

# 2022

## ANNUAL REPORT

### FSFEI HE "VORONEZH STATE UNIVERSITY" 2022

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## **RECTOR'S ADDRESS**





## RECTOR'S ADDRESS



**D.A. Endovitsky,**  
Rector of Voronezh  
State University

This address prefaces the 2022 Annual Report regarding the main activities of the university and outlines the background of such activities and the conditions under which we sought to reach our objectives.

Needless to say, 2022 was a difficult year. It saw a deterioration of international developments, growing pressure from Western countries on Russia, including military involvement, and a growing number of sanctions against Russia, including sanctions against the rector of Voronezh State University. The special military operation, aimed at protecting the Donbass and ensuring the security of our own country, contrary to the aggressive plans of the West, has served as a stress test, which once again demonstrated that our university, as well as any other, is closely linked to the interests of the state and society and is eager to contribute to the common cause.

In 2022, the President of the Russian Federation, Vladimir Putin, paid close attention to the problems of education, science, and patriotic education of students. For the university administration, as well as for all university staff, it became an important milestone of the state policy and provided guidance in practical work.

The establishment of the Day of the Higher Education Teacher, which we celebrated for the first time in 2022, was an incentive for the university to develop the tradition of continuity and unity of generations of those who are entrusted with the power to teach and form the personalities of future specialists. It motivated the university to review the best teaching practices and raise awareness of the mission of a university teacher. It was the establishment of the professional day that encouraged the university administration to address the governor of the Voronezh Region and suggest founding a regional award "Honoured University Worker of the Voronezh Region". Starting in 2023, five university employees in the region will be granted the award.





In 2022, the university managed to combat the coronavirus infection. The education and research processes proceeded as usual, we gained new experience and learned important lessons. Nevertheless, we still grieve over the loss of a large number of our colleagues, and we are responsible for keeping their memory and continuing their work.

In 2022, Voronezh State University proved its status in the national and international higher education communities, which is confirmed by the results of a number of independent and prestigious rankings.

I should stress that even under adverse economic conditions, in the reporting period the university managed to increase its income by 18% (up to 3.3 billion roubles) as compared to 2021. The reporting period also saw positive changes in the average salary: the payroll budget of the university with staff compensation payments grew by 15.3% (up to 1.9 billion roubles) as compared to 2021.

In 2022, all staff members involved in various university activities assisted in countering terrorism, ideological extremism, and corruption. In 2023, we should pay equal attention to those dangers and be equally active in combating them.

Together with other Russian universities we are now working on the elimination of flaws in the education system that were identified. These flaws resulted from reforms being conducted without due critical assessment of western education models adopted in our country. There is still a long way ahead of us, and this work requires a thoughtful and thorough approach.

Following the objectives set for universities in the context of the special military operation, in 2022, the rector's office, faculties, and departments of the university paid increased attention to the training of specialists for the Ministry of Defence of the Russian Federation and defence industry enterprises, scientific studies aiming to increase the defence potential of the country, and patriotic education.



In the reporting year, the university was included in national research programmes in the field of electronics and communications. We also continued to open modern research laboratories and launched our traditional project aimed at providing faculties with modern classroom and laboratory equipment.

In 2022, we held the Innovation Cup competition. For the sixth time the university has won and obtained the status of the best innovative university in the Voronezh Region. In November 2022, VSU held a Congress of Young Researchers of the Voronezh Region, which was highly praised by the organisers and participants.

We achieved a lot, but the positive results should still be subjected to critical analysis, and all the objectives will remain equally important in 2023.

In 2022, we worked hard to strengthen and develop our collaboration with legislative and executive state organisations, public organisations in the region, industrial enterprises and business structures, schools and secondary vocational education institutions, and further education institutions.

In 2022, we also continued interaction with other universities. We participated in the work of the Russian Rectors' Union and its regional structure the Council of Rectors of the Voronezh Region, as well as in the work of interregional associations, including the Association of Higher Education Institutions of Central Russia and the Eurasian Association of Universities.

We managed to strengthen and develop partnership with education management units and universities in the CIS countries, and quickly and effectively re-oriented towards developing educational and scientific cooperation with Asian countries.



Therefore, I am happy to say that in 2022 we did not rest on our laurels and continued to move forward in accordance with the university's motto "Semper in motu". All this is the result of work of the university's subdivisions: faculties, departments, scientific divisions, the International Education Institute, the Military Training Centre, the Borisoglebsk branch, the Regional Scientific Library, the university's museums, the VSU Botanical Garden, the "Galichya Gora" reserve, recreation facility "Venevitinovo", the VSU Publishing House, and service divisions. Their contribution is demonstrated in this report.

At the same time, besides the achievements, each part of the report presents information about the actual resources we have and the challenges we should take into account in our further work.

The results of our work in 2022 should be critically analysed and used as a basis for solving the problems facing us today, as well as the ones ahead of us. I urge everyone to consider this report as a basis for further enhancement of efficiency and quality at every level, at every university division, and by all members of the university's community, including researchers, teachers, staff members, postgraduate and undergraduate students, and the university as a whole.

The president of the Russian Federation announced 2023 to be the Year of the Teacher and Mentor. This is an incentive to conduct our further work with great creativity and responsibility. I am sure we will manage to do so.

Summing up the results of 2022, we can adjust our strategic development plans and activities in accordance with the Presidential Address to the Federal Assembly made by Vladimir Putin on 21 February 2023. All staff members and heads of the university's subdivisions should pull together in their efforts to implement those plans.







# 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 the decision taken by the VSU Academic Council dated 28 September 2012 in accordance with the Charter of FSFEI HE VSU (sections 4.17, 4.20–4.32), and is one of VSU's management bodies.

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

As one of the university's management bodies whose activities are aimed at streamlining its operations, 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's 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 28 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,**
- **Evgeny Yurchenko.**

Secretary of the Board of Trustees:

- **Dmitry 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. **Tatiana Davydenko**, Vice Rector for Innovations of FSFEI HE *V.G. Shukhov Belgorod State Technological University*.
4. **Boris Danshin**, Director General of AO *Informsvyaz-Chernozemye* data provider.
5. **Dmitry Endovitskiy**, Rector of FSFEI HE *VSU*.
6. **Viktor Yenin**, Director General of *Perspektiva Group*.
7. **Valentin Ievlev**, Full Member of the Russian Academy of Sciences, Head of the Department of Materials Science and Nanotechnology of the Faculty of Chemistry of FSFEI HE *VSU*.
8. **Alexey Kamyshev**, Director General of AO *Voronezh industrial corporation (VInCo)* (the management company of both the industrial park “Maslovskiy”).
9. **Dmitriy Lapygin**, Director of Economic Affairs of OOO *RET*.
10. **Valeriy Lukinov**, Director General of OOO *Stel-Invest*.
11. **Mikhail Mamuta**, Head of Consumer Rights Protection and Financial Services Accessibility Service, Bank of Russia.
12. **Nadezhda Mazalova**, General Director of OOO *Region-Terminal*.
13. **Mikhail Moskaltsov**, Deputy Head of the Voronezh branch of *VTB*.
14. **Mikhail Nosyrev**, President of ZAO *Spartak Cinema*.
15. **Alexey Ponomarev**, Vice President for Strategy & Industrial Cooperation of the Skolkovo Institute of Science and Technology (Moscow).
16. **Edgars Puzo**, Director General of *Atos IT Solutions and Services* LLC.
17. **Igor Risin**, Associate member of the Russian Academy of Natural Sciences, Head of the Department of Regional Economics and Territorial Administration of FSFEI HE *VSU*.
18. **Alexander Sokolov**, Director General of OAO *Lipetsk Bus Lines*.
19. **Denis Stoliarov**, Vice Rector for Student Affairs at the Skolkovo Institute of Science and Technology (Moscow).
20. **Natalia Tretyak**, First Vice President of AO *Gazprombank*.



21. **Stephen Hagen**, Honorary Professor of the University of South Wales and a higher education expert of the European Commission (Great Britain).
22. **Andrey Khitskov**, Director of the *Voronezhsky Prio-Vneshtorgbank* operations office.
23. **Natalia Tsaitler**, Chairperson of the Central Black Earth Branch of PAO *Sberbank*.
24. **Valeriy Chernikov**, Board Chairman of AO *Insurance Business Group*.
25. **Gennadiy Chernushkin**, Founder of *Angstrem Group*.
26. **Elena Chupandina**, First Vice Rector – Vice Rector for Academic Affairs of FSFEI HE *VSU*.
27. **Anatoliy Shmygalev**, Deputy of the VII Voronezh Regional Duma.
28. **Evgeniy Yurchenko**, Chairman of A.S. Popov Investment Fund (Moscow).

There were no offline meetings of the Board of Trustees in 2022. All the issues regarding the development of the university were discussed during bilateral meetings and online meetings.

The following issues were discussed:

- Developing VSU's innovative infrastructure.
- Opening joint educational and research laboratories together with the industrial partners of the university.
- Presenting the innovative projects by VSU scholars.
- VSU's participation in regional and federal grant competitions.

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](http://www.vsu.ru))





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

### MEMBERS OF THE 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, Innovations, and Digitisation.
- 6. Larisa KOROBEGINIKOVA,**  
Vice Rector for Economics and Contract Services.
- 7. Nikolai BRYANTSEV,**  
Vice Rector for Building Operation and Capital Development.
- 8. Leonid AKIMOV,**  
Head of the Department of Nature Management of the Faculty of Geography, Geocology, and Tourism.
- 9. Alla AKULSHINA,**  
Head of International Relations Office.
- 10. Elena ALEKSEEVA,**  
Head of the Department of French Philology of the Faculty of Romance and Germanic Philology.
- 11. Alexander ALBEKOV,**  
Head of the Department of Mineralogy, Petrology, and Geochemistry of the Faculty of Geology.
- 12. Alexander BELANOV,**  
Head of the Department of Physical Education and Sports.
- 13. Oleg BELENOV,**  
Dean of the Faculty of International Relations.
- 14. Olga BORISKINA,**  
Dean of the Faculty of Romance and Germanic Philology.



**15. Lidia BORISOVA,**

Associate Professor at the Department of Translation and Professional Communication of the Faculty of Romance and Germanic Philology.

**16. Maria BURLUTSKAYA,**

Dean of the Faculty of Mathematics.

**17. Lyudmila VLADIMIROVA,**

Head of the trade union of the university employees.

**18. Alexey VLASOV,**

Head of the University Dormitory Complex Administration.

**19. Karina GAIDAR,**

Head of the Department of General and Social Psychology of the Faculty of Philosophy and Psychology.

**20. Vladimir GLAZIEV,**

Dean of the Faculty of History.

**21. Alexandra GLUKHOVA,**

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

**22. Zhanna GRACHEVA,**

Dean of the Faculty of Philology.

**23. Tatiana DEVYATOVA,**

Head of the Department of Ecology and Land of the Faculty of Medicine and Biology.

**24. Evelina DOMASHEVSKAYA,**

Consulting Professor at the Department of Solid State and Nanostructure Physics of the Faculty of Physics.

**25. Valentin IEVLEV,**

Head of the Department of Materials Science and Nanosystems Technologies of the Faculty of Chemistry, member of the Russian Academy of Sciences.

**26. Alexander KAZHIKIN,**

Associate Professor at the Department of Public Relations, Advertising, and Design of the Faculty of Journalism.



- 27. Pavel KANAPUKHIN,**  
Dean of the Faculty of Economics.
- 28. Ludmila KOLTSOVA,**  
Head of the Department of the Russian Language of the Faculty of Philology.
- 29. Lyudmila KONOVALOVA,**  
Head of the Department of Academic Staff Assessment.
- 30. Yury KORENCHUK,**  
Head of the Military Training Centre.
- 31. Vladimir KOSTIN,**  
Professor at the Department of Mathematical Modelling of the Faculty of Mathematics.
- 32. Liubov KOT,**  
Associate Professor at the Humanities Department  
of the International Education Institute.
- 33. Artem KRIVOSHEYEV,**  
Head of the Planning and Finance Department.
- 34. Alexander KRYLOVETSKY,**  
Dean of the Faculty of Computer Sciences.
- 35. Andrey KUDRYAVTSEV,**  
Associate Professor at the Department of Criminal Procedure of the Faculty of Law.
- 36. Olga Kupryushina,**  
Associate Professor at the Department of Economic Analysis and Audit  
of the Faculty of Economics.
- 37. Semyon KUROLAP,**  
Dean of the Faculty of Geography, Geoecology, and Tourism.
- 38. Sergey MEDVEDEV,**  
Associate Professor at the Department of Computational Mathematics  
and Applied Information Technologies of the Faculty of Applied Mathematics,  
Informatics, and Mechanics.
- 39. Arkadiy MINAKOV,**  
Professor at the Department of Russian History of the Faculty of History.
- 40. Grigoriy NAGIRNYAK,**  
Director of the Training Swimming Pool.
- 41. Viktor NENAKHOV,**  
Dean of the Faculty of Geology.
- 42. Tamara NIKONOVA,**  
Head of the Department of Russian Literature of XX–XXI Centuries and the Theory  
of Literature and Humanities of the Faculty of Philology.



- 43. Elena NOSYREVA,**  
Head of the Department of Civil Law and Procedure of the Faculty of Law.
- 44. Oleg OVCHINNIKOV,**  
Dean of the Faculty of Physics.
- 45. Ekaterina PLOTNIKOVA,**  
Head of the Borisoglebsk Branch of Voronezh State University.
- 46. Tatiana POPOVA,**  
Dean of the Faculty of Medicine and Biology.
- 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 Economic Security and Accounting of the Faculty of Economics.
- 50. Vladimir SELEMENEV,**  
Consulting Professor at the Department of Analytical Chemistry of the Faculty of Chemistry.
- 51. Viktor SEMYONOV,**  
Dean of the Faculty of Chemistry.
- 52. Alexander SIROTA,**  
Head at the Department of Information Security and Processing Technologies of the Faculty of Computer Sciences.
- 53. Nikolay SKOLZNEV,**  
Director of the Galichya Gora reserve.
- 54. Yury STARILOV,**  
Dean of the Faculty of Law.
- 55. Andrey STARTSEV,**  
Chairman of the Students' Union.
- 56. Olga TRINEEVA,**  
Associate Professor at the Department of Pharmaceutical Chemistry and Pharmaceutical Engineering of the Faculty of Pharmaceutics.
- 57. Vladimir TULUPOV,**  
Dean of the Faculty of Journalism.



**58. Olga URYVSKAYA,**

Chief Accountant.

**59. Konstantin FEDUTINOV,**

Engineer at the computer equipment laboratory.

**60. Ekaterina TSEBEKOVA,**

Associate Professor at the Department of International Economics and International Business of the Faculty of International Relations.

**61. Viktor SHAMAEV,**

Professor at the Department of General Military Training of the Military Training Centre.

**62. Khidmet SHIKHALIEV,**

Head of the Department of Organic Chemistry of the Faculty of Chemistry.

**63. Igor SHUMSKIKH,**

VSU main building officer.

**64. Viktoria DOROKHINA,**

PhD student of the Faculty of Pharmaceutics.

**65. Matvey MIKHALSKY,**

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

**LIST OF KEY ISSUES CONSIDERED BY THE ACADEMIC COUNCIL IN 2022-23****AUGUST (extended meeting)**

1. Rector's address to the university's employees regarding the objectives for the 2022-23 academic year (executive in charge – D. Endovitsky).
2. Approving the educational programmes implemented by the university (executive in charge – E. Chupandina).

**SEPTEMBER**

1. The 2022 admission campaign: results. Objectives of the 2023 admission campaign (executive in charge – E. Chupandina).
2. Cold weather adaptation of the university buildings and facilities in 2022-2023 (executive in charge – N. Bryantsev).
3. Level of anti-terrorism security at the university (executive in charge – A. Logunov).



## OCTOBER

1. The results of educational activities in higher professional and secondary vocational education programmes in 2021-22. Objectives of the educational activities of the university in 2022-2023 (executive in charge – E. Chupandina).
2. Approving the admission rules for the main academic programmes offered by VSU in 2023. Allocating the admission quotas among the programmes (executive in charge – E. Chupandina).
3. The results of the purchasing of goods, works, and services in 2022 and formation of the unified time-schedule for purchases for 2023 (executive in charge – L. Korobeinikova).

## NOVEMBER

1. Report on the implementation of the financial management system of the university in 2022 and approving the plan for its improvement in 2023 (executive in charge – L. Korobeinikova).
2. Report on the condition of the university's property assets in 2022 and updating the programme of their modernization in 2023 (executive in charge – N. Bryantsev).
3. Awarding academic titles (executive in charge – M. Lopaeva).

## DECEMBER

1. International collaboration: results for 2022, main objectives for 2023 (executive in charge – A. Akulshina).
2. Report on the implementation of the plan of financial and business operations in 2022 and approving the plan of financial and business operations for 2024-2025 (executive in charge – L. Korobeinikova).
3. Report on the performance of the International Education Institute (executive in charge – V. Rodionov).
4. Awarding badges of honour (executive in charge – Yu. Bubnov).

## JANUARY

1. Report on the results of the university's research and innovative performance in 2022 and prospective directions of development in 2023 (executive in charge – O. Kozaderov).
2. Graduate employability: the results for 2022. Employer-sponsored training programmes: current situation and issues (executive in charge – D. Zhukalin).
3. Competition, election (executive in charge – Yu. Bubnov).



## FEBRUARY

1. Agenda of the conference of employees and students of Voronezh State University (executive in charge – O. Grishaev).
2. Report on the university's social development in 2022, and approving the plan for 2023 (executives in charge – O. Grishaev and L. Vladimirova).
3. Inclusive education at the university: current state, problems. Approving the plan of developing university facilities for people with disabilities in 2023 (executive in charge – O. Grishaev).
4. Dissertation boards: results (executive in charge – O. Kozaderov).
5. Awarding academic titles (executive in charge – M. Lopaeva).

## MARCH

1. Digitalisation of the university: situation in 2022 and the plan of digital transformation for 2023 (executive in charge – O. Kozaderov).
2. Report regarding the implementation of the plan for anti-corruption measures at the university in 2022, and the plan for 2023 (executive in charge – A. Kudriavtsev).
3. Awarding badges of honour (executive in charge – Yu. Bubnov).

## APRIL

1. Rector's report on the results of the university's performance in 2022 (executive in charge – D. Endovitsky).
2. Approving the tuition fees for each of the categories of university students in the 2022-23 academic year (executive in charge – L. Korobeinikova).

## MAY

1. Report on the student affairs at the university in 2022, and approving the plan for the next academic year (executive in charge – O. Grishaev).
2. Report on the work with young people in 2022 (executive in charge – E. Tsebekova).
3. Report on the availability of the academic training facilities (Venevitinovo, Nickel, Galichya Gora) (executive in charge – N. Bryantsev).

## JUNE

1. Report on the implementation of the University's Strategic Development Plan in 2022 (executive in charge – Yu. Bubnov).
2. Approving the educational programmes implemented by the university for 2023-24 (executive in charge – E. Chupandina).
3. The implementation of the Academic Council's decisions in 2022-23, and approving the plan for the council's activities in 2023-24 (executive in charge – E. Chupandina).
4. Competition, election (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 977 research papers and works. Advisor for 4 postdoctoral and 67 PhD theses.

**Phone: +7 (473) 220-75-22**

**E-mail: rector@vsu.ru**

### First Vice Rector – Vice Rector for Academic Affairs

#### **Elena CHUPANDINA**

DSc in Pharmaceutical Sciences, Professor, Dean of the Faculty of Pharmaceutics, Head of the Department of Economics and Management in Pharmaceutics and Pharmacognosy. The author of 381 research papers and works. Advisor for 4 PhD theses.

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**E-mail: chupandina@vsu.ru**

### Vice Rector for Research, Innovations, and Digitisation

#### **OLEG KOZADEROV**

DSc in Chemistry, Associate Professor, Head of the Department of Physical Chemistry. The author of 223 research papers and works.

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### **Vice Rector for Economics and Contract Services**

#### **Larisa KORBEINIKOVA**

PhD in Economics, Associate Professor, Head of the Department of Economic Analysis and Audit. The author of 574 research papers and works, including 5 monographs. Advisor for 2 PhD theses.

**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 165 research papers and works. Advisor for 1 postdoctoral and 10 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 120 research papers and works. Advisor for 1 PhD theses.

**Phone: +7 (473) 239-06-86**

**E-mail: grishaev@vsu.ru**

### **Vice Rector for Facilities and Capital Development**

#### **NIKOLAI BRYANTSEV**

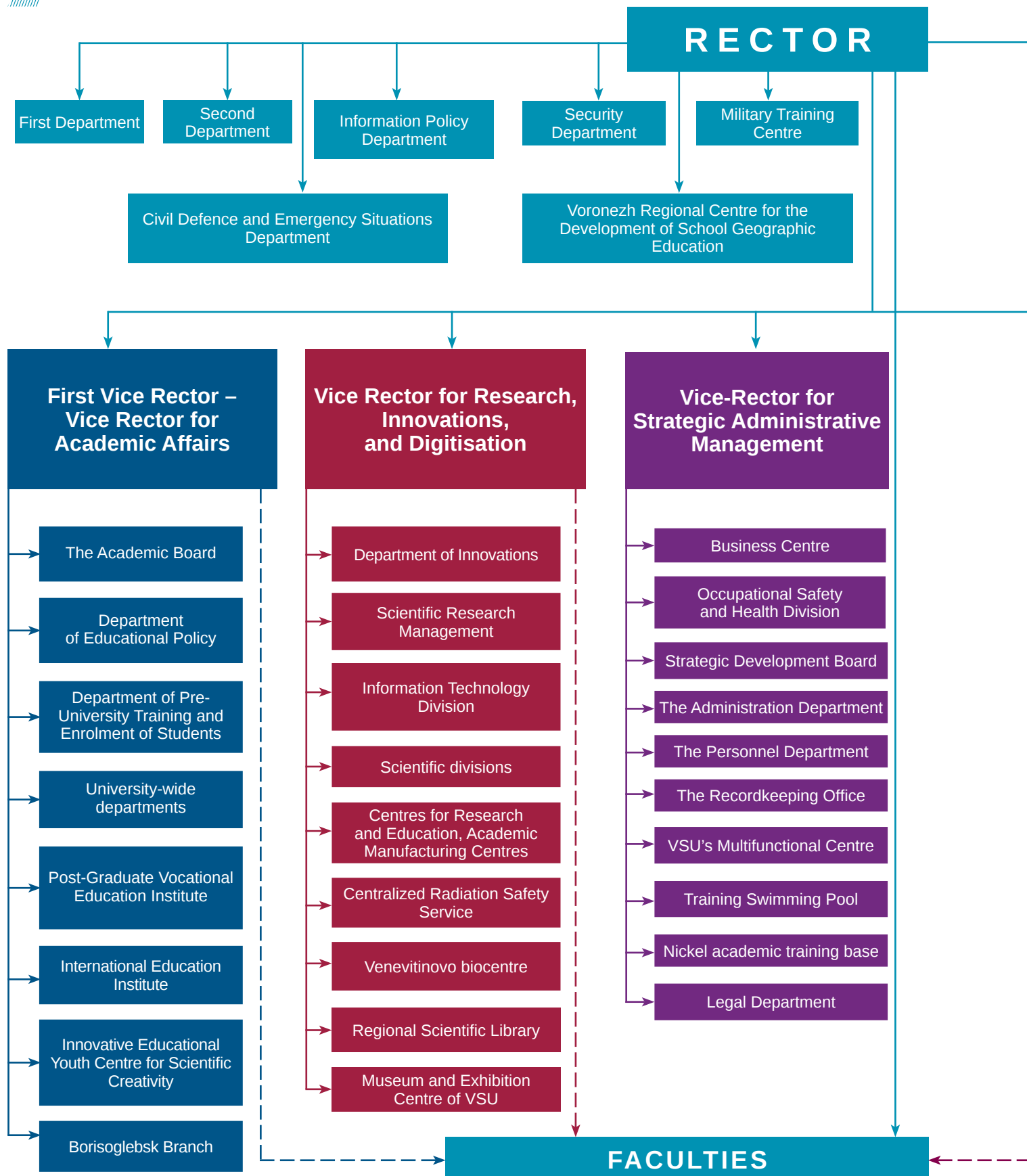
Area of expertise - industrial and civil construction. Over 20 years of experience in the sphere.

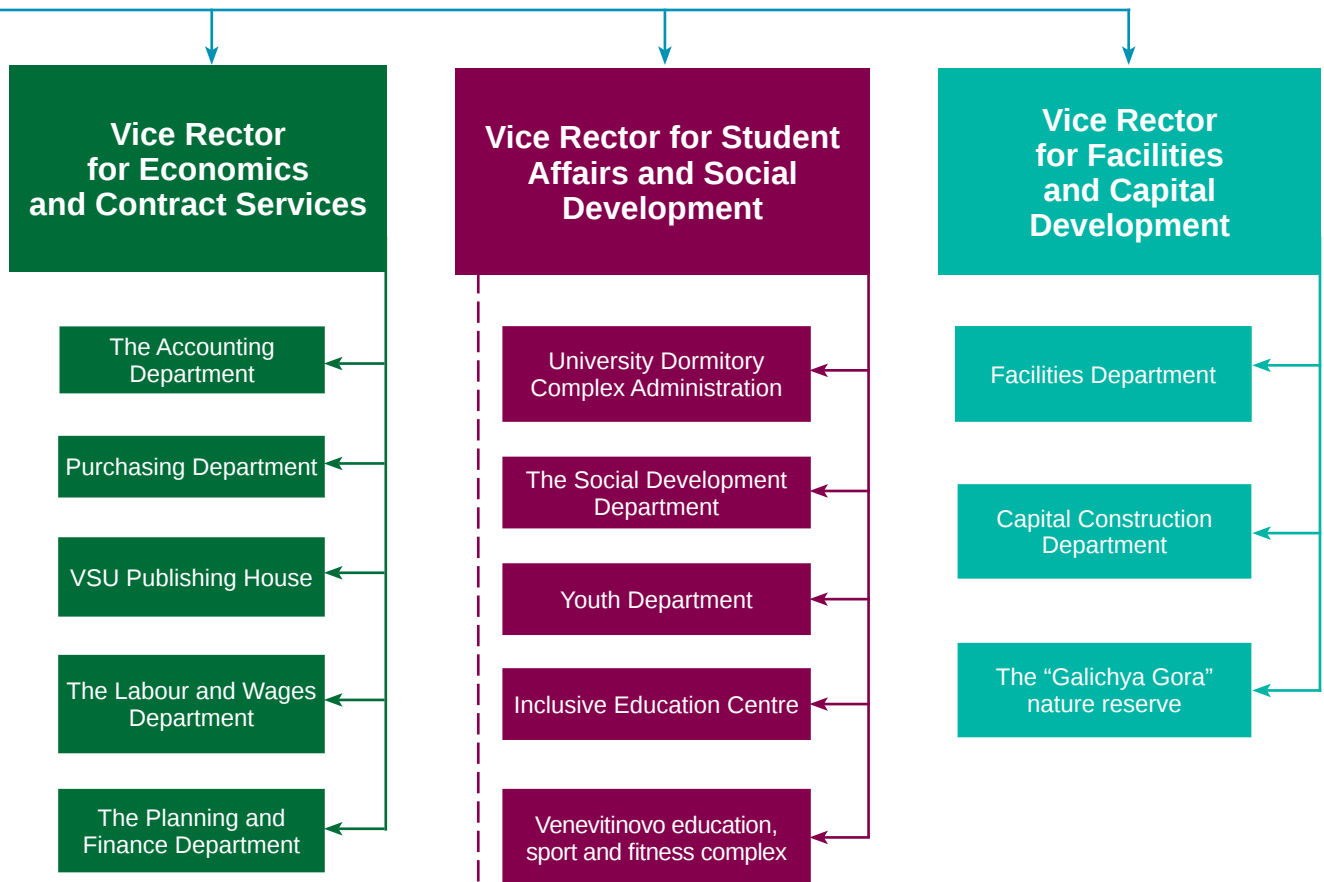
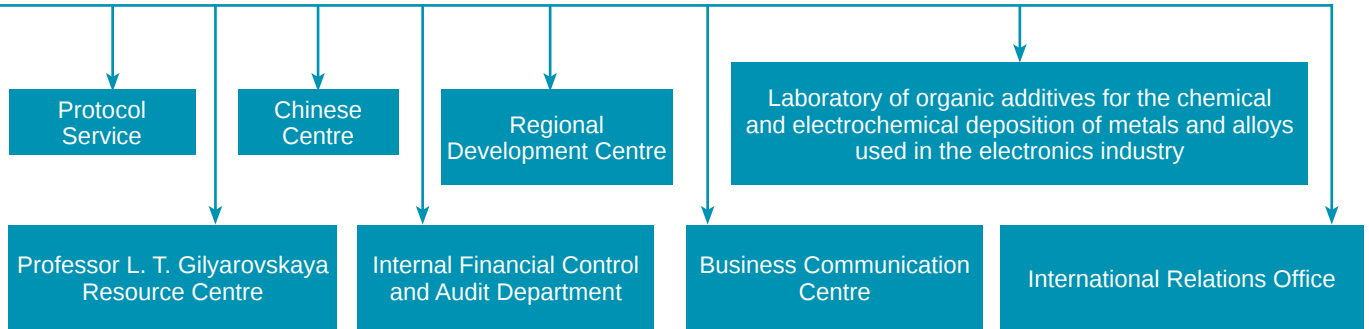
**Phone: +7 (473) 220-75-18**

**E-mail: bryantsev@vsu.ru**



## 2.4. THE GENERAL STRUCTURE OF VORONEZH STATE UNIVERSITY



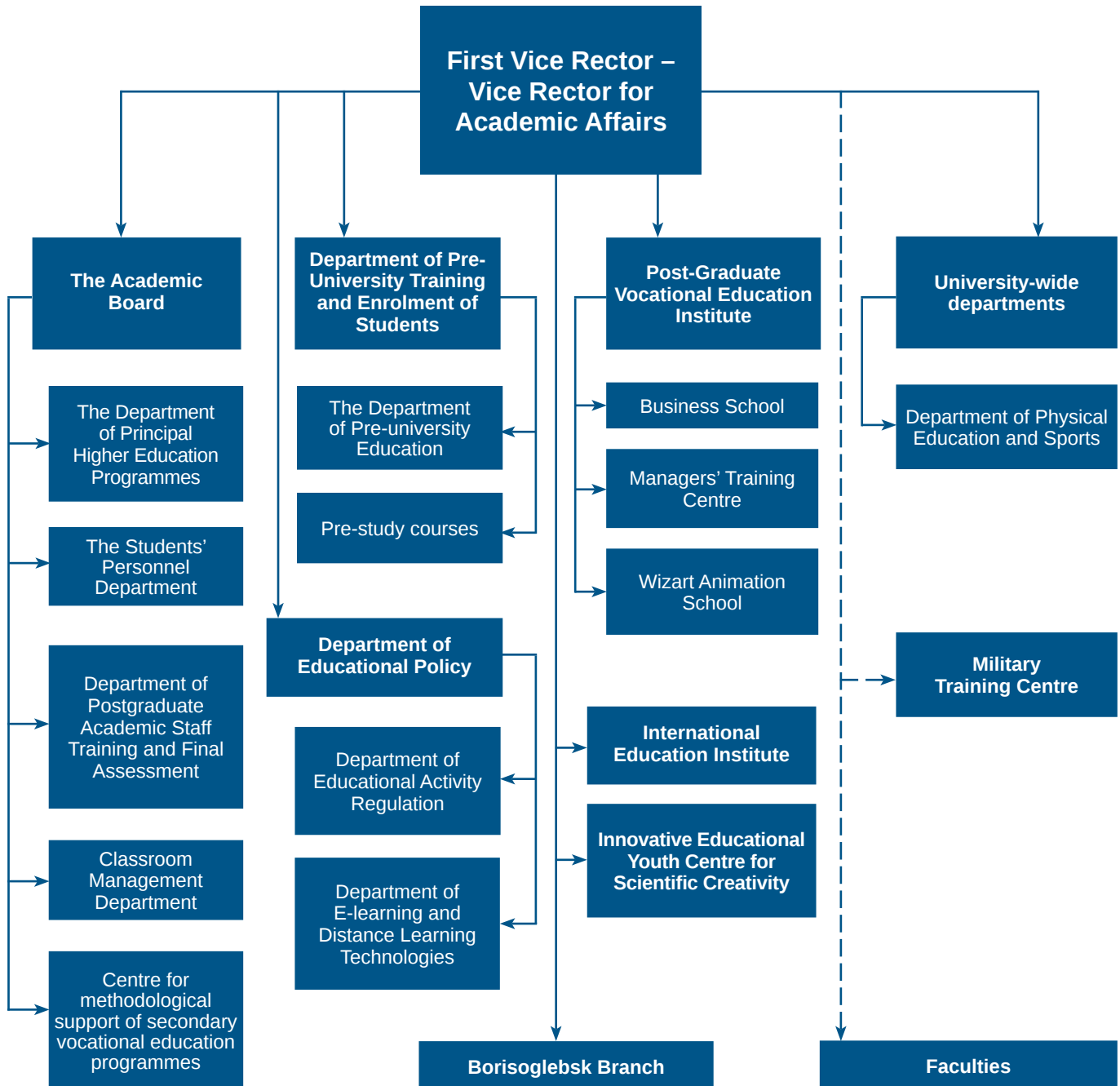


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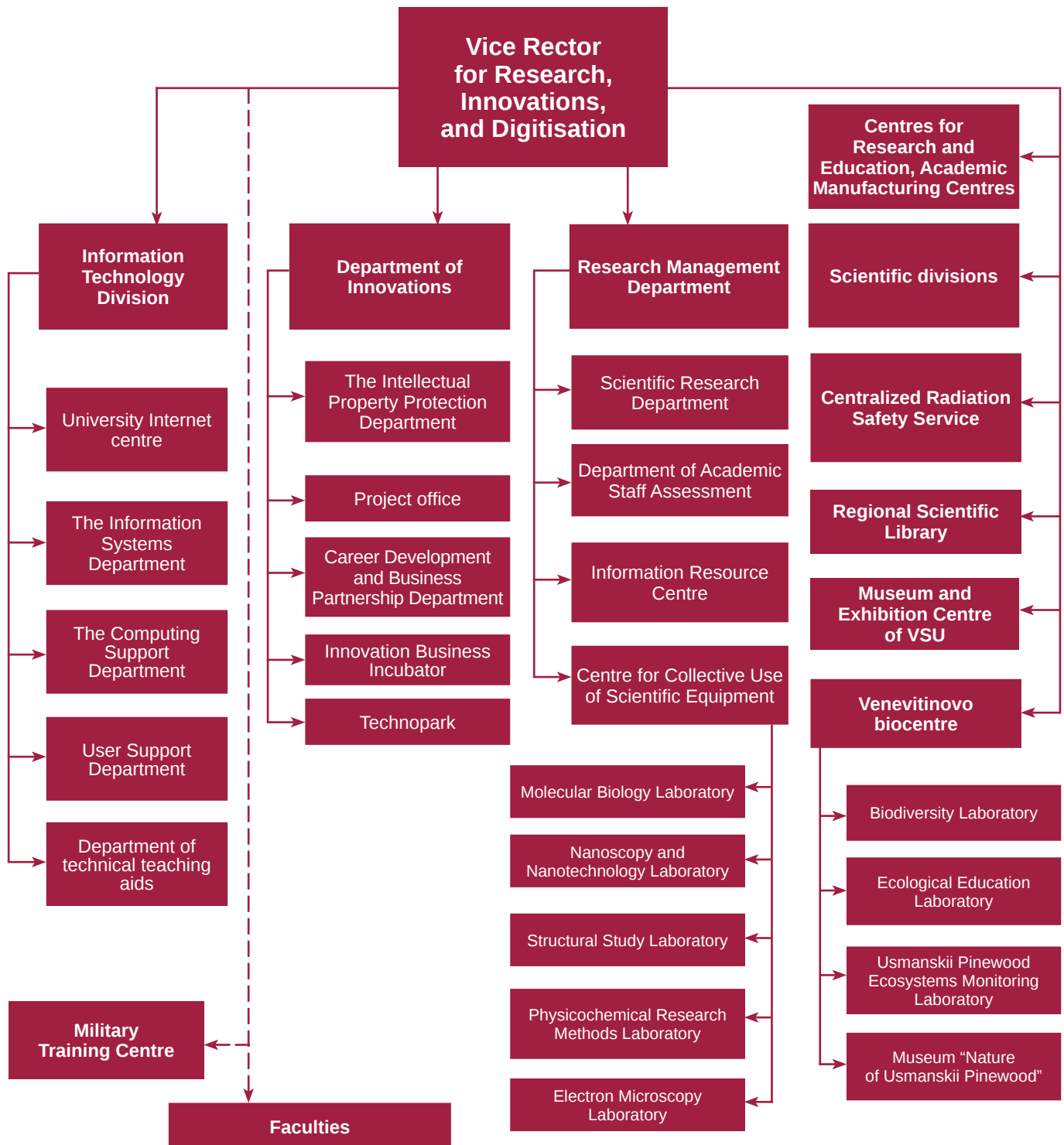


