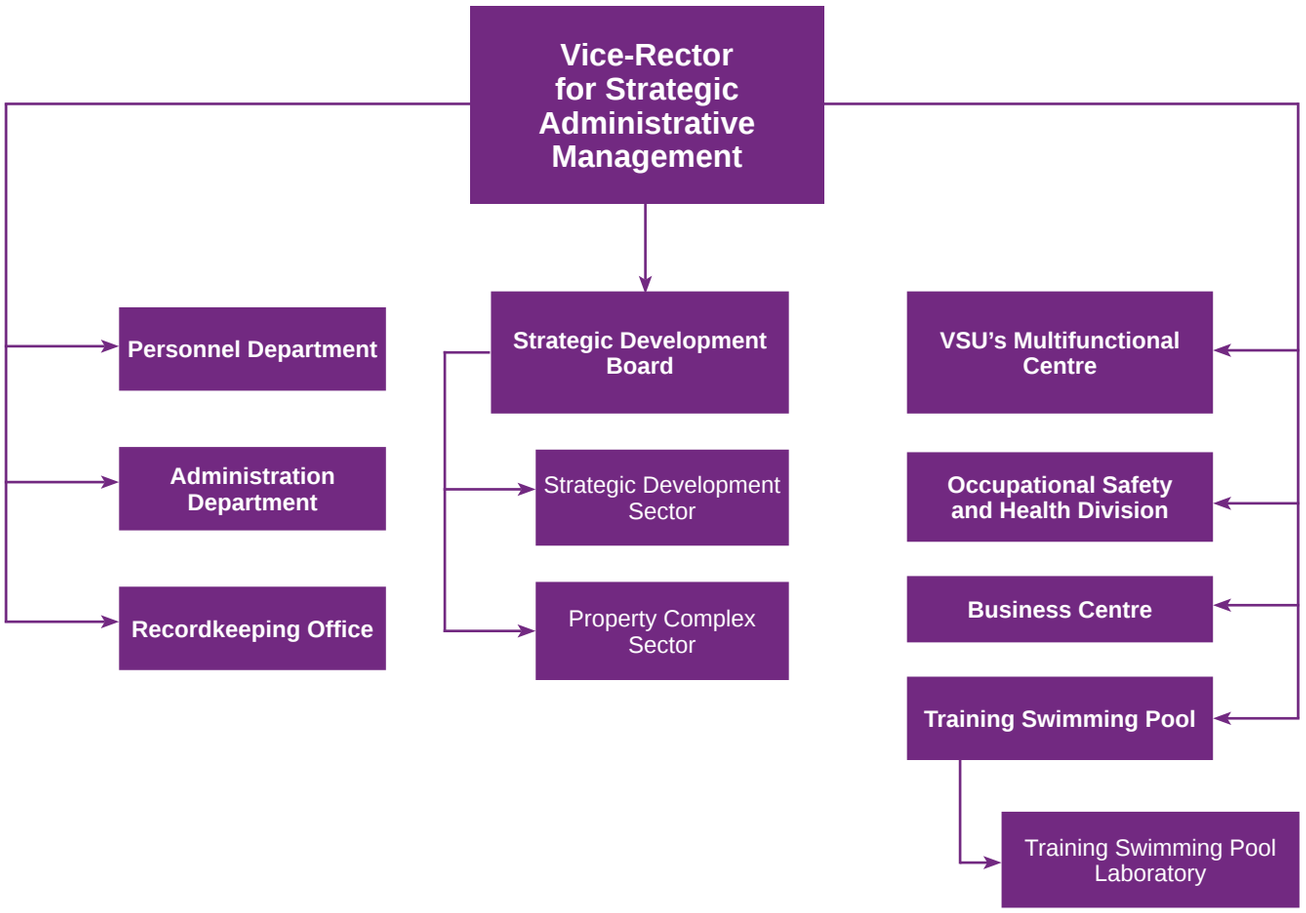
2.5. MANAGEMENT STRUCTURE OF THE FIRST VICE-RECTOR – VICE RECTOR FOR ACADEMIC AFFAIRS



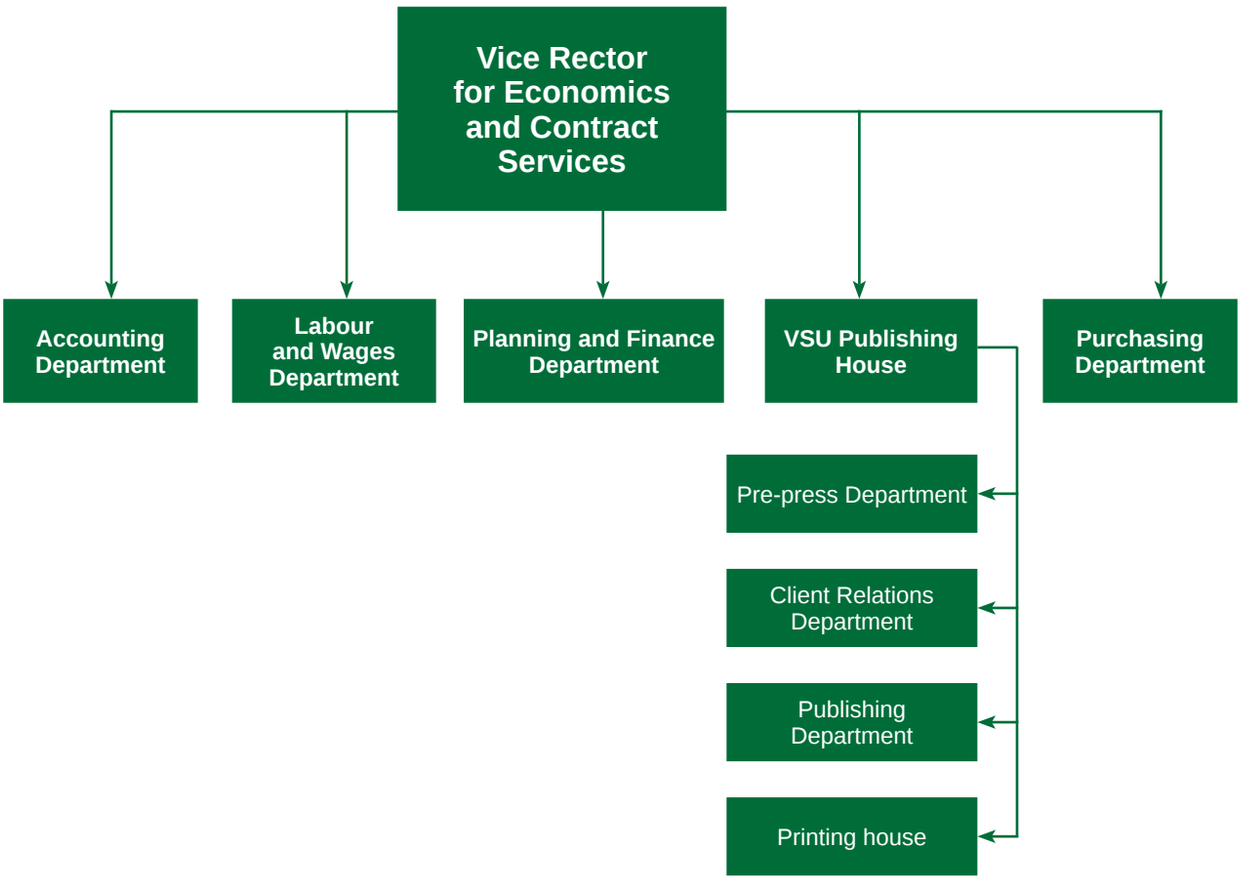
2.6. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR RESEARCH AND INNOVATIONS



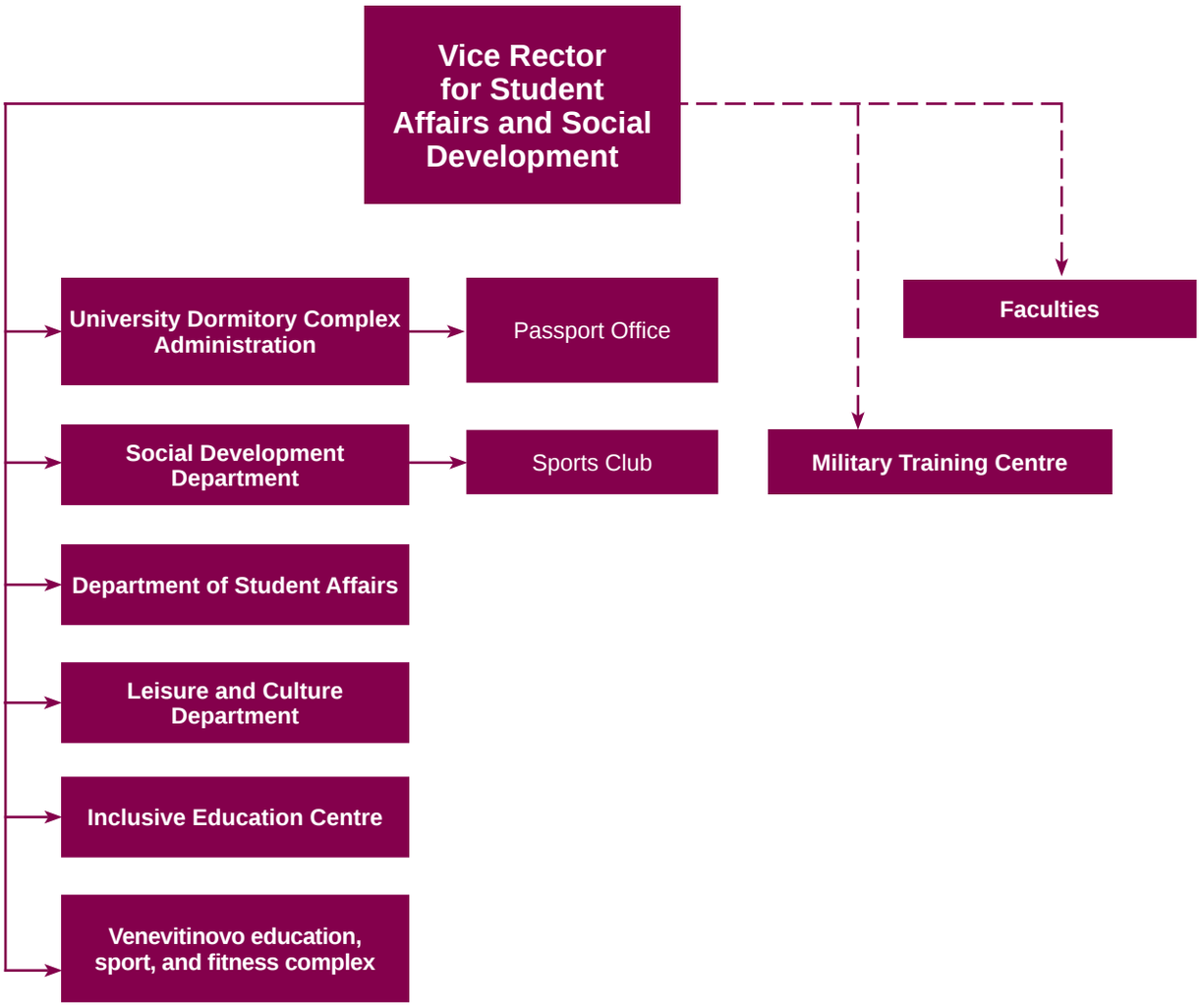
2.7. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STRATEGIC ADMINISTRATIVE MANAGEMENT



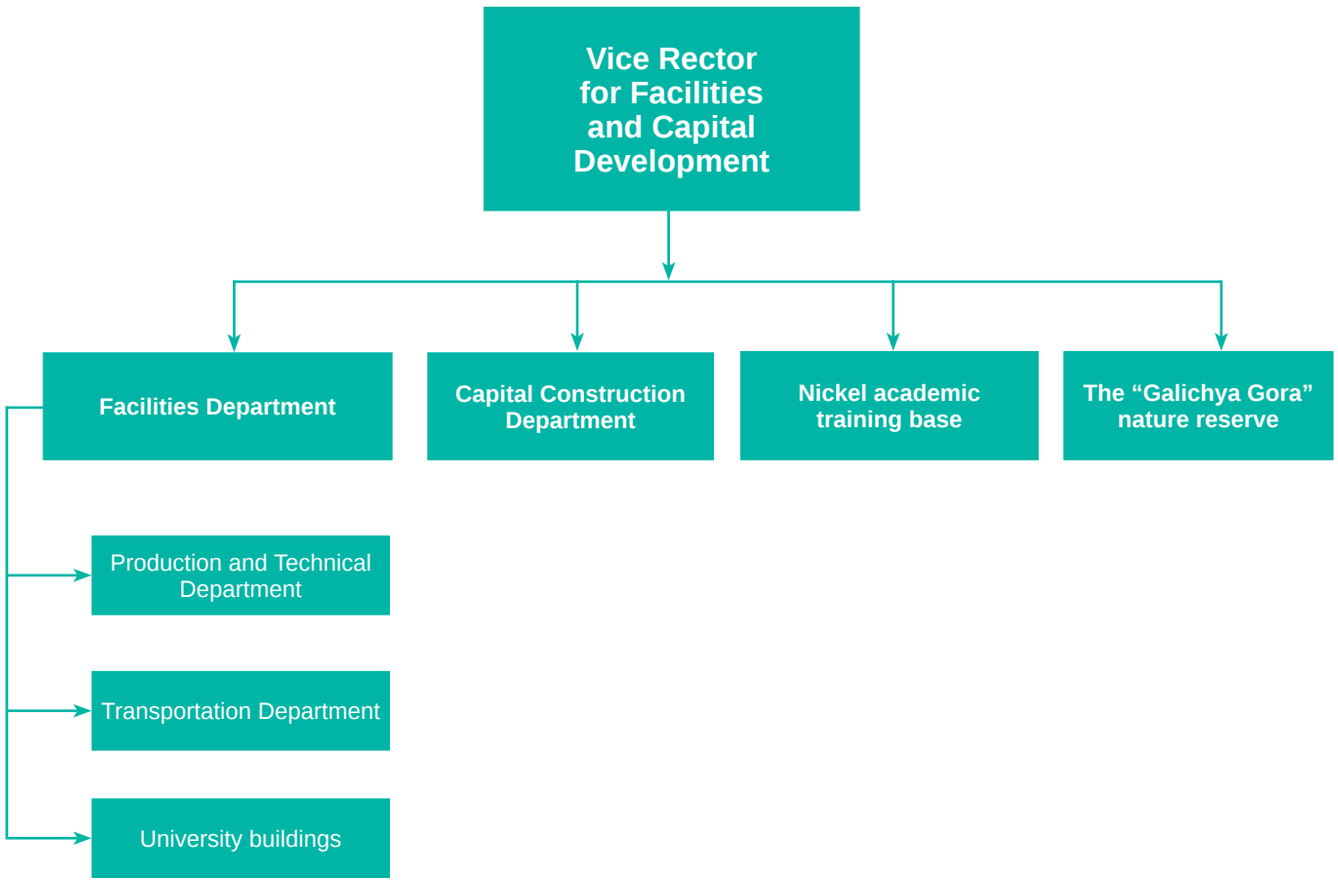
2.8. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR ECONOMICS AND CONTRACT SERVICES



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

FACULTY OF GEOLOGY

Dean **Viktor NENAKHOV**
Phone: +7 (473) 220-89-89 E-mail: nenakhov@geol.vsu.ru

FACULTY OF HISTORY

Dean **Vladimir GLAZIEV**
Phone: +7 (473) 221-27-47 E-mail: glaziev@hist.vsu.ru

FACULTY OF MATHEMATICS

Acting Dean **Maria BURLUTSKAYA**
Phone: +7 (473) 220-84-60 E-mail: burlutskaya@math.vsu.ru

FACULTY OF BIOMEDICAL SCIENCES

Dean **Tatiana POPOVA**
Phone: +7 (473) 220-88-52 E-mail: popova@bio.vsu.ru

MILITARY TRAINING CENTRE

Head **Yury KORENTCHUK**
Phone: +7 (473) 255-15-97 E-mail: korenchuk@mil.vsu.ru

FACULTY OF GEOGRAPHY, GEOECOLOGY, AND TOURISM

Dean **Semyon KUROLAP**
Phone: +7 (473) 266-56-54 E-mail: deanery@geogr.vsu.ru

FACULTY OF JOURNALISM

Dean **Vladimir TULUPOV**
Phone: +7 (473) 274-52-71 E-mail: vlvtul@mail.ru

FACULTY OF COMPUTER SCIENCES

Acting Dean **Alexander KRYLOVETSKIY**
Phone: +7 (473) 220-84-11 E-mail: krylovetsky@cs.vsu.ru

FACULTY OF INTERNATIONAL RELATIONS

Dean **Oleg BELENOV**
Phone: +7 (473) 239-29-31 E-mail: belenov@ir.vsu.ru

FACULTY OF APPLIED MATHEMATICS, INFORMATICS, AND MECHANICS

Dean **Alexander SHASHKIN**
Phone: +7 (473) 220-82-66 E-mail: shashkin@amm.vsu.ru

FACULTY OF ROMANCE AND GERMANIC PHILOLOGY

Dean **Olga BORISKINA**
Phone: +7 (473) 220-84-22 E-mail: boriskina@rgph.vsu.ru

FACULTY OF PHILOSOPHY AND PSYCHOLOGY

Dean **Yuriy BUBNOV**
Phone: +7 (473) 220-82-52 E-mail: bubnov@phipsy.vsu.ru

FACULTY OF PHARMACEUTICS

Dean **Aleksey SLIVKIN**
Phone: +7 (473) 253-04-28 E-mail: slivkin@pharm.vsu.ru

FACULTY OF PHYSICS

Dean **Oleg OVCHINNIKOV**
Phone: +7 (473) 220-83-96 E-mail: ovchinnikov@phys.vsu.ru

FACULTY OF PHILOLOGY

Dean **Zhanna GRACHEVA**
Phone: +7 (473) 220-41-38 E-mail: gracheva@phil.vsu.ru

FACULTY OF CHEMISTRY

Dean **Viktor SEMYONOV**
Phone: +7 (473) 220-87-97 E-mail: semenov@chem.vsu.ru

FACULTY OF ECONOMICS

Dean **Pavel KANAPUKHIN**
Phone: +7 (473) 234-90-51 E-mail: kanapukhin@econ.vsu.ru

FACULTY OF LAW

Dean **Yuriy STARILOV**
Phone: +7 (473) 255-84-86 E-mail: starilov@law.vsu.ru

INTERNATIONAL EDUCATION INSTITUTE

Director **Vladimir RODIONOV**
Phone: +7 (473) 266-33-50 E-mail: rodionov@interedu.vsu.ru

POST-GRADUATE VOCATIONAL EDUCATION INSTITUTE

Director **Svetlana KLINOVA**
Phone: +7 (473) 252-42-82 E-mail: klinova@econ.vsu.ru

GEOLOGY RESEARCH INSTITUTE

Director **Konstantin SAVKO**
Phone: +7 (473) 222-64-19 E-mail: ksavko@geol.vsu.ru

MATHEMATICS RESEARCH INSTITUTE

Director **Viktor ZVYAGIN**
Phone: +7 (473) 220-86-57 E-mail: zvg@math.vsu.ru

SOCIAL AND POLITICAL STUDIES INSTITUTE

Director **Dmitriy ZHABIN**
Phone: +7 (473) 259-26-95 E-mail: zhabin@vsu.ru

PHYSICS RESEARCH INSTITUTE

Director **Anatoliy CHURIKOV**
Phone: +7 (473) 220-83-30 E-mail: churikov@niif.vsu.ru

CHEMISTRY AND PHARMACY RESEARCH INSTITUTE

Director **Vladimir SELEMENEV**
Phone: +7 (473) 220-83-62 E-mail: common@chem.vsu.ru

BORISOGLEBSK BRANCH

Director **Igor SVERTKOV**
Phone: +7 (473) 546-04-92 E-mail: directorate@bsk.vsu.ru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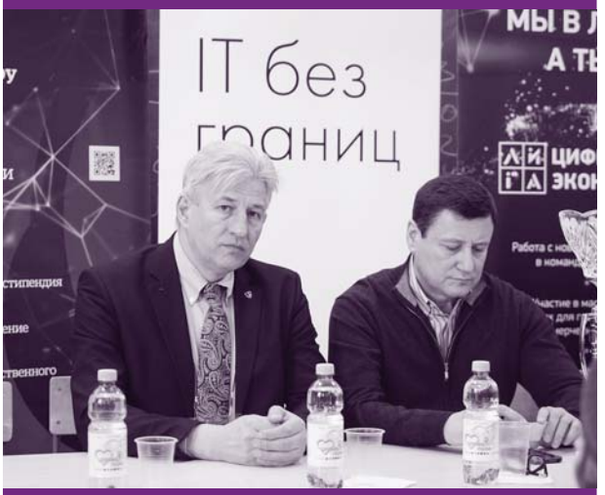
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UNIVERSITY STRATEGIC DEVELOPMENT

3

3

UNIVERSITY STRATEGIC DEVELOPMENT

Yury BUBNOV,
Vice Rector for Strategic Administrative Management

3.1. TASKS AND EVENTS AS PART OF VSU'S STRATEGY

The university's strategic development programme is underpinned by the documents issued by the Ministry of Science and Higher Education, as well as the regional development strategy. The purpose of the programme is to develop the university to attain a leading role in the Russian Federation and at the international level. Like any major document, the development strategy is elaborated by a working group consisting of the heads of the main departments of the university.

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 No. 7 of 29 September 2017).
- The Program of VSU's transformation into Voronezh Regional University Centre for Innovative, Technological, and Social Development (approved on 26 September 2017; the status obtained on 14 December 2017).
- The "road map" 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 Project Map (revised annually).

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

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

The key tasks and events are:

1. Modernizing higher education academic programmes:

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

2. Developing further education programmes:

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

In 2020, 15 new further education programmes were opened.

3. Intensifying pre-university training and social work:

- Supporting and developing student and graduate communities.
- Implementing educational projects for schoolchildren and the general public.
- Finding, supporting, and attracting talented students to study at VSU; implementing social projects and initiatives.

4. Enhancing research output:

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

5. Integrating with the regional system of innovative development:

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

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

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

The tasks and event for the 2017–2020 strategic development are detailed in the program for VSU's transformation into Voronezh Regional University Centre for Innovative, Technological, and Social Development.

3.2. ACHIEVEMENT OF TARGET PARAMETERS IN 2020

The VSU Strategy, approved by the Academic Council on 29 September 2017, sets the university's development indicators until 2030. Table 3.1 presents the key performance indices in the reporting year of 2020 compared to 2018–2019, as well as those planned for 2020.

Table 3.1

KEY INDICATORS OF VSU'S DEVELOPMENT IN 2020

Type	2018 (factual)	2019 (factual)	2020 (factual)	2021 (planned)
Educational activity				
The number of students enrolled in bachelor's, specialist's, and master's degree programmes	17,289	17,532	16,470	18,100
The total number of postgraduate students	634	558	544	580
The percentage of students in master's degree and postgraduate programmes in the total number of the given contingent, %	20	18	16	21
The percentage of international students enrolled in bachelor's, specialist's, and master's degree programmes, in the given contingent, %	3.4	3.84	5.6	6.1
The percentage of international postgraduate students, %	11.8	11.8	12.3	10.5
The number of winners of national and international academic contests who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes	1	1	1	3
Scientific Research and Innovative Activity				
The total amount of R&D in the reporting year, million roubles	282.4	293.5	220.5	270
Income from R&D per faculty member, thousand roubles	188.9	199	170.4	195.4
Total amount obtained in the reporting year from the Russian state foundations supporting scientific and technical research and innovations, million roubles	84.9	121.81	121.05	95
The number of publications in Web of Science in the reporting year per 100 academic staff members	21.07	24.34	24.26	20.6
The number of publications in Scopus in the reporting year per 100 academic staff members	26.89	31.25	40.65	28.9
The number of citations of the publications issued in the last five years, indexed in Web of Science in the same period	2564	2777	3562	2400
The number of citations of publications issued in the last five years, indexed in Scopus in the same period	3150	3525	3605	3050
The number of publications made in collaboration with foreign scholars, according to Web of Science and Scopus, in the reporting year	83	85	89	75
The number of doctoral and PhD dissertations defended at VSU dissertation boards	101	94	53	130
University staff members				
The total number of the regular FTE staff members as of the end of the reporting period	1408	1409	1294	1282
The total number of regular academic staff members as of the end of the reporting period	87	66	48	100
The share of the academic staff members having a PhD or a DSc degree, %	75	75.14	73.68	77
The share of foreign citizens as a percentage of the total number of academic staff members, %	0.07	0.07	0.14	0.5
The number of academic staff members who are foreign citizens	1	1	2	6

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 output.

It should be noted that there was a significant reduction in the total number of regular academic staff members as of the end of the reporting year, which is indicative of a decrease in the number of grants obtained by our faculty members (possible reasons: low interest in this kind of work, increasingly complicated procedures of obtaining grants, a decrease in our employees' qualifications).

Some indicators for 2020 dipped slightly, which can be explained by the coronavirus situation, as well as a decrease in funding for projects from state funds and commercial structures.

3.3. VSU's PERFORMANCE IN INTERNATIONALAND 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 POSITIONS IN NATIONAL AND INTERNATIONAL RANKINGS

Name of the ranking	2020*
Interfax National University Rating:	24
Education	8
Research	24–25
Socialisation	40–42
Internationalization	41
Brand	34
Innovations	69
International ranking of the best universities published by Forbes	31
Russian universities' inventive activity rating ("Expert RA")	36
Russian universities' publication activity rating ("Expert RA")	
Chemical technology	31–33
Chemistry	29
Mathematics	31–34
Hospital expenses	36–38
Materials Sciences: Metallurgy	27
Top-100 universities ("RA Expert")	43
Education quality	44
Employers' demand for graduates	65
Research	28
The final rating of "entrepreneurial" universities of the *RA Expert* analytical centre	36
Ranking of most demanded universities of the Russian Federation: classical universities (*Rossiya Segodnya* social navigator)	42
"National Recognition" rating of Russian universities: the best universities in 2020	26
Top Russian universities, according to Vladimir Potanin Foundation	70
International ranking "Three university missions"	1201–1300
Ranking of Russian universities by the salaries of young specialists, according to Superjob:	
Economics universities	15
Law universities	8
The ranking of English-language versions of Russian universities' websites	24
The rating of the most popular universities in the Russian Federation (Ministry of Education of the People's Republic of China)	15
Academic Ranking of World Universities (ARWU)	1001+
Quacquarelli Symonds (QS): BRICS	139
Quacquarelli Symonds (QS): Emerging Europe & Central Asia	160
The best universities in Eurasia	61–70
Times Higher Education (THE) World University Ranking	1001+

End of table 3.2

Times Higher Education (THE) World University Ranking by subject: physical sciences	1001+
Times Higher Education (THE) World University Ranking by subject: engineering sciences	1001+
Times Higher Education (THE) BRICS & Emerging Economies University Rankings	401–500
Times Higher Education (THE) Best Universities in Europe	412
Times Higher Education (THE) University Impact Rankings	301-400
No Poverty	101-200
Good Health and Well-being	401-600
Quality Education	401-600
Gender Equality	301-400
Clean Water and Sanitation	201-300
Affordable and Clean Energy	101-200
Decent Work and Economic Growth	101-200
Industry, Innovation and Infrastructure	201-300
Reduced Inequalities	301-400
Sustainable Cities and Communities	301-400
Responsible Consumption and Production	201-300
Climate Action	201-300
Life on Land	101-200
Peace, Justice and Strong Institutions	101-200
Partnership for the Goals	401-600
SCImago Institutions Ranking (SIR)	741
University Ranking by Academic Performance (URAP)	2681 (RF: 36)
Webometrics Ranking of World Universities	2094 (RF: 34)
Webometrics Transparent Ranking: Top Universities by Google Scholar Citations	2659 (RF: 30)
UniRank World Universities	1216 (RF: 23)
Round University Ranking (RUR)	671 (RF: 38)
Life Sciences	480 (RF: 18)
Medical Sciences	530 (RF: 22)
Natural Sciences	611 (RF: 37)
Social Sciences	619 (RF: 36)
Humanities	508 (RF: 24)
Technical Sciences	565 (RF: 24)
Round University Ranking (RUR) Reputation Ranking	587 (RF: 30)
Round University Ranking (RUR) Academic Ranking	718 (RF: 46)
UI GreenMetric World University Ranking	232 (RF: 5)
Academic Ranking of World Universities – European Standard (ARES)	AA
Worldwide Professional University Ranking (RankPro)	532 (RF: 22)

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

3.4. 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 order to ensure systematic, standardized monitoring of education and the dynamics of changes in its results, as well as the conditions for educational activities. According to the results of the performance monitoring in 2019, Voronezh State University was included in the group of institutes that achieved at least 4 performance indicators (Table 3.3, Figure 3.1).

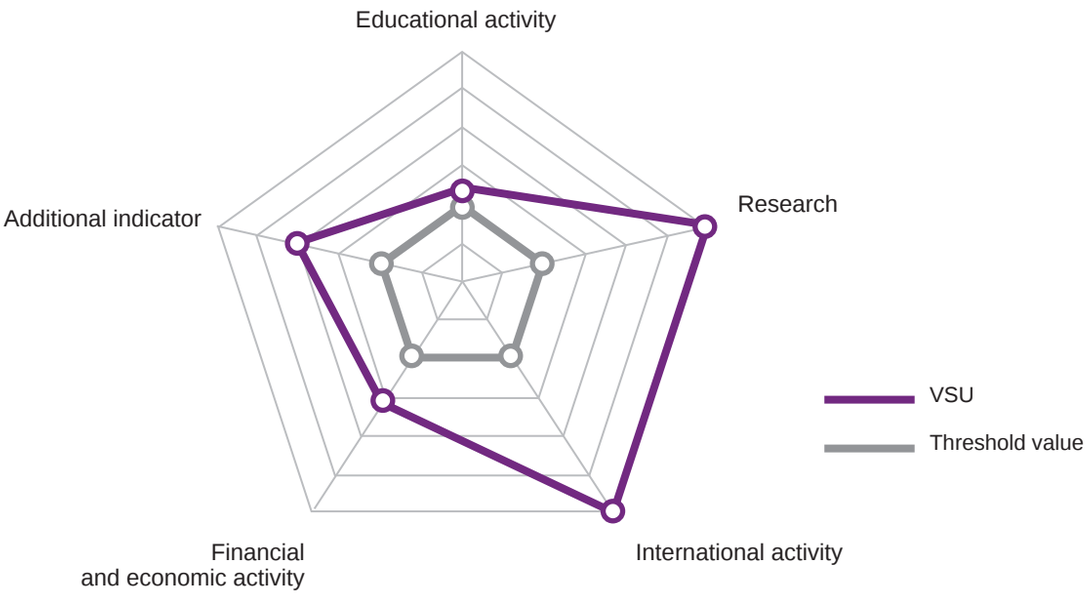
Table 3.3

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

No.	Name of the indicator	Values	Threshold value	Prior Year Adjustment
E.1	Educational activity	68.24	60	+1.5% (67.21)
E.2	Research	187.66	51.28	+13.6 % (165.26)
E.3	International activity	3.74	1.	–3.9 % (3.89)
E.4	Financial and economic activity	2056.38	1327.57	+18.1 % (1741.35)
E.5	Salary of the academic staff members:	209.56	N/A	+14.9 % (182.31)
E.8	Additional indicator	5.51	2.78	–3.0 % (5.68)

Figure 3.1

VSU's POSITION COMPARED TO THE THRESHOLD VALUES



The results of the effectiveness monitoring clearly indicate the high quality of education, as well as effective innovation and research activities.

3.5. HUMAN RESOURCES

Vice-Rector for Strategic Administrative Management Yu. Bubnov defines the basic principles of the university development policy, coordinates and controls the university staffing, optimizes the university's management system, manages the development and implementation of strategic programs aimed at the effective implementation of internal and external policy of the university.

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.
- Creating a continuous system of professional development and improvement of the mechanisms for organizing professional retraining and advanced training of university employees.
- Forming the university's personnel reserve and making efficient use of it.
- Introducing methods for talent management at the university using information technologies and automated systems.
- Creating a psychologically comfortable environment in the workplace.

Key quantitative characteristics of the University's staff members supply as of 31 December 2020 (figures 3.2, 3.3):

- total number of employees **2,803 people**

Of them:

- 1504 academic staff
- 688 educational support personnel
- 157 scientific and engineering personnel
- 166 operating personnel
- 288 administrative and managerial staff

Figure 3.2

TOTAL NUMBER OF STAFF MEMBERS IN 2018–2020

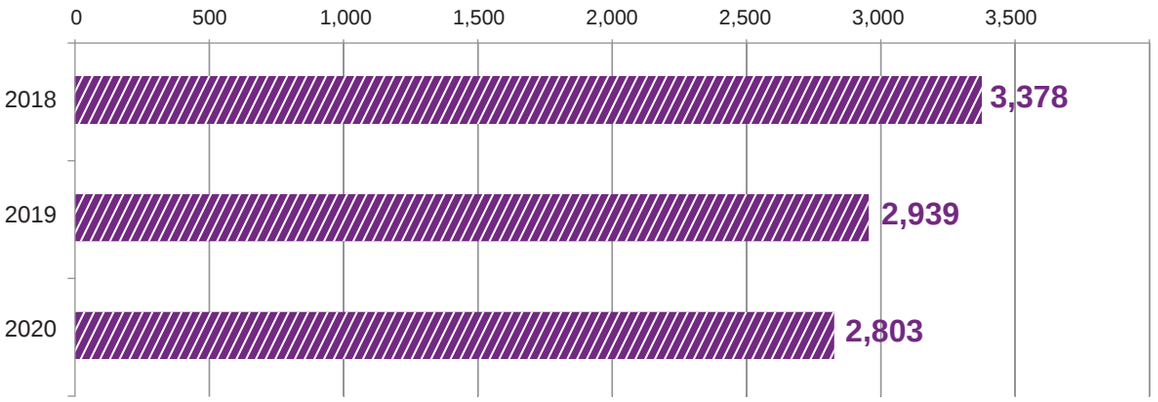
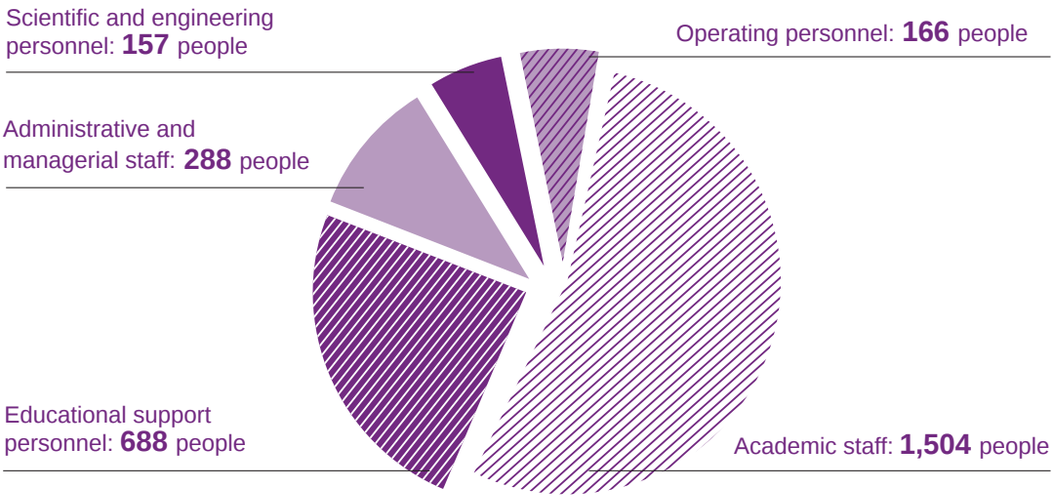


Figure 3.3

COMPARISON OF THE NUMBERS OF STAFF MEMBERS BY FUNCTION IN 2020



Quantitative and qualitative indicator dynamics in the university staff composition in total in 2018–2020 is shown in table 3.4.

Table 3.4

NUMBER AND COMPOSITION OF THE UNIVERSITY PERSONNEL IN 2018–2020

The university staff composition	2018	2019	2020
Total number of employees	**3,378**	**2,939**	**2,803**
Academic Staff	1,510	1,473	1,504
Including:			
total number of staff with a degree	1,134	1,102	1,101
DSc	300	293	283
PhD	834	809	818
Educational support personnel	748	707	688
Administrative and managerial personnel	301	302	288
Scientific and engineering personnel	219	203	157
Operating personnel	600	254	166

The analysis of the composition of the university staff demonstrates that 73.2% of the total number of the academic staff members have an academic degree (1,101 people). There are 283 staff members with a DSc degree (19%). 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

THE COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS IN 2018–2020

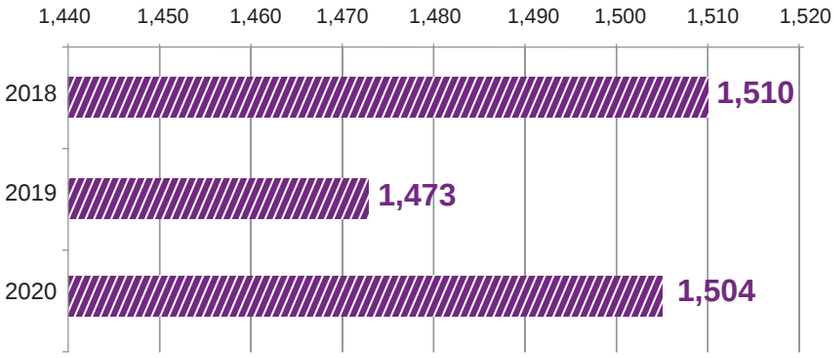


Figure 3.5

THE DISTRIBUTION OF THE ACADEMIC STAFF BY POST AS OF 1 JANUARY 2021

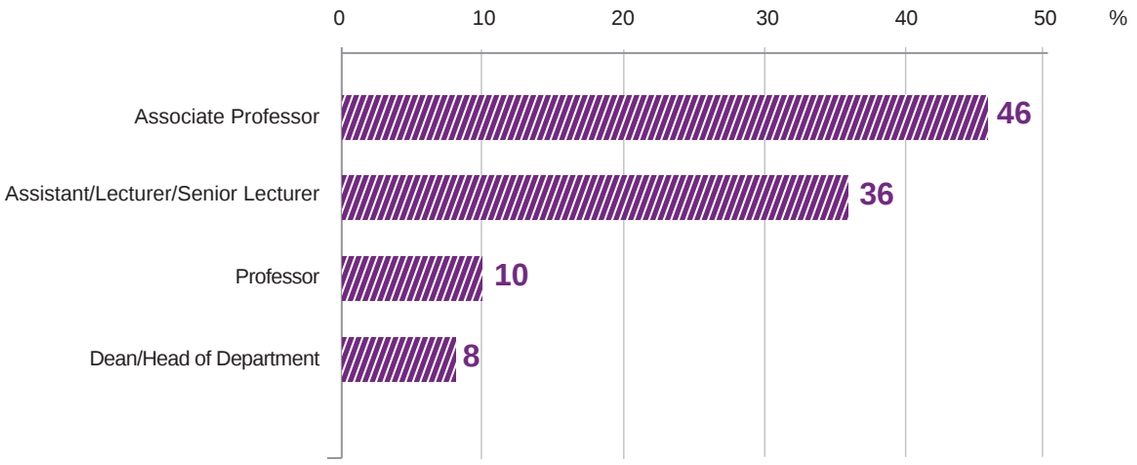


Figure 3.6

DISTRIBUTION OF THE NUMBER OF TEACHING STAFF BY ACADEMIC DEGREE

Figure 3.7

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITY-WIDE DEPARTMENTS AS OF 1 JANUARY 2021

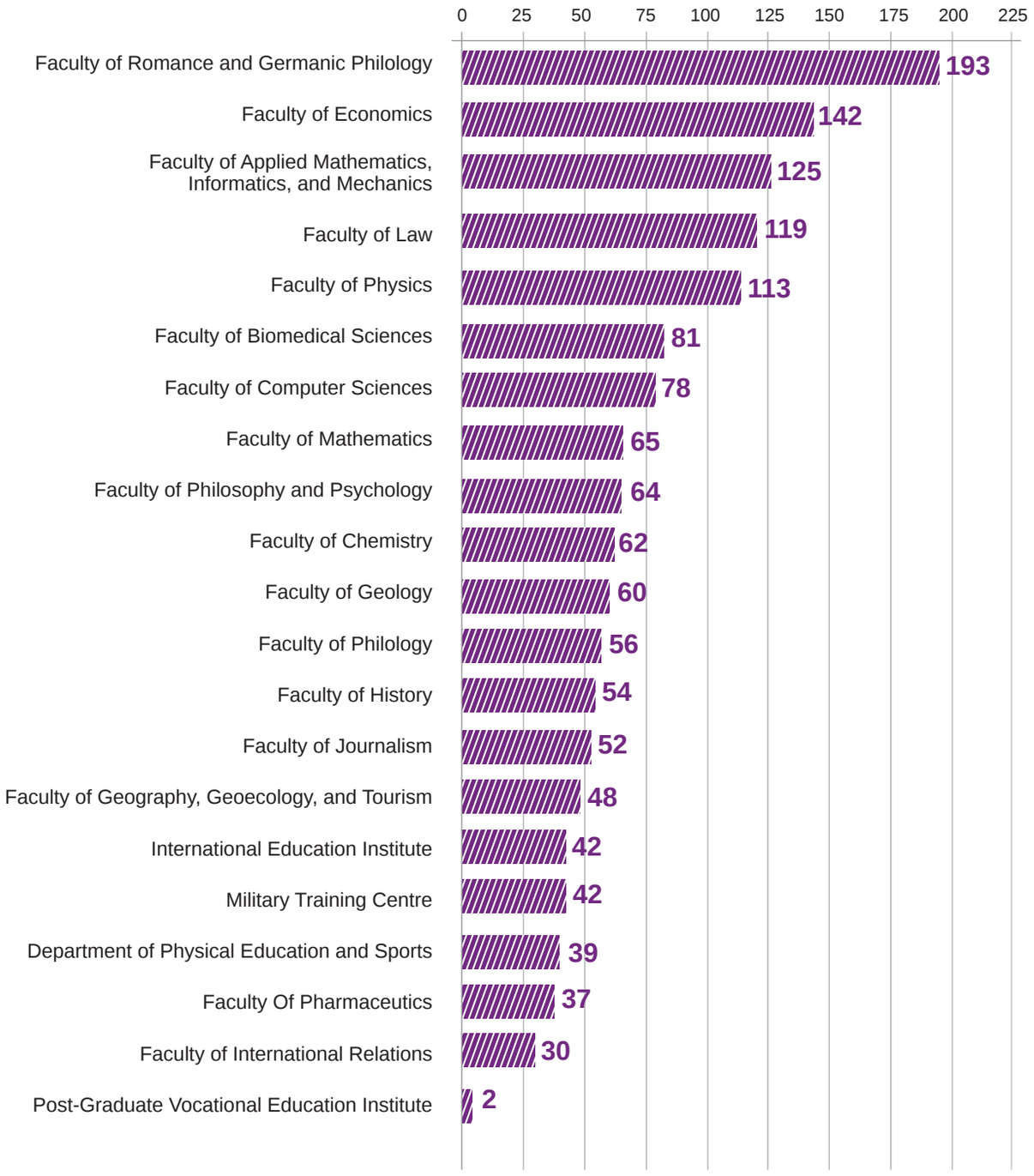


Figure 3.8

COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS, WORKING FULL-TIME AND PART-TIME IN 2020

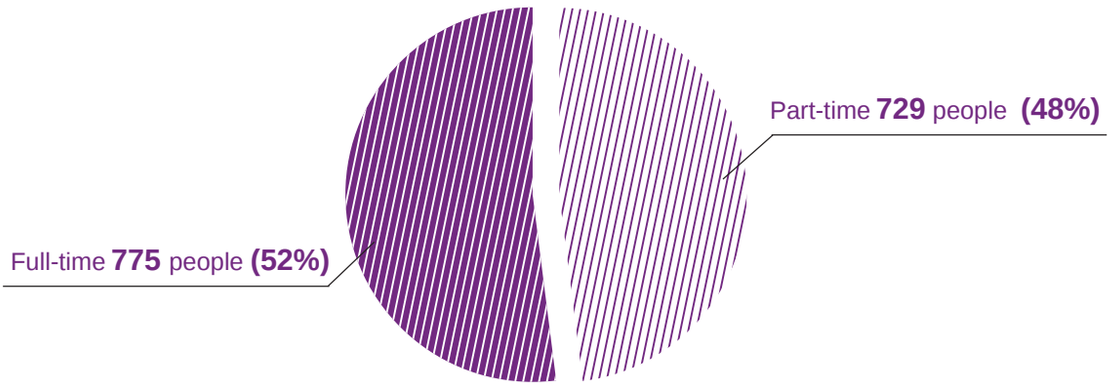


Table 3.5

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITY-WIDE DEPARTMENTS AS OF 1 JANUARY 2021

Structural subdivision	The number of academic staff members	
	Total	Full-time
Military Training Centre	42	41
Faculty of Geology	60	11
Post-Graduate Vocational Education Institute	2	–
International Education Institute	42	41
Faculty of History	54	27
Department of Physical Education and Sports	39	36
Faculty of Mathematics	65	24
Faculty of Biomedical Sciences	81	46
Faculty of Geography, Geoecology, and Tourism	48	26
Faculty of Journalism	52	26
Faculty of Computer Sciences	78	37
Faculty of International Relations	30	16
Faculty of Applied Mathematics, Informatics, and Mechanics	125	49
Faculty of Romance and Germanic Philology	193	102
Faculty of Philosophy and Psychology	64	29
Faculty Of Pharmaceutics	37	25
Faculty of Physics	113	41
Faculty of Philology	56	16
Faculty of Chemistry	62	20
Faculty of Economics	142	80
Faculty of Law	119	82
Total	1504	775

Table 3.6

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

Structural subdivision	Total number of people	PhD, %	DSc, %
Military Training Centre	42	9.5	0.0
Faculty of Geology	60	63.3	23.3
Post-Graduate Vocational Education Institute	2	50.0	0.0
International Education Institute	42	40.5	2.4
Faculty of History	54	63.0	25.9
Department of Physical Education and Sports	39	5.1	0.0
Faculty of Mathematics	65	52.3	23.1
Faculty of Biomedical Sciences	81	63.0	23.5
Faculty of Geography, Geoecology, and Tourism	48	66.7	14.6
Faculty of Journalism	52	67.3	15.4
Faculty of Computer Sciences	78	48.7	16.7
Faculty of International Relations	30	70.0	20.0
Faculty of Applied Mathematics, Informatics, and Mechanics	125	54.4	22.4
Faculty of Romance and Germanic Philology	193	48.7	9.3
Faculty of Philosophy and Psychology	64	56.3	23.4
Faculty Of Pharmaceutics	37	45.9	8.1
Faculty of Physics	113	61.1	28.3
Faculty of Philology	56	58.9	25.0
Faculty of Chemistry	62	51.6	41.9
Faculty of Economics	142	60.6	20.4
Faculty of Law	119	63.9	17.6

Table 3.7

AGE AND ACADEMIC DEGREE OF THE ACADEMIC STAFF MEMBERS

Age / Degree	Total	under 35	36 to 50	51 to 70	over 70
Total	**1,504**	**307**	**587**	**451**	**159**
Among them:					
Have a DSc degree	283	1	59	147	76
Have a PhD degree	818	131	406	215	66

Table 3.8

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

Structural subdivision	2018		2019		2020	
	Total number of people	average age, years	Total number of people	average age, years	Total number of people	average age, years
Military Training Centre	33	50	37	51	42	49.8
Faculty of Geology	58	50	57	52	60	51.1
Post-Graduate Vocational Education Institute	2	56	2	57	2	58.0
International Education Institute	42	50	48	46	42	46.4
Faculty of History	59	49	56	50.7	54	49.6
Department of Physical Education and Sports	40	50	41	50	39	50.3
Faculty of Mathematics	62	51	62	52.3	65	50.8
Faculty of Biomedical Sciences	81	48	85	49.7	81	48.8
Faculty of Geography, Geoecology, and Tourism	47	49	47	48.7	48	49.3
Faculty of Journalism	53	50	52	49.3	52	50.3
Faculty of Computer Sciences	72	47	76	46.5	78.	45.8
Faculty of International Relations	31	45	30	45.7	30	46.7
Faculty of Applied Mathematics, Informatics, and Mechanics	126	48	122	49.5	125	48.4
Faculty of Romance and Germanic Philology	200	46	183	47.3	193	46.9
Faculty of Philosophy and Psychology	51	50	53	49.9	64	49.2
Faculty Of Pharmaceutics	37	42	34	41.6	37	40.1
Faculty of Physics	126	55	125	54.5	113	54.3
Faculty of Philology	58	51	49	53.9	56	52.4
Faculty of Chemistry	62	53	61	52.8	62	51.4.
Faculty of Economics	152	48	145	48.8	142	49.6
Faculty of Law	109	45	108	46.2	119	45.6

The analysis of the age of the academic staff members in 2018-2020 demonstrates that the average age of the academic staff members in the University as a whole is:

- As of 31 December 2018, 49.0, whereas the percentage of employees at retirement age is 32.3%.
- As of 31 December 2019, 49.4, whereas the percentage of employees at retirement age is 31.0%.
- As of 31 December 2019, 48.9, whereas the percentage of employees at retirement age is 28.3%.

3.6. INFORMATION ON LEASES

In 2020, the Strategic Development Department continued to work on leasing federal real estate objects that are not used in educational activities, in order to ensure comfortable living conditions for students and university employees, as well as to optimize the property complex and attract additional extra-budgetary funds.

Over the past year, an assessment was carried out on the transfer of property for lease regarding 15 projects approved by the Ministry of Education and Science of Russia and TU Rosimushchestvo of the Voronezh Region. Since the beginning of 2021, lease agreements have been signed for all of them.

In the reporting period, the income obtained from the federal real estate amounted to 5,190,706 roubles, which is lower than in previous years, due to the coronavirus pandemic, as well as decrees of the Ministry to support small businesses during the pandemic by reducing rental payments, which may be clearly seen in the dynamics of rental payments in Figures 3.9 and 3.10.

Figure 3.9

MONTHLY PAYMENTS IN 2020

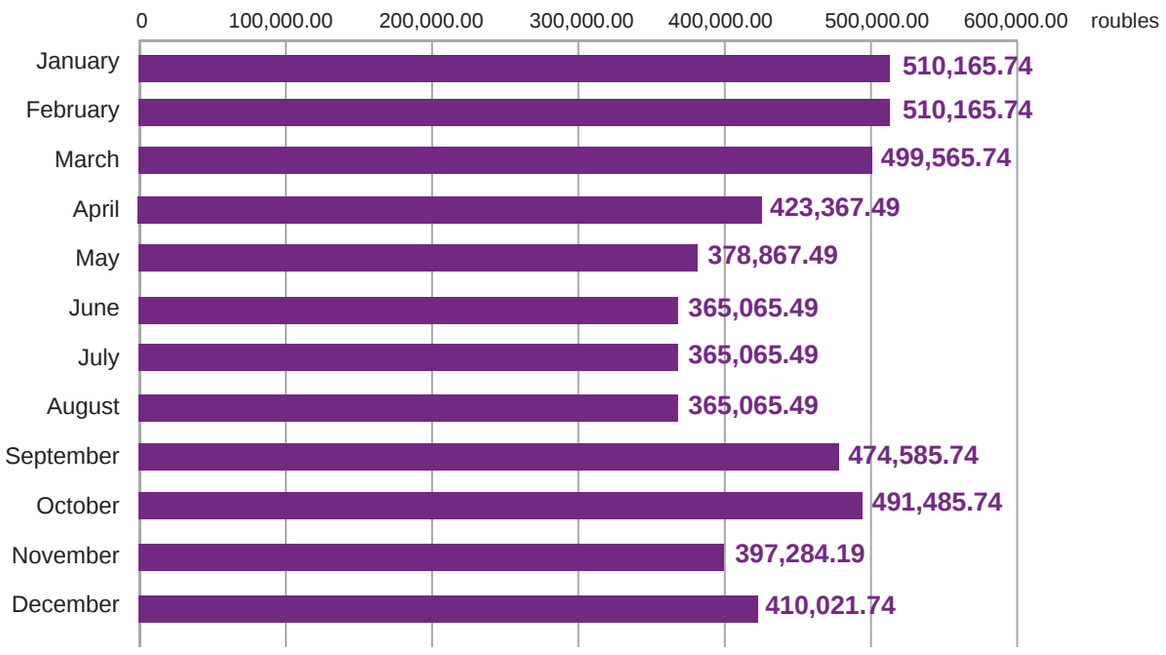
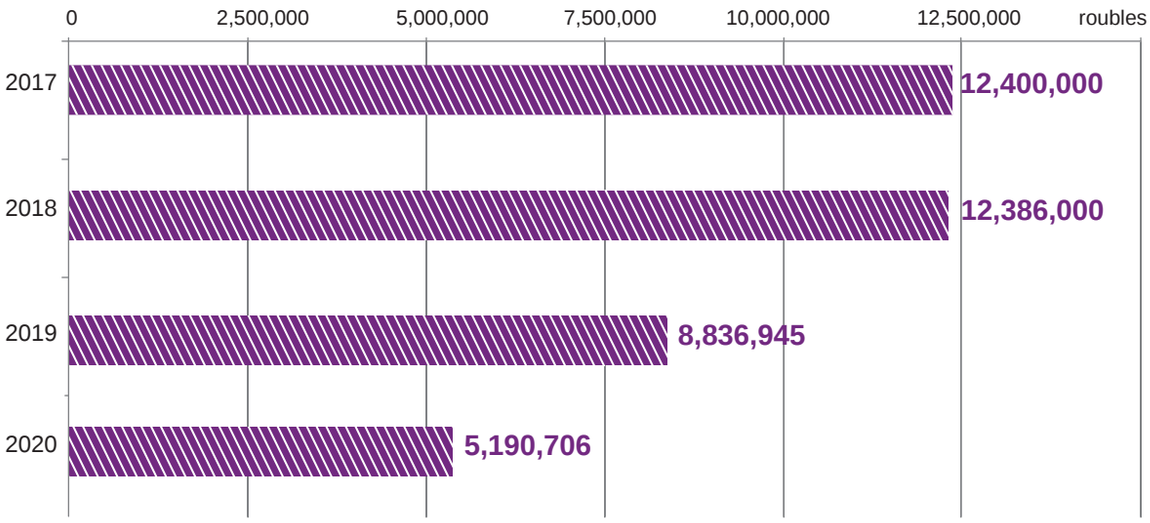


Figure 3.10

INCOME FROM THE PROPERTY COMPLEX IN THE LAST 4 YEARS



The income is used not only for the maintenance of the federal property, but also for updating the university facilities.

Therefore, the university has a dynamic approach to developing its leases, taking into account the needs of students and university employees, ensuring permanent control over the quality of goods and services provided by the tenant and striving to make use of the areas not involved in the educational process in full compliance with the current regulatory framework. In 2021, all appraised leases are being implemented.

3.7. 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:

- Voronezh State University.
- VSU Alumni Association.
- Alexander A. Sokolov, Vice Rector for Building Operation and Capital Development, member 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.
- Evelina P. Domashevskaya, Head of the Department of Solid-State Physics and Nanostructures of VSU.
- Olga Uryvskaya, Chief Accountant of VSU.
- Gennadiy V. Chernushkin, Founder of Angstrem Group.

The Fund's Board of Trustees:

- Alexandra V. Glukhova, Head of the Department of Sociology and Politology.
- Dmitriy R. Lapygin, Director of Economic Affairs of OOO RET.
- Nadezhda Mazalova, General Director of OOO *Region-Terminal*, VSU graduate.
- Andrey Markov, Deputy of the State Duma of the Federal Assembly of Russian Federation, VSU graduate.
- Sergey V. Sokolinsky, Head of the Voronezh regional division of the Association of young businessmen.
- Evgeniy V. Yurchenko, Chairman of A.S. Popov Investment Fund.

Director of the VSU Endowment Fund

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

The endowment's assets are under trust in OAO *Gazprombank – Assets Management*.

The mission of the Fund is to bring together students, alumni, and other interested parties in order to resolve the tasks most relevant for the university, which are primarily related to supporting social initiatives aimed at the development of the university.

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

- Providing grants to young scholars; covering their research and internship costs.
- Providing grants to VSU's leading scientists.
- Personalized retirement benefits to VSU's outstanding lecturers and scholars.
- 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.
- Developing VSU's Botanical Garden, VSU's biocentre, the Venevitinovo recreation facility, and the Galichya Gora nature reserve;
- Creating leisure facilities for VSU students and staff members.
- Enhancing university facilities.
- Other uses (in compliance with the VSU development strategy and the objectives set by the Charter of the Fund).

The market value of the assets constituting the endowment at the end of 2020 was 29,661.5 thousand roubles.

The revenue from the discretionary management of the VSU Endowment Fund in 2020 was 7.83%, i.e. 2,559,300 roubles in absolute terms.

The remuneration of AO Gazprombank – Assets Management in 2020 was 255.9 thousand roubles.

Table 3.9

VSU ENDOWMENT FUND VALUE AND CONTRIBUTIONS

Parameters \ Year	2015	2016	2017	2018	2019	2020
Net asset value by the end of the year, thousand roubles	17,248	18,647	24,294.6	26,386.1	29,958.2	29,661.5
The revenue from discretionary management, thousand roubles	2,735	1,565	1,850.3	1,721.7	3,524.6	2,559.3
Annual effective yield, %	22	10.5	11.11	6.72	13.25	7.83
Inflation, % (according to the Russian Federal State Statistics Service)	13	5.4	2.5	4.3	3	4.9
Augmentation of the endowment, thousand roubles	1,617.8	596.7	7,536.3	388.3	119.9	13.221
Amount of contribution, thousand roubles	360.1	707.8	1,404.4	1,850.3	–	2,500.0

The main directions of activity and development of the VSU Endowment Fund are determined by the decisions of the University Board of Trustees and the Endowment Fund Board of Trustees.

When conducting university events involving the Fund, the emphasis was placed on popularization, transparency of the Fund's activities aimed at increasing its capital, and accordingly, expanding the financial opportunities for the implementation of the main areas of activity.

In 2020, the endowment income was transferred to its founder. The endowment income at the end of 2019 was fully capitalized.

The strategic objectives of the Fund for 2021 and the future remain unchanged, and include primarily: stimulating scientific, creative, and other socially significant initiatives of students; providing grant support to talented youth; helping our veterans; developing the infrastructure and a comfortable environment for students and university staff.

Main events of 2021:

- Redecorating university buildings.
- Redecorating the residence halls.
- Establishing a coworking centre in order to improve the university's image, create opportunities for searching and gaining new knowledge and skills.

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


Среднее профессиональное образование

EDUCATION

4

4 EDUCATION

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

4.1. THE MAIN OBJECTIVES OF THE UNIVERSITY ACADEMIC POLICY IN 2019/20

1. Anticipatory training of highly qualified professionals with due account to the top priority areas and the demands in the Voronezh Region.
2. The development of the electronic information educational environment and its integration into the educational environment of the Russian Federation.
3. Achieving at least 7% of foreign students on the pre-study courses and higher education programmes.

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

In the reporting period, VSU's pre-university work was carried out in several key areas. The distinctive feature of the reporting period was that most of the events were held remotely.

4.2.1. COLLABORATION WITH OTHER EDUCATIONAL ORGANISATIONS

The collaboration with other educational organisations included:

- E-mail correspondence with pre-school organisations (8), further education institutions (27), colleges (16), and schools from Voronezh and the Voronezh, Lipetsk, Orel, Tambov, Rostov, Kursk, Belgorod, and Moscow Regions (1,105 schools).
- E-mail correspondence with schoolmasters, deputy schoolmasters for pupil affairs, subject teachers, educational psychologist, young teachers (980), parents (132), heads of school libraries (21), heads of school scientific societies formed in educational institutions and establishments of further education in Voronezh and the Voronezh Region (176), and authorised representatives from seven municipal districts of the Voronezh Region.

- Organisation and holding events, including online, in collaboration with the Department of Education, Science, and Youth Policy of the Voronezh Region and the Department of Education and Youth Policy of the Voronezh Government (22) and with the heads of municipal districts of the Voronezh Region (41).
- Participation of vice-deans for the pre-university work in teacher-parent meetings at schools, collaborative events, and school scientific societies; organisation of open lectures by VSU researchers, as well as various festivals, master classes, and competitions, such as “With Books We Grow”, “Rhetoric Festival”, the reading competition “The Most Literate”, a poetry workshop, festivals of the Russian language at schools and kindergartens, local history lessons, schools of young specialists, Lyceum Days, etc.
- Holding online the 18th Scientific Conference of the Scientific Society “A Path into the World of Science” (lyceum No. 1) (480), “Women’s Intellectual Marathon” (96), and the digital tournament school 2020.

4.2.2. EDUCATIONAL PROJECTS FOR SCHOOLCHILDREN AND THE GENERAL PUBLIC

The university continued to implement the following educational projects for schoolchildren and the general public:

1. The project “A Large University for a Large City”. 28 popular science lectures by university researchers were held in the “Amital” book supermarkets (about 85 thousand views on VKontakte page: https://vk.com/amitalnapushkinskoi).
2. An educational project “Health Triangle” (13 meetings, over 9,000 views of video broadcasting on the VKontakte page: https://vk.com/amitalnapushkinskoi).
3. Interregional project of Voronezh and Rostov departments of the National Public Educational Organisation “Russian Foundation “Znaniye”” with the participation of Voronezh State University (Department of Pre-University Training and Enrolment of Students), Rostov State Economic University, and Chekhov Taganrog Institute (branch): National Educational Contest “A Day in Russian History” dedicated to the topic “Yury Gagarin’s space flight and its impact on the society, family memories, and individual perception”. The event was held at educational organisations of Voronezh and the Voronezh Region.
4. “Parents’ University”, educational and social project, held at Voronezh schools No. 4 and No. 48 by the Department of Pre-university Education in cooperation with a medical practice institution, children’s out-patient centre No. 11 attached to Voronezh municipal out-patient centre No. 4.

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

A number of innovative projects were completed in the reporting year to implement traditional approaches and new ways of searching for and supporting talented young people:

1. The first regional VSU innovation preaccelerator for schoolchildren “The League of Innovations 4.0” (research areas: Physics and Mathematics, Chemistry and Biology, IT, and Social Entrepreneurship). Partners: GK Informsvyaz-Chernozemye (Freedom) and Biruch-NT Innovation Centre (R&D of GK EFKO), 285 participants in 2020.
2. Mathematical Festival (with the support of the Centre of Pedagogical Excellence (Moscow) and the International School for Talented Children “Letovo”.
3. Career guidance project “VSU for School” for the Family School “Indigo”.

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

In the reporting period, the following events were conducted at the university:

- Multidisciplinary engineering academic competition among schoolchildren “Star” (681 participants in the field of “Natural Sciences”).
- Interregional Physics competition “Future Researchers: The Future of Science” (141 participants).
- Specialised competition for schoolchildren in Physics and Mathematics “Rosatom” (183 participants at the face-to-face stage).

4.2.5. OTHER COMPETITIONS, MARATHONS, CONTESTS, AND TOURNAMENTS

Other events included:

- Engineering academic competition for schoolchildren from Central Russia in Mathematics and Physics (361 participants).
- “Little Star” competition in Mathematics for schoolchildren from forms 1-5 (1,135 participants during the face-to-face stage).
- 10th competition in informatics for schoolchildren (144 participants).
- Interregional open festival of robotics “Roboart-2020” (1,050 participants from 22 Russian regions).
- Academic competition in the theory of informatics (100 participants).
- Competition “Translation Marathon” (16 participants).
- Other events organised by faculties.

4.2.6. CREATIVE EVENTS

The goal of creative events is to shape civic mindedness and provide career guidance to future students, schoolchildren, college students, and general public.