## 2.5. MANAGEMENT STRUCTURE OF THE FIRST VICE RECTOR – VICE RECTOR FOR ACADEMIC AFFAIRS



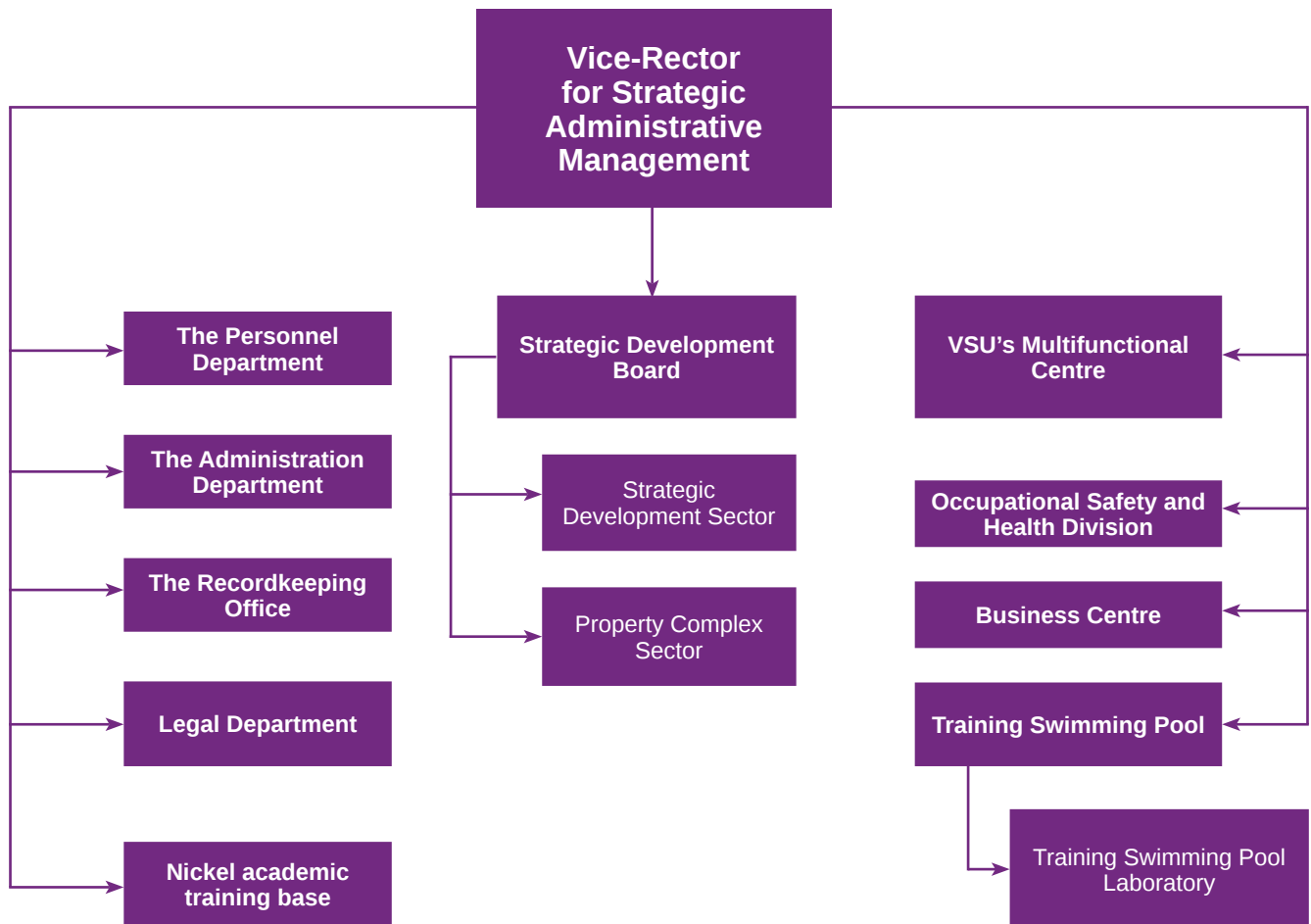


## 2.6. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR RESEARCH, INNOVATIONS, AND DIGITISATION



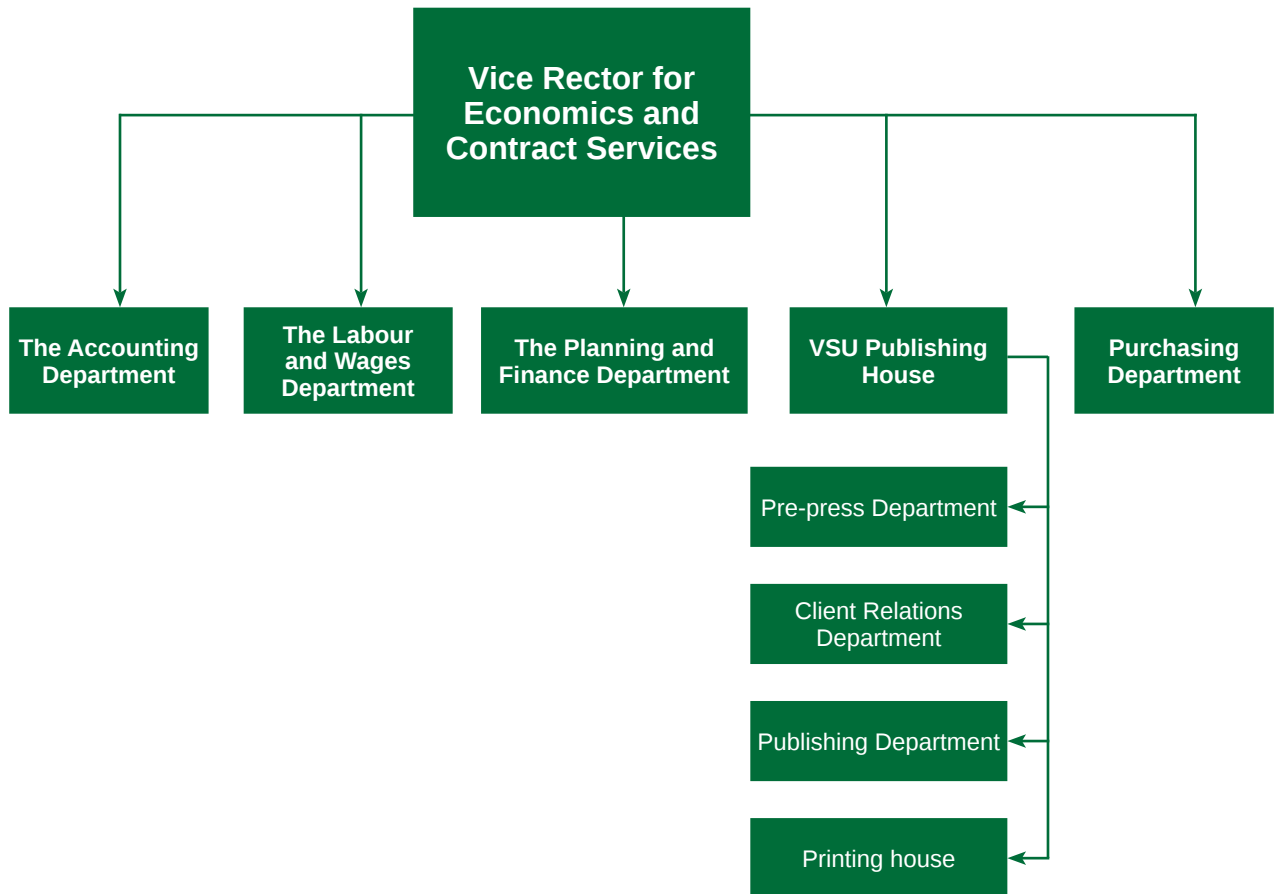


## 2.7. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STRATEGIC ADMINISTRATIVE MANAGEMENT



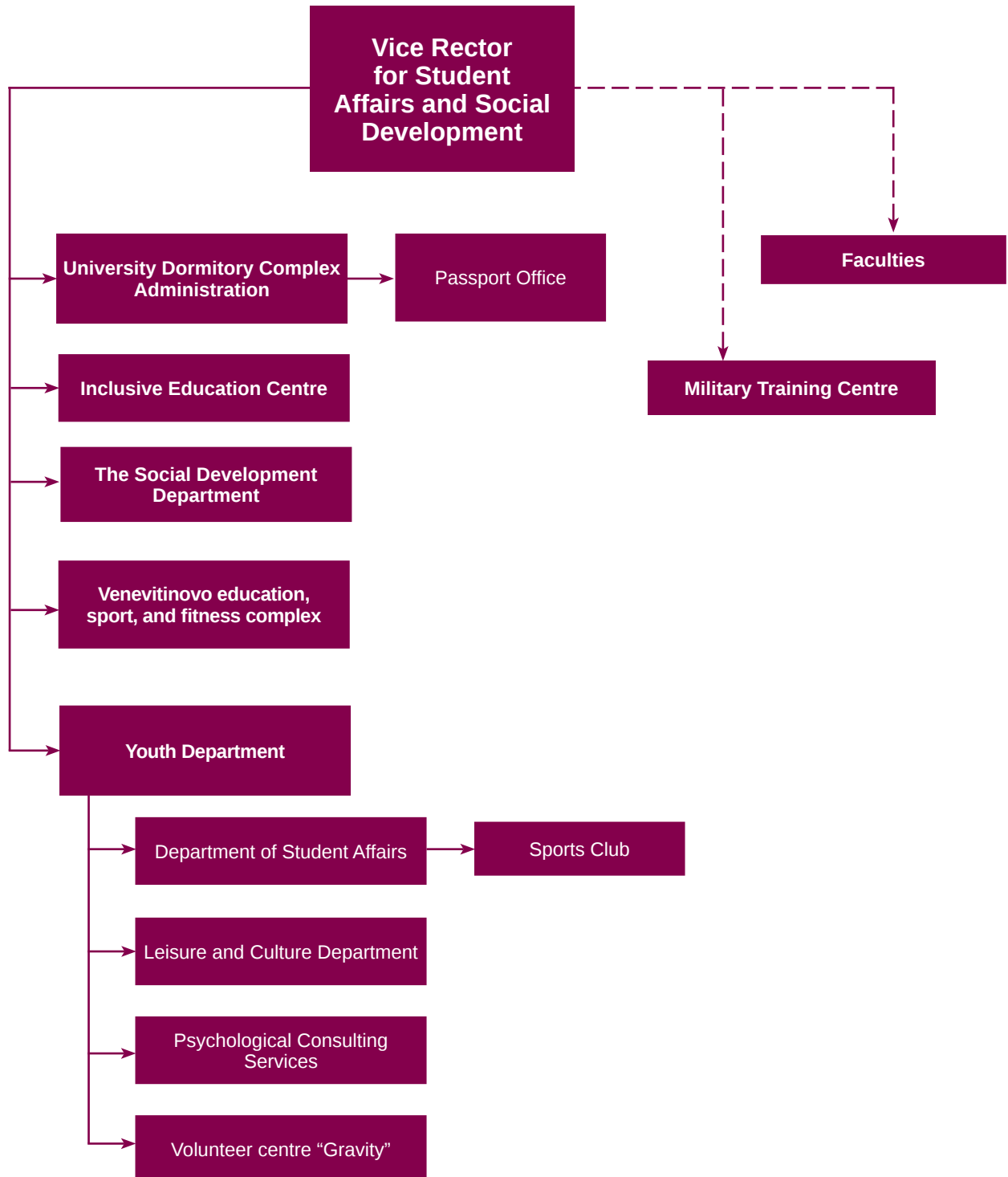


## 2.8. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR ECONOMICS AND CONTRACT SERVICES



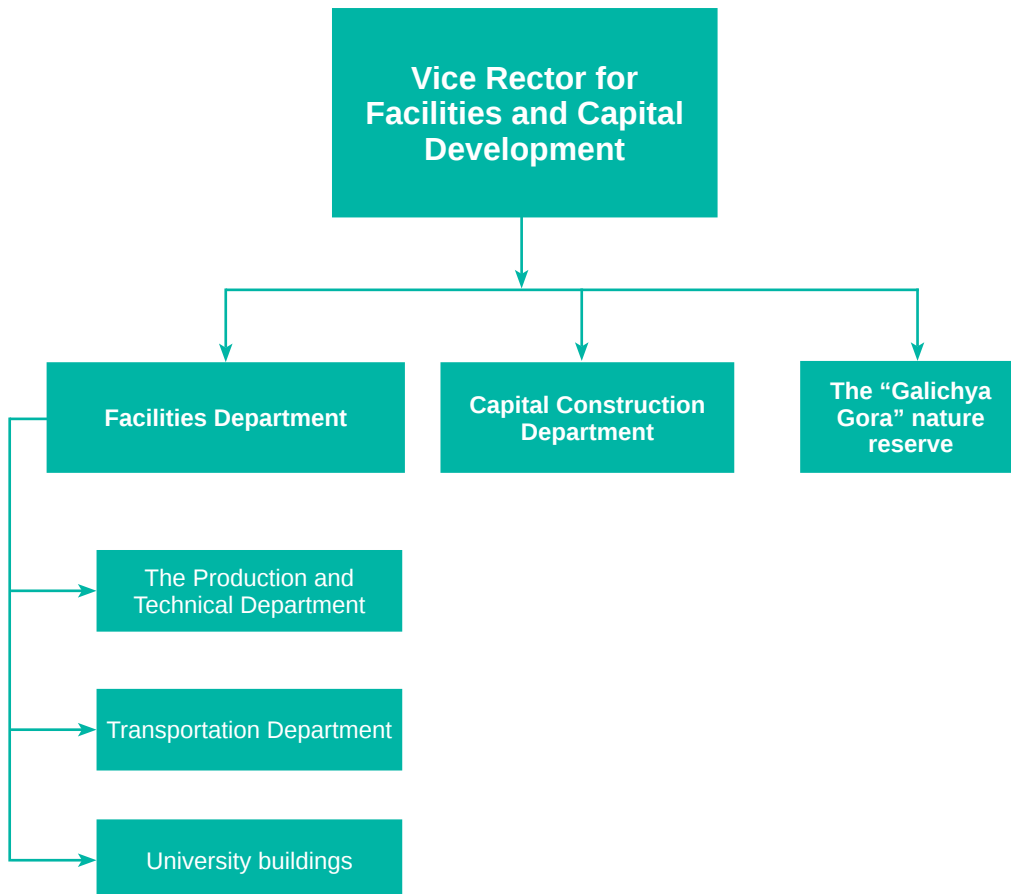


## 2.9. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STUDENT AFFAIRS AND SOCIAL DEVELOPMENT





## 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

### THE FACULTY OF HISTORY

Dean **Vladimir GLAZIEV**

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

### FACULTY OF MATHEMATICS

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 **Yuriy KORENCHUK**

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# UNIVERSITY STRATEGIC DEVELOPMENT





# 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 in order 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 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 roadmap of events aimed at VSU's transformation into Voronezh Regional University Centre, as well as meeting the target performance indicators (as part of the Transformation Program).
- VSU 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 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, 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. Modernising 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.
- Launching 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.
- Launching new social and technology-oriented entrepreneurship programs.
- Implementing further education programmes through the university's Electronic Education System.
- Collaborating with organisations working in the area of employment assistance and entrepreneurship development.

In 2022, 14 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 outputs:**

- 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.
- Organisational and informational support for the academic mobility of scholars.

#### **5. Integrating with the regional system of innovative development:**

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

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

- Continuous improvement of the criteria for the 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.

### **3.2. ACHIEVEMENT OF TARGET PARAMETERS IN 2022**

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 2022 compared to those for 2020 and 2021, as well as those planned for 2022.

Based on the performance indices, we can say that the university is developing in accordance with Priority Development Areas in Science, Technology, and Engineering in the Russian Federation. Taking into account the unparalleled external pressure on the economy of the Russian Federation and specifically on the education system, the Ministry of Science and Higher Education has developed methodological recommendations for the design of new development programmes until 2032. The university is to start the modernisation of its development programme in 2023. All the key indicators and target values will be set in accordance with the current geopolitical situation and the tendencies in science and higher education.

Table 3.1

## KEY INDICATORS OF VSU'S DEVELOPMENT IN 2022

Indicator	2020 (factual)	2021 (factual)	2022 (planned)	2022 (factual)
<b>Educational activity</b>				
The number of students enrolled in bachelor's, specialist's, and master's degree programmes	16,470	18,217	18,400	19,120
The total number of postgraduate students	544	522	590	468
The percentage of students in master's degree and postgraduate programmes in the total number of the given contingent, %	16	14	21.5	14
The percentage of international students enrolled in bachelor's, specialist's, and master's degree programmes, in the given contingent, %	5.6	5.87	6.2	6.4
The percentage of international postgraduate students, %	12.3	12.4	10.5	11.75
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	0	3	0
<b>Scientific Research and Innovative Activity</b>				
The total amount of R&D in the reporting year, million roubles	220.5	327.1	280	341.7
Income from R&D per faculty member, thousand roubles	170.4	209	196.5	204
Total amount obtained in the reporting year from the Russian state foundations supporting scientific and technical research and innovations, million roubles	121.05	142.43	100	116
The number of publications in Web of Science in the reporting year per 100 academic staff members	24.26	19.6	21.1	24
The number of publications in Scopus in the reporting year per 100 academic staff members	40.65	33.73	29.8	50
The number of citations of the publications issued in the last five years, indexed in Web of Science in the same period	3,562	4,032	2,625	–
The number of citations of the publications issued in the last five years, indexed in Scopus in the same period	3,605	2,475	3,345	–
The number of publications made in collaboration with foreign scholars, according to Web of Science and Scopus, in the reporting year	89	90	80	47
The number of doctoral and PhD dissertations defended at VSU dissertation boards	53	55	140	77
<b>University staff members</b>				
The total number of the regular FTE staff members as of the end of the reporting period	1,294	1,289	1,320	1,288
The total number of regular academic staff members as of the end of the reporting period	48	49	105	39
The share of the academic staff members having a PhD or a DSc degree, %	73.68	73.3	77.5	71
The share of foreign citizens as a percentage of the total number of academic staff members, %	0.14	0.06	0.5	0
The number of academic staff members who are foreign citizens	2	1	6	0

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 Web of Science and Scopus databases are currently not available for education institutions in Russia, and therefore it is impossible to assess the citation indices of the publications issued in the last five years.

It should also be noted that there was no growth in the total number of regular research staff members as of the end of the reporting year, which is indicative of a decrease in the number of grants obtained by faculty members (possible reasons: withdrawal of the grants by the Russian Science Foundation for joint projects with international research teams and a decrease in the amount of funding obtained from the Russian Foundation for Basic Research and Russian Foundation for Basic Research).



### 3.3. VSU'S PERFORMANCE IN INTERNATIONAL AND NATIONAL UNIVERSITY RANKINGS

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

Table 3.2

#### VSU'S POSITIONS IN NATIONAL AND INTERNATIONAL RANKINGS

Name of the ranking	2022
Interfax National University Rating:	49-50
Education	24-25
Research	85-87
Socialisation	71
Cooperation	46-47
Brand	29
Innovations	80
International ranking of the best universities published by Forbes	48
Russian universities' patent activity rating ("Expert RA")	75-83
Top Russian universities:	
Mathematics and natural sciences	32
Engineering	48
Expert RA Rating "Top-100 Universities of Russia"	43
Education quality	44
Employers' demand for graduates	65
Research	28
Ranking of classical universities "National Recognition": best universities - 2022	20
Ranking of most demanded universities of the Russian Federation: classical universities (Social navigator "Rossiya Segodnya")	42
"National Recognition" ranking of Russian universities: best universities - 2022	26
Top Russian universities, according to the Vladimir Potanin Foundation	15
International ranking "Three university missions"	1201-1300
Ranking of Russian universities by the salaries of young specialists, according to Superjob:	
Technical universities	20
Economic universities	15
Law universities	8
Ranking of English-language versions of Russian university websites 2022	18
The rating of the most popular universities in the Russian Federation (Ministry of Education of the People's Republic of China)	15
2022 National Aggregate Ranking:	Top-100 1st league
Interfax National University Rating	A
"First Mission" ranking	C
RAEX university rankings	C
Ranking by the Hirsch index	A
Ranking by the results of university efficiency monitoring	A
"Assessment of the quality of education" ranking	C
Ranking by the results of the professional and public accreditation	C



End of table 3.2

Name of the ranking	2022*
“International Recognition” ranking	C
Forbes ranking	C
“National Recognition” ranking	A
Superjob ranking	A
Head Hunter ranking of the best universities in Russia	50
Academic Ranking of World Universities (ARWU)	1,001+
Quacquarelli Symonds (QS) World University Ranking	1,001-1,200
Times Higher Education (THE) World University Ranking	1,501+
Times Higher Education (THE) World University Ranking by subject: physical sciences	1,001+
Times Higher Education (THE) BRICS & Emerging Economies University Rankings	501+
Times Higher Education (THE) University Impact Rankings	801-1,000
No Poverty	301-400
Good Health and Wellbeing	601-800
Quality Education	1,001+
Gender Equality	401-600
Clean Water and Sanitation	401-600
Affordable and Clean Energy	401-600
Decent Work and Economic Growth	201-300
Industry, Innovation, and Infrastructure	301-400
Reduced Inequalities	601+
Sustainable Cities and Communities	601+
Responsible Consumption and Production	401-600
Climate Action	401-600
Life below water	301-400
Life on Land	301-400
Peace, Justice, and Strong Institutions	301-400
Partnership for the Goals	1001+
SCImago Institutions Ranking (SIR)	579
University Ranking by Academic Performance (URAP)	2,820 (RF: 37)
Webometrics Ranking of World Universities	2,268 (RF: 34)
UniRank World Universities	1,716 (RF: 26)
Round University Ranking (RUR)	745 (RF: 43)
Life Sciences	547 (RF: 28)
Medical Sciences	589 (RF: 28)
Natural Sciences	605 (RF: 38)
Social Sciences	605 (RF: 43)
Humanities	542 (RF: 28)
Technical Sciences	647 (RF: 39)
Round University Ranking (RUR) Reputation Ranking	634 (RF: 37)
Round University Ranking (RUR) Academic Ranking	776 (RF: 47)
UI GreenMetric World University Ranking	237 (RF: 7)
Academic Ranking of World Universities – European Standard (ARES)	21
Worldwide Professional University Ranking (RankPro)	626 (RF: 19)

\* 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, standardised 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 2022, Voronezh State University was included in the group of institutes that achieved at least four performance indicators (Table 3.3, Figure 3.1).

Table 3.3

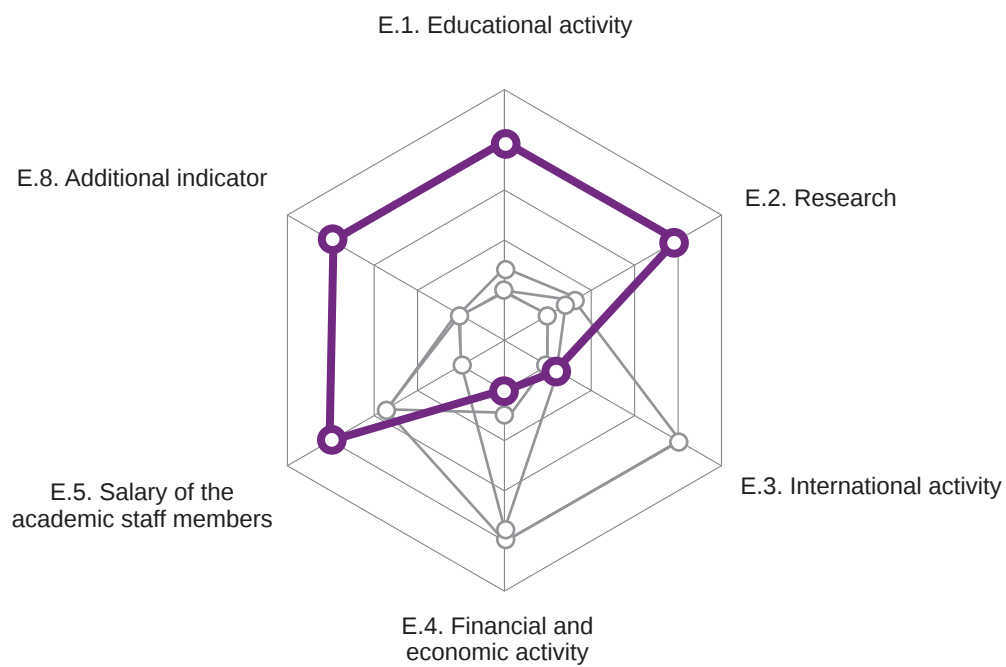
#### VSU'S POSITION ON KEY EFFICIENCY MONITORING INDICATORS COMPARED TO THE THRESHOLD VALUES

No.	Name of the indicator	Values	Threshold value	Prior Year Adjustment
E.1	Educational activity	69.82	60	-0.1% (69.92)
E.2	Research	204.64	51.28	+46.2% (139.98)
E.3	International activity	5.90	1	-11.5% (6.67)
E.4	Financial and economic activity	2,188.98	1,327.57	+1.6% (2153.54)
E.5	Salary of the academic staff members	210.45	N/A	-1.5% (213.67)
E.8	Additional indicator	5.39	2.78	+0.2% (5.38)



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

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 the 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 organising 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.
- Digitising the HR record management.
- Creating a psychologically comfortable environment in the workplace.

Key quantitative characteristics for the supply of university staff members as of 31 December 2021 (Figures 3.2, 3.3):

- total number of employees, **2,801 people**

Of them:

- **1,521** academic staff
- **678** educational support personnel
- **161** scientific and engineering personnel
- **152** operating personnel
- **289** administrative and managerial staff



Figure 3.2

TOTAL NUMBER OF STAFF MEMBERS IN 2020-2022

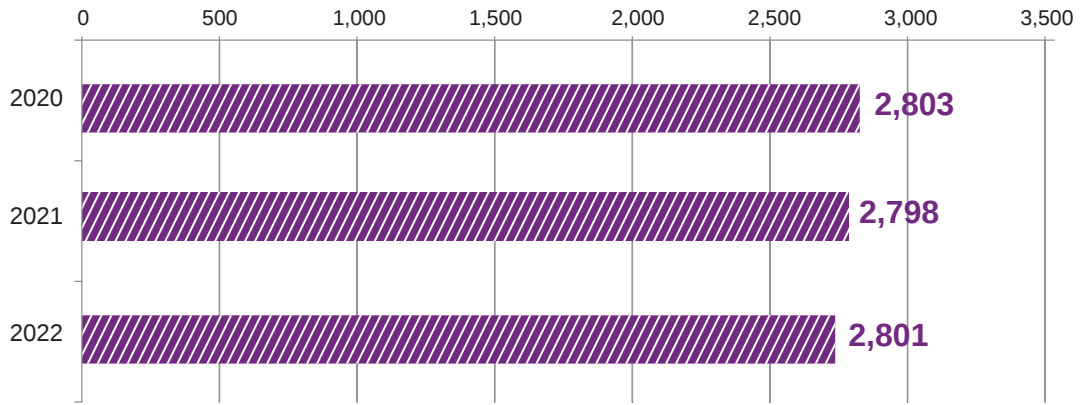
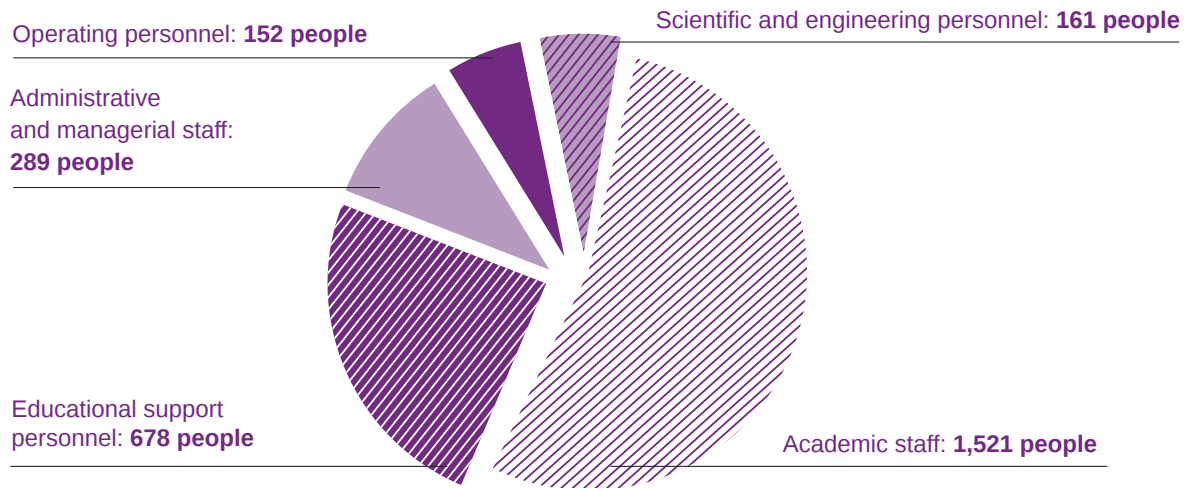


Figure 3.3

COMPARISON OF THE NUMBERS OF STAFF MEMBERS BY FUNCTION IN 2022





Quantitative and qualitative indicator dynamics in the university staff composition in total in 2020-2022 is shown in Table 3.4.

Table 3.4

NUMBER AND COMPOSITION OF THE UNIVERSITY PERSONNEL IN 2020-2022

The university staff composition	2020	2021	2022
<b>Total number of employees</b>	<b>2,803</b>	<b>2,798</b>	<b>2,801</b>
<b>Academic Staff</b>	1,504	1,510	1,521
Including:	1101	1107	1099
total number of staff with a degree	1,101	1,107	1,099
Have a DSc degree	283	287	284
<b>PhD</b>	818	820	815
<b>Educational support personnel</b>	688	672	678
<b>Administrative and managerial personnel</b>	288	288	289
<b>Scientific and engineering personnel</b>	157	169	161
<b>Operating personnel</b>	166	159	152

The analysis of the composition of the university staff demonstrates that 72.2% of the total number of the academic staff members have an academic degree (1099 people). There are 284 staff members with a DSc degree (19%). The results of the analysis of the academic staff numbers are shown in Figures 3.4–3.8 and in Tables 3.5–3.8.





Figure 3.4

COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS IN 2020-2022

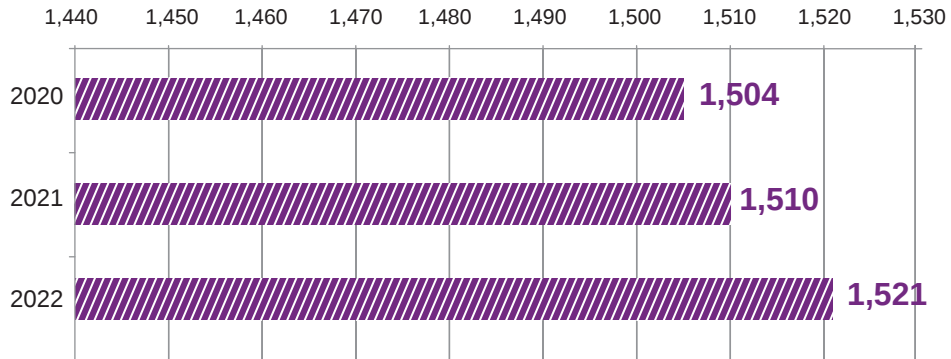


Figure 3.5

DISTRIBUTION OF THE ACADEMIC STAFF BY POST AS OF 1 JANUARY 2023

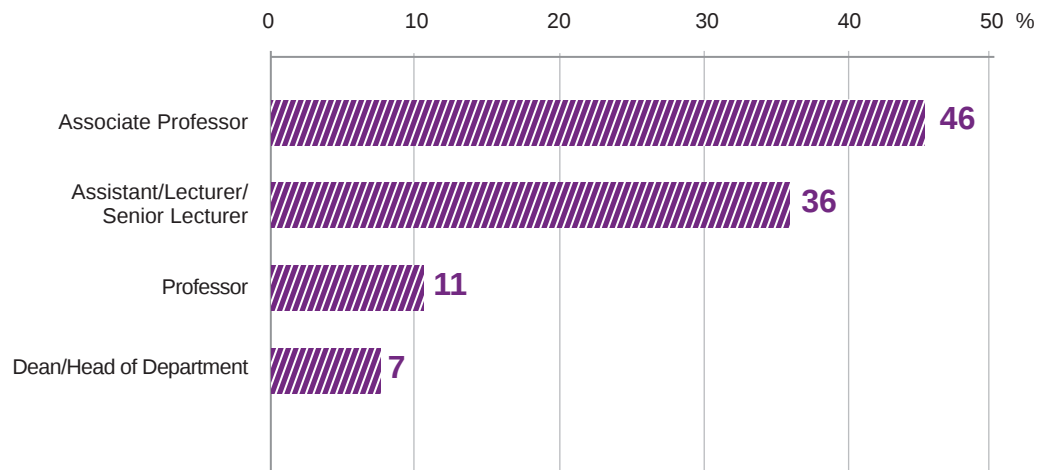


Figure 3.6

DISTRIBUTION OF THE NUMBER OF TEACHING STAFF BY ACADEMIC DEGREE

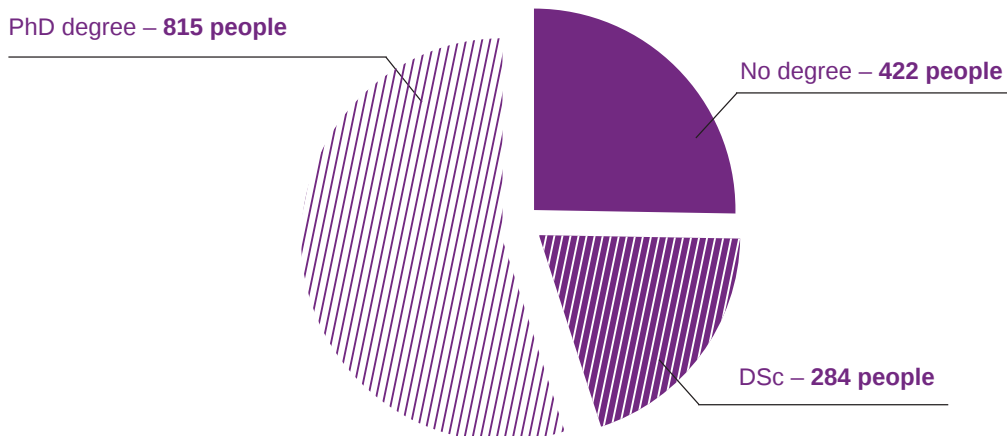




Figure 3.7

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES,  
INSTITUTES, AND UNIVERSITY-WIDE DEPARTMENTS AS OF 1 JANUARY 2023

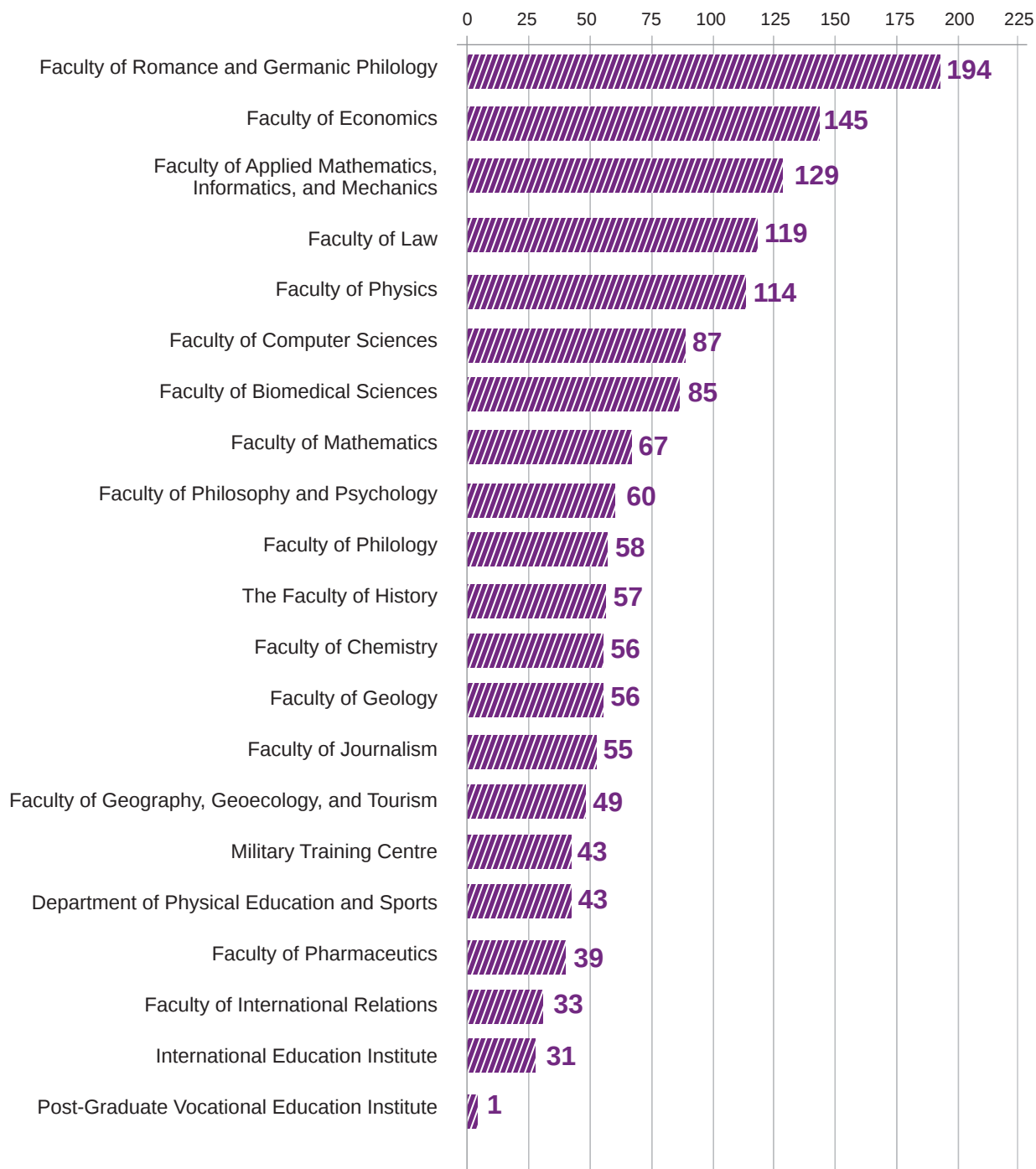


Figure 3.8

## COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS WORKING FULL-TIME AND PART-TIME IN 2022

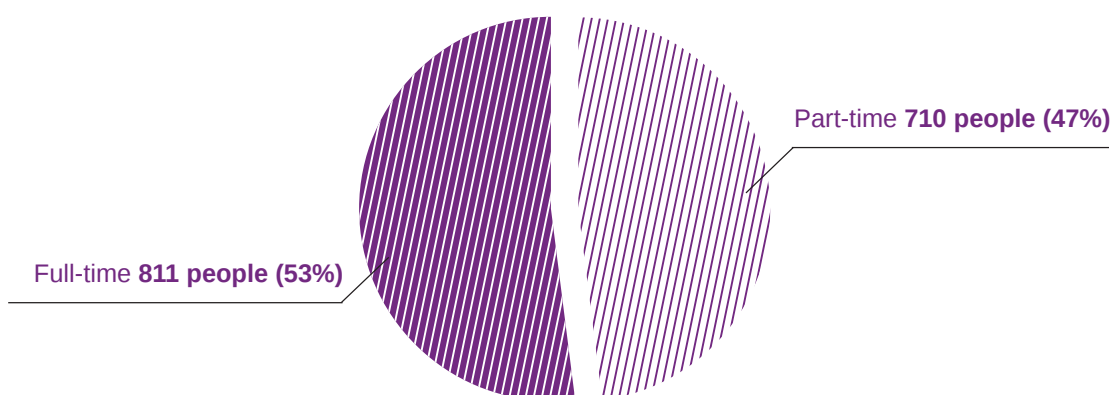


Table 3.5

## THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITY-WIDE DEPARTMENTS AS OF 1 JANUARY 2023

Structural subdivision	The number of academic staff members	
	Total	Full-time
Military Training Centre	43	43
Faculty of Geology	56	12
Post-Graduate Vocational Education Institute	1	0
International Education Institute	31	31
The Faculty of History	57	28
Department of Physical Education and Sports	43	40
Faculty of Mathematics	67	27
Faculty of Biomedical Sciences	85	54
Faculty of Geography, Geoecology, and Tourism	49	29
Faculty of Journalism	55	28
Faculty of Computer Sciences	87	44
Faculty of International Relations	33	16
Faculty of Applied Mathematics, Informatics, and Mechanics	129	50
Faculty of Romance and Germanic Philology	194	110
Faculty of Philosophy and Psychology	60	34
Faculty of Pharmaceutics	39	33
Faculty of Physics	114	32
Faculty of Philology	58	20
Faculty of Chemistry	56	18
Faculty of Economics	145	78
Faculty of Law	119	84
<b>Total</b>	<b>1,521</b>	<b>811</b>



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	43	9.3	0.0
Faculty of Geology	56	66.1	23.2
Post-Graduate Vocational Education Institute	1	0.0	0.0
International Education Institute	31	45.2	0.0
The Faculty of History	57	57.9	24.6
Department of Physical Education and Sports	43	4.7	0.0
Faculty of Mathematics	67	52.2	22.4
Faculty of Biomedical Sciences	85	65.9	23.5
Faculty of Geography, Geoecology, and Tourism	49	61.2	14.3
Faculty of Journalism	55	65.5	14.5
Faculty of Computer Sciences	87	47.1	17.2
Faculty of International Relations	33	66.7	21.2
Faculty of Applied Mathematics, Informatics, and Mechanics	129	50.4	20.9
Faculty of Romance and Germanic Philology	194	49.0	9.3
Faculty of Philosophy and Psychology	60	58.3	26.7
Faculty of Pharmaceutics	39	41.0	10.3
Faculty of Physics	114	60.5	28.9
Faculty of Philology	58	60.3	22.4
Faculty of Chemistry	56	50.0	42.9
Faculty of Economics	145	61.4	19.3
Faculty of Law	119	61.3	18.5

Table 3.7

AGE AND ACADEMIC DEGREE OF THE ACADEMIC STAFF MEMBERS

Degree	Age				
	Total	under 35	36 to 50	51 to 70	over 70
<b>Total</b>	<b>1,521</b>	<b>290</b>	<b>615</b>	<b>457</b>	<b>159</b>
Of them:					
Have a DSc degree	284	–	60	139	85
Have a PhD degree	815	101	428	227	59

Table 3.8

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

Structural subdivision	2020		2021		2022	
	Total number of people	Average age, years	Total number of people	Average age, years	Total number of people	Average age, years
Military Training Centre	42	49.8	42	51.1	43	50.5
Faculty of Geology	60	51.1	59	51.3	56	53.2
Post-Graduate Vocational Education Institute	2	58.0	2	59	1	46.0
International Education Institute	42	46.4	30	48.1	31	49.2
The Faculty of History	54	49.6	52	49.9	57	49.4
Department of Physical Education and Sports	39	50.3	40	50.6	43	51.1
Faculty of Mathematics	65	50.8	69	50.1	67	50.9
Faculty of Biomedical Sciences	81	48.8	84	49.4	85	49.6
Faculty of Geography, Geoecology, and Tourism	48	49.3	47	47.8	49	47.1
Faculty of Journalism	52	50.3	57	49.8	55	50.8
Faculty of Computer Sciences	78	45.8	85	45.7	87	46.9
Faculty of International Relations	30	46.7	32	47.3	33	49.7
Faculty of Applied Mathematics, Informatics, and Mechanics	125	48.4	120	48.7	129	48.1
Faculty of Romance and Germanic Philology	193	46.9	197	46.6	194	47.0
Faculty of Philosophy and Psychology	64	49.2	62	49.6	60	50.6
Faculty of Pharmaceutics	37	40.1	37	37.9	39	38.3
Faculty of Physics	113	54.3	117	54.4	114	53.8
Faculty of Philology	56	52.4	56	52.5	58	51.6
Faculty of Chemistry	62	51.4	60	50.8	56	51.9
Faculty of Economics	142	49.6	142	49.2	145	50.2
Faculty of Law	119	45.6	120	46.0	119	45.9

The analysis of the age of the academic staff members in 2020-2022 demonstrates that the average age of the academic staff members in the University as a whole is:

- As of 31 December 2020, 48.9, whereas the percentage of employees at retirement age is 28.3%.
- As of 31 December 2021, 48.2, whereas the percentage of employees at retirement age is 27.9%.
- As of 31 December 2022, 49.2, whereas the percentage of employees at retirement age is 28.0%.



### 3.6. INFORMATION ON LEASES

In 2022, 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 optimise 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 8 projects approved by the Ministry of Education and Science of Russia and TU Rosimushchestvo of the Voronezh Region. Lease agreements were signed for all of them in 2022.

In the reporting period, the income obtained from the federal real estate amounted to 6,110,699 roubles, which is significantly lower than in 2018 and 2019. The lack of growth as compared to 2021 can be explained by the pressure of sanctions on the Russian economy resulting in the freezing of new projects with partner enterprises, which may be clearly seen in the dynamics of rental payments in figures 3.9 and 3.10.

Figure 3.9

#### MONTHLY PAYMENTS IN 2022

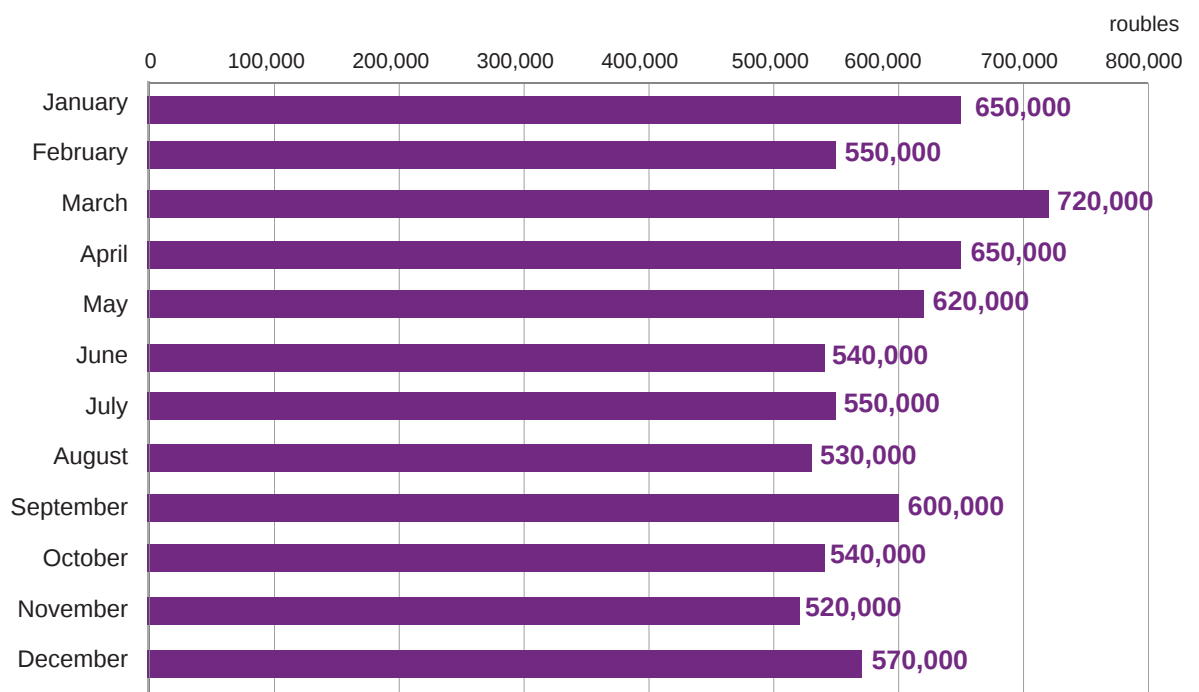
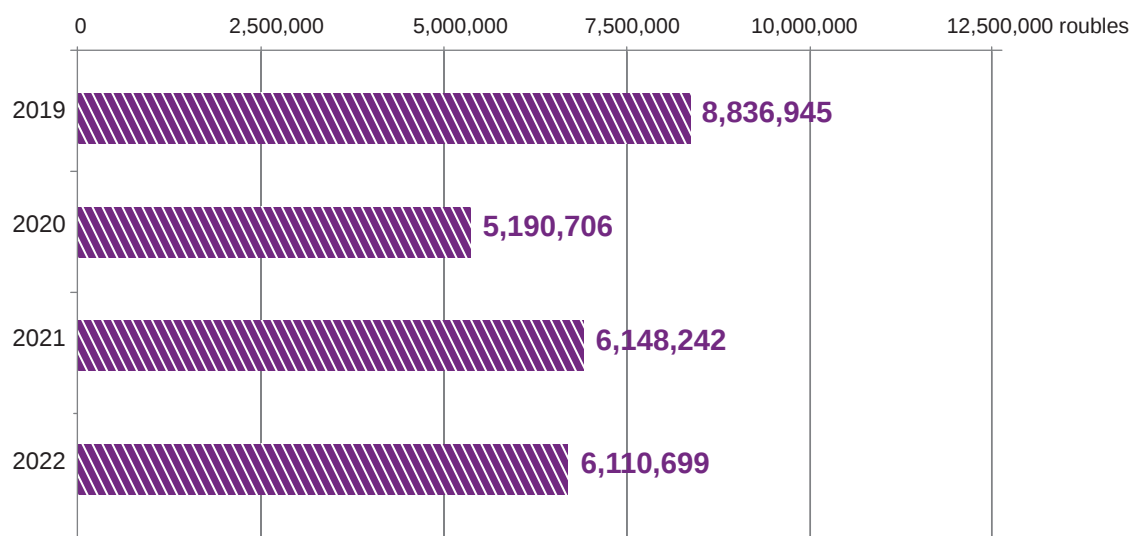




Figure 3.10

## 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's facilities.

In 2022, the university continued the transfer of residential premises to the specialised housing stock and finished the transfer of those located in Voronezh.

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 tenants and striving to make use of the areas not involved in the educational process in full compliance with the current regulatory framework. In 2022, all appraised leases were 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 Sokolov, Director General of OAO *Lipetsk Bus Line*, member of the VSU Board of Trustees.
- Gennady Chernushkin, Founder of Angstrom Group, member of the Board of Trustees of VSU.

#### The Fund Management Board

- Dmitry Yendovitsky, Chairperson, Rector of Voronezh State University.
- Evelina Domashevskaya, Head of the Department of Solid-State Physics and Nanostructures of VSU.
- Olga Uryvskaya, Chief accountant at VSU.
- Gennadiy Chernushkin, Founder of Angstrom Group.

#### The Fund's Board of Trustees

- Alexandra Glukhova, Professor at the Department of Sociology and Politology of VSU.
- Dmitriy Lapygin, Director of Economic Affairs at OOO *RET*.
- Nadezhda Mazalova, General Director of OOO *Region-Terminal*, VSU graduate.
- Abdrey Markov, Deputy of the State Duma of the Federal Assembly of Russian Federation, VSU graduate.
- Sergey Sokolinsky, Head of the Voronezh regional division of the Association of young businessmen.
- Evgeny Yurchenko, Director General of Southern Mining and Metallurgical Complex, VSU graduate.



### Director of the VSU Endowment Fund

- Yulia Bakhturina, Director of the Internal Financial Control and Audit Department of VSU.

The endowment's assets are under trust in AO AAA *Assets Management*.

The **fund's mission** is to bring together students, graduates, and other stakeholders in order to solve the most urgent university's problems, primarily the ones concerning social initiatives aiming to facilitate the university's development.

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

- Providing grants to young scholars; covering the research and internship costs.
- Providing grants to VSU's leading scientists.
- Personalized retirement benefits for 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.
- Development of the VSU Botanical Garden, the VSU's biocentre and recreation facility "Venevitinovo", and the "Galichya Gora" reserve.
- Leisure facilities for VSU students and staff members.
- Enhancement of the university facilities.
- Other activities in accordance with the VSU development strategy and the objectives set by the Charter of the Fund.



The market value of the assets held under trust as of the end of 2022 reached 34,140.2 thousand roubles (Table 3.9).

The revenue from the discretionary management of the VSU Endowment Fund in 2022 was 6.76%, i.e. 2,431.7 thousand roubles in absolute terms.

The remuneration of AO *AAA Assets Management* in 2022 was 243.2 thousand roubles.

New donations made in 2022 amounted to 1,016.1 thousand roubles, including 500.0 thousand roubles from AO *ATOMSBYT*, and 500.0 thousand roubles from AO *EFKO Management Company* in Voronezh.

Table 3.9

#### VSU ENDOWMENT FUND VALUE AND CONTRIBUTIONS

Parameters	Year	2016	2017	2018	2019	2020	2021	2022
Net asset value by the end of the year, thousand roubles		18,647.0	24,294.6	26,386.1	29,958.2	29,661.5	31,074.7	34,140.2
The revenue from the discretionary management, thousand roubles		1,565.0	1,850.3	1,721.7	3,524.6	2,559.3	514.6	2,431.7
Annual effective yield, %		10.5	11.11	6.72	13.25	7.83	1.57	6.76
Inflation, % (according to the Russian Federal State Statistics Service)		5.4	2.5	4.3	3	4.9	8.4	11.9
Augmentation of the endowment, thousand roubles		596.7	7,536.3	388.3	119.9	13.2	1,032.4	1,016.1
Amount of contribution, thousand roubles		707.8	1,404.4	1,850.3	–	2,500.0	–	–



The main directions of activity and development of the Endowment Fund of VSU were determined by the VSU Board of Trustees and the fund's Board of Trustees.

When holding events with the support of the Endowment Fund, the university strives to popularise the activity of the fund and stress its transparency in order to facilitate further growth of the fund's assets and therefore to enhance financial opportunities in the key areas of activity.

In 2022, the earnings from the endowment were not transferred to the founder of the fund. All the earnings made in 2022 were capitalised.

The strategic objectives of the fund for 2023 remain unchanged and include promotion and encouragement of scientific, creative, and other socially relevant initiatives by students, grants for talented young people, support for veterans, and development of the infrastructure and comfortable environment for students and employees of the university.

Main activities in 2023:

- Renovations of the university buildings.
- Renovations of the dormitories.
- Opening of a coworking centre in order to promote the university's image and provide people with opportunities to obtain new knowledge and skills.

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







# EDUCATION





## EDUCATION



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

### 4.1. THE MAIN OBJECTIVES OF THE UNIVERSITY'S ACADEMIC POLICY IN 2021/22

The main objectives of the educational policy have been determined within the university's strategy until 2030 aimed at the development of the system for the continuous advanced training of highly qualified specialists together with leading regional and federal industrial, educational, and scientific partners using modern education technologies.

#### I. IN THE FIELD OF PRE-UNIVERSITY WORK AND ADMISSION OF STUDENTS

**Objective 1. To increase the grade point average of the first-year students admitted to bachelor's and specialist's programmes up to 70 in all modes of study in 2022.**

#### Tasks:

- 1.1. To optimise the system for the identification, support, and development of young people's abilities and talents by increasing the number of schoolchildren who take part in VSU's academic competitions up to 2,000 people in the 2021/2022 academic year.
- 1.2. The number of students, winners, and awardees of the final stage of the All-Russian Academic Competition among Schoolchildren, members of the Russian Federation national teams who took part in international contests in general subjects and/or discipline areas corresponding to the All-Russian Academic Competition profile, who enrolled in full-time bachelor's and specialist's programmes without any admission tests, must be increased up to 15.
- 1.3. The number of employer-sponsored students who enrolled in full-time bachelor's and specialist's programmes must be no less than the number specified by the employer.





- 1.4. The minimal average state exam grade of the students who enrolled in full-time bachelor's and specialist's programmes must be no less than 42.

**Objective 2. To optimise the loss of student population during the 2022 admission campaign.**

**Tasks:**

- 2.1. To develop a plan for the transition of the university's admission campaign from admission to higher education programmes to admission to major groups of fields of study.
- 2.2. To develop and implement a schedule of activities in order to train admission campaign employees and subdivisions that provide for the digital and technical support of the admission campaign.

**Objective 3. To ensure at least 7% of international students in the total number of first-year students who were admitted to bachelor's and specialist's programmes.**

**Tasks:**

- 3.1. To create a schedule of activities in order to attract international students to study the main and further education programmes of VSU.
- 3.2. To increase the percentage of international students at the International Education Institute enrolling on the main education programmes up to 70%.
- 3.3. To develop the admission campaign website in Arabic.

**Objective 4. To increase the revenue from additional general education programmes (pre-study courses) by 5% as compared to the previous year.**

**Tasks:**

- 4.1. To launch at least two general education programmes for advanced learning and training for academic competitions.
- 4.2. To increase the number of students in general education programmes by 7% as compared to the previous year.

## **II. IN THE FIELD OF THE MAIN PROFESSIONAL EDUCATION PROGRAMMES**

**Objective 1. To ensure the achievement of the target monitoring indicators of university educational performance in 2022.**

**Tasks:**

- 1.1. To increase the percentage of the student population (given contingent) enrolled in master's degree programmes in the total number of the given contingent enrolled in bachelor's, specialist's, and master's degree programmes up to 18%.
- 1.2. To increase the percentage of students (given contingent) of master's degree and academic staff training programmes (post-graduate students, interns, residents) in the total number of the given contingent enrolled in the main academic programmes of higher education up to 20%.



- 1.3. To increase the percentage of students with a bachelor's, specialist's or master's degrees obtained at another institution who enrolled in the first year of master's degree programmes of the educational institution in the total number of students who enrolled in full-time master's degree programmes up to 20%.

**Objective 2. To ensure the transition to the modular education programmes by 2024.**

**Tasks:**

- 2.1. To develop a schedule of activities for the university's transition to modular education programmes with individual educational paths.
- 2.2. To use the analysis of the student contingent performance and integrity to create a list of trial education programmes that will be implemented using individual educational paths starting from the 2022/2023 academic year.
- 2.3. To introduce digital academic record books for the disciplines and practical trainings within higher education programmes.
- 2.4. To choose a digital platform for the individual educational paths of students.

**Objective 3. To adjust postgraduate education programmes in accordance with the federal state requirements starting from 2022.**

**Tasks:**

- 3.1. To modify local regulations concerning the implementation of postgraduate programmes in accordance with the new requirements of the federal legislation.
- 3.2. To organise consultations with the supervisors of postgraduate programmes in order to adjust the programmes to the new requirements.
- 3.3. The supervisors of postgraduate programmes are expected to post the list of the required documents for postgraduate programmes in the university's integrated education and information system (IEIS) by 1 April 2022.

**Objective 4. To perform an independent assessment of the quality of education in all major groups of fields of study and specialities during the year.**

### **III. IN THE FIELD OF FURTHER EDUCATION**

**Objective 1. To increase the revenue from the implementation of further professional education programmes and general development programmes up to 50 million roubles.**

**Task:**

To increase the percentage of students from external organisations in the total number of students completing further professional training or professional retraining programmes up to 20%.

**Objective 2. To develop technologies allowing students to obtain an additional qualification within the main academic programme.**



## 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.

### I. COLLABORATION WITH OTHER EDUCATIONAL ORGANISATIONS

1. VSU had regular e-mail correspondence with pre-school organisations (14), further education institutions (34), colleges (19), and schools from Voronezh and the Voronezh, Lipetsk, Oryol, Tambov, Samara, Nizhny Novgorod, Rostov, Kursk, Belgorod, and Moscow Regions (1,132 schools).
2. VSU continued active e-mail correspondence with schoolmasters, deputy schoolmasters for pupil affairs, subject teachers, educational psychologist, young teachers (1,089), parents (265), heads of school libraries (33), heads of school scientific societies formed in educational institutions and establishments of further education in Voronezh and the Voronezh Region (182), and authorised representatives from ten municipal districts of the Voronezh Region.
3. 29 events were organised and held in collaboration with education departments of Voronezh and 52 meetings were held with the heads of municipal districts of the Voronezh Region.
4. The university actively collaborated with the Department of Education of the Voronezh Region and the Administration Office of Education and Youth Policy of the Voronezh Government, and children's and youth public organisations.
5. The University continued to conclude agreements on strategic partnership and joint activities with educational organisations of Voronezh and the Voronezh Region and educational organisations from other regions of the Central Federal District.
6. The university concluded a cooperation agreement with the administration of the Zadonsk District of the Lipetsk Region (May 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/05/14913>).
7. It also concluded a cooperation agreement with the administration of the Bobrov municipal district of the Voronezh Region and the Bobrov educational centre *Lider* named after A. V. Gordeev (July 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/07/15192>).
8. The information at VSU career guidance stands was updated at 19 schools in Voronezh and the Voronezh Region.
9. Representatives of the admission board and vice-deans for the pre-university work participated regularly in teacher-parent meetings at schools, joint events, and school scientific conferences. VSU organised open lectures with the participation of VSU researchers, as well as various festivals, master classes, and competitions, such as "With Books we Grow", "Rhetoric Festival", "Recitation Contest" "The Most Literate" contest, a poetry workshop, festivals of the Russian language at schools and children's festivals, local history lessons, schools of young specialists, and Lyceum Days.
10. A joint project between VSU and the Bunakov Voronezh Institute of Education Development "Basic Schools of the Russian Academy of Sciences" with the participation of the Faculty of Physics, the Faculty of Chemistry, and the Faculty of Biology of Voronezh State University and the Basov gymnasium involved creating a model of specialised educational classes using educational technologies developed by VSU scientists (URL: <http://www.vsu.ru/ru/news/feed/2022/05/14949>).



The following events were held:

- 20th Scientific Conference of the Scientific Society “A Path into the World of Science” at lyceum No. 1 (over 280 online participants).
- The city-wide competition for young researchers in various fields of science: Chemistry, Physics, Biology, and Geography, “Science Debut” (Novovoronezh Children Creativity Centre, 35 form 5–11 schoolchildren from four schools).
- A project dedicated to the Year of Science in Russia, “Science for Children. Children for Science”: over 50 excursions for schools No. 16, 19, 34, 73, 40, 28, Choreographic School, and the “Nachalo school” in the Rossosh District.
- Contest exhibition of children’s creativity “VSU through the Eyes of Children”.
- As part of career guidance project “VSU for Schools”: career guidance lecture in the Novousman educational centre, an open lecture at Otradnoye school dedicated to the 100th anniversary of Soviet pioneer movement, the Day of the Russian Language in school No. 19.
- Development of network cooperation under the Federal Innovation Programme “Russian Classical School” between educational organisations of the Russian Classical School in Moscow (St. Basil the Great Gymnasium), Voronezh (private institution of general education the “School of the Future”), Tambov, and Lipetsk using the academic capacity of VSU (March 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/03/14697>).
- Regular events in partnership with the high-tech company INTEKHROS that produces industrial robotics aimed at the development of the engineering education environment within a new federal project “Leading engineering schools” (VSU lecturers and students act as mentors at children’s engineering schools; educational centres Kvantorum and Orion; the university is one of the organisers of the robotics festival “Roboart”; the university runs an innovation preaccelerator project “Innovation League” for high school students participating in student projects; etc.). These events are held as part of preparing for the contest of Russian universities (June 2022, Moscow) (URL: <http://www.vsu.ru/ru/news/feed/2022/06/15085>).



## II. EDUCATIONAL PROJECTS FOR SCHOOLCHILDREN AND THE GENERAL PUBLIC

In the reporting year, the university paid great attention to educational projects. Among the main projects were the following:

- “A Large University for a Large City”. Sixteen popular science lecturers by university researchers were organised and held in the “Amital” bookshop (URL: <https://vk.com/amitalnapushkinskoi>).
- Contest for schoolchildren from forms 5-11 “Science. Territory of Heroes”.
- School of young local historians.
- Sunday school of journalism.
- School of young geographers.
- Photographic exhibition “My homeland”.
- VSU school of young chemists “All-CHEMISTRY”.
- Online mathematical school.
- Day of Financial Literacy for high school students.
- “Teaching Mathematics” event within the framework of the federal project “Employment Assistance” of the national project “Demography”.
- 15th summer language school.

Within the framework of the National Public Educational Organisation “Russian Foundation “Znaniye””, the following activities were carried out:

- organisation and participation in the educational event “Share your Knowledge” under the auspices of the Russian Foundation “Znaniye” and the Ministry of Enlightenment of the Russian Federation in the educational space of Voronezh, the Borisoglebsk branch of VSU, regional offices of Voronezh State University of Engineering Technologies in Rossosh and Buturlinovka in the Voronezh Region. The goal of the event was to transfer reliable knowledge to young people as one of the main values of the modern society. Lectures were dedicated to history, science, technology, culture, health, sports, media, marketing, ecology, and charity (September 2022).
- Participation in events of the Voronezh regional division of the Russian Foundation “Znaniye” held at schools and major scientific and educational venues of Voronezh and the Voronezh Region, including events held in cooperation with Nikitin Regional Scientific Library.
- Participation in organising and holding of the regional stage of the national competition “League of Lecturers” by the Russian Foundation “Znaniye” (URL: <http://www.vsu.ru/ru/news/feed/2022/11/15639>).
- Participation in the training of representatives from regional branches and branches of the Russian Foundation “Znaniye” in the knowledge centre “Mashuk” (Pyatigorsk) (URL: <http://www.vsu.ru/ru/news/feed/2022/11/15594>).



- Twelve educational and career guidance events in humanities, science, and engineering for secondary and high school children (12 schools, 500 schoolchildren, 30 teachers) (January-December 2022).
- Quiz-lecture by Associate Professor M.V. Panova dedicated to “Entertaining dialectology” at Otradnoye school (URL: <http://www.vsu.ru/ru/news/feed/2022/01/14544>).
- A course of educational lectures at Lyceum No. 7 dedicated to modern Russian and foreign literature developed by A. V. Frolova, Vice-Dean at the Faculty of Philology (January-April 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/04/14878>).
- Educational and career guidance event “Mathematics as a path to success” in the framework of the forum “Mathematician as a profession”. The meeting was attended by over 200 schoolchildren from forms 9-11, parents, students, lecturers, and graduates of the faculty (April 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/04/14874>).
- A series of popular science lectures by specialists of the Voronezh Animal Conservation Centre “Our Nature”. Lectures were devoted to interactions with wild animals (Department of Zoology and Parasitology, Faculty of Biomedical Sciences, VSU, September 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/10/15397>).
- First regional forum of young philologists “From A to Z” (200 students from forms 8-11 from schools in Voronezh and the Voronezh Region) (Faculty of Philology, VSU, November 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/11/15601>).
- Research club for schoolchildren “I explore the world of psychology” (Faculty of Philosophy and Psychology, VSU, November 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/11/15576>).

### **III. IDENTIFYING, SUPPORTING, AND ATTRACTING TALENTED STUDENTS TO STUDY AT VSU**

In the reporting year, VSU held an innovation preaccelerator for schoolchildren “The League of Innovations” (research areas: “Physics and Mathematics”, “Chemistry and Biology”, “Information Technology”, and “Socio-Economic Knowledge”). Partners: AO MGK *Intekhros*, OOO *ATP-1*, AO *KBKHA*, PAO *Sberbank*, GK *Informsvyaz-Chernozemye*, *Rostelekom*, *Dom RF*, and *Biruch-NT* Innovation Centre (R&D of GK *EFKO*). The League of Innovations was attended by 411 people (URL: <https://ligavsu.ru/>).

### **IV. COMPETITIONS FROM THE LIST OF COMPETITIONS BY THE MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION**

The following competitions were held at the university:

- Multidisciplinary engineering academic competition among schoolchildren “Star” (639 participants in the field of Natural Sciences and 162 participants in the field of Engineering and Technology/Information Security).
- Interregional Physics competition “Future Researchers: the Future of Science” (136 participants).
- All-Russian competition in financial awareness, financial market, and protection of the rights of consumers of financial services (46 participants).
- Moscow Academic Competition in Chemistry for schoolchildren (45 participants).



- Specialised competition for schoolchildren in Physics and Mathematics “Rosatom” (175 participants).
- All-Russian Academic Competition for schoolchildren – 2022. VSU lecturers were members of academic commissions and the jury of the regional stage of the All-Russian competition for schoolchildren in the Russian Language, Ecology, Chemistry, Biology, Mathematics, and Physics (URL: <http://www.vsu.ru/ru/news/feed/2022/02/1457>).

## V. OTHER COMPETITIONS, MARATHONS, CONTESTS, AND TOURNAMENTS

In addition to competitions from the list by the Ministry of Science and Higher Education of the Russian Federation, the university organised and actively participated in other events aimed at identifying talented applicants and attracting them to enrol in education programmes implemented at the university:

- Engineering academic competition for schoolchildren from Central Russia in Mathematics and Physics (914 participants).
- Competition in English for schoolchildren “Into the Future with VSU” (680 participants).
- Interregional open festival of robotics “Roboart-2022” (1,038 participants from 43 regions of Russia, as well as from Armenia, Belarus, and Kazakhstan).
- 5th Interregional Competition “Smart Start” in programming (210 participants at the final stage).
- 36th online Conference of the Scientific Society of Students (23 sections, 845 participants from the Voronezh and Lipetsk Regions).
- Participation and victory (diploma of the first degree) of the team of Voronezh schoolchildren “Gryffindor” in the Siberian Tournament of Young Physicists (Novosibirsk, January 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/01/14551>).
- Regional tournament of young naturalists (together with the Voronezh Kvantorum children’s technopark) (April 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/04/14779>).
- Participation of the Voronezh team “Gryffindor” in the All-Russian Tournament of Young Physicists, which was held in St. Petersburg during spring holidays. According to the results of the tournament, the team was awarded with third degree diplomas in overall standing. The supervisors of the team are Irina Markova, a Physics teacher at school No. 2, and Maxim Militsky, a student from the Faculty of Physics of VSU (April 2022) (URL: [https://vk.com/voronezhskiy\\_turnir](https://vk.com/voronezhskiy_turnir)).
- Regional tournament of young physicists (junior league, first league), a stage of the All-Russian Tournament of Young Physicists. The event was organised by Kvantorum children’s technopark. VSU was a co-organiser of the tournament. The partner of the tournament was the Voronezh Nikitin Regional Scientific Library. Among the participants of the competition were eight teams from educational institutions of Voronezh and the Voronezh Region (November 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/12/15719>).
- 9th contest of essays in contemporary literature for schoolchildren from 9-11 forms and students (April 2022) (URL: <http://www.vsu.ru/ru/news/feed/2022/04/14771>).