The following events were held in the reporting period:

- Project “Word Territory” and “Let’s Talk Together” (in cooperation with the state TV and radio company “Voronezh”) on “Radio Rossia”.
- Publication of the student newspaper of the Voronezh Law College “Zerkalo” (http://www.law.vrn.ru/index.php/12-osnovnaya-informatsiya/informatsiya-o-tekhnikume/200-arkhiv-zerkala);
- Management of the children’s press centre “Hummingbird” at Novousmansky lyceum (https://vk.com/public191021713).
- “Christmas Meetings” (recreation centre in the settlement Otradnoye in the Novousmansky district jointly with Otradnoye school).
- Music and poetry meeting “Farewell, Christmas Tree” (jointly with Voronezh Actor’s House and Voronezh Art Institute).
- Winter Festival of original song “Parus Nadezhdy”.
- Master class for schoolchildren from the children educational centre “Real School” held at the Children’s Newspaper “V Tsentre”.
- 11th Scientific Conference “Issues of speaking etiquette and modern Russian language through the eyes of schoolchildren – 2020” (jointly with Artamonov School No.36).
- Municipal festival “You and I are Big Friends of Books”.
- Creative master class at the NGO Resource Centre as part of the project “Let’s talk about ourselves”.

- Municipal public youth contest of original poetry “First Attempt at Writing” (online).
- Organising master classes for younger schoolchildren in cooperation with the “Amital” bookshop on Pushkinskaya street.
- National educational online event “National Economic Dictation” dedicated to the topic: “A Strong Economy Means a Prosperous Nation” on the website of National Economic Dictation (www.diktant.org).
- Municipal contest of applied arts master classes “Paraskeva Craftswoman” (jury membership).
- Municipal Media project Contest “Magical City” (jury membership).

4.2.7. ACADEMIC SCIENCE FOR TEACHERS AND FURTHER TRAINING

A separate area of educational work is concerned with providing professional training to school and college teachers. The following training workshops were held for them remotely with the help of the TrueConf program: an overview of TRIZ tools; discussing and exchanging experience of using TRIZ tools in teaching (project activities) by educational organisations; issues of organising project-based learning (76 educational institutions and 386 participants); the regional workshop for teachers “Distance learning as a means of implementing education programmes”; 2nd regional scientific workshop for teachers “School and University: modern forms of interaction in the area of geography and environmental studies”; and the professional contest and regional public marathon of pedagogical hackfests “People. Technologies. Spaces”.

4.2.8. INFORMATIONAL AND CAREER GUIDANCE SUPPORT OF PROSPECTIVE STUDENTS DURING THEIR ENROLMENT TO THE UNIVERSITY’S PROGRAMMES

Several channels were used to disperse information about the rules of university admission. Detailed information concerning the university admissions process and studies was published in online mass media, regional mass media, the Voronezh State University newspaper, and in the reference guide for university entrants “Chance”. It was also broadcast by regional and city radio.

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

Three open days were held at the university:

4) 19 January 2020 (2,646 people).
5) 20–27 April 2020 – a week of online open days.
6) 9–20 November 2020 – Autumn online marathon of open days at VSU (on the official YouTube-channel).

Computer-based testing of 47 schoolchildren was organised at the VSU Testing Centre within the programme “Proforientator” (in collaboration with the Centre of Testing and Development “Humanitarian Technologies” (Moscow)).

A programme of early career guidance “Ticket to the Future” was implemented as part of the national project “Education” within the competencies “Enterpreneurship” and “Tourism”. Among the participants were potential prospective students at VSU who live in Voronezh, Kaliningrad, Moscow, Samara, Saint Petersburg and different regions of the Russian Federation: the Amur, Voronezh, Irkutsk, Kaliningrad, Kranoyarsk, Moscow, Samara, Tomsk, and Tumen Regions, the Krasnodar, Kransoyarsk, Primorsky, and Stavropol territories, and the Republics of Bashkortostan, Buryatia, Komi, North Ossetia-Alania, and Udmurtia.

4.2.9. PRE-STUDY COURSES (ADDITIONAL GENERAL DEVELOPMENT PROGRAMMES)

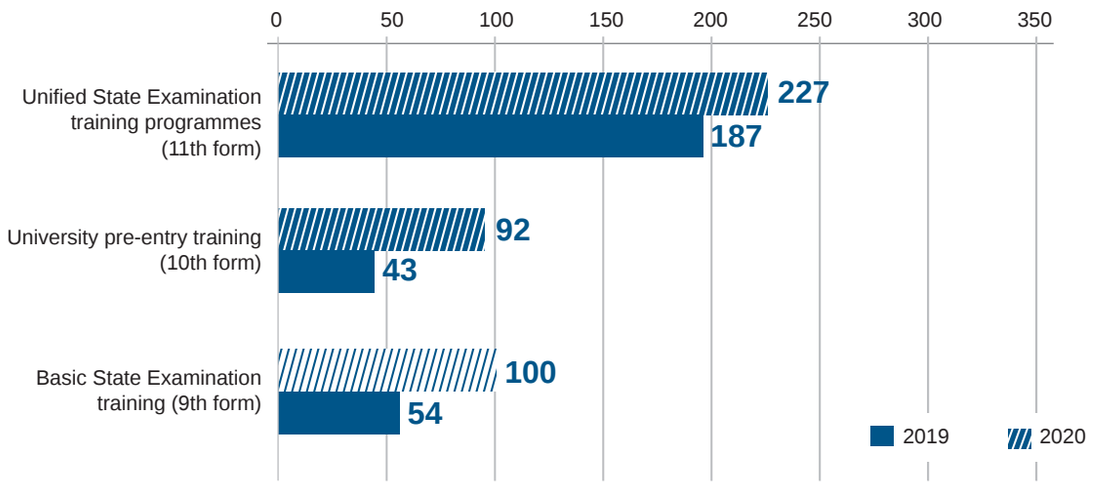
In 2020, 419 people took fee-paying pre-study courses within additional general development programmes aimed at improving the level of proficiency in general subjects and university pre-entry training: “Training for the Unified State Examination”, “Preparation for the Final Essay”, “University Pre-entry Training”, and “Basic State Examination Training” (Fig. 4.1). The training involved using distance learning technologies.

The programme “Preparation for the Final Essay” for 11th form students was completed by 11 people.

In 2020, pre-study courses continued to offer training within the programme “Training for the Unified State Examination at the educational portal “Electronic University VSU”” which is comprised of a series of e-courses. The programme was completed by 6 students.

Figure 4.1

DISTRIBUTION OF STUDENTS BY THE PROGRAMMES OF PRE-STUDY COURSES



The analysis of USE results by the graduates of pre-study courses as well as their matriculation results allows carrying out a qualitative assessment of the training provided on the courses (see Tables 4.1 and 4.2). The results of the qualitative assessment show that the distance format of the pre-study courses affected the mastering of the pre-study programmes.

Table 4.1

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

Subject	2019	2020
Russian Language	80.65	76.02
Mathematics	61.6	62.89
Biology	63.58	55.91
Geography	–	67
Foreign Language (English)	78.23	79.33
Informatics and ICT	70.48	73.98
History	63.57	59.16
Literature	73.15	75.57
Social Studies	63.27	62.09
Physics	64.18	57.03
Chemistry	58.72	55.43

Table 4.2

MATRICULATION RESULTS AT VSU DEMONSTRATED BY THE GRADUATES OF PRE-STUDY COURSES

Faculty	Number of students
Faculty of Geography, Geoecology, and Tourism	2
Faculty of Geology	2
Faculty of Journalism	2
Faculty of History	3
Faculty of Computer Sciences	13
Faculty of Mathematics	4
Faculty of Biomedical Sciences	2
Faculty of International Relations	3
Faculty of Applied Mathematics, Informatics, and Mechanics	25
Faculty of Romance and Germanic Philology	11
Faculty of Pharmaceutics	3
Faculty of Physics	5
Faculty of Philology	3
Faculty of Philosophy and Psychology	2
Faculty of Chemistry	3
Faculty of Economics	12
Faculty of Law	11
Total admitted to VSU	**106**

53 people out of 106 enrolled in state-funded programmes and 53 in fee-paying programmes.

4.3. MAIN RESULTS OF THE 2020 ADMISSION CAMPAIGN

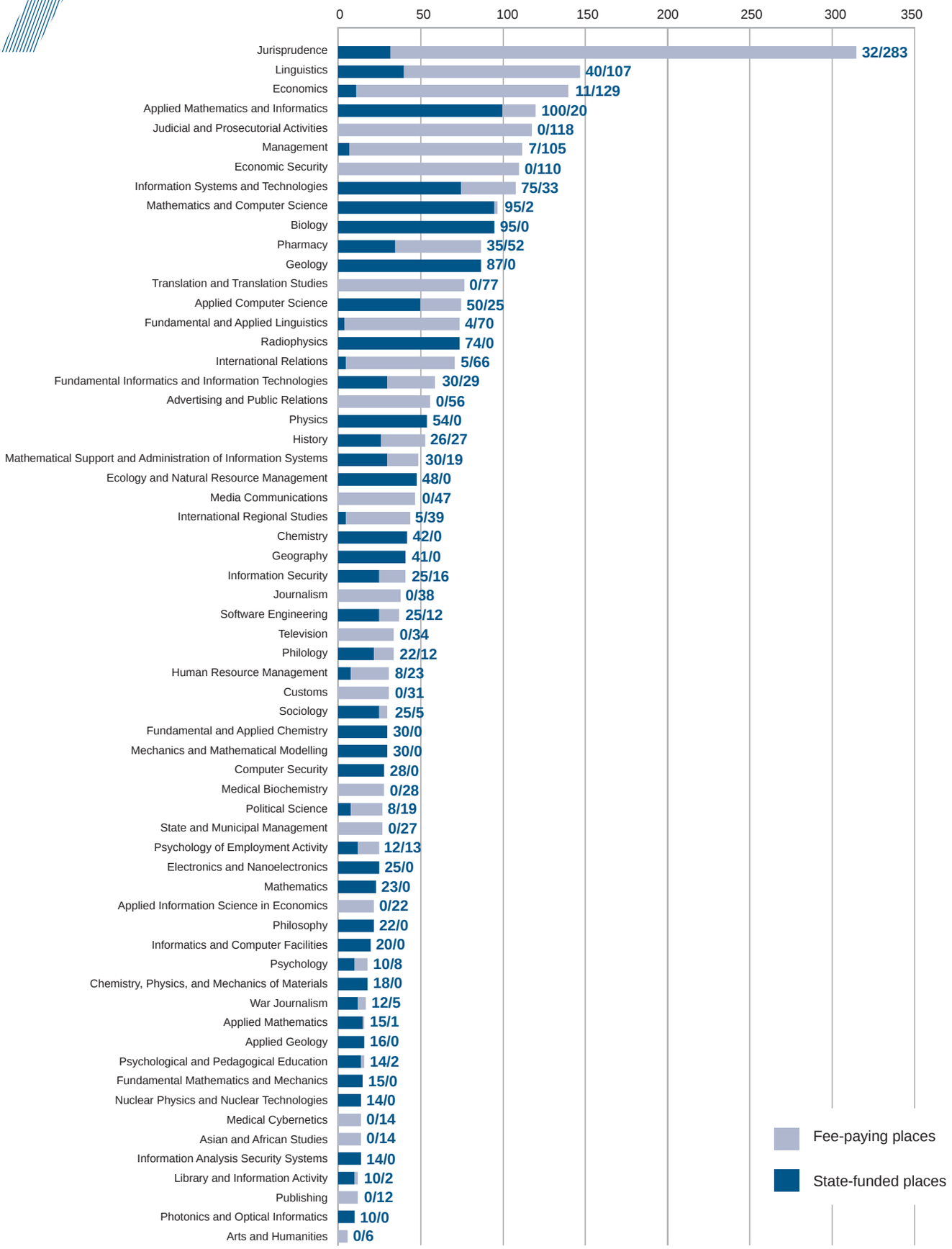
The 2020 admission campaign was held online: the applications and documents necessary to enrol in programmes were submitted by applicants via electronic information system of VSU. Considering the additional target figures in student admissions which were allocated during the admission campaign, Voronezh State University had 2,191 state-funded places for bachelor's, specialist's, and master's programmes, including 2,088 places for full-time programmes.

As is traditional, the most popular programmes among applicants were the specialities of the Faculty of Economics, the Faculty of Law, the Faculty of Computer Sciences, the Faculty of Applied Mathematics, Informatics, and Mechanics. Unfortunately, the speciality "Soil Science" at the Faculty of Biomedical Sciences experienced enrolment difficulties. At the same time, despite unsettling estimates, the university managed to avoid a decrease in the number of first year students enrolled in fee-paying programmes: almost 3,000 people at all degree levels and modes of study were enrolled in fee-paying programmes.

Distribution of the full-time first year students by bachelor and specialist's degree programmes in 2020 is shown in Fig. 4.2.

Figure 4.2

DISTRIBUTION OF THE FULL-TIME FIRST YEAR STUDENTS BY BACHELOR'S AND SPECIALIST'S DEGREE PROGRAMMES AND SPECIALITIES



The number of part-time and extramural students enrolled in bachelor's and specialist's degree programmes has been steadily decreasing. What is more, state-funded places are now available only for part-time programmes (Fig. 4.3–4.4).

Figure 4.3

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

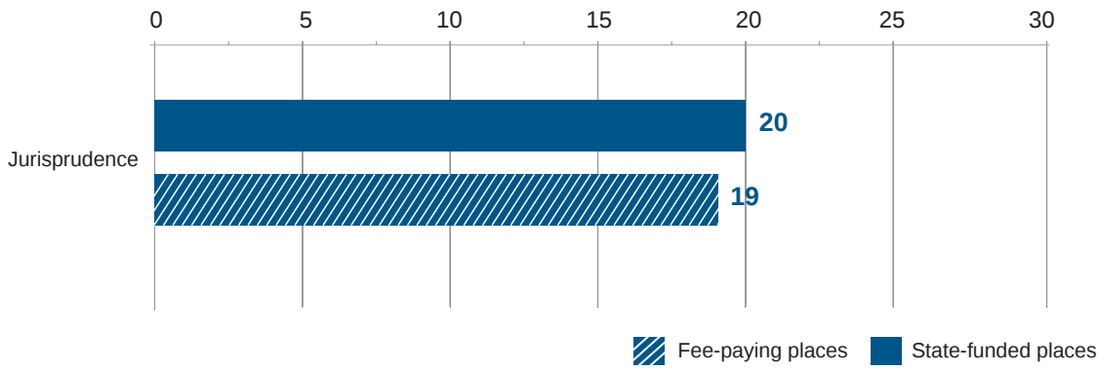
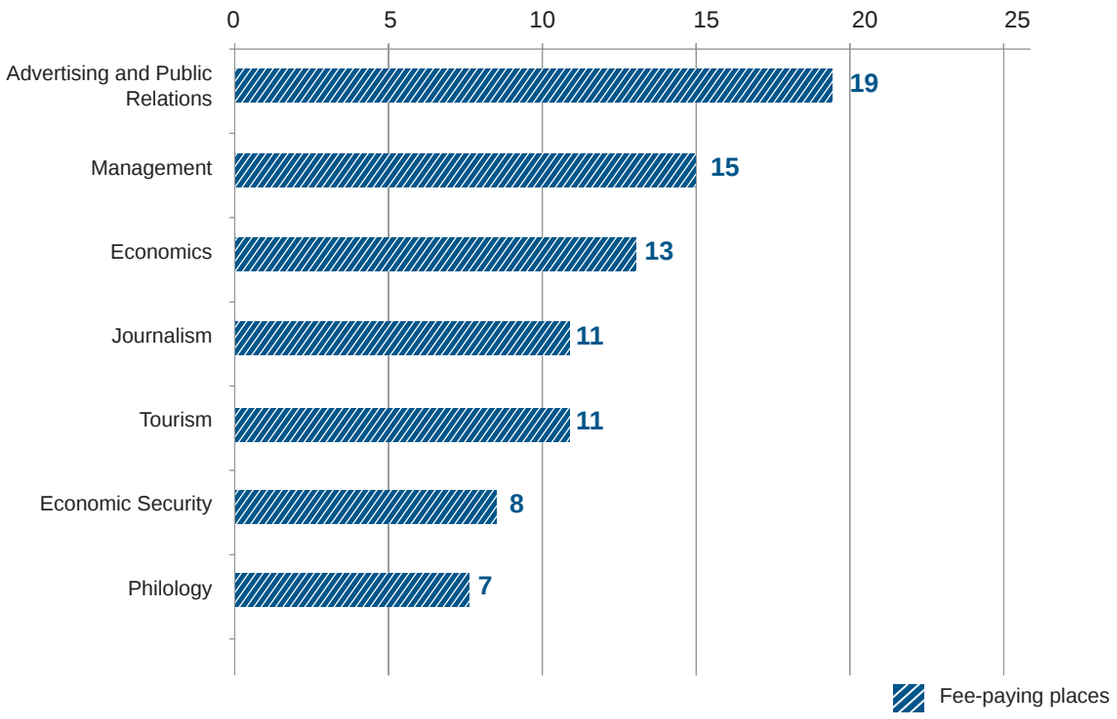


Figure 4.4

NUMBER OF EXTRAMURAL STUDENTS ENROLLED IN BACHELOR'S DEGREE AND SPECIALIST'S DEGREE PROGRAMMES



Unfortunately, in 2020, the university failed to reverse the trend of recent years which showed a decrease in the number of first-year students enrolled in master's programmes of all modes of study (Fig. 4.5–4.7).

Figure 4.5

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

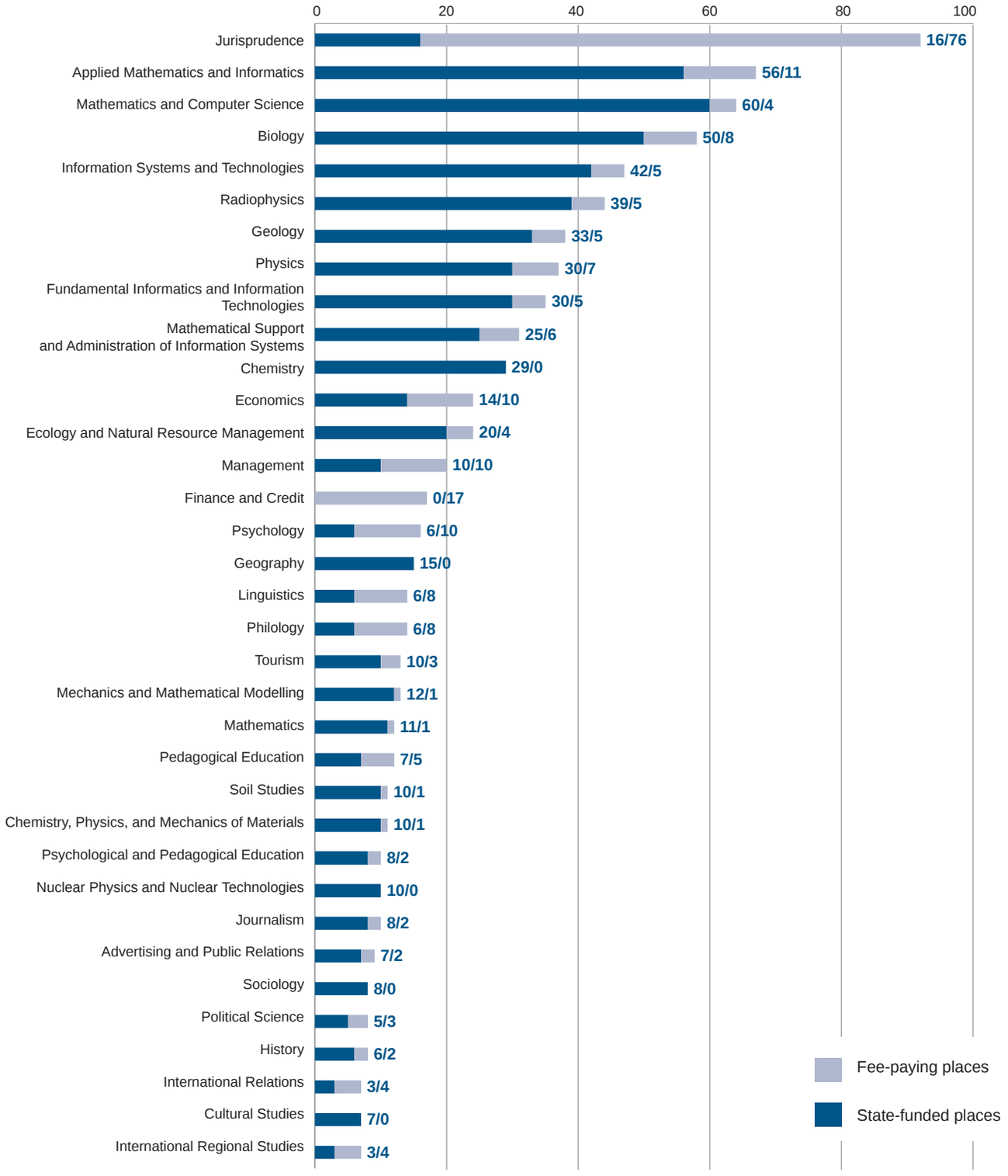


Figure 4.6

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

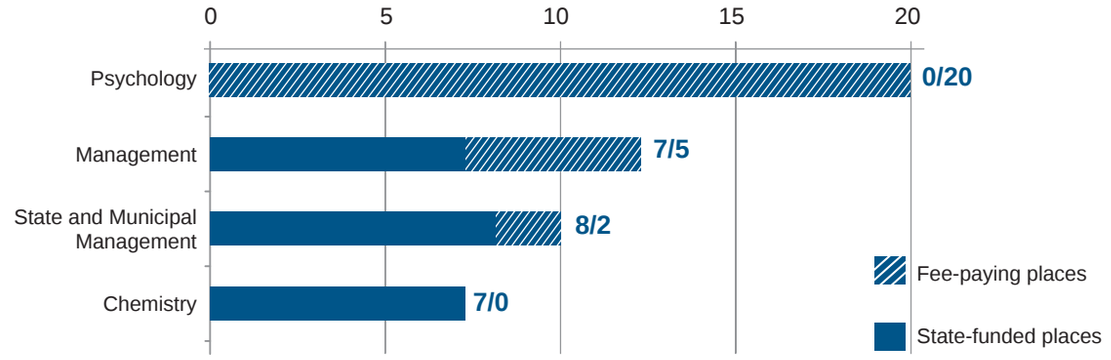
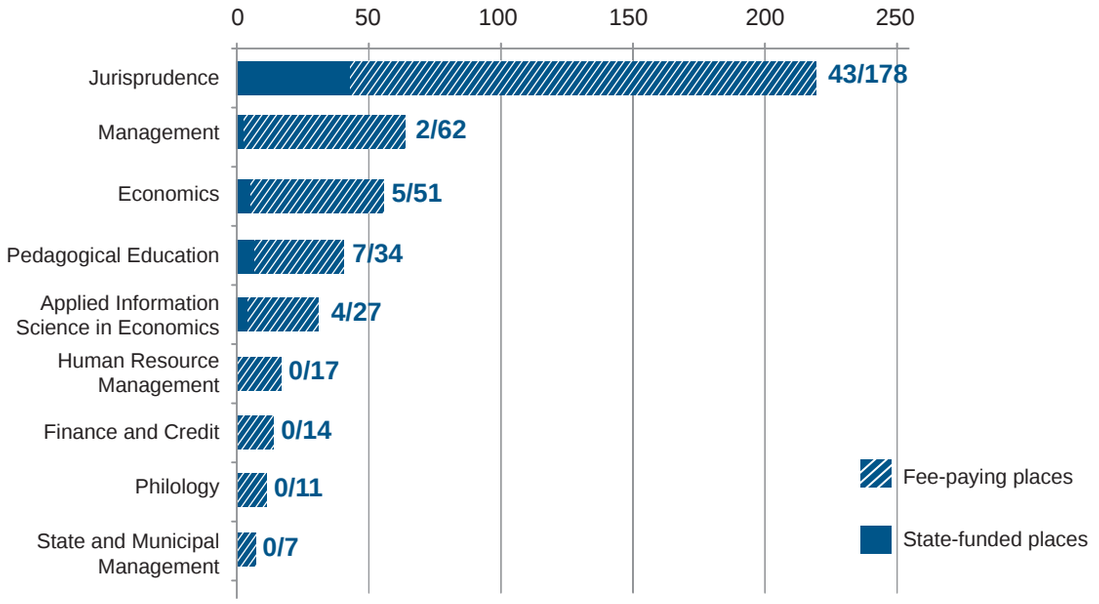


Figure 4.7

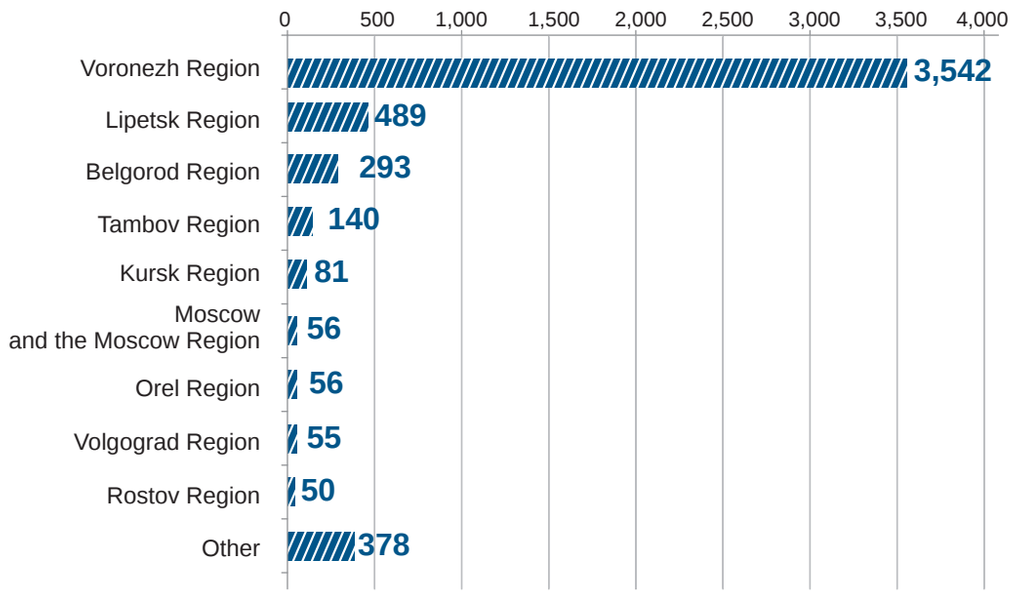
NUMBER OF EXTRAMURAL STUDENTS ENROLLED IN MASTER'S DEGREE PROGRAMMES



Due to the possibility to submit admission applications remotely, the number of regions the applicants come from increased. In 2020, a record was set: applications were submitted by applicants from all subjects of the Russian Federation except for the Republic of Ingushetia. What is more, for the first time there were fewer applicants for bachelor's and specialist's degree programmes from the Voronezh Region (49.72%) than applicants from other regions (50.28%). Nevertheless, the majority of the admitted students were from Voronezh and the Voronezh Region (Fig. 4.8).

Figure 4.8

DISTRIBUTION OF THE STUDENTS ADMITTED TO VSU ACCORDING TO THE SUBJECTS OF THE RUSSIAN FEDERATION



Similarly to previous years, the second place for the number of students admitted to VSU was taken by the Lipetsk Region. It was followed by the Belgorod and Tambov Regions.

In 2020, VSU enrolled more winners and awardees of academic competitions held among schoolchildren (Table 4.3).

Table 4.3

LIST OF HIGHER EDUCATION PROGRAMMES ON WHICH VSU ENROLLED WINNERS AND AWARDEES OF ACADEMIC COMPETITIONS HELD AMONG SCHOOLCHILDREN

Speciality	Number of students enrolled without examinations	Number of students enrolled with the score of 100 points in an academic competition
Information Security	1	1
History	1	1
Linguistics	2	1
Mathematical Support and Administration of Information Systems	2	2
Political Science	0	1
Applied Mathematics and Informatics	1	1
Software Engineering	1	1
Economics	0	1
Jurisprudence	2	2
Total	10	11

Apart from higher professional education programmes, for several years VSU has been offering secondary vocational education programmes for graduates of forms 9 and 11. In 2020, 22 applications were submitted for 15 state-funded places in the speciality “Pharmacy” by students with a grade point average of 5.0. The students are admitted to these places as a result of a grade point average competition. In the reporting year, 354 first year students were enrolled in secondary vocational education programmes (Table 4.4).

Table 4.4

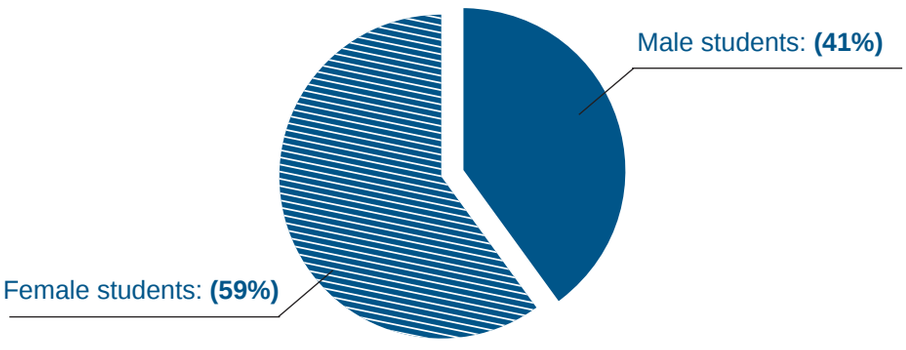
NUMBER OF STUDENTS ADMITTED TO SECONDARY VOCATIONAL EDUCATION PROGRAMMES

Name of the secondary vocational education speciality	Funded from the federal budget	Funded from commercial educational services
For graduates of basic general education programmes (form 9):		
Programming in Computer Systems	–	72
Pharmacy	15	77
Sustainable Management of Natural and Economic Complexes	–	12
Economics and Accounting (area-based)	–	15
Advertising	–	87
Tourism	–	35
For graduates of general secondary education programmes (form 11)		
Optical Eyecare	–	14
Economics and Accounting (area-based)	–	27
Secondary vocational education programmes, total	**15**	**339**

As for gender composition, the majority of VSU students are women who represent 3/5 of the total number of students. The gender composition of the first year students in 2020 was no exception (Fig. 4.9).

Figure 4.9

GENDER COMPOSITION OF THE FIRST-YEAR STUDENTS IN HIGHER EDUCATION PROGRAMMES



4.4. GENERAL INFORMATION ON THE ACADEMIC PROGRAMMES IMPLEMENTED AT VSU IN 2020

In 2020, higher education programmes included 130 bachelor's degree programmes (50 specialities), 22 specialist's degree programmes (15 specialities), 111 master's degree programmes (41 specialities), 73 PhD programmes (17 research areas), and 3 residency specialities (see Table 4.5).

Table 4.5

ACADEMIC PROGRAMMES IMPLEMENTED AT VSU IN 2020

Codes of fields of education	Titles of fields of education	Bachelor's degree		Master's degree		Specialist's degree		Postgraduate Training Programmes		Residency training
		Specialities	Programmes	Specialities	Programmes	Major speciality	Specialisation	Specialities	Programmes	Major speciality
01.00.00	Mathematics and Mechanics	4	15	3	6	1	2	1	3	
02.00.00	Computer and Information Sciences	3	8	3	7					
03.00.00	Physics and Astronomy	2	9	2	7			1	5	
04.00.00	Chemical Sciences	2	5	2	5	1	1	1	7	
05.00.00	Geosciences	3	10	3	4			1	11	
06.00.00	Biological Sciences	2	9	2	6			1	8	
09.00.00	Informatics and Computer Facilities	4	9	1	7			1	4	
10.00.00	Information Security	1	1			2	3			
11.00.00	Electronics, Radioengineering, and Communication Systems	1	2	1	1			1	1	
14.00.00	Nuclear Energy and Nuclear Technologies	1	1	1	1					
21.00.00	Applied Geology, Mining, Oil and Gas Engineering, and Geodesy					1	1			
30.00.00	Fundamental Medicine					3	3			
33.00.00	Pharmacy					1	1	1	4	3
37.00.00	Psychological Sciences	1	1	1	3	1	1	1	2	
38.00.00	Economics and Management	5	16	6	23	2	2	1	5	
39.00.00	Sociology and Social Development	1	1	1	1					
40.00.00	Jurisprudence	1	4	1	16	1	1	1	10	
41.00.00	Political Sciences and Regional Studies	3	5	3	4			1	1	
42.00.00	Mass Media and Library Science	5	12	2	3					
43.00.00	Tourism and Service	1	1	1	1					
44.00.00	Education and Pedagogical Sciences	1	2	2	4			1	1	
45.00.00	Linguistics and Literary Studies	3	12	2	7	1	6	1	7	
46.00.00	History and Archaeology	2	2	1	1			1	3	
47.00.00	Philosophy, Ethics, and Religion Studies	1	2	1	1			1	3	
50.00.00	Art Studies	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	130	40	109	15	22	17	76	3

In 2020, the aggregate (normalised) contingent of students within higher professional education programmes totalled over 15,181 people including:

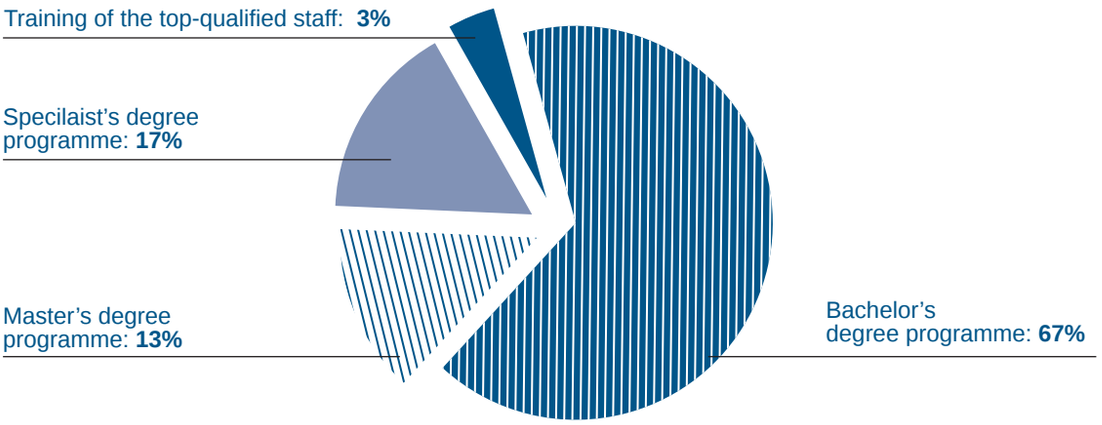
- 10,203 bachelor's degree students
- 2,631 specialist's degree students
- 1,887 master's degree students
- 434 postgraduate students
- 26 residents.

Figure 4.10 demonstrates the structure of the normalised contingent within higher education programmes provided by the university.

In 2020, the number of master's students, PhD students, and residents in the normalised contingent amounted to 16%.

Figure 4.10

THE STRUCTURE OF THE NORMALISED CONTINGENT OF UNIVERSITY STUDENTS WITHIN HIGHER EDUCATION PROGRAMMES



Master's degree education programmes provided in 2019/20 are listed in Table 4.6.

MASTER'S PROGRAMMES PROVIDED BY THE UNIVERSITY IN THE 2019/20 ACADEMIC YEAR

Specialities	Programmes
FACULTY OF BIOMEDICAL SCIENCES	
06.04.01 Biology	Biophysics Genetics Zoology Biomedical Sciences Ecology
6.4.02 Soil Science	Soil Genesis and Evolution in Natural and Anthropogenic Landscapes
05.04.06 Ecology and Natural Resource Management	Ecological Safety
FACULTY OF GEOGRAPHY, GEOECOLOGY, AND TOURISM	
05.04.02 Geography	Territory Planning and Landscape Design
05.04.06 Ecology and Natural Resource Management	Ecological Monitoring and Environmental Impact Assessment
43.04.02 Tourism	Planning and Project Development in Tourism
FACULTY OF GEOLOGY	
5.4.01 Geology	Fundamental Research in Geology
FACULTY OF JOURNALISM	
42.04.02 Journalism	Internet and Mass Media TV and Radio Functioning Process (extramural)
42.04.01 Advertising and Public Relations	Advertising and Public Relations in Mass Media
FACULTY OF HISTORY	
39.03.01 Social Studies	Sociological Education
41.03.04 Political Science	Analysis of Politics and Policies
46.04.01 History	Research and Teaching in History
FACULTY OF COMPUTER SCIENCES	
2.4.01 Mathematics and Computer Sciences	Informatics (Computer Sciences) as a Second Competence Computer Modelling and Artificial Intelligence
09.04.02 Information Systems and Technologies	Information Systems Analysis and Synthesis Information Systems Security Informatics as a Second Competence Information Technologies in Management Mobile Applications and Video Games Artificial Applied Intelligence Systems Information Systems Design Technologies
FACULTY OF MATHEMATICS	
01.04.01 Mathematics	Mathematical Models and Hydrodynamics
2.4.01 Mathematics and Computer Sciences	Mathematical Methods and Computer Technologies in Natural Science, Economics, and Management Mathematical Analysis and Applications Mathematical and Computer Modelling (math.)
FACULTY OF INTERNATIONAL RELATIONS	
41.04.05 International Relations	International Human Rights Protection International Integration and International Organisations
41.04.01 International Regional Studies	European Studies

Table cont. 4.6

Specialities	Programmes
38.04.02 Management	International Business Customs Services Management
38.04.01 Economics	Business in the Emerging Markets
FACULTY OF APPLIED MATHEMATICS, INFORMATICS, AND MECHANICS	
02.04.02 Fundamental Informatics and Information Technologies	Mobile Applications Development Technologies
01.04.02 Applied Mathematics and Informatics	Information Technologies and Economic Activities Computer Technologies for the Problems of Mathematical Physics, Optimisation, and Management Mathematical Foundations for Computer Graphics Mathematical Support and Software for Information Systems
02.04.03 Mathematical Support and Administration of Information Systems	Management of the Design and Development of Information Systems
01.04.03 Mechanics and Mathematical Modelling	Applied Mechanics and Computer Modelling
38.04.05 Business Informatics	Information Business Analytics (extramural)
FACULTY OF ROMANCE AND GERMANIC PHILOLOGY	
45.04.01 Philology	International Business Communication Business Communication in Economics: German
45.04.02 Linguistics	International Business Communication and Translation Linguistic Support for Project Activities in International Cooperation (in the Area of Education, Culture, and Business)
44.04.01 Pedagogical Education	Innovations in Education; Teaching Foreign Languages with the Help of Online Technologies in Schools and Further Education
FACULTY OF PHILOSOPHY AND PSYCHOLOGY	
44.04.01 Pedagogical Education	Pedagogical Management and Innovations in Education Innovations in Education
47.04.01 Philosophy	Philosophy of Creativity and Cultural Industries
37.04.01 Psychology	Clinical and Psychological Follow-up (part-time) Psychological and Psycholinguistic Foundations of Socially Oriented Communication (part-time) Psychology of Personality
44.04.02 Psychological and Pedagogical Education	Psychology and Pedagogy of Creativity Management and Education Relations (extramural)
51.04.01 Cultural Studies	Organisation and Management in Cultural Industries
FACULTY OF PHYSICS	
03.04.02 Physics	Optics and Nanophotonics Physics of Nanosystems Nuclear and Elementary Particle Physics
03.04.03 Radiophysics	Computer Radiophysics Computer Methods of Radiophysical Information Processing Microelectronics and Semiconductor Devices Telecommunication Systems and Electronic Warfare
11.4.04 Electronics and Nanoelectronics	Integrated Electronics and Nanoelectronics
11.04.02 Nuclear Physics and Nuclear Technologies	Physics of Atomic Nucleus and Elementary Particles

End of table 4.6

Specialities	Programmes
FACULTY OF PHYLOLOGY	
45.04.01 Philology	Practical Philology in the Organisation of Administrative, Cultural and Educational Activity (extramural) Psycholinguistics and Forensic Linguistics (extramural) Russian Literature in the European Context Russian Language and Literature in Cultural and Pedagogical Aspects
FACULTY OF CHEMISTRY	
04.04.01 Chemistry	Analytical Chemistry Organic Chemistry Physical Chemistry Chemical Examination
04.04.02 Chemistry, Physics, and Mechanics of Materials	Chemistry, Physics, and Mechanics of Function Materials and Nanomaterials
FACULTY OF ECONOMICS	
38.04.01 Economics	Corporate Accounting, Financial and Investment Analysis (extramural, part-time) Accounting, Analysis, and Audit Financial Analyst: Investments, Credit Standing, Risks (extramural) Economics and E-commerce (extramural) Economics of Organisations and Markets Labour Economics (extramural) Economy of a Firm (extramural) Health Care Accounting, Control, and Analysis (extramural)
38.04.02 Management	General and Strategic Management Marketing Management Economics and Firm Management Healthcare Management (extramural) Contemporary Technologies in Management
38.04.08 Finance and Credit	Banks and Banking (extramural) Financial Management Banking Support of Contracts
38.03.04 State and Municipal Administration	Administration of the Territory Social and Economic Development (extramural, part-time)
38.04.03 Human Resource Management	Human Resources Management (extramural, part-time) Management of Human Resources and Employer Branding in Digital Economy (extramural)
FACULTY OF LAW	
40.04.01 Jurisprudence	Conventional Law Protection of Human Rights and Freedoms (extramural) Corporate Attorney (extramural) Criminalistics, Operational Investigations, Judicial, and Advocate Activities International Law and Business Financial and Tax Law (extramural) Taxation and Civil Legislation Organisation of the Judicial Power and Law Enforcement Activities Legal Techniques of Legal Conflict Resolution Judicial and Non-Judicial Forms of Civil Rights Protection Theory and History of State and Law (extramural) Criminal Law, Criminology, and Penal Law Criminal Procedure Legal Defence in Administrative and Administrative Procedure Law Lawyer in the Field of Labour, Social, and Land Law Public Authority Attorneys

4.5. TRAINING THE TOP-QUALIFIED ACADEMIC STAFF: POSTGRADUATE DEGREE AND RESIDENCY COURSES

The number of postgraduate students according to research areas and fields of study is shown in Table 4.7.

Table 4.7

DISTRIBUTION OF STUDENTS WITHIN POSTGRADUATE DEGREE COURSES ACCORDING TO SPECIALISATIONS

Research area	Titles of research areas and fields of study	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
	Total	**536**	**468**	**15**	**53**
01.06.01	**Mathematics and Mechanics**	**57**	**53**	**2**	**2**
	Substantial, Complex, and Functional Analysis	7	7	0	0
	Differential Equations, Dynamical Systems, and Optimal Control	42	39	2	1
	Solid Mechanics	8	7	0	1
03.06.01	**Physics and Astronomy**	**57**	**52**	**0**	**5**
	Theoretical Physics	11	10	0	1
	Radiophysics	28	27	0	1
	Optics	4	3	0	1
	Condensed Matter Physics	11	10	0	1
	Semiconductor Physics	3	2	0	1
04.06.01	**Chemical Sciences**	**37**	**30**	**0**	**7**
	Inorganic Chemistry	4	4	0	0
	Analytical Chemistry	7	4	0	3
	Organic Chemistry	8	5	0	3
	Physical Chemistry	5	4	0	1
	Electrochemistry	4	4	0	0
	High-molecular Compositions	6	6	0	0
	Solid State Chemistry	3	3	0	0
05.06.01	**Geosciences**	**35**	**29**	**0**	**6**
	General and Regional Geology	2	1	0	1
	Palaeontology and Stratigraphy	1	1	0	0
	Petrology, Volcanology	1	1	0	0
	Lithology	0	0	0	0
	Geohydrology	1	0	0	1
	Geological Engineering, Permafrostology, and Soil Science	3	3	0	0
	Geophysics, Geophysical Methods in Mineral Deposit Exploration	4	3	0	1
	Geology, Solid Mineral Deposits Exploration, Minerageny	7	6	0	1

Table cont. 4.7

Research area	Titles of research areas and fields of study	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
	Physical Geography and Biogeography, Soil Geography, and Landscape Geochemistry	4	4	0	0
	Economic, Social, Political, and Recreational Geography	2	2	0	0
	Geoecology	10	8	0	2
06.06.01	**Biological Sciences**	**49**	**44**	**0**	**5**
	Biophysics	2	2	0	0
	Biochemistry	13	12	0	1
	Botany	4	4	0	0
	Zoology	5	5	0	0
	Entomology	3	3	0	0
	Genetics	11	11	0	0
	Ecology	9	6	0	3
	Soil Studies	2	1	0	1
09.06.01	**Informatics and Computer Facilities**	**69**	**60**	**1**	**8**
	System Analysis, Management, and Processing of Information	12	12	0	0
	Management in Social and Economic Systems	6	5	1	0
	Theory of Informatics	19	18	0	1
	Mathematical Modelling, Numerical Methods, and Program Systems	32	25	0	7
11.06.01	**Electronics, Radioengineering, and Communication Systems**	**6**	**6**	**0**	**0**
	Solid-state Electronics, Radioelectronic Components, Microelectronics, Nanoelectronics, Quantum Effect Tools	6	6	0	0
33.06.01	**Pharmacy**	**12**	**11**	**0**	**1**
	Pharmacology, Clinical Pharmacology	2	1	0	1
	Medicinal Product Formulation Technology	3	3	0	0
	Pharmaceutical Chemistry, Pharmacognosy	4	4	0	0
	Pharmacy Business Organisation	3	3	0	0
37.06.01	**Psychological Sciences**	**5**	**5**	**0**	**0**
	Social Psychology	3	3	0	0
	Pedagogical Psychology	2	2	0	0
38.06.01	**Economics**	**53**	**47**	**1**	**5**
	Economics Theory	2	2	0	0
	Economics and National Economy Management	28	22	1	5
	Finance, Currency Circulation, and Credit	3	3	0	0
	Accounting, Statistics	14	14	0	0
	Mathematical and Instrumental Techniques in Economics	6	6	0	0

End of table 4.7

Research area	Titles of research areas and fields of study	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
40.06.01	**Jurisprudence**	**62**	**59**	**1**	**2**
	Theory and History of State and Law; History of State and Law Studies	7	6	1	0
	Constitutional Law, Constitutional Proceedings, Municipal Law	8	7	0	1
	Finance Law, Tax Law, Budget Law	5	5	0	0
	Labour Law, Social Security Law	1	1	0	0
	Criminal Law and Criminology; Penal Law	7	6	0	1
	Criminal Procedure	3	3	0	0
	International and European Law	5	5	0	0
	Criminalistics, Operational Investigations, Judicial and Expert Activity	8	8	0	0
	Administrative Law, Administrative Procedure	9	9	0	0
	Civil and Arbitral Procedure	9	9	0	0
41.06.01	**Political Sciences and Regional Studies**	**2**	**2**	**0**	**0**
	Political Institutions, Processes, and Technologies	2	2	0	0
44.06.01	**Education and Pedagogical Sciences**	**12**	**10**	**1**	**1**
	General Pedagogics, History of Pedagogics and Education	12	10	1	1
45.06.01	**Linguistics and Literary Studies**	**46**	**31**	**8**	**7**
	Russian Literature	9	6	0	3
	International Literature	2	2	0	0
	Journalism	10	8	0	2
	Russian Language	11	7	2	2
	Germanic Languages	5	2	3	0
	Romance Languages	5	2	3	0
	Linguistic Theory	4	4	0	0
46.06.01	**Historical Sciences and Archaeology**	**26**	**21**	**1**	**4**
	Russian History	12	9	1	2
	General History	8	7	0	1
	Archaeology	6	5	0	1
47.06.01	**Philosophy, Ethics, and Religion Studies**	**5**	**5**	**0**	**0**
	Ontology and Epistemology	1	1	0	0
	Ethics	1	1	0	0
	Social Philosophy	3	3	0	0
51.06.01	**Cultural Studies**	**3**	**3**	**0**	**0**
	Theory and History of Culture	3	3	0	0

4.6. STATE FINAL EXAMINATION

208 state examination committees worked during the state final examination.

The contingent of students who passed the state final examination is as follows: 4,615 people, including 2,438 bachelor's degree students, 318 specialist's degree students, 1,597 master's degree students, 110 PhD students, 8 residents, and 144 secondary vocational education (SVE) specialists (Table 4.8, Fig. 4.11).

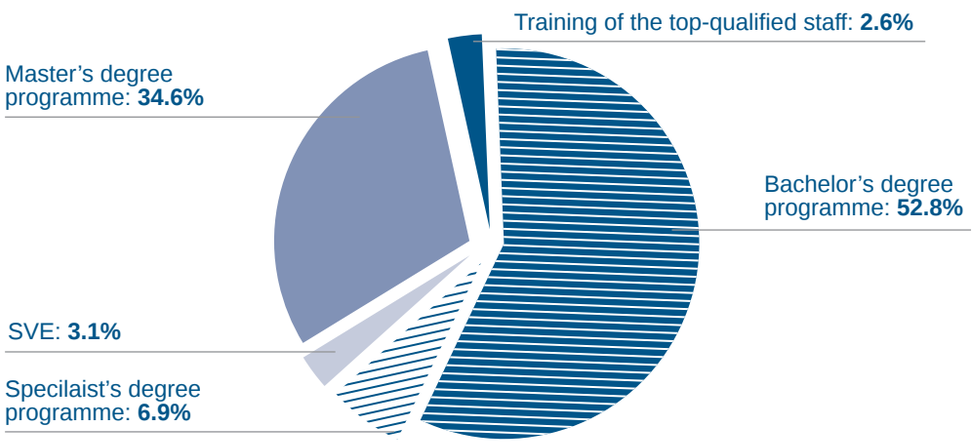
Table 4.8

DISTRIBUTION OF STUDENTS ACCORDING TO THE MODES OF STUDY AND DEGREE LEVELS IN 2020

Mode of study	Bachelor's degree		Specialist's degree		Master's degree		Secondary vocational education		Postgraduate training programmes	Residency training
	Excellent	Total	Excellent	Total	Excellent	Total	Excellent	Total	Total	Total
Full-time	382	2,070	39	282	423	862	11	144	89	8
Extramural	8	289	–	31	204	662	–	–	21	–
Part-time	6	79	–	5	34	73	–	–	–	–
Total	396	2,438	39	318	661	1,597	11	144	110	8

Figure 4.11

DISTRIBUTION OF STUDENTS ACCORDING TO THE DEGREE LEVELS (ALL MODES OF STUDY)



The percentage of graduate qualification papers within bachelor's, specialist's, and master's degree programmes completed following a request from a company amounted to 15.7%. 10.1% of them were recommended for introduction into production.

In 2020, PhD students of postgraduate academic staff training programmes completed the programme and obtained postgraduate diplomas.

The distribution of graduates within postgraduate academic staff training programmes is shown in Table 4.9.

Table 4.9

NUMBER OF GRADUATES BY EDUCATION PROGRAMMES AND INFORMATION ABOUT PHD THESIS DEFENCE

Research area	Number of graduates	Defended PhD theses (graduates of 2020)
Mathematics and Mechanics	12	0
Physics and Astronomy	8	1
Chemical Sciences	6	0
Geosciences	9	1
Biological Sciences	9	1
Informatics and Computer Facilities	4	1
Electronics, Radioengineering, and Communication Systems	0	0
Pharmacy	1	0
Psychological Sciences	3	0
Economics	8	2
Jurisprudence	24	0
Political Sciences and Regional Studies	0	0
Education and Pedagogical Sciences	1	0
Linguistics and Literary Studies	10	2
Historical Sciences and Archaeology	2	1
Philosophy, Ethics, and Religion Studies	3	1
Cultural Studies	1	0
Total	101	10
Of the total number of PhD students (number of foreign citizens)	12	1

In 2020, the residents completed postgraduate academic staff training programmes and obtained postgraduate diplomas (residency degree).

8 people graduated from the speciality 38.08.02 Management and Economics of Pharmacy.

The residents' population according to research areas and fields of study as of 31 December 2020 is shown in Table 4.10.

Table 4.10

THE RESIDENTS' POPULATION ACCORDING TO RESEARCH AREAS AND FIELDS OF STUDY AS OF 31 DECEMBER 2020

Code	Name of speciality	Number of residents				
		Total	Including			
			RF citizens		Foreign citizens	
			State funding	Fee-paying	State funding	Fee-paying
	Total	**26**	**13**	**11**	**0**	**2**
33.08.01	Pharmaceutical Engineering	10	5	5	0	0
33.08.02	Management and Economics of Pharmacy	10	3	6	0	1
33.08.03	Pharmaceutical Chemistry and Pharmacognosy	6	5	0	0	1

4.7. OVERVIEW OF NETWORK ACADEMIC PROGRAMMES

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

In the 2019/20 academic year, the following number of students completed programmes within existing networking education agreements:

- Programme "Russian Literature in the European Context", speciality 45.04.01 Philology, 17 students from VSU, 1 student from the University of Göttingen (Göttingen, Germany).
- Programme "Business in the Emerging Markets", speciality 38.04.01 Economics, 19 students from VSU.
- Programme "Business Communication in Economics: German Language", speciality 45.04.01 Philology, 6 students from VSU.

Programmes completed by students at the network partner university are aimed at shaping students' personal qualities, developing their speaking and writing skills in national and foreign languages, as well as improving the ability to adapt to different educational environments, and teaching methods.

As part of the network cooperation, it is now under consideration to include into the educational process massive open online courses (MOOC) posted on open public educational platforms. In 2020, 1,281 university students completed such courses.

For example, as a result of the agreement on the networking education programmes with application of online courses with the federal state autonomous institution of higher education "National Research University "Higher School of Economics"", students completing programmes 33.05.01 Pharmacy (116 students) and 02.04.01 Mathematics and Computer Sciences (38 students) finished the mass open online course "Project Management".

In the framework of the agreement with the federal state autonomous institution of higher education "Ural Federal University named after the first President of Russia B. N. Yeltsin", the course "Physical Culture" was completed by 1,127 students of the following specialities: 01.03.02 Applied Mathematics and Informatics (122 students), 01.03.03 Mechanics and Mathematical Modelling (30 students), 02.03.02 Fundamental Informatics and Information Technologies (63 students), 02.03.03 Mathematical Support and Administration of Information Systems (50 students), 09.03.03 Applied Informatics (74 students), 09.03.02 Information Systems and Technologies (114 students), 02.03.01 Mathematics and Computer Sciences (92 students), 09.03.04 Software Engineering (52 students), 42.03.01 Advertising and Public Relations (58 students), 42.03.02 Journalism (42 students), 42.03.04 Television (36 students), 42.03.05 Media Communications (47 students), 01.03.01 Mathematics (29 students), 01.03.04 Applied Mathematics (19 students), 41.03.01 International Regional Studies (46 students), 10.03.01 Information Security (42 students), 41.03.05 International Relations (77 students); 33.05.01 Pharmacy (108 students), 10.05.01 Computer Security (10 students), 01.05.01 Fundamental Mathematics and Mechanics (16 students).

4.8. OVERVIEW OF SCHOLARSHIP PROGRAMMES

University students have an opportunity to take part in different scholarship programmes, which are aimed at supporting talented young people (Table 4.11).

Table 4.11

TYPES OF UNIVERSITY SHCOLARSHIP PROGRAMMES FOR UNDERGRADUATE AND POSTGRADUATE STUDENTS

Scholarship programme	Number of scholarships for students
Scholarship of the President of the Russian Federation in the priority areas	14
Scholarship of the Government of the Russian Federation in the priority areas	23
Scholarship of the Government of the Russian Federation in priority areas (for SVE)	18
Personal scholarship of Vladimir Potanin Charitable Foundation	8
Scholarship of the VSU Academic Board	6
Scholarship named after Professor L.D. Kokorev	2
Scholarship named after Professor G.F. Gorsky	2
Scholarship named after Professor I.A. Galagan	2
Scholarship named after Professor V.S. Osnovin	2
Scholarship named after Professor V.A. Panushkin	2
Scholarship named after Professor A.M. Abramov	1
Scholarship named after Professor M.S. Tochilin	1
Scholarship named after Professor V.A. Lisitsky	1
Scholarship named after Professor L.T. Gilyarovskaya	3
Scholarship named after Professor V.N. Eytingon	2
Scholarship named after Professor M.A. Levitskaya	1
Scholarship named after Professor V.I. Sobolev	1
Scholarship named after Professor V.T. Titov	1
Scholarship named after Professor V.B. Kashkin	1
Scholarship named after Professor G.Ye. Vedel	1
Scholarship named after Professor G.Ya. Bayev	2
Scholarship named after Professor V.A. Artiomov	1
Scholarship named after Professor L.E. Kroichik	1
Scholarship of the data provider Informsvyaz-Chernozemye	1 semester (4) 2 semester (9)
Scholarship of “Concern Sozvezdiye”	11
Scholarship of the Oxford Russia Fund charity organisation	63
Grant of the President of the Russian Federation (within the programme of the “Talent and Success” Foundation)	4

4.9. AN INTEGRATED EDUCATION AND INFORMATION SYSTEM AND ITS MAIN DEVELOPMENT TENDENCIES

The university's integrated education and information system (IEIS) has become a necessary and compulsory element of the educational system which has been adapted to satisfy the demands of any user (students, teachers, staff members, and other users). This is one of the main criteria for assessing the system's effectiveness.

OVERVIEW OF INFORMATIONAL SUPPORT AND MANAGEMENT OF THE EDUCATIONAL PROCESS

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

Students and the teaching staff can access their personal accounts from any PC or other electronic device connected to the Internet at any time. A service which automatically processes students' and teachers' requests for receiving access permissions was also launched.

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

The portal includes the personal accounts of students and teaching staff, which allow them to change their personal profiles, to upload documents, and to post them on the network.

The portal has special services for uploading, downloading, and posting the following documents regulating the educational process (the data in brackets shows the increment per year):

- 342 (+42) State Educational Standards
- 3,381 (+328) main academic programmes implemented by VSU
- 2,822 (+537) main academic programmes curricula
- 51 (+6) SVE academic programmes curricula
- 91,656 (+10,387) course syllabuses.

The system “Design tool for syllabuses of main academic programmes” integrated with the VSU information system and a curricula database designed in the automated system “Curriculum” by OOO MMIS LAB makes it possible to automatically create syllabuses for disciplines and practical trainings in accordance with the curricula content.

The portal has a service for uploading and downloading graduate qualification papers by undergraduate students and scientific reports and graduate qualification papers by postgraduate students, as well as checking these works in the Automated Antiplagiat system. In 2020, 62,774 works were uploaded and checked in the Automated Antiplagiat system.

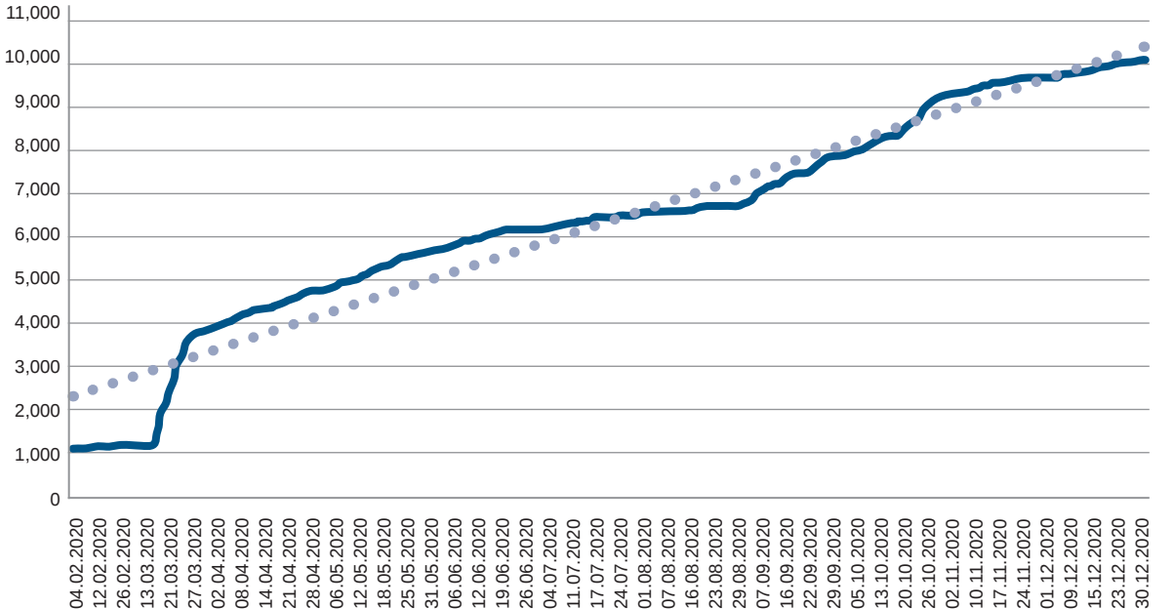
“ELECTRONIC UNIVERSITY VSU” PORTAL, AN ENVIRONMENT FOR E-LEARNING AND DISTANCE LEARNING TECHNOLOGIES

The educational process with the application of e-learning and distance learning technologies is implemented at the university with the help of the “Electronic University VSU” web portal (https://edu.vsu.ru). The e-courses registered and posted on the portal include all the components of the educational process: study materials, assessment tools, as well as communication and control facilities. It is possible to organise the study material in various ways. The interactive tools allow any type of academic activities to be implemented electronically as well as control and assessment methods.

The functioning of the “Electronic University VSU” web portal and the whole e-learning system in 2020 was marked with a need to adapt the educational process at the university to the force majeure conditions caused by the coronavirus pandemic. By the end of 2020, the number of e-courses registered on the portal had nearly increased tenfold (Fig. 4.12).

Figure 4.12

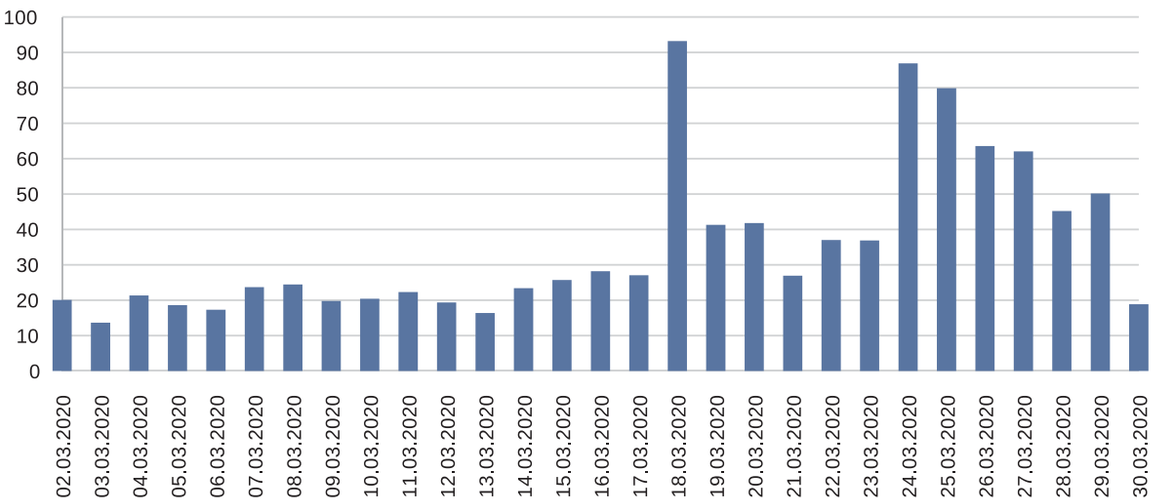
DYNAMICS OF THE NUMBER OF E-COURSES REGISTERED ON THE PORTAL IN 2020



From the middle March, when it was announced that lecturers would have to interact with students distantly, the portal's server load started to grow and two weeks later it had increased almost tenfold with 15,000 visitors and 400,000 views a day. The following diagram based on the monitoring system data shows in percentage the utilisation dynamics of the e-portal server processor in March 2020 (Fig. 4.13).

Figure 4.13

UTILISATION DYNAMICS OF THE E-PORTAL SERVER PROCESSOR IN MARCH 2020



The diagram shows that the processor and memory load sky-rocketed and exceeded 90%. As a result, database management system of the portal had to be transferred to a separate virtual server with 12 cores and 32 GB operational memory.

After the transfer to distant learning, there was a significant increase in demand for video conference communication tools (VCCT) at the portal, which led to a sharp increase in the VCCT cluster load. A load on the cluster server of over 80% could cause communication problems during video conferences.

To compensate for the critical shortage of computing power for the university portal, it was decided to rent additional computing power from the data processing centre of PAO “Megafon”. As a result, the number of VCCT servers increased to 14 which allowed the university to continue using VCCT to hold classes online. Almost till the very end of December, the load was at 200 events with 2,500 participants held simultaneously by means of VCCT.