## **VI. EDUCATIONAL AND CREATIVITY EVENTS: POETRY, LITERATURE, SINGING, AND MUSICAL CONTESTS, LESSONS, CLUBS, AND FESTIVALS**

Issues of education and creative development of students and applicants were in the focus of the university's attention in the reporting year. A large number of poetic, literary, vocal, and musical projects and activities were implemented at the university:

- Joint project between VSU and the National State Television and Radio Broadcasting Company: radio show "Let's Speak Russian".
- Publication of the student newspaper of the Voronezh Law College "Zerkalo" (URL: <http://www.law.vrn.ru/index.php/12-osnovnaya-informatsiya/informatsiya-o-tehnikume/200-arkhiv-zerkala>).
- Management of the children's press centre "Young Journalists" at Novousmanskyy lyceum (URL: <https://vk.com/young.journalist>).
- "Dialogue of Philologists" dedicated to the Day of the Russian Language (Voronezh Nikitin Regional Scientific Library).
- Winter and Summer Festivals of Original Songs and Poetry "The Sail of Hope" (children's workshops).
- Online competition of students' rhetorical performances "Youth Environment as a Cultural Area" within the framework of the city festival of rhetoric at I. F. Artamonov school No. 36.
- Municipal children's books festival "You and I are Big Friends of Books".
- Organisation of a children's press centre at Otradnoye school in the Novousmanskyy district (URL: [https://vk.com/press\\_otrschool](https://vk.com/press_otrschool)).
- Municipal competition of students' rhetorical videos, awarding winners and their supervisors.
- 25th international festival of original song "Parus Nadezhdy". Workshops "Children sing and write", "Children's ensembles", and "Young poets".
- Online discussion "Russian spelling: Who sets the rules?" (Voronezh Nikitin Regional Scientific Library).
- Lecture dedicated to genres of journalism and peculiarities of network poetry (Voronezh Law College).
- Seminar for Voronezh school librarians (Voronezh Nikitin Regional Scientific Library). The topic of presentation was "Educational projects of VSU on Radio Rossia-Voronezh".
- National educational online event "National Economic Dictation" (11 October 2022) dedicated to the topic "Strong Economy Means Prosperous Russia".
- Municipal contest of arts and crafts master classes "Paraskeva Craftswoman" (jury membership).
- Municipal Media project contest "Magical City – 2022" (jury membership).



## VII. INFORMATIONAL SUPPORT OF PROSPECTIVE STUDENTS DURING THEIR ENROLMENT TO THE UNIVERSITY'S PROGRAMMES

The list of activities within this area of the university activity consists of several parts.

The university has always actively provided applicants to education programmes at all levels with informational support during the admission procedure by publishing information on the Internet, regional media, and in the "Voronezh University" newspaper, by covering admission and training issues at the university on air on the regional and municipal radio, and by providing regular consultations to applicants at the department of pre-university education, on multi-channel telephone line, and online (on the official website, social networks, by e-mail).

### The university held open days on the following dates:

- 17 April 2022 (about 3,500 people).
- 28 May 2022, an open day for applicants to the master's degree programmes (over 500 people).
- 6 November 2022 (over 2,000 people).

### Off-site open days:

- 20 October 2022, Pavlovsk secondary school with in-depth study of certain subjects (150 people).
- 10 November 2022, Boguchar school No. 2, Boguchar lyceum, Boguchar school No. 1 (230 people).
- 15 November 2022, Liski Centre for Youth Artistic Development (250 people).
- 17 November 2022, lyceum at Khlevnoye settlement in the Khlevnoye municipal district of the Lipetsk Region (60 people).
- 21 November 2022, gymnasium No. 10, Voronezh (100 people).
- 22 November 22, gymnasium No. 9, Voronezh (200 people).
- 23 November 2022, gymnasium No. 6 (80 people).
- 25 November 2022, Buturlinovka school "New School" (100 people).

### Exhibitions:

- Our university participated in the Education and Profession 2022 exhibition in Uzbekistan. The VSU delegation took part in the exhibitions in two cities, Bukhara and Urgench (URL: <http://www.vsu.ru/ru/news/feed/2022/04/14870>).

## VIII. CAREER GUIDANCE FOR UNIVERSITY ENTRANTS

### TESTING CENTRE WITHIN THE "PROFORIENTATOR" PROGRAMME

Computer-based testing of schoolchildren was organised at the VSU Testing Centre within the "Proforientator" programme in collaboration with the Centre of Testing and Development "Humanitarian Technologies", Moscow. The number of people tested amounted to 100.

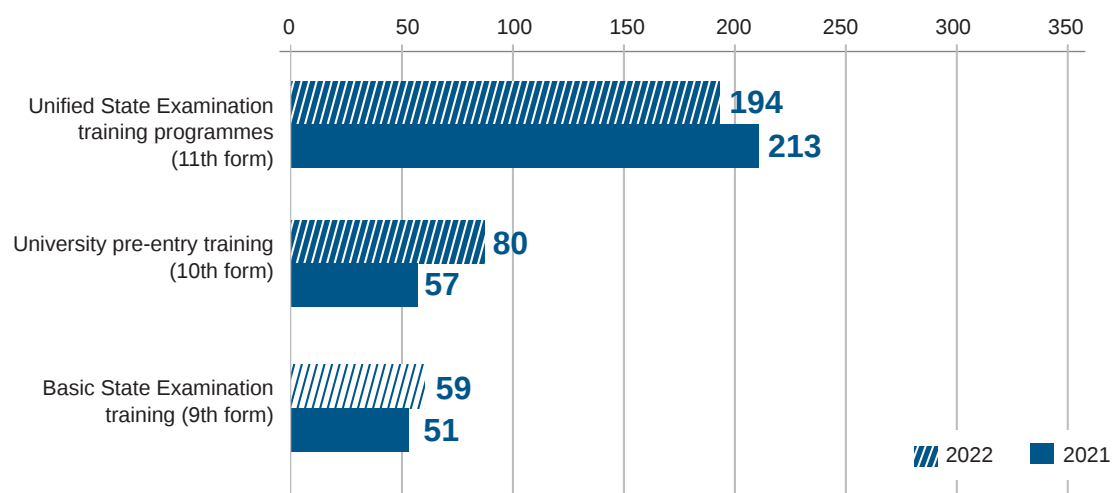


## IX. PRE-STUDY COURSES

In 2022, 333 students took fee-paying pre-study courses within additional general development education programmes aimed at improving the level of proficiency in general subjects and university pre-entry training: “Training for the Unified State Examination”, “Preparation for the Final Essay”, “University Pre-Entry Training”, “Basic State Examination Training” (Fig. 4.1). The training involved using distance learning technologies.

Figure 4.1

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



The analysis of USE results for the graduates of pre-study courses as well as their matriculation results allowed carrying out a qualitative assessment of the training provided at the courses (Tables 4.1 and 4.2).

Table 4.1

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

Subject	2021	2022
Russian	75.7	74.9
Mathematics	59.8	63.73
Biology	57.9	49.57
Geography	54.7	69
Foreign Language (English)	68.3	51.35
Informatics and ICT	64.9	62.68
History	64.4	64.5
Literature	72.4	64.85
Social Studies	60.1	55.04
Physics	59.8	56.89
Chemistry	56	53.5

Table 4.2

### MATRICULATION RESULTS AT VORONEZH STATE UNIVERSITY DEMONSTRATED BY THE GRADUATES OF PRE-STUDY COURSES

Faculty	Number of students
Faculty of Geography, Geoecology, and Tourism	2
Faculty of Geology	1
Faculty of Journalism	1
Faculty of History	2
Faculty of Computer Sciences	15
Faculty of Mathematics	6
Faculty of Biomedical Sciences	5
Faculty of International Relations	2
Faculty of Applied Mathematics, Informatics, and Mechanics	22
Faculty of Romance and Germanic Philology	16
Faculty of Pharmaceutics	3
Faculty of Physics	11
Faculty of Philology	2
Faculty of Philosophy and Psychology	3
Faculty of Chemistry	1
Faculty of Economics	6
Faculty of Law	8
<b>Total admitted to VSU</b>	<b>106</b>

54 people out of 106 enrolled in state-funded programmes and 52 people enrolled in fee-paying programmes.

### 4.3. MAIN RESULTS OF THE 2022 ADMISSION CAMPAIGN

The 2022 admission campaign, similar to the previous campaign, was held in a mixed format: the applications and documents necessary to enrol in programmes were submitted by applicants both personally, via electronic information system of VSU, and “Superservice”, which is far from being perfect. Admission quotas for bachelor’s, specialist’s, and master’s degree programmes amounted to 2,488 places.

The most popular programmes among applicants were programmes at the Faculty of Economics, the Faculty of Law, the Faculty of Computer Sciences, the Faculty of Applied Mathematics, Informatics, and Mechanics, and the Faculty of Romance and Germanic Philology. Unfortunately, the Faculty of Physics and the Faculty of Chemistry failed to ensure 100% fulfilment of the recruitment plan for state-funded places. However, a growing trend remained for the number of first year students who enrolled in fee-based programmes (3,105 as compared to 2,926 in 2021).

The distribution of first year students by bachelor’s and specialist’s degree programmes of different modes of study is shown in Fig. 4.2–4.4.

Figure 4.2

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

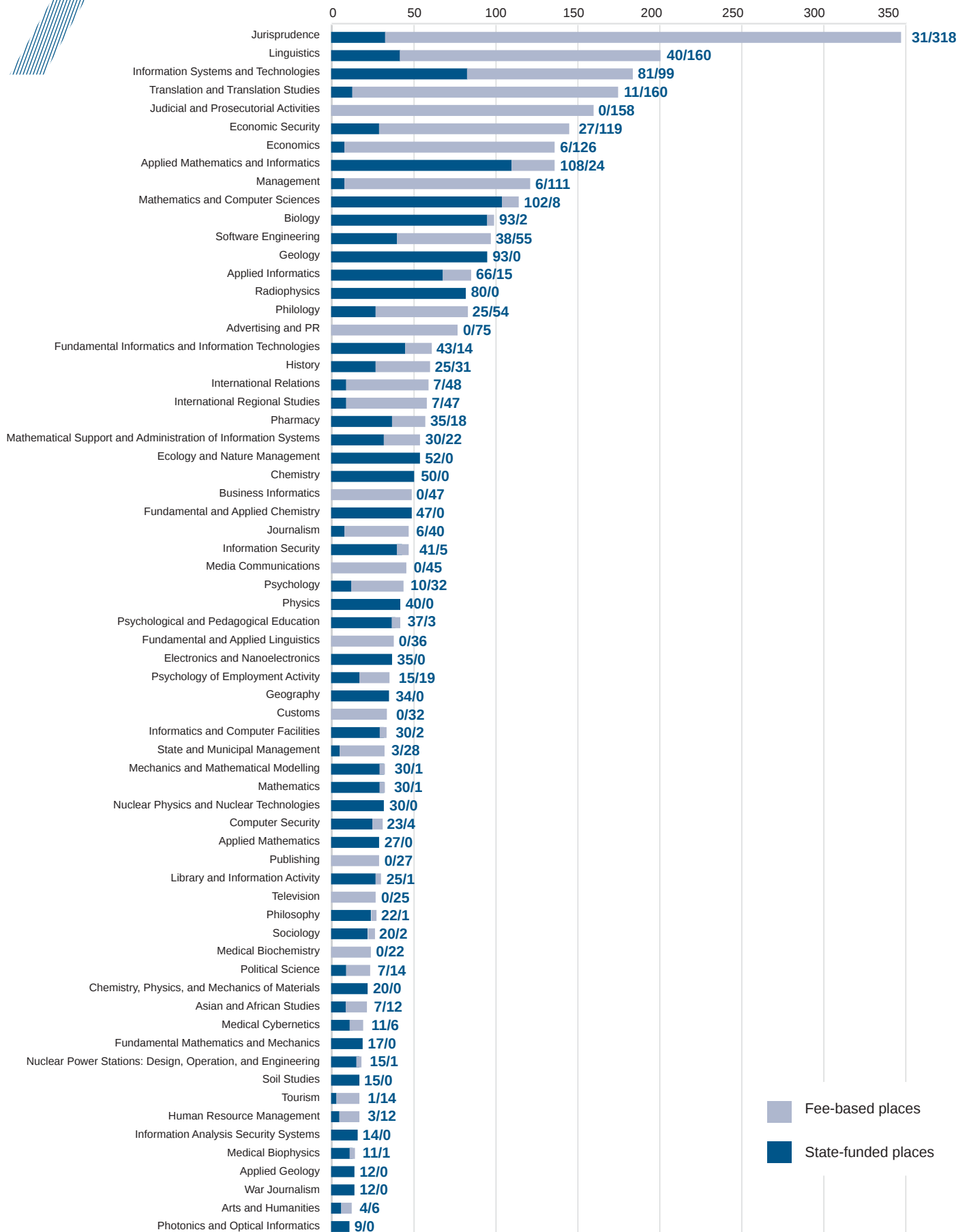




Figure 4.3

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

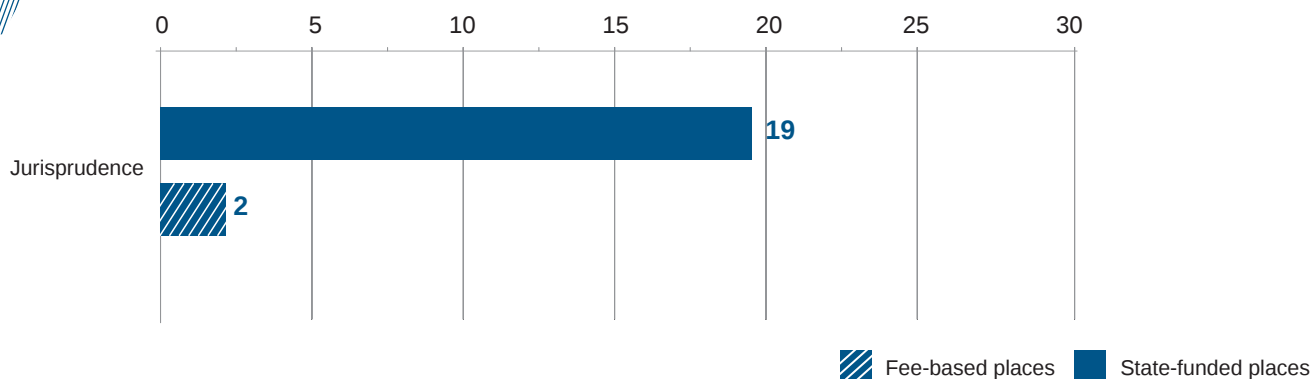
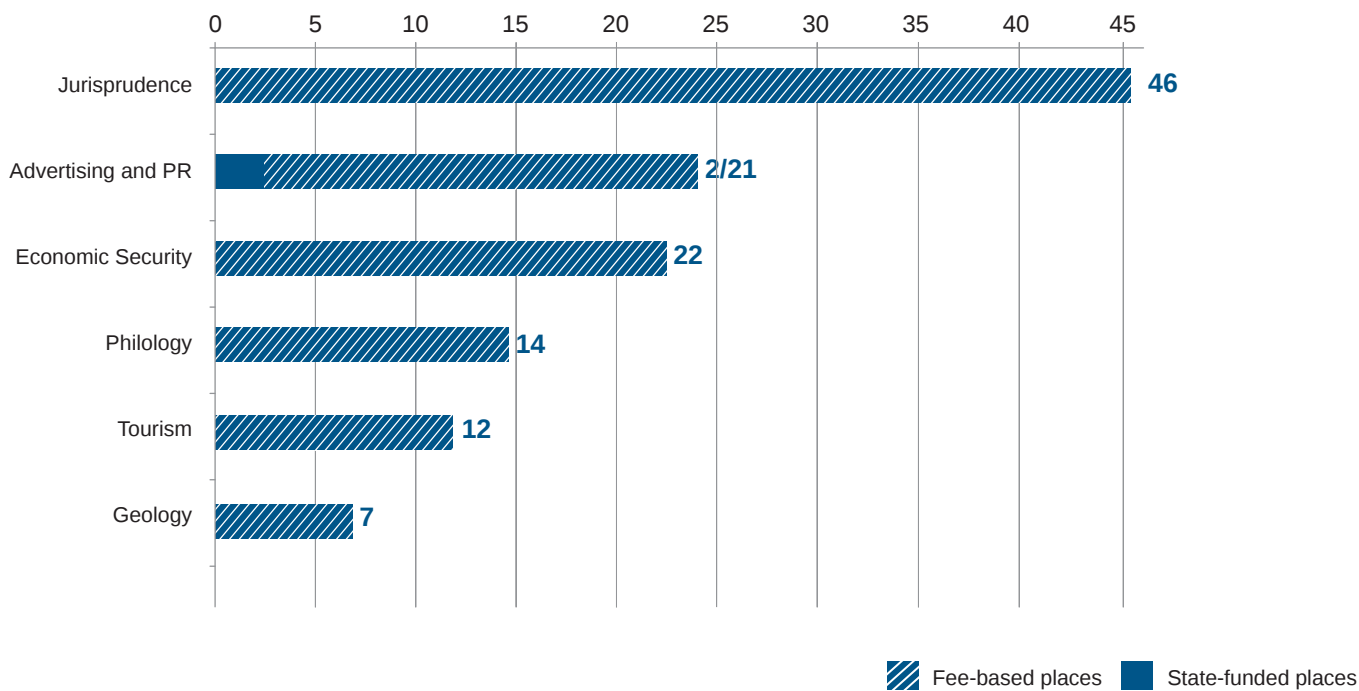


Figure 4.4

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





The distribution of first year students by master's degree programmes is shown in Fig. 4.5–4.7.

Figure 4.5

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

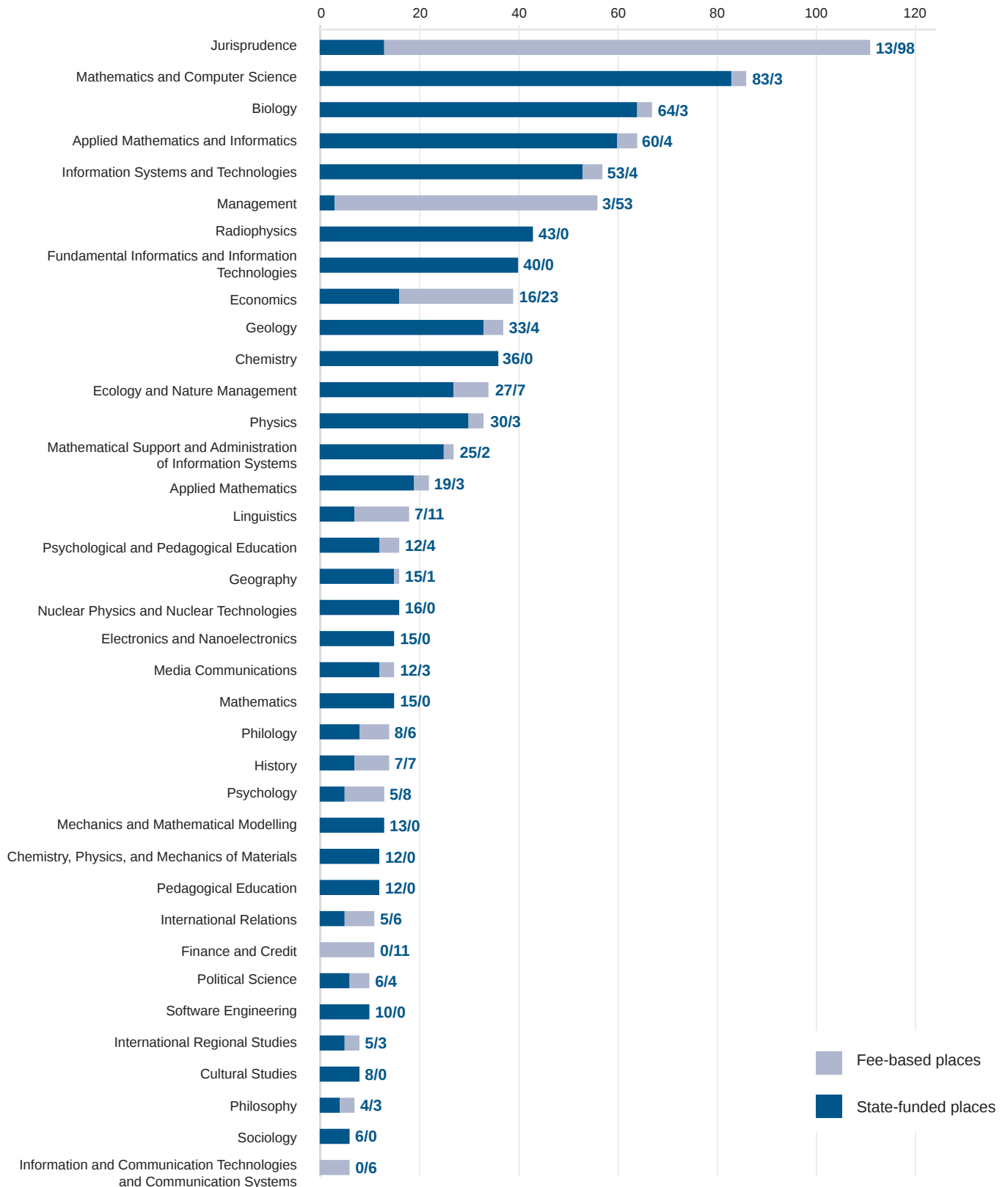




Figure 4.6

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

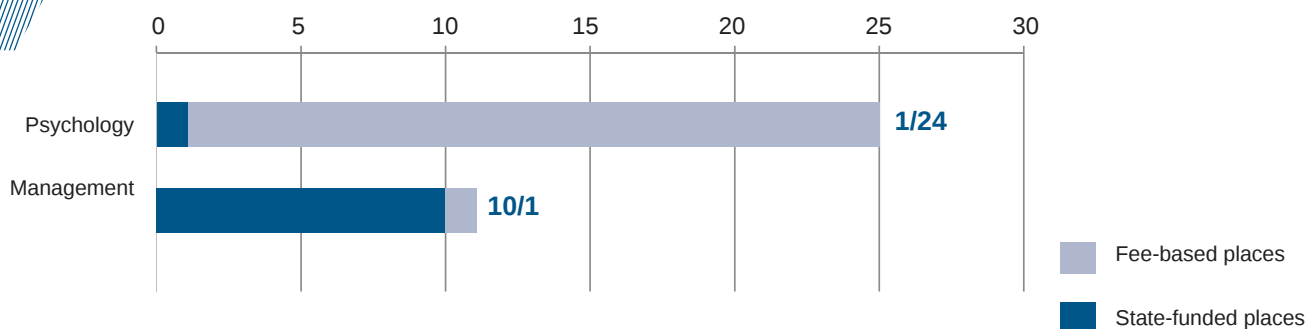
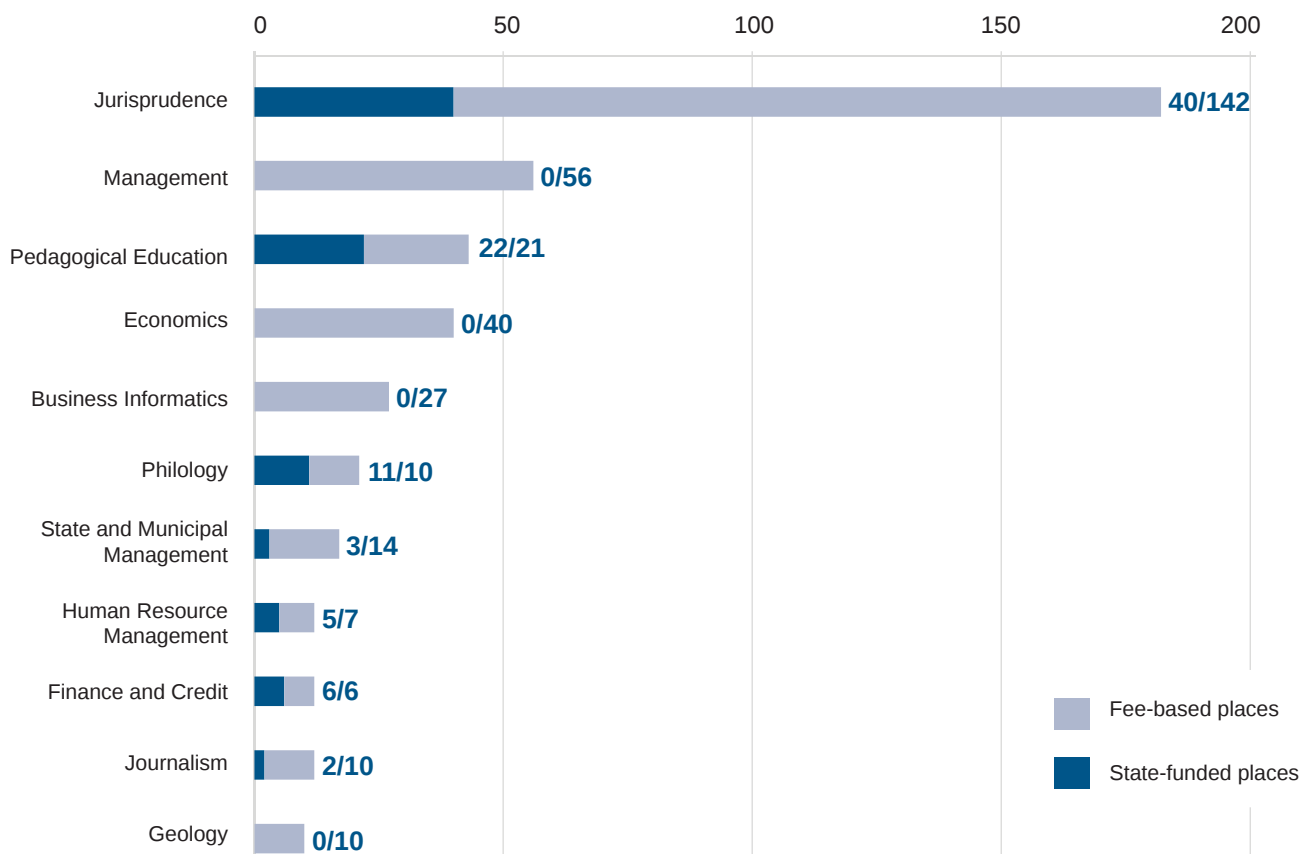


Figure 4.7

NUMBER OF EXTRAMURAL STUDENTS ENROLLED IN MASTER'S DEGREE PROGRAMMES

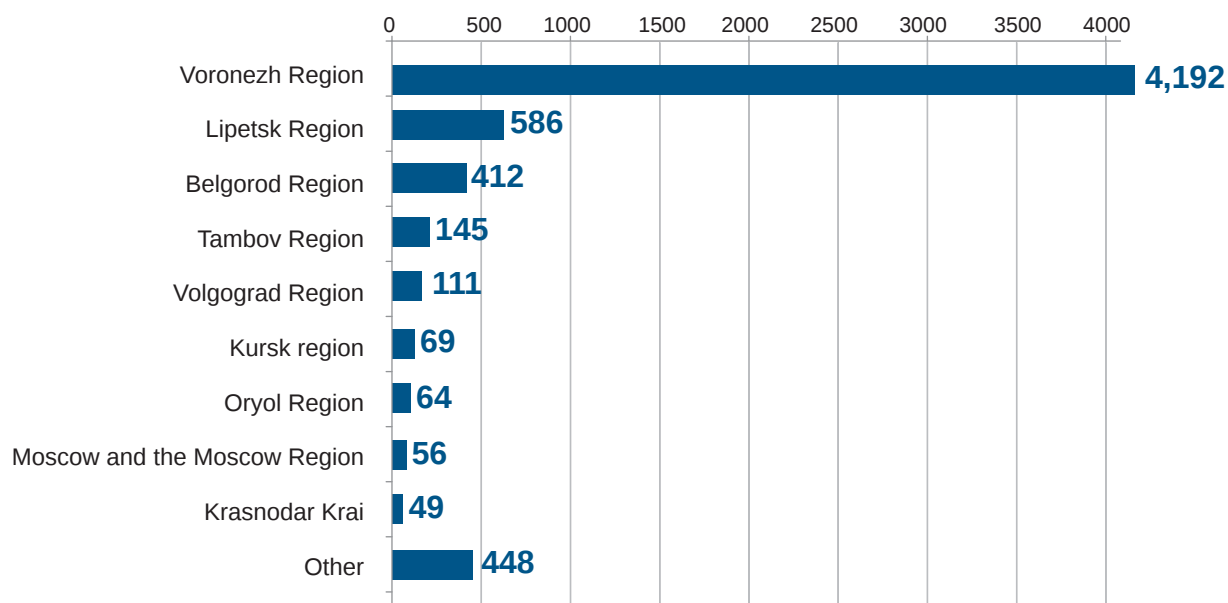




In 2022, similar to the previous year, admission applications were submitted by applicants from all subjects of the Russian Federation with the exclusion of the Nenets Autonomous Okrug. Residents of the Voronezh Region and the adjoining regions traditionally prevail among students enrolled in the first year (Fig. 4.8).

Figure 4.8

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



In 2022, the number of winners and awardees of academic competitions enrolled in VSU increased significantly as compared to the previous year: 14 people (5 people in 2021) (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 Systems and Technologies	–	1
Linguistics	1	1
Management	–	1
Applied Mathematics and Informatics	1	1
Software Engineering	–	1
Radiophysics	–	1
Economic Security	1	1
Jurisprudence	2	2

In 2022, the number of state-funded places for secondary vocational education programmes at VSU increased significantly. 70 first year students were admitted to state-funded places (20 people in 2021). In 2021, 348 first year students were enrolled in secondary vocational education programmes (Table 4.4).

Table 4.4

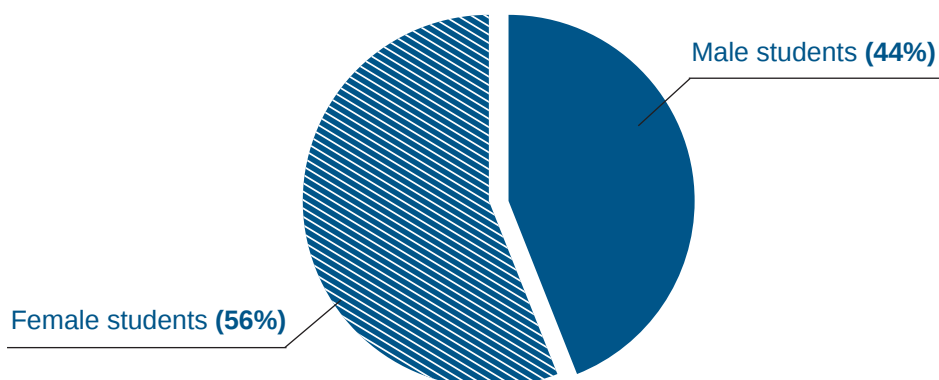
#### NUMBER OF STUDENTS ADMITTED TO SECONDARY VOCATIONAL EDUCATION PROGRAMMES

Name of the secondary vocational education speciality	Funded from the federal budget	Funded from commercial educational services
<b>For graduates of basic general education programmes (form 9)</b>		
Pharmacy	25	61
Sustainable Management of Natural and Economic Complexes	–	8
Economics and Accounting (area-based)	–	22
Advertising	–	81
Tourism	15	16
Cartography	15	–
Programming in Computer Systems	–	38
<b>For graduates of general secondary education programmes (form 11)</b>		
Optical Eyecare	–	8
Economics and Accounting (area-based)	15	20
Programming in Computer Systems	–	24
<b>Secondary vocational education programmes, total</b>	<b>70</b>	<b>278</b>

As for gender composition, a great majority of VSU students are women, however as compared to the previous year, there were some changes in the gender structure of first year students in 2022: the proportion of men increased by 3% and amounted to 44% (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 2021/2022

In 2022, higher education programmes included 141 bachelor's degree programmes (51 specialities), 28 specialist's degree programmes (15 specialities), 110 master's degree programmes (41 specialities), 127 PhD programmes (17 research areas and 120 majors and fields of study), and 3 residency specialities (Table 4.5).

Table 4.5

### ACADEMIC PROGRAMMES IMPLEMENTED AT VSU IN 2021/2022

Code of the major group	Name of the major group	Bachelor's degree		Master's degree		Specialist's degree		Postgraduate training programmes		Residency
		Specialities	Programmes	Specialities	Programmes	Major speciality	Specialisation	Specialities	Programmes, fields of study	Major speciality
01.00.00	Mathematics and Mechanics	4	15	3	6	1	2	1	6	
02.00.00	Computer and Information Sciences	3	8	3	7			1	2	
03.00.00	Physics and Astronomy	2	7	2	6			1	10	
04.00.00	Chemical Sciences	2	4	2	4	1	1	1	13	
05.00.00	Geosciences	3	18	3	7			1	14	
06.00.00	Biological Sciences	2	9	2	10			1	13	
09.00.00	Informatics and Computer Facilities	4	9	2	5			1	7	
10.00.00	Information Security	1	1			2	4			
11.00.00	Electronics, Radioengineering, and Communication Systems	1	2	1	1			1	1	
12.00.00	Photonics, Engineering, and Optical and Biotechnical Systems and Technologies	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	5	3
37.00.00	Psychological Sciences	1	2	1	3	1	1	1	3	
38.00.00	Economics and Management	5	23	6	21	2	2	1	8	
39.00.00	Sociology and Social Development	1	1	1	1					
40.00.00	Jurisprudence	1	4	1	15	1	1	1	14	
41.00.00	Political Sciences and Regional Studies	3	5	3	4			1	2	
42.00.00	Mass Media and Library Science	5	8	2	3					
43.00.00	Tourism and Service	1	1	1	1					
44.00.00	Education and Pedagogical Sciences	1	2	2	5			1	2	
45.00.00	Linguistics and Literary Studies	3	11	2	6	1	11	1	12	
46.00.00	History and Archaeology	2	3	1	1			1	5	

End of table 4.5

Code of the major group	Name of the major group	Bachelor's degree		Master's degree		Specialist's degree		Postgraduate training programmes		Residency
		Specialities	Programmes	Specialities	Programmes	Major speciality	Specialisation	Specialities	Programmes, fields of study	Major speciality
47.00.00	Philosophy, Ethics, and Religion Studies	1	3	1	2			1	3	
50.00.00	Art Studies	1	1							
51.00.00	Culture Studies and Sociocultural Projects	1	1	1	1			1	2	
56.00.00	Military Operation					1	1			
58.00.00	Asian and African Studies	1	1							
<b>Total</b>		<b>51</b>	<b>141</b>	<b>41</b>	<b>110</b>	<b>15</b>	<b>28</b>	<b>17</b>	<b>122</b>	<b>3</b>

As of 1 October 2022, the aggregate (normalised) contingent of students within higher professional education programmes totalled over 17,152 people including:

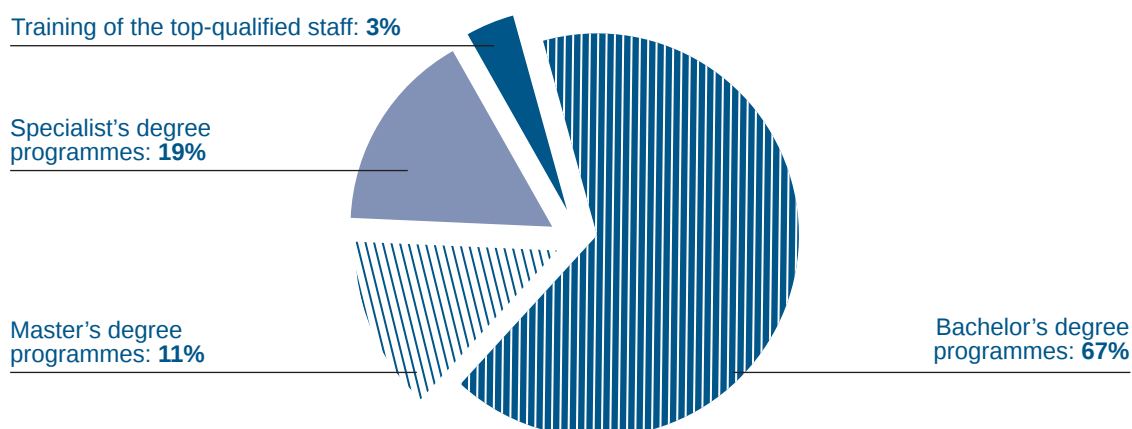
- Bachelor's degree students: 11,576 people
- Specialist's degree students: 3,295 people
- Master's degree students: 1,964 people
- PhD students: 285 people
- Residents: 32 people.

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

In 2022, the percentage of PhD and master's degree students and residents in the normalised contingent amounted to 14%.

Figure 4.10

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





Master's degree education programmes provided in 2021/2022 are listed in Table 4.6.