When solving the issues that occurred in the reporting year as a result of the university’s adaptation to the distance learning requirements, the number of e-courses registered at the portal increased to almost 11 thousand and the number of active portal users grew from 1,500 to 24,000 a day. To provide for the satisfactory operation of the portal its resources were scaled up tenfold and the VCCT resources thirtyfold.

The results show that technically it is possible to transfer the whole educational process online.

On average, about 70% of curricula disciplines at the university are supplied with e-courses. To guarantee high quality educational process with e-learning and distance learning technologies, it is necessary to analyse the pedagogical level of the e-courses and their efficiency. The courses that support the educational process with the application of distance learning technologies have all the necessary elements to enable a high quality educational process: elements supporting the assessment and certification events, elements containing information materials, elements supporting video conferences, etc.

In 2020, the shooting of the video course “General Translation Theory” was finished and the development of follow-up exercises started. The courses by VSU teachers which were launched by the beginning of the reporting period were actively used to hold online classes. To date, 8 MOOCs have been posted on the portal mooc.vsu.ru. They are used in the educational process.

Cooperation with other universities is being developed in order to integrate their online courses into the educational process. For example, in March 2020, over 100 online courses posted on the National Open Education Platform and Coursera were used within the university’s education programmes. Among the universities that hold these online courses used in the educational process are federal state autonomous educational institution of higher education “National University of Science and Technology “MISIS”, federal state autonomous educational institution of higher education “Lomonosov Moscow State University”, federal state autonomous educational institution of higher education “National Research University “Higher School of Economics’”, federal state autonomous educational institution of higher education “National Research University ITMO”, federal state autonomous educational institution of higher education “Peter I Saint Petersburg Polytechnic University (National Research University)”, federal state autonomous educational institution of higher education “Ural Federal University named after the first President of Russia B. N. Yeltsin”, federal state autonomous educational institution of higher education “National Research Tomsk State University”, federal state autonomous educational institution of higher education “National Research Nuclear University”, federal state autonomous educational institution of higher education “Saint Petersburg State University”, federal state autonomous educational institution of higher education “Korolev Samara National Research University (National Research University)”, federal state autonomous educational institution of higher education “Ulyanov Saint Petersburg State Electrotechnical University “LETI”, and federal state autonomous educational institution of higher education “Tumen State University”.

Between April and August 2020, Coursera provided unrestricted access to VSU courses. They were used by over 600 students. Students completed courses on their own initiative or as a result of their integration into the educational process at the university.

4.10. GENERAL INFORMATION ABOUT THE SECONDARY VOCATIONAL EDUCATION PROGRAMMES IMPLEMENTED AT VSU IN 2020

In 2020, the university implemented primary-level programmes, designed for secondary vocational education specialists, within seven Federal State Educational Standards including 09.02.03 Programming in Computer Systems (basic level); 20.02.01 Sustainable Management of Natural and Economic Complexes (basic level); 31.02.04 Optical Eyecare (advanced level); 33.02.01 Pharmacy (basic level); 38.02.01 Economics and Accounting (area-based) (basic level); 42.02.01 Advertising (basic level); and 43.02.10 Tourism (basic level).

VSU launched the interfaculty specialisation 20.02.01 Sustainable Management of Natural and Economic Complexes implemented by the Faculty of Biomedical Sciences, the Faculty of Geology, and the Faculty of Geography, Geoecology, and Tourism. The programme is supervised by the Faculty of Geography, Geoecology, and Tourism.

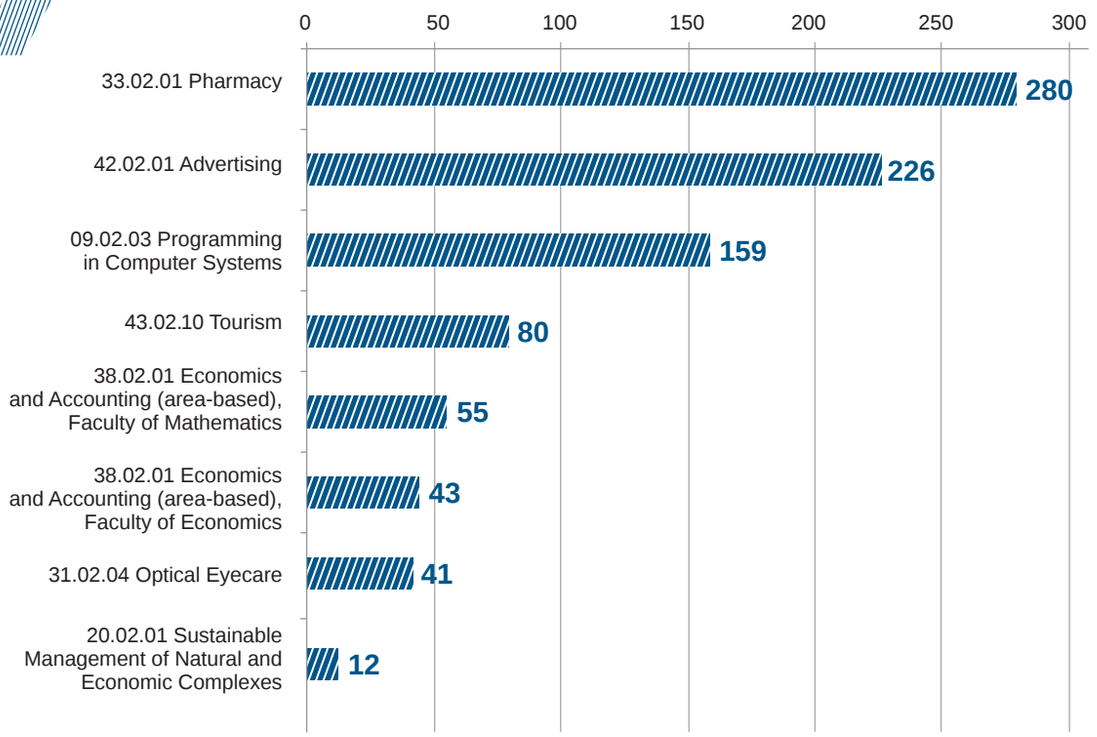
In 2020, state-funded places for the speciality 33.02.01 Pharmacy were allocated for the second time.

The grade point average (GPA) of students enrolled in the following secondary vocational education programmes was above the nationwide GPA, which amounted to 3.76: Pharmacy (4.5), Advertising (4.3), Tourism (4.25), Optical Eyecare (4.2), Sustainable Management of Natural and Economic Complexes (4.1), Programming in Computer Systems (4.1), Economics and Accounting (area-based) (4.07).

The number of international students admitted to SVE is now 896. Figure 4.14 shows their distribution by programmes.

Figure 4.14

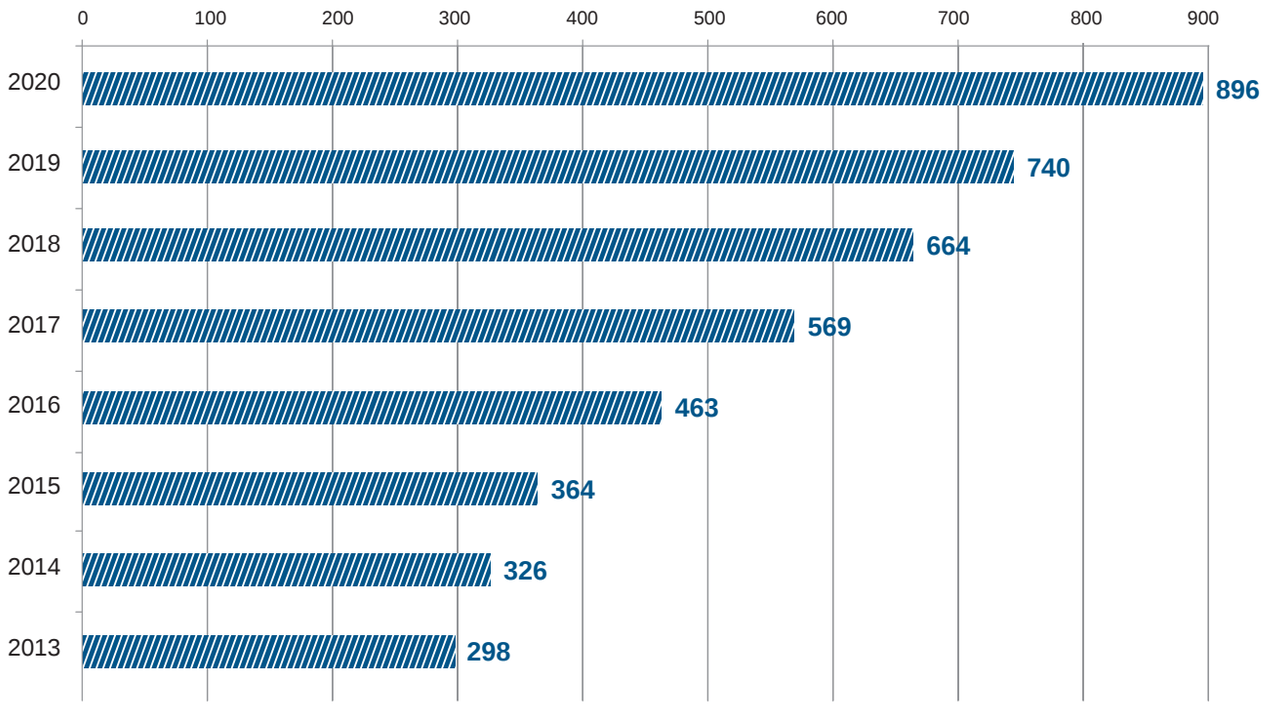
DISTRIBUTION OF STUDENTS ACCORDING TO SECONDARY VOCATIONAL EDUCATION PROGRAMMES



The dynamics in the number of students completing secondary vocational education programmes is generally positive, with the number of students having increased by 94% over the last five years (Fig. 4.15).

Figure 4.15

DYNAMICS OF THE NUMBER OF A STUDENT CONTINGENT BY SECONDARY VOCATIONAL EDUCATION PROGRAMMES IN 2013–2020



In 2020, 18 VSU students studying secondary vocational education programmes were awarded Russian Federation Government Scholarships for 2020/21 in top-priority areas of modernisation and technological development of the economy of the Russian Federation. According to the results of a competitive selection the scholarships were awarded to 9 students of the speciality 33.02.01 Pharmacy, 2 students of the speciality 09.02.03 Programming in Computer Systems, and 7 students of the speciality 31.02.04 Optical Eyecare.

In 2020, the number of graduates of the secondary vocational education programmes totalled 144, including 11 students who graduated with honours degrees (Table 4.12).

Table 4.12

GRADUATION RESULTS OF STUDENTS ACCORDING TO SECONDARY VOCATIONAL EDUCATION PROGRAMMES IN 2020

Secondary vocational education speciality	Number of graduates	With an honours degree	With an excellent mark for thesis defence	With a good mark for thesis defence	With a satisfactory mark for thesis defence	Average mark for thesis defence
09.02.03 Programming in Computer Systems	23	1	10	13	0	4.43
33.02.01 Pharmacy	27	0	8	18	1	4.26
38.02.01 Economics and Accounting (area-based)	31	2	6	9	16	3.68
42.02.01 Advertising	37	4	12	14	11	4.03
43.02.10 Tourism	26	4	8	16	2	4.23
Total	**144**	**11**	**44**	**70**	**30**	**4.13**

In 2020, for the first time, graduates of the Faculty of Mathematics completing an accelerated secondary vocational education programme 38.02.01 Economics and Accounting (area-based), as part of the state final examination (SFE) took the WorldSkills Russia demo exam (DE) for the competence R41 RU Accounting. The centre for the WorldSkills Russia demo exam for the competence R41 RU Accounting was accredited at the Faculty of Economics. The centre meets all the requirements regarding the workshop infrastructure and facilities imposed by the Skills Development Agency (WorldSkills Russia).

All who graduated passed the new form of SFE. The average marks for the two types of final qualification work (thesis defence and DE) do not differ significantly. Thus, it was proved that graduates of secondary vocational education programmes meet all the modern requirements regarding their competencies.

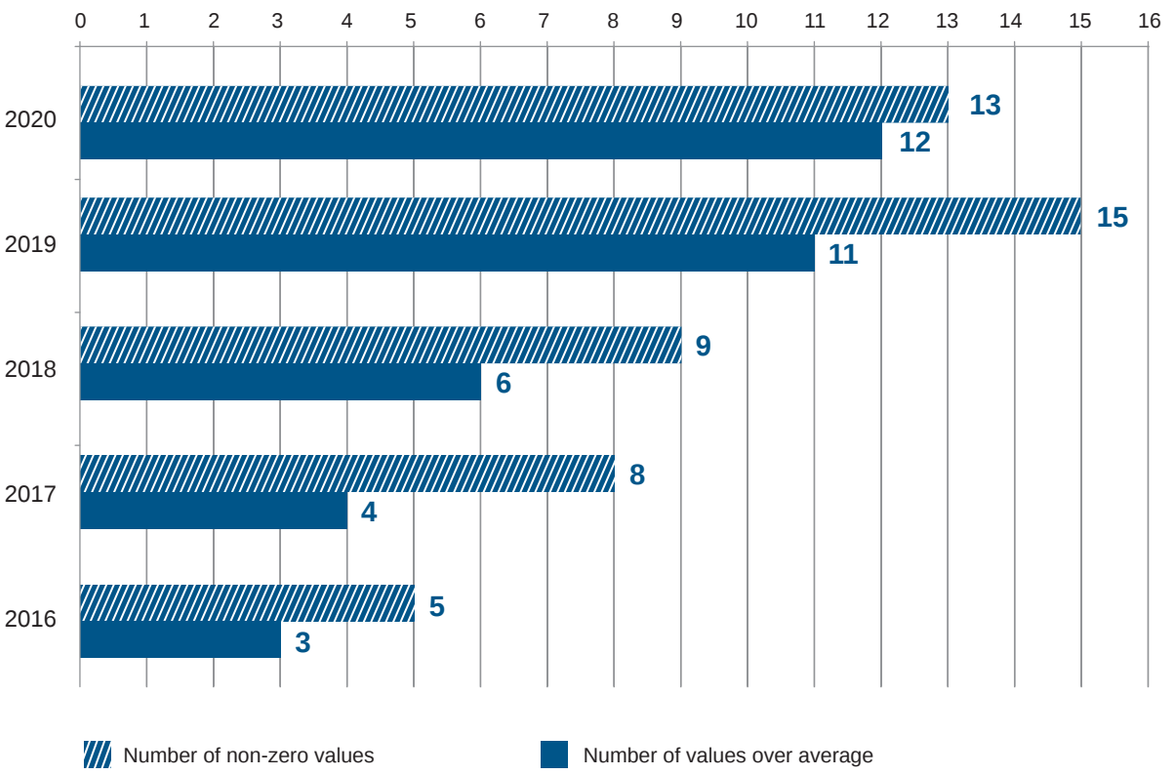
In 2020, the Monitoring of the Quality of Specialists Training in Educational Organisations Implementing Secondary Vocational Education Programmes (SVE Monitoring) demonstrated that VSU's performance in the field of educational activity, infrastructure development, financial and economic activities, employment of graduates of secondary vocational education programmes, social responsibility, and for the first time in the field of international activity was above average. VSU is in the "green zone" which includes educational organisations with a high degree of assessed indices.

According to the results of the monitoring among 81 educational institutions of the Voronezh Region implementing secondary vocational education programmes, in the reporting year Voronezh State University took 19th position as to the normalised contingent and 4-6th positions for the number of values over average.

The dynamics of SVE Monitoring in 2016-2020 is shown in Fig. 4.16.

Figure 4.16

QUANTITATIVE RESULTS OF THE SVE MONITORING



4.11. EDUCATION QUALITY ASSESSMENT SYSTEM

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

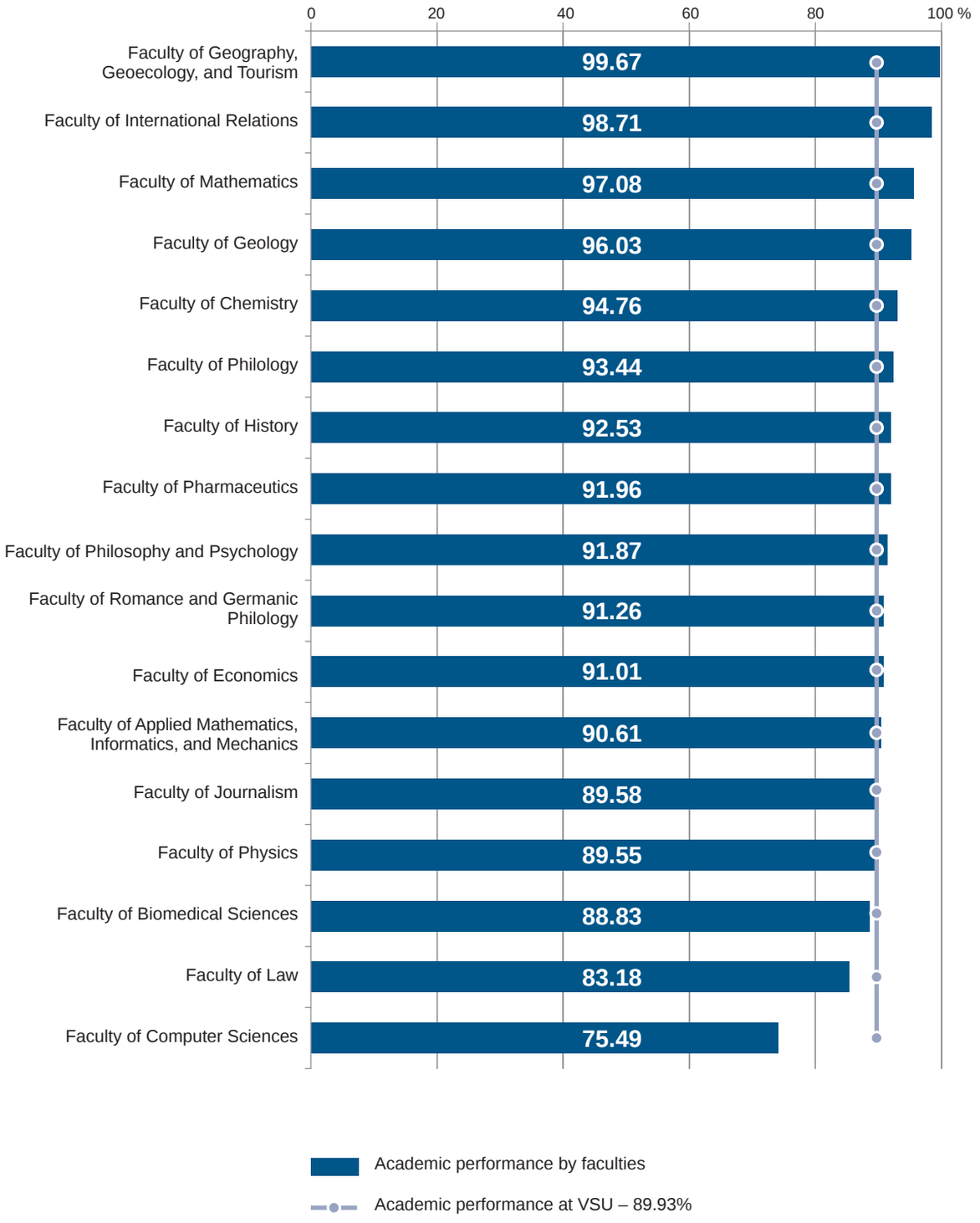
In accordance with the requirements of the Federal State Educational Standards, the education quality monitoring within the main academic programmes is conducted by means of current, midterm, and final assessments.

In the 2019/20 academic year, 15,800 students took their mid-year examinations. 89.93% of the students managed to pass them with a good mark, which exceeded the rate of the previous mid-year examinations by 5%. Academic performance by faculties and with allowance for attempts to re-sit the examinations is shown in Fig. 4.17.

In the 2019/20 academic year, the average grade for the mid-year examinations amounted to 3.99. The highest average mark was demonstrated by the students of the Faculty of Philology Philosophy and the Faculty of Romance and Germanic Philology (4.25), whereas the Faculty of Computer Sciences had the lowest average mark (3.74).

Figure 4.17

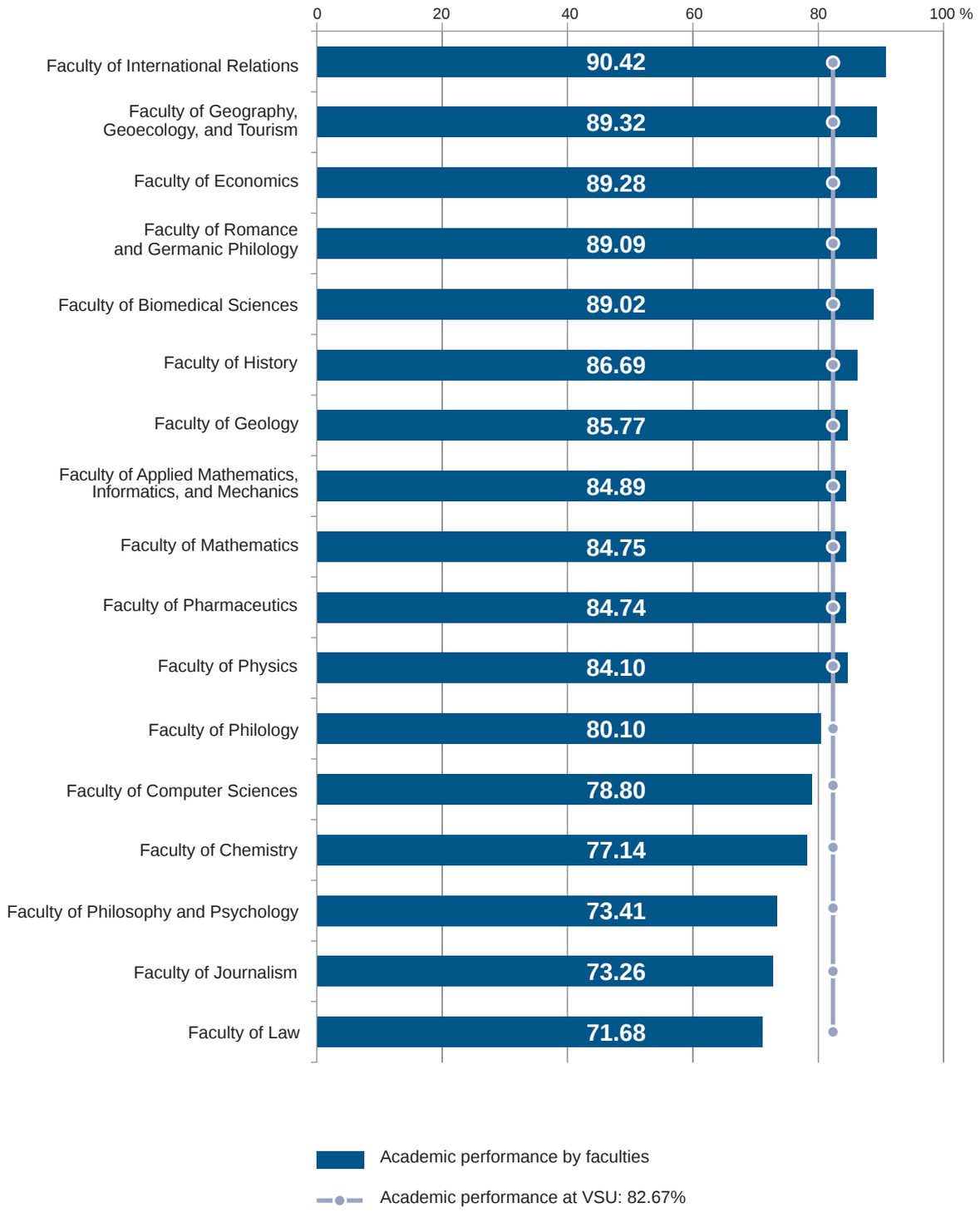
ACADEMIC PERFORMANCE OF ALL UNIVERSITY STUDENTS IN THE MID-YEAR EXAMINATIONS IN THE 2019/20 ACADEMIC YEAR ACCORDING TO FACULTIES



In the 2019/20 academic year, 15,000 students took the end-of-year examinations. 82.67% of the students managed to pass them with a good mark, which is 6.52% lower than in the previous end-of-year examinations. Academic performance by faculties and with allowance for attempts to re-sit the examinations is shown in Fig. 4.18.

Figure 4.18

ACADEMIC PERFORMANCE OF ALL UNIVERSITY STUDENTS IN THE END-OF-YEAR EXAMINATIONS IN THE 2019/20 ACADEMIC YEAR ACCORDING TO FACULTIES



In the 2019/20 academic year, the average grade for the end-of-year examinations amounted to 4.14, which was higher than the figure of the previous end-of-year examinations by 0.09. The Faculty of Biomedical Sciences had the highest average mark (4.49) and the Faculty of Law (3.94) had the lowest average mark.

All stakeholders of the educational process are annually surveyed in order to identify the level of satisfaction with the quality of education. In 2020, the survey was participated in by 3,508 students, which is 1,882 people (46%) more than in 2019. According to the results of the survey, the level of satisfaction of students has increased (0.57 index, which is a 0.06 increase as compared to 2019) (Table 4.13).

Table 4.13

SATISFACTION OF VSU STUDENTS WITH EDUCATIONAL PROCESS ELEMENTS IN INDICES IN 2020

Assessed elements of the educational process	Average at the university*	
	2019	2020
Satisfied with education at VSU	+0.51	+0.57
Satisfied with the chosen specialisation	+0.50	+0.57
Timetable (number of classes per day, gaps, etc.)	+0.36	+0.55
Availability and sufficient number of electronic text books and study guides	+0.54	+0.56
Level of teaching compulsory courses (application of new methods, interactivity, etc.)	+0.61	+0.65
Level of teaching specialised courses (application of new methods, interactivity, etc.)	+0.64	+0.69
Content of specialised courses	+0.61	+0.68
Content of compulsory courses	+0.65	+0.68
Level of teaching elective courses (application of new methods, interactivity, etc.)	+0.52	+0.69
Opportunity to choose specialised elective courses	+0.27	+0.57
Attitude to students shown by the personnel of the dean's office	+0.47	+0.42
Attitude to students shown by the library personnel	+0.76	+0.76
Attitude to students shown by the lecturers of the same faculty	+0.77	+0.77
Attitude to students shown by the lecturers of other faculties	+0.59	+0.78
Access to computer software and its quality	+0.38	+0.64
General assessment of the educational process	+0.60	+0.57
Medical care and health services (health unit opening hours)	-0.24	+0.08

* The range of indices is between –1 and +1, where "+1" is the highest point of satisfaction and "–1" is the lowest.

In 2020, there was an increase in students' satisfaction with almost all components of the educational process. The most considerable increase was in the level of students' satisfaction with the opportunity to choose specialised elective courses as compared to 2019 (a 0.3 point increase). Every year, students point out an increase in the quality of academic timetables (by 0.19 points), the attitude to students shown by the lecturers of other faculties, and the level of teaching elective courses (by 0.19 and 0.17 points respectively). Despite unchanged or higher points for a number of aspects, there is an overall decrease in the level of students' satisfaction with the quality of the educational process as a whole (by 0.03 points). Also, according to students' opinions, the attitude to students shown by the personnel of the dean's office and the educational support personnel has deteriorated (0.05 and 0.04 points respectively).

Following the transfer to distance learning to mitigate the risks from the new coronavirus (COVID-19), an assessment of the educational process was held at VSU. The results of the survey helped to detect the key issues and find their possible solutions. 4,716 students took part in the survey, including: 63.8% bachelor's degree students, 11.2% master's degree students, 11.9% residents, 4.6% specialist's degree students, 7.5% PhD students, and 0.7% SVE students.

The index of students satisfied with the online educational process amounted to +0.29. According to the results of the survey, the best organisation of distance learning is observed by the students from the Faculty of Computer Sciences (0.45 index) and the Faculty of Geography, Geoecology, and Tourism (0.39 index). The lowest level of satisfaction is characteristic of the Faculty of Philology (0.14 index), the Faculty of Journalism, the Faculty of Geology, and the Faculty of Chemistry (0.16 index). The low level of satisfaction can be explained by the necessity to adapt to new learning conditions. The education quality survey which was held in the same period showed +0.47 index of overall satisfaction, which is much higher than the value for distance learning (Table 4.14).

Table 4.14

INDICES OF STUDENTS' SATISFACTION WITH THE ORGANISATION OF DISTANCE LEARNING AS COMPARED TO OVERALL ASSESSMENT OF THE QUALITY OF EDUCATION PROVIDED WITHIN EDUCATION PROGRAMMES

Faculty	Assessment of the quality of education, in indices*	
	Studying within the programme	Organisation of distance learning
Faculty of Geology	0.70	0.16
Faculty of Geography, Geoecology, and Tourism	0.71	0.39
Faculty of Journalism	0.39	0.16
Faculty of Computer Sciences	0.51	0.45
Faculty of International Relations	0.55	0.27
Faculty of Applied Mathematics, Informatics, and Mechanics	0.50	0.34
Faculty of Romance and Germanic Philology	0.50	0.31
Faculty of Philosophy and Psychology	0.59	0.24
Faculty of Pharmaceutics	0.54	0.31
Faculty of Physics	0.47	0.21
Faculty of Philology	0.38	0.14
Faculty of Chemistry	0.46	0.16
Faculty of Economics	0.57	0.32
Faculty of Law	0.63	0.27
Faculty of History	0.41	0.24
Faculty of Mathematics	0.55	0.27
Faculty of Biomedical Sciences	0.68	0.33
Total	0.57	0.29

*The range of indices is between –1 and +1, where "+1" is the highest point of satisfaction and "–1" is the lowest.

When assessing the efficiency of distance learning as compared to traditional learning, every third student said that nothing had changed, every fifth spoke about a lower level of efficiency, and 17% noticed improved efficiency. Thus, it can be concluded that there is no definite opinion about the quality of distance learning.

The quality of distance learning is affected by a number of factors. One of them is timely communication. 70% of students said that they were always informed about changes in the timetable, the remaining 30% said that this aspect needed to be improved.

According to students, the most popular distance learning resources was the "Electronic University VSU" (97.4%), email (70%), and Zoom (62.8%). Half of the respondents (51%) did not notice any significant differences between traditional and distance midterm assessment. However, a quarter of the students pointed out that there were technical issues. 66.5% of respondents did not experience any interaction difficulties using "Electronic University VSU" when learning remotely.

An important factor of quality education is interaction with the scientific supervisor. According to the majority of students (66%), the quality of interaction with the scientific supervisor did not change.

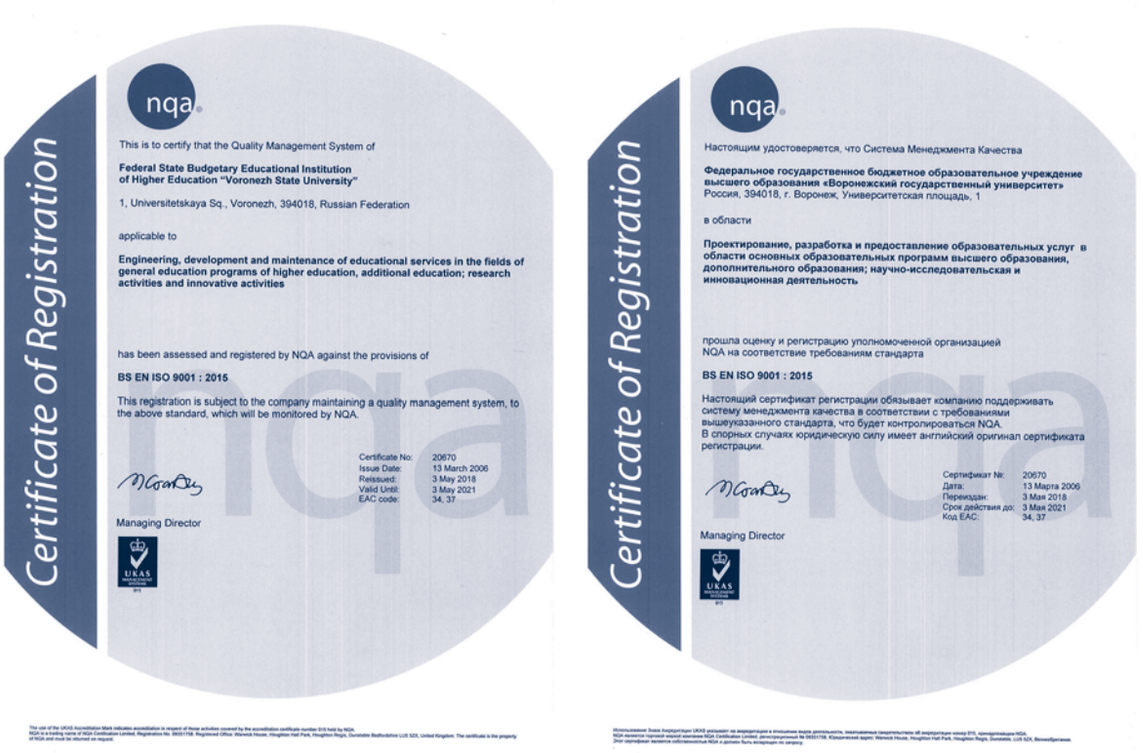
The students' answers about the organisation of lectures and practical classes showed that lecturers mostly gave lectures online in real time by means of a platform and posted the necessary materials, plans of lectures, and a list of books for self-learning in the "Electronic University VSU". As for practical and laboratory classes, the answers included: "online, in real time, together with the rest of the group, as usual", "the lecturer posted questions in an electronic resource, they had to be answered and emailed within a deadline", and "the lecturer gave tasks for group work which had to be defended online".

The positive aspects of distance learning were mostly explained by personal safety reasons: "low risk to catch the infection" and "saving time spent on travel". The students also noted "an opportunity to study in a comfortable environment, from home". However, the analysis of answers to open questions revealed that this factor was controversial. The key disadvantages included a lack of student life, a decrease in physical activity, and a greater amount of independent work.

VSU has used the quality management system for 14 years, which allows maintaining the quality of management in accordance with international standards. In March 2018, the university's quality management system was assessed and registered by the authorised organisation NQA (Tomsk) which checked its compliance with the international standard ISO 9001:2015 in the following areas: designing, developing, and providing educational services in the area of main higher education and further education programmes, research, and innovative activities. The audit involved 11 subdivisions, including 5 faculties. The auditors confirmed that the university had maintained the quality management system. The results of the visit were satisfactory and all the goals were achieved. The audit did not expose any nonconformance. Opportunities for improvement were highlighted. Based on the expert evidence, the university was awarded with a quality certificate till May 2021 (Fig. 4.19).

Figure 4.19

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



Certificate of Registration

nqa

This is to certify that the Quality Management System of

Federal State Budgetary Educational Institution of Higher Education "Voronezh State University"

1, Universitetskaya Sq., Voronezh, 394018, Russian Federation

applicable to

Engineering, development and maintenance of educational services in the fields of general education programs of higher education, additional education; research activities and innovative activities

has been assessed and registered by NQA against the provisions of

BS EN ISO 9001 : 2015

This registration is subject to the company maintaining a quality management system, to the above standard, which will be monitored by NQA.

Certificate No:	20670
Issue Date:	13 March 2006
Reissued:	3 May 2018
Valid Until:	3 May 2021
EAC code:	34, 37

Managing Director

UKAS

Certificate of Registration

nqa

Настоящим удостоверяется, что Система Менеджмента Качества

Федеральное государственное бюджетное образовательное учреждение высшего образования «Воронежский государственный университет»
Россия, 394018, г. Воронеж, Университетская площадь, 1

в области

Проектирование, разработка и предоставление образовательных услуг в области основных образовательных программ высшего образования, дополнительного образования; научно-исследовательская и инновационная деятельность

прошла оценку и регистрацию уполномоченной организацией NQA на соответствие требованиям стандарта

BS EN ISO 9001 : 2015

Настоящий сертификат регистрации обязывает компанию поддерживать систему менеджмента качества в соответствии с требованиями вышеуказанного стандарта, что будет контролироваться NQA.
В спорных случаях юридическую силу имеет английский оригинал сертификата регистрации.

Сертификат №:	20670
Дата:	13 Марта 2006
Переиздан:	3 Мая 2018
Срок действия до:	3 Мая 2021
Код EAC:	34, 37

Managing Director

UKAS

Voronezh State University became a laureate of the 23rd annual regional competition "Voronezh Quality – 2020", a regional stage of the All-Russian competition "100 Best Russian Products". The organisers, including the government of the Voronezh region, the Regional Quality Commission, the State Centre for Standardisation, Metrology, and Examination in the Voronezh Region, and the employers' union "The Council of Manufacturers and Entrepreneurs of the Voronezh Region", assessed the contestants by the conditions of the competitive environment, the quality of products or services, infrastructure and management, environmental security and efficient use of resources, attractiveness and functional acceptability of the service for customers.

It's the sixth time VSU has won in the "Higher Education Services" nomination and confirmed its status as the leading university of the Central Black Earth Region. Laureates of the competition can use the "Voronezh Quality" mark, participate in the All-Russian competition "100 Best Russian Products – 2020", and offer their services on the pages of this year's annual catalogue "Voronezh Quality" (Fig. 4.20).

Figure 4.20

RESULTS OF THE UNIVERSITY'S PARTICIPATION IN THE REVIEW CONTEST "VORONEZH QUALITY" IN 2020

In 2020, Voronezh State University was among the laureates of the 23rd All-Russian competition “100 Best Russian Products”. Among the organisers of the programme are an interregional public organisation “Academy for Quality”, Federal Technical Regulation and Metrology Agency, and a non-profit autonomous organisation “Rossiiskaya Systema Kachestva” (Russian quality system). VSU was recognised as the best in the nomination “Higher Education Services” and was granted with the right to use the golden logo of the competition, label their products and services with the logo of the programme “100 Best Russian Products”, and publish it in their documentation for two years (Fig. 4.21).

Figure 4.21

RESULTS OF THE UNIVERSITY’S PARTICIPATION IN THE 23RD ALL-RUSSIAN COMPETITION “100 BEST RUSSIAN PRODUCTS” IN 2020

In accordance with the letter of the Ministry of Science and Higher Education of the Russian Federation (dated 10.09.2020 No. MN-5/2808), in 2020 VSU participated in the independent quality assessment of the conditions of the academic activity. OOO Verkont Service, a federal operator for independent quality assessment, conducted a survey among the customers of educational services and university representatives. Experts also came to Voronezh State University and the Borisoglebsk branch to examine the conditions of the academic activity. The University showed good results in the main criteria of the quality assessment (Fig. 4.22).

Figure 4.22

INDEPENDENT QUALITY ASSESSMENT CERTIFICATE

4.12. QUANTITATIVE AND QUALITATIVE DATA ON FURTHER VOCATIONAL EDUCATION

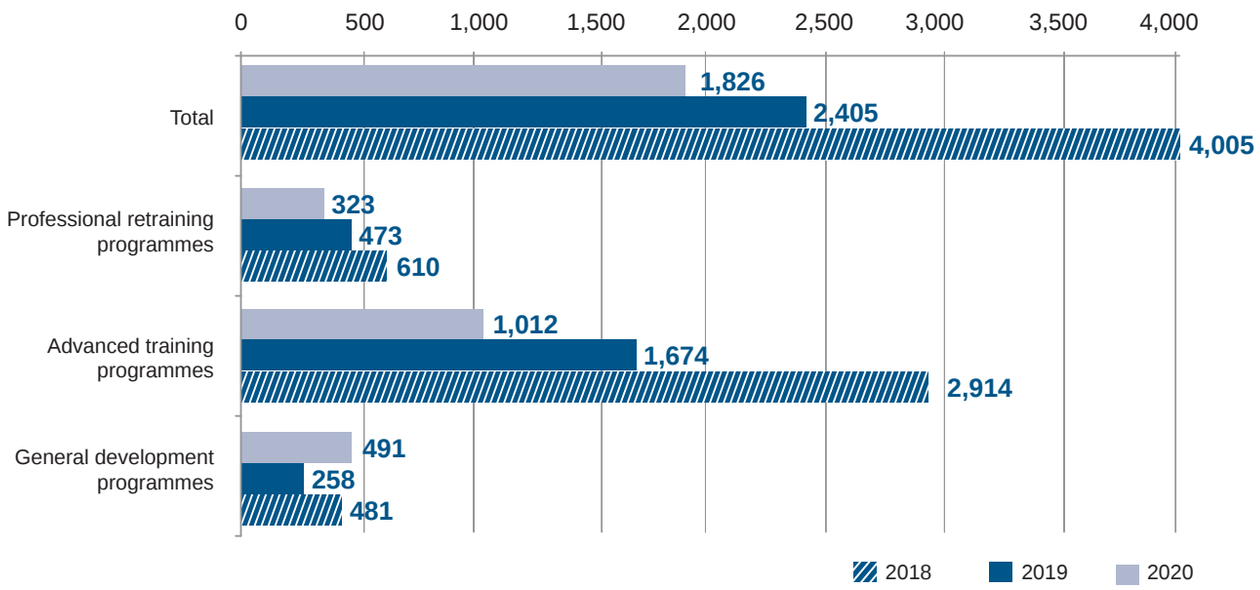
In 2020, 91 further education programmes were implemented at VSU, including:

- 39 general development programmes with 491 students.
- 32 advanced training programmes with 1,012 students.
- 20 professional retraining programmes with 323 students, of whom 161 obtained a new profession. In total, there were 1,826 students.

The dynamics of the number of students at further education programmes is presented in Fig. 4.23.

Figure 4.23

QUANTITATIVE DYNAMICS OF STUDENTS WITHIN FURTHER EDUCATION PROGRAMMES



The distribution of students who completed advanced training and professional retraining courses by types of economic activities was the following:

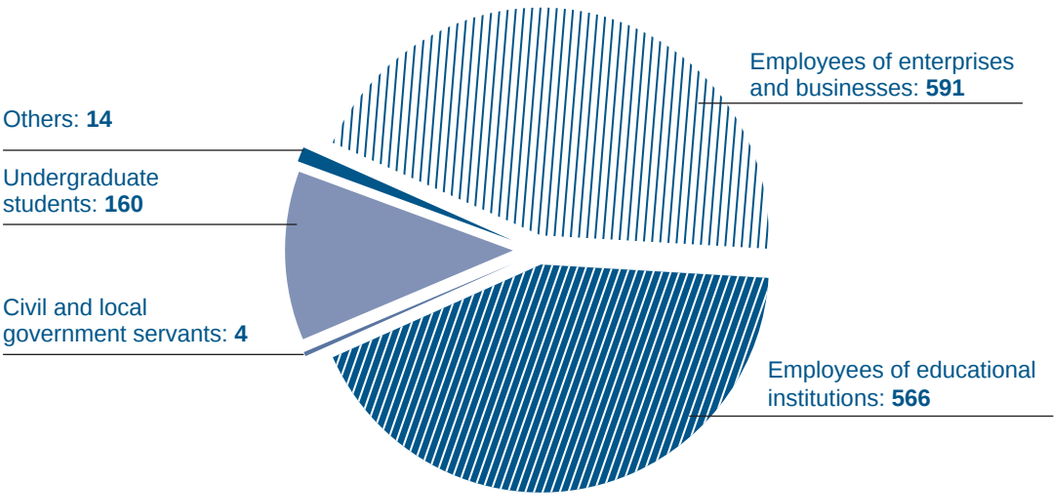
- Education (22 FEP): 597 students.
- Healthcare and social services (7 FEP): 417 students.
- Economics and management (18 FEP): 279 students.
- Information and communication (1 FEP): 10 students.
- Ecology, extraction of mineral resources, collection and recycling of waste (4 FEP): 32 students.

The distribution of students of further professional education by categories was the following:

- 591 employees of enterprises and businesses.
- 566 employees of educational institutions.
- 4 civil and local government servants.
- Students enrolled on the main academic programmes of secondary vocational and higher education: 160 students.
- Others: 14 students (Fig. 4.24).

Figure 4.24

DISTRIBUTION OF THE STUDENTS OF FURTHER PROFESSIONAL EDUCATION PROGRAMMES BY CATEGORIES



Structure of funding sources for further education students in the reporting year[1]:

- Funded by local budget provisions: 98 students.
- Agreements for commercial educational services: 812 students. Among them: agreements funded by individuals: 565 students, agreements funded by legal entities: 247 students, funded by Voronezh State University: 363 students.

As for professional retraining programmes of the state plan programme on training managers for enterprises of the national economy of the Russian Federation (“Finance”, “Marketing”, “Management”), there were 3 co-funding sources according to the agreements for commercial educational services:

- 1/3 funded by federal budget provisions: 62 students.
- 1/3 funded by provisions of regional budgets of the regions of the Russian Federation 62 students.
- 1/3 funded by agreements funded by individuals: 62 students.

In 2020, further education programmes had 120 students with secondary vocational education, 1,055 students with higher education, and 160 students who were getting higher education.

189 people under 25 years old, 151 people aged 25-29, 401 people aged 30-39, 350 people aged 40-49, 49 people aged 50-59, and 94 people aged 60 or over completed further professional education programmes implemented at the University.

In addition to the main academic programmes, the university’s faculties are successfully implementing various professional retraining programmes with certification.

Over the course of 2020, the Faculty of Physics awarded 27 diplomas to the graduates of the programme “Teacher of Physics and Astronomy” and 28 diplomas to the graduates of the programme “Optical Eyecare”; the Faculty of Geography, Geoecology, and Tourism awarded 33 diplomas to the graduates of the programme “Teacher of Geography”; the Faculty of Chemistry awarded 16 diplomas to the graduates of the programme “Teacher of Chemistry”; the Faculty of Romance and Germanic Philology awarded 2 diplomas to the graduates of the programme “Teacher of Philology” and 13 diplomas to the graduates of the programme “Translation for Professional Communication”; the Faculty of Mathematics awarded 10 diplomas to the graduates of the programme “System Engineer”, and the Faculty of Physics awarded 1 diploma to the graduates of the programme “Further Education Teacher (Natural Sciences, Technical Subjects)”.

In 2020, the Institute for Further Professional Education implemented the following professional retraining programmes: Accounting, analysis and audit; Corporate management; Human resource and staff records management. 55 students received their diplomas.

[1] Without students of professional retraining programmes of the state plan programme on training managers for enterprises of the national economy of the Russian Federation (“Finance”, “Marketing”, “Management”).

Educational centres efficiently organise the implementation of further education programmes within research areas. In 2020, the following students completed their advanced training courses: 25 heads of public institutions and organisations of Voronezh Region and 1 lecturer of the Faculty of Economics of VSU completed a course at Professor L. T. Gilyarovskaya Resource Centre; 13 students completed a course at the Legal Innovations and Conciliation Procedures Centre; 3 students completed a course at the Communication Studies Centre, and 17 employees of Voronezh enterprises completed a course at the Radiation Safety Centre.

Senior medical staff from the medical institutions of Voronezh and the Voronezh region (12 students) completed the advanced training programme “Management Basics” at the Managers’ Training Centre. In 2020, 31 heads of various institutions and organisations of Voronezh completed the professional retraining programme “The State Plan for the Training of Management Personnel for the Organisations of the National Economy of the Russian Federation”.

In the reporting year, advanced training programmes were implemented at the VSU Business School. 5 students from one organisation completed the employer-sponsored programme “Project management”, and 4 students from various enterprises and organisations of Voronezh completed the programme “Financial analysis for enterprise activity diagnostics”.

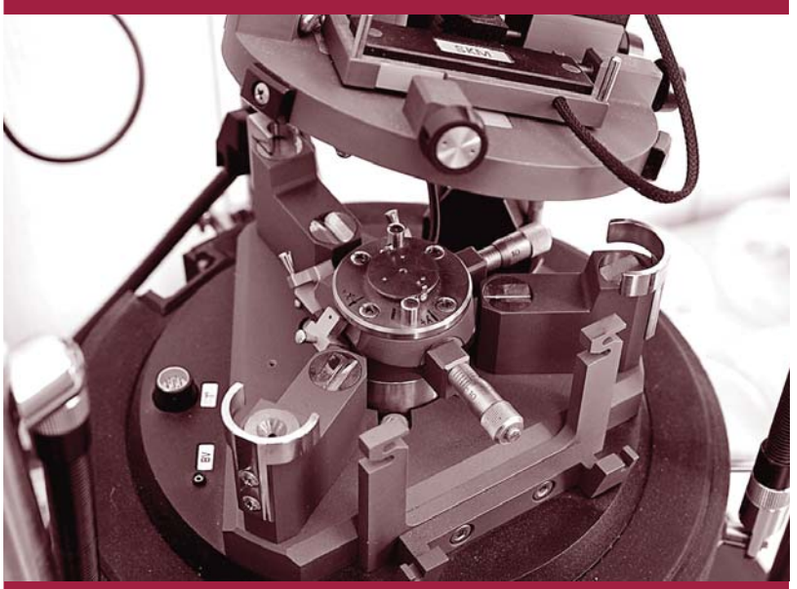
In 2020, 25 students obtained their BBA bachelor’s diplomas at the VSU Business School. The graduates of this programme are students of the Faculty of Economics from the “Management” programme (bachelor’s degree, field of study: Business Administration) who successfully master the curricula of two educational programmes, the Main Academic Programme “Business Administration” and FEP BBA. Upon the completion of the courses, they get two diplomas, which gives them more competitive advantages at the regional labour market.

In 2020, 10 students completed the professional retraining programme and obtained their MBA diplomas at the VSU Business School. The educational process at the VSU Business School was organised using E-learning and digital education technologies of the “Electronic University VSU” portal, which allowed the students of the professional retraining programmes MBA and MSc studying effectively without discontinuing their primary activity.

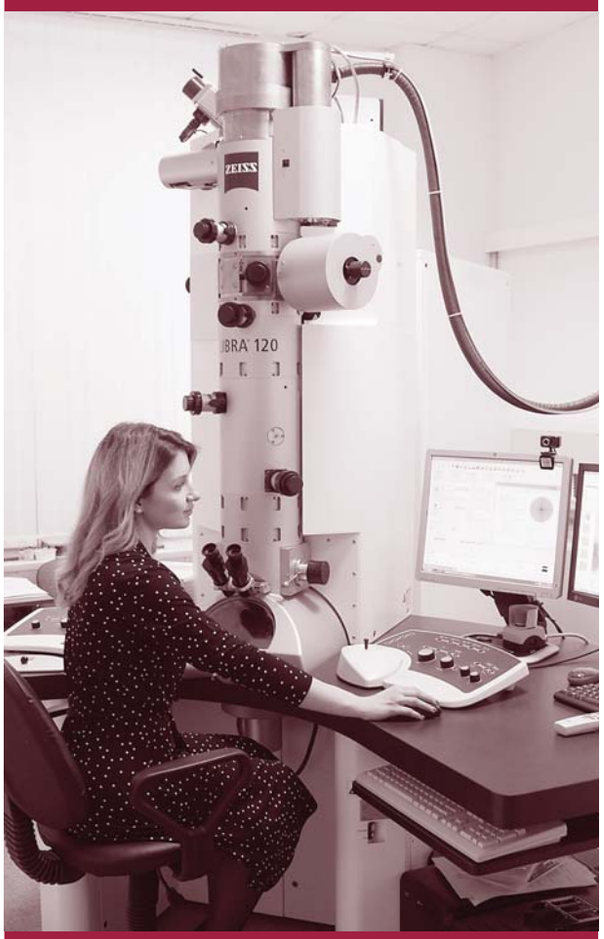
The first graduates completed the international education programme of professional retraining (double degree programme) “General Management” (MSc) implemented at the VSU Business School together with ISC Paris Business School (Paris, France). 21 graduates received their diplomas of professional retraining (General Management) and diplomas of ISC Paris Business School. The final examination was held with the online participation of Charles Berger, chairman of the examination committee and director of ISC Paris Business School.

4.13. MAIN ACHIEVEMENTS OF THE UNIVERSITY IN THE FIELD OF EDUCATIONAL ACTIVITY

- The total number of VSU students in the reporting year, including international students, was 19,518 people distributed by the level of education in the following way: 11,778 bachelor's degree students, 3,490 master's degree students, 2,764 specialist's degree students, 590 PhD students and residents, and 896 secondary vocational education students.
- VSU continued its work on the implementation of two network master's degree programmes with international universities. A network educational programme with Georg August University (Göttingen, Germany) "European languages and world literature" within the bachelor's programme 45.03.02 Linguistics is ready to be approved.
- 4,615 students graduated from the bachelor's programmes (52.8%), master's programmes (34.6%), specialist's programmes (6.9%), postgraduate and residence programmes (2.6%), and secondary vocational education programmes (3.1%).
- 100% of graduates of secondary vocational education programmes from the programme 38.02.01 Economics and Accounting successfully passed the WorldSkills demo exam in the competence R41 RU Accounting.
- In the reporting year, over 100 online courses of leading Russian universities posted on open public educational platforms of the National Open Education Platform and Coursera were integrated in higher education programmes of the university. More than 1,300 students completed their programmes as part of the networking education agreements involving online courses with Federal State-Funded Educational Institutions of Higher Education National Research University Higher School of Economics and the Ural Federal University named after the first President of Russia B. N. Yeltsin.
- The index of the students' satisfaction with the study process and the implementation of educational programmes using e-learning and digital education technologies was +0.57, which shows high level of satisfaction.
- VSU actively participated and showed good results in the independent quality assessment events, including the "Voronezh Quality – 2020" competition, "100 Best Russian Products" programme, and independent quality assessment of the conditions of the academic activity conducted by the Ministry of Science and Higher Education of the Russian Federation and OOO Verkont Service, a federal operator for independent quality assessment.
- The first graduates completed the international education programme of professional retraining "General Management" (MSc) implemented at the VSU Business School together with ISC Paris Business School (Paris, France).




X-RAYS ON
Ready
On
Alarm
Busy
BRUKER



RESEARCH, INNOVATIONS, AND INFORMATISATION

5

5

RESEARCH, INNOVATIONS, AND INFORMATISATION

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

5.1. MAIN OBJECTIVES OF VSU IN THE AREA OF RESEARCH, INNOVATIONS, AND INFORMATISATION FOR THE YEAR 2020

In 2020, the main objectives of VSU in the area of research, innovations, and informatisation were the following.

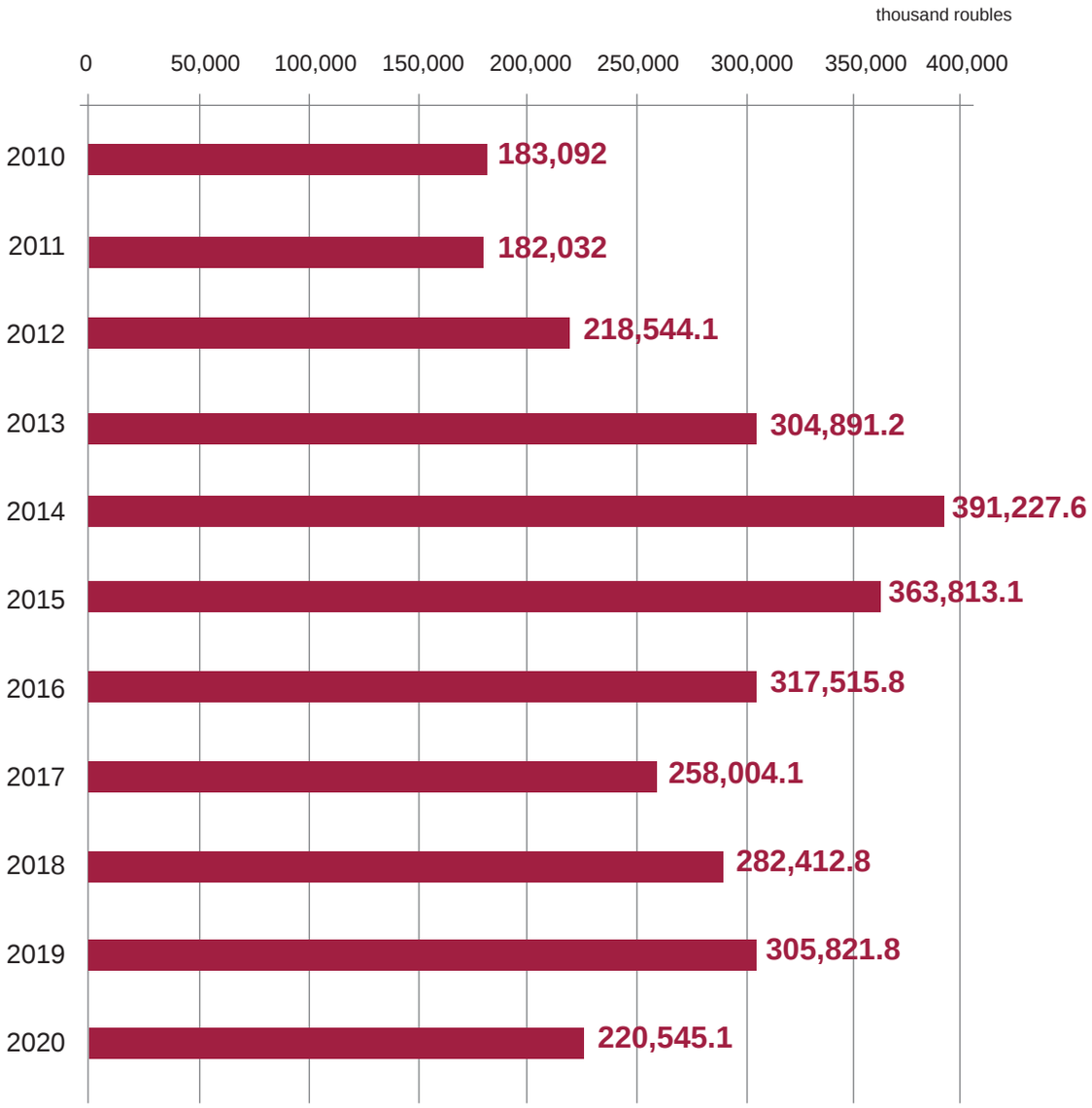
1. To develop a model for the effective fulfilment of VSU's research, technological, and innovative potential, based on systematic collaboration with the industrial enterprises of the Voronezh Region.
2. To encourage VSU researchers to actively participate in various scientific contests and competitions organized by Russian research foundations, international and national projects, and federal target programmes in order to increase the total funding of research conducted at VSU.
3. To organise work aimed at getting VSU journals which are indexed by the Russian Science Citation Index included in Scopus.
4. To develop a programme for the establishment and development of the Research and Educational Centre of the Voronezh Region at VSU.
5. To modernise the university's innovative web portal and the university's official website www.vsu.ru.
6. To encourage the further popularisation of highly ranked manuscripts and innovative projects by VSU researchers.
7. To include incentives for academic staff with good publication records in the "effective contract" system.
8. To continue the formation of target groups carrying out innovation projects for the benefit of the university's industrial partners.

5.2. RESEARCH FUNDING IN 2020-2021

In 2020, total funding for research projects amounted to 220.5 million roubles, which is 85.3 million roubles less than the previous year (Fig. 5.1). The decrease can be primarily accounted for by a shortfall in research funding in the framework of the government order for higher education institutions and commercial R&D projects.

Figure 5.1

RESEARCH FUNDING IN 2010-2020



5.3. VSU RESEARCH FUNDING IN 2020 BY SOURCE

Of the total sum invested in research: 28.8 million roubles (13.1%) was received for funding projects under the Government Order by the Ministry of Education and Science of the Russian Federation for higher education institutions in the area of scientific research; 20.0 million roubles (9.1%) for research and development in top-priority areas of science and technology in Russia for the 2014-2020 Federal Target Programme; and 121.1 million roubles (54.9%) constituted grants from the Russian foundations supporting scientific and technical research.

In 2020, state funding constituted 82.0% of the total funding. 17.3% came from industrial enterprises and other organisations that were interested in innovations and planned to implement the results of the research conducted at VSU within their production processes.

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

Table 5.1

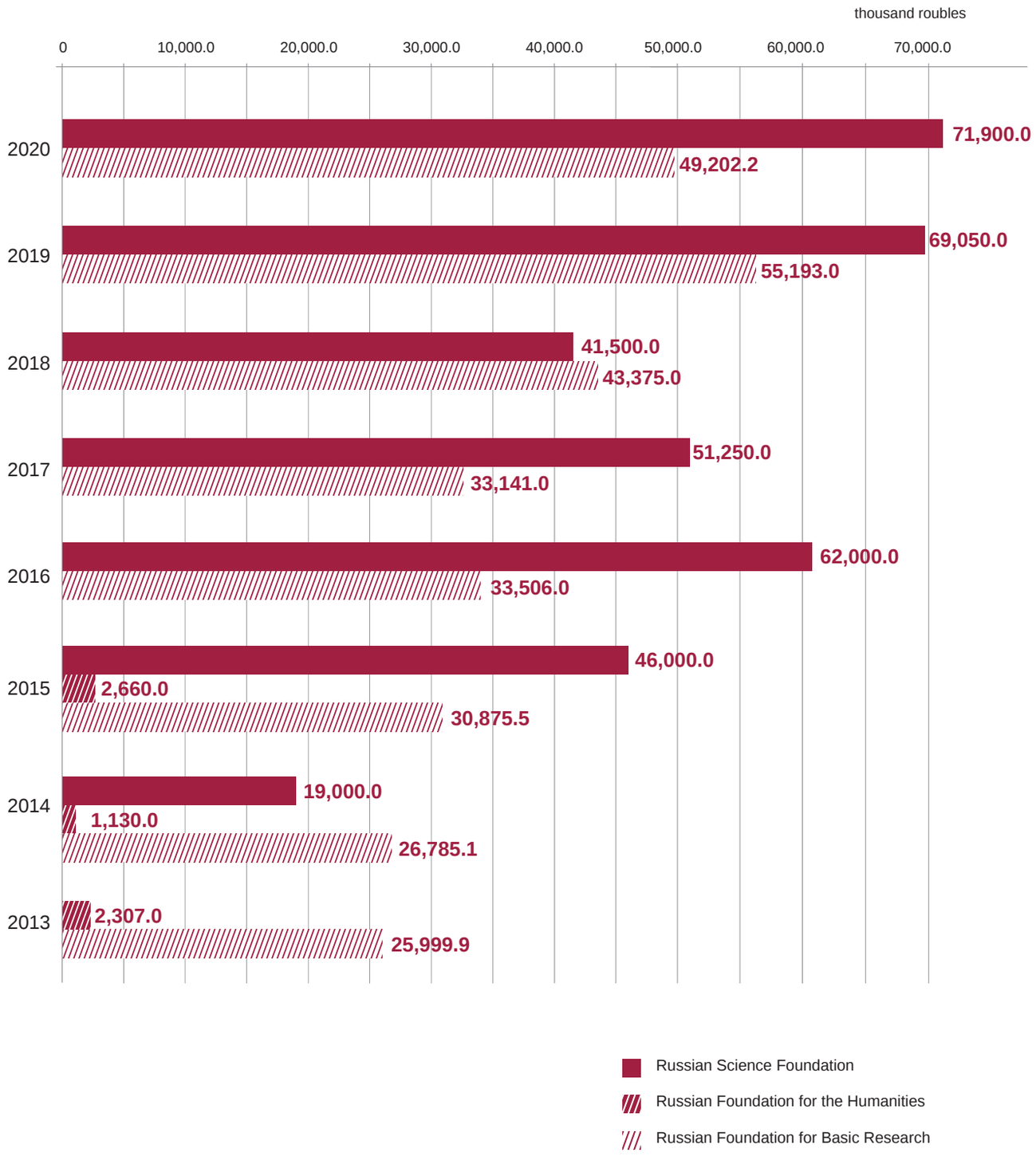
SOURCES OF VSU'S RESEARCH FUNDS IN 2020

Source of funding	Percentage
Ministry of Science and Higher Education of the Russian Federation	26.1
Russian foundations supporting scientific and technical research and innovations	54.9
Federation subjects and local budget	1.0
Russian economic entities	17.3
Other non-governmental organisations in Russia and VSU funds	0.4
International sources	0.3

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 VSU'S ACADEMIC STAFF IN 2020

Table 5.2

PAPERS PUBLISHED BY VSU'S ACADEMIC STAFF IN 2020

No.	Indicator	2019	2020
1	Published articles (database "Academic staff articles")	4,416	4,600
2	Published articles (Russian Science Citation Index database)	4,328	3,984
3	Total number of citations (Russian Science Citation Index database)	11,916	15,634
4	Total H-index (Russian Science Citation Index database)	126 24th place	140 23rd place
5	Articles published in journals indexed by Web of Science	291	295
6	Total number of citations per year (Web of Science)	2,425	2,849
7	Articles published in journals indexed by Scopus	420	481
8	Total number of citations per year (Scopus)	2,431	3,832

Some more data from the Academic staff articles database:

- Number of monographs: 2019 (68), 2020 (77)
- Number of text books: 2019 (410), 2020 (368).