Table 4.6

**MASTER'S DEGREE PROGRAMMES PROVIDED BY THE UNIVERSITY  
IN THE 2021/2022 ACADEMIC YEAR**

Specialities	Programmes
<b>FACULTY OF GEOLOGY</b>	
05.04.01 Geology	Engineering Geology Fundamental Research in Geology Contemporary Methods of Studying Subsurface Resources Engineering Surveying and Ecological and Geological Design
<b>FACULTY OF HISTORY</b>	
39.04.01 Social Studies	Sociological Education
41.04.04 Political Science	Analysis of Politics and Policies
46.04.01 History	Research and Teaching in History
<b>FACULTY OF MATHEMATICS</b>	
01.04.01 Mathematics	Mathematical Models and Hydrodynamics
02.04.01 Mathematics and Computer Sciences	Mathematical Methods and Computer Technologies in Natural Science, Economics, and Management Mathematical Analysis and Applications Mathematical and Computer Modelling
<b>FACULTY OF BIOMEDICAL SCIENCES</b>	
06.04.01 Biology	Biophysics Botany Bioresources Biochemistry Genetics Biomedical Sciences Physiology Ecology
06.04.02 Soil Science	Soil Genesis and Evolution in Natural and Anthropogenic Landscapes
05.04.06 Ecology and Natural Resource Management	Ecological Safety
<b>FACULTY OF GEOGRAPHY, GEOECOLOGY, AND TOURISM</b>	
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
<b>FACULTY OF JOURNALISM</b>	
42.04.01 Advertising and Public Relations	Advertising and Public Relations in Mass Media
42.04.02 Journalism	Internet and Mass Media TV and Radio Functioning Process
<b>FACULTY OF COMPUTER SCIENCES</b>	
02.04.01 Mathematics and Computer Sciences	Computer Modelling and Artificial Intelligence
09.04.02 Information Systems and Technologies	Information Systems Analysis and Synthesis Information Technology in Management Mobile Applications and Video Games Artificial Applied Intelligence Systems

Table cont. 4.6

Specialities	Programmes
<b>FACULTY OF INTERNATIONAL RELATIONS</b>	
38.04.01 Economics	Business in the Emerging Markets
38.04.02 Management	International Business Customs Services Management
41.04.01 International Regional Studies	European Studies
41.04.05 International Relations	International Integration and International Organisations International Protection of Human Rights
<b>FACULTY OF APPLIED MATHEMATICS, INFORMATICS, AND MECHANICS</b>	
1.04.02 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
01.04.03 Mechanics and Mathematical Modelling	Applied Mechanics and Computer Modelling
02.04.02 Fundamental Informatics and Information Technologies	Machine Learning and Intelligent Information Technologies Mobile Applications Development Technologies
02.04.03 Mathematical Support and Administration of Information Systems	Management of the Design and Development of Information Systems
09.04.03 Applied Informatics	Applied Informatics in Social and Medical Systems
38.04.05 Business Informatics	Information Business Analytics
<b>FACULTY OF ROMANCE AND GERMANIC PHILOLOGY</b>	
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	Teaching Foreign Languages with the Help of Online Technologies in Schools and Further Education
<b>FACULTY OF PHILOSOPHY AND PSYCHOLOGY</b>	
37.04.01 Psychology	Clinical and Psychological Follow-up Psychology of Personality Psychological Follow-up in Social Sector
44.04.01 Pedagogical Education	Innovations in Education
44.04.02 Psychological and Pedagogical Education	Management and Education Psychology and Pedagogy of Creativity Educational Psychology
47.04.01 Philosophy	Philosophy of Creativity and Cultural Industries Social and Philosophical Design and Analysis
51.04.01 Cultural Studies	Organisation and Management in Cultural Industries
<b>FACULTY OF PHYSICS</b>	
03.04.02 Physics	Optics and Nanophotonics Physics of Nanosystems Nuclear and Elementary Particle Physics
03.04.03 Radiophysics	Computer Methods of Radiophysical Information Processing Microelectronics and Semiconductor Devices Telecommunication Systems and Electronic Warfare
11.04.04 Electronics and Nanoelectronics	Integrated Electronics and Nanoelectronics
14.04.02 Nuclear Physics and Nuclear Technologies	Physics of Atomic Nuclei and Particles



Specialities	Programmes
<b>FACULTY OF PHYLOLOGY</b>	
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
<b>FACULTY OF CHEMISTRY</b>	
04.04.01 Chemistry	Organic Chemistry Physical Chemistry Chemical Expertise
04.04.02 Chemistry, Physics, and Mechanics of Materials	Chemistry, Physics, and Mechanics of Function Materials and Nanomaterials
<b>FACULTY OF ECONOMICS</b>	
38.04.01 Economics	Quantitative Analysis in Financial Markets Corporate Accounting, Financial and Investment Analysis Accounting, Analysis, and Audit Health Care Accounting, Control, and Analysis Financial Analyst: Investments, Credit Standing, Risks Economics and E-commerce Economics of Organisations and Markets
38.04.02 Management	General and Strategic Management Contemporary Technologies in Management Marketing Management Healthcare Management Economics and Firm Management
38.04.03 Human Resource Management	Human Resources Management Management of Human Resources and Employer Branding in Digital Economy
38.04.04 State and Municipal Administration	Administration of the Territory Social and Economic Development
38.04.08 Finance and Credit	Financial Management Banking Support of Contracts
<b>FACULTY OF LAW</b>	
40.04.01 Jurisprudence	Conventional Law Criminalistics; Operational Investigations, Judicial, and Advocate Activities Corporate Attorney International Law and Business Financial and Tax Law 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 Criminal Law and Criminology; Criminal and Penal Law Criminal Procedure Legal Defence in Administrative and Administrative Procedure Law Lawyer in the Field of Labour, Social, and Land Law Public Authority Attorneys

The percentage of the student population enrolled in master's degree programmes in the total number of the given contingent enrolled in bachelor's, specialist's, and master's degree programmes was 17%.

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

In 2022, VSU admitted students to postgraduate degree and residency programmes according to the new nomenclature of scientific specialities. VSU offered postgraduate courses both in research areas and fields of study. 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 RESEARCH AREAS (AS OF 31 DECEMBER 2022)

Codes of research areas and fields of study	Name of research areas and majors/fields of study within them	Number of postgraduate students				
		Total	Including			
			RF citizens	CIS citizens	Foreign citizens	
<b>Total</b>	<b>470</b>	<b>422</b>	<b>11</b>	<b>37</b>	<b>37</b>	
<b>01.06.01</b>	<b>Mathematics and Mechanics</b>	<b>43</b>	<b>40</b>	<b>2</b>	<b>1</b>	
	Substantial, Complex, and Functional Analysis	3	2	0	1	
	Differential Equations, Dynamical Systems, and Optimal Control	23	21	2	0	
	Solid Mechanics	4	4	0	0	
<b>1.1.1</b>	Substantial, Complex, and Functional Analysis	2	2	0	0	
<b>1.1.2</b>	Differential equations and Mathematical Physics	9	9	0	0	
<b>1.1.8</b>	Solid mechanics	2	2	0	0	
<b>03.06.01</b>	<b>Physics and Astronomy</b>	<b>48</b>	<b>45</b>	<b>0</b>	<b>3</b>	
	Theoretical Physics	4	4	0	0	
	Radiophysics	14	13	0	1	
	Optics	3	3	0	0	
	Condensed Matter Physics	8	7	0	1	
	Semiconductor Physics	5	4	0	1	
	<b>1.3.3.</b>	Theoretical Physics	2	2	0	0
	<b>1.3.4</b>	Radiophysics	6	6	0	0
	<b>1.3.6</b>	Optics	2	2	0	0
	<b>1.3.8</b>	Condensed Matter Physics	2	2	0	0
	<b>1.3.11</b>	Semiconductor Physics	2	2	0	0
<b>4.6.01</b>	<b>Chemical Sciences</b>	<b>33</b>	<b>30</b>	<b>0</b>	<b>3</b>	
	Inorganic Chemistry	2	2	0	0	
	Analytical Chemistry	4	3	0	1	
	Organic Chemistry	9	8	0	1	
	Physical Chemistry	1	0	0	1	
	Electrochemistry	3	3	0	0	
	High-Molecular Compositions	4	4	0	0	
	Solid State Chemistry	1	1	0	0	
	<b>1.4.2</b>	Analytical Chemistry	1	1	0	0
	<b>1.4.3</b>	Organic Chemistry	5	5	0	0

Codes of research areas and fields of study	Name of research areas and majors/fields of study within them	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
1.4.6	Electrochemistry	1	1	0	0
1.4.15	Solid State Chemistry	2	2	0	0
05.06.01	<b>Geosciences</b>	<b>33</b>	<b>27</b>	<b>2</b>	<b>4</b>
	Petrology, Volcanology	1	1	0	0
	Hydrogeology	1	1	0	0
	Geological Engineering, Permafrostology, and Soil Science	3	3	0	0
	Geophysics, Geophysical Methods in Mineral Deposit Exploration	2	2	0	0
	Geology, Solid Mineral Deposits Exploration, Minerageny	6	5	0	1
	Physical Geography and Biogeography, Soil Geography, and Landscape Geochemistry	2	2	0	0
	Economic, Social, Political, and Recreational Geography	2	1	1	0
	Geoecology	8	5	0	3
1.6.1	General and Regional Geology. Geotectonics and Geodynamics	2	2	0	0
1.6.9	Geophysics	1	1	0	0
1.6.12	Physical Geography and Biogeography, Soil Geography, and Landscape Geochemistry	1	1	0	0
1.6.13	Economic, Social, Political, and Recreational Geography	2	1	1	0
1.6.21	Geoecology (geographical sciences)	2	2	0	0
06.06.01	<b>Biological Sciences</b>	<b>47</b>	<b>44</b>	<b>0</b>	<b>3</b>
	Biophysics	4	4	0	0
	Biochemistry	12	10	0	2
	Botany	2	2	0	0
	Zoology	1	1	0	0
	Entomology	2	2	0	0
	Genetics	10	10	0	0
	Ecology	4	4	0	0
	Soil Studies	2	1	0	1
1.5.2	Biophysics	1	1	0	0
1.5.4	Biochemistry	5	5	0	0
1.5.7	Genetics	2	2	0	0
1.5.14	Entomology	1	1	0	0
1.5.15	Ecology	1	1	0	0
9.06.01	<b>Informatics and Computer Facilities</b>	<b>61</b>	<b>55</b>	<b>0</b>	<b>6</b>
	System Analysis, Management, and Processing of Information	9	9	0	0
	Management in Social and Economic Systems	4	4	0	0
	Theory of Informatics	14	12	0	2
	Mathematical Modelling, Numerical Methods, and Program Systems	18	14	0	4
1.2.2.	Mathematical Modelling, Numerical Methods, and Program Systems	6	6	0	0
1.2.3	Theoretical Informatics, Cybernetics	4	4	0	0
2.3.1	System Analysis, Management and Processing of Information, Statistics	3	3	0	0

Table cont. 4.7

Codes of research areas and fields of study	Name of research areas and majors/fields of study within them	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
2.3.5	Mathematical and Software Support for Computing Systems, Complexes, and Computer Networks	1	1	0	0
2.3.8	Informatics and Information Processes	2	2	0	0
	<b>Electronics, Radioengineering, and Communication Systems</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>
11.6.01	Solid-State Electronics, Radioelectronic Components, Microelectronics, Nanoelectronics, Quantum Effect Tools	1	1	0	0
	<b>Pharmacy</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>
	Pharmacology, Clinical Pharmacology	1	1	0	0
33.06.01	Medicinal Product Formulation Technology	1	1	0	0
	Pharmaceutical Chemistry, Pharmacognosy	3	3	0	0
	Pharmacy Business Organisation	1	1	0	0
3.4.2	Pharmaceutical Chemistry, Pharmacognosy	1	1	0	0
	<b>Psychological Sciences</b>	<b>6</b>	<b>6</b>	<b>0</b>	<b>0</b>
37.06.01	Social Psychology	1	1	0	0
	Pedagogical Psychology	2	2	0	0
5.3.5	Social Psychology, Political and Economic Psychology	3	3	0	0
	<b>Economics</b>	<b>57</b>	<b>46</b>	<b>2</b>	<b>9</b>
	Economic Theory	1	1	0	0
38.06.01	Economics and National Economy Management	24	17	1	6
	Finance, Money, and Credit	1	1	0	0
	Accounting, Statistics	14	13	0	1
	Mathematical and Instrumental Techniques in Economics	2	2	0	0
5.2.1	Economic Theory	1	1	0	0
5.2.2	Mathematical, Statistical, and Instrumental Techniques in Economics	2	2	0	0
5.2.3	Regional and Sectoral Economics	8	6	0	2
5.2.6	Management	4	3	1	0
	<b>Jurisprudence</b>	<b>43</b>	<b>42</b>	<b>0</b>	<b>1</b>
	Theory and History of State and Law; History of State and Law Studies	9	9	0	0
	Constitutional Law, Constitutional Proceedings, Municipal Law	6	5	0	1
	Finance Law, Tax Law, and Budget Law	3	3	0	0
40.06.01	Criminal Law and Criminology; Criminal and Penal Law	3	3	0	0
	International and European Law	2	2	0	0
	Criminalistics, Operational Investigations, Judicial and Expert Activities	3	3	0	0
	Administrative Law, Administrative Procedure	2	2	0	0
	Civil and Arbitration Procedures	7	7	0	0
5.1.2	Public Law (State Law) Sciences	2	2	0	0
5.1.3	Private Law (Civil) Sciences	3	3	0	0
5.1.4	Criminal Law Sciences	2	2	0	0
5.1.5.	International Law Sciences	1	1	0	0

Codes of research areas and fields of study	Name of research areas and majors/fields of study within them	Number of postgraduate students			
		Total	Including		
			RF citizens	CIS citizens	Foreign citizens
<b>41.06.01</b>	<b>Political Sciences and Regional Studies</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>0</b>
	Political Institutions, Processes, and Technologies	5	5	0	0
<b>5.5.2</b>	Political Institutions, Processes, and Technologies	1	0	1	0
<b>44.06.01</b>	<b>Education and Pedagogical Sciences</b>	<b>11</b>	<b>9</b>	<b>1</b>	<b>1</b>
	General Pedagogics, History of Pedagogics and Education	8	7	1	0
<b>5.8.1</b>	General Pedagogics, History of Pedagogics and Education	3	2	0	1
	<b>Linguistics and Literary Studies</b>	<b>47</b>	<b>40</b>	<b>3</b>	<b>4</b>
	Russian Literature	8	6	0	2
	International Literature	1	1	0	0
	Journalism	8	8	0	0
<b>45.06.01</b>	Russian Language	7	6	0	1
	Germanic Languages	2	2	0	0
	Romance Languages	4	1	3	0
	Linguistic Theory	5	5	0	0
<b>5.9.1</b>	Russian Literature and Literature of the Peoples of the Russian Federation	2	2	0	0
<b>5.9.5</b>	Russian Language. Languages of the Peoples of Russia	3	3	0	0
<b>5.9.6</b>	Languages of the Peoples of Foreign Countries (with a specific language or group of languages indicated)	3	3	0	0
<b>5.9.8</b>	Theoretical, Applied, and Comparative Linguistics	1	1	0	0
<b>5.9.9</b>	Media Communication and Journalism	3	2	0	1
	<b>Historical Sciences and Archaeology</b>	<b>21</b>	<b>19</b>	<b>0</b>	<b>2</b>
<b>46.06.01</b>	Russian History	3	2	0	1
	General History	6	6	0	0
	Archaeology	5	4	0	1
<b>5.6.1</b>	Russian History	5	5	0	0
<b>5.6.3</b>	Archaeology	2	2	0	0
	<b>Philosophy, Ethics, and Religion Studies</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>47.06.01</b>	Ontology and Epistemology	1	1	0	0
	Social Philosophy	2	2	0	0
<b>51.06.01</b>	<b>Cultural Studies</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>
	Theory and History of Culture	1	1	0	0
<b>5.10.1</b>	Theory and History of Culture and Art	2	2	0	0

## 4.6. STATE FINAL EXAMINATION

186 state examination committees worked during the state final examination.

The contingent of students who passed the state final examination was as follows: 4,190 people, including 2,301 bachelor's degree students, 422 specialist's degree students, 1,158 master's degree students, 119 PhD students, 15 residents, and 175 secondary vocational education (SVE) specialists (Table 4.8, Fig. 4.11).

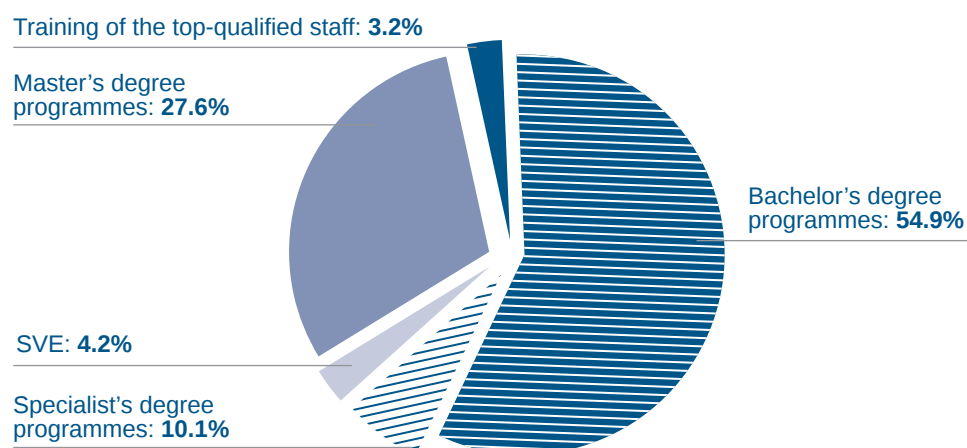
Table 4.8

### DISTRIBUTION OF STUDENTS ACCORDING TO THE MODES OF STUDY AND DEGREE LEVELS IN 2022

Study option	Bachelor's		Specialist's		Master's		Secondary vocational education		Postgraduate training programmes	Residency
	Excellent	Total	Excellent	Total	Excellent	Total	Excellent	Total	Total	Total
Full-time	372	2,100	61	422	309	690	22	175	97	15
Extramural	8	155	–	–	88	418	–	–	22	–
Part-time	3	46	–	–	27	50	–	–	–	–
<b>Total</b>	<b>383</b>	<b>2,301</b>	<b>61</b>	<b>422</b>	<b>424</b>	<b>1,158</b>	<b>22</b>	<b>175</b>	<b>119</b>	<b>15</b>

Figure 4.11

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



# 4

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 13.1%. 8.9% of them were recommended for introduction into production.

The distribution of graduates within postgraduate academic staff training programmes and information about PhD thesis defence 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 (among graduates of 2022)
Mathematics and Mechanics	12	1
Physics and Astronomy	14	3
Chemical Sciences	8	0
Geosciences	8	0
Biological Sciences	10	0
Informatics and Computer Facilities	13	2
Electronics, Radioengineering, and Communication Systems	2	0
Psychological Sciences	1	0
Economics	9	1
Jurisprudence	17	1
Political Sciences and Regional Studies	1	0
Education and Pedagogical Sciences	1	0
Linguistics and Literary Studies	12	2
Historical Sciences and Archaeology	6	0
Philosophy, Ethics, and Religion Studies	2	0
Cultural Studies	1	1
<b>Total</b>	<b>117</b>	<b>11</b>
Of the total number of PhD students (number of foreign citizens)	15	2



The number of students and graduates by residency specialities are presented in Table 4.10 (as of 31 December 2022).

Table 4.10

## NUMBER OF RESIDENTS AND GRADUATES BY SPECIALITY

Code	Name of specialities	Number of residents					Graduates in 2022
		Total	Including				
			RF citizens		Foreign citizens		
			State-funded	Fee-based	State-funded	Fee-based	
<b>Total</b>		<b>32</b>	<b>26</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>15</b>
33.08.01	Pharmaceutical Engineering	16	14	0	2	0	5
33.08.02	Management and Economics of Pharmacy	13	10	2	1	0	5
33.08.03	Pharmaceutical Chemistry and Pharmacognosy	3	2	1	0	0	5

#### 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 2021/2022 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: 4 students from VSU, 1 student from the University of Göttingen (Germany).
- Programme “Human Resource Management in a Company”, speciality 38.03.03 Human Resource: 5 students from VSU and 5 students from Russian Technological University (MIREA).
- Programme “Tour Operator and Travel Agency Services Techniques and Management”, speciality 43.03.02 Tourism: 8 students from VSU and 9 students from Yesenin Ryazan State University.

Programmes completed by students at the networking partner university are aimed at shaping students’ personal qualities, expanding opportunities to choose from different training profiles, enhancing professional competencies, increasing graduates’ competitiveness, as well as improving the ability to adapt to different educational environments and teaching methods.



## 4.8. OVERVIEW OF SCHOLARSHIP PROGRAMMES

University students have an opportunity to take part in scholarship programmes of different levels which are aimed at supporting talented young people. The types of scholarship programmes and the number of scholarship holders are presented in Table 4.11.

Table 4.11

### TYPES OF UNIVERSITY SCHOLARSHIP PROGRAMMES FOR UNDERGRADUATE AND POSTGRADUATE STUDENTS

Scholarship programme	Number of scholarships for students
Scholarship of the President of the Russian Federation	4
Scholarship of the Government of the Russian Federation	4
Scholarship of the President of the Russian Federation in the priority areas	15
Scholarship of the Government of the Russian Federation in the priority areas	25
Scholarship of the Government of the Russian Federation in the priority areas (for SVE)	7
Scholarship named after A.A. Voznesensky	1
Scholarship named after A.I. Solzhenitsyn	1
Personal scholarship of Vladimir Potanin Charitable Foundation	6
Scholarship of the VSU Academic Board	5
Scholarship named after Professor L.D. Kokorev	2
Scholarship named after Professor G.F. Gorsky	2
Scholarship named after Professor I.A. Galagan	2
Scholarship named after Professor V.S. Osnovin	3
Scholarship named after Professor V.A. Panushkin	2
Scholarship named after Associate Professor Yu.A. Zhitsinsky	3
Scholarship named after Professor V.N. Skobelkin	1
Scholarship named after Professor V.I. Fedotov	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. Eytinon	3
Scholarship named after Professor V.I. Sobolev	1
Scholarship named after Professor M.A. Krasnoselsky	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 Yu.A. Rylov	1
Scholarship named after Professor G.Ya. Bayev	2
Scholarship named after Professor V.A. Artimov	2
Scholarship named after Professor E.K. Algazinov	3
Personal scholarship named after Emperor Peter I	4
Scholarship of the data provider <i>Informsvyaz-Chernozemye</i>	7
Scholarship of <i>Concern Sozvezdiye</i>	14
Grant of the President of the Russian Federation (within the programme of the "Talent and Success" Foundation)	5
Scholarship of the Honorary Doctor of VSU A.V. Gordeev	2

## 4.9. GENERAL INFORMATION ABOUT THE SECONDARY VOCATIONAL EDUCATION PROGRAMMES IMPLEMENTED AT VSU IN 2022

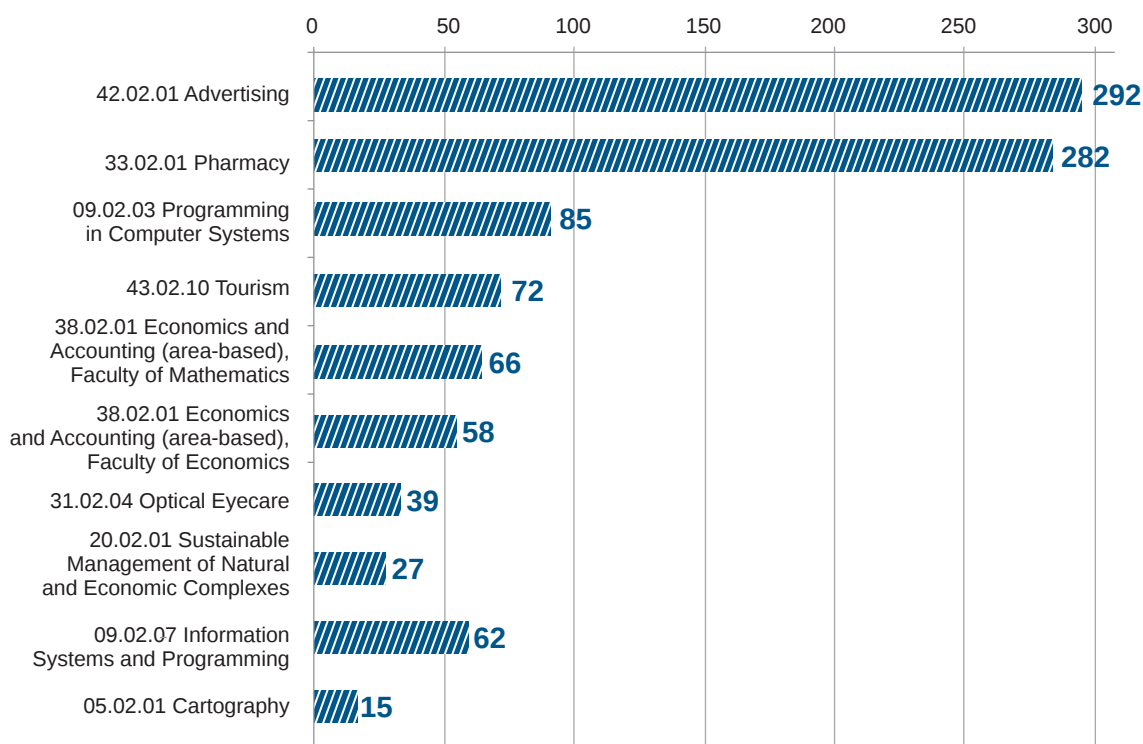
In the 2021/2022 academic year, the university implemented primary-level programmes designed for secondary vocational education specialists within seven Federal State Educational Standards including: 09.02.03 Programming in Computer Systems (basic level); 20.02.01 Sustainable Management of Natural and 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). Since 1 September 2022, students have been admitted to the following specialities: 05.02.01 Cartography and 09.02.07 Information Systems and Programming.

The grade point average (GPA) of students enrolled in the following secondary vocational education programmes in 2022 was 4.3, which was above the nationwide GPA (3.94). The distribution of the grade point average by specialities was as follows: Pharmacy (4.6), Advertising (4.2), Tourism (4.4), Optical Eyecare (4.25), Sustainable Management of Natural and Economic Complexes (4.6), Economics and Accounting (area-based) at the Faculty of Mathematics (4.43), Economics and Accounting (area-based) at the Faculty of Economics (4.43), Cartography (4.1), and Information Systems and Programming (4.2).

The number of SVE students was 998. The distribution of the contingent by programmes is shown in Figure 4.12.

Figure 4.12

### DISTRIBUTION OF STUDENTS ACCORDING TO SECONDARY VOCATIONAL EDUCATION PROGRAMMES

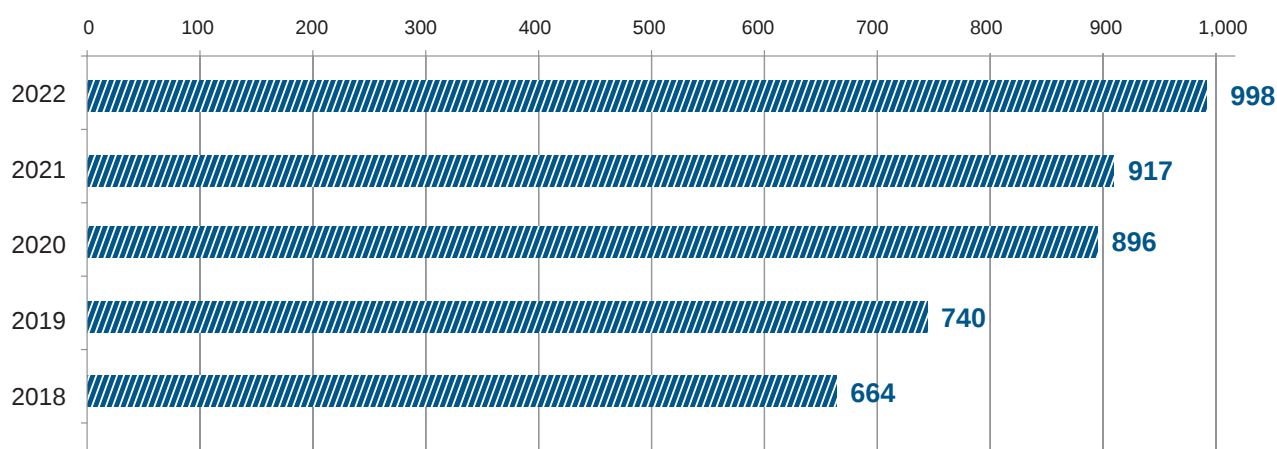




The dynamics in the admission to secondary vocational education programmes is generally positive, with the contingent having increased by 50% over the last 5 years (Fig. 4.13).

Figure 4.13

#### DYNAMICS OF THE STUDENT CONTINGENT BY SECONDARY VOCATIONAL EDUCATION PROGRAMMES IN 2018–2022



The above figure shows that there was an increase in the student contingent in 2022, which is mainly due to the enrolment of students in new specialities “Cartography” and “Information Systems and Programming”.

In 2022, 7 students from Voronezh State University studying secondary vocational education programmes were awarded Russian Federation Government Scholarships 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 6 students from the speciality 31.02.04 Optical Eyecare and 1 student from the speciality 33.02.01 Pharmacy.



The graduation results of students completing secondary vocational education programmes in 2022 is presented in Table 4.12.

Table 4.12

**GRADUATION RESULTS OF STUDENTS BY SECONDARY VOCATIONAL EDUCATION PROGRAMMES IN 2022**

Secondary vocational education speciality	Number of graduates	Including				Average mark for thesis defence
		With honours degrees	With an excellent mark for thesis defence	With a good mark for thesis defence	With a satisfactory mark for thesis defence	
09.02.03 Programming in Computer Systems	27	0	14	10	3	4.41
31.02.04 Optical Eyecare	7	2	7	0	0	5.00
33.02.01 Pharmacy	47	3	25	21	1	4.51
38.02.01 Economics and Accounting (area-based), Faculty of Economics	14	0	5	5	4	4.07
38.02.01 Economics and Accounting (area-based), Faculty of Mathematics	18	3	4	7	7	3.83
42.02.01 Advertising	36	7	12	11	13	3.97
43.02.10 Tourism	26	6	10	12	4	4.23
<b>Total</b>	<b>175</b>	<b>21</b>	<b>77</b>	<b>66</b>	<b>32</b>	<b>4.29</b>

The total number of graduates of the secondary vocational education programmes was 175 people, including 21 students who graduated secondary vocational education programmes, which is 8 people more than last year.

For the second year, the state final examination procedure for the graduates of the secondary vocational education programmes within the updated education standard “Federal State Educational Standard 4” besides thesis defence involved a demo exam as a type of graduate qualification paper. The state final examination procedure for graduates from the programme 38.02.01 “Economics and Accounting (area-based)” involved a demo exam for the competence R41 Accounting.

# 4

Demo exam is an independent assessment of graduates' competencies by WorldSkills Agency experts from third-party enterprises and organisations at a specialised site, the Centre for the WorldSkills demo exam accredited by the WorldSkills Agency.

The results of the demo exam are presented in Table 4.13.

Table 4.13

## DEMO EXAM RESULTS FOR THE COMPETENCE R41 ACCOUNTING IN 2022

Secondary vocational education speciality	Number of graduates	Result				Average score
		Exceeded the average score in the Russian Federation	Excellent	Good	Satisfactory	
38.02.01 Economics and Accounting (area-based), Faculty of Economics	14	11	4	8	2	4.14
38.02.01 Economics and Accounting (area-based), Faculty of Mathematics	18	12	2	15	1	4.06
<b>Total</b>	<b>32</b>	<b>23</b>	<b>6</b>	<b>23</b>	<b>3</b>	<b>4.10</b>

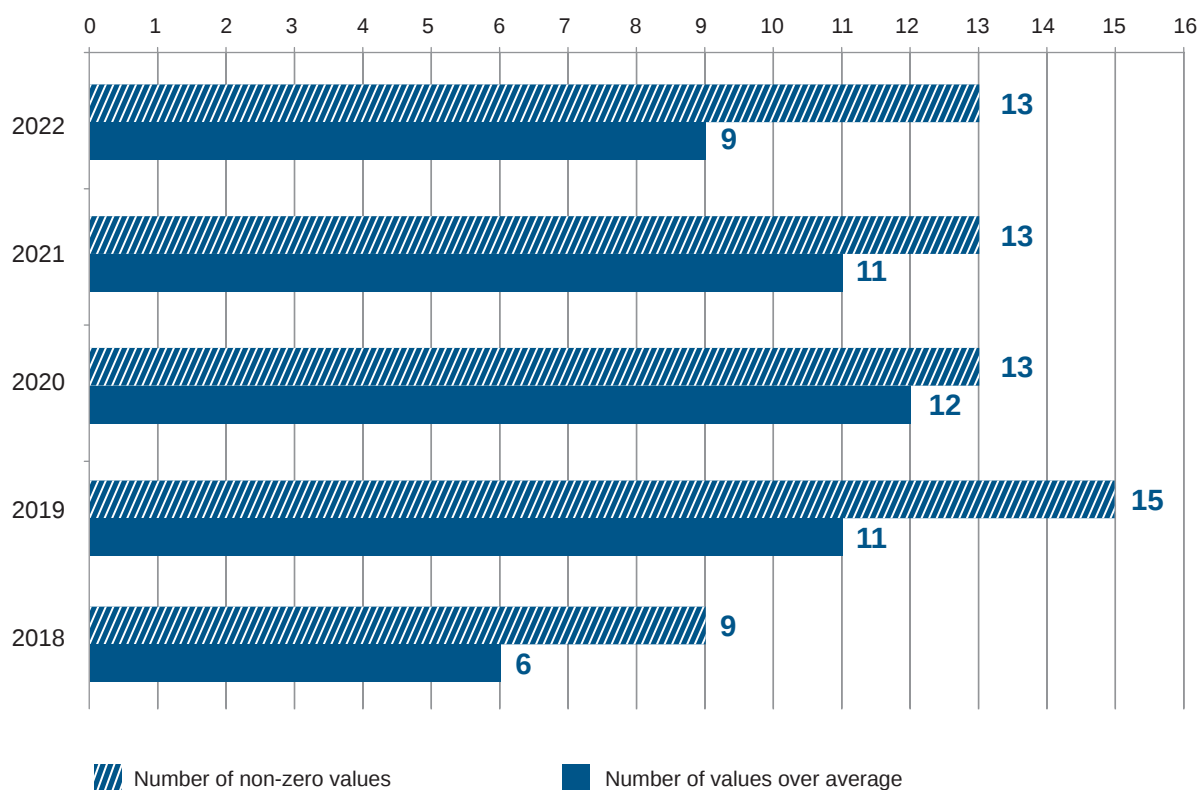
Thirty two graduates passed the demo exam. In 2022, the average score of VSU students who took the demo exam for the competence R41 Accounting was 26.89 points out of a maximum possible 47, which was by 3.5 points higher than the corresponding indicator at the regional level (Voronezh Region).

Voronezh State University entered the second league of the ranking "Monitoring of the Quality of Specialists Training in Educational Organisations Implementing Secondary Vocational Education Programmes" for 2022 (SVE Monitoring). In total, 4,572 educational institutions took part in the monitoring, including 340 educational institutions of higher education and 423 of their branches. In 2022, according to the results of the SVE Monitoring, Voronezh State University's performance in the field of educational activity, infrastructure development, financial and economic activity, and social responsibility was above the average.

The dynamics of SVE Monitoring results in 2018– 2022 is shown in Fig. 4.14.

Figure 4.14

## QUANTITATIVE RESULTS OF THE SVE PROGRAMMES MONITORING



According to the results of the monitoring among 80 educational institutions of the Voronezh Region implementing secondary vocational education programmes, in the reporting year Voronezh State University was within the “green zone”, which includes educational institutions with a high degree of implementation and development of audited indicators. VSU took 15th position as to the normalised contingent and 10–14th position for the number of values over average.

In 2022, students completing SVE programmes for the second year in a row took part in the all-Russian testing. Students of the 1st and 2nd years completed two tests: the tests assessed the metasubject skills and skills in one specialised subject. Students completing programmes in the speciality “Advertising” took a test in History, students in the speciality “Pharmacy” completed a test in Chemistry, the test for students in the speciality “Tourism” was in Geography, and a test in Mathematics was completed by students in the specialities “Sustainable Management of Natural and Economic Complexes”, “Information Systems and Programming”, and “Economics and Accounting (area-based)”.

204 first-year students (75.6% of the first-year contingent) and 145 second-year students (67.8% of the second-year contingent) took part in all-Russian testing. 92% of the participants passed the meta-subject test. 77% of the students passed a test in History, 68% of the students passed the test in Chemistry, 98% passed the test in Geography, and 91% passed the test in Mathematics.





## **4.10. AN INTEGRATED EDUCATION AND INFORMATION SYSTEM AND ITS MAIN DEVELOPMENT TENDENCIES**

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

### **OVERVIEW OF INFORMATIONAL SUPPORT AND MANAGEMENT OF THE EDUCATIONAL PROCESS**

The "Electronic University VSU" web education portal 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 (URL: <https://edu.vsu.ru>).

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

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

A service which automatically processes students' requests for receiving access permissions was also launched.

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

The portal has special services for uploading, downloading, and posting the following documents regulating the educational process (as of the end of 2022):

- 362 State Educational Standards
- 3,840 main academic programmes implemented by VSU
- 3,629 main academic programmes curricula
- 64 SVE academic programmes curricula
- 70,537 course syllabuses



The service “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 2022, 40,496 papers by VSU undergraduate and postgraduate students and employees were checked for plagiarism in the Antiplagiat system.

The portal supports the educational process in case of in-person, distance, and blended learning. The integration of the proctoring service allows holding entrance, intermediate, and final state examinations online in accordance with the established regulations. In 2022, the service was used to hold 72 (324 in 2021) entrance exams and 219 final state examinations. A decrease in the number of distance tests during entrance examinations is due to the transfer of the admission campaign to offline format to the greatest possible extent, which did not exclude the distance admission tests at the request of applicants.

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

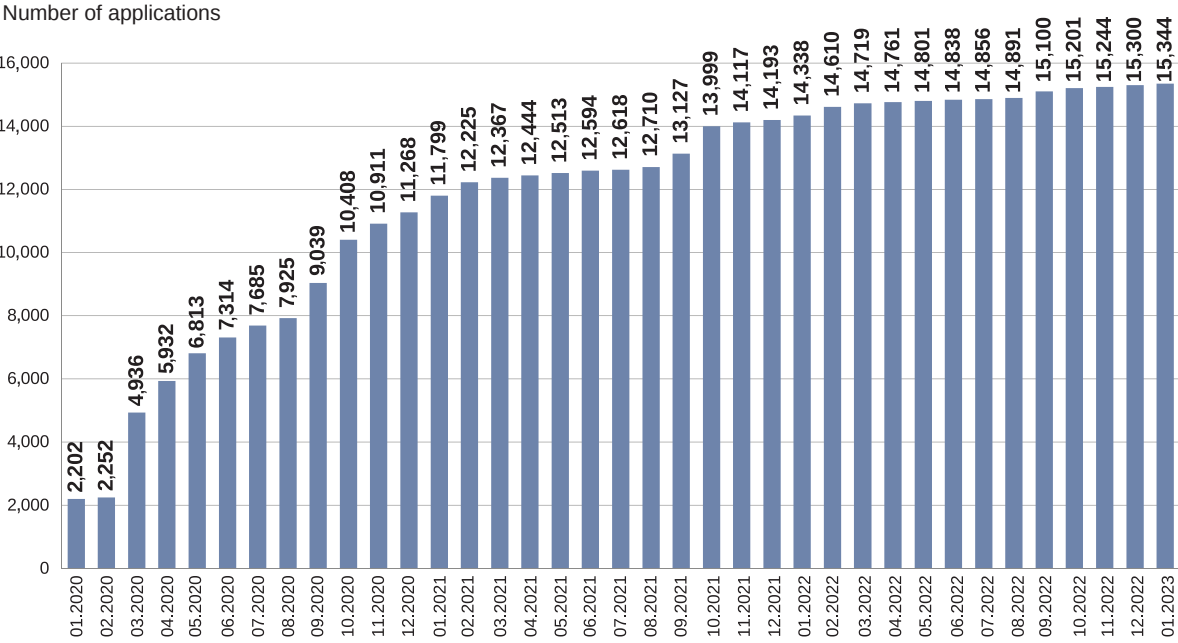
The e-courses registered and posted on the “Electronic University VSU” (URL: <https://edu.vsu.ru>) portal include all the components of the educational process: study materials, assessment tools, as well as communication and control facilities. It is possible to organise the study material in various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

In 2022, the educational process at the university was implemented in the blended learning environment using the “Electronic University VSU” portal. The intensive use of e-learning and distance learning technologies was accompanied by an increase in the number of e-courses. Thus, 1,150 applications were submitted by lecturers to create new e-courses to support the educational process (Fig. 4.15).



Figure 4.15

DYNAMICS OF THE APPLICATIONS TO REGISTER NEW E-COURSES ON THE PORTAL



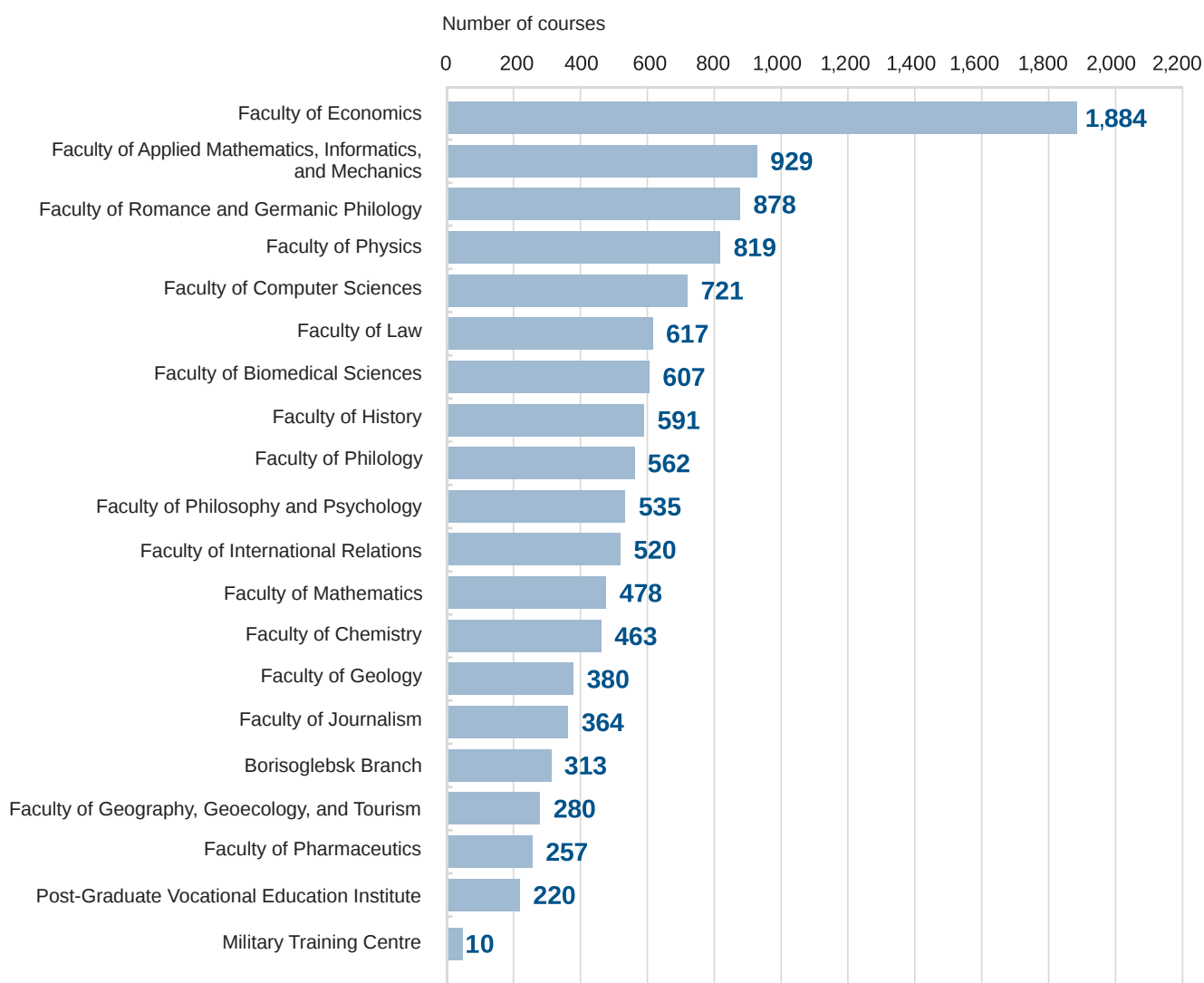
E-courses on the portal support the educational process, organisation and implementation of competitions in different subjects, work of student scientific societies, the innovative project “League of Innovations”, and professional competency trainings.



In 2022, the total number of disciplines from the curriculum was 11,774 disciplines, 3,614 disciplines (31%) of which had corresponding e-courses registered on the educational portal. Figure 4.16 shows the distribution of e-courses by faculties.

Figure 4.16

#### DISTRIBUTION OF E-COURSES INVOLVED IN THE EDUCATIONAL PROCESS BY FACULTIES



# 4

The organisation of the educational process using distance learning technologies meant that the demand for video conference communication tools (VCCT) at the portal remained at the same level. This led to a considerable load on the VCCT cluster which provides for online classes. To ensure uninterrupted hosting of online classes, in addition to the BigBlueButton VC system previously used at the university, in 2022 the university purchased the Pruffme cloud VC system.

Currently, the BigBlueButton hardware resources of the server and network equipment supporting service video conferencing include 22 servers with a simultaneous increase in the amount of the RAM at each server to 20 GB and an increase in the number of cores at each server from 6 to 8. The total number of processor cores is currently 176.

The server cluster supporting LMS Moodle increased from 7 to 13 servers and the number of cores per server increased from 8 to 12 (the total number of processor cores doubled from 56 to 128). The RAM of each processor was increased from 20 GB to 64 GB.

The experience of using currently available computing resources allows stating that the university is able to ensure the implementation of the entire educational process in a distance format.

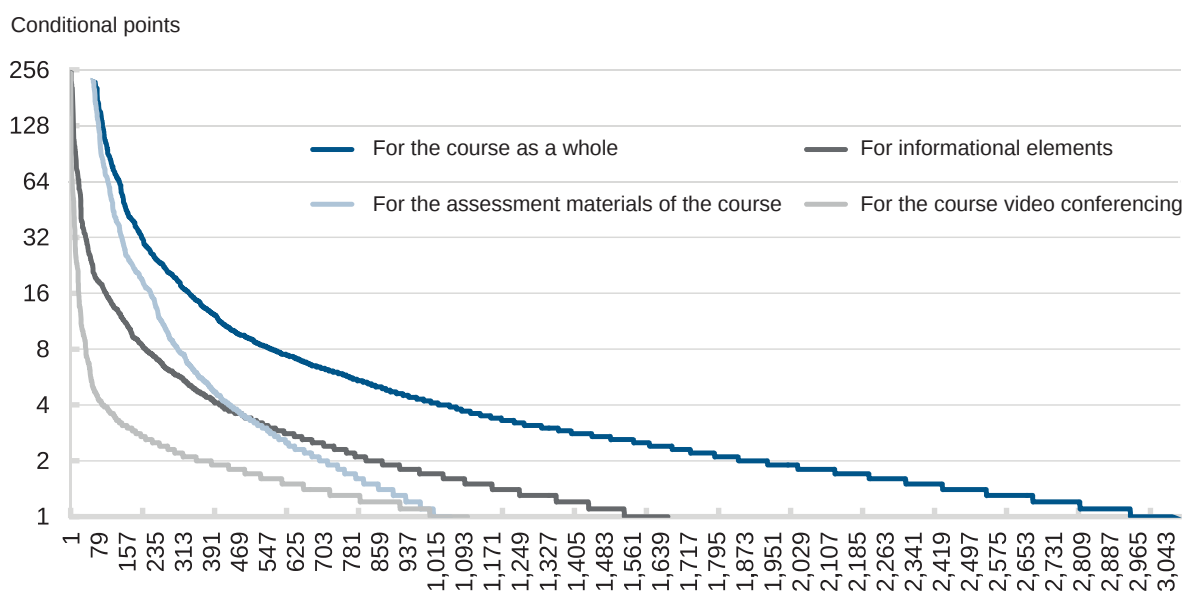
In order to optimise the use of portal resources, a quantitative metric was developed to determine the update level of the created electronic courses (conditional points for the update level of the course) as modern educational tools. This metric takes into account the real demand for and effectiveness of the course elements in the educational process.

The created metric allows assessing the effectiveness of using various educational elements in electronic courses and the update level of electronic courses as a whole. It also allows the organisers of the educational process at the university to obtain objective information for each subdivision on the current state and update level of the digital component describing the development of the educational process at the university. It allows organising students' independent work, monitoring their academic performance, current and midterm assessments.

Figure 4.17 presents a quantitative assessment of the update level of university e-courses obtained using these metric (conditional points). The given dependencies show a considerable variation of this indicator for different e-courses.

Figure 4.17

## ASSESSMENT OF THE LEVEL OF USED E-COURSES BY THE DEVELOPED METHOD



The application of the metric to the e-courses used in the learning process highlighted the need to standardise the structure of e-courses that support the discipline of the curriculum, which will allow using them in different learning modes.

The development of a quantitative metric that measures the update level of the created e-courses involves analysing the pedagogical level of the content of e-courses and their effectiveness in the educational process with the use of e-learning and distance learning technologies.

The metric made it possible to develop an assessment regulation for electronic training courses which could be used to determine whether e-courses fit in with the description of an electronic teaching aid provided in the “Regulation on Electronic Training Courses at Voronezh State University”.

To date, 8 massive open online courses (MOOCs) have been posted on the portal mooc.vsu.ru. They are used in the educational process at the university. This area can be developed by creating practical-oriented MOOCs and providing access to them to public users.

Cooperation with other universities is being developed in order to integrate online courses developed by them into the educational process. For example, online courses posted on the National Open Education Platform and the state information system “Modern electronic education environment” were used within the university's education programmes.

Students completed courses on their own initiative or as a result of their integration into the educational process at the university.



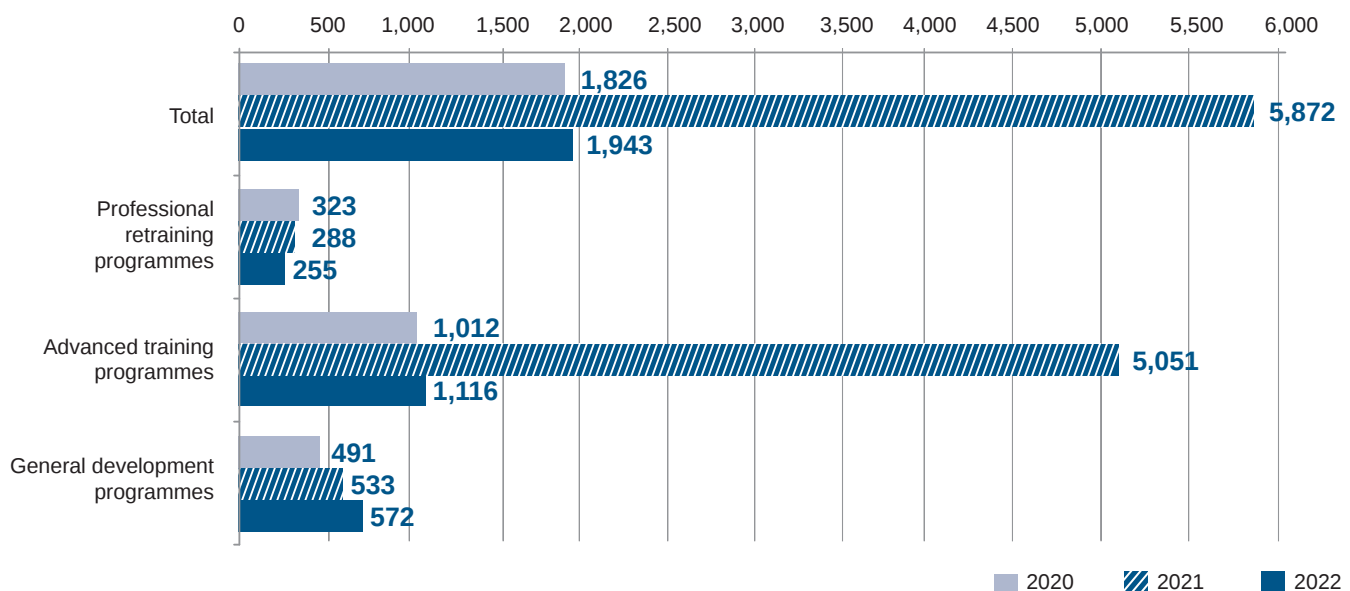
## 4.11. FURTHER EDUCATION

In 2022, 114 further education programmes were implemented at VSU, including: 35 general development programmes with 572 trainees; 46 advanced training programmes with 1,116 trainees; 33 professional retraining programmes with 255 trainees, including 135 trainees who received new qualifications.

Overall, 1,943 students participated in the programmes. The dynamics of the number of students at further education programmes is shown in Fig. 4.18.

Figure 4.18

### GROWTH DYNAMICS OF THE NUMBER OF STUDENTS AT FURTHER EDUCATION PROGRAMMES AT THE UNIVERSITY



Information on the distribution of further professional education programmes within major groups of specialities and fields of study is shown in Table 4.14.



Table 4.14

### DISTRIBUTION OF FURTHER PROFESSIONAL EDUCATION PROGRAMMES WITHIN MAJOR GROUPS OF SPECIALITIES AND FIELDS OF STUDY

Code of the major group	Name of the major group	Number of programmes	Number of people trained
01.00.00	Mathematics and Mechanics	1	21
02.00.00	Computer and Information Sciences	2	8
03.00.00	Physics and Astronomy	3	111
04.00.00	Chemistry	1	30
05.00.00	Geosciences	6	86
14.00.00	Nuclear Energy	1	12
16.00.00	Physical and Technical Sciences and Technologies	1	4
30.00.00	Fundamental Medicine	1	91
33.00.00	Pharmacy	6	116
38.00.00	Economics and Management	15	262
40.00.00	Jurisprudence	2	37
44.00.00	Education and Pedagogical Sciences	36	555
45.00.00	Linguistics and Literary Studies	3	34
46.00.00	History and Archaeology	1	4

The number of further professional education programmes using e-learning and distance learning technologies implemented in 2022 is shown in Table 4.15.

Table 4.15

### FURTHER PROFESSIONAL EDUCATION PROGRAMMES USING E-LEARNING AND DISTANCE LEARNING TECHNOLOGIES

Type of programme	Number of programmes	Number of people trained	E-learning and distance learning technologies		Number of people trained in programmes using EL or DLT
			Programmes using EL and DLT		
			Number	Percentage, %	
Advanced training programmes	34	1,008	21	62	697
Professional retraining programmes	18	205	17	94	203
<b>Total</b>	<b>52</b>	<b>1,213</b>	<b>38</b>	<b>73</b>	<b>900</b>

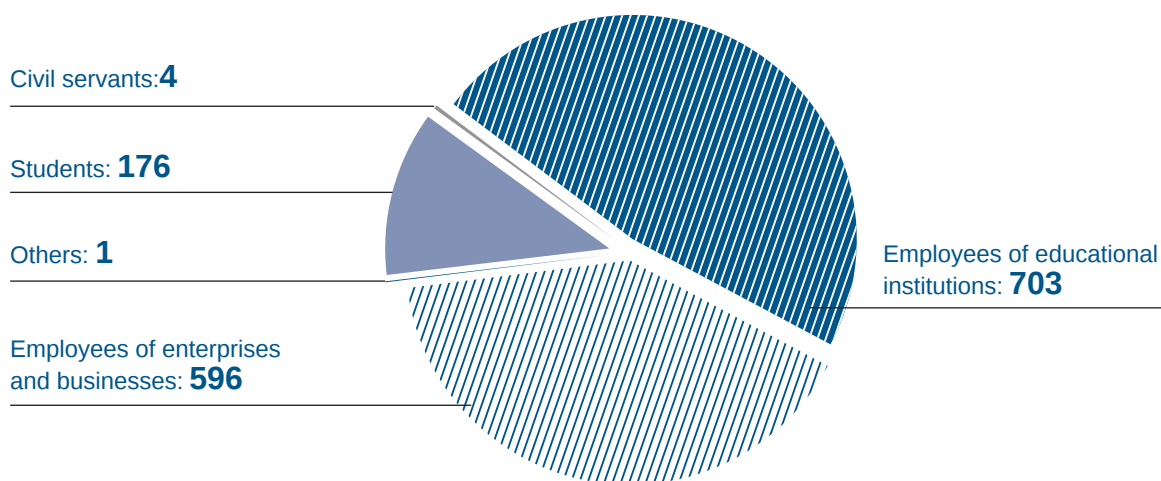


The distribution of students of further professional education programmes by categories was the following:

- Employees of enterprises and businesses: 596 students
- Employees of educational institutions: 703 students
- Civil and local government servants: 4 students
- Students enrolled on the main academic programmes of secondary vocational and higher education: 176 students.
- Others: 1 student (Fig. 4.19).

Figure 4.19

#### DISTRIBUTION OF THE STUDENTS OF FURTHER PROFESSIONAL EDUCATION PROGRAMMES BY CATEGORIES



Structure of funding sources for further education students in the reporting year<sup>1</sup>:

- Funded by federal budget provisions: 188 students.
- Funded by provisions of regional budgets of the regions of the Russian Federation: 20 students.
- Funded by local budget provisions: 21 students.
- Agreements for commercial educational services: 711 students. Among them: agreements funded by individuals: 679 students, agreements funded by legal entities: 32 students, funded by Voronezh State University: 408 students.

<sup>1</sup> Not including 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").



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

- 1/3 funded by federal budget provisions: 44 students.
- 1/3 funded by provisions of regional budgets of the regions of the Russian Federation: 44 students.
- 1/3 funded by agreements funded by individuals: 44 students.

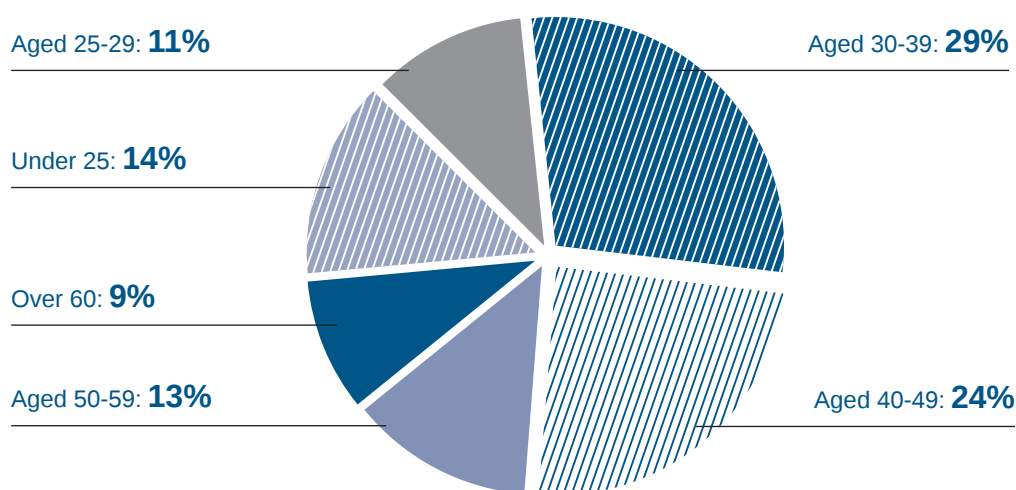
In 2022, further education programmes had 63 students with secondary vocational education, 850 students with higher education, and 257 students who were getting a higher education degree.

The further professional education programmes implemented at the university were completed by people belonging to the following age groups:

- Under 25: 208 people
- Aged 25–29: 162 people
- Aged 30–39 : 426 people
- Aged 40–49: 364 people
- Aged 50–59: 193 people
- Over 60 years: 140 people (Fig. 4.20).

Figure 4.20

#### DISTRIBUTION OF THE STUDENTS OF FURTHER PROFESSIONAL EDUCATION PROGRAMMES BY AGE





In 2022, the university opened 23 further education programmes, including 6 general development programmes, 13 advanced training programmes, and 4 professional retraining programmes.

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

In 2022, the Faculty of Physics awarded 21 diplomas to the graduates of the programme "Teacher of Physics and Astronomy"; the Faculty of Geography, Geoecology, and Tourism awarded 28 diplomas to the graduates of the programme "Teacher of Geography"; the Faculty of Chemistry awarded 27 diplomas to the graduates of the programme "Teacher of Chemistry"; the Faculty of Biomedical Sciences awarded 9 diplomas to the graduates of the programme "Teacher of Biology", the Faculty of Romance and Germanic Philology awarded 22 diplomas to the graduates of the programme "Translation for Professional Communication", the Faculty of Mathematics awarded 6 diplomas to the graduates of the programme "System Engineer", and the Faculty of Applied Mathematics, Informatics, and Mechanics awarded 2 diplomas to the graduates of the programme "Web Design and Computer Graphics".

In 2022, the Post-Graduate Vocational Education Institute implemented professional retraining programs "HR Management" and "Accounting, Analysis, and Audit". Ten students of these programmes received their diplomas.

In the framework of the second stage of the federal project "Employment Assistance" of the national project "Demography", 8 further professional education programmes were implemented in the format of advanced training. The number of students was 90 people, 74% of them confirmed getting employment. The programmes and the number of students by structural subdivisions are shown in Table 4.16.

Table 4.16

TRAINING WITHIN FURTHER EDUCATION PROGRAMMES  
OF THE FEDERAL PROJECT “EMPLOYMENT ASSISTANCE” IN 2022

Structural subdivision	Programme	Number of students
Business School	Fundamentals of Entrepreneurship and Company Management in the Sector of Small and Medium-Sized Enterprises	3
	Financial Analysis for Enterprise Activity Diagnostics	7
Borisoglebsk Branch	Development of Professional Skills of a Class Teacher	4
	Speaking Practice and Speech Therapy for Preschool Children and Junior School Children	16
Faculty of Geography, Geoecology, and Tourism	Laboratory Assistant for Chemical Analysis	30
	Applied Geodesy	1
Faculty of Mathematics	Teaching Mathematics	7
Faculty of Pharmaceutics	Pharmaceutical Public Information and Consultation on Medicines and Other Pharmacy Products	22

37 students completed a programme at the Legal Innovations and Conciliation Procedures Centre, 25 students completed a programme at the Communication Studies Centre, and 12 students completed a programme at the Radiation Safety Centre.

Senior medical staff from the medical institutions of Voronezh and the Voronezh Region completed the professional retraining programme “Management Basics and Lean Technologies” at the Managers’ Training Centre (14 people). In 2022, 44 heads and executives from 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 2022, 20 students obtained their BBA bachelor’s diplomas at the VSU Business School. The graduates of this programme are students from the Faculty of Economics (the “Management” programme, bachelor’s degree) who successfully master the curricula of two education programmes, the Main Academic Programme “Business Administration” and a BBA further education programme. In 2022, 14 students completed the professional retraining programme and obtained their MBA diplomas at the VSU Business School.



## **4.12. OBJECTIVES AND TASKS IN THE FIELD OF EDUCATIONAL POLICY FOR THE 2022/2023 ACADEMIC YEAR**

### **IN THE FIELD OF PRE-UNIVERSITY WORK AND ADMISSION OF STUDENTS**

**Objective 1. To increase the grade point average of the first-year students admitted to state-funded bachelor's and specialist's degree programmes in 2023 up to 71 and fee-based programmes up to 69.**

**Tasks:**

- 1.1. To develop the system for the identification, support, and development of young people's abilities and talents by increasing the number of university competitions and volunteer movements and to raise the number of the participants of such events to 2.3 thousand per year.
- 1.2. The number of students, winners, and awardees of the final stage of the All-Russian Academic Competition among Schoolchildren, members of the national teams of the Russian Federation who took part in international contests in general subjects and/or discipline areas corresponding to the All-Russian Academic Competition profile, who enrolled in full-time bachelor's and specialist's degree programmes without any admission tests, must be increased up to 15.
- 1.3. To develop a system of grant support for applicants who failed to get a state-funded place.

**Objective 2. To increase the admission quotas for higher education programmes in 2024 within medical specialities, in the area of linguistics and literary studies, and oriental studies.**

**Tasks:**

- 2.1. To achieve 100% fulfilment of the recruitment plan for employer-sponsored students who enrolled in full-time bachelor's degree and specialist's degree programmes.



2.2. To increase the percentage of students with a bachelor's, specialist's or master's degrees obtained at another institution who enrolled in the first year of master's degree programmes of the educational institution in the total number of students who enrolled in full-time master's degree programmes up to 20%.

**Objective 3. To develop a mechanism for admitting students to master's degree programmes based on the results of the state final examination of the previous level of education.**

**Objective 4. To ensure that the percentage of international students in the total amount of first-year students who were admitted to bachelor's and specialist's degree programmes is at least at the same level as in 2022.**

**Tasks:**

4.1. To increase the percentage of international students enrolled in the programmes of the International Education Institute up to 70%, including by career guidance events aimed at enhancing the attractiveness of the university's education programmes and by activities providing support to first year students.

4.2. To develop the admission campaign website in Arabic.

## **IN THE FIELD OF MAIN PROFESSIONAL EDUCATION PROGRAMMES**

**Objective 1. To ensure that the university's strategic performance indicators for educational activities are met.**

**Tasks:**

1.1. To increase the percentage of the student population (given contingent) enrolled in master's degree programmes in the total number of the given contingent enrolled in bachelor's, specialist's, and master's degree programmes up to 18%.





1.2. To increase the percentage of students (given contingent) of master's degree and academic staff training programmes (post-graduate students, interns, residents) in the total number of the given contingent enrolled in the main academic programmes of higher education up to 20%.

**Objective 2. To provide the legal and regulatory framework for the adoption of the new nomenclature of research areas/specialities in 2024.**

**Tasks:**

- 2.1. To create a list of modules for all major groups providing for the implementation of education programmes in accordance with the principle "2 + 2 + 2".
- 2.2. To develop a digital service for modular curriculum content.

**Objective 3. To develop organisational, methodological, and software support for the transition of the educational process to digital content.**

**Tasks:**

- 3.1. To introduce digital academic record books (pilot faculty is the Faculty of Pharmaceutics).
- 3.2. To develop a digital service for automated filling of the teacher's individual plan (section "Progress Report") and to test the service during the 2022/2023 academic year.
- 3.3. To ensure that from 1 October 2022 all types of academic certificates are transferred to digital content by means of Multifunctional Public Services Centre.
- 3.4. To finalise the "Automated service for syllabuses for disciplines and practical trainings".



## **IN THE FIELD OF FURTHER EDUCATION**

**Objective 1. To increase the revenue from the implementation of further professional education programmes and general development programmes at the university up to 60 million roubles.**

**Tasks:**

1.1. To increase the percentage of students from external organisations in the total number of students completing further professional training or professional retraining programmes up to 20%.

1.2. To extend the list of further professional education programmes within the framework of the federal project “Employment Assistance” of the national project “Demography” with programmes that ensure the development of digital competencies by at least 30% of the indicators for 2022, including “Digital Literacy”, “Solution of Applied Problems using Python”, and “High Performance Computing and Big Data”.

**Objective 2. To increase the percentage of students who have obtained additional qualifications by the end of the main education programme to 10% of the university’s total contingent.**

**Objective 3. To bring the list of documents supporting the implementation of further education programmes at the university in line with the regulatory requirements established by the Federal Service for the Supervision of Education and Science.**





**RESEARCH,  
INNOVATIONS, AND  
INFORMATISATION**

57





## RESEARCH, INNOVATIONS, AND INFORMATISATION



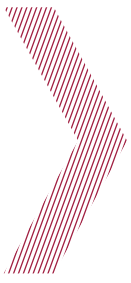
**O.A. Kozaderov,**  
Vice Rector for Research  
and Innovations

### 5.1. MAIN OBJECTIVES OF VSU IN THE AREA OF RESEARCH, INNOVATIONS, AND INFORMATISATION FOR THE YEAR 2022

**The main goal** is the dynamic development of fundamental and applied science at the university as the basis for the creation of advanced technologies; the creation of a convenient integrated digital ecosystem that will support the education process, research and development projects, and the university's management using modern digital technologies.

#### Tasks:

1. Develop a roadmap for the implementation of strategic projects for interdisciplinary research.
2. To increase the total number of applications from employees and research laboratories for participation in the competitions of the national project "Science", scientific funds, within the framework of Decree of the Government of the Russian Federation No. 220, and implementing at least 5% of international projects.
3. To continue improving the scientific indices and publication records by at least 5%.
4. Strengthen publication activity and participation in grant programs of employees Borisoglebsk branch of VSU.
5. To increase the total number of joint applications with industrial partners for participation in tenders within the framework of the FTP, Decree of the Government of the Russian Federation No. 218 by at least 5%.
6. To develop the digital transformation strategy of the university for the period up to 2030, taking into account the results of assessing the level of digital maturity of the university.

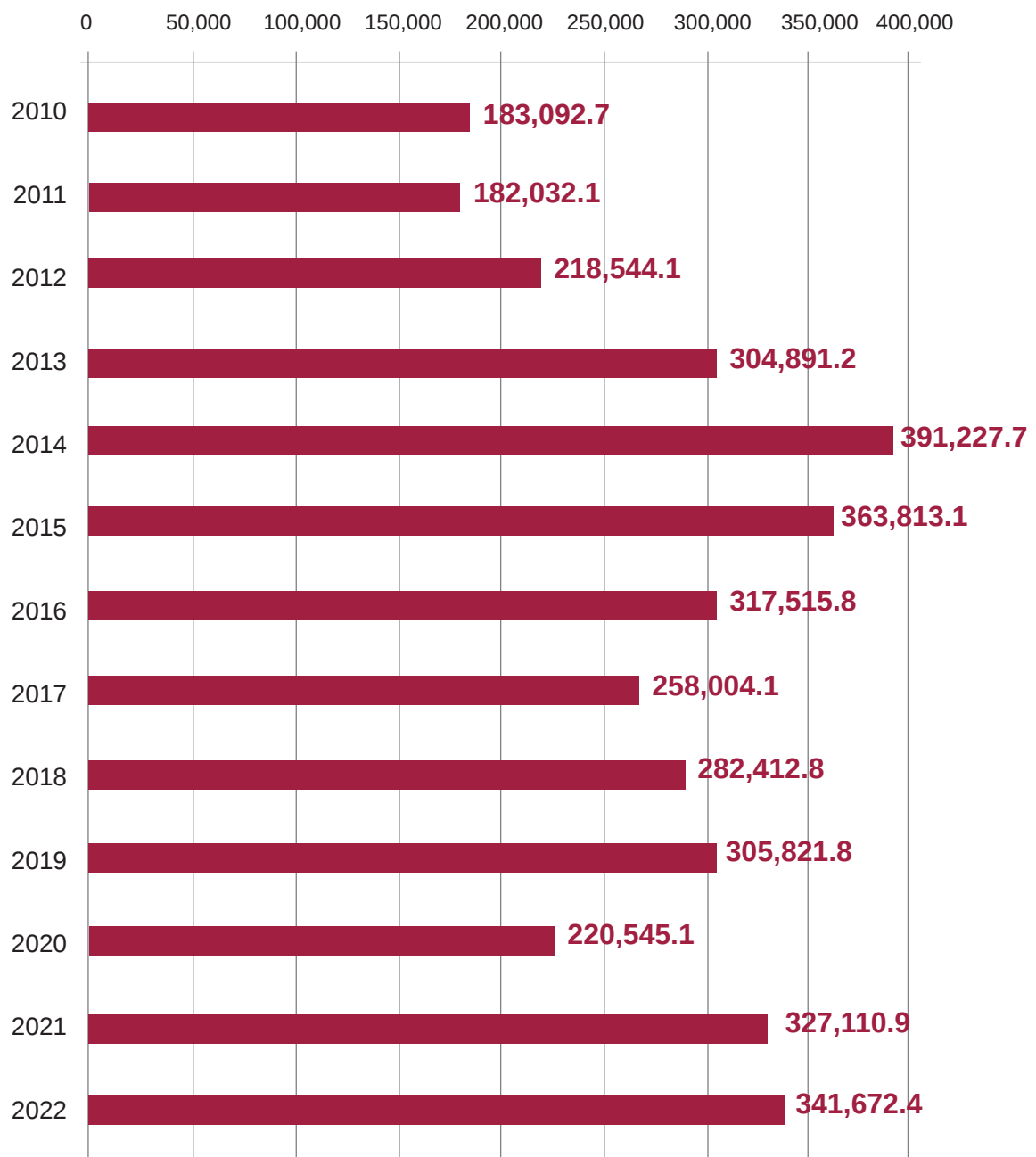


## 5.2. RESEARCH FUNDING IN 2010-2022

In 2022, total funding for research projects amounted to 341.7 million roubles, which is 14.6 million roubles more than the previous year (Fig. 5.1).