Table 5.3

FACULTIES LISTED ACCORDING TO THE HIRSH INDEX (RUSSIAN SCIENCE CITATION INDEX DATA) AS OF 18 JANUARY 2021

No.	Name	Hirsch index
1	Faculty of Law	78
2	Faculty of Philology	60
3	Faculty of Economics	57
4	Faculty of Medicine and Biology	48
5	Faculty of Physics	47
6	Faculty of Romance and Germanic Philology	45
7	Faculty of Mathematics	43
8	Faculty of Geology	41
9	Faculty of Chemistry	38
10	Faculty of History	38
11	Faculty of Applied Mathematics, Informatics, and Mechanics	36
12	Faculty of Geography, Geoecology, and Tourism	35
13	Faculty of Philosophy and Psychology	28
14	Faculty of Journalism	25
15	Faculty of Computer Sciences	25
16	Faculty of Pharmaceutics	20
17	International Education Institute	19
18	Faculty of International Relations	18
19	Military Training Centre	4
20	The Department of Physical Education and Sports	2

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

Table 5.4

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

No.	Name	the Hirsch index
1	Iosif A. Sternin	59
2	Dmitry A. Endovitsky	39
3	Yury N. Starilov	39
4	Yury I. Treschevsky	33
5	Arkady D. Savko	32
6	Oleg Ya. Baev	32
7	Nikolay L. Manakov	30
8	Marina V. Sentsova	27
9	Evelina P. Domashevskaya	27
10	Anatoly G. Baskakov	26
11	Vladimir B. Mikhno	25
12	Vasily N. Popov	24
13	Viktor N. Glaznev	24
14	Larisa S. Korobeinikova	23
15	Pavel V. Seredin	23
16	Mikhail V. Frolov	23
17	Oleg P. Negrobov	23
18	Vladimir F. Selemenev	22
19	Stanislav G. Kadmensky	22
20	Lyudmila I. Grishaeva	22
21	Valeriy G. Artyukhov	22
22	Igor E. Risin	22
23	Pavel N. Biryukov	22
24	Vladimir Shaposhnik	22
25	Alexey A. Kretov	22
26	Vladimir M. Kashkarov	22

Figure 5.3

NUMBER OF PAPERS BY VSU STAFF ACCORDING
TO WEB OF SCIENCE CORE COLLECTION AS OF 25 FEBRUARY 2021

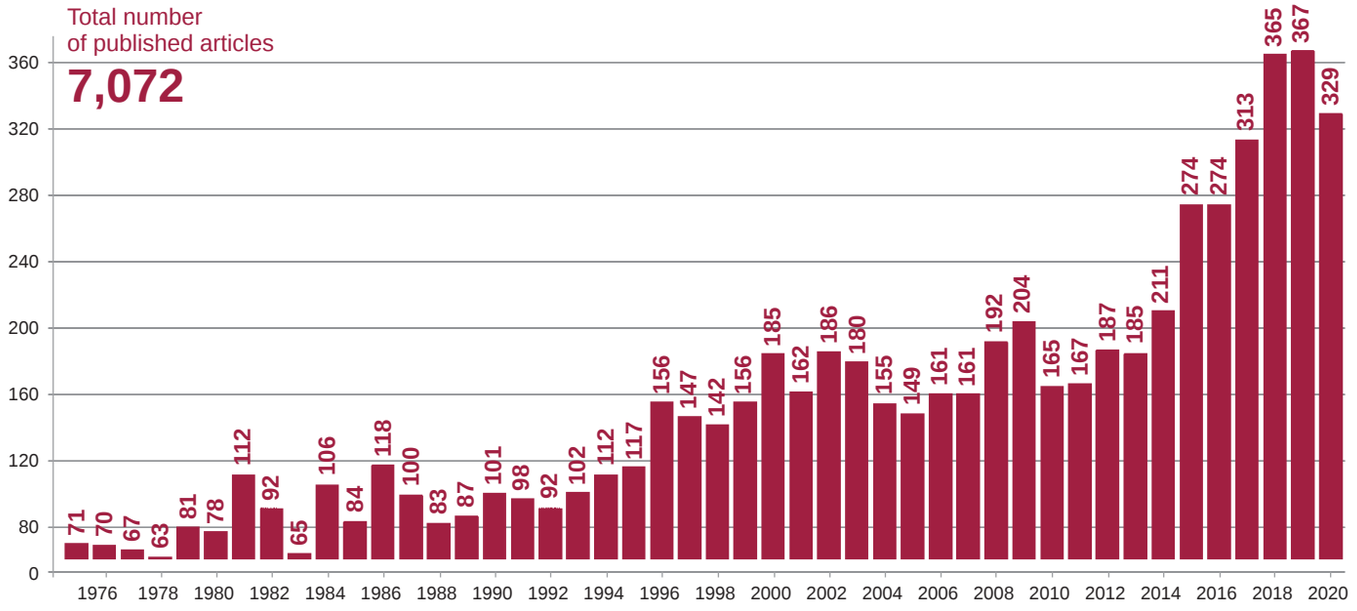
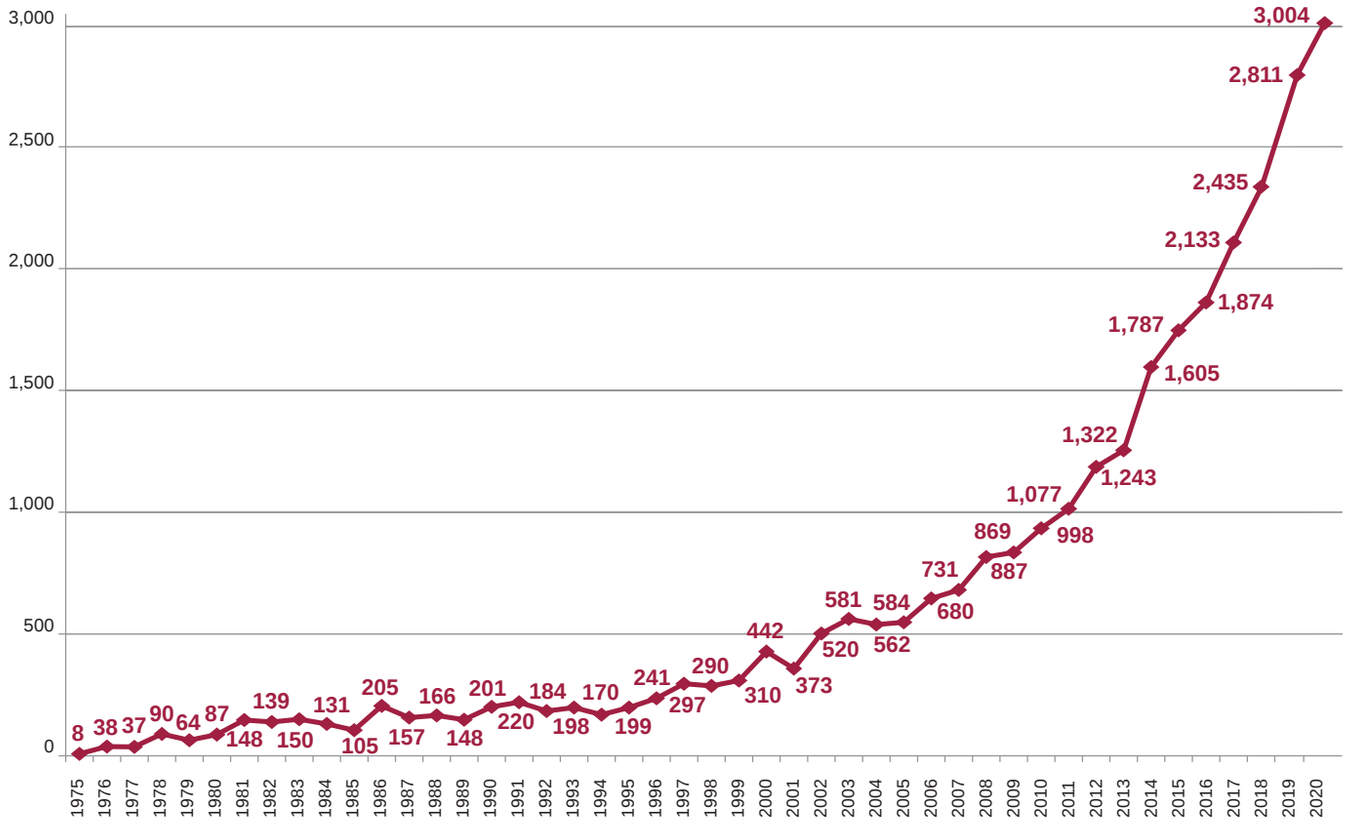


Figure 5.4

CITATION DATA ACCORDING TO WEB OF SCIENCE CORE COLLECTION AS OF 25 FEBRUARY 2021



5.5. VSU ACADEMIC AND SCIENTIFIC SCHOOLS AND RESEARCH AREAS

RESEARCH IS CARRIED OUT WITHIN 29 MAJOR THEMATIC PRIORITIES IN THE FIELDS OF

1. Analytical, geometrical, and numerical methods of studying differential equations.
2. Function theory and functional analysis.
3. Mathematical modelling, software and dataware, methods of numerical and applied mathematics in fundamental scientific research.
4. Deformable body and fluid mechanics.
5. Solid-state nanostructures. Physics of magnetic and ferroelectric phenomena. Semiconductors and semiconductor structures. Microwave solid-state devices.
6. Fundamental nuclear physics. Cosmic-ray physics and the nuclear aspects of astrophysics. Nuclear physics issues.
7. Fundamental issues of material-radiation interaction.
8. Issues of information transfer, acquisition, processing, and storage. Radioelectronic device electromagnetic compatibility.
9. High-temperature processes in chemistry and materials science.
10. Catalysis, phase equilibrium, physical and chemical processes in solutions, melts, and solid bodies.
11. Surface phenomena, 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 interactions 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 interactions between society and the environment.
17. The scientific foundation of social and economic policies and business practice.
18. Economics management system: emergence and development.
19. Individuals as subjects of social change: social, humanitarian, and psychological concerns.
20. Archaeology and ethnography of the Central Black Earth Region.
21. Russian and European History.
22. International literatures and languages and their interaction. The issue of international communication.
23. A contrastive-comparative study of Germanic, Romance, and Slavic languages and cultures.
24. Mass media history, theory, and practice.
25. The Russian state and its legal framework: modern development, concerns, and prospects.
26. Educational processes in the changing sociocultural environment, acmeology.
27. Social and political processes, crises, conflicts.
28. The theory, methodology, and policies of accounting, analysis, and monitoring the activity of economic entities.
29. Supercomputer technologies, quantum and distributed computing, big data.

THERE ARE 43 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

A leading scientific school

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)

Founded by Professor L.P. Rapoport, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation

Head Researcher in the subdivision “Formation of multiply charged ions in a strong laser field. Linear and nonlinear susceptibilities of atoms and diatomic molecules” – Professor B.A. Zon, DSc in Physics and Mathematics, Honoured Scientist of the Russian Federation

Head Researcher in the subdivision “Interactions of intense short and ultra-short laser fields with atomic and molecular systems” – Professor N.L. Manakov, DSc in Physics and Mathematics

A leading scientific school

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

Head Researcher – Professor E.A. 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

Head Researcher – Professor Yu.S. Radchenko, DSc in Physics and Mathematics

A leading scientific school

9. Photostimulated processes on crystals with ion and covalent bonds

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

10. Atomic and electron structure of condensed matter and nanostructures

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

A leading scientific school

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

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

Head Researcher in the subdivision “Physical and chemical principles of the synthesis of solid materials for microelectronics” – Professor G.V. Semenova, DSc in Chemistry

Head Researcher in the subdivision “Study of semiconductors and nanostructured functional films based on them” – Professor I.Ya. Mittova, DSc in Chemistry

A leading scientific school

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 of metals and alloys

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

Head Researcher – Professor A.V. Vvedensky, DSc in Chemistry

A leading scientific school

16. Solid state chemistry (physicochemistry of heterogeneous equilibria)

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

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

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

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

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

19. Plant metabolism organization and regulation

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

20. Soil genesis, evolution, and ecology in Central Russia

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

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

A leading scientific school

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

Head Researcher – Professor V.M. Nenakhov, DSc in Geology

A leading scientific school (participated 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. East European forest-steppe archaeology

Founded by Professor A.D. Pryakhin, DSc in History, Honoured Scientist of the Russian Federation

Head Researcher – Professor A.P. Medvedev, DSc in History

A leading scientific school

27. Economics theory and the global 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. Eytingon, PhD in Economics, Honoured Economist of the Russian Federation

Head Researcher – Professor Yu.I. Treschevsky, DSc in Economics

A leading scientific school

30. Philosophy Philosophy of Science

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

A leading scientific school

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)

Head Researcher – Professor B.T. Udodov, DSc in Philology, Honoured Scientist of the Russian Federation

33. History of journalism

Founded by 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. Global and Russian linguistics

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

Head Researcher – Professor I.A. Sternin, DSc in Philology, Honoured Scientist of the Russian Federation

A leading scientific school

37. Physical geography, geophysics, and landscape geochemistry

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

38. Administrative and administrative procedure law

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

A leading scientific school

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. Ievlev, DSc in Physics and Mathematics, Full Member of the Russian Academy of Sciences

A leading scientific school (participated in the state support programme for the leading scientific schools in Russia)

42. Analysis and audit

Head Researcher – Professor D.A. Endovitsky, DSc in Economics

A leading scientific school

43. Photoprocesses in nanostructures

Head Researcher – Professor O.V. Ovchinnikov, DSc in Physics and Mathematics

(participated in the state support programme for the leading scientific schools in Russia)

A leading scientific school

5.6. VSU DISSERTATION COMMITTEES' PERFORMANCE

In 2020, 14 dissertation boards in 30 fields of study were operating at VSU. There were also 4 joint dissertation boards operating in 6 fields of study (Table 5.5).

Table 5.5

DISSERTATION BOARDS AS OF 1 JANUARY 2021

Code of the dissertation board, fields of study	Chairperson, Academic Secretary, contacts
D 212.038.01 09.00.01 Ontology and Epistemology (Philosophy) 09.00.11 Social Philosophy (Philosophy)	**Alexandr S. Kravets**, Chairperson **Irina Yu. Tikhonova**, Academic Secretary Phone: +7 (473) 255-08-57 E-mail: dekanat@phypsy.vsu.ru
D 212.038.03 03.01.04 Biochemistry (Biology) 03.01.02 Biophysics (Biology)	**Valery 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 (Physics and Mathematics) 01.04.05 Optics (Physics and Mathematics) 01.04.07 Condensed Matter Physics (Physics and Mathematics)	**Oleg V. Ovchinnikov**, Chairperson **Dmitry L. Goloschapov**, Academic Secretary Phone: +7 920-459-40-93 E-mail: goloshchapov@phys.vsu.ru
D 212.038.07 10.02.01 Russian Language (Philology) 10.02.19 Linguistic Theory (Philology)	**Alexey A. Kretov**, Chairperson **Inna A. Merkulova**, Academic Secretary Phone: +7 (473) 276-92-61 E-mail: a_a_kretov@rambler.ru
D 212.038.08 02.00.01 Inorganic Chemistry (Chemistry) 02.00.04 Physical Chemistry (Chemistry) 02.00.05 Electrochemistry (Chemistry)	**Alexander V. Vvedensky**, Chairman **Boris V. Sladkopevtsev**, Academic Secretary Phone: +7 (473) 220-85-46 E-mail: dp-kmins@yandex.ru
D 212.038.10 01.04.03 Radiophysics (Physics and Mathematics) 01.04.10 Semiconductor Physics (Physics and Mathematics) 05.13.01 System Analysis, Management and Information Processing (Radioengineering, Automatics, Communications); (Physics and Mathematics)	**Vladimir A. Terekhov**, Chairperson **Vladislav A. Stepkin**, Academic Secretary Phone: +7 920-469-45-30 E-mail: stepkin@phys.vsu.ru
D 212.038.12 07.00.02 Russian History (History) 07.00.06 Archaeology (History)	**Mikhail D. Karpachev**, Chairperson **Elena Yu. Zakharova**, Academic Secretary Phone: +7 (473) 224-75-14 E-mail: m-karpach@mail.ru; ez@hist.vsu.ru
D 212.038.14 10.01.01 Russian literature (Philology) 10.01.03 International Literature (literature of the countries of Germanic and Romance language families) (Philology)	**Viktor M. Akatkin**, Chairperson **Alexander A. Zhitenev**, Academic Secretary Phone: +7 (473) 255-99-49, 220-89-41 E-mail: msv2012kafedra@yandex.ru, pravdukhina@phil.vsu.ru
D 212.038.15 08.00.01 Economics Theory (Economics). 08.00.05 Economics and National Economy Management (by field and sphere of activity, including Labour Economics and Regional Economics) (Economics)	**Tatiana N. Gogoleva**, Chairperson **Galina V. Golikova**, Academic Secretary Phone: +7 (473) 228-11-60 (IP 5130) E-mail: tgogoleva2003@mail.ru
D 212.038.16 10.02.04 Germanic Languages (Philology) 10.02.05 Romance Languages (Philology)	**Natalia A. Fenenko**, Chairperson **Oxana M. Voevudskaya**, Academic Secretary Phone: +7 960-110-41-78 E-mail: fenenko@rgph.vsu.ru

End of table 5.5

Code of the dissertation board, fields of study	Chairperson, Academic Secretary, contacts
D 212.038.18 10.01.10 Journalism (Philology)	**Vladimir V. Tulupov**, Chairperson **Alexander A. Kazhikin**, Academic Secretary Phone: +7 (473) 274-52-71 E -mail: vlvtul@mail.ru
D 212.038.19 02.00.02 Analytical Chemistry (Chemistry) 02.00.03 Organic Chemistry (Chemistry) 02.00.21 Solid State Chemistry (Chemistry)	**Viktor N. Semenov**, Chairman **Nadezhda V. Stolpovskaya**, Academic Secretary Phone: +7 (473) 220-89-73 E-mail: kcmf@main.vsu.ru
D 212.038.20 05.13.17 Theory of Informatics (Physics and Mathematics) 05.13.18 Mathematical Modelling, Numerical Methods and Program Systems (Physics and Mathematics)	**Alexander D. Baev**, Chairperson **Sergey A. Shabrov**, Academic Secretary Phone: +7 (473) 220-84-01, 220-86-90 E-mail: shaspoteha@mail.ru
D 212.038.23 08.00.12 Accounting, Statistics (Economics)	**Dmitry A. Endovitsky**, Chairperson **Tatiana A. Pozhidayeva**, Academic Secretary Phone: +7 (473) 275-57-27, 239-29-33 E-mail: endov@econ.vsu.ru
D 999.010.03 13.00.01 General Pedagogics, History of Pedagogics and Education (Pedagogics) 13.00.08 Theory and methods of vocational education Pedagogical Sciences (Pedagogics) FSFEI HE "Voronezh State University" FSFEI HE "Lipetsk State Pedagogical University" FSFEI HE Russian Air Force Military Educational and Scientific Centre "Air Force Academy named after Professor N.E. Zhukovsky and Y.A. Gagarin" (Voronezh)	**Natalia I. Viyunova**, Chairperson **Elena V. Krivotulova**, Academic Secretary Phone: +7 (473) 255-72-01 E-mail: vjunova@mail.ru
D 999.109.03 05.13.01 System Analysis, Management and Information Processing (Radioelectronics, Automatics, Communications) (Technical Sciences) 05.13.06 Automation and control of the technological processes and production (industry) (Technical Sciences) FSFEI HE "Voronezh State Technical University" FSFEI HE "Voronezh State University" FSFEI HE "Lipetsk State Technical University"	**Semen L. Podvalny**, Chairman **Tatiana M. Ledeneva**, Vice Chairperson **Anatoly K. Pogodaev**, Vice Chairperson **Svetlana Yu. Beletskaya**, Academic Secretary Phone: +7 (473) 243-77-18
D 999.159.03 08.00.05 Economics and National Economy Management (by field and sphere of activity, including Labour Economics and Regional Economics) (Economics) FSFEI HE "Southwest State University" FSFEI HE "Orel State University of Economics and Trade" FSFEI HPE "Voronezh State University"	**Yulia V. Vertakova**, Chairperson **Inna G. Parshutina**, Vice Chairperson **Yury I. Treschevsky**, Vice Chairperson **Yulia S. Polozhentseva**, Academic Secretary Phone: +7 (4712) 22-26-46
D 999.191.02 01.02.04 Solid Mechanics (Physics and Mathematics, and Technical Sciences) FSFEI HPE "Tula State University" FSFEI HPE "Voronezh State University"	**Alexey A. Markin**, Chairperson **Alexander I. Shashkin**, Vice Chairperson **Vadim V. Glagolev**, Academic Secretary Phone: +7 (4872) 73-44-50

5.7

In 2020, 53 dissertations were defended at Voronezh State University dissertation boards, including 3 doctoral dissertations and 50 PhD dissertations. 7 dissertations were defended by postgraduate students graduating in 2012, 5 PhD dissertations were defended by university staff members (Table 5.6). 3 PhD dissertations were defended at dissertation boards belonging to other universities.

Table 5.6

NUMBER OF PEOPLE WHO OBTAINED THEIR PHD AND DSC DEGREES IN 2020, BY THE FIELD OF STUDY

Code of the dissertation board	Code of the field of study of the board	The number of dissertations considered in 2020						
		PhD				DSc		
		Total	VSU employees	VSU postgraduate students (graduated in 2020)	External applicants	Total	VSU employees	External applicants
D 212.038.01	09.00.01 Ontology and Epistemology	–	–	–	–	–	–	–
	09.00.11 Social Philosophy	2	2	–	–	1	–	1
D 212.038.03	03.01.02 Biophysics	2	–	–	2	–	–	–
	03.01.04 Biochemistry	1	–	1	–	–	–	–
D 212.038.06	01.04.02 Theoretical Physics	–	–	–	–	–	–	–
	01.04.05 Optics	2	–	1	1	–	–	–
	01.04.07 Condensed Matter Physics	2	–	–	2	–	–	–
D 212.038.07	10.02.01 Russian Language	4	–	–	4	–	–	–
	10.02.19 Linguistic Theory	1	–	1	–	–	–	–
D 212.038.08	02.00.01 Inorganic Chemistry	–	–	–	–	–	–	–
	02.00.04 Physical Chemistry	1	–	–	1	–	–	–
	02.00.05 Electrochemistry	1	–	–	1	–	–	–
D 212.038.10	01.04.03 Radiophysics	–	–	–	–	–	–	–
	01.04.10 Semiconductor Physics	–	–	–	–	–	–	–
	05.13.01 System Analysis, Management and Information Processing	–	–	–	–	–	–	–
D 212.038.12	07.00.02 Russian History	–	–	–	–	1	–	1
	07.00.06 Archaeology	2	–	1	1	–	–	–

End of table 5.6

Code of the dissertation board	Code of the field of study of the board	The number of dissertations considered in 2020						
		PhD				DSc		
		Total	VSU employees	VSU postgraduate students (graduated in 2020)	External applicants	Total	VSU employees	External applicants
D 212.038.14	10.01.01 Russian literature	1	1	–	–	–	–	–
	10.01.03 International Literature (literature of the countries of Germanic and Romance language families)	1	–	–	1	–	–	–
D 212.038.15	08.00.01 Economics Theory	1	–	–	1	–	–	–
	08.00.05 Economics and National Economy Management (by field and sphere of activity, including Labour Economics and Regional Economics)	5	–	2	3	–	–	–
D 212.038.16	10.02.04 Germanic Languages	4	1	1	2	–	–	–
	10.04.05 Romance Languages	1	–	–	1	–	–	–
D 212.038.18	10.01.10 Journalism	5	–	–	5	–	–	–
D 212.038.19	02.00.02 Analytical Chemistry	2	–	–	2	–	–	–
	02.00.03 Organic Chemistry	–	–	–	–	–	–	–
	02.00.21 Solid State Chemistry	–	–	–	–	–	–	–
D 212.038.20	05.13.17 Theory of Informatics	–	–	–	–	–	–	–
	05.13.18 Mathematical Modelling, Numerical Methods and Program Systems	3	1	–	2	–	–	–
D 212.038.23	08.00.12 Accounting, Statistics	4	–	–	4	–	–	–
D 999.010.03	13.00.01 General Pedagogics, History of Pedagogics and Education	2	–	–	2	–	–	–
	13.00.08 Theory and methods of vocational education Pedagogical Sciences	3	–	–	3	1	–	1
	Total	**50**	**5**	**7**	**38**	**3**	**–**	**3**

The training of DSc students was conducted in accordance with the specialisations of the dissertation boards. In 2020, there were 3 postdoctoral students in the following fields of study: 08.00.01 Economics Theory, 08.00.05 Economics and National Economy Management (Regional Economics), 08.00.12 Accounting, Statistics.

Members of the dissertation boards are required to publish their articles regularly in journals, primarily those included in Web of Science and Scopus, as well as specialised professional databases such as 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 examined the originality of the text to isolate cases of copying material without reference to the author and/or the source of the citation.

5.7. LIST OF RESEARCH PROJECTS AND GRANTS

SCIENTIFIC RESEARCH AS A CORE PART OF THE GOVERNMENT ORDER OF THE MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION (3 PROJECTS)

FZGU-2020-0036 Research project No. 17022 2020-2022

Basic research of the atomic and electronic structure of multifunctional hybrid nanoheterostructures and new materials to be used in sensor and impulse ultra-wideband radioelectronic systems

Head Researcher – Professor E.P. Domashevskaya, DSc in Physics and Mathematics (Faculty of Physics, Department of Solid-State Physics and Nanostructures)

FZGU-2020-0044 Research project No. 20029 2020-2022

Biochemical and molecular mechanisms of oxidative metabolism in plants as an adaptive response to stress

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

FZGU-2020-0035 Research project No. 20042 2020-2022

Nonlinear problems in physics and mathematics applied in laser physics and hydrodynamics

Head Researcher – Associate Professor M.V. Frolov, DSc in Physics and Mathematics (Faculty of Physics, Department of Theoretical Physics)

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

MD-42.2019.2 Research project No. 19029 2019-2020

Highly functional hybrid epitaxial nanoheterostructures based on A3B5 semiconductor compounds, A3N nitrides, and porous silicon

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

MD-1982.2020.4 Research project No. 20022 2020-2021

Developing a targeted cysteinum proteases delivery system based on biodegradable polysaccharides modified with vinyl monomers

Head Researcher – Associate Professor M.G. Kholyavka, DSc in Biology (Faculty of Medicine and Biology, Department of Biophysics and Biotechnology)

GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR THE SUPPORT OF RESEARCH BY YOUNG RUSSIAN SCIENTISTS WITH A PHD DEGREE (5 GRANTS)

MK-254.2020.4 Research project No. 20023 2020-2021

The effect of dihydroquinoline derivatives on pyrogenetic mechanisms and oxidative metabolism in rats with cerebral ischemic lesions

Head Researcher – Associate Professor E.D. Krylsky, PhD in Biology (Faculty of Medicine and Biology, Department of Medical Biochemistry and Microbiology)

MD-42.2019.2 Research project No. 19025 2019-2020

Developing structurally and morphologically similar biochemical materials comparable to enamelum and dental tissue of a human tooth with stable binding and integration in the mineral and organic tooth/biocomposite system

Head Researcher – senior research fellow D.L. Goloschapov, PhD in Physics and Mathematics (Joint Laboratory Physics of Nanoheterostructures and Semiconductor Materials)

MD-586.2019.2 Research project No. 19026 2019-2020

Photoprocesses in hybrid associates of Ag_2S colloid quantum dots and the indocyanine green dye used for cancer theranostics

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

MD-933.2019.8 Research project No. 19027 2019-2020

Holographic technique for the space-time processing of hydroacoustic signals in shallow-water ocean waveguides

Head Researcher – senior research technician D.Yu. Prosovetsky, DSc in Physics and Mathematics (Communication Studies Centre)

MD-3173.2019.11 Research project No. 19028 2019-2020

Studying the protective properties of methylene blue in case of intoxication of pollinating insects by pesticides

Head Researcher – Associate Professor M.Yu. Syromyatnikov, PhD in Biology (Faculty of Medicine and Biology, Department of Genetics, Cytology, and Bioengineering)

GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION TO SUPPORT LEADING SCIENTIFICSCHOOLS OF THE RUSSIAN FEDERATION (1 PROJECT)

NSH-2613.2020.2 Research project No. 20021 2020-2021

Photoprocesses in hybrid nanostructures used in next-generation quantum sensors

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

GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR YOUNG SCIENTISTS AND PHD STUDENTS (4 PROJECTS)

SP-95.2018.4 2018-2020

Developing biodegradable micro- and nanoparticles for the targeted delivery of neurotropic drugs

Head Researcher – Associate Professor Yu.A. Polkovnikova, PhD in Pharmacy (Faculty of Pharmaceutics, Department of Pharmaceutical Chemistry and Pharmaceutical Engineering)

SP-2386.2018.4 2018-2020

Standardisation and assessment of the quality of certain Polygonum specimens and herbal medicines based on them

Head Researcher – Associate Professor A.S. Chistyakova, PhD in Pharmacy (Faculty of Pharmaceutics, Department of Pharmaceutical Chemistry and Pharmaceutical Engineering)

SP-683.2018.5 2018-2020

Studying data transfer algorithms based on ultra-wideband quasi-radio signals

Head Researcher – Associate Professor K.D. Titov, PhD in Physics and Mathematics (Faculty of Physics, Department of Radiophysics)

SP-2608.2019.4 2019-2021

Potentiometric sensors based on perfluorinated membranes and electrically conductive dopants used to identify anaesthetic and antimicrobial drugs

Head Researcher – T.S. Kolganova, PhD in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

FEDERAL TARGET PROGRAMME “RESEARCH AND DEVELOPMENT IN TOP-PRIORITY AREAS OF SCIENCE AND TECHNOLOGY IN RUSSIA FOR 2014–2020” (1 PROJECT)

Research project No. 19054 2018-2020

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

Head Researcher – Professor V.N. Kalaev, DSc in Biology (Faculty of Medicine and Biology, Department of Genetics, Cytology, and Bioengineering, EFKO Department of Molecular Biotechnology)

RUSSIAN SCIENCE FOUNDATION GRANTS FOR CONDUCTING BASIC RESEARCH AND SCIENTIFIC SEARCH BY RESEARCH GROUPS (9 PROJECTS)

19-11-00146 Research project No. 19016 2019-2021

Functional analysis in modern hydrodynamics problems

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

19-11-00197 Research project No. 19013 2019-2021

Linear and nonlinear equations in the spaces of function and their application for problems in physics and technology

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

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

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

Head Researcher – Professor M.V. Frolov, DSc in Physics and Mathematics (Faculty of Physics, Department of Theoretical Physics)

19-14-00150 Research project No. 19018 2019-2021

Epigenetic and enzymic mechanisms for the regulation of respiratory metabolism and the formation of reactive oxygen and nitrogen intermediates in adaptive responses of the plant cell to stress factors

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

19-12-00095 Research project No. 19015 2019-2021

Studying multiquantum processes with the participation of free and bound atoms, ions, and molecules for infrared physical astronomy

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

19-12-00266 Research project No. 19017 2019-2021

Managing photostability and quantum efficiency of IR luminescence of Ag_2S colloid quantum dots for applications of quantum sensor studies

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

19-18-00205 Research project No. 19020 2019-2021

Poets and poetry in the post-historical era

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

20-14-00137 Research project No. 20026 2020-2022

Genomics and physiology of filamentous colourless sulphur bacteria

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

20-17-00172 Research project No. 20025 2020-2022

Urboecodiagnostics of the condition of air in large industrial cities of the Central Black Earth Region: exposure to noise factors, carcinogenic risks, and environmental safety

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

RUSSIAN SCIENCE FOUNDATION GRANTS FOR RESEARCH CONDUCTED VIA THE EXISTING WORLD-CLASS RESEARCH INFRASTRUCTURE WITHIN THE PRESIDENTIAL PROGRAMME FOR RESEARCH PROJECTS CONDUCTED BY LEADING SCIENTISTS, INCLUDING YOUNG SCIENTISTS (1 PROJECT)

19-72-20180 Research project No. 19014 2019-2022

Compatibility and transformation of functional inorganic nanoparticles with cell cultures in hybrid materials produced in vitro according to the synchrotron studies of the reconstruction of atomic and electronic structures

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

RUSSIAN SCIENCE FOUNDATION GRANTS FOR THE EXTENTION OF THE DURATION OF BASIC RESEARCH PROJECTS AND PILOT STUDIES IN TOP PRIORITY SPECIAL RESEARCH AREAS (1 PROJECT)

16-15-00003-P Research project No. 19019 2019-2020

Developing effective methods for preventive dental care based on the normalization of the metabolism of 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 and Nanostructure Physics)

RUSSIAN SCIENCE FOUNDATION GRANTS FOR THE EXTENTION OF THE DURATION OF RESEARCH WITH THE PARTICIPATION OF YOUNG SCIENTISTS WITHIN THE PRESIDENTIAL PROGRAMME FOR RESEARCH PROJECTS CONDUCTED BY LEADING SCIENTISTS, INCLUDING YOUNG SCIENTISTS (1 PROJECTS)

17-72-20105-P Research project No. 20030 2020-2022

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

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

RUSSIAN SCIENCE FOUNDATION GRANTS FOR RESEARCH CONDUCTED VIA THE EXISTING WORLD-CLASS RESEARCH INFRASTRUCTURE WITHIN THE PRESIDENTIAL PROGRAMME FOR RESEARCH PROJECTS CONDUCTED BY LEADING SCIENTISTS, INCLUDING YOUNG SCIENTISTS (2 PROJECTS)

18-74-10097 Research project No. 18050 2018-2021
Development of blood thinners of new generation based on blood coagulability factor Xa and XIa inhibitors of linear and condensed functionally substituted hydro-quinols

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

19-72-10007 Research project No. 19042 2019-2022
Studying the peculiarities of the formation of low-dimensional semiconductor nanoheterostructures on porous silicon

Head Researcher – senior research fellow A.S. Lenshin, PhD in Physics and Mathematics (Joint Laboratory Physics of Nanoheterostructures and Semiconductor Materials)

THE RUSSIAN FOUNDATION FOR BASIC RESEARCH GRANTS

BEST BASIC RESERACH PROJECTS (COMPETITION “A”) (24 PROJECTS)

20-08-00404 Research project No. 20017 2020-2022
Nanosize effects of metal-ion exchanger composites during chemical and electroreduction of oxygen and deoxygenation of water: theory and technology

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

20-04-00526 Research project No. 20010 2020-2022
The effect of dihydroquinoline derivatives on pyrogenetic mechanisms and oxidative metabolism in rats with toxic liver disease

Head Researcher – Professor T.N. Popova, DSc in Biology (Faculty of Medicine and Biology, Department of Medical Biochemistry and Microbiology)

20-04-00296 Research project No. 20009 2020-2022
The regulatory role of methylation of DNA and RNA in the metabolic transformation of di- and tricarboxylic acids in plant cells during the adaptation to stress

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

20-03-00901 Research project No. 20008 2020-2022

Photostimulation of the response of semiconductor gas sensors based on surface plasmon resonance

Head Researcher – senior research fellow S.V. Ryabtsev, PhD in Physics and Mathematics (Joint Laboratory of Voronezh State University and the Institute of General and Inorganic Chemistry of the Russian Academy of Sciences Electron Structure of Condensed Matter)

20-012-00569 Research project No. 20013 2020-2022

Genre specifics of children's folklore in the Voronezh Region (based on the results of folklore expeditions held by Voronezh State University in the XX-XXI centuries)

Head Researcher – T.F. Pukhova, PhD in Philology (Faculty of Philology, Deparment of Russian Literature of XX–XXI Centuries, Theory of Literature, and Humanities)

20-012-00013 Research project No. 20014 2020-2022

Differential description of word semantics in the linguistic consciousness of Russian people, and issues concerning its lexicography

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

20-010-00263 Research project No. 20012 2020-2022

Supporting the efficiency of elderly employees as a part of the strategy for the protection of interests of the elderly

Head Researcher – Professor I.B. Durakova, DSc in Economics (Faculty of Economics, Department of Human Resource Management)

20-01-00051 Research project No. 20007 2020-2022

Studying the resolvability and the solutions to boundary value problems for non-Newtonian hydrodynamics models by means of nonlinear and multivalued analysis

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

20-05-00779 Research project No. 20011 2020-2022

Comprehensive geoecological diagnostics of household, drinking, and recreational water usage in large urbanised regions

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

20-05-00119 Research project No. 20016 2020-2022

Acoustic interferometry of incoherent non-diffusion fields in oceanographic studies of shallow water areas

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

19-07-00037 Research project No. 19004 2019-2021

Algebraic models of fuzzy production systems for managing distributed knowledge

Head Researcher – Professor S.D. Makhortov, DSc in Physics and Mathematics (Faculty of Computer Sciences, Department of Programming and Information Technologies)

19-05-00660 Research project No. 19001 2019-2021

A model for the optimisation of the social and economic environment of large cities

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

19-011-00796 Research project No. 19002 2019-2021

Deliberateness as the main principle for publicly significant decisions – legal aspects

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

19-010-00474 Research project No. 19005 2019-2021

Sustainable development of economic entities facing “big challenges”

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

19-010-00138 Research project No. 19006 2019-2021

Elaboration of the theory of adaptive targeted forecasting models for strategic planning of social and economic processes

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

19-01-00732 Research project No. 19007 2019-2021

Methods of representation theory for functions, groups and Banach algebra in the spectral analysis of linear functions and linear operators

Head Researcher – Professor A.G. Baskakov, DSc in Physics and Mathematics (Faculty of Applied Mathematics, Informatics, and Mechanics, Department of System Analysis and Management)

19-011-00796 Research project No. 19003 2019-2021

Neoarchean ultra-acidic magmatism of the Kursk region of Eastern Sarmatia: petrology, age, and paleotectonic correlations

Head Researcher – Professor K.A. Savko, DSc in Geology (Faculty of Geology, Department of Mineral Resources and Mineral Management Studies)

19-05-00336 Research project No. 19008 2019-2021

A comprehensive 3D geophysical model of the structure and probable environment of the Koromanty division of the central part of the East European Craton

Head Researcher – Associate Professor V.N. Glaznev, DSc in Physics and Mathematics (Faculty of Geology, Department of Geophysics)

18-08-01260 Research project No. 18006 2018-2020

Demineralisation and separation of the aqueous salt solutions of neutral amino acids and sugar by ion-exchange dialysis

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

18-04-00556 Research project No. 18005 2018-2020

Molecular, biochemical, and evolutionary mechanisms of phenotypic differences of strains of colourless sulphur bacteria Beggiatoa leptomitoformis D-401 and D-402 with genome identity above 99.9%

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

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

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

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

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

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

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

18-02-00053 Research project No. 18001 2018-2020
Precision spectroscopy of supercooled atoms

Head Researcher – Professor V.D. Ovsyannikov, DSc in Physics and Mathematics (Faculty of Physics, Department of Theoretical Physics)

18-01-00048 Research project No. 18002 2018-2020
Stochastic equations and inclusions with mean derivatives in vector spaces and on smooth manifolds

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

BASIC RESEARCH PROJECTS ORGANISED BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE VORONEZH REGION (2 PROJECTS)

19-45-360005 Research project No. 19044 2019-2021
Vertical differentiation of landscapes in the Voronezh Region

Head Researcher – Associate Professor A.S. Gorbunov, PhD in Geography (Faculty of Geography, Geoecology, and Tourism, Department of Physical Geography and Landscape Optimization)

19-45-360003 Research project No. 19043 2019-2021
Studying the patterns of the formation of ecological risks caused by household, drinking, and recreational water usage within the Don basin in the Voronezh Region

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

REGIONAL CONTEST OF BASIC RESEARCH PROJECTS CARRIED OUT BY YOUNG SCIENTISTS (5 PROJECTS)

19-49-363003 Research project No. 19040 2019-2020
South-western margin of the Slavic community at the time of formation of the Ancient Rus': an interdisciplinary study of the culture of the Slavs living along Don in the 8-10th centuries

Head Researcher – head fund keeper N.E. Arsenova (Archaeological Museum)

19-48-363008 Research project No. 19038 2019-2020
Potentiometric multisensor systems with nanomaterials based on perfluorinated membranes for the identification of vitamins and medicinal substances in food and pharmaceutical products

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

19-42-363013 Research project No. 19039 2019-2020

Characteristic features of the electronic and energy structure and specifics of the phase composition of composite layers during the formation of semi-insulating polycrystalline silicon (SIPOS) with preset properties

Head Researcher – head of the laboratory D.N. Nesterov, PhD in Physics and Mathematics (Faculty of Physics, Department of Solid State and Nanostructure Physics)

19-42-363007 Research project No. 19036 2019-2020

Managing the parameters of IR luminescence in multifunctional associates based on the indocyanine green dye and Ag_2S quantum dots for cancer theranostics

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

19-42-363004 Research project No. 19037 2019-2020

Specifics of porous silicon-based multilayer systems formation and their properties

Head Researcher – senior research fellow A.S. Lenshin, PhD in Physics and Mathematics (Joint Laboratory Physics of Nanoheterostructures and Semiconductor Materials)

PROJECTS CARRIED OUT BY YOUNG SCIENTISTS AND ORGANISED BY THE RUSSIAN FUND FOR BASIC RESEARCH AND THE FOUNDATION SUPPORTING R&D PROJECTS BY STUDENTS, PHD STUDENTS, AND YOUNG SCIENTISTS “NATIONAL INTELLECTUAL DEVELOPMENT” (EUREKA! IDEA) (1 PROJECT)

20-33-80017 Research project No. 20001 2020-2021

Studying new corrosion inhibitors for steel based on 3-alkyl-5-amino-1H-1,2,4-triazoles, obtained in several ways including from oils processing waste

Head Researcher – senior researcher A.A. Kruzhilin (Faculty of Medicine and Biology, Department of Biochemistry and Cell Physiology)

INTERDISCIPLINARY FUNDAMENTAL RESEARCH PROJECTS (4 PROJECTS)

19-29-06075 Research project No. 19063 2019-2022

Location and identification of low-noise autonomous vehicles by means of hybrid autonomous underwater vehicles using acoustic holography

Head Researcher – Associate Professor S.A. Pereselkov, DSc in Physics and Mathematics (Faculty of Physics, Department of Mathematical Physics and Information Technologies)

19-29-07400 Research project No. 19064 2019-2022

Research and information tools for evaluating human resources as a driver of the digital economy

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

18-29-11062 Research project No. 18053 2018-2020

Synthesis of lithium niobate films for the element base of opto-, acousto-, and microelectronic devices

Head Researcher – Professor E.K. Belonogov, DSc in Physics and Mathematics (Faculty of Chemistry, Department of Materials Science and the Industry of Nanosystems)

18-29-11008 Research project No. 18052 2018-2020

Biomimetical composites for regenerative dentistry, imitating the structure hierarchy, and peculiarities of the anisotropy of human dental tissue: the technology for production and fundamental research of the mechanisms of their integration with natural tissue

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

DIRECTED BASIC RESEARCH PROJECTS FOCUSED ON CONTEMPORARY INTERDISCIPLINARY PROBLEMS (2 PROJECTS)

17-29-06036 Research project No. 17078 2017-2020

Genome and metabolic markers of lung cancer

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

17-29-02505 Research project No. 20004 2017-2020

Molecular genetic features determining the effectiveness of eye tracking systems and brain-machine interfaces

Head Researcher – Associate Professor A.A. Vakhtin, PhD in Physics and Mathematics (Faculty of Computer Sciences, Department of Programming and Information Technologies)

BEST BASIC RESERACH PROJECTS CARRIED OUT BY POSTGRADUATE STUDENTS (14 PROJECTS)

19-38-90326 Research project No. 19055 2019-2021

Holographic technique for processing acoustic information in randomly heterogeneous, nonstationary ocean waveguides

Head Researcher – Associate Professor S.A. Pereselkov, DSc in Physics and Mathematics (Faculty of Physics, Department of Mathematical Physics and Information Technologies)

19-37-90163 Research project No. 19056 2019-2021

Studying the methods of formation of ultra-short impulse signals for radioelectronic and location systems

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

19-37-90161 Research project No. 19057 2019-2021

Synthesis and analysis of dielectric structures for enhancing the characteristics of ultra-wideband antennas

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

19-35-90021 Research project No. 19058 2019-2021

Research and information tools for assessing the degree of differentiation of the social and economic development of the municipal districts of the Voronezh Region

Head Researcher – Associate Professor N.V. Yakovenko, DSc in Geography (Faculty of Geography, Geoecology, and Tourism, Department of Human Geography and Regional Studies)

19-34-90110 Research project No. 19059 2019-2021

The effect of the metabolic modulators of fatty acids on the mitochondrial dynamics of ageing mice

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

19-32-90234 Research project No. 19060 2019-2021

Alterations in the optical properties of SiOx films during the crystallisation of silicon nanoclusters by means of pulsed photon annealing

Head Researcher – Professor V.A. Terekhov, DSc in Physics and Mathematics (Faculty of Physics, Department of Solid State and Nanostructure Physics)

19-32-90204 Research project No. 19061 2019-2021

Spectroscopic characteristics of Rydberg states of atoms and molecules for the problems of physical astronomy and laser physics

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

20-37-90029 Research project No. 20038 2020-2022

The development and study of machine learning methods for diagnostics and medical services for patients with heart diseases

Head Researcher – Associate Professor I.L. Kashirina, DSc in Technical Sciences (Faculty of Applied Mathematics, Informatics and Mechanics, Department of Mathematical Methods of Operations Research)

20-35-90079 Research project No. 20037 2020-2022

Developing a theoretical basis for the technology for the recovery of gold nanoparticles from high-carbonaceous shale ores

Head Researcher – Professor V.M. Nenakhov, DSc in Geology (Faculty of Geology, Department of General Geology and Geodynamics)

20-35-90024 Research project No. 20040 2020-2022

Geoecological assessment of the state of air basin and contamination of soil with heavy metals, and an analysis of risks for the health of the population in large steel production centres

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

20-33-90238 Research project No. 20035 2020-2022

Plotting phase diagrams and the identification of new phases in In – Se and Fe(Mn) – In – Se systems using a new thermal analysis method

Head Researcher – Professor A.Yu. Zavrazhnov, DSc in Chemistry (Faculty of Chemistry, Department of General and Inorganic Chemistry)

20-33-90048 Research project No. 20034 2020-2022

Mechanisms of the formation, structure, and properties of carbon-containing nanocomposites based on nanocrystalline ferrites with perovskite-like structure

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

20-32-90167 Research project No. 20036 2020-2022

Photoprocesses in associates of nanoparticles of titanium dioxide, silver, and silver sulphide used in bacterial coatings

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

20-312-90016 Research project No. 20039 2020-2022

Myth making in the early poems by V. Mayakosky (1912–1916)

Head Researcher – Professor T.A. Nikonova, DSc in Philology (Faculty of Philology, Department of Russian Literature of XX-XXI Centuries, the Theory of Literature, and Humanities)

GRANT OF THE RUSSIAN FOUNDATION FOR BASIC RESEARCH FOR BEST POPULAR SCIENCE PUBLICATIONS (1 PROJECT)

20-14-40003 Research project No. 20020 2020

B.M. Kozo-Polyansky Botanical Garden of Voronezh State University

Head Researcher – Associate Professor A.A. Voronin, PhD in Economics, director of the Botanical Garden

BEST BASIC RESERACH PROJECTS IN THE FIELD OF SOCIAL AND POLITICAL STUDIES CARRIED OUT BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND EXPERT INSTITUTE FOR SOCIAL RESEARCH (1 PROJECT)

20-011-31097 Research project No. 20032 2020

Risks of the deformation of the political system of the Russian Federation due to constitutional changes (conflict assessment)

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

BEST BASIC RESERACH PROJECTS IN THE FIELD OF SOCIAL AND POLITICAL STUDIES CARRIED OUT BY YOUNG SCIENTISTS AND ORGANISED BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND EXPERT INSTITUTE FOR SOCIAL RESEARCH (1 PROJECT)

20-011-32279 Research project No. 20033 2020

The intergenerational aspect of involving citizens in socio and political processes

Head Researcher – senior engineer M.I. Solosina, PhD in in Economics (Interfaculty Research Laboratory for Economics and Management)

ORGANISING AND HOLDING SCIENTIFIC EVENTS (2 PROJECTS)

20-011-20013 Research project No. 20005 2020

International scientific conference “Legal communications between the state and society: national and international experience”

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

20-09-22014 Research project No. 20041 2020

XXXVII session of the symposium on the agricultural history of the Eastern Europe

Head Researcher – Associate Professor Yu.V. Selesnev, DSc in History (Faculty of History, Department of Russian History

BASIC RESEARCH PROJECTS CARRIED OUT BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE BELARUSIAN REPUBLICAN FOUNDATION FOR FUNDAMENTAL RESEARCH (1 PROJECT)

20-55-00010 Research project No. 20024 2020-2022

Transformation regularities of geosphere ecological functions in major metallurgical regions

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

BASIC RESEARCH PROJECTS CARRIED OUT BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE NATURAL SCIENCE FOUNDATION OF CHINA (1 PROJECT)

20-54-53005 Research project No. 20002 2020-2021

Detecting local centres and gradients of biological diversity changes in East Asia based on the Dolichopodidae family

Head Researcher – Professor O.P. Negrobov, DSc in Biology (Faculty of Medicine and Biology, Department of Zoology and Parasitology)

BASIC RESEARCH PROJECTS CARRIED OUT BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE CZECH SCIENCE FOUNDATION (1 PROJECT)

19-52-26006 Research project No. 20006 2020-2022

Spectroscopy of excited, including Rydberg, states of atoms, molecules, and radicals and the study of the atmosphere of exoplanets and stars

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

5.8. CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT (CCUSE)

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

The Centre for Collective Use of Scientific Equipment of Voronezh State University is a scientific and organisational division housing 35 units of modern scientific and analytical equipment, such as the unique computer-assisted laboratory facilities PCM-500. The centre employs highly qualified researchers who are able to carry out scientific studies and provide services (research, experiments, measurements) to various customers including external agencies (Table 5.7, 5.8).

CONTACTS

Director: **Alexander A. Sinelnikov**, PhD in Physics and Mathematics

Head Researcher: **Oleg A. Kozaderov**, DSc in Chemistry,
Vice Rector for Research and Innovations

Address: 1 Universitetskaya ploschad, 394018, Voronezh

Phone: +7 (473) 228-11-60 (IP 3006)

E-mail: ckp-vsu@mail.ru

Table 5.7

KEY INFORMATION ABOUT THE ACTIVITIES OF THE CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT IN 2020

Book values of equipment, million roubles	177
Number of units of equipment valued at over 1 million roubles	27
Number of staff members	14
Total number of works (services) carried out by the university with the help of CCUSE equipment, million roubles	19
Actual equipment loading, %	82
Actual CCUSE equipment loading on behalf of third parties, %	42
Number of organisations (external agencies)	12

In the reporting year, CCUSE met key progress indicators developed by the Ministry of Education of the Russian Federation.

MOST VALUABLE EQUIPMENT OF CCUSE VSU

Figure 5.5

ZEISS LIBRA 120 TRANSMISSION ELECTRON MICROSCOPE

Figure 5.6

PANALYTICA EMPYREAN B.V. X-RAY DIFFRACTOMETER

Figure 5.7

BRUKER S8 TIGER X-RAY DIFFRACTOMETER

Table 5.8

MOST IMPORTANT EQUIPMENT OF CCUSE VSU AS OF 2020

Name of the equipment	Manufacturing company	Country of manufacture	Application, specifications
X-ray diffractometer Thermo ARL X'TRA	Thermo Fisher Scientifics	Switzerland	Structural and phase analysis of crystalline materials in situ study in a vacuum chamber at up to 1,000°C
Electron microscope JSM-6510LV	JEOL Ltd	Japan	Study of surface morphology within the range of 150,000x magnification. Microanalysis of the elemental composition, including mapping
Scanning probe microscope SOLVER P47	NT-MDT	Russia	Study of the surface of solid material in the modes of atomic force microscopy and tunnel probe microscopy. Visualisation of the surface microrelief. Qualitative relief assessment at the spacing up to 180 × 180 μm. Mapping of elements with different electrical conductivity and magnetic properties in the mode of the tunnel microscope
Libra 120 transmission electron microscope (fig. 5.5)	Carl Zeiss	Germany	Study of structure, substructure, and phase analysis of solids in volume as thin as 0.2nm.
X-ray diffractometer Empyrean B.V. (fig. 5.6)	PANalytica	The Netherlands	Structural and phase analysis of crystalline materials
Primo Star optical microscope	Carl Zeiss Microscopy	Germany	Microscopy of microbiologic preparations
Versatile centrifuge Z 36 NK	Hermle	Germany	Centrifugation of complex biological mixtures
QUANT-Z-ETA-1 atomic absorption spectrometer	OOO "Kortek"	Russia	Quantitative determination of elements in liquid samples of various origin and composition at the level of ng/L
U-2900 double beam spectrophotometer	Hitachi	Japan	Double beam optical system. Spectral range within 190 and 1,200nm
A system for carrying out materials testing in vacuum and under UV radiation	OOO "Vakuumnye sistemy i elektronika", Anest Iwata	Russia, Japan	Samples vacuuming up to 10^{-4} Pa. Applying electromagnetic radiation in ultraviolet spectra
Nikon ECLIPSE Ni-E/Ni-U optical microscope	Nikon	Japan	Upright Hi-End microscope. Optical system CFI60 ("endless" optics). Resolution up to 0.2μm

End of table 5.8

Name of the equipment	Manufacturing company	Country of manufacture	Application, specifications
Upright polarized-light microscope Olympus BX51	Olympus	Japan	Optical microscope works in the following modes: light field, dark field, phase contrast, polarized light, fluorescence, and Nomarski DIC (differential interference contrast) Up to 150x magnification range
Gas chromatograph – Agilent 7890B/5977A mass spectrometer	Agilent Technologies	The USA	Separation of mixtures and mass spectrometry analysis of organic compounds
Agilent 6230 accurate-mass time-of-flight (TOF) LC/MS system	Agilent Technologies	The USA	Separation of mixtures and mass spectrometry analysis of organic compounds and study of organic reactions mechanisms
Milestone MicroSynth microwave synthesis system	Milestone	Italy	Controlled synthesis of organic compounds exposed to microwave radiation
Chemical vacuum station PC 3004 Vario	Vacuubrand	Germany	Creating a controlled vacuum for the synthesis and extraction of organic compounds
SONICATOR Q500 ultrasonic dispergator	QSONICA	The USA	Sample preparation Preparation of suspended solids by ultrasound
System Zetasizer Nano ZSP	Malvern	England	Size characterisation of organic and inorganic nanoparticles within the range of 0.3-10μm
Rotary ultramicrotome for electron microscopy PT-PC 75840	RMC-Boeckeler	The USA	A PC controlled ultramicrotome that performs ultra-thin sectioning for their further study by means of transmission scanning electron microscopy, atomic-force microscopy, scanning probe microscopy, or optical microscopy. The precise feed technology allows to obtain sections from 5 to 10μm.
S8 Tiger X-ray diffractometer (fig. 5.7)	Bruker	Germany	A system for elemental X-ray fluorescence analysis in such industries as petroleum chemistry, cement production, and extraction of minerals
VERTEX 70 series FT-IR spectrometer	Bruker Optik GmbH	Germany	Vertex 70 series FT-IR spectrometer with vacuum optical system enables maximum sensitivity in the near, medium, and far IR (THz) bands and eliminates the effects of carbon and water vapour on the quality of the spectra
UV-2550 spectrophotometer	Shimadzu Scientific Instruments	Japan	Double monochromator with wavelength range of 190-900μm
Shimadzu 2501 spectrophotometer	Shimadzu Scientific Instruments	Japan	Double beam optical system with wavelength range of 190-1100μm

5.9. VSU INNOVATION FINANCIAL SUPPORT IN 2020

In 2020, the work of VSU's Department of Innovations and Information Policy Management was aimed at collaboration with the university's business partners. As a result of this collaboration the university's infrastructure was enhanced:

- The laboratory for programming mobile applications of the Faculty of Applied Mathematics, Informatics, and Mechanics was renovated (including new furniture and equipment) with the help of the company Surf.
- ROSTELECOM financed the renovation of a large lecture hall (including new furniture).
- In cooperation with Gazprombank, the Faculty of Economics opened a new laboratory called "Academic bank" which has specialised software.
- In cooperation with Sberbank, the Faculty of Applied Mathematics, Informatics, and Mechanics opened the Centre for Artificial Intelligence.
- Samsung helped to purchase the equipment for a classroom at the Faculty of Computer Sciences.

The total financing of infrastructure development in 2020 is estimated to be over 14 million roubles.

VSU also concluded 1 license agreement on the cession of intellectual property rights, with a total amount of 50 thousand roubles.

The cost of consulting services for SIBs totalled 330 thousand roubles. The dividends received by the university totalled about 30 thousand roubles. VSU SIBs also provided employment for VSU staff members with a payroll budget of over 20 million roubles.

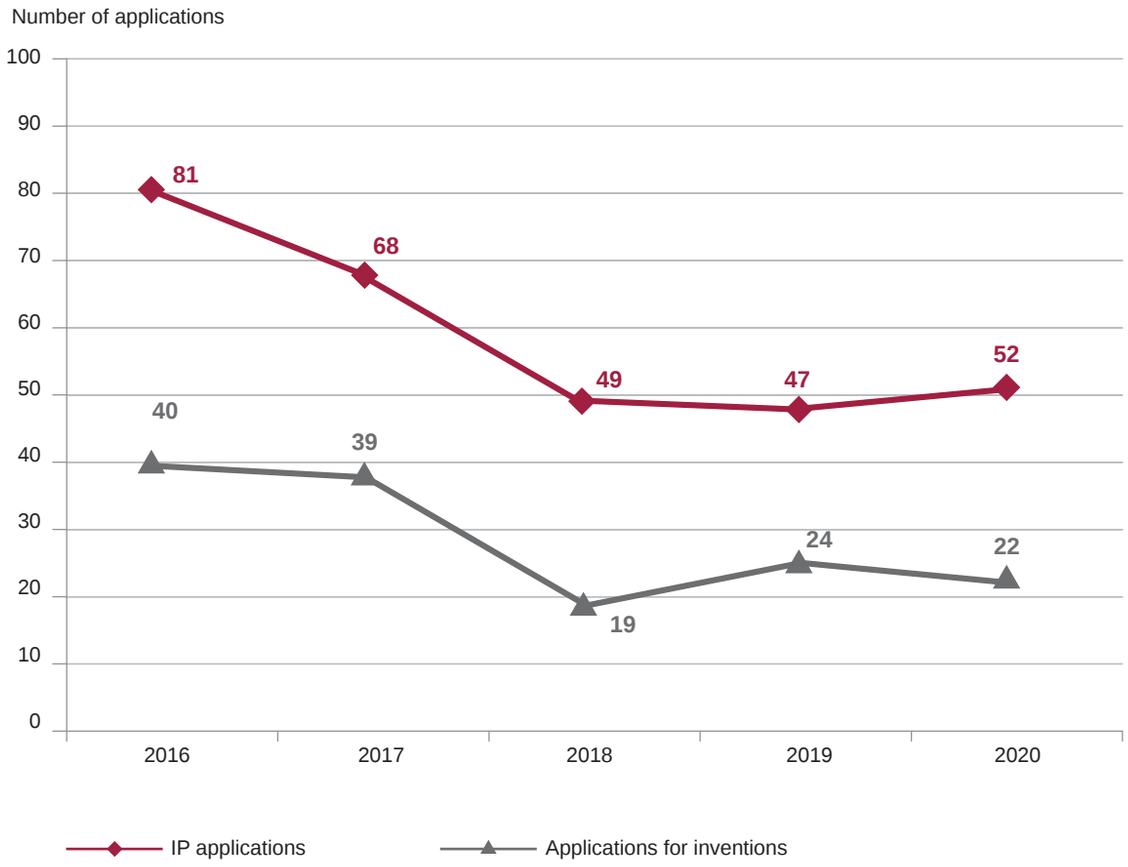
The funding of federal and regional competitions ("U.M.N.I.K.", the Innovation Cup, etc.) amounted to 3 million roubles.

5.10. VSU PATENT ACTIVITY IN 2016-2020

In 2020, patent and license activity enhancements were continued. VSU academic staff created 52 copyrightable intellectual property items. 29 applications for certificate registration were submitted. The total number of applications for inventions filed was 22. The gained results of intellectual activities were used to create 1 new small innovation business (Fig. 5.8).

Figure 5.8

IP APPLICATIONS (2016-2020)



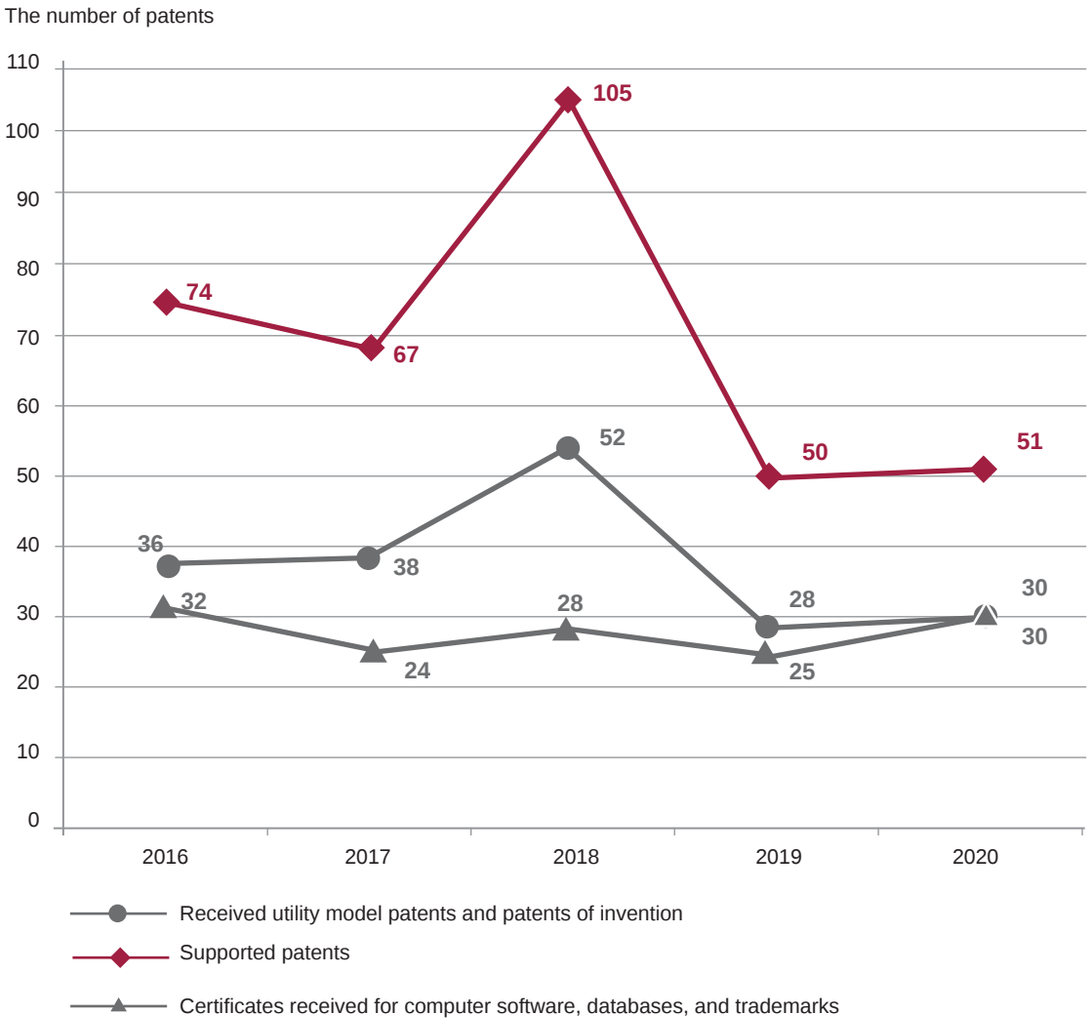
Comparative analysis of the number of intellectual property items created over the past three years indicates the stability of intellectual property policy.