Figure 5.1

### RESEARCH FUNDING IN 2010-2022 (THOUSAND ROUBLES)





### 5.3. VSU RESEARCH FUNDING IN 2022 BY SOURCE

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 46.1 (13.5%) million roubles was received; from the grant with federal budget financing by means of subsidies within the framework of the project on the topic “Distributed infrastructure of precision diagnostic methods in ultra-soft X-ray spectrum of synchrotron radiation for functional materials and nanoscale structures, including nano-, bio-, and hybrid materials, for the benefit of promising technologies and technical systems: from education technologies and fundamental research to practical application” 108.0 million roubles (31.6%) was received; 116.0 million roubles (34.0%) constituted grants from the Russian foundations supporting scientific and technical research and innovations.

In 2022, state funding constituted 81.6% of the total funding, 18.4% 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.

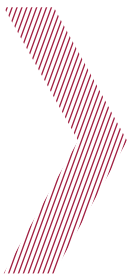
The sources of VSU's research funds are listed in Table 5.1.

Table 5.1

#### SOURCES OF VSU'S RESEARCH FUNDS IN 2022

Sources of funding	Percent
Ministry of Science and Higher Education of the Russian Federation	47.7
Russian foundations supporting scientific and technical research and innovations	34.0
Russian economic entities	15.3
Other non-governmental organisations in Russia and VSU funds	3.0

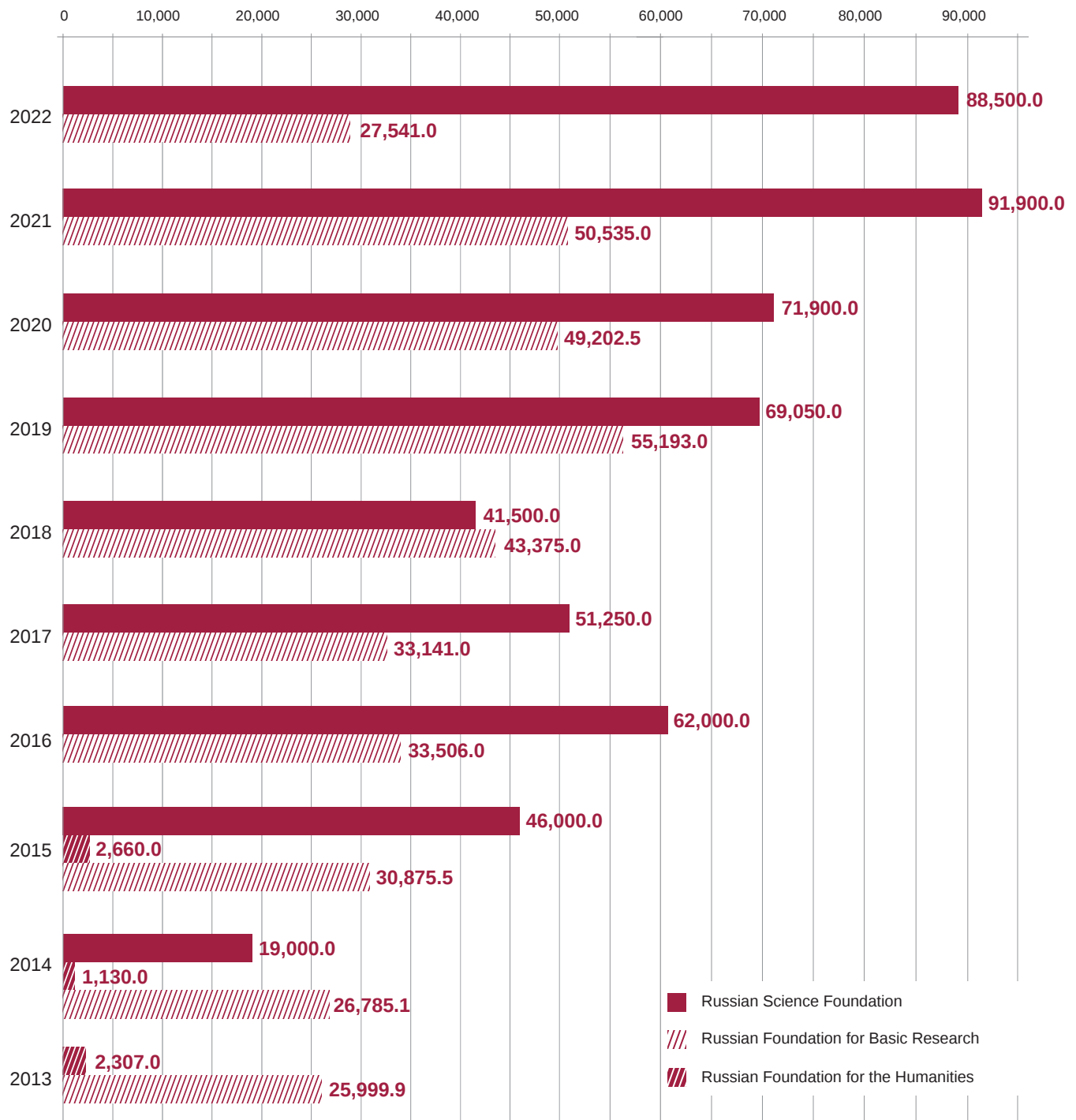




Research funding coming from Russian scientific foundations are shown in Fig. 5.2.

Figure 5.2

RESEARCH FUNDING COMING FROM RUSSIAN SCIENTIFIC FOUNDATIONS (THOUSAND ROUBLES)





## 5.4. PAPERS PUBLISHED BY VSU'S ACADEMIC STAFF IN 2022

Table 5.2

### PAPERS PUBLISHED BY THE VSU'S ACADEMIC STAFF AS OF 27 FEBRUARY 2023

Indicator	2021	2022
Published articles (database "Academic staff articles")	4,900	4,800
Published articles (Russian Science Citation Index database)	4,286	4,377
Total number of citations (Russian Science Citation Index database)	13,749	15,384
Total H-index (Russian Science Citation Index database)	149	154

Additional data from the Academic staff articles database:

- Number of monographs: 2021 - 72, 2022 - 102.
- Number of text books: 2021 - 438, 2022 - 304.

Table 5.3

### FACULTIES LISTED ACCORDING TO THE HIRSH INDEX (RUSSIAN SCIENCE CITATION INDEX DATA) AS OF 14 FEBRUARY 2023

No.	Faculty	Hirsch Index
1	Faculty of Law	89
2	Faculty of Philology	67
3	Faculty of Economics	65
4	Faculty of Biomedical Sciences	56
5	Faculty of Physics	54
6	Faculty of Romance and Germanic Philology	49
7	Faculty of Mathematics	47
8	Faculty of Geology	46
9	Faculty of Chemistry	43
10	Faculty of Geography, Geocology, and Tourism	42
11	Faculty of Applied Mathematics, Informatics, and Mechanics	39
12	Faculty of History	34
13	Faculty of Computer Sciences	31
14	Faculty of Philosophy and Psychology	29
15	Faculty of Journalism	28
16	Faculty of Pharmaceutics	27
17	Faculty of International Relations	20
18	International Education Institute	14
19	Military Training Centre	6
20	Department of Physical Education and Sports	3

Table 5.4

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

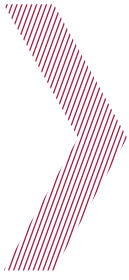
No.	Surname First name Patronym	Hirsch Index
1	Dmitry A. Endovitsky	47
2	Yuriy N. Starilov	43
3	Yury I. Treshevsky	37
4	Arkady D. Savko	35
5	Larisa S. Korobeinikova	34
6	Nikolay L. Manakov	33
7	Evelina P. Domashevskaya	28
8	Marina V. Sentsova	28
9	Victor N. Glaznev	28
10	Anatoly G. Baskakov	27
11	Vyacheslav V. Provotorov	27
12	Vladimir B. Mikhno	26
13	Pavel V. Seredin	26
14	Igor E. Risin	25
15	Semyon A. Kurolap	25
16	Pavel N. Biryukov	25
17	Valeriy G. Artyukhov	24
18	Sergey A. Eprintsev	24
19	Alexey A. Kretov	24
20	Alexander S. Lenshin	24
21	Vladimir F. Selemenev	24
22	Vladimir A. Shaposhnik	24



## **5.5. VSU ACADEMIC AND SCIENTIFIC SCHOOLS AND RESEARCH AREAS**

**THERE ARE 30 MAJOR RESEARCH AREAS IN VSU,  
WHICH CORRESPOND TO PRACTICALLY ALL THE RESEARCH AREAS  
OF CLASSICAL UNIVERSITIES**

1. Analytical, geometric and numerical methods for 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, colloidal particles and nanoparticles, and clusters.
12. Directed synthesis and extraction of physiologically active chemical compounds and special-purpose substances. Biologically active synthetic and natural compounds and low molecular weight 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, and conflicts.
28. The theory, methodology, and policies of accounting, analysis, and monitoring the activities of economic entities.
29. Supercomputer technologies, quantum and distributed computing, and big data.
30. Theoretical and applied research of drug commerce.



## THERE ARE 43 ACADEMIC AND SCIENTIFIC SCHOOLS AT VSU

### **1. Topological Methods in Nonlinear Analysis**

Founded by Professor Y. G. Borisovich, DSc in Physics and Mathematics, Honoured Scientist of 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

Founder of 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 receiving equipment and its elements)**

Founded by Professor E.A. Algazinov, DSc in Physics and Mathematics

### **8. Statistical radiophysics and informatics**

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 Natural Sciences  
A leading scientific school

#### **11. Nuclear and condensed matter physics**

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

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

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

#### **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**

Founded by Professor O.P. Negrobov, DSc in Biology

#### **19. Plant metabolism organisation 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  
A leading scientific school

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

Founded by Professor B.P. Akhtyrsev, DSc in Biology, Honoured Scientist of the Russian Federation  
Head Researcher – Professor T.A. 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. Historical sciences**

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

#### **25. Historical sciences**

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. Eytngon, 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, Professor I.A. Sternin, DSc in Philology, Honoured Scientist of the Russian Federation

A leading scientific school

### **37. Physical geography, geophysics, and landscape geochemistry**

Founded by 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. Pedagogics**

Founded by Professor N. I. Vyunova, DSc in Pedagogics

### **40. Political sciences**

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

### **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**

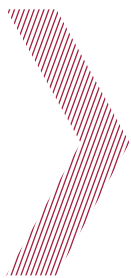
Head Researcher – Professor D.A. Endovitsky, DSc in Economics

A leading scientific school

### **43. Photoprocesses in nanostructures**

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

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



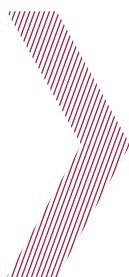
## 5.6. PERFORMANC OF VSU DISSERTATION BOARDS

In 2022, 14 dissertation boards in 30 fields of study were operating at VSU. There were also 3 joint dissertation boards operating in 5 fields of study (Table 5.5).

Table 5.5

### DISSERTATION BOARDS IN 2022

Code of the dissertation board, fields of study	Chairperson, Academic Secretary Contact Information
24.2.288.01 5.7.1 - Ontology and Epistemology 5.7.7 - Social and Political Philosophy	Alexandr S. Kravets - Chairperson Irina Yu. Tikhonova - Academic Secretary Phone: +7 (473) 255-08-57 Email: dekanat@phpsy.vsu.ru
24.2.288.02 1.5.2 - Biochemistry 1.5.4 - Biophysics (the dissertation board was closed, Decree of the Ministry of Education and Science of the Russian Federation dated December 16, 2022)	Valery G. Artyukhov - Chairperson Margarita Grabovich – Academic Secretary Phone: +7 (473) 220-89-81 E-mail: artyukhov@bio.vsu.ru
24.2.288.03 1.3.3 - Theoretical Physics 1.3.6 - Optics 1.3.8 - Condensed Matter Physics	Oleg V. Ovchinnikov - Chairperson Dmitry L. Goloschapov - Academic Secretary Phone: 8-920-459-40-93 E-mail: goloshchapov@phys.vsu.ru
24.2.288.04 1.4.1 - Inorganic Chemistry 1.4.4 - Physical Chemistry 1.4.6 - Electrochemistry	Alexander V. Vvedensky - Chairperson Boris V. Sladkopevtsev - Academic Secretary Phone: +7 (473) 220-85-46 E-mail: dp-kmins@yandex.ru
24.2.288.05 1.3.4 - Radiophysics 1.3.11 - Semiconductor Physics 2.3.1 - System Analysis, Management and Information Processing, Statistics	Pavel V. Seredin - Chairperson Vladislav A. Stepkin - Academic Secretary Phone: 8-920-469-45-30 E-mail: stepkin@phys.vsu.ru
24.2.288.06 5.6.1 - Russian History 5.6.3 - Archaeology (the dissertation board was closed, Decree of the Ministry of Education and Science of the Russian Federation dated April 29, 2022)	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
24.2.288.07 1.4.2 - Analytical Chemistry 1.4.3 - Organic Chemistry 1.4.15 - Solid State Chemistry	Viktor N. Semenov - Chairperson Nadezhda V. Stolpovskaya - Academic Secretary Phone: +7 (473) 220-89-73 Email: kcmf@main.vsu.ru
24.2.288.07 5.9.9 - Media communications and journalism (Decree of the Ministry of Education and Science of the Russian Federation dated October 17, 2022) (D 212.038.18 (10.01.10 – Journalism))	Vladimir V. Tulupov - Chairperson Alexander A. Kazhikin - Academic Secretary Phone: +7 (473) 274-52-71 E-mail: vlvtul@mail.ru
<b>Joint dissertation boards</b>	
99.2.003.03 5.8.1 - General Pedagogics, History of Pedagogics and Education 5.8.7 - Methodology and Technology of Professional Education Voronezh State University Lipetsk State Pedagogical University Russian Air Force Military Educational and Scientific Centre "Air Force Academy named after Professor N.E. Zhukovsky and Y.A. Gagarin" (Voronezh)	Lyubov V. Kovtunenkov - Chairperson Elena V. Krivotulova - Academic Secretary Phone: +7 (473) 255-72-01; 8-908-134-12-52 E-mail: kovtunenkov@mail.ru



End of table 5.5

Code of the dissertation board, fields of study	Chairperson, Academic Secretary Contact Information
99.2.031.03 2.3.1 - System analysis, management and information processing, statistics 2.3.3 - Automation and control of the technological processes and production Voronezh State Technical University Voronezh State University Lipetsk State Technical University	Semyon L. Podvalny - Chairperson Tatyana M. Ledeneva - Vice Chairperson Anatoly K. Pogodaev - Vice Chairperson Svetlana Y. Beletskaya - Academic Secretary Phone: +7 (473) 243-77-18
99.2.059.02 1.1.8 - Solid Mechanics (Physics and Mathematics, and Technical Sciences) Tula State University Voronezh State University	Alexey A. Markin - Chairperson Alexander I. Shashkin - Vice Chairperson Vadim V. Glagolev - Academic Secretary Phone: +7 (4872) 73-44-44; 73-44-50
<b>Dissertation boards until October 16, 20222</b>	
D 212.038.07 10.02.01 - Russian Language 10.02.19 - Linguistic Theory	Alexey A. Kretov - Chairperson Inna A. Merkulova - Academic Secretary Phone: +7 (473) 276-92-61 E-mail: a_a_kretov@rambler.ru
D 212.038.14 10.01.01 - Russian Literature 10.01.03 - International Literature (Literature of the Countries of Germanic and Romance Language Families)	Viktor M. Akatkin - Chairperson Alexander A. Zhitenev - Academic Secretary Phone: +7 (473) 255-99-49, 220-89-41 E-mail: msv2012kafedra@yandex.ru; pravdukhina@phil.vsu.ru
D 212.038.15 08.00.01 - Economics Theory 08.00.05 - Economics and National Economy Management (By Field and Sphere of Activity, Including Labour Economics, Regional Economics)	Tatiana N. Gogoleva - Chairperson Galina V. Golikova - Academic Secretary Phone: +7 (473) 228-11-60*5130 email: tgogoleva2003@mail.ru
D 212.038.16 10.02.04 - Germanic Languages 10.02.05 - Romance Languages	Natalia A. Fenenko - Chairperson Pavel B. Kuzmenko - Academic Secretary Phone: 8-960-110-41-78 E-mail: fenenko@rgph.vsu.ru
D 212.038.20 05.13.17 - Theory of Informatics 05.13.18 - Mathematical Modelling, Numerical Methods and Program Systems	Vladimir G. Zadorozhniy - 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	Dmitry A. Endovitsky - Chairperson Tatyana A. Pozhidaeva - Academic Secretary Phone: +7 (473) 275-57-27, 239-29-33 Email: endov@econ.vsu.ru

In 2022, 77 dissertations were defended at Voronezh State University dissertation boards, including 4 doctoral dissertations and 73 PhD dissertations. 6 dissertations were defended by postgraduate students graduating in 2022, 1 DSc and 16 PhD dissertations were defended by university staff members (Table 5.6).



Table 5.6

NUMBER OF PEOPLE WHO OBTAINED THEIR PHD AND DSC DEGREES  
IN 2022, BY THE FIELD OF STUDY

Code of the dissertation board	Code of the fields of study of the board	The number of dissertations considered						
		PhD				DSc		
		Total	university staff	PhD students of VSU (graduation of 2022)	external applicants	Total	university staff	external applicants
24.2.288.01	5.7.1 – Ontology and Epistemology	–	–	–	–	–	–	–
	5.7.7 – Social and Political Philosophy	–	–	–	–	–	–	–
24.2.288.02	1.5.2 – Biophysics	2	1	–	1	–	–	–
	1.5.4 – Biochemistry	2	1	–	1	–	–	–
24.2.288.03	1.3.3 – Theoretical Physics	1	–	1	–	–	–	–
	1.3.6 – Optics	–	–	–	–	–	–	–
	1.3.8 – Condensed Matter Physics	2	1	–	1	–	–	–
24.2.288.04	1.4.1 – Inorganic Chemistry	–	–	–	–	–	–	–
	1.4.4 – Physical chemistry	–	–	–	–	–	–	–
	1.4.6 – Electrochemistry	2	1	–	1	–	–	–
24.2.288.05	1.3.4 – Radiophysics	4	–	3	1	1	–	1
	1.3.11 – Semiconductor Physics	3	1	–	2	–	–	–
	2.3.1 – System Analysis, Management and Information Processing, Statistics	1	1	–	–	–	–	–
24.2.288.06	07.00.1 – Russian History	–	–	–	–	–	–	–
	07.00.3 – Archaeology	–	–	–	–	–	–	–
24.2.288.07	1.4.2 – Analytical Chemistry	3	–	–	3	–	–	–
	1.4.3 – Organic Chemistry	1	1	–	–	–	–	–
	1.4.15 – Solid State Chemistry	–	–	–	–	–	–	–
24.2.288.08 D 212.038.18	5.9.9 – Media Communications and Journalism	–	–	–	–	–	–	–
	10.01.10 – Journalism	5	–	–	5	–	–	–
99.2.003.03 VSU Lipetsk State Pedagogical University Russian Air Force Military Educational and Scientific Centre "Air Force Academy named after Professor N.E. Zhukovsky and Y.A. Gagarin" (Voronezh)	5.8.1 – General Pedagogics, History of Pedagogics and Education	6	–	–	6	–	–	–
	5.8.7 – Methodology and Technology of Professional Education	2	–	–	2	–	–	–

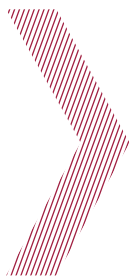
End of table 5.6

Code of the dissertation board	Code of the fields of study of the board	The number of dissertations considered						
		PhD				DSc		
		Total	university staff	PhD students of VSU (graduation of 2022)	external applicants	Total	university staff	external applicants
<b>Dissertation boards until October 16, 2022</b>								
<b>D 212.038.07</b>	<b>10.02.01</b> – Russian Language	6	2	–	4	–	–	–
	<b>10.02.19</b> – Linguistic Theory	4	1	–	3	1	1	–
<b>D 212.038.14</b>	<b>10.01.01</b> – Russian Literature	2	–	1	1	–	–	–
	<b>10.01.03</b> – International Literature (Literature of the Countries of Germanic and Romance Language Families)	–	–	–	–	–	–	–
<b>D 212.038.15</b>	<b>08.00.01</b> – Economics Theory	–	–	–	–	–	–	–
	<b>08.00.05</b> – Economics and National Economy Management (By Field and Sphere of Activity, Including Labour Economics, Regional Economics)	5	1	–	4	2	–	2
<b>D 212.038.16</b>	<b>10.02.04</b> – Germanic Languages	2	–	–	2	–	–	–
	<b>10.02.05</b> – Romance Languages	3	1	1	1	–	–	–
<b>D 212.038.20</b>	<b>05.13.17</b> – Theory of Informatics	–	–	–	–	–	–	–
	<b>05.13.18</b> – Mathematical Modelling, Numerical Methods and Program Systems	6	1	–	5	–	–	–
<b>D 212.038.23</b>	<b>08.00.12</b> – Accounting, statistics	11	3	–	8	–	–	–
	<b>Total:</b>	<b>73</b>	<b>16</b>	<b>6</b>	<b>51</b>	<b>4</b>	<b>1</b>	<b>3</b>

In October a new dissertation board 24.2.288.08 in field of study 5.9.9 - Media Communications and Journalism (Philology) has been opened.

Requests to the Ministry of Science and Higher Education of Russia about opening 4 dissertation boards operating in 6 fields of study were submitted:

- 1.2.1 – Artificial Intelligence and Machine Learning (Technical Sciences)
- 2.3.8 – Informatics and Information Processes (Technical Sciences)
- 5.9.5 – Russian Language Languages of the Peoples of Russia (Philology)
- 5.9.8 – Theoretical, Applied and Comparative Linguistics (Philology)
- 5.9.6 – Languages of the Peoples of Foreign Countries (Germanic Languages, Romance Languages) (Philology)
- 5.1.2 – Public law (State Law) sciences (Law)



## **5.7. RESEARCH PROJECTS CARRIED OUT AT VSU WITHIN THE FRAMEWORK OF THE GOVERNMENT ORDER, FEDERAL TARGET PROGRAMME, RUSSIAN SCIENCE FOUNDATION AND RUSSIAN FOUNDATION FOR BASIC RESEARCH**

### **SCIENTIFIC RESEARCH AS A CORE PART OF THE GOVERNMENT ORDER OF THE MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION (4 PROJECTS)**

FZGU-2020-0036 Research project 20028 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 and Nanostructure Physics)

FZGU-2020-0044 Research project 20029 2020-2022

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

Head Researcher – Professor A.T. Eprytsev, DSc in Biology (Faculty of Biomedical Sciences, 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)

FZGU-2020-0003 Research project No.22032 2020-2024

Development of polyfunctional organic additives for the chemical and electrochemical deposition of metals and alloys used in the electronics industry

The project supervisor – B.A. M. Yu. Head Researcher – Associate Professor A. Yu. Potapov, DSc in Chemistry (Laboratory of organic additives for the chemical and electrochemical deposition of metals and alloys used in the electronics industry)

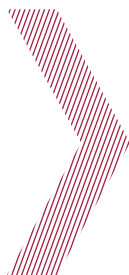
### **GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR SUPPORT OF RESEARCH BY YOUNG RUSSIAN SCIENTISTS WITH A DSC DEGREE (1 GRANTS)**

MD-5732.2021.1.3 Research project No.21011 2021-2022

Potentiometric multisensor systems based on Nafion membranes and modified carbon nanotubes used to analyse sulphanilamide preparations

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





## GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR THE SUPPORT OF RESEARCH BY YOUNG RUSSIAN SCIENTISTS WITH A PHD DEGREE (11 GRANTS)

MK-3411.2021.1.2 Research project No.21013 2021-2022

Low-threshold limiters of density based on hybrid associates of organic dyes and plasmonic nanoparticles

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

MK-1177.2021.3 Research project No.21012 2021-2022

Development of express technologies to obtain inulin from promising plant sources

Head Researcher - Associate Professor N.A. Diakova, PhD in Biology (Faculty of Pharmaceutics, Department of Pharmaceutical Chemistry and Pharmaceutical Engineering)

MK-767.2021.1.6 Research project No.21010 2021-2022

Development of techniques for functional efficiency enhancement of ultra-wideband communication systems under challenging noise conditions

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

MK-6144.2021.4 Research project No.21014 2021-2022

Acoustical interference holography in randomly heterogeneous, nonstationary hydroacoustic waveguides

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

MK-3746.2022.1.2 Research project No.22013 2022-2023

IR luminescent plexitonic nanostructures based on quantum dots of metal sulphides

Head Researcher – senior lecturer I.G. Grevtseva, DSc in Physics and Mathematics  
Gureev, Ph.D in and Mathematics, senior lecturer (Faculty of Physics, Department of Optics and Spectroscopy)

MK-4408.2022.1.2 Research project No.22010 2022-2023

Nonlinear optical properties in nanostructures with plasmon-exciton interactions

Head Researcher - lecture A.V. Zvyagin, PhD in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

MK-2926.2022.1.2 Research project No.22015 2022-2023

Formation of new Me<sub>3</sub>Si metastable phases in Me-Si-base nanocomposites: their atomic and electron structure and functional properties

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



MK-4406.2022.1.2 Research project No.22014 2022-2023

Photosensitising reactive oxygen species with titanium dioxide nanoparticles decorated with colloidal quantum dots

Head Researcher - Associate Professor A. S. Perepelitsa, PhD in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

MK-4978.2022.1.3 Research project No.22012 2022-2023

Molecular design, developing methods for synthesis, and studying new fluorescent probes with defined spectral-luminescent properties based on aza-heterocycles (antibacterial testing).

Project Supervisor Head Researcher - Associate Professor D. Yu. Vandyshev, PhD in Chemistry (Faculty of Chemistry, Department of High Molecular Compounds and Colloid Chemistry)

MK-4905.2022.1.4 Research project No.22011 2022-2023

Analysis of neuroprotective potential of hydro-quinol hydroxyderivatives and their effect on inflammatory, apoptotic, and free-radical processes of the experimental Parkinson's disease

Project Supervisor Head Researcher - Associate Professor E. D. Krylsky, PhD in Biology (Faculty of Biomedical Sciences, Department of Medical Biochemistry and Microbiology)

MK-4846.2022.4 Research project No.22016 2022-2023

Application of vector-scalar antennas to form acoustic holograms of low-noise acoustic sources in natural hydroacoustic waveguides

Head Researcher - I. V. Kaznacheev, PhD in Physics and Mathematics (Faculty of Physics, Department of Mathematical Physics and Information Technologies)

#### **GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR YOUNG SCIENTISTS AND PHD STUDENTS (5 PROJECTS)**

SP-22.2021.4 2021-2022

Development of liposomal dosage forms for the correction of complications of coronavirus infection

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

SP-189.2021.1 2021-2022

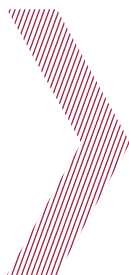
Controlled integration of bacterial protein with iron oxide and filamentary silicon nanoparticles based on atomic and electronic structure reconstruction data

Head Researcher - research fellow E.V. Parinova, PhD in Physics and Mathematics (joint scientific and educational laboratory "Atomic and Electronic Structure of Functional Materials" of the Voronezh State University and the National Research Centre "Kurchatov Institute")

SP-2802.2021.4 2021-2023

Therapy of Alzheimer's disease by activation of Nrf2 and mTORC1 signalling pathways during hippocampal damage

Head Researcher - senior lecturer A. P. Gureev, PhD in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)



SP-417.2022.5 2022-2024

Development of methods for the synthesis and analysis of ultra-wideband antennas using aperture theory in the time

Head Researcher – lecture, senior research fellow A.S. Lenshin, PhD in Physics and Mathematics (Faculty of Physics, Department of Electronics)

SP-2515.2022.1 2022-2024

Laboratory synthesis and study of the properties of new organic corrosion 4,5,6,7-tetrahydro-[1,2,4] triazolo[1,5-a]pyrimidin-7-oles inhibitors

Head Researcher – senior research fellow A. A. Kruzhilin, PhD in Chemistry (Faculty of Chemistry, Laboratory of organic additives for the chemical and electrochemical deposition of metals and alloys used in the electronics industry)

### **FEDERAL SCIENTIFIC AND TECHNICAL PROGRAMME OF DEVELOPMENT OF SYNCHROTRON AND NEUTRON TECHNIQUES AND RESEARCH INFRASTRUCTURE FOR 2019-2027 (1 PROJECT)**

075-15-2021-1351 Research project No.21029 2021-2023

Distributed infrastructure of precision diagnostic methods in the ultra-soft X-ray spectrum of synchrotron radiation for functional materials and nanoscale structures, including nano-, bio-, and hybrid materials, for the benefit of promising technologies and technical systems: from education technologies and fundamental research to practical application

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

### **RUSSIAN SCIENCE FOUNDATION GRANTS FOR CONDUCTING BASIC RESEARCH AND PILOT STUDIES BY RESEARCH GROUPS (8 PROJECTS)**

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 Biomedical Sciences, Department of Biochemistry and Cell Physiology)

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

Urboecodiagnosics 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)



21-15-00026 Research project No.21006 2021-2023

**Biomimetical composites imitating the characteristics of enamel and human dental tissue: production and fundamental research of the mechanisms of their integration with native dental tissues on a submicron level**

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

21-19-00397 Research project No.21008 2021-2023

**Fundamental basis for the production of new heterogeneous ion-exchange membranes with dominating electrical convection for high-intensity electro dialysis**

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

21-19-00323 Research project No.21007 2021-2023

**Development of the methods for synthesis and analysis of ultra-wideband devices for radio location and communication systems using quasi-radio signals**

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

22-12-00232 Research project No.22006 2022-2024

**Photoprocesses in associates and core/shell systems based on silver and lead chalcogenides quantum dots for nanophotonics applications**

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

22-11-00103 Research project No.22007 2022-2024

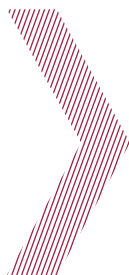
**Functional analysis methods for the problems of equations of non-Newtonian hydrodynamics**

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

19-18-00205 Research project No.22008 2022-2023

**Poets and poetry in the post-historical era**

Head Researcher – Professor A.A. Zhytenev, DSc in Philology (Faculty of Philology, Department of Publishing)



**RUSSIAN SCIENCE FOUNDATION GRANTS FOR THE PRIORITY FIELD  
“IMPLEMENTATION OF FUNDAMENTAL RESEARCH AND EXPLORATORY RESEARCH  
BY RESEARCH GROUPS” (4 PROJECTS)**

22-23-01144 Research project No. 22002 2022-2023

Theoretical foundations for the creation of new effective inhibitors of steel chloride corrosion in concretes of the class of functionally modified long-chain carboxylic acids, obtained from vegetable oils and their processing wastes

Head Researcher: Associate Professor O.A. Kozaderov, DSc in Chemistry (Faculty of Chemistry, Department of Physical Chemistry)

22-22-00842 Research project No. 22003 2022-2023

Nonlinear absorption and refraction of laser pulses in plasmon-exciton nanostructures

Head Researcher – Lecture A.S. Lenshin, PhD in Physics and Mathematics (Faculty of Physics, Department of Optics and Spectroscopy)

22-29-01480 Research project No.22004 2022-2023

Organic poisoning of ion-exchange materials in the extraction of aromatic amino acids, hydroxybenzaldehydes and phenols from liquid media

Head Researcher - Professor T.V. Eliseeva, PhD in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

22-24-00556 Research project No.18052 2022-2023

Analysis of features of formation of Heteroptera complexes in the central Palearctic mountain systems under the effect of historical and modern factors using morphological, karyological, and molecular cytogenetic approaches

Head Researcher – Professor V.B. Golub, DSc in Biology (Faculty of Biomedical Sciences, Department of Zoology and Parasitology)

**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 GRANTS)**

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

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

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



21-74-20053 Research project No.21005 2021-2024

Cysteine proteases in various microenvironments: biophysical, kinetic, and structural-functional properties of supramolecular complexes

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

**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 (4 GRANTS)**

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

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

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

18-74-10097-P Research project No.21022 2021-2023

Development of a new generation of blood thinners based on blood coagulation factors Xa and XIa, inhibitors of linear and condensed functionally substituted hydroquinols

Head Researcher – senior research fellow I.V. Ledeneva, PhD in Chemistry (Faculty of Chemistry, Department of Organic Chemistry, Research and Education Centre Nanotechnologies and Materials)

19-72-10007 Research project No.22024 2022-2024

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)

21-75-10005 Research project No.21021 2021-2024

Regeneration of dental tissue due to induced epitaxial biomimetic mineralisation

Head Researcher – Associate professor D.L. Goloschapov, PhD in Physics and Mathematics (Faculty of Physics, Department of Solid State and Nanostructure 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 (4 GRANTS)**

21-71-00038 Research project No.21020 2021-2023

**Study of mathematical models describing the motion of non-linear-viscous media**

Head Researcher - Associate Professor V.V. Zvyagin, PhD in Physics and Mathematics  
(Faculty of Mathematics, Department of Algebra and Topological Analysis Methods)

22-72-00098 Research project No.22020 2022-2024

**IR luminescent sensor structures based on quantum dots of PbS and core-shell systems with plasmon-exciton coupling**

Head Researcher – senior lecturer I. G. Grevtsova, PhD in Physics and Mathematics  
(Faculty of Physics, Department of Optics and Spectroscopy)

22-74-00115 Research project No.22022 2022-2024

**The effect of polyphenols on the cognitive functions of ageing mice based on the modulation of the bacterial composition of the intestinal microbiome”**

Head Researcher – senior lecturer A. P. Gureev, Ph.D in Biology (Faculty of Biomedical Sciences, Department of Genetics, Cytology, and Bioengineering)

22-72-00145 Research project No.22021 2022-2024

**Metal-oxide compounds of the rutile structure according to the ab initio calculations and precision synchrotron studies of the electron structure**

Head Researcher – research fellow M. D. Manyakin, PhD in Physics and Mathematics  
(Joint Laboratory “Atomic and Electronic Structure of Functional Materials” of Voronezh State University and the National Research Centre “Kurchatov Institute”)

## **THE RUSSIAN FOUNDATION FOR BASIC RESEARCH GRANTS**

### **GRANTS CARRIED OUT UNDER THE COMPETITION “THE BEST PROJECTS OF FUNDAMENTAL SCIENTIFIC RESEARCH” (COMPETITION “A”) (9 GRANTS)**

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 Biomedical Sciences, 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 their adaptation to stress

Head Researcher – Professor A.T. Eprytsev, DSc in Biology (Faculty of Biomedical Sciences, 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)

20-012-00013 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 – Associate Professor A.V. Rudakova, PhD 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 geocological diagnostics of household, drinking, and recreational water usage in large urbanised regions

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

### **BASIC RESEARCH PROJECTS ORGANISED BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE VORONEZH REGION (1 PROJECT)**

19-45-360003 Research project No.20046 2019-2022

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)

### **INTERDISCIPLINARY FUNDAMENTAL RESEARCH PROJECTS (1 PROJECTS)**

19-29-06075 Research project No.19063 2019-2023

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)

### **BEST BASIC RESEARCH PROJECTS CARRIED OUT BY POSTGRADUATE STUDENTS (7 PROJECTS)**

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, Project Supervisor (Faculty of Geology, Department of General Geology and Geodynamics)



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

Geocological assessment of the state of the 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 (based on the city of Lipetsk)

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 – Associate 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 a 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

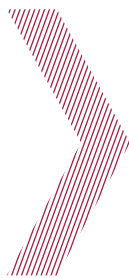
Photoprocesses in associates of nanoparticles of titanium dioxide, silver, and silver sulphide used in bacterial coatings

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)



**BASIC RESEARCH PROJECTS JOINTLY HELD BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND GERMAN RESEARCH COMMUNITY (NNIO\_A) (1 PROJECT)**

21-53-12042 Research project No.21003 2021-2023

Development and study of the atomic and electronic structure of functional Sn/SnO<sub>x</sub> surfaces for the analysis of proteins with structural damage based on surface-enhanced Raman light scattering

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

**BASIC RESEARCH PROJECTS CARRIED OUT BY THE ORGANISATIONS - PARTICIPANTS OF THE EURASIAN ASSOCIATION FOR PROMOTION OF SCIENTIFIC RESEARCH (1 PROJECT)**

20-52-81005 Research project No.21004 2020-2023

Dynamics of electronic excitations in associates of quantum dots and plasmonic nanoparticles

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

**BASIC RESEARCH PROJECTS CARRIED OUT BY THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE BELARUSIAN REPUBLICAN FOUNDATION FOR FUNDAMENTAL RESEARCH (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 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 and Information Technologies)



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

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

The Centre for the 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 (external agencies).