In the reporting period, the university obtained 30 invention patents for development in the field of chemical and pharmaceutical industries, botany and biotechnologies, electronics, instrument engineering, and nanotechnologies. Moreover, the total number of computer programmes and database registration certificates amounted to 29. 1 trademark (service mark) certificate was also registered in the reporting year.

Stability in the number of received patents over the past two years is due to preliminary examination of market potential of the suggested copyrightable intellectual property items. These results are due to the university's orientation towards supporting commercially justifiable patents.

Figure 5.9

VSU PATENT ACTIVITY (2016-2020)



Over 290 thousand roubles were spent on state patent dues in 2020.

According to the intellectual property strategy, VSU supported over 51 patents with high commercial potential as of the end of 2020.

5.11. IP APPLICATIONS DYNAMICS PER FACULTY

Due to the fact that the protected patent law objects are technical solutions related to an approach or a product, the following science faculties show the most patent activity: the Faculty of Biomedical Sciences, the Faculty of Computer Sciences, the Faculty of Pharmaceutics, the Faculty of Physics, the Faculty of Chemistry, the Faculty of Applied Mathematics, Informatics, and Mechanics, the Faculty of Geography, Geoecology, and Tourism (Table 5.9).

Table 5.9

IP APPLICATIONS DYNAMICS IN 2016-2020

Faculty	2016	2017	2018	2019	2020
Faculty of Biomedical Sciences	11	12	12	13	10
Faculty of Computer Sciences	8	9	13	5	4
Faculty of Pharmaceutics	4	7	5	5	5
Faculty of Physics	11	8	1	10	13
Faculty of Chemistry	19	11	4	3	–
Faculty of Applied Mathematics, Informatics, and Mechanics	22	13	12	10	20
Faculty of Geography, Geoecology, and Tourism	–	3	1	–	–
Other subdivisions	4	5	1	1	–
Total	79	68	49	47	52

The monitoring of patent activity per faculty has been carried out since 2010. The Faculty of Applied Mathematics, Informatics, and Mechanics and the Faculty of Computer Sciences show the highest number of officially certified software products over the entire monitoring period.

A comparative analysis of statistical data for 2016-2020 indicates a permanently high number of applications for inventions submitted by the staff of the Faculty of Biomedical Sciences. The Faculty of Physics also showed high patent activity in 2020.

5.12. DEVELOPMENT OF INNOVATIVE VENTURES

In 2020, the total revenue of small innovative businesses opened with the help of VSU exceeded 50 million roubles.

Table 5.10

SIBS FUNCTIONING IN 2020

No.	SIB's name	Founded in
1	OOO AKMA-Universal	2010
2	OOO TechnoChim	2010
3	OOO Institute of corrosion	2010
4	OOO Pharmaceutical Innovations	2011
5	OOO Centre for consulting services and innovative technological solutions for geology "Tsitrin"	2011
6	OOO Nanoimpulse	2011
7	OOO Voronezh enterprise of ecological soil monitoring	2011
8	OOO Technologies of Bumblebee-Keeping	2011
9	OOO Innovation Expert Enterprise Ecotechnologies	2012
10	OOO RPE Hydrogeocentre – VSU	2012
11	OOO PlazmoSil	2012
12	OOO Bioint	2012
13	OOO Institute of system biotechnologies	2012
14	OOO Efficient Management Centre	2013
15	OOO VSU Consulting Centre	2013
16	OOO NPO Membranes	2014
17	OOO I-Expert Group	2015
18	OOO Proftsentr Perspektiva	2015
19	OOO Centre for the transfer of technologies in high molecular compounds chemistry	2016
20	OOO BFSoft	2017
21	OOO A-Systems	2017
22	OOO BRENNEN	2018
23	OOO I-Technology-Engineering	2018
24	OOO BNP SOLUTIONS	2020

5.13. OVERVIEW OF THE VSU ENGINEERING CENTRE

Voronezh State University continues working in the framework of state support of projects for the creation and development of engineering centres based on higher educational institutions subordinate to the Ministry of Education and Science of the Russian Federation.

One of the aims of the project is to provide for engineering-based introduction of effective technologies for glass sand deposit development with the 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.

In 2020, the engineering centre I-Technology continued its successful activities and met key progress indicators:

- New special-purpose equipment for enrichment of mineral resources worth over 50 million roubles was acquired.
- Contracts worth over 82 million roubles were fulfilled in 2018-2020 within the project.

Conditions are being developed for cooperation with potential customers and consumers of engineering services and activities.

5.14. OVERVIEW OF INNOVATION BUSINESS INCUBATOR

VSU's innovation business incubator is a unique platform that joins VSU's SIB administration, representatives of research and expert communities of other universities, as well as specialised departments of Voronezh and the Voronezh region administration. The business incubator is a structural subdivision of VSU and consists of a number of offices and a conference room. Its activities involve all areas of work of the Innovations and Enterprise Management, including creating project teams, preparing applications for regional and federal programmes aimed at the support of innovative projects (Russian Science Foundation, Federal Target Programmes, the Order of the Russian Government No. 218 dated 9 April, 2010, Skolkovo Foundation, the Fund for Promotion of Innovations, the Innovation Cup, etc.), management of intellectual property activities (creation, accounting, introduction, and commercialisation), promoting entrepreneurship (detecting promising ideas, creation of projects, start-ups, development and efficient cooperation with small innovative businesses), participation in exhibitions, cooperation with industrial partners and representatives from authorities.

In 2020, the business incubator worked in the following major areas:

1. Concluding contracts with contracting organisations to enable the efficient business of the VSU Business Incubator: contracts with service providers (OOO Stroipozhservis (fire protection service), OAO SKBKM (water supply and sewerage, maintenance of common facilities: non-contractual matters), OOO Centre for preventive disinfection (disinfection and deratization services).

2. Promotion of key R&D projects of VSU researchers and small innovation businesses at exhibitions and presentation platforms: Moscow International Inventions and Innovative Technology Salon “Archimedes-2020”; International Forum “Open Innovations”.

3. Over 25 key R&D projects by SIBs and VSU researchers were presented at exhibitions and presentation events at various levels. They were awarded with a silver medal from “Archimedes-2020”.

4. Organisation and holding of regional events.

5. A scientific conference supported by the Business Incubator and the government of the Voronezh region was held as part of the “New industrialisation” programme.

6. Development of bilateral cooperation with the following organisations providing support for the Voronezh region small business and innovation structure development: the State Foundation for Assistance to the Voronezh Region Small Innovative Enterprises, OKU “Innovations and Development Agency”, the Departments of Economic Development.

7. Organisational, consultative, and administrative support of innovative projects by VSU students and staff submitted for the contest held between Voronezh universities “Innovation cup – 2020”.

In 2020, the best innovative projects of VSU were selected for the final of the annual contest “Innovation cup”. During the process of preparation each project received individual consultative support. According to the results of the contest, Voronezh State University took first place in the overall competition and received the title of “The best innovative university in the Voronezh region”. In the individual competition, VSU took first and third places. The winners of the Innovation Cup include:

- N. A. Diakova, “Innovative technology for obtaining inulin from plant sources” (first place).
- S. A. Solodskikh, “Innovative test system for the early diagnosis of a predisposition to breast cancer “OnkoPRIME – 1” (third place).
- A. S. Perepelitsa, “Photobacterium coatings based on metallic sulphide nanoparticles and molecules of organic dyes used to disinfect surfaces” (special award).

All the winners were awarded with grants with a total amount of 900 thousand roubles.

8. Preparing VSU students for participation in the Youth Scientific and Innovation Competition (“U.M.N.I.K.”).

Over 60 VSU students have become the winners of “U.M.N.I.K.” since 2009. In 2020, there was 1 winner who received a grant with a total amount of 500 thousand roubles.

9. Monitoring and support of VSU’s SIBs activities.

In 2020, the Innovative Business Incubator held a series of meetings in order to discuss the ways to enhance the interaction between the university and the SIBs. A comprehensive analysis of the performance of SIBs was carried out, and a number of legal and formal issues were settled. Several SIB projects received full-scale support from the Fund for the Promotion of Innovations, and subsidies from the regional budget were provided to partly compensate for the expenditures on the development and introduction of innovative technologies and research and development projects aimed at the implementation of investment projects (decree of the Government of the Voronezh Region No. 656 dated 15 July 2020). The cost of consulting services for SIBs totalled 330 thousand roubles. Targeted subsidies: about 30 thousand roubles. In addition, VSU SIBs employed VSU staff members with a total salary fund exceeding 20 million roubles.

5.15. VSU R&D PROJECT DATABASE

In 2020, to enhance the efficiency of events aimed at fulfilling VSU's innovative potential, VSU Atlas of Innovative Projects was updated and supplemented (Fig. 5.10).

Figure 5.10

COVER OF THE ATLAS OF VSU'S INNOVATIVE PROJECTS

The Atlas is presented in two forms:

- An electronic version published on the university's official website: https://www.vsu.ru/ru/university/docs/news/atlas.pdf.
- An illustrated printed brochure.

5.16. VSU ALUMNI 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 main activities of the VSU Alumni Association in 2020.

- In May 2020, the representatives of the association congratulated honoured workers of the university aged over 65 on the Victory Day. Due to the pandemic, food packages were delivered to their homes.

- The VSU Alumni Association was selected as one of the winners in the contest for grants of the President of the Russian Federation aimed at the development of youth projects the implementation of which covers all areas of activities provided for in clause 31.1 of the Federal law No. 7-FZ “On Non-Commercial Organizations” dated 12 January 1996. As a result of the first contest, the Federal Student Tournament of Three Sciences became the winner again. The project received 78.17 points out of 100. The project was successfully completed (duration of the project: from 1 November 2019 to 21 October 2020). Amount of the grant: 5,225,330.00 roubles. Due to the pandemic, the Tournament of Three Sciences was held online for the first time.

- The project entered the top 100 of the best projects supported by the Presidential Grants Foundation with the implementation period between 2018 and 2019. In 2020, the Presidential Grants Foundation publicly evaluated the results of the initiatives supported in 2018. In total, 3500 projects were evaluated. As a result, candidates for the top 100 of the best practices from 2018 were determined. Only two projects from Voronezh Region were included among the 3% of the best submissions. One of them is the Tournament of Three Sciences.

The main objectives of the Association for 2021 are:

- Updating and supplementing the database of graduates of various years.

- Receiving gratuitous donations from graduates to implement targeted initiatives (creating a TV studio at VSU, helping elderly graduates, holding sports events among graduates, etc.).

More information about the activities of the VSU Alumni Association can be found on the website www.alumni.vsu.ru and on their page on the Vkontakte social networking site at https://vk.com/alumni_vsu

5.17. GRADUATES EMPLOYMENT ASSISTANCE ACTIVITIES AND ANALYTICS ON EMPLOYER-SPONSORED STUDENTS

The demand for the university's graduates on the labour market is one of the most significant indicators of the quality of their training. The employment of young specialists has recently been of great importance. To solve this problem, VSU founded the Career Development and Business Partnership Department following the Order of the Rector No.35 dated 27 January 2017. Now it has been renamed the VSU Career Development and Business Partnership Centre (CDBPC) and it assists in the employment of VSU graduates. In order to improve the university's efficiency, the CDBPC collaborates with business partners and regional authorities on the implementation of various regional projects and programmes, attraction of partners, fund raising for the VSU Endowment Fund, and graduate and student employment.

EMPLOYMENT ASSISTANCE RESULTS (VSU INNER SYSTEM)

- A job bank.
- A bank of information on the graduates (containing their CVs).
- Events aimed at preparing students for employment and the development of their professional career.
- Individual consultations for students on their readiness for professional self-determination and planning their professional career.
- Psychological support for students aimed at successful self-determination in the labour market.
- Monitoring employment for one calendar year after graduation.

ORGANISATIONAL AND METHODOLOGICAL SUPPORT OF THE CDBPC'S ACTIVITIES IN 2020

1. Extending the database of potential employers (agreements with enterprises on students' internships, cooperation agreements on graduates' employment, etc.).

2. Providing senior students and graduates with information from the job bank of regional employment bodies (cooperation with Voronezh Region Employment Department).

3. Organisation of events contributing to students and graduates' successful employment (career fairs, young specialists' career days, excursions to partner enterprises, presentations by employers, round table discussions with employers, etc.).

4. Operation of faculty bodies responsible for helping with finding jobs and for contact with students aimed at obtaining information about the jobs of employed graduates and providing unemployed graduates with information from the job bank and employment assistance according to their field of study.

INFORMATION RESOURCES

As of the beginning of 2021, the Department is actively developing its graduate employment assistance system:

- VSU's Centre for Career Development's official VKontakte group is functioning effectively (the number of followers is 2143 people).
- The department's Instagram account "vsucareer" is actively promoted (the number of followers is 787 people).

ORGANISATION OF GRADUATE EMPLOYMENT ASSISTANCE EVENTS

As of the beginning of 2021, VSU has 103 existing cooperation agreements. In their framework CDBPC organised and held professional orientation events aimed at assisting graduates in finding employment, such as Career Day, excursions to partner enterprises, and educational workshops. The information about these events is presented in Table 5.11.

Table 5.11

EMPLOYERS INVOLVEMENT IN THE VSU EDUCATIONAL PROCESS

Name of the event	Date of event and number of hours	Event
Lecture “Financial awareness” by the Chairman of the Central Black Earth Branch of PAO Sberbank, V. Salmin	25.01.2020 2 hours	V. Salmin told the students about the main trends of development of the economy, the need to improve financial competence, personal financial planning, modern tools offered on the market, as well as about the ways that help not only to receive current income but to form the capital for future pension.
Open Day at Dom.ru company	13.02.2020 2 hours	Open Day at a big federal company Dom.ru
Career Night	29.02.2020 4 hours	Professional orientation event attended by a great number of big companies and aimed at the employment of students as part of the event called Night University. Participating companies: DataArt; Red Collar; Surf; KPMG; Marriot Hotel; Raiffeisenbank; PWC; Pepsico; EFKO; Pochta Bank; PAO Rostelekom; Rostelecom Data Processing Centre; AIESEC; Teacher in Russia
Career Day at Dom.ru company	12.03.2020 2 hours	Career possibilities and job offers for students, experts’ answers to all the questions of interest
Career Day at Ruselectronics holding	13.03.2020 5 hours	Meeting the representatives and current employees of AO Voronezh Central Design Bureau Polyus, AO Concern Sozvezdie, and OAO Electrosignal, as well as lectures and workshops
Sberseasons internships at PAO Sberbank	03.04.2020 – present	Internships by PAO Sberbank in the following areas: IT, mathematics, economics, and jurisprudence
Flutter online-meetup with Surf	09.04.2020 3 hours	Online meeting with a representative of Surf, M. Zotiev. Students learned how to create applications on their own
Webinar “Vegetable oils: from raw materials to food ingredients” by EFKO	23.04.2020 4 hours	A brief educational course by EFKO consisting of 5 topics that are relevant for the food industry
Practical workshops by PWC	19.05.2020–02.06.2020 10 hours	Series of practical educational workshops by PWC
Online-webinar by EFKO	21.05.2020–25.05.2020 6 hours	Series of educational webinars by EFKO
Quiz championship by Raiffeisenbank	25.05.2020–29.05.2020 3 hours	Quiz championship among the students of 11 universities of the Russian Federation

End of Table 5.11

Name of the event	Date of event and number of hours	Event
Find IT webinar by PAO Sberbank	26.05.2020 2 hours	Webinar for students held by the head of the Graduate subdivision of the Centre for Academic Partnerships, L. Samoilova. Report on the topic “Personal brand”
Educational programme “The skill of being flexible: personal and professional effectiveness under uncertain conditions” by DOM.RF	27.05.2020 3 hours	Educational programme by DOM.RF Topics: “How to increase your effectiveness?” and “Visualisation and data analysis. Why are they important?”
Atos Welcome Day	28.05.2020 2 hours	Open Day at Atos
Webinar “A new world of work: what to prepare for after the pandemic” by PAO Sberbank	29.05.2020 2 hours	Webinar “A new world of work: what to prepare for after the pandemic” held by I. Baranov, Vice-Rector at the Corporate University of Sberbank
Online quiz for students by PAO Sberbank	30.05.2020 3 hours	Quiz for all students from the Russian Federation
Online course for students by PWC – Summer Academy	29.06.2020– 10.07.2020 20 hours	Online learning. At the end of the course the participants received diplomas of the PWC Summer Audit Academy
Open Day DataArt	10.09.2020 2 hours	Open Day at a big IT company DataArt
The 7th International Eitingon management platform “Youth and culture” platform	18.09.2020 4 hours	Career meeting of the participants with big companies of the Voronezh region, including DOM.RF; EFKO; PAO Sberbank; Molvest; AgroEco Group of Companies; DSR; Zarecnhoye Group of Companies; PAO Rostelekom
Educational online-webinar by DOM.RF	09.10.2020 3 hours	Educational webinar for students by DOM.RF
“Start the future” project by Lukoil	16.12.2020 1 hour	Career possibilities and job offers for students, experts’ answers to all the questions of interest
Webinar “Fourth industrial revolution: from spreadsheets to artificial intelligence” by Gazprombank	22.12.2020 2 hours	The speaker, V. Opanasenko, Head of the Department of machine learning methods, told the students about the history of mathematical modelling and the evolution of data management methods, what methods big companies are using right now, and how to jump on the “leaving train” of digitisation
KPNG Quiz for students	23.12.2020 2 hours	New Year quiz for students by KPNG

The number of VSU graduates who applied to Employment centres reduced from 24 in 2019 to 22 in 2020, and the number of graduates registered as unemployed reduced from 20 in 2019 to 12 in 2020. The information of the Employment centre on 2020 VSU graduates is presented in Table 5.12.

Table 5.12

VSU GRADUATES WHO APPLIED TO EMPLOYMENT SERVICE BODIES OF VORONEZH REGION AND WERE REGISTERED UNEMPLOYED AS OF 10 DECEMBER 2020

Speciality	Major	Professional education programme	Number of graduates who applied to employment service bodies	Including the number of graduates registered as unemployed	Including those who were unregistered due to	Number of graduates who are registered as unemployed as of 31.12.2020
Higher professional education						
Specialist's degree	Physics	Master's degree	1	1		1
	Translation studies	Bachelor's degree	1	1		1
	Ecology and Natural Resource Management	Bachelor's degree	1	1		1
	State and Municipal Management	Bachelor's degree	2	2	Declined to collaborate; obtained employment	
	Advertising	Bachelor's degree	1	1		1
	Linguistics	Bachelor's degree	2		Employment	
	Geography	Master's degree	1	1		1
Lawyer	Jurisprudence	Bachelor's degree	3	2	Declined to collaborate	2
Manager	Management	Bachelor's degree	1	1	Declined to collaborate	
Teacher	Physics	Master's degree	1		Employment	
	Pedagogics of further education	Bachelor's degree	1	1	Employment	
Economist	Economics	Bachelor's degree	1		Employment	
Total			**16**	**11**		**7**

Speciality	Major	Professional education programmes	Number of graduates who applied to employment service bodies	Including the number of graduates registered as unemployed	Including those who were unregistered due to	Number of graduates who are registered as unemployed as of 31.12.2020
Secondary vocational education						
Pharmacist	Pharmacy (secondary education)	Professional training	1	1	Employment	
Programming technician	Programming in computer systems	Training for secondary vocational education specialists	5		Long period of absence	
Total			**6**	**1**		

According to the faculty bodies responsible for helping with finding jobs, in 2020 45% of VSU's bachelor programme graduates were employed, 46% continued their studies. As for diploma degree programmes, 78% of the graduates were employed, 5% continued their studies. As for master's degree programmes, 75% of the graduates were employed, 9% continued their studies.

In order to enhance the effectiveness of graduate employment and improve communication with the graduates, the following mechanisms and tools of interaction with prospective employers will be introduced in 2021:

- Active use of Stazhirovka.ru, HeadHunter, and Rabota.ru by students, which are the most effective websites used by recruitment agencies.
- The database of potential employers: updating the status of VSU's strategic partners, adding information on new agreements to the register.
- Monitoring of relevant job offers from partners and publishing the information on VSU's information resources.
- Organising and holding events aimed at the creation of an environment for the employment of students and graduates together with employers at the level of the university and the faculties.

OBJECTIVES OF THE CDBPC FOR 2021:

- Expanding the areas of collaboration with potential employers (by opening corporate lecture halls and laboratories, developing academic programmes, offering personal scholarships, holding competitions, creating information stands of the companies).
- Increasing control over the employment of graduates who have completed employer-sponsored training.
- Creating a relevant graduate database together with the VSU Alumni Association.
- 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 2020

DEVELOPMENT OF THE UNIVERSITY'S TELECOMMUNICATION SYSTEM

The university's fiber-optics network connects all the buildings and most of the halls of residence. Thanks to the modern equipment, the data transfer rate is now up to 10 Gbit/s.

VSU's wireless network covers almost all the University territory. The wireless network has 214 Wi-Fi access points. In 2020, new Wi-Fi access points were created in self-study rooms of the halls of residence No. 2 and 7.

The telephone network of the university continues to be upgraded. In the reporting year, the total number of IP phones used increased by 3% and amounted to 404. Now the total number of IP phones is comparable with the number of devices connected to the urban telephone network, which will definitely encourage further optimisation of the telephone network and the financial costs of its maintenance.

To ensure stable remote work for the academic and managerial staff during the limitations introduced to control the spread of the new coronavirus infection, a system for protection against DDoS attacks, that is special equipment expanding the possibilities for connecting to the university's corporate network, was developed and introduced. The internet network access channel was increased by more than 4 times, from 0.45 Gbit/s to 2 Gbit/s.

In the reporting year, the following technical capabilities were provided: a hot line for the control of the new coronavirus infection (Fig. 5.11), a hot line for issues regarding certification tests as well as remote admission tests conducted using the electronic education and information system of the university, and a hot line for issues regarding admission to Voronezh State University. The latter involved over 50 landline, IP, and mobile phones belonging to VSU admission board representatives. Up to 30 lines could be used at the same time, and it was possible to redirect calls between the participants of the hot line.

Figure 5.11

A BANNER ON THE UNIVERSITY'S OFFICIAL WEBSITE WITH INFORMATION ABOUT THE HOT LINE FOR THE CONTROL OF THE NEW CORONAVIRUS INFECTION

DEVELOPMENT AND SUPPORT OF THE UNIVERSITY WEBSITES

The official website of Voronezh State University (www.vsu.ru) has been the most popular of the university's information resources. In 2020, the website traffic increased by 17.7% compared to the previous year and exceeded 1.6 million visits. Geographical distribution of the website visitors includes over 190 countries, including Ukraine (over 13 thousand), USA (over 5 thousand), Kazakhstan (4.7 thousand), Germany (4.3 thousand), and the Republic of Belarus (4 thousand). The overwhelming majority (more than 89.2%) accessed the website within the Russian Federation.

In the reporting year, over 2000 information items were published on the website, including news articles (45.7%) and announcements (10.7%).

Figure 5.12

VSU OFFICIAL WEBSITE TRAFFIC IN 2020

Annual report for the official VSU website traffic statistics from 01.01.2020 to 01.01.2021

NUMBER OF VIEWS

1,620,170 page views (250 thousand more as compared to the previous year), 60% of the visitors continued looking through the site after viewing the homepage

3,913,411 page views

207,800 document downloads *(pdf, ppt, doc, etc.)*

3 minutes 30 seconds was the average time spent on the website

Figure 5.13

TRAFFIC SOURCE

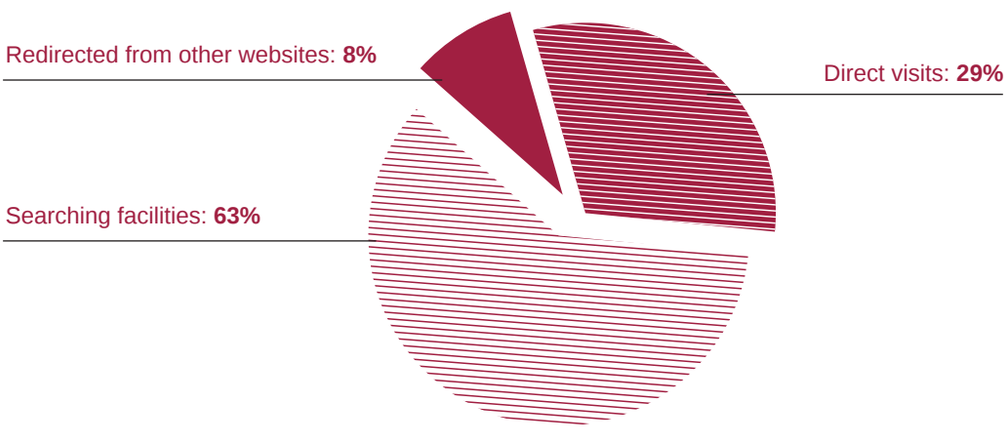


Figure 5.14

VISITS TO THE VSU OFFICIAL WEBSITE BY CONTINENTS

EUROPE: 1,481,049 VISITS

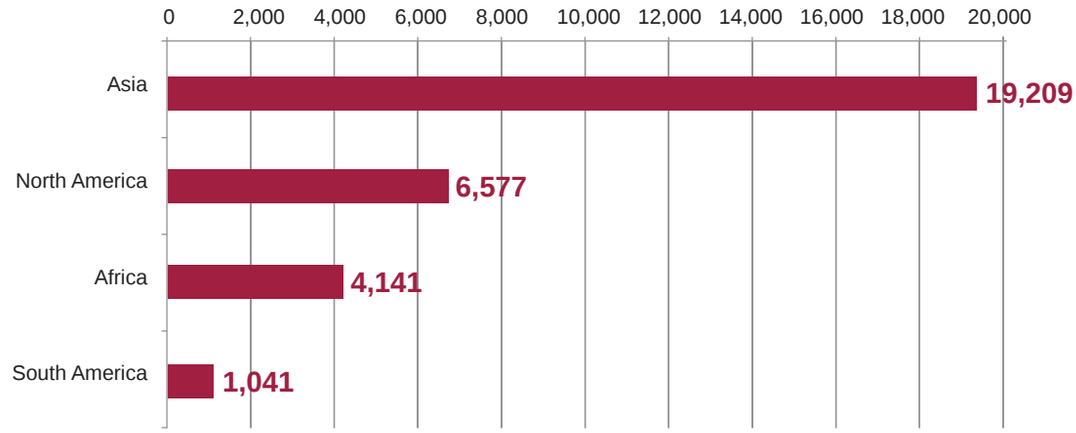


Figure 5.15

VISITS TO THE VSU OFFICIAL WEBSITE BY COUNTRIES

RUSSIA: 1,445,786 visits

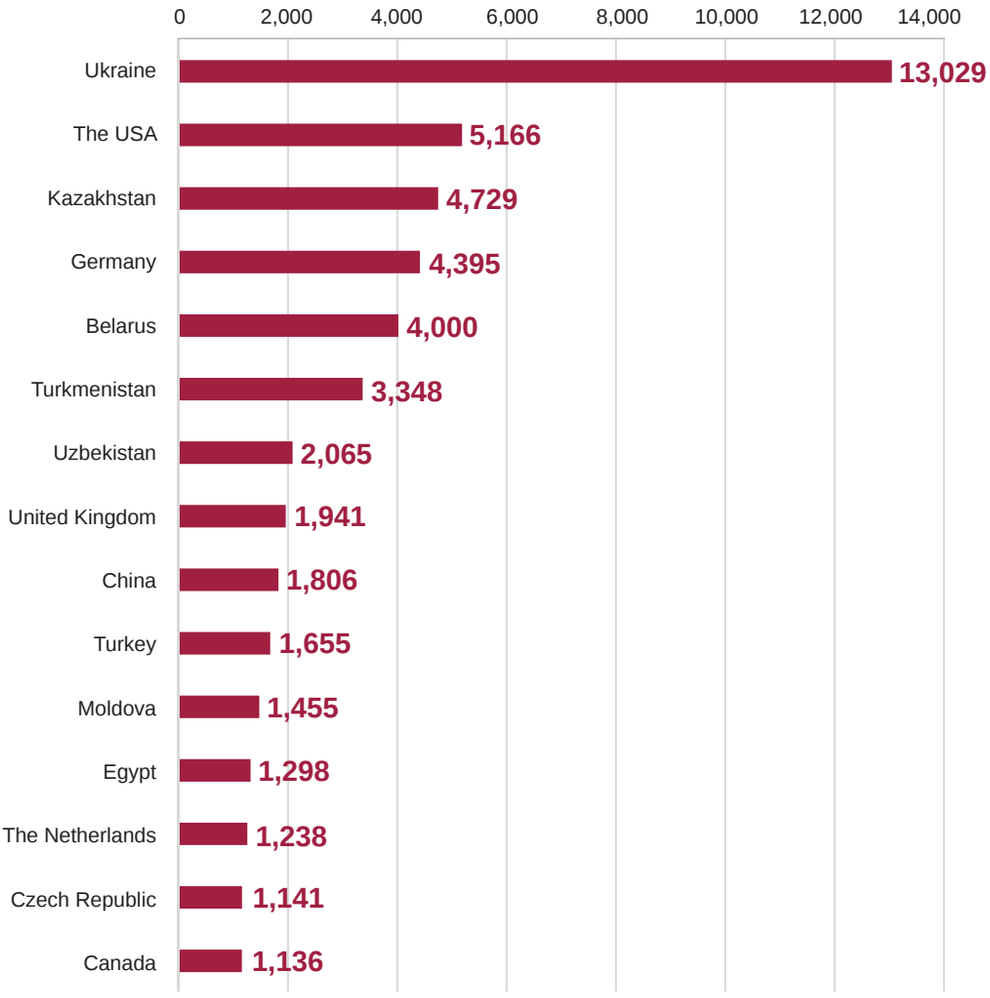


Figure 5.16

TOP VIEWS ON THE INTERNATIONAL VERSIONS OF THE WEBSITE

Russian (2,199,937 visits)

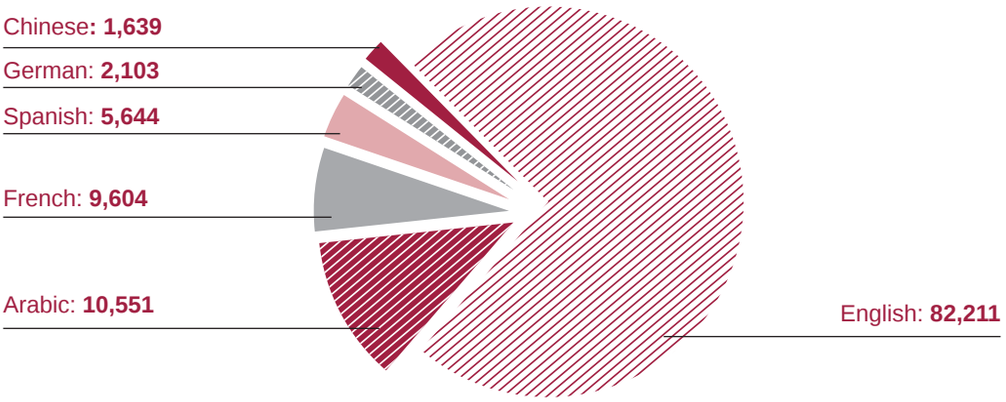


Table 5.13

TOP SECTIONS

Top sections	Visits
University	1,010,694
Academic Staff	550,275
News	463,554
Announcements	56,316
Calendar	8,450
Ratings	8,352
Articles	6,039
Anti-corruption	4,686
Coronavirus infection control	4,001

Table 5.14

TOP PAGES

Top pages	Visits
Faculties	129,373
Postgraduate Training Programmes	70,041
Faculty of Economics	42,882
Faculty of Biomedical Sciences	33,335
Faculty of Law	33,019
Faculty of International Relations	29,320
Faculty of Computer Sciences	28,764
Faculty of Military Education	27,649
Faculty of Romance and Germanic Philology	26,602
Faculty of Philosophy and Psychology	24,682

ENGLISH VERSION OF THE OFFICIAL VSU WEBSITE

The English version of the website is one of the most popular information resources of the university. Over 23.5 thousand visits were recorded over the past year. Geographical distribution of the website includes 175 countries. The total number of published information materials was 199.

Figure 5.17

TRAFFIC ON THE ENGLISH VERSION OF VSU OFFICIAL WEBSITE IN 2020

Annual report for the official VSU website traffic statistics from 01.01.2020 to 01.01.2021

NUMBER OF VIEWS

23,580 visits
50% of the visitors continued looking through the site after viewing the homepage

82,229 page views

2,493 document downloads (pdf, ppt, doc, etc.)

3 minutes 10 seconds was the average time spent on the website

Figure 5.18

TRAFFIC SOURCE ON THE ENGLISH VERSION OF VSU WEBSITE

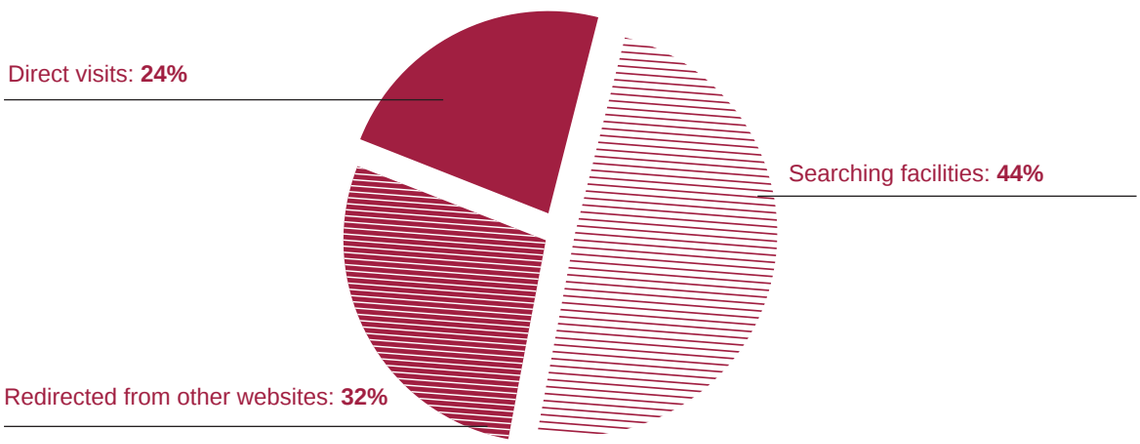


Figure 5.19

VISITS TO THE ENGLISH VERSION OF THE WEBSITE BY CONTINENTS

EUROPE: 11,848 VISITS

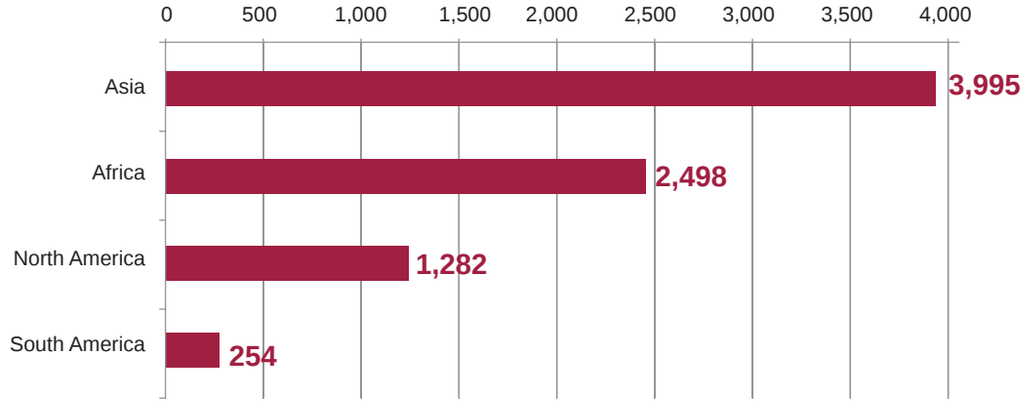


Figure 5.20

VISITS TO THE ENGLISH VERSION OF THE WEBSITE BY COUNTRIES

RUSSIA: 8,537 visits

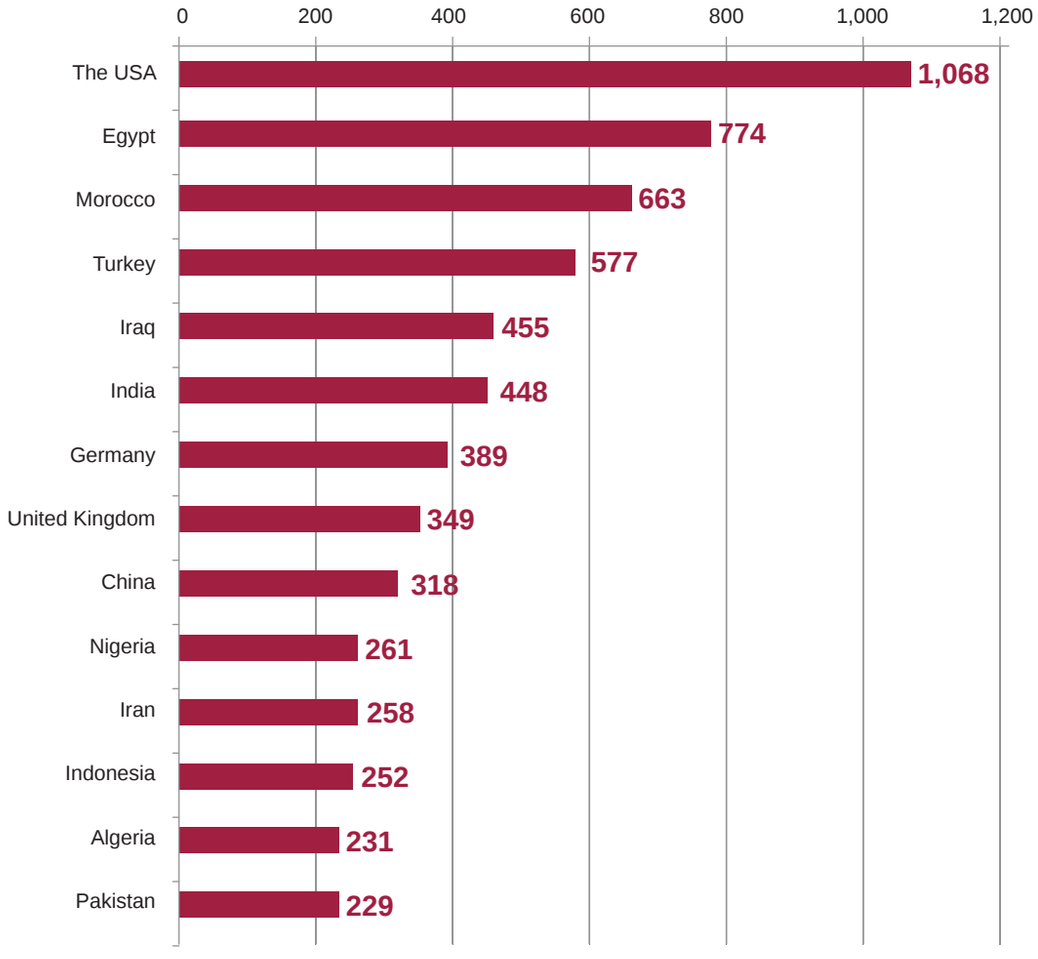


Figure 5.21

TOP FOREIGN LANGUAGES

English: 11,477 visits

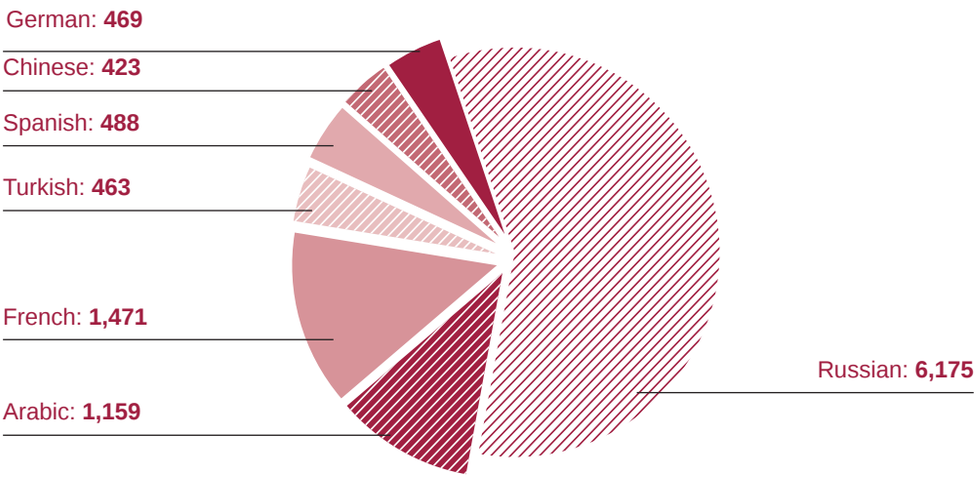


Table 5.15

TOP SECTIONS ON THE ENGLISH VERSION OF THE WEBSITE

Top sections	Visits
Studying	25,815
Faculties	14,363
About VSU	10,918
News	8,177
Research	1,991
Cooperation	1,604
Video	88

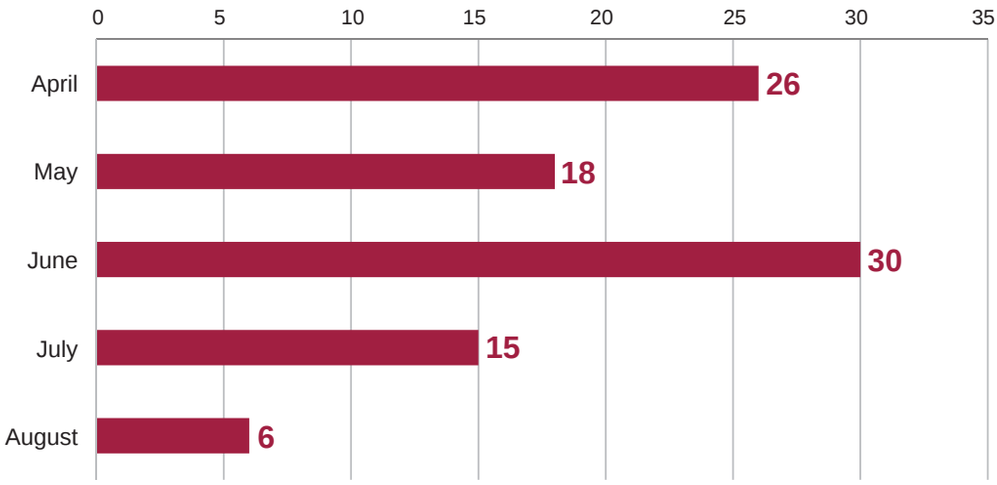
VIDEOCONFERENCING

While the university was working under the conditions of self-isolation, video conferencing (VC) was actively used. Over 5 months, more than **95** significant university events were held online (Fig. 5.22), including meetings with the Minister of Science and Higher Education V. N. Falkov, meetings of the Russian Union of Rectors, meetings of the Russian Council for Academic Competitions for Schoolchildren, sessions of the VSU Academic Board, boards of the faculties, and VSU Research and Methodology Board, deans' meetings, open days at VSU, and meetings of the deans of faculties with university applicants.

In May 2020, using the **TrueConf** VC system VSU arranged a joint meeting between the **Association of Higher Education Institutions of the Central Black Earth Region and the Council of Rectors of the Voronezh Region**, and rectors from more than 25 universities participated in it.

Figure 5.22

NUMBER OF EVENTS HELD VIA VC IN THE REPORTING YEAR WHILE THE UNIVERSITY WAS FOLLOWING THE REQUIREMENTS OF SELF-ISOLATION



DEVELOPMENT OF VSU'S DATA PROCESSING AND STORAGE CENTRES

To ensure the uninterrupted operation and storage and processing of data by such information resources as the electronic education and information system of the university ((https://edu.vsu.ru/), the web portal for massive open online courses VSU MOOCs (https://mooc.vsu.ru/), the "Abiturient" information support of the admission campaign, the system for information and analytical support of the quality of financial management, the "Tezis" electronic document flow system, and others, a fault-tolerant secure data storage system was purchased and introduced in 2020 (fig. 5.23). The new system is based on the Russian software **RAIDIX** and has a total storage capacity of **206 Tb**, which exceeds the existing requirements by **2.4 times**. The data storage system is built from solid state drives with a data transfer rate of **40 Gb/s**, which exceeds the rate of the current system by **5 times**. The cost of the equipment was **6.8 million roubles**.

Figure 5.23

FAULT-TOLERANT SECURE DATA STORAGE SYSTEM
AT THE VSU DATA PROCESSING AND STORAGE CENTRE

The server infrastructure was reorganised to stabilise the operation of the electronic education and information system while the education process was arranged using e-learning and distance learning technologies. The number of servers ensuring the operation of the “Electronic University VSU” portal (https://edu.vsu.ru/) was increased by 3 times, the total capacity rose by 5 times, and the volume of the stored information rose by 2.8 times. The videoconferencing server BigBlueButton was transferred to the data processing and storage centre of PAO Megafon (Megafon cloud), and the number of servers was increased by 14 times, the total capacity rose by 36 times, and the internet access channel width rose by 4 times (1.8 Gbit/s). The obtained cluster ensured up to 250 simultaneous conferences with up to 5000 clients daily.

As part of the implementation of the programme of financial and methodological support of digitisation of higher educational institutions, the key initiative “Electronic education environment”. In 2020 Voronezh State University received a subsidy for the improvement of the infrastructure, introduction of digital products and services, human resource development, and improvement in data quality. As a result, the following measures were taken in the reporting year:

- The VSU Data Processing and Storage Centre was modernised through the purchase and introduction of server, communication, and climate control equipment to organise the cluster of servers of the electronic education and information system, including the videoconferencing system BigBlueButton ensuring the uninterrupted hosting of online lectures, seminars, and practical classes for current students. The videoconferencing system of the electronic education and information system remigrated from the Data Processing Centre of PAO Megafon back to the VSU Data Processing Centre, and the rent of cloud resources was terminated.

- The VSU Data Processing and Storage Centre was modernised through purchase and introduction of server equipment for the VSU system of joint communications in order to ensure the uninterrupted operation of electronic mail, the voice over IP system, hot lines for various issues, access to the university’s Wi-Fi network, uninterrupted remote access to the corporate segment of VSU network, including electronic library systems, legal reference systems, and remote workplaces (automated working stations) to provide the managerial, educational, and scientific staff with the possibility to work remotely.

- The purchase of mobile multimedia systems allowed increasing the number of platforms that allow hosting online lectures, webinars, online practical classes and seminars, as well as mixed format classes (face-to-face and online at the same time).

DEVELOPMENT OF THE UNIVERSITY MULTIMEDIA EQUIPMENT

In 2020, the White Hall was equipped with modern multimedia equipment. The project was supported by the governor of the Voronezh Region, A. V. Gusev.

The hall’s equipment allows participating in video conferences using the H.323, SIP, Web, and Skype protocols, it supports the display of presentations and online broadcasts of different events providing clear and pure sound with echo and positive feedback suppression. An interesting technical solution is the projection screen based on smart glass, a material that changes its transparency based on the application of an electric current. Rear projection technology is used to display information on such kinds of screens, so the projector is not placed in the hall.

Figure 5.24

WHITE HALL EQUIPPED WITH A MULTIMEDIA SYSTEM

During the period when VSU worked remotely, the White Hall was the main platform for videoconferencing and online meetings.

Figure 5.25

ONLINE MEETING IN THE WHITE HALL

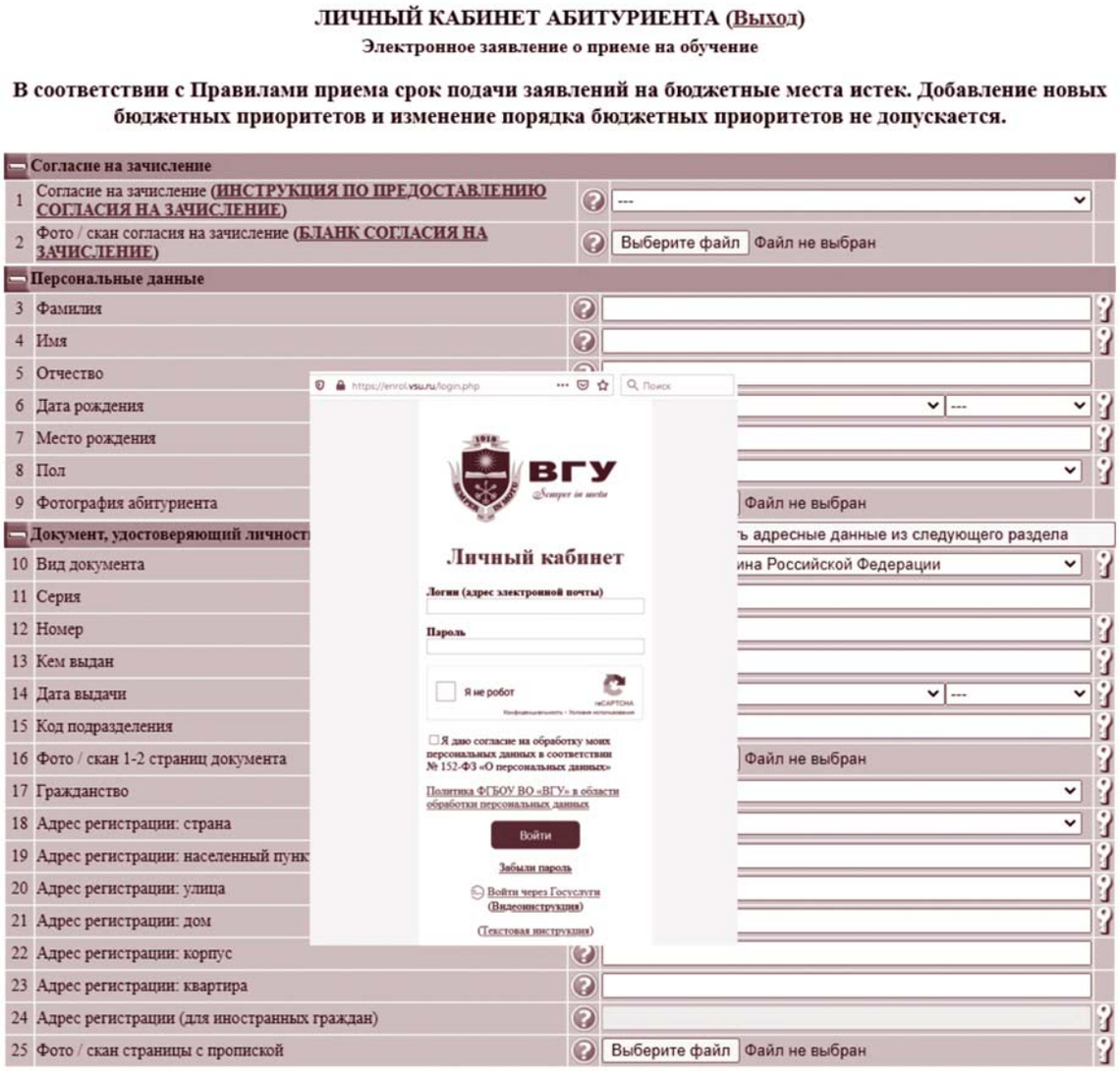
MEASURES AIMED AT AUTOMATION OF THE EDUCATIONAL PROCESS

PERSONAL AREA FOR UNIVERSITY ENTRANTS

In 2020, a personal area was implemented for university entrants that allows the remote submission of documents required to participate in the admission competition at Voronezh State University. The personal area can be accessed through a user's profile on Gosuslugi.

Figure 5.26

PERSONAL AREA FOR UNIVERSITY ENTRANTS



DIGITAL SERVICE OF REMOTE CHECKING OF RECEIPT OF TUITION FEES

An internet service was implemented to inform fee-paying students about the date and the sum of the latest tuition fee payment received on the university's bank account. The service is available 24/7 on the university's main website. Keeping students and their parents informed helped to increase the transparency of VSU and simplify the procedure of checking the payments while complying with the restrictions aimed at the control of the spread of the new coronavirus infection.

Figure 5.27

DIGITAL SERVICE FOR THE REMOTE CHECKING OF RECEIPT OF TUITION FEES

TECHNICAL SUPPORT OF USERS OF VSU'S TELECOMMUNICATION SERVICES

In the reporting year, user support within the university's telecommunications system was performed by VSU's Information Technology Administration. 20,306 user requests concerning various technical and informational issues were processed, which is 48% more as compared to the previous year (13,694 requests processed in 2019). The portion of successfully solved problems was 97.4%.

Figure 5.28

NUMBER OF REQUESTS FROM 2013 TO 2020

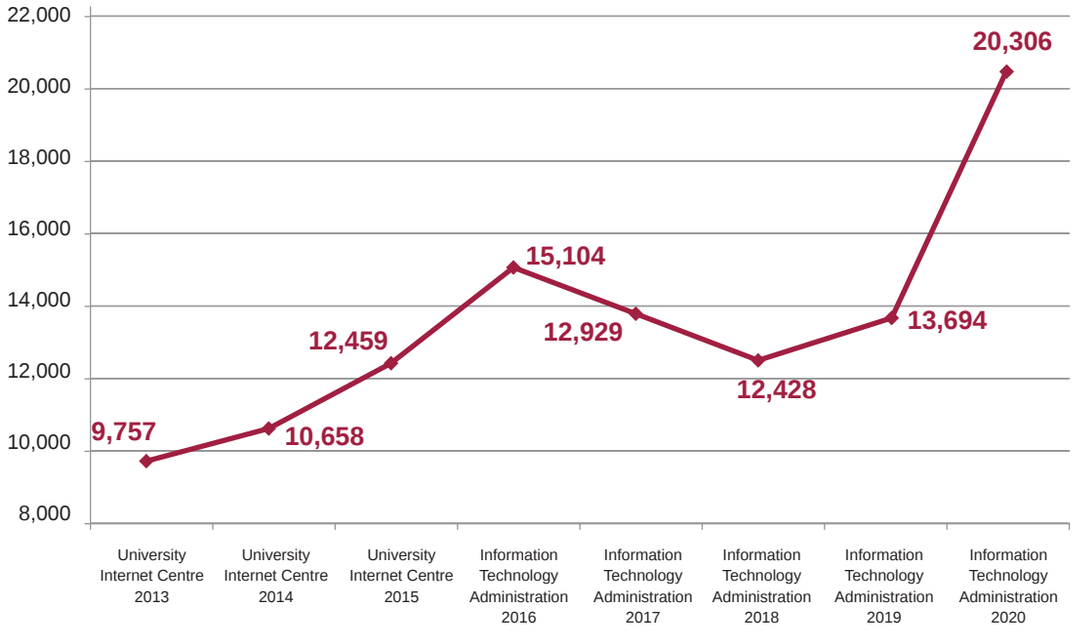


Figure 5.29

DISTRIBUTION OF THE NUMBER OF REQUESTS BY MONTHS IN 2019 AND 2020

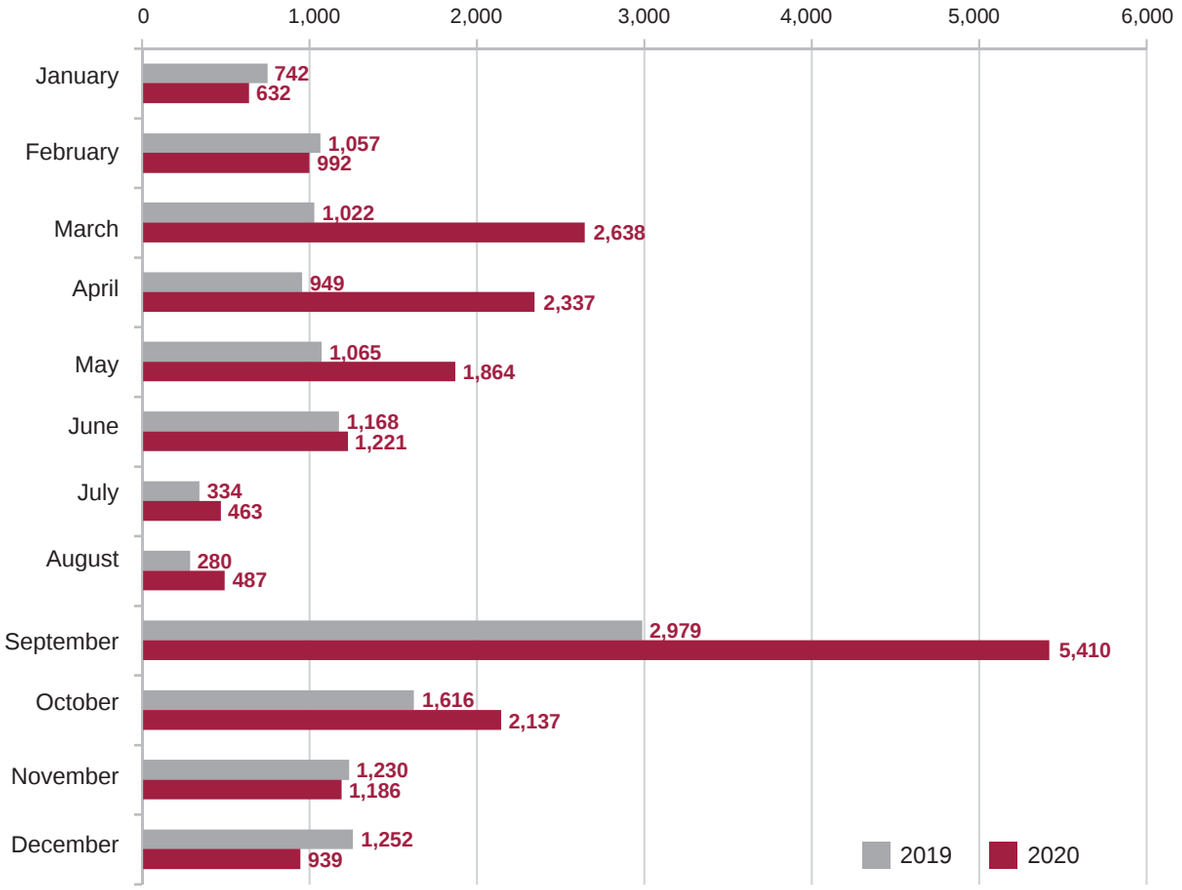
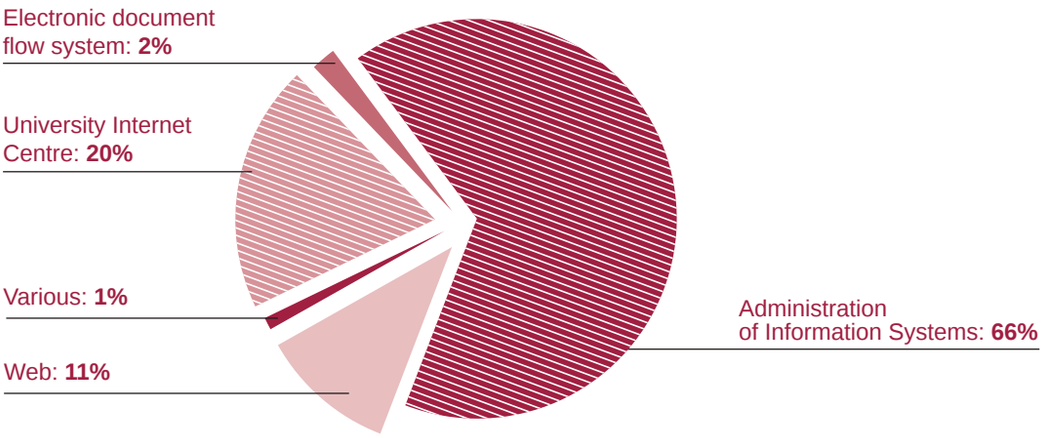


Figure 5.30

DISTRIBUTION OF THE NUMBER OF REQUESTS BY TYPE



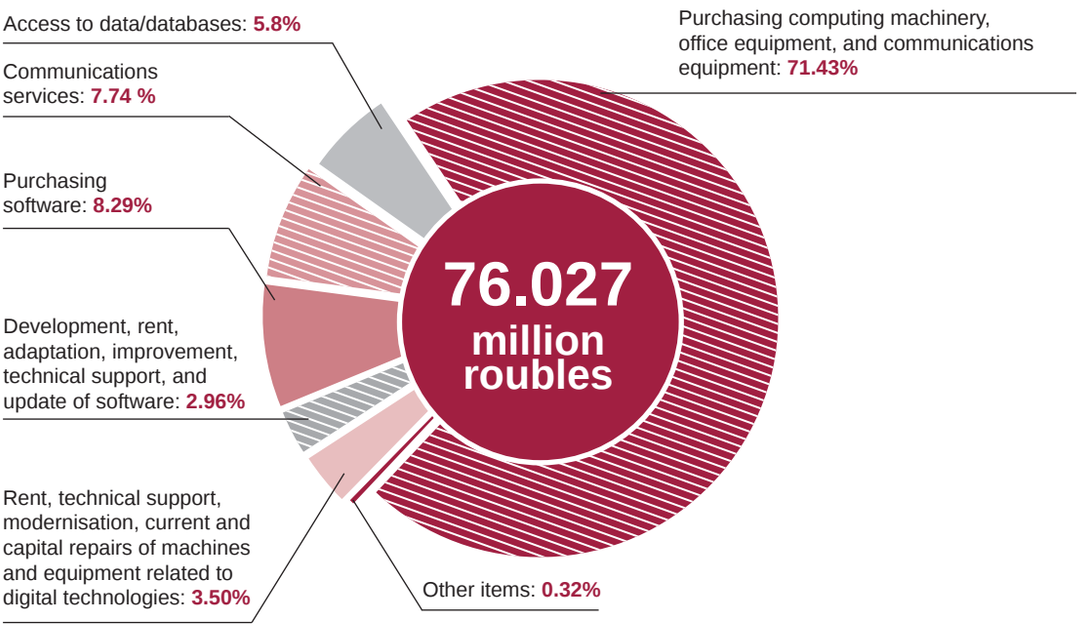
Most of the requests were related to the operation of VSU information systems (66%), mostly the electronic education and information system (LMS Moodle). In second place were requests (20%) related to the registration of students and staff in the university wireless network and fixing telecommunication services issues. In third place came requests (11%) related to posting information on VSU websites.

EXPENDITURES ON THE INTRODUCTION AND USE OF DIGITAL TECHNOLOGIES

Total expenditures on the introduction and use of digital technologies in the reporting year amounted to 76.027 million roubles. 71.43% of them were spent on machines and equipment related to digital technologies. Less than 24% from the total sum of expenditures were spent on the purchase of software, communication and data access services, maintenance and repairs, development, improvement, and technical support of software.

Figure 5.31

EXPENDITURES ON THE INTRODUCTION AND USE OF DIGITAL TECHNOLOGIES IN 2020



5.19. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2020

- In the area of hydrogen energetics and metallurgy, a method was developed for the purification and increase of electrocatalytic activity of the surface obtained by rolling thin membrane foil based on palladium alloys (Head Researcher – V. M. Ievlev, Full Member of the RAS).
- In the area of microwave electronics and spintronics, fundamental regularities were established for the atomic and electronic structure of CoFeB metal clusters with their content in metal composite layers of multi-layer nanostructures higher or lower than the percolation threshold (Head Researcher – Professor E. P. Domashevskaya).
- In the area of radiophysics, a method was developed for reducing the duration of ultra-short impulses in ultra-wideband generators (Head Researcher – Professor A. M. Bobreshov).
- In the area of optics and spectroscopy, a nanoform prototype was created for luminescent biomarkers based on indocyanine green dye and colloidal quantum dots of Ag_2S (Head Researcher – Professor O. V. Ovchinnikov).
- In the area of organic chemistry, samples were developed of new functionally-substituted hydro-quinols and condensed nitrogen, sulphur, and oxygen-containing heterocyclic compounds based on them with anticoagulant action and methods of their synthesis (Head Researcher – Professor Kh. S. Shikhaliev).
- In the area of biophysics, a method was developed for obtaining systems for the targeted delivery of ficin based on biodegradable polysaccharides modified with vinyl monomers (Head Researcher – Professor V. G.Artyukhov).
- In the area of physiology of plants, an epigenetic mechanism was suggested for the regulation of the Krebs cycle enzymes in plant cells (Head Researcher – Professor A. T. Epryntsev).

- In the area of medical biochemistry, a method was developed for the correction of metabolic disorders in case of tetrachloromethane liver disease of rats using 6-hydroxy-2,2,4-trimethyl-1,2-dihydroquinoline (Head Researcher – Professor T. N. Popova).
- In the area of sustainable use of natural resources, a petrodensity map of the Precambrian basement of the Voronezh crystalline massif was developed (Head Researcher – Professor V. N. Glaznev).
- In the area of geology, a hypothesis was suggested for decoding the Archean stage of endogenous evolution of Eastern Sarmatia (Head Researcher – Professor K. A. Savko).
- In the area of environmental protection, a methodology was developed for regional urboecodiagnostics (by the example of industrially developed cities of the Central Black Earth Region) to monitor air environment of the urbanised areas and ensure environmentally friendly city environment (Head Researcher – Professor S. A. Kurolap).
- In the area of laser physics, an adiabatic theory of the above-threshold photodetachment was developed that allows calculating the spectra of above-threshold ionisation and the distribution by speed of photoelectrons that were formed as a result of ionisation of atomic systems with intense laser fields (Head Researcher – Associate Professor M. V. Frolov).
- In the area of personalised medicine, a method for the early diagnosis of fluorosis was developed that allows monitoring the income of fluorine when using fluorine-containing caries-preventive agents (Head Researcher – Associate Professor P. V. Seredin).
- In the area of holography, a theory of holographic interferometry in shallow-water ocean waveguides at low frequencies was developed (Head Researcher – Associate Professor S. A. Pereselkov).
- In the area of philology, a concept of a poetic text in a polycode literary structure was developed (Head Researcher – Associate Professor A. A. Zhytenev).


Грамотный
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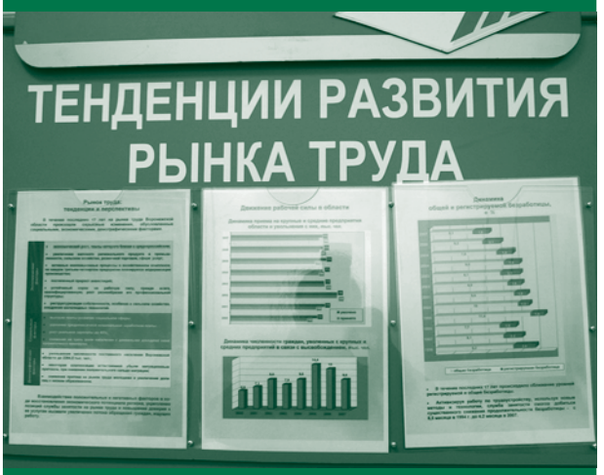
ТЕНДЕНЦИИ РАЗВИТИЯ
РЫНКА ТРУДА


ФИНАНСОВЫЙ
МЕНЕДЖМЕНТ
УМО
АНАЛИЗ
КРЕДИТОСПОСОБНОСТИ
ОРГАНИЗАЦИЙ
И ГРУППЫ КОМПАНИЙ
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Бухгалтерский учет
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Документооборот
Финансовое право
Анализ деятельности

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 SPHERE OF ECONOMICS AND FINANCE IN 2020

The goal of Voronezh State University in terms of economics and contract services is to achieve the best results of the university's financial policy, in accordance with the current legislation regarding the financial management of the universities subordinate to the Ministry of Science and Higher Education of the Russian Federation.

In order to achieve this goal, the following objectives were set:

- To adjust the salary of academic staff members to the corresponding values set by the roadmap for 2020.
- To continue of the tradition of bonuses for all categories of employees.
- To optimize costs in accordance with the university's strategy of finance management, budgeting, and planning, maintaining the current level of financial solvency and financial stability of the university.
- To achieve the optimum total financing of products, works, and services to provide for the university's needs.
- To reduce the number of changes in the provisions of the time-schedule for purchases of goods, works, and services to improve the quality of planning the university's purchasing activities.
- To reduce liabilities to creditors.
- To achieve positive financial results from the university's operating activities.
- To improve the purchasing competence of contractual system specialists in the accounting management of the budget institution and as part of the programme "Purchase Management in the Contractual System".

6.2. INCOME STRUCTURE BY THE SOURCE OF FINANCING IN 2020

In 2020, the total revenue amounted to **2,773,748.3 thousand roubles**, including:

- Government order subsidies: **1,102,412.0 thousand roubles.**
- Targeted subsidies: **462,350.2 thousand roubles.**
- Receipts from the provision of services to natural and legal persons on a fee-paying basis: **1,208,986.1 thousand roubles** (Table 6.1, Figure 6.1).

Table 6.1

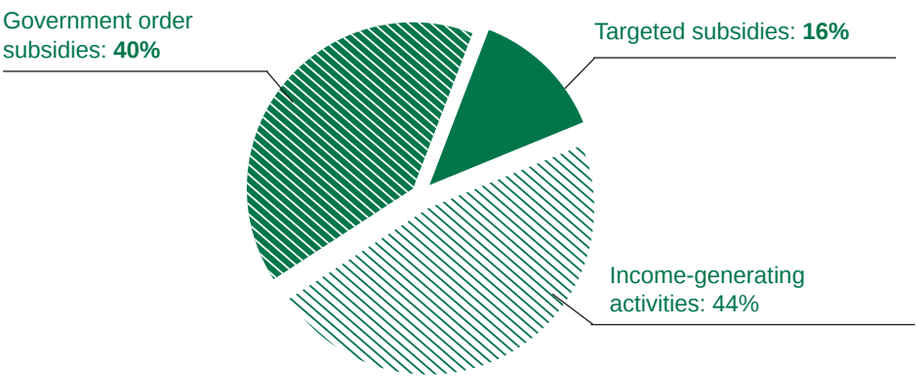
REVENUE STRUCTURE BY THE SOURCE OF FINANCING, thousand roubles

Receipts in 2020		Total
Federal budget	Revenue-generating activities	
1,564,762.2	1,208,986.1	**2,773,748.3**

The percentage of income from the federal budget in 2020 amounted to 56%, 44% was from income-generating activities.

Figure 6.1

REVENUE STRUCTURE BY THE SOURCE OF FINANCING, %



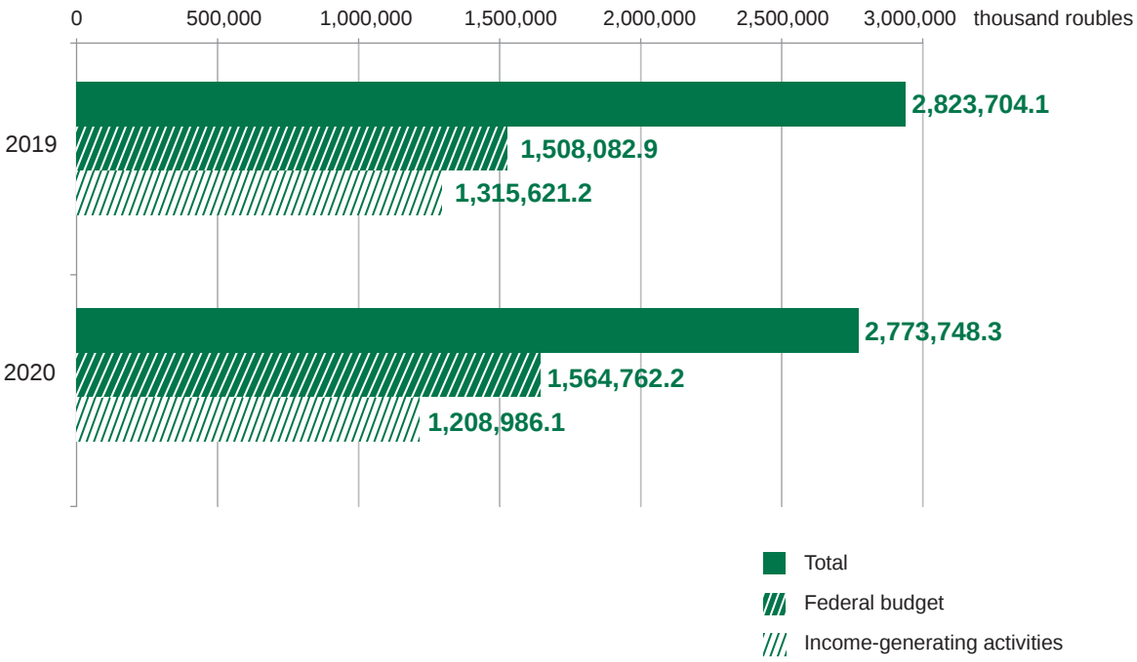
6.3. REVENIE BY THE SOURCE OF FINANCING AND SOURCES OF THEIR FINANCING IN COMPARISON WITH THE PREVIOUS REPORTING PERIOD

Compared to 2019, the total revenue in 2020 decreased by 49,955.8 thousand roubles (or by 1.8%):

- Subsidies obtained from the Russian Federation state budgetary resources increased by 56,679.3 thousand roubles.
- In 2020, extra-budgetary funding from revenue-generating activities decreased by 106,635.1 thousand roubles. (Fig. 6.2).

Figure 6.2

REVENUE IN 2020 COMPARED TO 2019



6.4. AREAS ON WHICH FUNDS WERE SPENT IN 2020 BY SOURCES OF FINANCING

Table 6.2

EXPENSES OF VSU IN ACCORDANCE WITH THE FINANCIAL AND BUSINESS OPERATIONS PLAN AS AMENDED ON DECEMBER 30, 2020

Name of the indicator	Amount of financial support, roubles			
	Total	Including:		
		Government order subsidies	Subsidies provided in accordance with the second paragraph of clause 1 of Art. 78.1 of the Budget Code of the Russian Federation	Receipts from the provision of services (performance of work) on a paid basis and from revenue-generating activities
				Total
1	2	3	4	5
Balance at the beginning of the current financial year	727,624,565.84	201,859,912.46	1,355,163.96	524,409,489.42
Expenses, total	2,553,927,860.48	993,067,173.53	463,705,383.96	1,097,155,302.99
Including: Payments to personnel, total	1,571,536,033.72	791,569,656.52	56,127,908.00	723,838,469.20
Including: Salaries	1,196,620,274.30	593,111,534.98	43,108,992.32	560,399,747.00
Including: Academic staff	8,868,300.00	0.00	0.00	8,868,300.00
Academic staff	823,474,626.82	385,596,219.10	43,108,992.32	394,769,415.40
Research staff	59,653,267.88	19,937,199.88	0.00	39,716,068.00
Among them: Research staff	23,922,746.89	9,835,958.89	0.00	14,086,788.00
Other key personnel	0.00	0.00	0.00	0.00
Administrative and managerial personnel	114,868,079.60	73,822,116.00	0.00	41,045,963.60
Support personnel	189,756,000.00	113,756,000.00	0.00	76,000,000.00
Other payments to staff, including reimbursements	3,704,178.10	247,100.16	0.00	3,457,077.94
Other payments, excluding salaries, for the performance of specific authorised acts	342,977.33	153,385.00	0.00	189,592.33
Contributions to social insurance funds regarding compensation to employees and other payments to employees of institutions, total	350,774,309.65	177,963,342.04	13,018,915.68	159,792,051.93
Payments for salaries of personnel working in national security, law enforcement, and defence	20,094,294.34	20,094,294.34	0.00	0.00
Including: Military compensation and compensation for staff members with special ranks	20,094,113.57	20,094,113.57	0.00	0.00
Other payments to military personnel and employees with special ranks	180.77	180.77	0.00	0.00
Social benefits and other payments, total	355,702,329.54	0.00	347,731,893.06	7,970,436.48
Taxes, commissions, and other payments, total	32,119,721.82	23,459,400.00	0.00	8,660,321.82
Among them: Corporate property tax and land tax	30,539,191.52	23,459,400.00	0.00	7,079,791.52
Other taxes (included in the composition of expenses) to the budget system of the Russian Federation, as well as state dues	564,483.06	0.00	0.00	564,483.06
Payment of fines (including administrative), penalties, and other payments	1,016,047.24	0.00	0.00	1,016,047.24
Among them: Execution of court orders of the Russian Federation and settlement agreements for the compensation of damage caused by the institution's activities	627,313.19	0.00	0.00	627,313.19
Expenses for the purchase of goods, works, and services, total	589,836,492.50	177,848,017.01	55,302,400.00	356,686,075.49
Including: Purchases for research and development work	6,845,381.00	0.00	0.00	6,845,381.00

End of table 6.2

Name of the indicator	Amount of financial support, roubles			
	Total	Including:		
		Government order subsidies	Subsidies provided in accordance with the second paragraph of clause 1 of Art. 78.1 of the Budget Code of the Russian Federation	Receipts from the provision of services (performance of work) on a paid basis and from revenue-generating activities
				Total
1	2	3	4	5
including: Other works and services	6,845,381.00	0.00	0.00	6,845,381.00
Purchase of goods, works, and services for major repairs of state property	2,023,672.77	672,598.00	0.00	1,351,074.77
Maintenance works and services	2,023,672.77	672,598.00	0.00	1,351,074.77
Other purchases for goods, works and services, total	580,967,438.73	177,175,419.01	55,302,400.00	348,489,619.72
Payment for works, services	406,204,813.20	104,657,775.86	41,827,400.00	259,719,637.34
Communications services	7,521,474.76	3,808,076.37	0.00	3,713,398.39
Transport services	183,256.90	0.00	0.00	183,256.90
Utility services	103,050,589.40	51,062,853.93	0.00	51,987,735.47
Property rental (excluding for land plots and other isolated natural objects)	403,420.00	144,000.00	0.00	259,420.00
Maintenance works and services	109,964,495.53	11,408,649.63	0.00	98,555,845.90
Other works and services	140,986,144.71	37,813,431.71	0.00	103,172,713.00
Insurance	165,296.42	0.00	0.00	165,296.42
Services, works for the purposes of capital investments	43,930,135.48	420,764.22	41,827,400.00	1,681,971.26
Increase in the value of fixed assets	135,073,964.80	65,952,760.81	13,475,000.00	55,646,203.99
Increase in the value of material assets	39,688,660.73	6,564,882.34	0.00	33,123,778.39
Increase in the cost of food products	2,457.00	0.00	0.00	2,457.00
Increase in the cost of fuel and lubricants	2,915,898.64	0.00	0.00	2,915,898.64
Increase in the cost of fabric inventory	1,068,596.75	0.00	0.00	1,068,596.75
Increase in the value of other material assets	28,905,280.42	4,121,132.34	0.00	24,784,148.08
Increase in the value of other single-use material assets	6,796,427.92	2,443,750.00	0.00	4,352,677.92
Other payments, total	4,733,282.90	190,100.00	4,543,182.90	0.00
Among them: Return of subsidy funds to the budget	345,290.90	190,100.00	155,190.90	0.00

In 2020, the largest percentage was accounted for by payments to personnel, which amounted to 61% of the total amount of financing within the financial support of the government order and revenue-generating activities, taking into consideration the fact that in 2019 this figure was 51%. Utility costs were 8.5%.

6.5. ANALYSIS OF THE EFFECTIVENESS OF THE STRUCTURAL SUBDIVISIONS OF THE UNIVERSITY PROVIDING EDUCATIONAL SERVICES

Table 6.3

REVENUE FROM THE EDUCATIONAL SERVICES IN THE 2019/2020 ACADEMIC YEAR

Faculty	Government order, rub.	Revenue-generating activities, rub.	Total, rub.	Percentage, %
Faculty of Law	47,210,922	222,135,649	269,346,571	15
Faculty of Economics	34,656,792	171,944,796	206,601,588	11
Faculty of Applied Mathematics, Informatics, and Mechanics	129,037,550	34,256,738	163,294,288	9
Faculty of Computer Sciences	109,820,022	38,076,943	147,896,965	8
Faculty of Romance and Germanic Philology	32,108,056	95,925,694	128,033,750	7
Faculty of Physics	123,435,267	3,940,892	127,376,159	7
Faculty of Biomedical Sciences	91,678,091	23,540,338	115,218,429	6
Faculty of Journalism	16,174,600	69,088,161	85,262,761	5
Faculty of Pharmaceutics	30,629,923	47,660,530	78,290,453	4
Faculty of Mathematics	63,371,576	5,294,095	68,665,671	4
Faculty of Geology	62,150,093	5,362,285	67,512,378	4
Faculty of International Relations	11,180,323	55,664,210	66,844,533	4
Faculty of Chemistry	60,127,837	4,350,923	64,478,760	4
Faculty of Geography, Geoecology, and Tourism	50,128,880	13,908,535	64,037,415	4
Faculty of History	26,456,429	31,107,519	57,563,948	3
Faculty of Philosophy and Psychology	26,529,527	18,498,321	45,027,848	3
Faculty of Philology	14,372,946	27,708,183	42,081,129	2
Total	**929,068,834**	**868,463,812**	**1,797,532,646**	**100**

In 2020, the Faculty of Law and the Faculty of Economics as is traditional remain the leaders in the receipt of funds from the main activities of the university: 15 and 11%, respectively, in the total amount of income from educational activities (Table 6.3, Fig. 6.3).

Figure 6.3

INCOME STRUCTURE BY FACULTY IN 2020

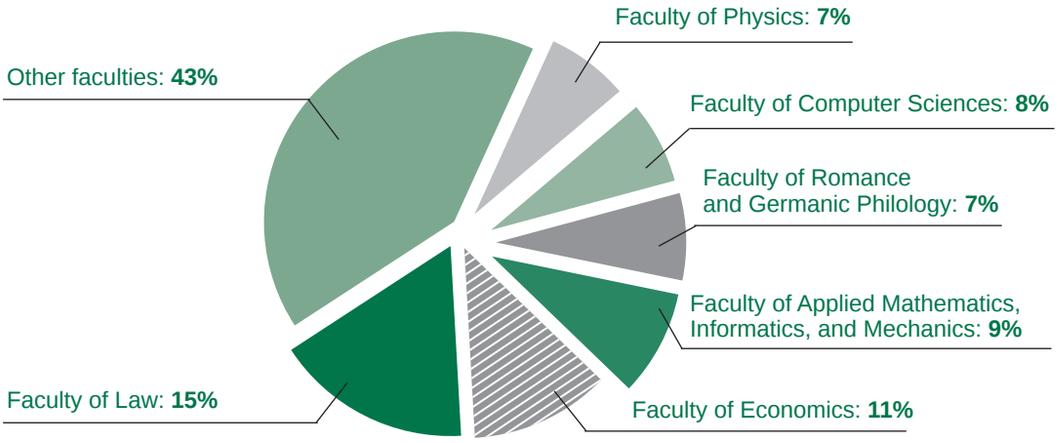


Table 6.4

ANALYSIS OF THE INCOME PLANNING OF FACULTIES OF VSU IN THE 2019/20 ACADEMIC YEAR

Faculty	Planned income	Actual income	The achievement of parameters, %	Absolute deviation (+/–)
Faculty of Mathematics	4,020,200.00	7,130,040.00	177.36	3,109,840.00
Faculty of History	24,893,100.00	29,537,471.00	118.66	4,644,371.00
Faculty of Geography, Geoecology, and Tourism	9,293,000.00	10,128,537.00	108.99	835,537.00
Faculty of Journalism	59,471,200.20	61,534,218.00	103.47	2,063,017.80
Faculty of Philosophy and Psychology	19,358,800.00	19,870,084.00	102.64	511,284.00
Faculty of Applied Mathematics, Informatics, and Mechanics	33,368,400.00	33,588,314.00	100.66	219,914.00
Faculty of Philology	24,731,393.00	24,731,393.00	100.00	0
Faculty of Chemistry	2,960,400.00	2,954,750.00	99.81	-5,650.00
Faculty of Economics	175,359,800.00	174,570,951.00	99.55	-788,849.00
Faculty of International Relations	56,621,900.00	56,160,037.00	99.18	-461,863.00
Faculty of Computer Sciences	32,287,300.00	31,818,801.00	98.55	-468,499.00
Faculty of Romance and Germanic Philology	95,204,600.00	93,301,875.00	98.00	-1,902,725.00
Faculty of Biomedical Sciences	18,837,000.00	18,415,970.00	97.76	-421,030.00
Faculty of Law	243,143,600.00	237,095,609.00	97.51	-6,047,991.00
Faculty of Physics	5,185,500.00	4,988,935.00	96.21	-196,565.00
Faculty of Geology	6,634,500.00	6,205,872.00	93.54	-428,628.00
Faculty of Pharmaceutics	43,153,900.00	33,569,208.00	77.79	-9,584,692.00
Total	**854,524,593.20**	**845,602,065.00**	**–**	**-8,922,528.20**

The fulfilment of the income planning for structural divisions providing education services amounted to 98.96%. Unsatisfactory results come from the failure to fulfil the plan by the Faculty of Pharmaceutics (77.79%) and the over achievement of the plan by the Faculty of Mathematics (177.36%), which is also a negative criterion from the point of view of assessing the financial management of the organization by the founder (Table 6.4).

Table 6.5

ANALYSIS OF THE COST PLANNING OF FACULTIES OF VSU IN THE 2019/20 ACADEMIC YEAR

Faculties	Planned cost	Actual cost	The achievement of parameters, %
Faculty of Romance and Germanic Philology	95,204,600.00	94,764,331.43	99.54
Faculty of Physics	5,185,500.00	5,063,310.50	97.64
Faculty of Law	250,109,300.00	243,249,244.06	97.26
Faculty of History	24,893,100.00	24,035,281.02	96.55
Faculty of Journalism	59,471,200.00	57,305,933.98	96.36
Faculty of International Relations	56,621,900.00	53,982,323.48	95.34
Faculty of Geology	6,634,500.00	6,174,178.05	93.06
Faculty of Economics	175,359,800.00	161,817,107.19	92.28
Faculty of Geography, Geoecology, and Tourism	9,293,000.00	8,555,243.80	92.06
Faculty of Biomedical Sciences	18,837,000.00	16,905,829.79	89.75
Faculty of Pharmaceutics	43,153,900.00	38,258,165.24	88.66
Faculty of Computer Sciences	32,287,300.00	23,715,965.41	73.45
Faculty of Philosophy and Psychology	24,893,848.00	18,144,696.29	72.89
Faculty of Philology	24,731,393.00	16,962,492.15	68.59
Faculty of Mathematics	4,020,200.00	2,715,760.39	67.55
Faculty of Applied Mathematics, Informatics, and Mechanics	19,611,252.00	10,833,163.90	55.24
Faculty of Chemistry	4,991,380.00	2,593,871.96	51.97
Total	**855,299,173.00**	**785,076,898.63**	**–**

The fulfilment of the cost planning of structural divisions providing educational services amounted to 91.78%. Unsatisfactory results were shown by the Faculty of Computer Science, the Faculty of Philosophy and Psychology, the Faculty of Philology, the Faculty of Mathematics, the Faculty of Applied Mathematics, Informatics, and Mechanics, and the Faculty of Chemistry (Table 6.5).

Table 6.6

ANALYSIS OF INCOME PLANNING FOR FACULTIES AND THE BUSINESS SCHOOL OF VSU IMPLEMENTING SVE PROGRAMS AT VORONEZH STATE UNIVERSITY, IN THE 2019/20 ACADEMIC YEAR

Faculties	Planned income	Actual income	The achievement of parameters, %	Absolute deviation (+, -)
SVE of the Faculty of Pharmacy	12,376,600.00	11,757,770.00	95.00	-618,830.00
Business School at the Faculty of Economics	11,811,900.00	11,221,305.00	95.00	-590,595.00
SVE of the Faculty of Journalism	11,746,000.00	11,158,700.00	95.00	-587,300.00
SVE of the Faculty of Mathematics	10,835,400.00	10,293,630.00	95.00	-541,770.00
SVE of the Faculty of Geography, Geoecology, and Tourism	4,322,100.00	4,105,995.00	95.00	-216,105.00
SVE of the Faculty of Physics	1,548,600.00	1,471,170.00	95.00	-77,430.00
SVE of the Faculty of Economics	1,403,000.00	854,000.00	60.87	-549,000.00
Total	**54,043,600.00**	**50,862,570.00**	**–**	**-3,181,030.00**

The fulfilment of the income planning for structural divisions providing SVE educational services amounted to 94.11%. An unsatisfactory result was a failure in the income plan for the provision of secondary vocational education services by the Faculty of Economics (Table 6.6).

Table 6.7

ANALYSIS OF THE COST PLANNING OF FACULTIES AND THE BUSINESS SCHOOL REGARDING THE FULFILMENT OF SVE PROGRAMS AT VORONEZH STATE UNIVERSITY, IN THE 2019/20 ACADEMIC YEAR

Faculty	Planned cost	Actual cost	The achievement of parameters, %
SVE of the Faculty of Physics	1,223,448.90	1,231,263.49	100.64
SVE of the Faculty of Pharmacy	12,376,600.00	11,899,348.44	96.14
SVE of the Faculty of Journalism	11,746,000.00	11,162,334.70	95.03
SVE of the faculty of Faculty of Geography, Geoecology, and Tourism	4,322,100.00	3,993,678.60	92.40
SVE of the Faculty of Mathematics	10,835,400.00	9,390,195.50	86.66
SVE of the Faculty of Economics	1,403,000.00	1,065,903.29	75.97
Business School of the Faculty of Economics	11,811,900.00	8,254,957.96	69.89
Total	**53,718,448.90**	**46,997,681.98**	**–**

The fulfilment of the cost planning of structural divisions providing educational services of secondary vocational education amounted to 87.49%. Unsatisfactory results were the non-fulfilment of the cost plan for the provision of SVE services by the Business School, the Faculty of Economics, and the Faculty of Mathematics (Table 6.7).

Table 6.8

ANALYSIS OF INCOME PLANNING FOR INTERNATIONAL EDUCATION INSTITUTE PROGRAMS

Subdivision	Planned income	Actual income	The achievement of parameters, %	Absolute deviation (+, –)
International Education Institute	45,364,483.00	45,364,483.00	100.00%	0.00
Total	**45,364,483.00**	**45,364,483.00**	**–**	**0.00**

The fulfilment of the income plan of the International Education Institute was 100.00%, which was due to the monthly adjustment of the income plan at the request of this structural unit (Table 6.8).

Table 6.9

ANALYSIS OF PLANNING COSTS FOR THE PROGRAMS OF THE INTERNATIONAL EDUCATION INSTITUTE

Subdivision	Planned cost	Actual cost	The achievement of parameters, %	Absolute deviation (+, -)
International Education Institute	45,364,483.00	38,500,962.79	79.87%	0.00
Total	**45,364,483.00**	38,500,962.79	**–**	**0.00**

The fulfilment of the cost plan of the International Education Institute was 79.87% (Table 6.9).

Table 6.10

ANALYSIS OF THE PLANNED COSTS FOR THE ADOPTION OF MONETARY OBLIGATIONS BY THE FACULTIES OF VORONEZH STATE UNIVERSITY

Item of expenditure	Planned cost	Actual cost	Performance, %
Transportation costs	40,000.00	40,000.00	–
Purchase of equipment	7,212,500.00	6,888,182.59	95.50
Expenses from civil contracts (salary)	7,228,324.00	6,590,939.72	91.18
Other material expenses	2,941,600.00	2,665,076.23	90.60
Other services	3,958,200.00	2,594,907.88	65.56
Expenses for other property maintenance services	1,390,000.00	745,973.63	53.67
Expenses for personnel training courses	1,240,000.00	303,364.00	24.46
Travel expenses	6,330,000.00	1,498,077.95	23.67
Expenses for practical trainings	3,435,000.00	461,626.70	13.44
Payment of state fees and membership fees	6,799.76	0.00	–
Total	**33,782,423.76**	**21,788,148.70**	**64.50**

The fulfilment of the plan for accepting monetary liabilities was 64.50%, which is due to a lack of timeliness in relation to purchase requests and the low financial discipline of the university's structural divisions (Table 6.10).

6.6. ANALYSIS OF THE ACTIVITIES OF THE POST-GRADUATE VOCATIONAL EDUCATION INSTITUTE IN THE 2019/20 ACADEMIC YEAR

Table 6.11

ANALYSIS OF THE ACTIVITIES OF POST-GRADUATE VOCATIONAL EDUCATION INSTITUTE IN THE 2019/20 ACADEMIC YEAR

Central Federal District	Planned income	Actual income	Transferred to the general fund (plan)	Transferred to the general fund (fact)	Absolute deviation, rub.	Percentage of plan completion, %
VSU pre-study courses	7,077,000.00	7,426,918.00	2,359,000.00	2,475,639.00	349,918.00	104.94
Presidential Program	3,519,750.00	4,132,956.00	–	–	613,206.00	117.42
Advanced English Learning Centre	2,508,750.00	2,228,350.00	836,250.00	742,783.00	-280,400.00	88.82
Business School Master of Science "General Management"	2,121,750.00	2,124,750.00	–	–	3,000.00	100.14
Post-Graduate Vocational Education Institute	1,913,250.00	2,007,750.00	637,750.00	669,250.00	94,500.00	104.94
Business School, further professional education	1,935,263.00	1,970,175.00	645,087.00	656,725.00	34,912.00	101.8
Additional services for the study of a third foreign language	3,172,618.00	1,794,313.00	891,250.00	431,815.00	-1,378,305.00	56.56
Additional professional retraining programmes with certification	1,365,195.00	995,426.25	455,065.00	331,808.66	-369,768.75	72.91
Additional services of the Faculty of Philology for foreign citizens	840,138.00	885,138.00	280,046.00	295,046.00	45,000.00	105.36
Courses of the Faculty of History	1,125,000.00	843,750.00	375,000.00	281,250.00	-281,250.00	75
Additional services of the Faculty of Mathematics	815,709.00	785,547.00	271,903.00	261,849.00	-30,162.00	96.3
Additional services of the Faculty of Physics	762,750.00	735,787.00	254,250.00	243,262.00	-26,963.00	96.47
Additional services of Professor I. A. Sternin	643,089.00	679,125.00	214,363.00	226,375.00	36,036.00	105.6
Additional services of the Faculty of Geography, Geoecology, and Tourism	662,066.00	645,000.00	220,685.00	215,000.00	-17,066.00	97.42
Additional Web-design program of the Faculty of Applied Mathematics, Informatics, and Mechanics	800,250.00	635,741.75	266,750.00	211,913.91	-164,508.25	79.44

End of table 6.11

Central Federal District	Planned income	Actual income	Transferred to the general fund (plan)	Transferred to the general fund (fact)	Absolute deviation, rub.	Percentage of plan completion, %
Legal Innovations and Conciliation Procedures Centre	526,500.00	526,500.00	175,500.00	175,500.00	0	100
Course of the Faculty of Computer Science	165,000.00	495,000.00	55,000.00	165,000.00	330,000.00	300
Courses of the Department of Pharmacy	376,125.00	376,125.00	125,375.00	125,375.00	0	100
Additional services of the Faculty of Romance and Germanic Philology	295,200.00	333,750.00	98,400.00	111,250.00	38,550.00	113.06
Courses of the Advanced English Learning Centre	357,000.00	325,800.00	119,000.00	108,600.00	-31,200.00	91.26
The regional Centre for Cooperation between Russia and France	176,476.00	325,800.00	58,824.00	108,600.00	149,324.00	184.61
Additional services of the Faculty of Philosophy and Psychology	196,650.00	317,850.00	65,550.00	105,950.00	121,200.00	161.63
Additional services of the Faculty of Medicine and Biology	587,250.00	308,630.00	195,750.00	102,876.00	-278,620.00	52.56
Additional services of the Faculty of Chemistry	309,000.00	288,750.00	103,000.00	96,250.00	-20,250.00	93.45
Radiation Safety Centre of Voronezh State University	225,000.00	270,000.00	75,000.00	90,000.00	45,000.00	120
Courses of the Faculty of Journalism	203,250.00	218,250.00	67,750.00	72,750.00	15,000.00	107.38
Professional development of management personnel	121,500.00	121,500.00	40,500.00	40,500.00	0	100
German Language Centre	295,680.00	119,130.00	98,560.00	39,710.00	-176,550.00	40.29
Additional services of the Faculty of Romance and Germanic Philology	63,750.00	57,375.00	21,250.00	19,125.00	-6,375.00	90
Courses of the Competence Centre	37,500.00	37,500.00	12,500.00	12,500.00	0	100
Research and Education Centre “Rusistika” (Russian Studies);	27,000.00	33,000.00	9,000.00	11,000.00	6,000.00	122.22
Courses of the Faculty of Applied Mathematics, Informatics, and Mechanics	29,700.00	29,700.00	9,900.00	9,900.00	0	100
Centre of the European and International Law	22,500.00	27,500.00	7,500.00	–	5,000.00	122.22
Applied geodesy	30,750.00	11,250.00	10,250.00	3,750.00	-19,500.00	36.59
Total	**33,308,409.00**	**32,114,137.00**	**9,056,008.00**	**8,441,352.57**	**-1,194,272.00**	**96.41**

The percentage of fulfilment of the Institute of Further Professional Education income plan was 96.41%. The leaders in profitability in this area are the Central Federal District “VSU Pre-study Courses” with 7,426 thousand roubles, the Central Federal District “Presidential Program” with 4,132 thousand roubles, and the Central Federal District “Advanced English Learning Centre” with 2,228 thousand roubles. (Table 6.11).

Table 6.12

PLANNED EXPENSES FROM THE REVENUE
FOR FURTHER PROFESSIONAL EDUCATION PROGRAMMES

Type of expenses	Classification of transactions of general government sector	Sum (plan)	Sum (fact)	Share, %	Share (fact)	Absolute deviation
Salaries and wages	211	22,450,399.88	17,594,200.99	68	69	-4,856,198.89
Staff compensation payment charges	213	6,780,020.76	5,313,448.69	20	21	-1,466,572.07
Expenses under civil contracts	226	3,295,184.00	2,709,662.44	10	10	-585,521.56
Travel/accommodation costs	212	267,605.00	127,217.60	1	0	-140,387.40
Equipment purchase costs	310	91,647.00	65,000.00	0	0	-26,647.00
Stationery purchase costs	340	62,548.00	10,881.00	0	0	-51,667.00
Communication service costs	221	52,021.00		0	0	-52,021.00
Educational literature purchase costs	226	187,611.00		1	0	-187,611.00
Other material costs	346	31,662.00	20,000.00	0	0	-11,662.00
Publishing and printing costs	226	60,000.00		0	0	-60,000.00
Total		**33,278,698.64**	**25,840,410.72**	**100**	**100**	**-7,438,287.92**

The largest percentage of expenses for further professional education programmes was the salary of university staff which comprised 90%, while the salary of external staff comprised 10% (Table 6.12).

6.7. PURCHASING PERFORMANCE

In 2020, as part of the procurement of goods, works, and services, 1,588 contracts (agreements) were signed. The sources of funding for the procurement of goods, works, and services were subsidies obtained from the budgets of the budgetary system, grants, funds provided to fulfil state contracts, and 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 state contracts, as well as the funds obtained from individuals and legal entities through other income-generating activities. The analysis of the number and structure of the contracts signed in 2020 by source of financing is shown in Table 6.13.

Table 6.13

ANALYSIS OF THE NUMBER AND STRUCTURE OF THE CONTRACTS (AGREEMENTS) SIGNED IN 2019-2020 BY THE SOURCE OF FINANCING

No.	Source of financing	The volume of the signed contracts					Percentage variation, points
		Quantity, pcs		Deviations, pcs. (+, -)	Percentage of the total, %		
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	1,685	1,313	-372	86.37	82.68	-3.69
2	Subsidies obtained from the Russian Federation state budget resources	266	275	9	13.63	17.32	3.69
Total		**1,951**	**1,588**	**-363**	**100**	**100**	**–**

It should be noted that the number of contracts signed in 2020 decreased compared to 2019 by 372 pcs., or by 22.08%, due to the enlargement of the volume of purchases of goods, works, and services and the purchases based on the competitive selection of suppliers (contractors, agents) financed by subsidies obtained from the Russian Federation state budget resources, by grants, funds provided to fulfil state contracts, and funds obtained from individuals and legal entities through other revenue-generating activities (Table 6.13, Fig. 6.4).

Table 6.14

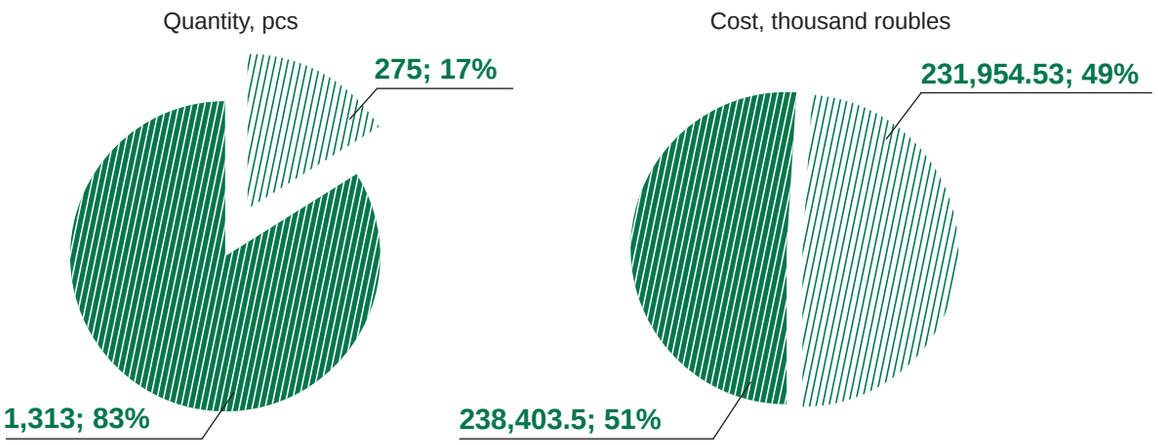
ANALYSIS OF THE VALUE AND STRUCTURE OF CONTRACTS (AGREEMENTS) SIGNED IN 2019-2020 BY SOURCE OF FINANCING

No.	Source of financing	The volume of the signed contracts					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	536,240.02	238,403.5	-297,836.5	72.71	50.69	-22.02
2	Subsidies obtained from the Russian Federation state budget resources	201,308.42	231,954.53	30,646.11	27.29	49.31	22.02
Total		**737,548.44**	**470,358.03**	**-267190.4**	**100**	**100**	**–**

As for the total financing of the purchase of goods, works, and services, in 2020 its volume decreased by 36.23%. The financing of purchasing activities through subsidies increased significantly compared to last year and amounted to 49.31% of the total volume of purchases in the reporting period. The financing for the procurement of goods, works, and services through grants, funds provided to fulfil contracts, as well as funds obtained from individuals and legal entities through other revenue-generating activities decreased and amounted to 50.69 % of the total volume of purchases. It should be noted, that in 2020 the financing and purchasing activities were approximately equal, which indicates the achievement of a balance between funding sources within the framework of the plan of financial and business operations (Table 6.14, Fig. 6.4).

Figure 6.4

VOLUME AND STRUCTURE OF THE CONTRACTS SIGNED IN 2020



Information about the contracts signed through various methods of competitive selection of suppliers is shown in Tables 6.15, 6.16 and in Figs. 6.5, 6.6.

Table 6.15

ANALYSIS OF THE VOLUME AND STRUCTURE OF CONTRACTS SIGNED AS PART OF ORDER PLACEMENT FOR PURCHASING GOODS, WORKS, AND SERVICES IN 2019-2020

No.	Source of financing	Volume of the contracts signed based on a competitive selection of supplier					Percentage variation, points
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	percentage of the total, %		
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	369,976.78	188,121.513	-181,855.3	81.57	57.12	-24.45
2	Subsidies obtained from the Russian Federation state budget resources	83,573.58	141,200.758	57,627.178	18.43	42.88	24.45
Total		**453,550.36**	**329,322.271**	**-124,228.1**	**100**	**100**	**–**

The data presented in Table 6.15 show that in the reporting period, the volume of purchases of goods, works, and services carried out using a competitive selection of supplier (contractor, agent) decreased by 181.8 million roubles, which amounted to 50.85% of the corresponding value in 2019. The volume of financing for procurement using subsidies obtained from the Russian Federation state budget resources increased by almost 57.6 million roubles (or 68.95%). In the structure of procurement sources of financing, the share of subsidies from the Russian Federation state budget resources increased to 42.88% of the university's financing for procurement by competitive methods for determining the supplier (contractor, agent).

Figure 6.5

THE VOLUME AND STRUCTURE OF THE VALUE OF CONTRACTS SIGNED IN 2019–2020 AS PART OF ORDERS PLACED FOR THE PURCHASE OF GOODS, WORKS, AND SERVICES, THOUSAND ROUBLES

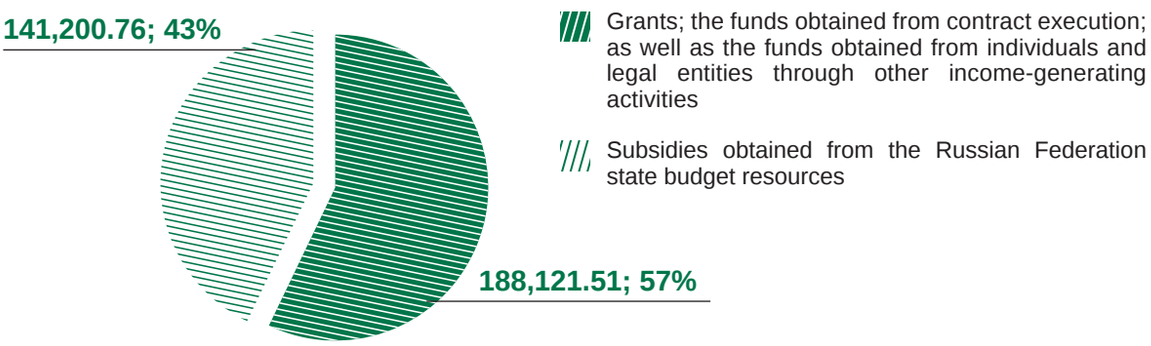


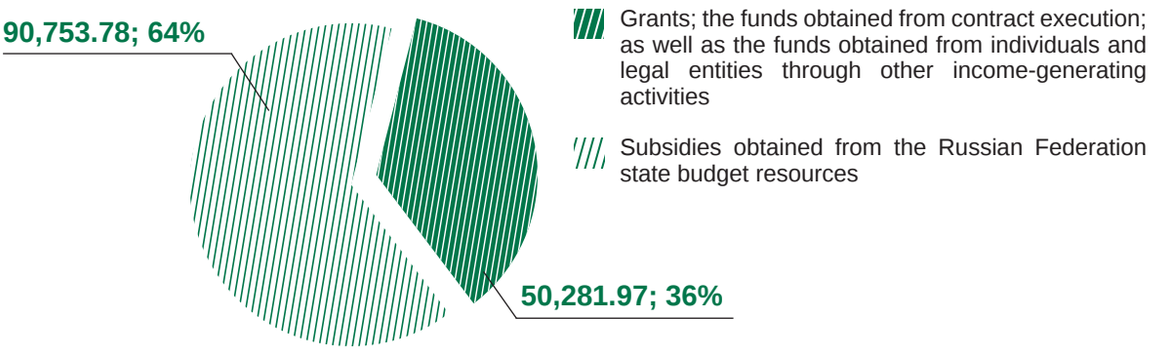
Table 6.16

ANALYSIS OF THE VOLUME AND STRUCTURE OF CONTRACTS SIGNED FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT) IN 2020

No.	Source of financing	Volume of purchase contracts from a single supplier					Percentage variation, points
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	percentage of the total, %		
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	166,263.24	50,281.97	-115,981.27	58.54	35.65	-22.89
2	Subsidies obtained from the Russian Federation state budget resources	117,734.84	90,753.78	-26,981.06	41.46	64.35	22.89
Total		**283,998.08**	**141,035.75**	**-142,962.3**	**100**	**100**	**–**

Figure 6.6

VOLUME OF PURCHASE CONTRACTS IN 2020 FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT), THOUSAND ROUBLES



In 2020, as part of a purchase from a single supplier (contractor, agent), twice less contracts were signed than contracts with a competitive selection of supplier (contractor, agent). It should be noted that since 2016, the purchases of goods, works, and services, both those based on the competitive selection of supplier (contractor, agent), and with a single supplier (contractor, agent) were mainly funded with subsidies obtained from the Russian Federation state budget resources, during the reporting period, this trend was preserved (64.35%).

Considerable attention should be paid to the analysis of the composition of expenses for the procurement of goods, work, services carried out by a single supplier (contractor, agent) (Tables 6.17, 6.18 and Figs. 6.7, 6.8).

Table 6.17

ANALYSIS OF THE CONTENTS AND STRUCTURE OF THE VOLUME OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT) BY THE MAIN ITEMS OF EXPENDITURE

No.	Item of expenditure	Volume of the contracts signed in 2019-2020 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
		Quantity, pcs.		Absolute difference, pcs. (+, -)	Percentage of the total, %		Percentage variation, points, % (+, -)
		2019	2020		2019	2020	
1	Additions to property, plant, and equipment	83	86	47	5.51	7.39	1.88
2	Materials	269	103	-227	17.86	8.85	-9.01
3	Research projects	45	35	-10	2.99	3.01	0.02
4	Renovations	24	22	-13	1.59	1.89	0.3
5	Utility services	23	7	3	1.53	0.6	-0.93
6	Teaching services provided by non-payroll employees	482	443	28	32.01	38.06	6.05
7	State fees and membership dues	84	72	-151	5.58	6.18	0.6
8	Other operating expenses	496	396	19	32.93	34.02	1.09
Total		**1506**	**1164**	**-342**	**100**	**100**	**–**

Table 6.18

ANALYSIS OF THE CONTENT AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT) BY THE MAIN ITEMS OF EXPENDITURE

No.	Object of expenditure	Volume of the contracts signed in 2019-2020 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points, % (+, -)
		2019	2020		2019	2020	
1	Additions to property, plant, and equipment	6,337.29	12,298.97	5961.68	3.81	13.15	9.34
2	Materials	26,496.97	11,967.26	-14,529.71	15.94	12.79	-3.15
3	Research projects	12,700.96	7752.87	-4948.09	7.64	8.29	0.65
4	Renovations	2,112.98	4,684.68	2,571.7	1.27	5.01	3.74
5	Utility services	63,101.71	18,200.45	-44901.26	37.95	19.45	-18.5
6	Teaching services provided by non-payroll employees	10,235.63	10,070.19	-165.44	6.16	10.76	4.6
7	State fees and membership dues	925.54	353.67	-571.87	0.56	0.38	-0.18
8	Other operating expenses	44,352.16	28,232.37	-16,119.79	26.68	30.18	3.5
Total		**166,263.24**	**93,560.46**	**-72,702.78**	**100**	**100**	**–**

Figure 6.7

ANALYSIS OF THE CONTENTS AND STRUCTURE OF PURCHASE CONTRACTS IN 2020 FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT) BY THE MAIN ITEMS OF EXPENDITURE, THOUSAND ROUBLES

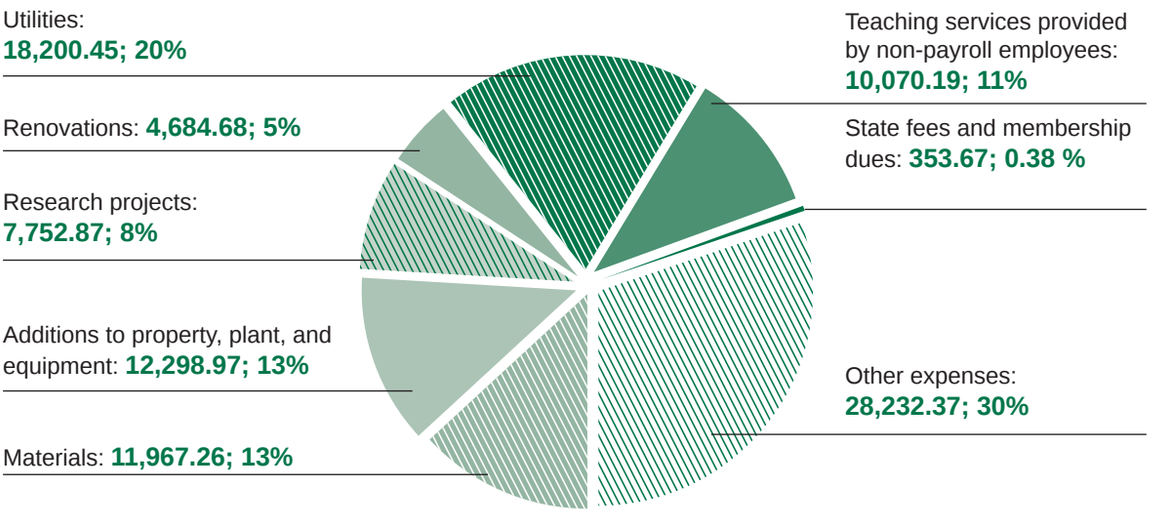
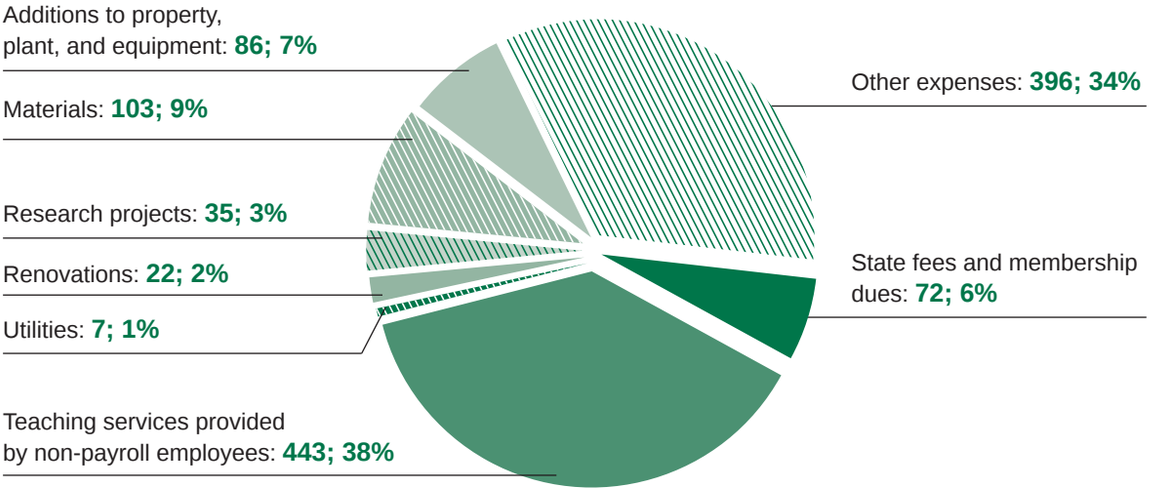


Figure 6.8

ANALYSIS OF THE CONTENT AND STRUCTURE OF PURCHASE CONTRACTS IN 2020 FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT), BY THE MAIN ITEMS OF EXPENDITURE, PCS.



An analysis of the content and structure of purchase contracts from a single supplier (contractor, agent) by the main items of expenditure shown in Tables 6.17 and 6.18 demonstrates that the largest number of contracts were related to contracts signed for purchase of other works and services for additions to property, plant, and equipment and the purchase of materials. The amount allocated for payments for teaching services decreased. In 2020, the volume of financing of contracts signed for paying utility bills significantly decreased, which amounted to 19.45%. A decrease by more than 18% in comparison with the previous reporting period was revealed.

An analysis of the contents and structure of the contracts signed in 2020 and financed through subsidies obtained from the Russian Federation state budget resources, signed through various methods of competitive selection of the supplier (contractors, agent) was conducted (Table 6.19).

Table 6.19

ANALYSIS OF THE VOLUME AND STRUCTURE OF THE CONTRACTS FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES, SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER

No.	Methods of supplier selection	Volume of signed contracts					
		Quantity, pcs		Absolute difference, pcs. (+, -)	Percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Online auction	49	76	27	18.42	27.64	9.22
2	Competition	2	3	1	0.75	1.09	0.34
3	Invitation to tender	4	0	-4	1.5	0	-1.5
4	Purchase from a single supplier (contractor, agent), with the information uploaded into the Integrated Information System	39	14	-25	14.66	5.09	-9.57
5	Purchase from a single supplier (contractor, agent) in accordance with paragraph 4 of Article 93 44-FZ (up to 600 thousand roubles)	110	105	-5	41.36	38.18	-3.18
6	Purchase from a single supplier (contractor, agent) in accordance with paragraph 5 of Article 93 44-FZ (up to 600 thousand roubles)	62	77	15	23.31	28	4.69
Total		**266**	**275**	**9**	**100**	**100**	**–**

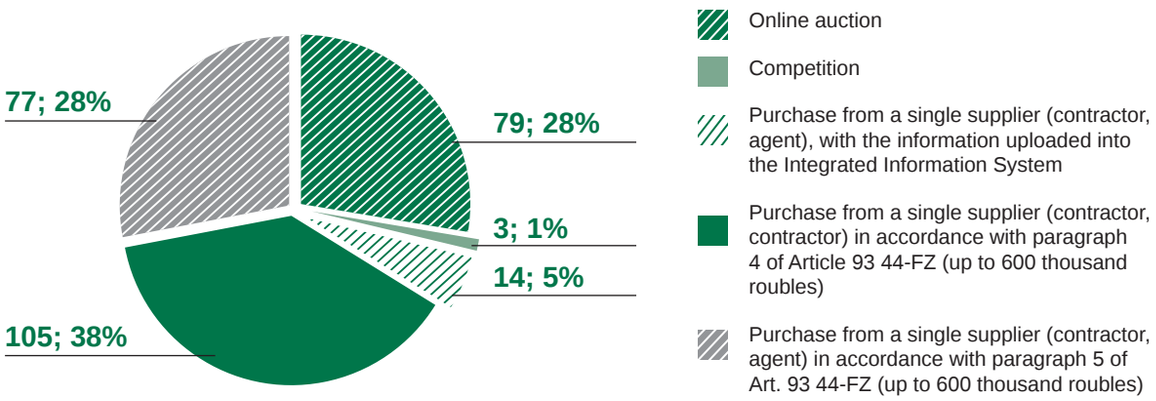
Procurement of goods, works, or services in accordance with paragraph 4 of Article 93 44-FZ is possible for an amount not exceeding 600 thousand roubles. At the same time, the annual volume of purchases should not exceed 2 million roubles, or 10% of the total annual volume of purchases, and should not exceed 50 million roubles.

The purchase of goods, work or services in accordance with paragraph 5 of Article 93 44-FZ is possible by a state or municipal educational organization for an amount not exceeding 600 thousand roubles. At the same time, the annual volume of purchases that a purchaser has the right to perform based on this paragraph should not exceed 5 million roubles, or 50% of the total annual volume of purchases, and should not exceed 30 million roubles.

It should be noted that in terms of the number of signed contracts financed by subsidies provided from the budgets of the budgetary system of the Russian Federation, the university maintains a leading trend in purchases from a single supplier (contractor, agent) up to 600 thousand roubles. (66.18% of the total volume of signed contracts). The percentage of these contracts when compared to the previous year increased by 5.81%. In second place are contracts for the purchase of goods, works, and services using online auctions (28.73% of the total volume of contracts signed using this source of financing).

Figure 6.9

ANALYSIS OF THE VOLUME OF CONTRACTS IN 2020 FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF SUPPLIER (CONTRACTOR, AGENT)



The contracts financed through subsidies obtained from the Russian Federation state budget resources were mainly signed as a result of the competitive selection of supplier (contractor, agent): online auction (37.55% of the total volume of contracts signed using this source of financing); competition in electronic form with the placement of information in the UIS (23.29% of the total volume of purchases of goods, works, services). The use of competitive selection of supplier (contractor, agent) in the reporting period increased significantly in comparison with the previous reporting period and amounted to 60.84% of the total volume of purchases, or 141,200.75 thousand roubles.

Table 6.20

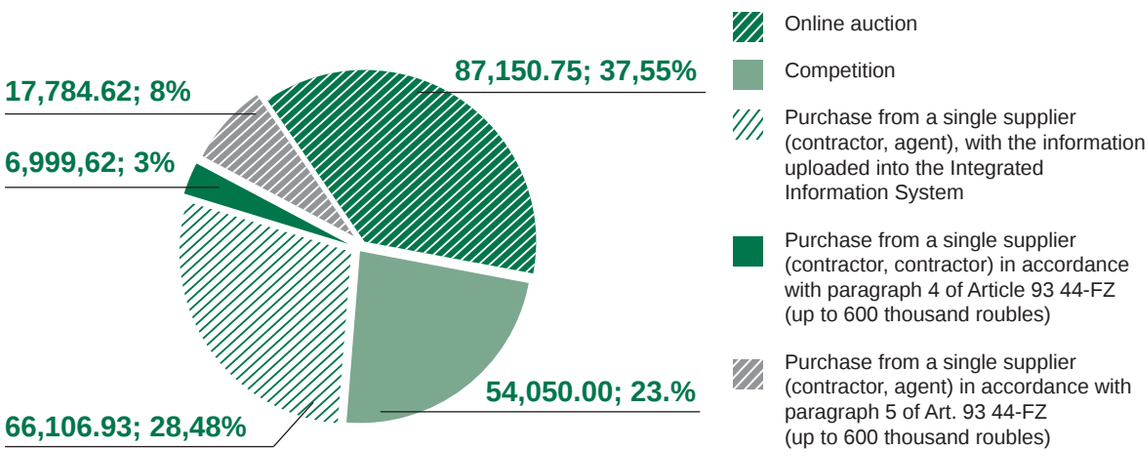
ANALYSIS OF THE VOLUME AND STRUCTURE OF THE CONTRACTS FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES, SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER

No.	Methods of supplier selection	The volume of the signed contracts					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Online auction	67,089.62	87,150.75	20,061.13	33.33	37.55	4.22
2	Competition	16,397.75	54,050	37,652.25	8.15	23.29	15.14
3	Invitation to tender	86.2	0	-86.2	0.04	0	-0.04
4	Purchase from a single supplier (contractor, agent), with the information uploaded into the Integrated Information System	97,728.97	66,106.93	-31,622.04	48.55	28.48	-20.07
5	Purchase from a single supplier (contractor, agent) in accordance with paragraph 4 of Article 93 44-FZ (up to 600 thousand roubles)	3,705.16	6,999.62	3,294.46	1.84	3.02	1.18
6	Purchase from a single supplier (contractor, agent) in accordance with paragraph 5 of Article 93 44-FZ (up to 600 thousand roubles)	16,300.72	17,784.62	1483.9	8.09	7.66	-0.43

The largest percentage was accounted for by contracts signed as a result of the use of competitive methods for the selection of supplier (contractor, agent) (online auction), as well as electronic bidding, which altogether accounts for 66.03% of the total number of contracts funded with subsidies obtained from the Russian Federation state budget resources.

Figure 6.10

VOLUME OF THE CONTRACTS SIGNED IN 2020 AND FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF SUPPLIER, THOUSAND ROUBLES



Other sources of financing were the grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities. The analysis of the structure of the contracts of purchase from a single supplier (contractor, agent), in quarterly periods of 2020, is shown in Table 6.21 and Fig. 6.11.

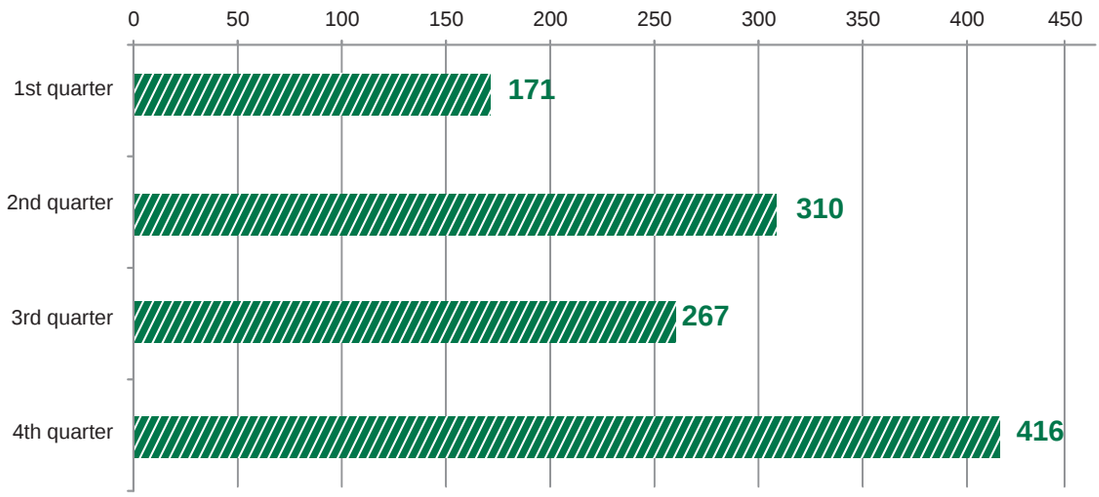
Table 6.21

ANALYSIS OF THE VOLUME AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

Quarter Period	Volume of the contracts signed in 2019-2020 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
	Quantity, pcs		Absolute difference, pcs. (+, -)	Percentage of the total, %		Percentage variation, points
	2019	2020		2019	2020	
1st quarter	222	171	-51	14.74	14.69	-0.05
2nd quarter	451	310	-141	29.95	26.63	-3.32
3rd quarter	300	267	-33	19.92	22.94	3.02
4th quarter	533	416	-117	35.39	35.74	0.35
Total	1,506	1,164	-342	100	100	–

Figure 6.11

ANALYSIS OF THE STRUCTURE OF THE NUMBER OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT), PCS.



By the number of contracts from a single supplier (contractor, agent), the largest share (35.74%) belongs to purchases in the fourth quarter of 2020, which characterizes the tendency to sign a larger number of contracts towards the end of the reporting period. In addition, at the end of the year, the university signs contracts, the effect of which will apply in the following reporting period.

Considering this indicator in terms of value, it can be seen that the maximum share of contracts was also signed in the fourth quarter of the reporting period (33.71%). In 2019, the maximum percentage of purchase contracts from a single supplier (contractor, agent) were accounted for purchases in the fourth quarter (61.74%). The quarterly value of goods, works, and services purchased exceeded the average by 17.91%. In 2020, this indicator decreased by 28.03% and amounted to 33.71%. The quarterly value of goods, works, and services purchased exceeded the average by 8.71%. Table 6.22, Fig. 6.12).

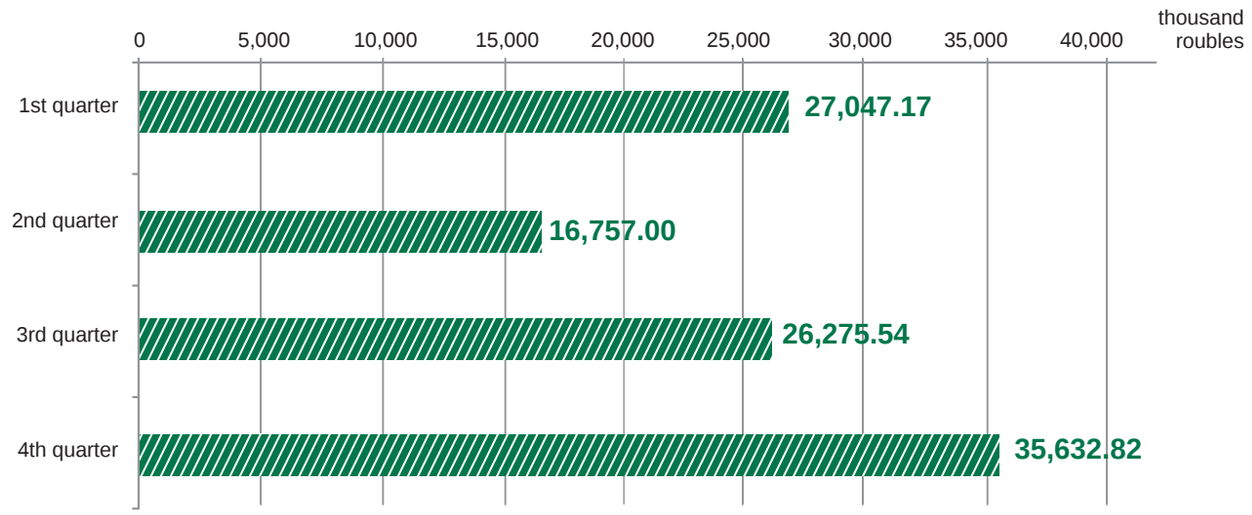
Table 6.22

ANALYSIS OF THE VOLUME AND STRUCTURE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

Quarter Period	Volume of the contracts signed in 2019-2020 using grants, funds provided to fulfil contracts; as well as funds obtained from individuals and legal entities through other income-generating activities					
	Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
	2019	2020		2019	2020	
1st quarter	9,364.51	27,047.17	17,682.66	5.63	25.59	19.96
2nd quarter	23,429.37	16,757	-6,672.37	14.09	15.85	1.76
3rd quarter	30,815.76	26,275.54	-4,540.22	18.53	24.85	6.32
4th quarter	102,653.61	35,632.82	-67,020.79	61.74	33.71	-28.03
Total	**166,263.25**	**105,712.53**	**-60,550.72**	**100**	**100**	**–**

Figure 6.12

ANALYSIS OF THE STRUCTURE OF THE VALUE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)



The data presented in Table 6.22 show that for the value of contracts from a single supplier (contractor, agent) uniform procurement was substantially impaired. For the 1st quarter, 25.59% of the volume is accounted for purchases from a single supplier (contractor, agent). It should be noted that, compared to 2019, this indicator increased and exceeded the condition of uniform procurement by only 0.59%.

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. During the reporting period, 924 requests were accepted from the structural subdivisions as part of the registration procedure for the procurement of goods, works, and services for the planning period, which is significantly less than in 2019. The number of requests decreased by 769, which was 45.42% from the level of the previous year. Table 6.23 and Figure 6.13 present information about the number of submitted requests and their changes.

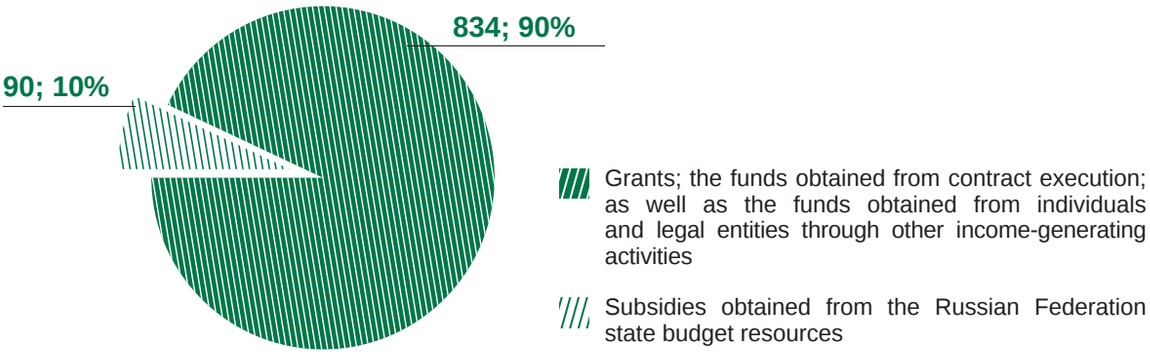
Table 6.23

THE ANALYSIS OF THE NUMBER OF SUBMITTED REQUESTS FOR ALL SOURCES OF FINANCING FOR THE PURCHASING ACTIVITIES

No.	Source of financing	Information on the requests submitted					
		Quantity, pcs		Absolute difference, items (+, –)	Percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	1,574	834	-740	92.97	90.26	-2.71
2	Subsidies obtained from the Russian Federation state budget resources	119	90	-29	7.03	9.74	2.71
Total		**1,693**	**924**	**-769**	**100**	**100**	**–**

Figure 6.13

THE STRUCTURE OF SUBMITTED REQUESTS AND THEIR CHANGES BY FINANCIAL SOURCES FOR THE PURCHASE OF GOODS, WORKS, AND SERVICES



Certain 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 unified information system. Information on the dynamics of changes to the time-schedule for the procurement is presented in Table 6.24 and Figure 6.14.

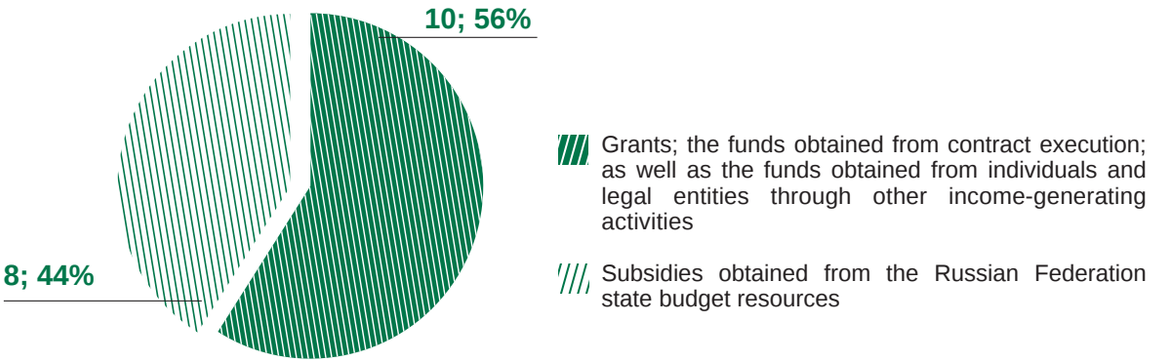
Table 6.24

ANALYSIS OF THE NUMBER OF MODIFICATIONS IN THE TIME-SCHEDULE FOR ALL SOURCES OF FINANCING FOR THE PURCHASING ACTIVITIES

No.	Source of financing	Number of changes to the time-schedule					
		Quantity, pcs		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	13	10	-3	59.09	55.56	-3.53
2	Subsidies obtained from the Russian Federation state budget resources	9	8	-1	40.91	44.44	3.53
Total		**22**	**18**	**-4**	**100**	**100**	**–**

Figure 6.14

THE STRUCTURE OF THE CHANGES TO THE TIME-SCHEDULE FOR THE PROCUREMENT OF GOODS, WORKS, AND SERVICES



The time-schedule for purchases using the subsidies obtained from the Russian Federation state budget resources was modified 8 times during the calendar reporting period, i.e. less than once per month. As a part of the implementation of Federal Law No. 223-FZ, 10 changes were made to the time-schedule for the procurement of goods, works, and services. Compared to last year, the number of changes decreased by 3, or 23.07% It should be noted that the trend of strengthening the executive discipline in the area of organizing information on the procurement of goods, works, and services remained. The number of modifications to the provisions of the time-schedule and schedule for purchases decreased, which characterizes the quality of planning of the university's purchase activities.

Table 6.25

ANALYSIS OF THE VOLUME AND STRUCTURE OF CONTRACTS SIGNED AS PART OF ORDER PLACEMENT FOR PURCHASING GOODS, WORKS AND SERVICES IN 2019-2020

No.	Source of financing	Volume of the contracts signed based on a competitive selection of supplier					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	369,976.78	188,121.51	-181,855.27	81.57	57.12	-24.45
2	Subsidies obtained from the Russian Federation state budget resources	83,573.58	141,200.75	57,627.17	18.43	42.88	24.45
Total		**453,550.36**	**329,322.26**	**-124,228.1**	**100**	**100**	**–**

As a part of the implementation of Federal Law No. 223-FZ of 18 July 2011, 1313 contracts were signed for the amount of 238,403.5 thousand roubles. The amount of money saved based on the competitive selection of supplier (contractor, agent) amounted to 15,358.48 thousand roubles, or 6.44% of the total initial (maximum) cost of submitted requests. During the formation of the unified time-schedule for purchases, due to the implementation of Federal Law No. 223-FZ of 18 July 2011, 90 requests were accepted and 275 contracts were signed for the amount of 231,954.53 thousand roubles. Thus, the amount of money saved as a result of following the purchasing procedure amounted to 12,618.51 roubles, or 5.44% of the initial maximum cost of the submitted requests (Tables 6.26, 6.27, Figure 6.15).

Table 6.26

ANALYSIS OF THE VOLUME OF CONTRACTS AT THE INITIAL MAXIMUM PRICE BASED ON THE COMPETITIVE SELECTION OF SUPPLIER BY SOURCE OF FINANCING

No.	Source of financing	Initial maximum price of the contracts					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	384,886.89	203,479.99	-181,406.9	81.89	56.95	-24.94
2	Subsidies obtained from the Russian Federation state budget resources	85,146.52	153,819.25	68,672.73	18.11	43.05	24.94
Total		**470,033.41**	**357,299.24**	**-112,734.2**	**100**	**100**	**–**

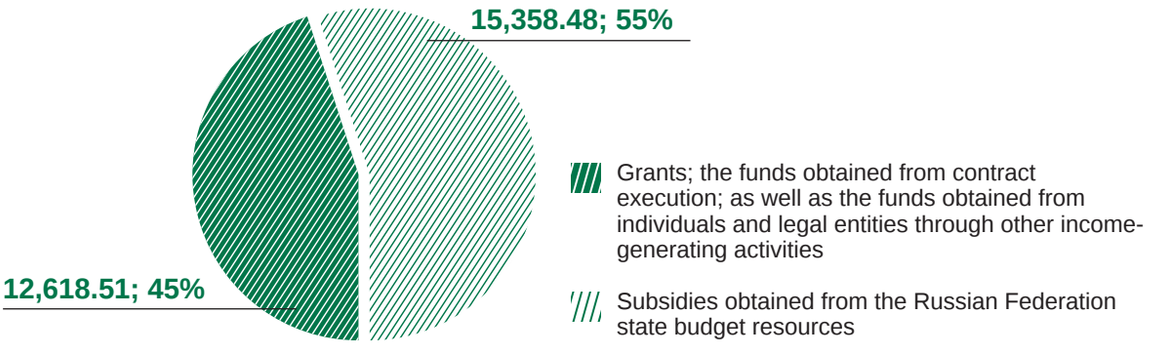
Table 6.27

AMOUNT OF MONEY SAVED THROUGH THE COMPETITIVE SELECTION OF SUPPLIERS, BY SOURCE OF FINANCING

No.	Source of financing	Amount of money saved					
		Value, thousand roubles		Absolute difference, thousand roubles (+, –)	Percentage of the total, %		Percentage variation, points
		2019	2020		2019	2020	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	14,910.11	15,358.48	448.37	90.46	54.9	-35.56
2	Subsidies obtained from the Russian Federation state budget resources	1,572.94	12,618.51	11,045.57	9.54	45.1	35.56
Total		**16,483.05**	**27,976.99**	**11,493.94**	**100**	**100**	**–**

Figure 6.15

STRUCTURE OF THE AMOUNT OF MONEY SAVED THROUGH THE COMPETITIVE SELECTION OF SUPPLIERS (CONTRACTOR, AGENT) BY SOURCE OF FINANCING



According to Table 6.27 in the reporting period, the amount of financial savings in the source of financing “subsidies obtained from the Russian Federation state budget resources” significantly increased compared to 2019 and amounted to 45.1% to the total cost savings. The money saved amounted to 12,618.51 roubles, or 8.2% of the initial maximum cost of the contracts included in the purchasing time-schedule. The purchases made as part of the implementation of Federal Law No. 223-FZ resulted in financial savings of 15,358.48 thousand roubles, which is 54.9% of the total cost savings. It should be noted, that the total cost savings for the purchasing activities increased due to a significant increase in the number of competitive methods for selection of supplier (contractor, agent) and consolidation of individual items of the time-schedule for purchases, formed for the use of competitive methods for selection of supplier (contractor, agent).

6.8. ANALYSIS OF VSU'S FINANCIAL ACTIVITIES

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 6.28, 6.29.

Table 6.28

VSU ASSET DYNAMICS IN 2020 (ACCORDING TO THE DATA FROM THE BALANCE SHEET)

No.	Asset items	As of the beginning of 2020	As of the end of 2020	Absolute change	Growth ratio, %
	I. Non-financial assets, thousand roubles				
1	Property, plant and equipment (residual value)	1,429,456.4	1,442,989.0	+13,532.6	100.95
2	Intangible assets (residual value)	30.6	26.6	-4	86.93
3	Non-produced assets	1,882,339.7	1,882,339.7	0	0
4	Material assets	44,026.5	43,872.2	-154.3	99.65
5	Rights to use assets	53.0	370.8	+317.8	699.62
6	Investments in the non-financial assets	64,141.3	64,979.2	+837.9	101.31
7	Cost of provision of goods, works, and services	3,355.3	1,762.4	-1,592.9	52.53
8	Prepaid expenses	5,281.1	7,971.7	+2,690.6	150.94
9	**Total non-financial assets**	**3,428,683.9**	**3,444,311.6**	**+15,627.7**	**100.46**
	II. Financial assets, thousand roubles				
10	Cash and cash equivalents	732,714.8	964,934.8	+232,220	131.70
11	Accounts receivable for the settlement of revenues	1,569,811.8	3,961,938.5	+2,392,126.7	252.38
12	Accounts receivable for payments	11,266.9	1,907.9	-9,359	16.93
13	Other settlements with creditors	1,241.5	1,224.0	-17.5	98.59
14	**Total financial assets**	**2,315,035.0**	**4,930,004.7**	**+2,614,969.7**	**212.96**
15	**Total VSU assets (grand total)**	**5,743,718.9**	**8,374,316.2**	**+2,630,597.3**	**145.80**

In 2020, the grand total increased by 1,827,746.5 thousand roubles (45.8%) and amounted to 8,374,316.2 thousand roubles. This increase is due to the fact that since January 1, 2020, institutions and organizations of budget institutions use the Federal Standard "Long-term contracts" (order of the Ministry of Finance of the Russian Federation of June 29, 2018 No. 145н) for budgetary accounting.

Table 6.29

VSU ASSET DYNAMICS IN 2020 (ACCORDING TO THE DATA FROM THE BALANCE SHEET)

No.	Liability items	As of the beginning of 2020	As of the end of 2020	Absolute change	Growth ratio, %
	I. Liabilities, thousand roubles				
1	Accounts payable for payments	16,918.3	15,084.5	-1,833.8	89.16
2	Settlement of payments into the budget	9,026.9	10,837.8	+1,810.9	120.06
3	Other settlements (settlement of loans)	5,090.2	4,655.0	-435.2	91.45
4	Accounts payable for revenues	476,099.0	742,412.9	266,313.9	155.93
5	Settlements with founders	3,843,428.3	3,843,428.3	0	100
6	Deferred income	1,552,120.8	3,698,256.2	2,146,135.4	238.27
7	Provisions for future liabilities	105,415.2	130,461.3	25,046.1	123.76
8	**Total liabilities**	**6,008,098.7**	**8,445,136.0**	2,437,037.3	140.56
	II. Financial results, thousand roubles				
9	**Financial results of an economic entity**	**(264,379.8)**	**(70,819.8)**	**193,560.0**	**26.79**
10	**Total sources of VSU assets (grand total)**	**5 743 718.9**	**8,374,316.2**	**2,630,597.3**	**145.80**

It should be noted that the most mobile part of VSU assets (monetary funds and accounts receivable) more than doubled, which is also due to federal changes in revenue accounting.

At the end of 2020, the largest percentage in VSU's asset structure was accounted for settlements with debtors (47.31%), non-produced assets (land) (19.41%), property, plant, and equipment (17.23%), cash (11.52%). The increase in financial assets in the reporting period led to an increase from 40.4 to 58.87% (Table 6.30).

Table 6.30

VSU ASSET STRUCTURE IN 2020 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

No.	Indicator	Percentage, %		Change (+, –)
		As of the beginning of 2020	As of the end of 2020	
1	**Non-financial assets – total**	**59.6**	**41.13**	**-18.47**
	Including: Property, plant and equipment (residual value)	24.9	17.23	-7.67
	Non-produced assets	32.8	19.41	-13.39
	Material assets	0.8	0.52	-0.28
	Investments in non-financial assets (capital investments)	1.1	0.78	-0.32
2	**Financial assets – total**	**40.4**	**58.87**	**18.47**
	Including: Cash and cash equivalents	12.8	11.52	-1.28
	Settlements with debtors	27.6	47.31	+19.71
3	**Total Assets**	**100.0**	**100.0**	**–**

In 2020, 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. The financial result in 2020 was 193,560.00 thousand roubles, which was 6 times more than the result of 2019.

In 2020, 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, liabilities to the creditors, and financial result (Table 6.31).

Table 6.31

STRUCTURE OF THE SOURCES OF VSU ASSET FORMATION IN 2020 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

No.	Indicator	Percentage, %		Change (+, –)
		As of the beginning of 2020	As of the end of 2020	
1	**Liabilities to the founder**	**66.9**	**45.9**	**-21**
2	**Liabilities to the creditors – total**	**37.7**	**54.9**	**+17.2**
	Including: Settlement of revenues	8.3	8.9	+0.6
	Settlement of accepted obligations	2.1	1.7	-0.4
	Settlement of payments into the budget	0.2	0.1	-0.1
	Other accounts payable	27.1	44.2	+17.1
3	**Financial results (internal funds) – total**	**(4.6)**	**(0.8)**	**+3.8**
4	**Total sources of asset formation**	**100.0**	**100.0**	**–**

In 2020, there was an increase in additions to property, plant, and equipment of 99,514.7 thousand roubles. 33.4% of the additions to property, plant, and equipment were financed by VSU and non-repayable receipts and 66.6% were financed from federal subsidies, including targeted subsidies for purchasing property, plant, and equipment (55,245.1 thousand roubles). In the reporting period, the share of own funds in the total financing of capital investments was reduced by 22.2% (Table 6.32).

Table 6.32

STRUCTURE AND DYNAMICS OF THE ADDITIONS TO PROPERTY, PLANT, AND EQUIPMENT BY FINANCIAL SOURCES

Financial source	2019		2020		Change (+, –)	
	thousand roubles	Percentage, %	thousand roubles	Percentage, %	thousand roubles	Percentage, %
Property, plant and equipment purchased - total	**90,325.5**	**100.0**	**189,840.9**	**100.0**	**+99,515.4**	**–**
Including:						
Funded by VSU	50,226.4	55.6	63,392.2	33.4	+13,165.8	-22.2
By federal subsidies	40,099.1	44.4	126,448.7	66.6	+86,349.6	+22.2

Table 6.33

ANALYSIS OF VSU'S FIXED ASSET DEPRECIATION

No.	Indicator	As of the beginning of 2020	As of the end of 2020	Absolute difference (+, –)	Growth ratio, %
1	Book value of fixed assets, thousand roubles	2,866,379.0	3,030,542.9	164,163.9	105.73
	including: Real estate of the establishment	1,435,800.4	1,435,800.4	0	100.00
	Most valuable movable assets	614,063.6	706,650.9	92,587.3	115.08
2	Depreciation of fixed assets, thousand roubles	1,436,922.7	1,587,554.0	150,631.3	110.48
	Including: Real estate of the establishment	346,492.9	350,571.1	4,078.2	101.18
	Most valuable movable assets	375,517.8	430,914.4	55,396.6	114.75
3	Net value of property, plant, and equipment, thousand roubles	1,429,456.3	1,442,989.0	13,532.7	100.95
	Including: Real estate of the establishment	1,089,307.5	1,085,229.3	-4,078.2	99.63
	Most valuable movable assets	238,545.8	275,736.5	37,190.7	115.59
4	**Coefficient of depreciation, %**	**50.1**	**52.39**	**+2.29**	**x**
	Including: Real estate of the establishment	24.1	24.42	+0.32	x
	Most valuable movable assets	61.2	60.98	-0.22	x

In 2020, due to capital investments into property, plant, and equipment the depreciation coefficient of these assets was at the same level as in the previous year (52.39%). As for VSU's real estate, this figure was 24.42%. The book value of fixed assets increased by 164,163.9 thousand roubles, or 5.7% (Table 6.33).

Table 6.34

ANALYSIS OF VSU'S CURRENT FINANCIAL SOLVENCY

No.	Indicator	As of the beginning of 2020	As of the end of 2020	Absolute change (+, –)
	I. Initial values for analysis, thousand roubles			
1	Cash and cash equivalents	732,714.8	964,934.3	+232,219.5
2	Resources in settlements with debtors	1,582,320.3	3,965,070.5	+2,382,750.2
3	Material inventories	44,026.5	43,872.2	-154.3
4	Total operating assets (Art. 1 + Art. 2 + Art. 3)	2,359,061.6	4,973,877.0	+2,614,815.4
5	Total liabilities to the creditors	507,134.5	772,990.2	+265,855.7
	II. Current solvency ratio, coefficient			
6	Absolute liquidity ratio (covering liabilities to creditors using monetary funds)	1.44	1.25	-0.19
7	Marginal liquidity ratio (covering the liabilities to the creditors using monetary funds and the resources in settlements with debtors)	4.6	6.38	+1.78
8	Current liquidity ratio (covering liabilities to creditors using operating assets)	4.65	6.43	+1.78

An increase in financial assets in 2020 by 1.3 times 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 its liabilities to the creditors in full through available funds (Table 6.34).

In the assessment of financial stability, there is a special emphasis on determining the coverage of the fixed assets and other non-current assets, which have the greatest percentage in the properties of the university, by long-term sources of financing. Such sources include 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 2020, this indicator amounted to 106%. By the end of the reporting period, there had been a significant increase in the long-term sources of financing (by 0.7%).

Table 6.35

COVERAGE OF THE FIXED ASSETS AND OTHER NON-CURRENT ASSETS BY LONG-TERM SOURCES OF FINANCING

No.	Indicator	As of the beginning of 2020	As of the end of 2020	Absolute change (+, –)
1	Net value of property, plant and equipment, thousand roubles	1,429,456.4	1,587,554	158,097.6
2	Net value of intangible assets, thousand roubles	30.6	26.6	-4
3	Balance value of non-produced assets, thousand roubles	1,882,339.7	1,882,339.7	0
4	Investments in the non-financial assets, thousand roubles	64,141.3	64,979.2	837.9
5	**Total non-current assets (Art. 1 + Art. 2 + Art. 3 + Art. 4), thousand roubles**	**3,375,968**	**3,534,899.5**	158,931.5
6	Liabilities to the founder, thousand roubles	3,843,428.3	3,843,428.3	0
7	Financial results (internal funds), thousand roubles	-264,379.8	-70,819.8	193,560
8	**Total value of the sources of non-current asset formation (Art. 6 + Art. 7), thousand roubles**	**3,579,048.5**	**3,772,608.5**	**193,560**
9	**The ratio of the coverage of the fixed assets by long-term sources of financing, % (Art. 8 : Art. 5)**	**106**	**106.72**	**0.72**

According to Table 6.35, there was an increase in total non-current assets. A 11 % increase in the estimated value of property, plant, and equipment slightly affected the final result of capital asset coverage.

Table 6.36

ANALYSIS OF VSU ASSET TURNOVER

No.	Indicator	2019	2020	Absolute change (+, –)
	I. Initial values for analysis, thousand roubles			
1	Average annual cash balance	570,737.7	848,824.6	278,086.9
2	The average annual amount of funds in settlements with debtors (accounts receivable)	821,757.7	2,773,695.4	1,951,937.7
3	Average annual amount of material assets	34,215.5	43,949.4	9,733.9
4	Total average annual amount of operating assets	1,426,710.9	3,666,469.4	2,239,758.5
5	Average annual amount of total assets	6,210,915.8	3,455,433.8	-2,755,482
6	Average annual amount of total assets without non-produced assets	2,948,386.3	1,573,094.1	-1,375,292.2
7	Total income of the university	2,823,704.1	2,773,748.3	-49,955.8
	II. Asset turnover ratio, days			
8	Turnover period for total assets, days	802	455	-347
9	Turnover period for total assets without non-produced assets, days	381	207	-174
10	Turnover period for operating assets, days	184	483	299
11	Turnover period in settlements with debtors (accounts receivable), days	106	365	259
12	Turnover period for material assets, days	4	6	2

Considering the fact that the largest percentage of VSU's property structure is land and property, plant, and equipment, which are long-term assets, the level of the asset turnover remains at an acceptable level (207 days, which is approximately a year, and 455 days if land is taken into consideration). The turnover period for operating assets was 483 days, whereas the period of settlements with debtors was 1 year.

Table 6.37

ANALYSIS OF VSU OPERATING PROFITABILITY

No.	Indicator	2019	2020	Absolute deviation
	I. Initial values for analysis, thousand roubles			
1	Average annual amount of total assets (residual value)	4,829,845.7	5,536,779.35	706,933.65
2	Average annual amount of total assets without non-produced assets (residual value)	2,948,386.3	3,654,439.7	706,053.4
4	Average annual amount of fixed assets (carrying value)	2,831,405.9	2,948,461.0	117,055.1
5	Total income	2,823,704.1	2,773,748.3	-49,955.8
6	Total expenditures	2,415,112.5	2,553,927.9	138,815.4
7	Net operating financial result (loss)	31,948.8	193,560.0	161,611.2
	II. Profitability of the university's activities, %			
8	Profitability of total assets	0.7	3.5	2.8
9	Profitability of total assets without non-produced assets	1.1	5.3	4.2
11	Profitability of property, plant, and equipment	1.2	6.6	5.4
12	Profitability of the university's revenue	1.2	7.0	5.8
13	Profitability of the university's expenditures	1.4	7.6	6.2

In 2020, the minimisation of expenditures led to a positive net operating financial result in the amount of 193,560 thousand roubles. There was a growth in revenue from each rouble of total assets (not including the non-produced assets) of 5.3 kopeks, of fixed assets (1.2 kopeks), revenue (1.2 kopeks), and expenditures (7.6 kopeks). (Table 6.37).

6.9. THE DYNAMICS OF THE STAFF REWARD SYSTEM IN 2019–2020

The payroll budget of the university with staff compensation payment charges (not including the branches) in 2020 was 1,508,147.5 thousand roubles, including:

- From subsidies: 801,007.7 thousand roubles
- From extra-budgetary funds: 707,139.8 thousand roubles.

The payroll budget of the university with staff compensation payment charges (not including the branches) in 2019 was 1,434,973.4 thousand roubles, including:

- From subsidies: 815,719.8 thousand roubles
- From extra-budgetary funds: 619,253.6 thousand roubles.

Compared to 2019, the payroll budget of the university increased by 5.1%, including:

- 1.8% decrease in subsidies
- 14.2% increase from extra-budgetary funds.

Figure 6.16

COMPARATIVE ANALYSIS OF THE PAYROLL BUDGET IN 2019 AND 2020

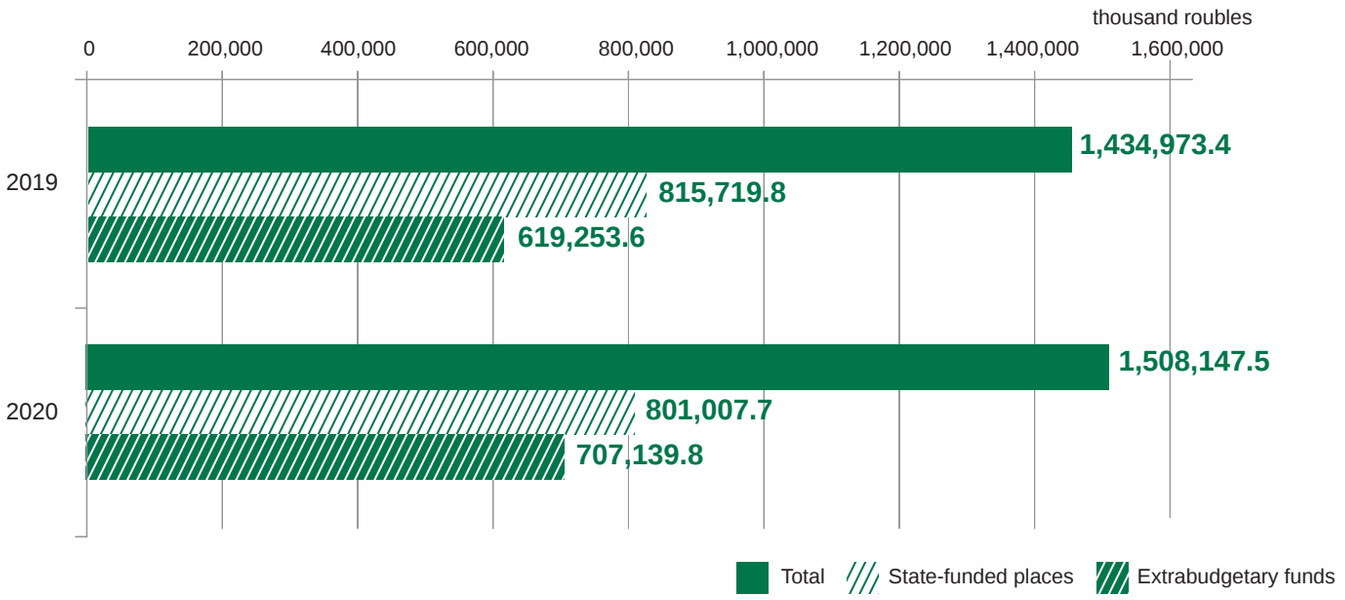
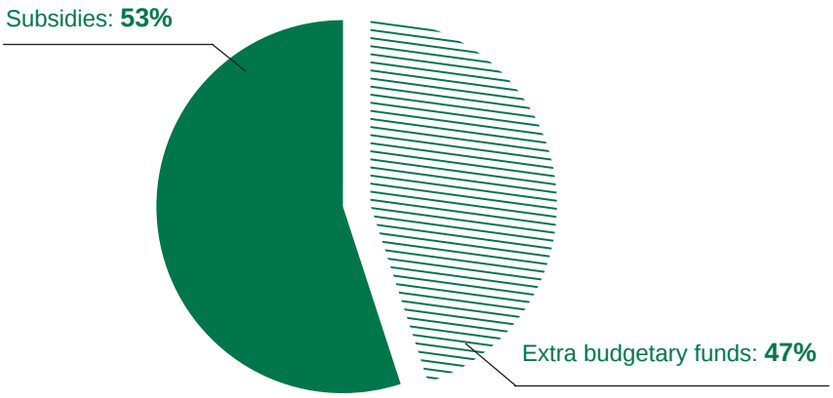


Figure 6.17

PAYROLL BUDGET STRUCTURE BY THE SOURCE OF FINANCING IN 2020



MEASURES TAKEN TO RAISE THE SALARIES AND SOCIAL WELFARE OF UNIVERSITY STAFF

In 2020, the practice of using the system of per capita financing to calculate the payroll budget for the categories of university employees was continued. The use of this system allowed maintaining the salary level by keeping the salary of academic staff and researchers at a level not less than 200% of the average salary in the region.

During 2020 the salaries were increased:

- For academic staff and research staff: from October 1, 2020 due to the indexation of salary;
- Twice for other staff: from January 1, 2020 due to the increase in the the minimum monthly wage and from October 1, 2020 due to the indexation of salary.

On January 1, 2020, the minimum monthly wage in the Voronezh region was set at the federal level and was 12,130 roubles.

Within the framework of the Regulation “On indicators of the effectiveness of the activities of academic staff of Voronezh State University” monthly allowances have been established for academic staff members. The amount of payments under an effective contract for academic staff in 2020 did not change in relation to 2019 and amounted to 12,000.0 thousand roubles. The number of employees receiving this payment amounted to 178 people (in 2019 it was 824 people). The decrease was due to the change in the criteria of the regulations and the introduction of a minimum threshold for points according to the positions.

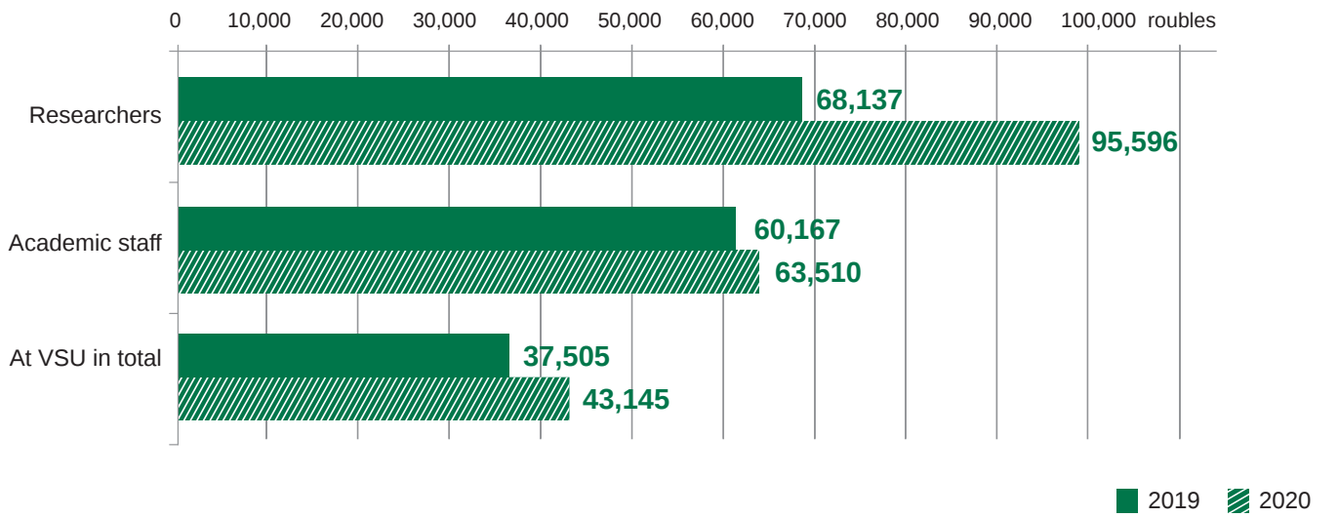
6.10. ANALYSIS OF THE AVERAGE SALARY OF THE ACADEMIC STAFF MEMBERS AT VSU COMPARED TO THE AVERAGE SALARY IN THE VORONEZH REGION

In 2020, the average salary of university staff members (including payments from all sources) amounted to 43,145 roubles, including:

- The average salary of academic staff members was 63,510 roubles, which is 212.8% of the average salary in the region and exceeds the target value of the 2020 roadmap, which was 200%.
- For research workers, 95,596 roubles, which is 320.4% of the average wage in the region and significantly exceeded the target value of the roadmap for 2020, which was 200% (Table 6.38, Figs. 6.18, 6.19).

Figure 6.18

AVERAGE SALARY IN 2019-2020



In 2020, the average salary of university staff members increased by 15%.

Figure 6.19

AVERAGE SALARY OF ACADEMIC STAFF AND RESEARCHERS AT VORONEZH STATE UNIVERSITY AND THE AVERAGE SALARY IN THE VORONEZH REGION

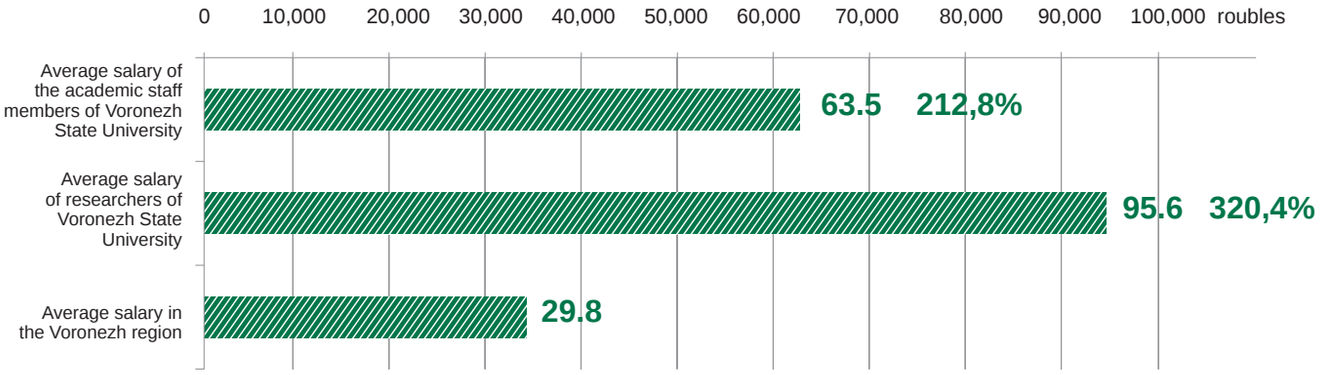


Table 6.38

RATIO OF THE AVERAGE SALARY OF VSU EMPLOYEES TO THE AVERAGE SALARY IN THE VORONEZH REGION

Faculty	The ratio to the average wage in the Voronezh region
Faculty of Law	289.9
Faculty of Computer Sciences	245.6
Faculty of International Relations	240.9
Faculty of Physics	238.8
Faculty of Philology	224.2
The Faculty of Biomedical Sciences	217.8
Faculty of Applied Mathematics, Informatics, and Mechanics	208.1
Faculty of Economics	200.1
Faculty of Journalism	199.7
Faculty of Geography, Geoecology, and Tourism	198.8
Faculty of Chemistry	190.6
Faculty of Mathematics	186.6
Faculty of Geology	185.9
Faculty of Romance and Germanic Philology	166.4
Faculty of Philosophy and Psychology	166.4
Faculty of History	164.4
Faculty of Pharmaceutics	160.4

6.11. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2020

Financial and operating activities:

- Minimised costs in accordance with the university's strategy of finance management, budgeting, and planning of financial and business operations.
- Upgrading of university facilities using such additional sources of financing as subsidies, sponsored support and other revenue-generating activities.
- The minimization of expenditures by the university for the third year in a row led to a positive net operating financial result in the amount of 193,560 thousand roubles, which is 161,611 thousand roubles more than the previous year.
- Increased expenditure on purchasing property, plant, and equipment funded by all sources of financing.
- The coefficient of depreciation (50.1% by the end of the year) remained at almost the same level as compared to the previous year, which had a positive impact on the book value relating to the technical condition of assets.
- Successful financial and business operations led to an increase in the current level of VSU's financial solvency.
- At the end of the year, the university was able to discharge its liabilities to creditors in full through available funds.
- The improved financial stability for the fourth year in a row is due to the positive equity of the ratio of total assets.
- The period of settlements with debtors was one year.

Purchase activities:

- The number of contracts signed decreased by 18.61%, due to the enlargement of the volume of purchases of goods, works, and services and purchases based on the competitive selection of suppliers (contractors, agents) financed by subsidies obtained from the Russian Federation state budget resources, by grants, funds provided to fulfil state contracts, and as a result of other revenue-generating activities.

- The volume of total financing for the purchasing of goods, works, and services decreased by 267,190.4 thousand roubles, or 36.23%, the main sources of financing for the purchasing activities were grants, funds provided to fulfil contracts, as well as funds obtained from individuals and legal entities through other revenue-generating activities (50.69% of the total volume of purchases).

- The number of contracts signed as a result of purchases from single supplier (contractor, agent) up to 600 thousand roubles, decreased to 38.18% of the total number of contracts signed, but remains the main method of selecting the supplier (contractor, agent).

- The majority of expenses were related to payments for the teaching services of non-payroll employees to meet the needs of the university which is 38.1% of the total number of contracts for purchase of goods, works, and services from a single supplier (contractor, agent);

- The number of modifications to the provisions of the time-schedule for purchases decreased by 18.2%, which confirmed the improved quality of planning of the university's purchasing activities.

- The specialists of the purchasing department took an active part in continuing advanced training classes for contractual system specialists as part of the programme in Purchase Management in the Contractual System for 108 hours.

Salaries and social welfare of the university staff:

- The salaries of academic and research staff were kept at a level of not less than 200% of the average salary in the Voronezh region.

- In compliance with the law regarding the minimum wage (the minimum monthly wage in the Voronezh region increased to 12,130 roubles). A minimum salary was established instead of a salary at the level of the minimum monthly wage.

- In accordance with the Regulations "On indicators of the effectiveness of the activities of academic staff of Voronezh State University" for academic staff, monthly allowances were established. The amount of payments under an effective contract for academic staff in 2020 did not change in comparison with 2019 and amounted to 12,000.0 thousand roubles. The number of employees receiving this type of payment amounted to 178 people (in 2019 it was 824 people). The decrease is due to the change in the criteria of the regulations and the introduction of a minimum threshold for points according to positions.

- The tradition of providing bonuses for all categories of employees was continued.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ВГУ

INTERNATIONAL ACTIVITIES

7

7 INTERNATIONAL ACTIVITIES

A. V. Akulshina,
Head of the International Cooperation Department

7.1. VSU OBJECTIVES IN THE AREA OF INTERNATIONAL COOPERATION IN 2020

VSU's international activities are focused on the following tasks:

- To internationalise all areas of activities, from educational and research to administrative and organisational activities, and to engage all university staff in the process of internationalisation.
- To improve the university's standing in the international market for educational services.
- To create international network academic programmes.
- To increase the number of international students.
- To enhance the academic mobility of academic staff, researchers, and students.
- To implement international educational and research projects.
- To develop strategic partnerships with international universities.

7.2. INTERNATIONAL ACADEMIC MOBILITY

The academic mobility of VSU students and lecturers is carried out under cooperation agreements with foreign universities. It is being most actively developed with universities in Germany, France, Spain, China, Austria, Greece, the UK, Turkey, and Japan. In the time of pandemic, VSU provides distance learning to international students as part of exchange programmes.

Key indicators of academic mobility in 2020:

- 209 active cooperation agreements with international partner universities (Fig. 7.1).
- 58 students and 10 lecturers and researches of VSU were provided training and internships by international partner universities.
- 44 foreign students studied at VSU under international academic exchange programmes (Fig. 7.2).

Figure 7.1

VSU AGREEMENTS WITH INTERNATIONAL PARTNERS

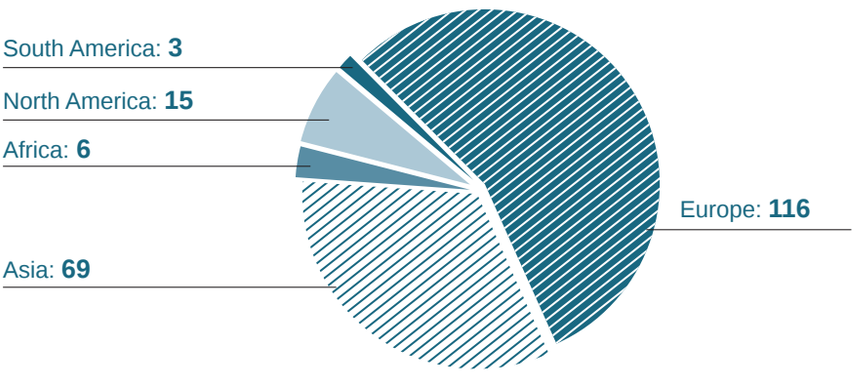
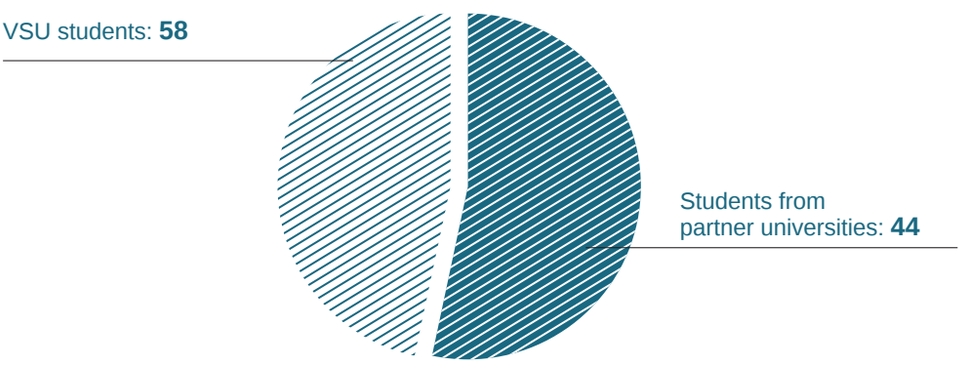


Figure 7.2

ACADEMIC MOBILITY OF STUDENTS



Main areas of cooperation with international higher education institutions:

- Participation of lecturers and students in scientific conferences, round table meetings, and master classes.
- Discussion of the development of educational and scientific cooperation.
- Academic exchange.
- Advanced training.
- Implementation of joint education programmes.

In 2020, the following cooperation agreements and contracts were signed with partner universities:

- Academic exchange agreement with Université Lille (France).
- Agreement for certification of Italian as a foreign language with the University for Foreigners of Siena (Siena, Italy).
- Partnership agreement with The University of Economics (Varna, Bulgaria).
- Partnership agreement with Artesis Plantijn University College (Antwerp, Belgium).
- Partnership agreement with Akdeniz University (Turkey).
- Partnership agreement with Izmir Katip Çelebi University (Turkey).
- Partnership agreement with Tashkent Pharmaceutical Institute (Uzbekistan).
- Agreement for academic cooperation and student exchange programmes with Tashkent Pharmaceutical Institute (Uzbekistan).

INTERNATIONAL EVENTS

VSU staff members took part in 196 international events. More than 50 international conferences and seminars were organised by university departments (Table 7.1). The staff of the International Cooperation Department organised and participated in 35 international events (Figure 7.3).

Table 7.1

THE NUMBER OF INTERNATIONAL EVENTS AT VSU FACULTIES

VSU faculties	Number of events
Faculty of Economics	8
Faculty of Philology	7
Faculty of Romance and Germanic Philology	6
Faculty of Biomedical Sciences	5
Faculty of Philosophy and Psychology	5
Faculty of Journalism	4
Faculty of Geology	4
Faculty of Physics	2
Faculty of Computer Sciences	2
Faculty of Geography, Geoecology, and Tourism	1
Faculty of History	1
Faculty of Mathematics	1
Faculty of Applied Mathematics, Informatics, and Mechanics	1
Faculty of Law	1
Borisoglebsk Branch	1
International Education Institute	1

Figure 7.3

INVOLVEMENT OF THE INTERNATIONAL COOPERATION DEPARTMENT IN INTERNATIONAL EVENTS

7.3. INFORMATION REGARDING JOINT ACADEMIC PROGRAMMES IN 2020

The university takes part in 5 network programmes with international higher educational institutions (Table 7.2).

In 2020, 73 students studied under joint programmes.

Table 7.2

JOINT EDUCATIONAL PROGRAMMES

No.	Programme	Level of education	Number of students	VSU subdivision	Partner universities
1	Business in the Emerging Markets	Master's degree	19	Faculty of International Relations	Joanneum University of Applied Sciences (Graz, Austria)
2	Business Communication in Economics: German	Master's degree	6	Faculty of Romance and Germanic Philology	Martin Luther University (Halle – Wittenberg, Germany)
3	Russian Literature in the European Context	Master's degree	18	Faculty of Philology	Georg-August University of Göttingen (Germany)
4	International Tourism Management	Master's degree	9	Faculty of Economics	University of Girona (Spain)
5	General Management	Master's degree	21	Business School	ISC Paris Business School (France)

7.4. IMPLEMENTATION OF INTERNATIONAL EDUCATIONAL AND RESEARCH PROJECTS

An important area of the university's activities is the development of international educational cooperation within the framework of international educational projects.

Main types of international projects:

- Organisation of academic mobility
- Modernisation of academic programmes.

Main areas of educational projects:

- Computer sciences
- Social and political sciences
- Physics
- Ecology
- Economics
- Jurisprudence.

In 2020, VSU took part in the implementation of 32 international projects:

- 25 projects aimed at the organisation of academic mobility.
- 3 projects aimed at the modernisation of academic programmes:
  - Capacity Building in Agriculture and the Cooperation between Urban and Rural Areas for Sustainable Development of Metropolises.
  - Mobile Applications and Computer Games.
  - Pilot Implementation of the European Credit System in the National Higher Education and Vocational Training System of Russia and Uzbekistan.
- 4 projects in the field of international relations:
  - Challenges of International Security.
  - Russia – EU: Facts and Fantasy.
  - International and National Law.
  - Refugee Law: Application of European Standards and Experience in Russia.

RESULTS OF VSU'S PARTICIPATION IN COMPETITIONS FOR INTERNATIONAL FUNDS AND PROGRAMMES IN 2020:

- 5 projects aimed at the organisation of academic mobility.
- International and National Law research project.
- Russia – EU: Facts and Fantasy research project.

7.5. INFORMATION ON THE INTERNATIONAL STUDENT POPULATION AND ITS DYNAMICS

INFORMATION REGARDING TARGET TRAINING OF STUDENTS IN VSU

Table 7.3

TOTAL NUMBER OF FOREIGN STUDENTS

No.	Indicator	Total number of foreign students	
		2019	2020
1	Total number of foreign residents enrolled in bachelor's, specialist's, and master's degree programmes in VSU	646	1015
2	Total number of people studying in the framework of the Decree of the Russian Government regarding the education of foreign residents, including the programmes:	225	199
	Bachelor's degree	142	138
	Specialist's degree	26	21
	Master's degree	57	40
3	Total number of foreign residents studying under further education programmes aimed at preparing foreign residents and stateless individuals for professional education programmes in the Russian language.	536 (59 state-funded, 473 fee-paying)	100 (46 state-funded, 54 fee-paying)

Graduated in 2019:

- Bachelor’s degree students: 100 people
- Master’s degree students: 43 people
- Specialist’s degree students: 7 people.

Total: 150 people (35 honours degree).

Graduated in 2020:

- Bachelor’s degree students: 41 people
- Master’s degree students: 51 people
- Specialist’s degree students: 7 people.

Total: 99 people (28 honours degree).

In 2020, pre-university training of international students was carried out under further education programmes aimed at preparing foreign residents and stateless individuals for professional education programmes in the Russian language.

Total volume of the programme is 2376 academic hours, including no less than 612 academic hours of the further education programme aimed at learning the Russian language. It includes no less than 1008 academic hours of in-class work.

The curriculum for each programme is complex, it includes 5 training profiles: humanities, natural sciences, engineering and technology, medicine and biology, and economics. The further education programmes have 10 education programmes in the Russian language and general scientific disciplines.

In 2020, two further education programmes were approved: the Russian Language for Foreign Students (400 academic hours and 1170 academic hours) for students from foreign universities, coming to VSU faculties under exchange programmes. The curricula of the programmes include compulsory courses, linguistic and cultural elective courses, and linguistic elective courses.

Moreover, the International Education Institute approved the further training academic programme “Innovative Teaching Methods and Digital Education Technologies at the Pre-University Stage of Foreign Students Training”, which is optimised for 36 academic hours.

INFORMATION REGARDING E-LEARNING AIDS

In 2020, the laboratory of new educational technologies of the International Education Institute provided the Institute with e-learning aids that meet modern educational needs. The laboratory worked in two areas:

- Support for the classroom (contact) form of study with interactive multimedia teaching materials on PC in computer classes.
- Support for the remote individual work of students with multimedia and test educational materials available from mobile devices (smartphones).

Interactive multimedia teaching materials (presentations, training sessions, and tests) for the contact form of study are based on the following software: “Interactive Library of the VSU International Education Institute” and “Training and Testing System of the VSU International Education Institute”.

For distance learning, the educational process uses informational electronic educational resources developed by the International Education Institute.

1. “Electronic University VSU” web portal (https://edu.vsu.ru).
2. “Electronic University VSU” web portal. Course called “Russian as a Foreign Language. Level A1. Part 1” (https://edu.vsu.ru/course/view.php?id=9440).
3. “Electronic University VSU” web portal. Course called “Russian as a Foreign Language. Level A1. Part 2” (https://edu.vsu.ru/course/view.php?id=12335).
4. “Electronic University VSU” web portal. “Russian cases” course (https://edu.vsu.ru/course/view.php?id=3740).

5. Educational YouTube channel “Laboratory of the International Education Institute. Russian as a Foreign Language” (https://www.youtube.com/channel/UCUDVh1MPphqXfma5BzXI3ow).
6. Computer training programs “Russian Grammar. First Steps” by the International Education Institute of VSU (http://interedu.vsu.ru/index.php/ru/elektronnye-uchebnye-posobiya).
7. Audio materials to the study guide “Russian cases in Texts and Tables” (http://interedu.vsu.ru/index.php/ru/audiomaterialy-k-posobiyu-russkie-padezhi-v-tekstakh-testakh-i-dialogakh).
8. Russian Phonetics for Beginners (http://interedu.vsu.ru/index.php/ru/o-resursakh).

On the “Electronic University VSU” web portal, the staff of the International Education Institute design electronic courses for the following academic subjects: Biology, Chemistry, Physics, Mathematics, Informatics, Russian History, Social Studies (two courses for Humanities and Economic Sciences), and Literature. Electronic course “Russian as a Foreign Language. Level A2–B1” is under development.

At the moment, as part of the educational process, the following electronic courses are being designed for students of the main faculties of VSU: “Foreign Language (Russian) for Professional Communication”, “Translation Theory and Practice for 4th year students of the Faculty of International Relations”, and “Foreign Language (Russian)”.

On the federal portal “Education in Russian” (Pushkin State Russian Language Institute), there are courses available on Literature, Social Sciences, Russian History, Biology, and Chemistry, which were designed by teaches of the International Education Institute (https://pushkininstitute.ru).

INFORMATION REGARDING INTERCULTURAL EVENTS

The youth policy involved the following types of activities aimed at international students:

- Building a favourable environment for the balanced development of young people.
- Faster social, cultural, and academic adaptation.
- Learning more about Russia, its history, culture, and traditions.
- Participation in social, cultural, and sport life of VSU and the region.
- Holding large high-profile federal and regional events.

Online events in the face of restrictions due to the 2020 coronavirus pandemic:

- Online concerts in the studio of the Centre of Culture and Sports of the Department of Culture of the Voronezh Municipal Government.
- International festival and competition Romashka-fest. Students from the dance club of the cultural and leisure centre of the International Education Institute in VSU took part in the contest. They were awarded the diploma of the third-degree laureates in the Choreography nomination.
- Choreography workshops. The head of the choreographic club of the cultural and leisure centre of the International Education Institute of VSU conducted online dance classes with students every two weeks.
- VSU online graduation ceremony 2020. The staff of the choreographic club of the cultural and leisure centre of the VSU's International Education Institute prepared the vocal and choreographic performance "No need to be sad", which was shown at the online graduation ceremony of VSU 2020.
- Graduation ceremony for foreign students. The staff of the International Education Institute of VSU prepared and conducted the online graduation ceremony for foreign graduates of VSU 2020.
- Remote singing lessons. The head of the vocal class of the cultural and leisure centre of the VSU's International Education Institute gave lessons to the students once a week.
- Work with the leaders of fraternities.
- Joint events with the National Chamber under the aegis of the governor of the Voronezh Region: Yard Party, concerts.
- Online festivals: "Tolerance, the path to peace!", "So different, but so alike" (the administration of the Levoberezhny district of Voronezh), the national culture festival "Friends nearby" (the Committee for Youth Policy of the Kursk Region).
- Independence Day of Turkmenistan.
- 20th International Song and Dance Festival "Let's Join Hands".
- New Year concert (Telik TV media project).
- Municipal patriotic song contest "Defenders of the Fatherland".
- Participation in the city's review contest "Afghan Wind".

For distance learning students:

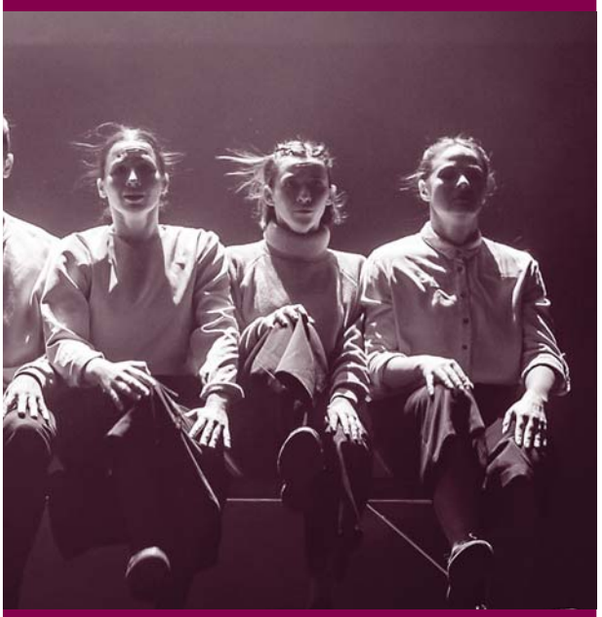
- Presentation videos were created.
- Video lessons were created.
- Introductory videos were created on certain subjects.

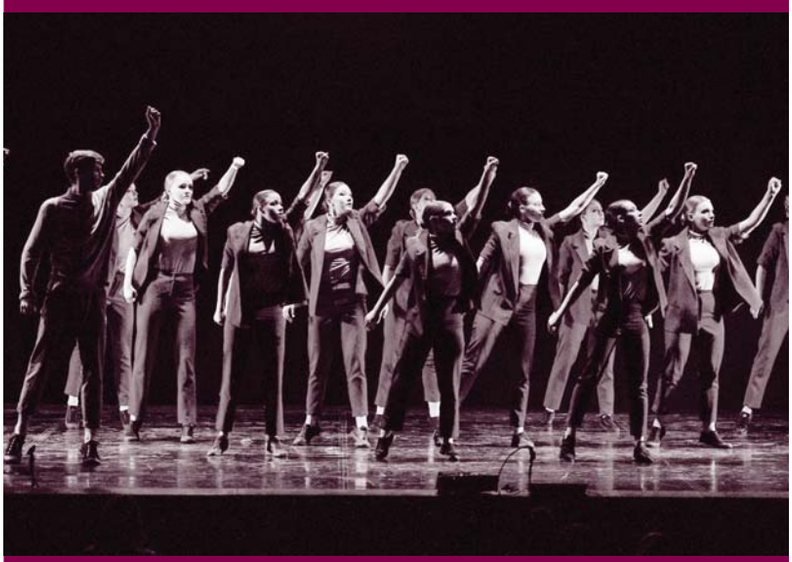
7.6. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2020

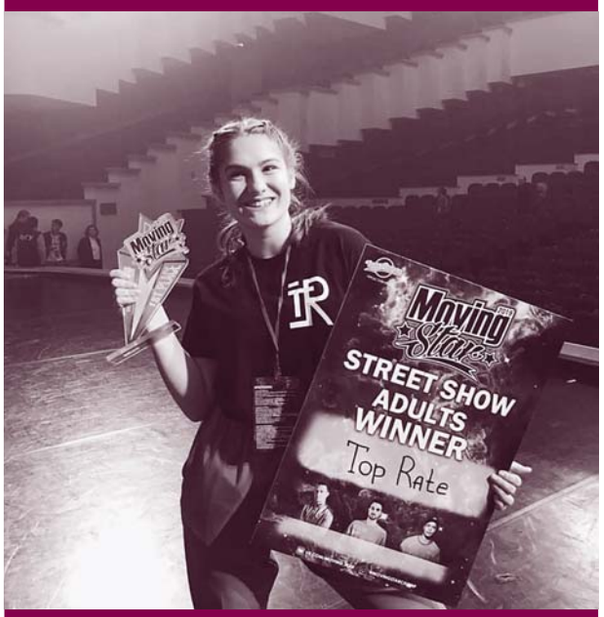
- The total number of foreign students in all forms of study in 2020 amounted to 1115 people.
- The Russian Language for Foreign Students further education programmes (400 and 1170 academic hours) were developed for students from foreign universities, coming to VSU faculties under exchange programmes.
- The further training academic programme Innovative Teaching Methods and Digital Education Technologies at the Pre-University Stage of Foreign Students Training was designed, which is optimised for 36 academic hours.
- Electronic courses in academic subjects are developed for the “Electronic University VSU” web portal.
- As part of the youth policy, work with foreign students was carried out in the following areas: building a favourable environment for the balanced development of young people; faster social, cultural, and academic adaptation; learning more about Russia, its history, culture, traditions; participation in social, cultural, and sport life of VSU and the region; holding large high-profile federal and regional events.
- 209 collaboration agreements between VSU and international partner universities.
- The university implements 32 international educational projects in cooperation with international partner universities.
- The regulatory framework of VSU was modernised, and the following provisions have been amended and changed: “On the selection of students of Voronezh State University for participation in international academic exchange programmes”, “On business trips of employees of Voronezh State University”, “On the procedure for admission of foreign students to Voronezh State University as part of international cooperation”.
- A database was developed for the main areas of international activity of the university’s departments.

OBJECTIVES OF VSU IN THE AREA OF INTERNATIONAL COOPERATION IN 2021:

- To develop network educational programmes with international universities.
- To develop a regulatory framework governing the implementation of international network programmes.
- To increase the number of international students.
- To enhance the academic mobility of academic staff, students, and researchers.
- To develop the programmes for international summer schools.
- To develop roadmaps for cooperation with strategic foreign partners of VSU for a period of 5 years.
- To develop international educational and research projects and ensure their successful implementation by the university's subdivisions.
- To increase the number of international events held at VSU.







STUDENT AFFAIRS AND SOCIAL DEVELOPMENT

8 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 2020

Student affairs and social development are an integral part of the university's activities.

Among the major objectives are:

- To ensure students adopt the axiological, normative, and practical aspects of the relationship between people, between patriots and their homeland, citizen and the law and civil society, man and nature, art, etc.
- To involve students in the processes of self-cognition, self-understanding, helping them to relate their own abilities, interests, and limitations to the needs and requirements of the people around them, society, and the state.
- To support students' self-identification, determining individual educational careers and the view of their future professional activities, to support students' self-development activities.
- To help students acquire social, regulative, and communicative competences to ensure individual success in communicating with others, effectiveness in social activities and in cooperating with peers, elders, and juniors.

Given the complex situation with the COVID-19 coronavirus pandemic, the challenges for social work are:

- To implement a set of preventive measures to avoid the spread of coronavirus infection (to procure personal protective equipment and provide workers and students with it);
- To provide social security and psychological support to the university's students.
- To organise summer holidays for students and staff.

- To control the payment of bursaries, allowances, and other types of financial aid to students (including the payment of financial aid to students during the quarantine).
- To enhance the pedagogical and social activities in the university's dormitories.

8.2. ORGANISATION OF SUMMER HOLIDAYS FOR VSU STUDENTS AND STAFF IN 2020

Taking into account the restrictive measures related to the spread of the COVID-19 coronavirus infection, the Department for Social Development organised summer holidays and recreation for VSU staff members and students at the Venevitinovo scientific and educational, sports and fitness complex and at the Black Sea coast (Sochi and the Republic of Crimea).

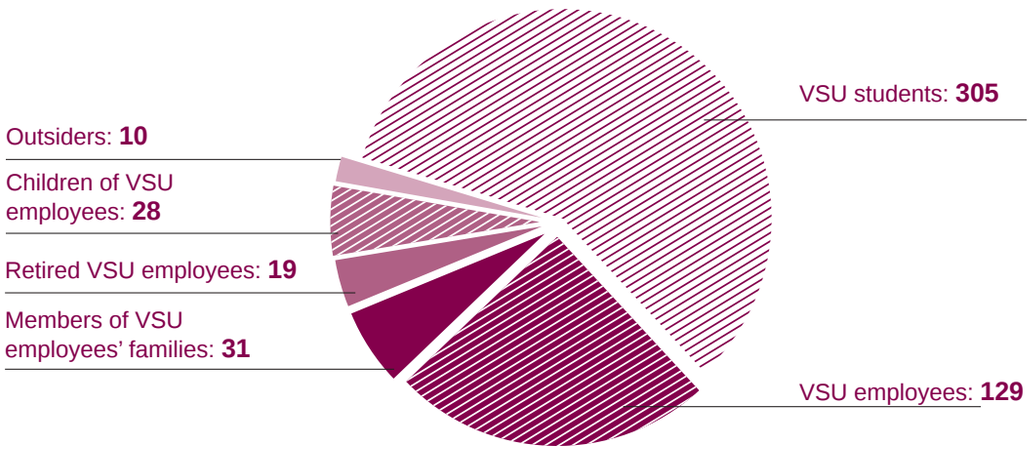
250 students took part in sightseeing tours to Saint-Perersburg and Kazan.

In summer, 600 university students spent holidays at the Black Sea coast (Rosa Khutor, the Republic of Crimea).

In total, 522 people went on holiday to the Venevitinovo recreation facility, including 192 VSU employees and 31 members of their families, 19 retired VSU employees, 28 children of VSU employees, 10 other visitors who paid the full price, and 305 students of the university (Fig. 8.1).

Figure 8.1

RECREATION AT THE VENEVITINOVO SPORT AND FITNESS COMPLEX



8.3. FINANCIAL AID FOR VSU STUDENTS AND STAFF IN 2020

Many students received financial aid and financial support during the quarantine period.

Importantly, the distribution and expenditure of monetary funds that affected the interests of students (scholarships and other bursaries, cultural events, sport, and recreation) were supervised by faculty scholarship committees and the trade union organisation of VSU students.

In 2020, the amount of money spent on financial aid to students and postgraduate students totalled 25,323,363.38 roubles.

The university administration, together with the students' trade union organisation, distributed passes to the swimming pool and gym of VSU, tickets to the ice rink and concerts, as well as certificates to quest rooms, a trampoline centre, various cinemas, and laser tag.

The following one-time payments were made:

- In accordance with clause 5.8.2 of the Collective Agreement, payments totalling 2,082,470 roubles were made in connection with retirement after more than 20 years of service at the university.
- Half salary payments for a total of 23,889,896.95 roubles.
- Full salary payments for a total of 47,909,445.55 roubles.

Material aid in the amount of 2,000 roubles was paid to 38 retired VSU employees living alone, dedicated to the International Day of Older Persons.

In the academic year 2019/20, 96 people (children of the VSU employees) got an education discount totalling 3,650,145 roubles. In the academic year 2020/21, it was 84 people, for a total of 3,100,000 roubles.

8.4. STUDENTS' BURSARIES

It should be noted that the university administration, together with the students' trade union organisation, provides social support to the university's students. Based on the Regulations regarding Scholarships and Other Forms of Financial Aid for Undergraduate, Postgraduate, and Postdoctoral Students of Voronezh State University, the Social Development Department pursues a graded social policy with respect to VSU students in need of help.

In the academic year 2020, 1,289 students received bursaries for a total of 1,289,224.69 roubles.

Increased student bursaries, scholarships for academic results, excellence in research, social, or cultural activity, and sports are paid monthly.

8.5. SUMMARY OF EVENTS OF THE SUBDIVISIONS OF THE JOINT STUDENTS' BOARD OF THE UNIVERSITY FOR 2020

On 24-27 September, the 5th Convention of Student Teams of the Central Federal District was held. 10 regions of the Central Federal District took part in it, including VSU student teams.

The university volunteers took an active part in charity work to help those in need amid the pandemic of the coronavirus infection. They delivered food to elderly people at risk due to the unfavourable epidemiological situation.

Table 8.1

EVENTS HELD BY THE SUBDIVISIONS OF THE JOINT STUDENTS' BOARD OF VSU

Name of Event	Number of Participants	Form	Dates
"To the woods at Christmas" hiking of the VSU tourist club	15	Personal attendance	7 January 2020
Chess tournament	30	Personal attendance	14 February 2020
"Snow Landing" All-Russian patriotic event	100	Personal attendance	20 February 2020
Qualifying stage of the Championship of the ASSC in volleyball	70	Personal attendance	27 February 2020
"Master Chef" cooking competition	50	Personal attendance	27 February 2020
"Igroteka" board games competition	100	Personal attendance	28 February 2020
Qualifying stage of the Championship of the ASSC in table tennis	30	Personal attendance	29 February 2020
Night University	200	Personal attendance	29 February 2020
Qualifying stage of the Championship of the ASSC in soccer	70	Personal attendance	5 March 2020
Artistic contest "Mister and Miss of VSU Student Teams"	50	Personal attendance	5 March 2020
Qualifying stage of the Championship of the ASSC in streetball	100	Personal attendance	5 March 2020 – 10 March 2020
Celebration dedicated to 8 March	300	Personal attendance	10 March 2020
Recruitment to the "Khitschnye Bobry" club (Rapacious Beavers)	30	Personal attendance	11 March 2020
Qualifying stage of the Championship of the ASSC in badminton	70	Personal attendance	11 March 2020 – 13 March 2020
Class on preparing the tourist itineraries by the VSU tourism club	50	Personal attendance	12 March 2020
Student test on personal data protection	300	Online	19 March 2020
Lecture on common and special tourism equipment	50	Online	20 March 2020
Online quest on boosting the immune system by the VSU student sport club "Khitschnye Bobry"	500	Online	22 March 2020
Online-training within the framework of Tourism School by the tourist club "Belaya Gora"	150	Online	23 March 2020
"Mafia" Tournament	25	Online	25 March 2020
Lecture by the VSU tourist club "How to organise a camping site"	30	Online	26 March 2020
Lecture within the framework of Tourism School by the tourist club "Belaya Gora"	50	Online	26 March 2020
Dota 2 Tournament	20	Online	18 April 2020 – 21 April 2020

End of table 8.1

Name of Event	Number of Participants	Form	Dates
Authors' Evening of VSU Student Teams	150	Online	23 May 2020
Photo-Cross of VSU Student Teams. Quarantine Edition	200	Online	9 June 2020
Opening of the working semester of VSU student teams	100	Online	8 July 2020
Day of High-Powered Work	300	Online	7 August 2020
School for student activists of VSU	250	Personal attendance	30 August 2020 – 1 September 2020
Quest from the Joint Students' Board	150	Online	3 September 2020
Hiking with the VSU tourist club "Getting to Know the Olympic Park and Nagornaya Dubrava"	15	Personal attendance	13 September 2020
Trip of the "Belaya Gora" club to the village of 1-e Storozhevoe	12	Personal attendance	19 September 2020
"Youth Governance Committee" Forum	10	Personal attendance	22 September 2020 – 25 September 2020
All-Russia Convention of Student Teams 2020	20	Personal attendance	24 September 2020 – 27 September 2020
Tourist Day in the "Belaya Gora" club	20	Personal attendance	26 September 2020 – 27 September 2020
"City Quest" from VSU's Joint Students' Board	20	Personal attendance	10 October 2020
Gala concert of the artistic festival of Voronezh student teams	300	Online	13 October 2020
Trip of the "Belaya Gora" club "Left bank, right bank"	20	Personal attendance	14 November 2020
Cosy Film Show	530	Online	3 December 2020
Activity-specific meetings of VSU student teams	100	Online	10 December 2020
Closing of the third working semester of Voronezh student teams	100	Online	10 December 2020
"Team's Corner" Competition	100	Online	13 December 2020
Cyber tournament VSU Royale Cup	250	Online	15 December 2020
VSU Championship in CS:GO	150	Online	25 December 2020 – 27 December 2020

8.6. OVERVIEW OF STUDENTS COMPETITIONS

The process of aesthetic education for students should not be interrupted by restrictive measures for the non-proliferation of coronavirus infection, and distance learning should not hinder cultural education and gaining new knowledge.

A variety of video lessons, lectures, films, and drama workshops were organised for the students this spring.

During the break between the distance learning periods, from 30 August to 5 September, an offline forum “School for Student Activists of VSU” was held. The event was made possible by a grant from the Federal Agency for Youth Affairs, which VSU won in a youth projects competition among higher education institutions. Students gained new knowledge in workshops and educational lectures and were able to demonstrate their study results.

In November, the First Year Student festival of student creativity was held online. First-year students from all the faculties of VSU took part in it. Students filmed their performances; the videos were later uploaded to YouTube. Due to the format of the event, the number of spectators who saw the performances of the festival participants was 20,000 people (20,000 views).

Table 8.2

STUDENT COMPETITIONS

Name	Number of Participants	Status	Date
Youth festival “All-Russia Student Marathon”	60	National	1 February 2020 – 5 February 2020
Selection of dancers for the VSU dance team Top Rate	50	University	10 February 2020 – 20 February 2020
Hip-hop Choreography workshop by Kirill Zakharov	50	University	29 February 2020
Stage Performance Theory course by Aleksandr Kozlov	10	Regional	24 February 2020 – 6 March 2020
Creative meetings with the jury of the festival “University Spring”	150	University	3 March 2019
Study of audio performances by Mobile Theatre	150	University	18 March 2020 – 23 March 2020
Educational content “Introduction to Theatre”. A cycle of video lectures on different types and forms of theatre	150	University	18 March 2020 – 23 March 2020
Showing and analysis of the music and drama production of Adam's Passion by composer Arvo Pärt and American director Robert Wilson	150	University	24 March 2020
Showing and analysis of the performance of “H. Ibsen’s Peer Gynt” by the Lenkom Theatre in Moscow	150	University	25 March 2020
Presentation of the documentary film “Budu akterom” (I am going to be an Actor)	150	University	25 March 2020 – 27 March 2020
Educational lecture “Elizabeth Gilbert. Your elusive creative genius”	150	University	26 March 2020

End of table 8.2

Name	Number of Participants	Status	Date
Showing a solo performance by the artistic director of the Russian State Theatre “Satyricon” Konstantin Raikin, “The Most Favourite”	150	University	27 March 2020
“Work on the Role” workshop by Yevgenii Mironov	150	University	30 March 2020
Golden Lectures. What is Social Theatre?	150	University	31 March 2020
Presentation of Signes (Carolyn Carlson Paris Opera Ballet) dance performance	150	University	1 April 2020
“Activist’s Quarantine” online flash mob	200	University	20 April 2020 – 1 May 2020
Online congratulations on Victory Day from student activists	20	University	9 May 2020
Online congratulations on Victory Day from the VSU dance team Top Rate	30	University	9 May 2020
All-Russia Students’ Online Graduation Ceremony	10	National	27 June 2020
VSU Students’ Online Graduation Ceremony	60	University	20 July 2020
Students' Spring regional online festival	60	Regional	15 July 2020 – 21 July 2020
Set of educational lectures under the grant project “School for Student Activists of VSU”	220	University	30 August 2020 – 5 September 2020
Set of artistic workshops under the grant project “School for Student Activists of VSU”	220	University	30 August 2020 – 5 September 2020
Set of leisure and culture events under the grant project “School for Student Activists of VSU”	220	University	30 August 2020 – 5 September 2020
All-Russia festival “All-Russia Students’ Spring”	40	National	5 September 2020 – 11 September 2020
Selection of dancers for the VSU dance team Top Rate	50	University	24 September 2020
“Student of the year 2020” Russian award	3	National	5 November 2020 – 9 November 2020
First Year Student festival	1000	University	16 November 2020 – 29 November 2020
“Development Pathway” youth forum	30	Regional	27 November 2020
Selection of dancers for the VSU dance team Top Rate	50	University	2 December 2020 – 10 December 2020
“Convention of Artistic Youth” regional forum	10	Regional	11 December 2020 – 14 December 2020
Introductory meeting of the heads of regional administrations of the “Russian Students’ Spring” national festival	1	National	12 December 2020 – 15 December 2020
Rukami online festival of ideas and technologies	5	National	19 December 2020 – 20 December 2020
Creation of art objects dedicated to the New Year	10	University	21 December 2020 – 31 December 2020
Online New Year Celebration	40	University	27 December 2020 – 30 December 2020

8.7. BRIEF OVERVIEW OF THE EVENTS HELD TO DEVELOP PATRIOTISM AND CIVIC POSITION

A number of online events were held to celebrate the 75th anniversary of Victory in the Great Patriotic War:

- Online project “S Miru Po Strochke”: each department provided a video in which students recited poems line by line, which were dedicated to the people’s heroism during the war.
- A traditional annual event, the interactive exhibition “The Immortal Regiment”, was also held online. VSU students sent photos and brief biographies of their relatives who had lived during the Second World War and/or fought against the Nazi invaders. The information received from the students was published on VSU’s main page on the VKontakte social network.

On 3 September, a number of events were held dedicated to the Day of Solidarity in the Fight against Terrorism. In the park of the main building of VSU, its employees and students paid tribute to the victims of the 2004 Beslan tragedy. Group supervisors held preventive conversations and educational lectures with first-year students, informing them how to prevent terrorist acts, what to do if suspicious items are detected, etc.

8.8. SPORTS AND A HEALTHY LIFESTYLE

Physical culture and sports are an effective way to improve your body and health, to communicate with other people, and to be socially active. Moreover, without a doubt they also influence other aspects of student life: their image and status in society, work, intellectual and ethical characteristics, ethical ideals, and values.

Physical education at VSU has some peculiarities due to the large number of students. Annually, about 15 thousand students take the “Physical Culture” course, which is an obligatory subject at VSU.

The Department of Physical Education and Sports has sport clubs for 34 kinds of sports that are included in the programme of the Universiade between universities of the Voronezh Region. Moreover, the university has sport clubs for sports that are not included in the programme of the Universiade: rhythmic gymnastics, shaping, aerobics, tourism, wushu, lawn tennis, military hand-to-hand combat, and aikido.

It should be noted that sport clubs for such kinds of sports as rugby-7 and military hand-to-hand combat are unique for the Voronezh Region and can only be found at VSU.

Overall, 830 students were members of sports clubs in 2020: 320 women and 510 men.

804 VSU students have sport categories and titles: 3rd class: 143 students, 2nd class: 249 students, and 1st class: 231 students. Among them, there are 161 candidate masters of sports, 18 masters of sports of Russia, and 2 international class masters of sports.

In 2020, the VSU team took 2nd place in the Universiade between universities of the Voronezh Region and 8 prize-winning places in different categories: 3 first places, 4 second places, and 1 third place.

Table 8.3

SPORTS EVENTS

Name	Number of Participants	Status	Ranking
National Student Marathon	21	National	1
Dragon regional boat race championship	23	Regional	2
Lapta	10	Regional	2
Table tennis (men)	6	Regional	1
Table tennis (women)	6	Regional	1
Volleyball (men)	12	Regional	4
Volleyball (women)	12	Regional	1
Indoor soccer (women)	15	Regional	5
Indoor soccer (men)	15	Regional	9
Greco-Roman wrestling	12	Regional	2
Freestyle wrestling	12	Regional	3
Kettlebell lifting	10	Regional	2
National student sports games “Ready for Labour and Defence”	24	Regional	3
Interregional corporate games of the Central Federal District (south)	98	Federal	1, 2, 3

8.9. INCLUSIVE EDUCATION AT THE UNIVERSITY

The university systematically works on creating and maintaining a comfortable environment for applicants and students with disabilities.

Currently, Voronezh State University has 123 students with disabilities, 5 of them with special needs. There are 5 students with hearing disabilities (none of them with special needs), 10 students with visual disabilities (2 of them with special needs), 16 students with muscle-skeleton disorders (including 3 people with special needs), 20 students with somatic diseases, and 72 people with no category. Students with disabilities receive social, psychological, and pedagogical support over the whole period of study. In the time of pandemic and distance learning, this aspect has become even more relevant.

There is a closed group for VSU students with disabilities (Inclusive Education Centre at Voronezh State University) on a social network.

During the whole year, the centre, in cooperation with disabled students from VSU, took an active part in organising and hosting the international inclusive project “1+1. Learning to Live Together”. In 2020, they also took part in the remote competition “Accessible Environment”, organised by the Regional Educational Resource Centre, as well as in the competition “On your Way to your Career”, and in the 3rd All-Russia Student Project Competition “Professional Tomorrow”. VSU students also participated in the professional skill contest “Abilimpix”.

Throughout the academic year, online training conferences were held for the university staff, students, and applicants in order to give an insight into the psychological and physiological characteristics of students with disabilities, including those with health limitations, the specifics of admission, and the peculiarities of teaching students of various nosological groups.

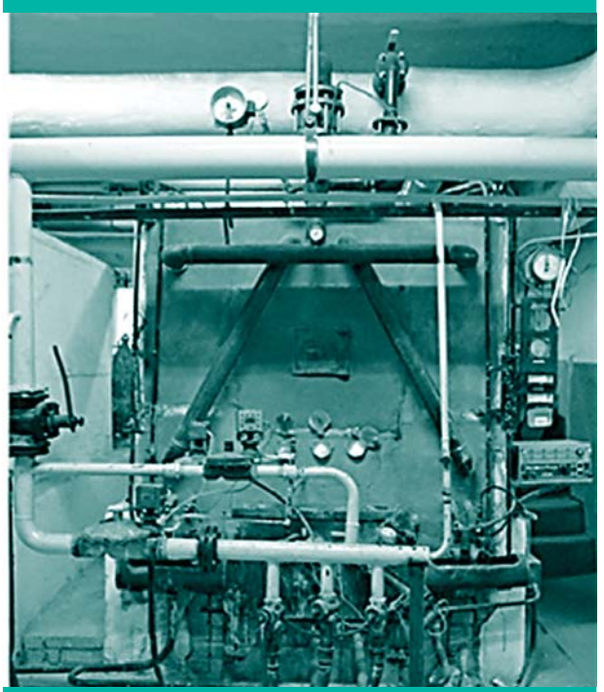
The university organised and held remote round table meetings, online conferences and webinars on the issues of career guidance and employment for persons with disabilities involving VSU students with disabilities. There were trainings on disability awareness, business meetings to address training and employment issues for students with disabilities during the pandemic.

34 employees of the university completed advanced training courses in the programme “Organisation and Psycho-Pedagogical Fundamentals of Inclusive Higher Education”.

Interaction with the inclusive education system participants shows positive dynamics in the formation of a tolerant attitude towards people with disabilities and their inclusion in society.

8.10. MAIN ACHIEVEMENTS OF 2020

- First place at the youth festival “All-Russian Student Marathon”, prize-winner in three areas:
  - 2nd place in the intellectual programme.
  - 2nd place in the sports programme.
  - 1st place in the creative programme.
- Participation in the festival “Students’ Spring 2020” between universities:
  - Dancing, nomination “Popular Dance”: the laureate was dance team “Po Maksimumu” (To the maximum).
  - Dancing, nomination “Street Dance”: the laureate was the Top Rate dance team.
  - Video, nomination “Short Movie”: the laureate was the VSU team (for the video “Loveless”), they were also awarded diplomas for their videos “High-tailing it” and “Lighthouse”.
- Participation in the national festival “All-Russian Student Spring”:
  - dancing, the laureate was the Top Rate dance team;
- 3rd place in the Interregional corporate games of the Central Federal District (south).
- 2nd place in the Voronezh Region Universiade.



FACILITIES OPERATIONS AND CONSTRUCTION

9 FACILITIES OPERATIONS AND CONSTRUCTION

A. A. Sokolov,
Vice-Rector for Facilities and Capital Development

9.1. VSU MAJOR BUILDING OPERATION AND CONSTRUCTION GOALS FOR 2020

- To maintain and develop the university's property assets.
- To maintain and operate facilities in accordance with the requirements of technical 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 wastewater.
- To create a safe learning environment, ensuring the health of the students and employees of the university, and to monitor compliance with industrial safety requirements in hazardous production areas.
- To render transport services to support educational, social, and business activities.

9.2. ACHIEVEMENT OF GOALS REGARDING THE MAINTENANCE AND DEVELOPMENT OF THE UNIVERSITY'S PROPERTY ASSETS

In order to create appropriate conditions for educational activities, major and minor repairs to the university's property assets were carried out. At the expense of extra-budgetary funds, a metal mesh fence, a barrier with a five-meter boom barrier, and a card reader for entering the territory of university building No. 6 were installed. Showers and locker rooms at the swimming pool, portable cabins, toilet modules, and fencing were repaired at the Nickel training base in the Republic of Adygea. Works were carried out to install sanitary modules and underground cisterns on the territory of the Venevitinovo sport and fitness complex, and classrooms and laboratories were repaired in university buildings No. 1, 1a, 3, 5, and 6.

Based on the data from periodic inspections of the technical condition of the property assets, taking into account the significant number of requests from faculty deans and university staff for the repair of classrooms and housing in the previous year, specialists of the VSU Capital Construction and Production Technology Departments developed a repair plan for the current year and the subsequent (three-year) period. A large amount of project documentation was prepared for all repair work for a three-year period. It includes the capital repair of the canteen in building No. 2, repair of residential premises of the Nickel training base in the Republic of Adygea, capital repair of the premises of the ski lodge, the entrance to university building No. 8, the facade of the Faculty of Law, and other repairs. The total cost is more than 346 million roubles.

Therefore, the main priority of our work is to create appropriate conditions for educational activities and comfortable living conditions for students and teachers.

LIST OF COMPLETED MAJOR AND MINOR REPAIR WORKS

Classrooms No. 24, 32, 134, 135, 178, 224, 311, 326, 330, 339, 414, 416, 427, 427a, 439, 450, and 452 were repaired in the main university building. In university building No. 3, classroom No. 301 was repaired, classroom No. 313 was repaired in university building No. 5, and classrooms No. 311, 330, and 339 were repaired in university building No. 6. The works were carried out at the expense of extra-budgetary funds, classrooms with a total area of 761.5m^2 were renovated at a cost of 8,211 thousand roubles. With the sponsorship of the university partners, high-quality major repairs were carried out in classrooms No. 124, 161, 329, and 435 with a total area of 300m^2.

At the expense of extra-budgetary funds, classrooms and laboratories No. 24, 32, 134, 135, 178, 224, 311, 326, 330, 339, 414, 416, 427, 427a, 439, 450, and 452 with a total area of 607m^2 were repaired in the main university building, which totalled 2,619 thousand roubles. (Fig. 9.1– 9.4).

Figure 9.1

CLASSROOMS No. 24 AND No. 135

Figure 9.2

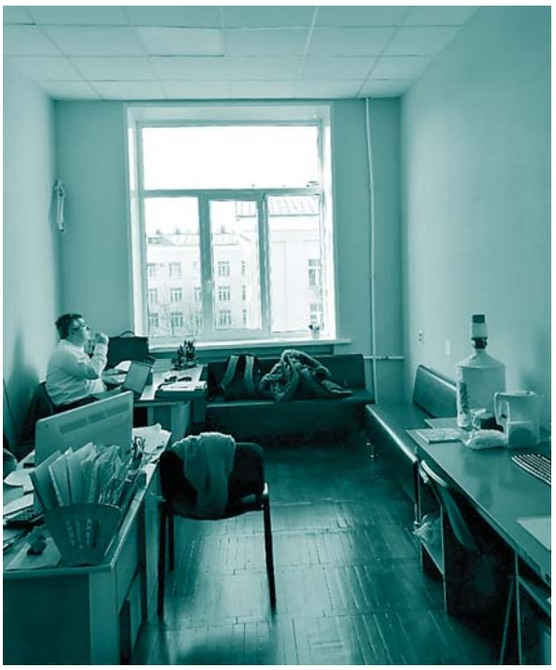
CLASSROOMS No. 134 AND No. 178

Figure 9.3

CLASSROOMS No. 326 AND No. 414

Figure 9.4

CLASSROOMS No. 416 AND No. 450



At the expense of extra-budgetary funds, classroom No. 301 with an area of 24.7m² in university building No. 3 was repaired at a cost of 121 thousand roubles.

Portable cabins, toilet modules, and fencing were repaired at the Nickel training base in the Republic of Adygea with a total cost of 466 thousand roubles.

Carried out at the expense of extra-budgetary funds, the repairs of the swimming pool totalled 527 thousand roubles. (Fig. 9.5).

Figure 9.5

SHOWER ROOM

In the premises of the canteen of the main building, works on the installation and commissioning of security and fire alarms, warning systems, and evacuation control systems were carried out in the amount of 396 thousand roubles. (Fig. 9.6).

Figure 9.6

CANTEEN

At the ski lodge (40e Kholzunov St.), the heating unit was overhauled for a total of 484 thousand roubles, which made it possible to switch from electric heating to a centralised heat supply.

At the Venevitinovo sport and fitness complex, two sanitary modules and underground cisterns were installed with a cost of 998 thousand roubles.

In 2020, in the main building, the walls of the central staircase with an area of 150m², of the corridor, with an area of 450m² were painted. Rooms No. 153, 245, and 304 with a total area of 75m² were repaired. In university building No. 1a, the walls and floor were repaired in room No. 478a with an area of 25m². In university building No. 2, classroom No. 81 with an area of 25m² was renovated. In university building No. 5, classrooms No. 114, 115, and 116 with a total area of 112m² were repaired. 12 pcs of electricity metering devices, 4 pcs of cold water supply devices, 12 pcs of heating radiators were replaced; air conditioners (15 pcs) and water heaters (2 pcs) were repaired. A total of 837m² of facilities were renovated.

Boiler rooms No. 1 and No. 2 were prepared for the 2020-2021 heating season. In the boiler room of the main building, a steel boiler KTS2 was replaced, as well as gas burners in the boiler room at 10k Friedrich Engels St. These works totalled 1,339 thousand roubles.

A significant amount of work was performed in order to repair heating systems in the university buildings, while sewage pipes in the main building and in university buildings No. 4 and 10 were cleaned. In accordance with technical regulation, hydraulic and pneumatic tests of pipelines were performed, including the cleaning of the internal heating systems and units of university buildings (certificates of readiness for heating period were issued). A water measurement unit was repaired, water supply and fire-fighting pipelines were replaced in university building No. 1b, a hot water heat exchanger (hot water supply) in university building No. 6 was replaced. In the premises of the canteen of the main building, works on installation and commissioning of security and fire alarms, warning systems, and evacuation control systems were carried out. At the “Ski Lodge” at 40e Kholzunov St., a heating unit was repaired and connected to the heating network of the branch of PAO “Kvadra”, which totalled 1,640 thousand roubles.

Following the energy saving programme, the university conducted electrical works to replace lamps with energy saving LED lamps (628 pcs), incandescent lamps with LED lamps (3,098 pcs). Fluorescent lamps with light on/off control sensors (65 pcs) and emergency lighting fixtures (50 pcs) were installed. Electricity meters (12 pcs), heating radiators (12 pcs), and water heaters (2 pcs) were replaced.

Electrical works included the maintaining of substations, testing and measurement of the university’s power units, repair of the power cable of the vegetable store and ski lodge, reconstruction of street lighting with replacement of electric cable (180lm) and LED spotlights (10 pcs). Moreover, ventilation systems were repaired (190lm), earthing and lightning protection systems were restored and installed (80lm).

9.3. OVERVIEW OF WORK PERFORMED BY THE TRANSPORTATION DEPARTMENT

A significant amount of work was performed by staff members of the Transportation Department (Table 9.1).

Transport services were provided upon request from the university's structural units.

Table 9.1

TRANSPORTATION

No.	Work item	2019	2020
1	Transportation for conferences (pcs)	21	3
2	Number of passengers (people)	914,000	1,700
3	Cargo turnover (tonnes)	68.4	7.3
4	Distance driven (thousand km)	183.8	89.7
5	Fuel consumption (l):		
5.1	– A-95 petrol	20,106	18,480
5.2	– A-92 petrol	14,135	10,903
5.3	– diesel fuel	28,040	14,800
5.4	– liquefied gas	2,900	2,900

There was a decline in passenger and cargo traffic due to the special restrictions applied in 2020.

9.4. MAJOR REPAIRS AND MAINTENANCE FINANCING BY SOURCE OF FUNDING

Figure 9.7

SITES FINANCED IN 2020, thousand roubles

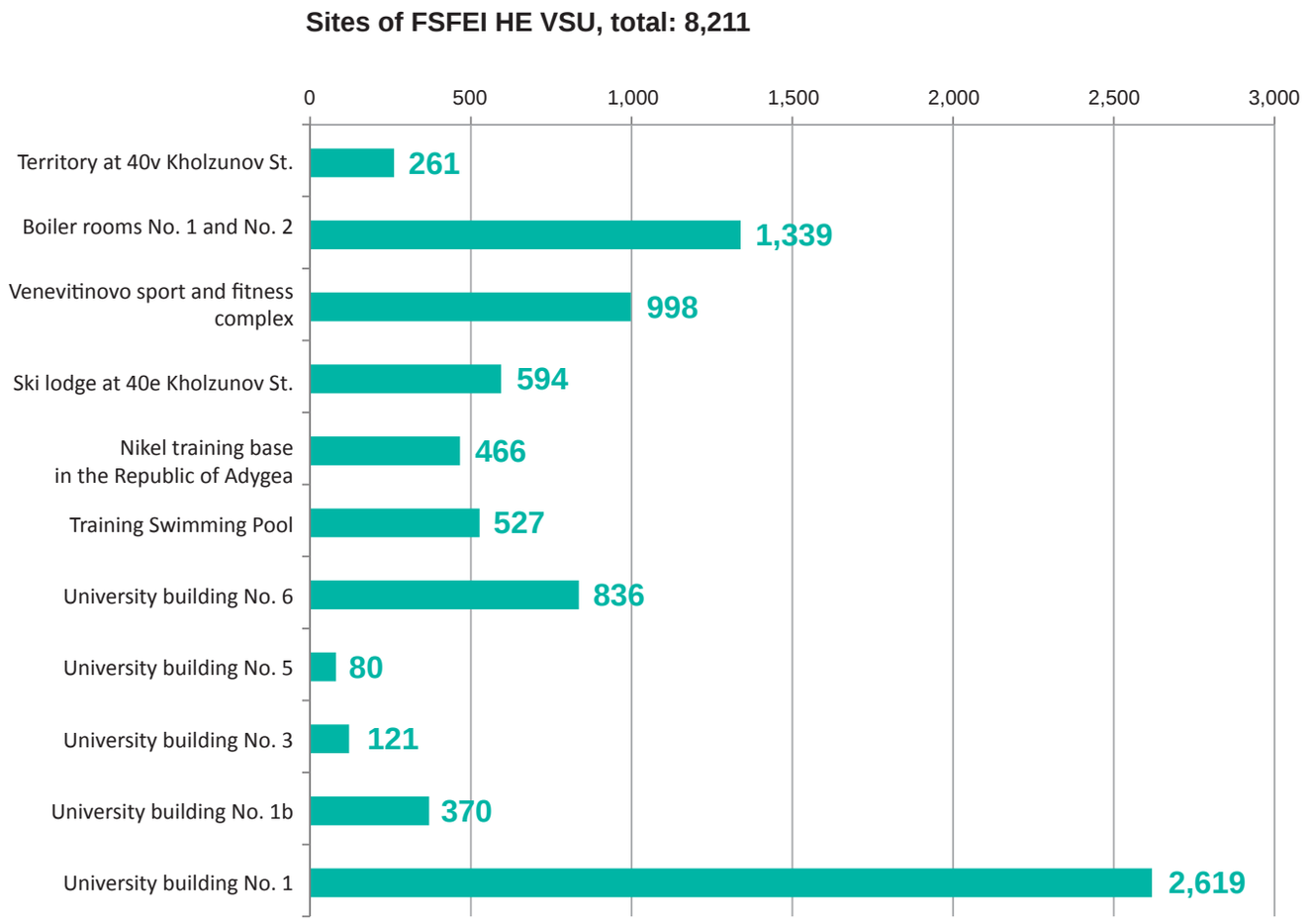


Figure 9.8

FINANCIAL STRUCTURE OF REPAIR AND MAINTENANCE WORKS IN 2019 AND 2020, thousand roubles

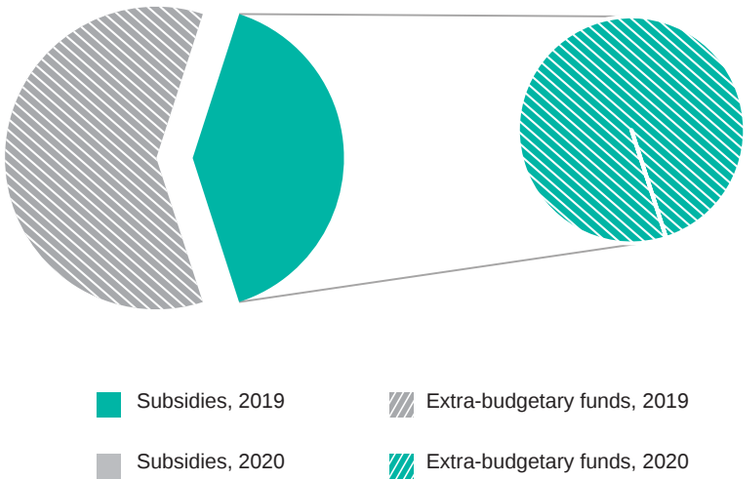


Figure 9.9

STRUCTURE OF UTILITY BILLS EXPENDITURE IN 2019 AND 2020, thousand roubles

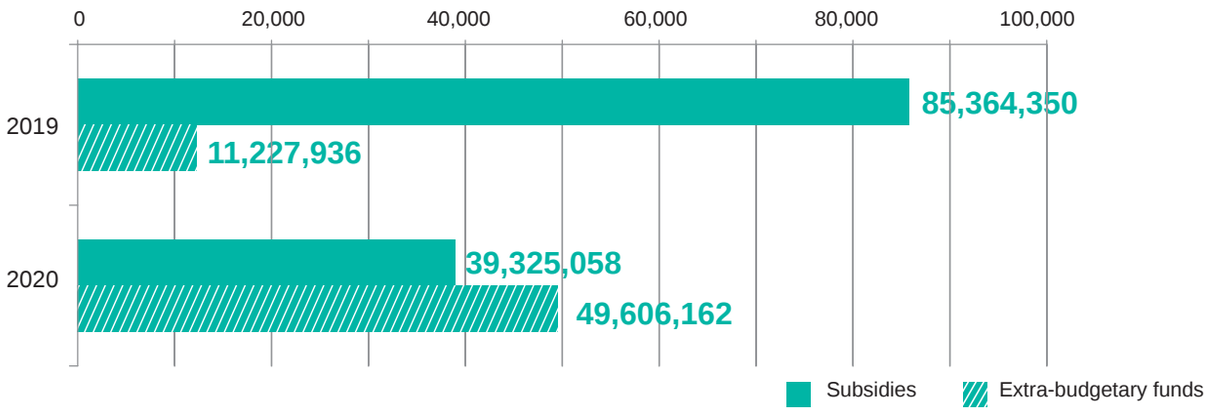


Table 9.2

VOLUME AND COST OF CONSUMED RESOURCES IN ROUBLES

Type of energy resource	2018		2019		2020	
	Volume	Amount	Volume	Amount	Volume	Amount
Electrical energy	7,628,809 kWh	43,210,851	7,142,981 kWh	43,534,728	6,269,421 kWh	40,150,477
Natural gas	1661.104 thousand m^3	11,408,795	1621.839 thousand m^3	11,415,825	1435.063 thousand m^3	10,286,881
Heat supply, including hot water	16,913 Gcal	29,391,143	16,226 Gcal	29,347,472	14,594 Gcal	27,939,196
Water, water discharge	304,398m^3	13,043,026	286,407m^3	12,294,261	253,992m^3	10,554,666
	337,750m^3		324,284m^3		280,606m^3	
Total		**97,053,815**		**96,592,286**		**88,931,220**

9.5. MAIN RESULTS OF THE ACTIVITIES IN 2020

Based on the data from periodic inspections of the technical condition of the property assets, taking into account a significant number of requests from faculty deans and university staff responsible for the repair of classrooms and housing, in the previous year, specialists of the VSU Capital Construction and Production Technology Departments developed a plan of repair work for the current year and the subsequent (three-year) period. A lot of work was carried out to inspect the assets, compile defect statements, and prepare project documentation for all repair work for a three-year perspective for a total amount of more than 346 million roubles.

Budgetary and extra-budgetary funds, as well as sponsored financing by the university's partners, allocated for the repair of property assets, were used as efficiently as possible.

The energy saving and energy efficiency programme for buildings, facilities, and equipment of the university was continued.

All works were conducted with due consideration of the programme for creating an accessible environment for physically challenged people.

Engineering services ensured the non-stop operation of all technical systems and the necessary life support parameters for buildings, structures, and premises throughout the previous year.

9.6. OVERVIEW OF PROMISING PROJECTS IN THE AREA OF DEVELOPMENT OF PROPERTY ASSETS IN 2020

- To organise the design of a new 11,000m^2 dormitory for 400 students on the territory located at 10a Friedrich Engels St.
- To design a multifunctional sports stadium with open-air stands and auxiliary rooms on the territory located at 42a Kholzunov St.
- To begin designing a new energy efficient gas boiler-house (main university building).
- To prepare design documentation for the repair of facades of university buildings No. 3 and No. 4, and the Inclusive Education Centre in accordance with the requirements of the Directorate for the Protection of Cultural Heritage.
- To continue necessary works aimed at improving the fire safety infrastructure and enhancing the energy efficiency of VSU buildings and facilities.
- To finish repairs to the facade of university building No. 9. To install aesthetic lighting around university buildings No. 1 and No. 9.
- To continue the reconstruction of buildings and facilities in the “Galichya Gora” nature reserve and to finish reconstruction of the Visitor Centre.
- To finish restoration and repairs in the storage facilities for training military equipment at the Faculty of Military Education so they can be used.
- To prepare the buildings and facilities of the Venevitinovo recreation facility for the summer season of 2021.
- To prepare the project documentation and carry out major repairs of the “Ski Lodge” sports complex.
- To make major repairs of the library premises.
- To perform major renovation of the canteen in building No. 2.
- To carry out major repairs to the ventilation and lighting of the attic of the main building.
- To prepare project documentation for major repairs to the building of dormitory No. 1.
- To perform a phased implementation of the concept for the reconstruction and improvement of the Botanical Garden (72.32ha).
- In view of the dangerous condition of the building, to perform major repairs to the roof and premises of university building No. 7.

MILITARY EDUCATION AT VORONEZH STATE UNIVERSITY

10

10

MILITARY EDUCATION AT VORONEZH STATE UNIVERSITY

Yu. N. Korenchuk,
Colonel, Head of the Military Training Centre

10.1. OBJECTIVES IN THE FIELD OF MILITARY EDUCATION IN 2020

- Implementation of the military education programme for military service under contract in military occupational specialities for reserve officers.
- Implementation of educational programmes in military occupational specialities for reserve officers.
- Implementation of educational programmes in military occupational specialities for reserve sergeants.

10.2. INFORMATION ON MILITARY OCCUPATIONAL SPECIALITIES IMPLEMENTED AT THE MILITARY TRAINING CENTRE

In the field of training and graduation of citizens studying at the MTC:

- The implementation of a military training program for the students, organisation of the training period ending with the military oath ceremony for the fourth-year students.
- Organisation of the assessment for the graduates to affiliate them to the commissioned staff for further military service under contract.
- Award ceremony for graduates where they receive their epaulettes, officer's identification certificates, and identity numbers.
- Preparation of orders for the assignment of military ranks to graduates for reserve "lieutenants" and "sergeants".

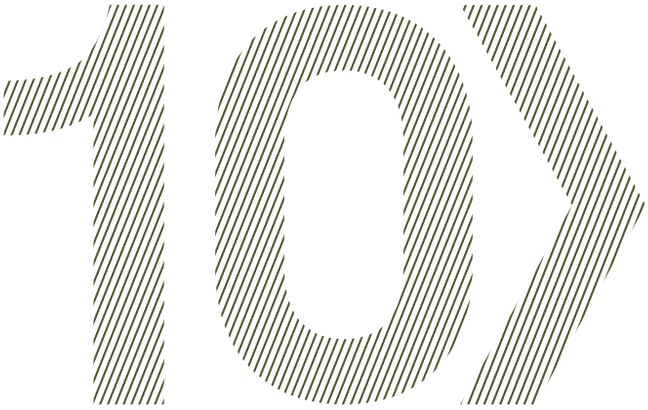
In the field of preparation for new admissions at the MTC:

- Conducting promotional activities to attract applicants for admission to the Military Training Centre (with further service under contract) and students to undergo training in training programs for reserve officers and sergeants.
- Revision of the educational process documentation with its further approval by the partners.
- Revision of the educational process documentation for newly introduced military occupational specialities with its further approval by the partners.
- Conducting an admission campaign during the pandemic.
- Enrolment of applicants and students who have successfully.
- Organisation of the final assessment of citizens who completed the training period and internships.

Table 10.1

INFORMATION ON THE MILITARY OCCUPATIONAL SPECIALITIES IMPLEMENTED BY THE MTC IN 2020

No.	Military speciality	Number of students	
		Personnel	Reserve
1	Linguistic Support of Military Activities	13	–
2	Military Units and Anti-Tank Artillery Warfare	82	–
3	Military Units and Ground Artillery Warfare	20	87
4	Anti-Tank Guided Missile (ATGM) Warfare	99	114
5	Mortar Warfare	59	89
6	IT Support of Military Activities	29	–
7	Information and Psychological Support of Military Activities	36	–
8	Information Support Organisation	26	–
9	Psychological and Moral support of Forces	8	–
10	Artillery pieces. Gun commander	–	104
11	Anti-tank missile systems. Track commander	–	98
12	Artillery mortars. Gun commander	–	66



10.3. A BRIEF REPORT ON THE ACTIVITIES OF THE MILITARY TRAINING CENTRE FOR THE TRAINING OF OFFICERS TO SERVE UNDER CONTRACT

In 2020, according to orders of the commander of the Western Military District of October 30, 2019 No. 611, of December 3, 2019 No. 678dsp, of June 19, 2020 No. 302dsp; Instruction of the Chief of the Main Personnel Directorate of the Ministry of Defence of the Russian Federation No. 173/2/0302 dated May 25, 2020, and training camps and internships were held on the instructions of the Chief of the MFA of the RF Armed Forces dated June 2, 2020 No. 450/3/1/7620.

Trainings with 5th year students enrolled in cadre officer training programs were held from 17 February to 17 March 2020:

- In Troop Unit 2394 (Belgorod) for military speciality 390400, 10 people were sent, 9 people were trained.
- In Troop Unit 31969 (Tambov) for military speciality 030404, 20 people. For military speciality 030600, 19 people. 39 people were sent, 39 people were trained.

Training camps with 4th year students enrolled in cadre officer training programs were held from June 22 to July 5, 2020:

- At Troop Unit 91727 (Boguchar) for military speciality 030404, 45 people. For military speciality 030600, 42 people. For military speciality 390400, 4 people. For military speciality 808000, 6 people.
- At the Military Training Centre of VSU for military speciality 093400, 10 people. For military speciality 093500, 8 people.

The number of students sent to training camp was 115 people. The number of students who passed the training camp was 115 people.

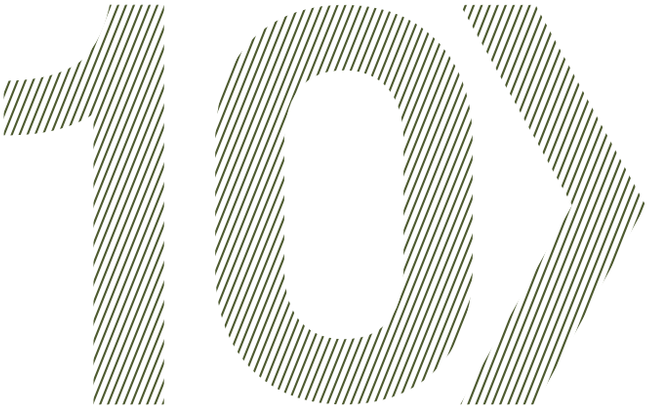
By Order of the Minister of Defence of the Russian Federation of September 1, 2020 No. 664, 47 graduates of the Military Training Centre who completed training programs for cadre officers, who signed the first contract for military service for a period of three years, were awarded the first military rank of “lieutenant” and personal numbers.

The students were admitted to the centre by the order of the rector after they had passed a military medical examination, psychological tests, a fitness level examination, and had signed the contract with the university. The list of the military occupational specialities is given in Table 10.2).

Table 10.2

ADMISSION TO THE MILITARY TRAINING CENTRE IN 2020 TO PREPARE OFFICERS FOR SERVICE UNDER CONTRACT

Military speciality	Major (speciality)	Number of students
Military Units and Ground Artillery Warfare	10.05.01 – Computer Security	18
Military Units and Mortar Warfare	10.05.01 – Computer Security	10
Anti-Tank Guided Missile (ATGM) Warfare	10.05.04 – Information Analysis Security Systems	14
Total		**42**



10.4. A BRIEF REPORT ON THE TRAINING OF RESERVE OFFICERS (SERGEANTS) AT THE MILITARY TRAINING CENTRE

Training camps with 4th year students enrolled in the training programs for reserve officers and sergeants were held from June 22 to July 25, 2020 at Troop Unit 91727 (Boguchar) for military speciality 030400, 22 people. For military speciality 030405, 19 people. For military speciality 030600, 45 people. For military speciality 139177, 32 people. For military speciality 131181, 33people. For military speciality143181, 32 people.

The number of students sent to training camps was 183 people. The number of students who completed their training educational period was 183.

The military oath ceremony was performed during the training period.

At the military shooting range of the “Pogonovo” training ground, the students involved in the training camps, in the course of the basics of weapons training using small arms, performed 1 firing exercise with a Makarov gun, 1 practice range shooting, and 3 firing exercise with an AK assault rifle.

At the “Pogonovo” training ground, students enrolled in the training programs for officers and sergeants in the reserve were trained in special tactical disciplines (all military specialities) and special training (military specialities 137181, 139177) with training artillery firing (auxiliary barrel) direct fire (military specialities 030404, 030405, 137181) with the completion of task No. 1a of the artillery training course.

62 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.

By order of the military commissar of the Voronezh region, 105 graduates of the military training centre, who were trained under the military training program for reserve sergeants, were enrolled in the reserve with the assignment of the first military rank “sergeant” and a personal number.

In 2020, 354 applications were submitted to the Department of Missile Forces and Artillery, 144 students were accepted. The competition for places was 2.5 people per place.

In 2020, 147 applications were submitted to the department of special training, 48 students were accepted. The competition for places was 3.1 people per place.

Table 10.3

IMPLEMENTATION OF THE NON-COMMISSIONED OFFICER (SERGEANT) TRAINING PROGRAMME

No.	Military speciality	Trained, people		
		2nd year	3rd year	4th year
1	Anti-Tank Guided Missile (ATGM) Warfare	24	45	45
2	Military Units and Ground Artillery Warfare	23	42	22
3	Military Units and Mortar Warfare	24	46	19
4	Artillery. Gun commander	36	35	33
5	Anti-tank missile systems. Track commander	36	30	32
6	Mortars. Gun commander	-	34	32

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

- The rector of Voronezh State University, Professor D. A. Endovitsky took part in military-patriotic events: laying wreaths in honour of Victory Day, the trooping of the colours, and in honour of the presentation of officer epaulettes of graduates of the MTC.
- Work continued to expand the list of specialities and types of military training for students. The rector of Voronezh State University, Professor D. A. Endovitsky received a letter on behalf of the head of the Main Personnel Directorate of the Ministry of Defence of the Russian Federation, Deputy Head of the General Staff of the Ministry of Defence of the Russian Federation, Admiral I. O. Kostyukov with a request to introduce the training of reserve officers in two military speciality occupations in the interests of the military training centre at the Voronezh State University.
- Under the leadership of the Rector of Voronezh State University, Professor D. A. Endovitsky, the team of the MTC at the Voronezh State University developed a study guide “Military-political work” and published in the publishing house KNORUS (Moscow), for which the authors were awarded a laureate diploma.

- The presentation of the study guide is posted on the website of the Ministry of Defence.
- VSU Rector D. A. Endovitsky, head of the MTC at Voronezh State University Yu. N. Korenchuk, and Professor V. G. Shamaev of the Department of General Military Training at the Military Training Centre of Voronezh State University, contributed to the All-Russian scientific-practical conference (with international participation) “The Story of a Heroic Deed” on the basis of the MTC at the Irkutsk State University. Articles were published.
- With the direct support of VSU Rector D. A. Endovitsky and his introductory remarks made at the Publishing House of the Voronezh State University, “Educational Dictionary of Military and Associated Terms: Polish-Russian, Russian-Polish” was published, prepared by Assistant Professor of the MTC at VSU, A.I. Leonov. The dictionary was last published in the USSR in 1933. The dictionary was supported by the Linguistic Centre at the Military University of the Ministry of Defence of the Russian Federation.

10.6. SUMMARY OF KEY ACHIEVEMENTS IN 2020

- Due to the pandemic, a scientific session of cadets and students of the MTC at VSU was held in distance mode dedicated to the 75th anniversary of the Victory in the Great Patriotic War. During the scientific session, students of Voronezh State University made presentations on the topic “My relatives in the war”. As a result of this project, they got to better know their relatives and veterans of the Great Patriotic War.

- For the first time in the 94-year history of military education at Voronezh State University, the MTC operated in a distance mode. The military training programs at the MTC have been completed.

- A clear system of military education in a civilian university has been developed:
  - 2 years - training of reserve sergeants.
  - 2.5 years - training of reserve officers.
  - 5–5.5 years - training of commissioned officers.

- New military occupational specialities have been introduced at the MTC in order to train reserve officers, which led to an increase in recruitment by 66%.

- Documentation was developed for the newly introduced military occupational specialities. The documents include:
  - 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.

- The implementation of military training programs is organized in accordance with the general military regulations of the Armed Forces of the Russian Federation, orders and directives of the Minister of Defence of the Russian Federation, directives of the Head of the General Staff of the Ministry of Defence of the Russian Federation, orders of the Minister of Science and Higher Education of the Russian Federation, order of the Minister of Defence of the Russian Federation and the Ministry of Science and Higher Education of the Russian Federation of February 13, 2020 No. 66/212, by order of the Minister of Defence of the Russian Federation of August 26, 2020 No. 400 “On the determination of the procedure for admission and training of citizens of the Russian Federation in Military Training Centres in the Federal State Educational Institutions of Higher Education.” The new regulatory and legal framework required new approaches and the revision of a number of documents.

- In December 2020, the MTC at VSU initiated the nomination of D. A. Endovitsky for the position of VSU rector.

VSU REGIONAL SCIENTIFIC LIBRARY

11

VSU REGIONAL SCIENTIFIC LIBRARY

A. Yu. Minakov,
Director of the VSU Regional Scientific Library

The Regional Scientific Library of Voronezh State University (hereinafter – the library) 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. The library provides methodological assistance and consultations to regional university libraries and organises advanced training courses for their staff. In 2020, it rendered library and information services managing a universal multi-purpose collection of Russian and foreign books and documents on physical media, diligently preserving this collection for future generations. It also provided access to local and remote information resources online. The full list of services can be found on the library's website: www.lib.vsu.ru. The services are provided in full compliance with the ISO international standards.

The library has created an accessible environment for disabled visitors.

As of 1 November 2020, the unified library collection of Voronezh State University was comprised of **3,162,288** items on physical media in various languages. The collection was completed with the sources necessary for all education and scientific programmes implemented at VSU according to the Thematic and Typological Acquisition Plan: www.lib.vsu.ru/Преподавателям. The education materials meet the approved requirements for the minimal number of available sources required to ensure an efficient educational process as well as the requirements set in the State Educational Standards. The library is also subscribed to relevant periodicals within the educational and scientific scope of the University. Some documents were donated to the collection. In 2020, the library collection was enlarged by **11,466** items. On average, the collection contains about **122** items per subscriber. The collection was increased by a ratio of 0.4, and the study books collection ratio increased by 0.6. The majority of items in the collection are books, journals, scientific and educational literature (Fig. 11.1-11.4).

Figure 11.1

COLLECTION STRUCTURE ACCORDING TO THE TYPES OF ITEMS
(3,162,288 ITEMS AS OF 1 NOVEMBER)

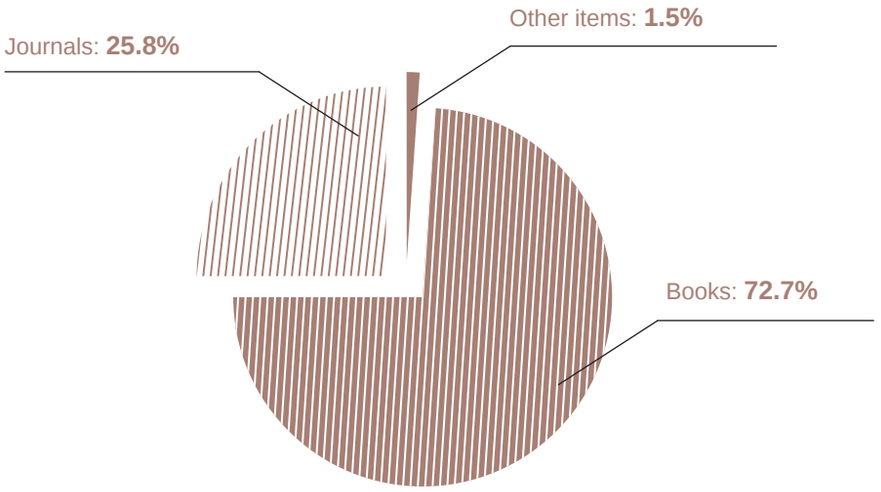


Figure 11.2

COLLECTION STRUCTURE ACCORDING TO THE PURPOSE OF ITEMS
(3,162,288 ITEMS ON PHYSICAL MEDIA AS OF 1 NOVEMBER)

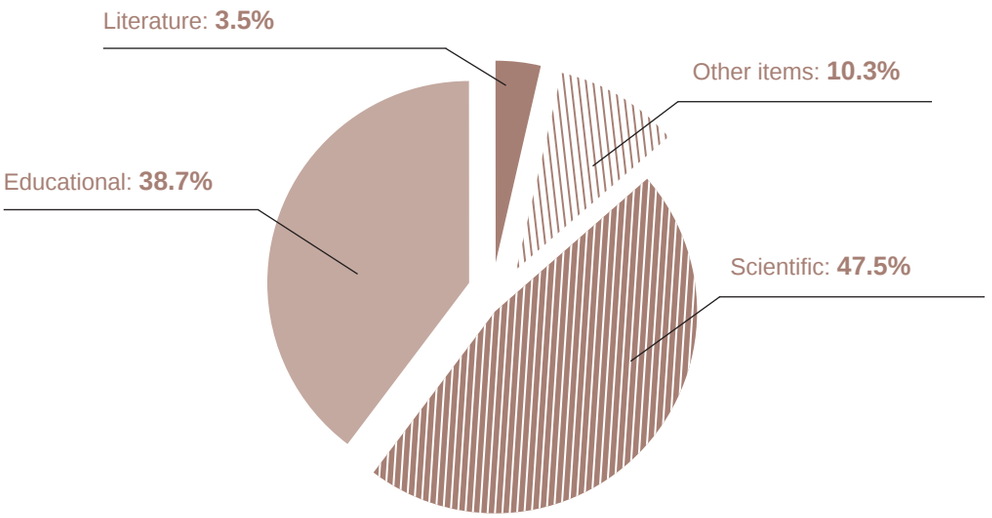


Figure 11.3

NUMBER OF NEW ITEMS IN THE COLLECTION

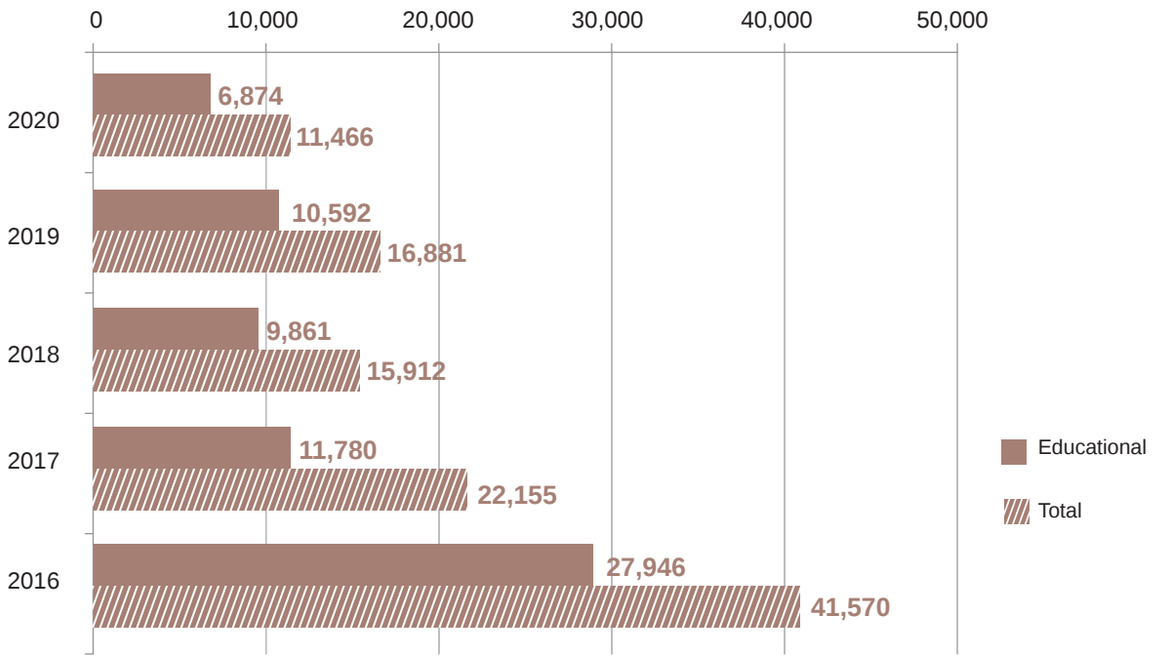
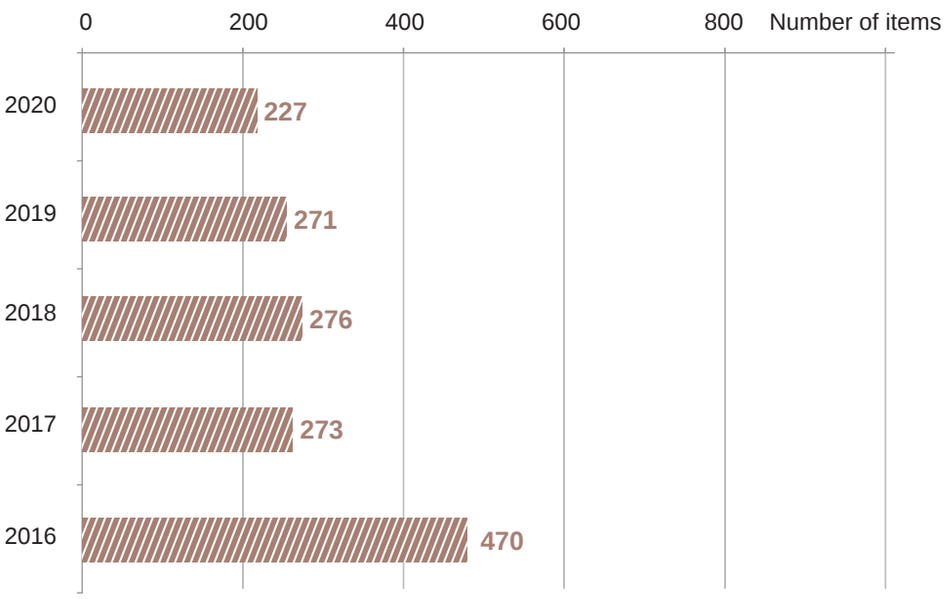


Figure 11.4

NUMBER OF NEW SUBSCRIPTION PERIODICALS IN THE COLLECTION



Moreover, in 2020, library subscribers were able to gain remote access to **2,974,559** items. To achieve this, the library provided access via coordinated national subscription to the databases provided by the Oxford Russia fund (e-library MyiLibrary). In addition, library subscribers were able to use open access electronic resources and such e-library systems as University Library Online, Student Assist, Lan Publishing, IPRbooks, and Urait. The library has subscribed to the electronic periodicals of IVIS. Due to the coronavirus pandemic, long-term test access to various digital library systems has been provided. The library continues to manage a full-text database "VSU E-Library".

The acquisition expenses amounted to **6,103,425 roubles 94 kopecks**.

The library's collection of rare documents includes about **100,000** items. It consists of unique Russian and foreign editions of the XVI–XXI centuries, represented by manuscripts, books, and periodicals.

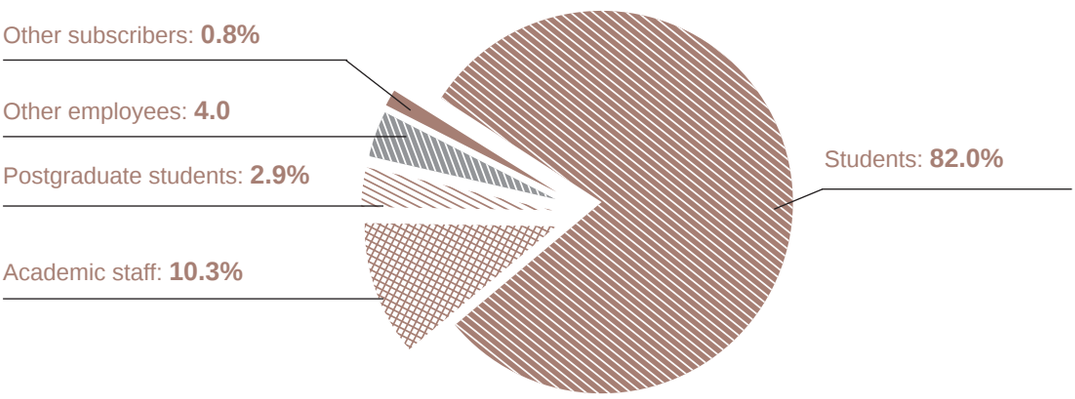
The library maintains its e-catalogue, which provides information about the items in the collection, and can be found on the library website. As of 1 December 2020, the catalogue contained **1,058,311** entries.

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 2020, the index included **217,739 entries**. To improve the university's academic and scientific rating, the library provides access to the Web of Science and SCOPUS databases and uploads the information about the VSU staff publications to the eLIBRARY database. As of 28 December 2020, the University was ranked 22nd among Russian universities by such an essential bibliometric parameter as the number of publications.

In 2020, there were **25,997 entries** in the unified registration catalogue of the library subscribers (Figure 11.5). Altogether, the library provided its services to **46,673 subscribers. 82,784 subscribers** were served remotely.

Figure 11.5

COMPOSITION OF THE LIBRARY SUBSCRIBERS IN 2020



In 2020, library subscribers were given access to **497,875 items** on physical media, whereas the number of items read online amounted to **1,848,361**.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THE “GALICHYA GORA” NATURE RESERVE

12

THE “GALICHYA GORA” NATURE RESERVE

N. Ya. Skolznev,
Director of the “Galichya Gora” nature reserve

PROGRESS REPORT FOR 2020

The research department of the “Galichya Gora” nature reserve currently includes four laboratories, collection funds (the Herbarium of the Central Russian Upland and Contiguous Territories, the Mycological Herbarium Reserve and the Collection of Invertebrates Reserve), and a meteorological station. In 2020, research projects were carried out by eight full-time specialists in accordance with the approved research program and plans.

The reserve’s staff continued to monitor the state and dynamics of the natural habitats. Such monitoring has been carried out continually since 1974. Materials for the 47th volume of “Nature records of the nature reserve “Galichya Gora”” have been collected and are being processed.

The general research topic “Scientific Basis and Methods for Conserving the Variety of Landscapes and Ecosystems of the Specially Protected Natural Areas in the Upper Don Region” was divided into nine subtopics covering the main biota taxons of the area: fungi, plants, invertebrate, and vertebrate animals.

The reserve’s collections have been enriched.

As a result of the research conducted in 2020, our scientists published the following works:

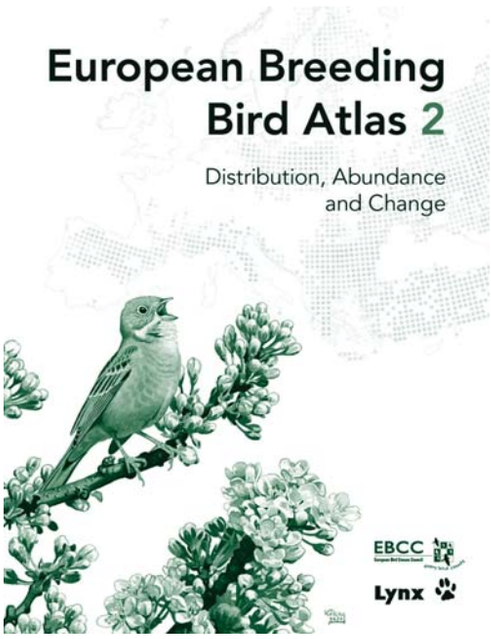
- 1 monograph (11.5 printed sheets),
- 1 study guide,
- 34 scientific articles, of which, 4 papers were published in the leading journals included in the list of referenced scholarly journals recommended by the State Commission for Academic Degrees and Titles of the Russian Federation, 24 papers were published in journals indexed by the Russian Science Citation Index, 6 were published in journals indexed by Web of Science, and 6 were published in journals indexed by Scopus.

The researchers took part in six international and federal conferences with eight reports.

The most important results of the work performed in 2020 include:

- Taking part in preparation of The Red Book of the Belgorod Region.
- Taking part in preparation of the European Breeding Bird Atlas.
- Taking part in preparation of the Breeding Bird Atlas of European Russia.

In 2020, experts affiliated with the Institute of Forest Studies of the Russian Academy of Sciences, the Russian Entomological Society, the Russian Geographical Society, the Russian Birds Conservation Union, and various Russian universities and state reserves, visited "Galichya Gora" in order to perform both individual and collaborative research.
The ornithologists of the "Galichya Gora" nature reserve became co-authors of the European Breeding Bird Atlas (European Breeding Bird Atlas 2: Distribution, Abundance and Change. European Bird Census Council & Lynx Edicions, Barcelona, 2020. – 960 p.).



SUBJECT INDEX

Translated by
Anastasiia Ananeva
Tatiana Borovkova
Irina Charychanskaya
Yulia Dymant
Valentina Mittova
Marina Strepetova

Edited by
Simon Cox