The scientific project of VSU “Distributed infrastructure of precision diagnostic methods in ultra-soft X-ray spectrum of synchrotron radiation for functional materials and nanoscale structures, including nano-, bio-, and hybrid materials, for the benefit of promising technologies and technical systems: from education technologies and fundamental research to practical application” was recognized as one of the winners of the grant contest in the form of subsidies obtained from the Russian Federation state budgetary resources for the implementation of certain activities within the federal scientific and technical programme of development of synchrotron and neutron techniques and research infrastructure for 2019-2027, approved by the Decree of the Government of the Russian Federation dated March 16, 2020, №287. VSU received state funding in the amount of 305 million roubles for 2021-2023. Head researcher - Associate Professor Sergei Turistchev, DSc in Physics and Mathematics, Head of the Department of General Physics at the Faculty of Physics.

The implementation of this project will significantly improve the research base of the university at the level of unique equipment of the world’s leading research practices. As part of the project, a new laboratory of photoemission spectromicroscopy and synchrotron research was created in the Centre for the Collective Use of Scientific Equipment of VSU. In 2022 the university provided the laboratory premises and infrastructure for the accommodation of the unique modular spectromicroscopic complex in the ultra-soft X-ray region. The first stage of major repairs in the laboratory rooms has been completed to comply with vacuum hygiene standards, set by high quality criteria for the declared characteristics of the equipment. Part of the equipment of the spectrometric complex was delivered in accordance with the contract.



## CONTACT INFORMATION

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<http://ckp.vsu.ru>

Table 5.7

## KEY INFORMATION ABOUT THE ACTIVITIES OF THE CENTRE FOR THE COLLECTIVE USE OF SCIENTIFIC EQUIPMENT IN 2022

Book values of equipment, million roubles	177
Number of units of equipment valued at over 1 million roubles, units	27
Number of staff members	13
Total number of works (services) carried out by the university with the help of CCUSE equipment, million roubles	21.53
Actual equipment loading, %	85
Actual CCUSE equipment loading on behalf of third parties, %	41
Number of organisations (external agencies)	14

In 2022, CCUSE met key progress indicators developed by the Ministry of Education of the Russian Federation.

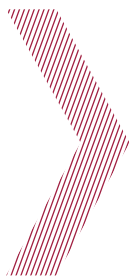
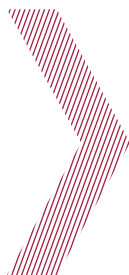


Table 5.8

**MOST IMPORTANT EQUIPMENT OF THE VSU CCUSE AS OF 2022**

Name of equipment	Manufacturing company	Country of manufacture	Application, specifications
Thermo ARL X'TRA powder X-ray diffraction system	Thermo Fisher Scientifics	Switzerland	Structural and phase analysis of crystalline materials. in situ study in a vacuum chamber at up to 1,000°C
JSM-6380LV Series scanning electron microscope	JEOL Ltd.	Japan	Study of surface morphology within the range of 150,000x magnification. Microanalysis of the elemental composition, including mapping
SOLVER P47 scanning probe microscope	NT-MDT	Russia	Study of the surface of solid materials in the atomic force microscopy and tunnel probe microscopy modes. Visualisation of surface microreliefs. Qualitative relief assessment at the spacing up to 180 × 180 μm. Mapping of elements with different electrical conductivity and magnetic properties in the tunnel microscope mode
Transmission electron microscope Libra 120	Carl Zeiss	Germany	Study of the structure, substructure, and phase analysis of solids in volume with magnifications with a resolution of up to 0.2 nm
PANalytical Empyrean X-ray diffractometer	PANalytica	Netherlands	Structural and phase analysis of crystalline materials
Primo Star optical microscope	Carl Zeiss Microscopy	Germany	Microscopy of microbiologic preparations
Multifunctional centrifuge Z 36 HK	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: from 190 to 1100 nm
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 <sup>-4</sup> Pa. Applying electromagnetic radiation in the 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
Upright polarized-light microscope Olympus BX51	Olympus	Japan	The optical microscope works in the following modes: light field, dark field, phase contrast, polarized light, fluorescence, and Nomarski DIC (differential interference contrast). Up to 150x magnification range
Gas chromatograph - Agilent 7890B/5977A mass spectrometer	Agilent Technologies	USA	Separation of mixtures and mass spectrometry analysis of organic compounds





End of table 5.8

Name of equipment	Manufacturing company	Country of manufacture	Application, specifications
Agilent 6230 accurate-mass time-of-flight (TOF) LC/MS system	Agilent Technologies	USA	Separation of mixtures and mass spectrometry analysis of organic compounds and the study of organic reactions mechanisms
Milestone MicroSynth Microwave Synthesis System	Milestone	Italy	Controlled synthesis of organic compounds exposed to microwave radiation
PC3004 Vario chemical vacuum station	Vacuubrand	Germany	Creating a controlled vacuum for the synthesis and extraction of organic compounds
SONICATOR Q500 ultrasonic dispergator	QSONICA	USA	Sample preparation. Preparation of suspended solids by ultrasound
Zetasizer Nano ZSP System	Malvern	UK	Size characterisation of organic and inorganic nanoparticles within the range of 0.3-10 $\mu\text{m}$
PT-PC 75840 rotary ultramicrotome	RMC Boeckeler	USA	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 nm to 10 $\mu\text{m}$
Tiger X-ray diffractometer	Bruker	Germany	A system for elemental X-ray fluorescence analysis in such industries as petroleum chemistry, cement production, and the extraction of minerals
Vertex 70 FT-IR spectrometer	Bruker Optik GmbH	Germany	Vertex 70 series FT-IR spectrometer with vacuum optical system enables maximum sensitivity in in near, medium, and far IR range from 15,500 to 350 $\text{cm}^{-1}$ and eliminates the effects of atmospheric carbon dioxide and water vapour on the quality of the obtained spectra
Shimadzu UV-2550 spectrophotometer	Shimadzu Scientific Instruments	Japan	Double monochromator with a wavelength range of 190-900 nm
Shimadzu 2501 spectrophotometer	Shimadzu Scientific Instruments	Japan	Double beam optical system with a wavelength range of 190-1100 nm



## MOST VALUABLE EQUIPMENT OF CCUSE VSU



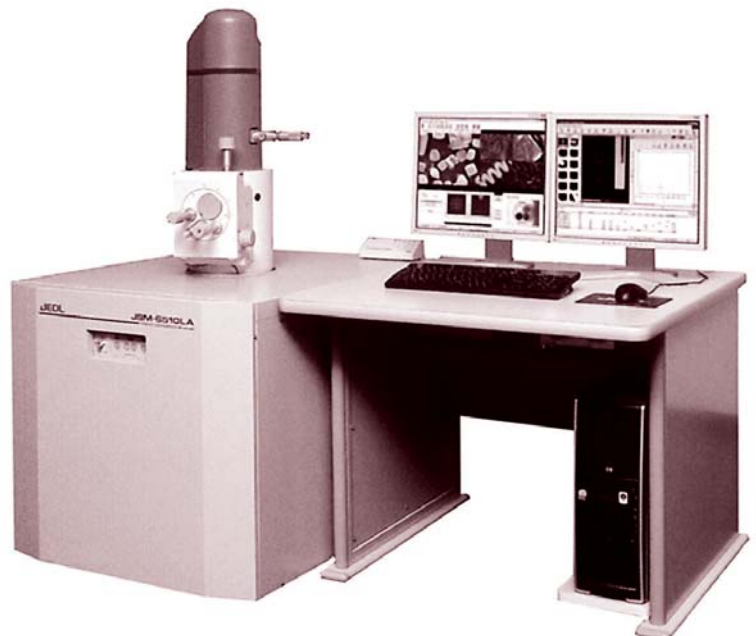
Zeiss LIBRA 120 transmission electron microscope



PANalytica Empyrean BV X-ray diffractometer



Bruker S8 Tiger X-ray diffractometer



JSM-6510LV scanning electron microscope  
with a Bruker XFlash 5010 microanalysis system



## 5.9. VSU INNOVATION FINANCIAL SUPPORT IN 2022

In 2022, 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:

- In cooperation with the Chisla company, the regional centre of 1C technological platform competences at the Faculty of Applied Mathematics, Informatics, and Mechanics was repaired and equipped with furniture.
- In cooperation with the software development company in the creation of digital characters for games and films, a computer graphics laboratory was opened at the Faculty of Computer Science.
- In cooperation with Severstal-Infocom, corporate IT centre of the company at the Faculty of Computer Science has been renovated and furnished.
- In 2022, in cooperation with industrial partners, various competitions and events to support initiative students were held: the BASF RESEARCH idea competition (BASF company); support for university e-sports (DataArt company); support for developers of corporate computer games (DOM.RF company); corporate career days (Sozvezdie Concern, HeadHunter, My Business Center).
- The premises of the first floor of the Technopark were renovated.

The total financing of infrastructure development in 2022 is estimated to be over 12 million roubles.

VSU also concluded 2 license agreements and agreements on the cession of intellectual property rights, with total amount of 20 thousand roubles.

Targeted subsidies and other income of about 190 thousand roubles were received. VSU SIBs carried out work for the university under donation agreements for a total of 545,000 roubles. In addition, VSU SIBs employed VSU staff members with the total salary fund exceeding 10 million roubles.

The funding of federal and regional competitions ("U.M.N.I.K", "Innovation Cup", etc.) amounted to 2.79 million roubles.



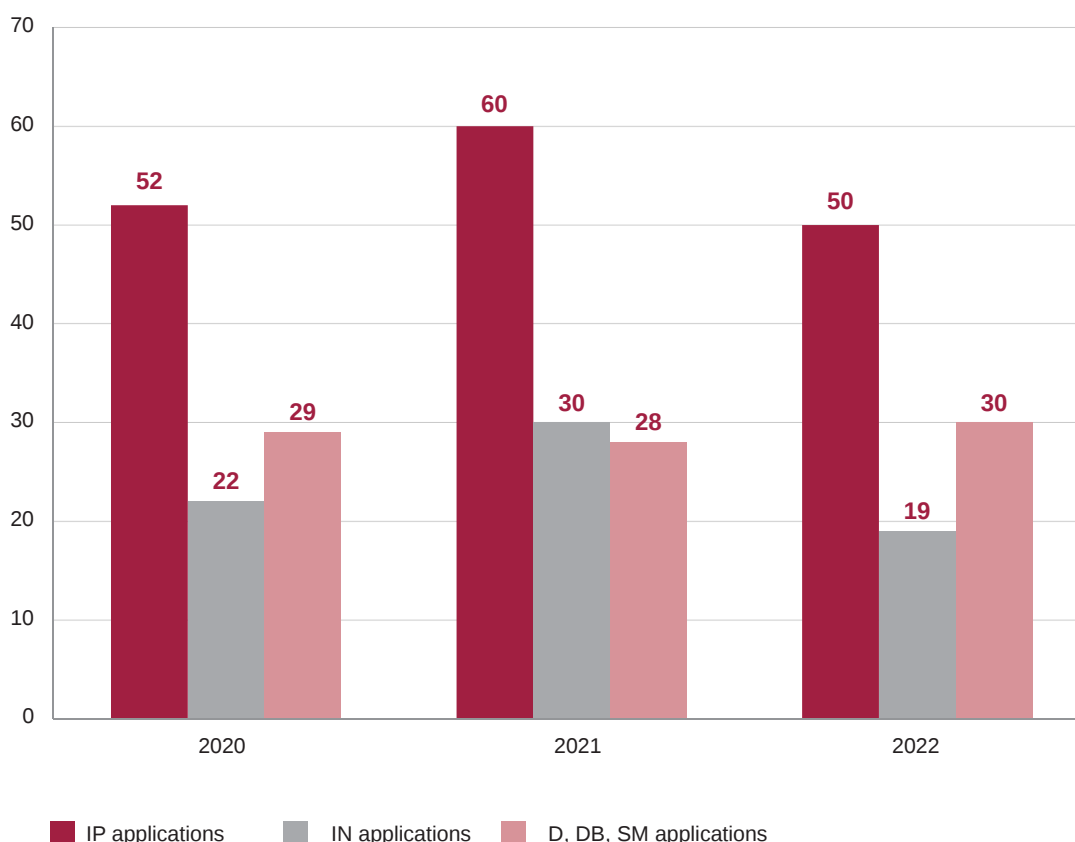
## 5.10. VSU PATENT ACTIVITY IN 2020-2022

In 2022, as part of the work on patent and license activity, VSU academic staff created 50 copyrightable intellectual property items (IP). 30 applications for certificate registration were submitted. The number of invention patents was 19 and utility model patents was 1 (Fig. 5.3).

Figure 5.3

### IP APPLICATION (2020-2022)

The total number of applications



IN - invention, UM - utility model, ED - electronic devices computing machines programmes, DB - data base; SM - service mark

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

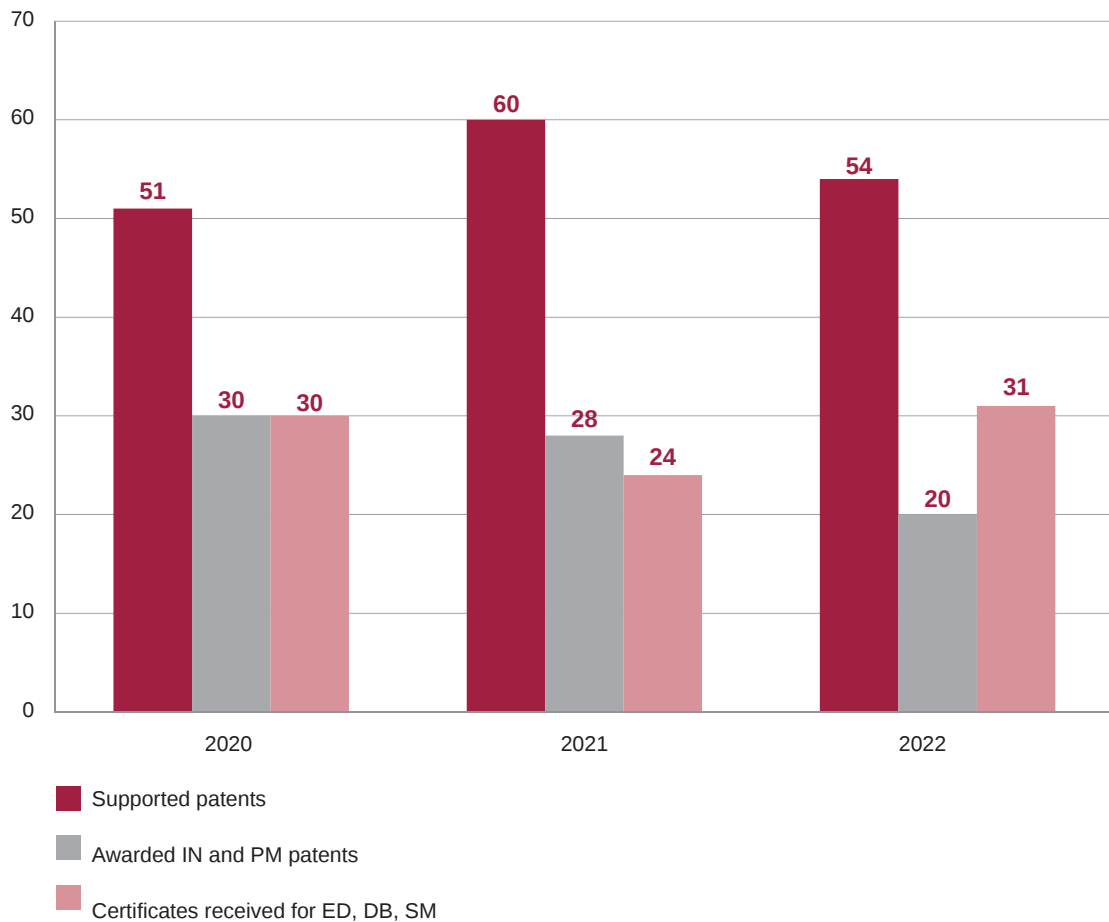
In the 2022, the university obtained 20 invention and utility model patents for development in the field of chemical and pharmaceutical industries, botany and biotechnologies, electronics, instrument engineering, and nanotechnologies. The total number of registration certificates for programs for computers and databases was 31 (Fig. 5.4).



Figure 5.4

## VSU PATENT ACTIVITY (2020-2022)

The total number of applications



IN - invention, UM - utility model, ED - electronic devices computing machines programmes, DB - data base; SM - service mark

Stability in the number for documents awarded over the past three years is a consequence of the chosen policy of the university in the field of intellectual property and is due to a preliminary examination of the commercial potential of the created intellectual property items.

In 2022, the University supported 54 patents with high commercial potential. These results confirm to the university's orientation towards supporting commercially justifiable patents.

Over 360 thousand roubles were spent on state patent dues and IP applications in 2022.



## 5.11. IP APPLICATIONS DYNAMICS PER FACULTY

The following science faculties showed 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 Economics, the Faculty of Mathematics, and the Faculty of Geography, Geoecology, and Tourism (Table 5.9).

Table 5.9

### IP APPLICATIONS DYNAMICS IN 2020-2022

Faculty	2020	2021	2022
Faculty of Biomedical Sciences	10	11	9
Faculty of Computer Sciences	4	3	4
Faculty of Pharmaceutics	5	11	4
Faculty of Physics	13	15	20
Faculty of Chemistry	–	14	3
Faculty of Applied Mathematics, Informatics, and Mechanics	20	6	3
Faculty of Geography, Geoecology, and Tourism	–	–	1
Faculty of Economics	–	–	2
Faculty of Mathematics	–	–	2
Other subdivisions	–	–	2
<b>Total</b>	<b>52</b>	<b>60</b>	<b>50</b>

The largest number of IP applications in the period 2020–2022 was submitted by Faculty of Physics.

A comparative analysis of the effectiveness of the structural subdivisions of the university for 2020-2022 indicates a consistently high number of computer programmes and database certificate submitted for registration by employees of the Faculty of Biomedical Sciences.

In 2021-2021, the Federal Institute of Industrial Property received the largest number of applications for certificate of state registration of a computer program created at the Faculty of Physics.

According to the monitoring conducted since 2010, the Faculty of Applied Mathematics, Informatics, and Mechanics and the Faculty of Computer Sciences showed the highest number of officially certified software products over the entire monitoring period.

## 5.12. DEVELOPMENT OF INNOVATIVE VENTURES

In 2022, the total revenue of small innovative businesses opened with the help of VSU exceeded 70 mln roubles.

Table 5.10

### SIBS FUNCTIONING IN 2022

Name	Year founded
OOO AKMA-Universal	2010
OOO TechnoChim	2010
OOO Institute of Corrosion	2010
OOO Pharmaceutical Innovations	2011
OOO Centre for Consulting Services and Innovative Technological Solutions for Geology "Tsitrin"	2011
OOO NanoImpulse	2011
OOO Voronezh Enterprise of Ecological Soil Monitoring	2011
OOO Technologies of Bumblebee-Keeping	2011
OOO Innovation Expert Enterprise Ecotechnologies	2012
OOO PlazmoSil	2012
OOO Bioint	2012
OOO Institute of System Biotechnologies	2012
OOO NPO Membranes	2014
OOO I-Expert Group	2015
OOO Profitsentr Perspektiva	2015
OOO BFSoft	2017
OOO I-Technology-Engineering	2018
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 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 2022, the engineering centre I-Technology continued its successful activities and strengthened its key indicators. Conditions are being developed for cooperation with potential customers and consumers of engineering services and activities. Contracts worth over 31 mln roubles were signed within the project.

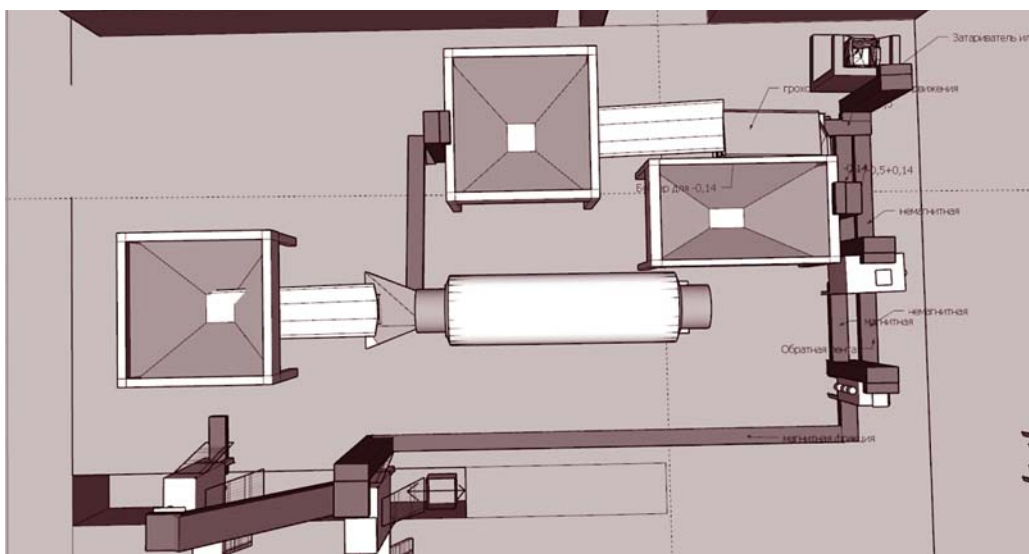
On the leased territory in the industrial settlement Latnaya in the Voronezh region (PKF Zavod KBI LLC) automated production was set up. Equipment purchased under a state subsidy within the pilot project to create an engineering centre was installed, and supplemented with automation and means of transportation. Gas was supplied to a high-performance drying complex with the involvement of funds of OOO I-Technology-Engineering. The production and technological line increases the speed of production. Technology allowing to develop deposits of the Voronezh region for import-substituting supplies of glass and raw materials for its production with the concurrent extraction of strategic marketable raw materials and the development of import-substituting Russian enrichment facilities was developed. Also, technology for the production of titanium, its alloys, and zirconium in the region was developed. In addition, this technology contributes to the solution of the previously set environmental problem, the rational use of subsoil for the reduction of the environmental load in the areas of operating mining and processing plants using new technologies for the extraction of precious metals, and strategic marketable raw materials, specifically Ti and Zr.



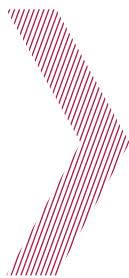
Ilmenite concentrate (raw material for the manufacture of titanium) was obtained in the workshop in the Latnaya industrial settlement



Workshop in the industrial settlement Latnaya



Schematic arrangement of the processing line in the Latnaya industrial settlement, production facility with an area of 1000 m<sup>2</sup>



Efforts are being made for the production of high-purity quartz sand for the glass industry of the region and the associated extraction of a heavy fraction - a crude rare-metal collective concentrate (zirconium, rutile, ilmenite, cyanite concentrate) during the processing of waste from the extraction of quartz sand and other common minerals.

In 2022, Dmitry Endovitsky, together with leading scientists and specialists of the Faculty of Geology, had a meeting with the Minister of Natural Resources of the Republic of Kalmykia, O. V. Dzhambinov. The developments and practical experience of VSU geologists interested the representatives of the Republic of Kalmykia; as a result, an agreement was concluded between VSU SIB OOO I-Technology-Engineering and an enterprise of the real sector of the economy OOO Stroiresurs.

## **5.14. OVERVIEW OF VSU'S 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, 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 2022, the business incubator worked in the following major areas.

- 1.** Provision of information contracting organisations aimed at the efficient business of the VSU Business Incubator: contracts with service providers (fire protection service, disinfection and denaturation services, electricity, waste collection, etc.).
- 2.** Active promotion of the leading developments of scientists and VSU SIBs at exhibition and presentation sites: exhibition-presentation within the framework of the labour festival of PAO Gazprom; China International High-Tech Exhibition (Shenzhen, online). Over 25 key R&D projects by SIBs and VSU researchers were presented at exhibitions and presentation events at various levels.
- 3.** Organization and support of the preparation of documents for the lease agreements for offices of the business incubator. Two approvals from the Ministry of Education and Science of the Russian Federation were obtained for lease agreements.



#### 4. Organisation and holding of regional events.

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, the Department of Industry of the Voronezh region, the Departments of Economic Development, the Chamber of Commerce and Industry of the Voronezh Region.

#### 5. Organisational, consultative, and administrative support of innovative projects by VSU students and staff submitted for the contest held between Voronezh universities “Innovation Cup - 2022”.

The best innovative projects of VSU were presented during the final of the annual “Innovation Cup” contest. 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, representatives of the university took a first and two third places and received two special prizes:

- First place was given to Anastasia Kharina for the project “A purification technology for amino acid solutions by means of electro dialysis”.
- Third place was given to Svetlana Vasilieva for the project “Introduction of the technologies for obtaining natural vitamin E from sunflower oil waste products at agricultural enterprises”(250 thousand roubles);
- Third place was given to Igor Dolgikh for the project “Production of silicon carbide flakes by means of electropulse stratification of single crystals” (250 thousand roubles).

Special prizes were given to Vladimir Vasilchikov for the project “A service for the parametrised search of real estate” (120 thousand roubles) and Yulia Polkovnikova for the project “Method for producing liposomal drugs for the correction of autonomic disorders caused by post-COVID syndrome”(120 thousand roubles).

#### 6. Preparing VSU students for participation in the Youth Scientific and Innovation Competition (“U.M.N.I.K.”). Over 60 VSU students have become winners of “U.M.N.I.K.” over a period from 2009 to 2022. In 2022, three winners received support from the Fund for the Promotion of Innovations for a total of 1.5 million roubles.

#### 7. Monitoring and support of VSU’s SIBs activities.

In 2022, 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.

#### 8. A new version of the Atlas of VSU’s Innovative Projects 2022 has been created, supplemented by new developments.

#### 9. In 2022, work to improve the efficiency of management of intellectual property activities (accounting and the procedure for including the intellectual property on the university’s books) continued.



## 5.15. BRIEF OVERVIEW OF THE VSU SCIENCE PARK

VSU's science park is a structural subdivision of the Innovation Management Group of Voronezh State University. The subdivision was created in accordance with an order by the rector dated April 24, 2006, and in accordance with a decision of the Academic Council of Voronezh State University. The main aim of VSU's Science Park is to support innovative ventures by means of laying the foundation for creating, developing, supporting, and preparing for independent activity the small innovative enterprises, as well as to master the scientific knowledge, inventions, know-how, and knowledge-intensive innovative technologies of the Science Park participants on a commercial scale. VSU's Science Park includes the complex of industrial premises with conference hall.

Fields of activity:

- Creating project teams, preparing applications for regional and federal programmes aimed at the support of innovative projects (Federal Target Programmes, the Order of the Russian Government No 218 dated 9 April, 2010, Skolkovo Foundation, the Fund for Promotion of Innovations).
- Promoting entrepreneurship (detecting promising ideas, creation of projects, start-ups, development and efficient cooperation with small innovative businesses).
- Cooperating with industrial partners and representatives from authorities.

The mission of the Technopark is:

- The formation and development of a market infrastructure created in the interests of small innovative businesses, commercialising primarily the results of scientific research, discoveries and inventions of the university.
- Providing assistance to scientists, teachers, graduate students for the creation and development of small innovative businesses.
- Involvement of the academic staff and students of the university, employees of scientific organizations, individual scientists and specialists in active enterprise activity, assistance in the implementation of their ideas and projects.





- Assistance in the development and implementation of innovative proposals, scientific and technical projects and programs aimed at creating science-intensive technologies and competitive products, their accelerated development in production.
- The formation of a territorial innovation system focused on the effective use of the scientific and technical potential of the region in order to accelerate the development of new equipment and science-intensive technologies, participation in the development and implementation of regional targeted innovation programs and projects.
- The creation of a favourable social and living environment for scientists, teachers, graduate students, students, specialists, entrepreneurs working in the Technopark, which allows them to fully use their intellectual property by involving it in the national economy.

To date, the formation of an industry-specific profiling of the Technopark in the biotechnology is observed. On the basis of the Technopark, one small innovative business successfully operates with total cash assets turnover of more than 30 million roubles per year. In addition, funding of over 1 million roubles from the budget of industrial partners for the development of infrastructure was used in 2022, in particular, repairs of premises with an area of over 70 m<sup>2</sup> were performed. Documents are being prepared for the registration of two more small innovative businesses.

As part of the Property Redistribution Program of the Ministry of Science and Higher Education of the Russian Federation, a dual chamber freeze dryer EPSILON 2-65 DS (Martin Christ, Germany) valued at over 45 million roubles was received. A Martin Christ series EPSILON DS dual chamber freeze dryers with steam-in-place (SIP) are used for the aseptic production of pharmaceutical injectable drugs in accordance with cGMP requirements. The lyophilization process in these dryers meets the requirements of GOST-R-ISO 13408-3-2011 "Lyophilization", and the clean-in-place systems (CIP) and the steam-in-place (SIP) comply with GOSTs ISO 13408 series (Aseptic production). This equipment is used in the biopharmaceutical industry (lyophilization of vaccines, therapeutic proteins, monoclonal antibodies, blood derivatives, antibiotics, diagnostics), as well as in the pharmaceutical industry (lyophilization of solutions).



## 5.16. VSU R&D PROJECT DATABASE INFORMATION

In 2022, to enhance the efficiency of events aimed at fulfilling VSU's innovative potential, the VSU Atlas of Innovative Projects was updated and supplemented.

The Atlas of Innovations is dedicated to the achievements and developments of Voronezh State University researchers. VSU is a competitive and successful university in the field of research and development. The Atlas of Innovations has collected projects dedicated to physics, chemistry, mechanical engineering, information technology, pharmaceuticals, and biotechnologies (Fig. 5.5).

Figure 5.5

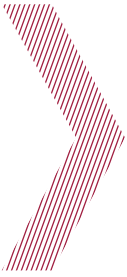
### COVER OF VSU'S ATLAS OF INNOVATIVE PROJECTS



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.





## 5.17. VSU PROJECT OFFICE

The VSU Project Office is a structural subdivision that provides full coordination, operational and methodological support for the implementation of the university's project activities.

The project office performs the following functions:

- Attracting projects from internal and external customers.
- Maintaining information in the project database.
- Providing organizational and informational support for project teams and related processes.
- Organising and holding educational, popular science and congress events.
- Any other activities aimed at supporting and developing the project model.

Key tasks of the project office:

### 1. Project support:

- Organizational support of the process of project formation.
- Consultations of project teams on the organization of work with projects.
- Project administration and reporting on the progress of implementation.

### 2. Methodological support of projects:

- The formation of projects focused on achieving the strategic goals of VSU.
- Organizational support for the integration of the project-based learning model.
- Benchmarking best practices for managing innovative projects and working with technology startups.
- The development of student and staff skills necessary for the development of products and the marketing of projects.
- The support and development of entrepreneurial competencies of students and employees.

### 3. Marketing and external communications:

- The organization of thematic events (conferences, forums, pitch sessions, project sessions, exhibitions, fairs) for internal and external audiences.
- Interactions with industrial partners in terms of commercial developments, infrastructure projects and student startups.
- The organization and holding of industry competitions, inter-faculty and inter-university competitions of student research works and projects.
- Searching for customers for commercial research and consulting on focus topics.



Key results of the project office for 2022:

1. Entrepreneurial competencies trainings were organised and conducted for students in the universities of the Central Federal District (a grant of 6.2 million roubles, 1,440 students were trained).
2. 23 cooperation agreements have been signed.
3. Economic contracts were concluded for the implementation of R&D with a total volume of 15 million roubles.
4. A training event in the field of IT was held at VSU together with Green Atom.
5. The Voronezh Microelectronics in the National Research and Production Complex forum is held at the university.

Preparation of applications for competitions:

1. Support for student scientific associations.
2. Creation of advanced engineering schools.
3. Creation of high-tech industries (Government Decree of April 9, 2010 No. 218).
4. Development of technological entrepreneurship in universities.

## 5.18. STUDENT SCIENTIFIC SOCIETY

The Student Scientific Society (hereinafter referred to as the SSS) of VSU was established in December 2021. Its structure consists of the SSS of each faculty of the university. Scientific circles and clubs function in a number of SSS. In 2022, the following areas were developed:

- Organization and holding of scientific and popular science events.
- Participation in scientific and popular science events.
- Involvement of first-year students in research activities.
- Social work.
- Conducting student master classes, model trials; seminars, lectures, round tables.

In 2022, more than 200 events were held by the VSU SSS. Among them are:

- The interdisciplinary student forum “World of Chromatography”.
- The scientific and educational project “Geology yesterday, today, tomorrow” (author’s photo exhibition, open lectures, team games, excursions to the Geological Museum).
- The “Geography” section of the XXXV Conference of the Scientific Society of Voronezh State University and the Voronezh Regional Branch of the Russian Geographical Society.
- The second stage of the competition “Scientific potential of the student” together with SSS VSMU.
- VSU mathematical tournament.



- Afternoon of Slavic literature and culture.
- Day of Peter the Great.
- Excursions for laboratories of the Faculty of Chemistry.
- Competition in integration and the calculation of limits.
- Masterclasses on writing scientific papers, information technology in non-IT sciences, Russian culture, and jurisprudence.
- Historical model litigation against the legislation of 1903 with the involvement of research students from the Faculty of Law, the Faculty of History, and the Faculty of Romance Germanic Philology.
- Program for studying technical English.
- Medicinal “Fitotech” at the “Spring Flower Parade”.
- Exhibition “Geology in faces”.
- Scientific game (HIST. Brain-ring marathon, QuizMix in geography and geoecology, legal games “Nuclear weapons: FOR and AGAINST” and “Artificial intelligence in the provision of legal services: For and Against”).

As volunteers, representatives of the VSU SSS participated in the organization of events:

- Voronezh Forum on Microelectronics.
- Congress of Young Scientists.
- International scientific and technical conference “Radar, navigation, communications”.
- V International Student Scientific Conference “Modern trends in the development of civil law and the civil process”.
- All-Russian scientific and practical conference and the All-Russian interuniversity round table “Scientific heritage of Professor I.A. Galagan”.
- “Journalism and Media Education” section of the All-Russian Conference with International Participation “Journalism and Geography” of the scientific and practical conference held as part of the Peskov Readings.
- Tournament of Three Sciences.
- Open days were held:
- Day of enterprises of the radio-electronic industry.
- Engineering Academic Competition for Schoolchildren from the Central Russia
- scientific session of VSU.
- A New Year’s party for special children of the Voronezh region together with the Common Children: Charity for Orphans Foundation.
- Research club for schoolchildren “I explore the world of psychology”.
- Games for children “Dino-quest” to get acquainted with the stages of development of life on Earth.



Representatives of SSS VSU also took part in the following events:

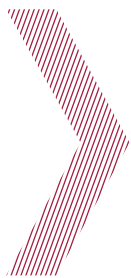
- Interregional conference “Integrative assistance of child psychiatrists, clinical psychologists to the child population of the Voronezh region” within the framework of the 54th interregional specialised forum-exhibition “Health of the Chernozem Region 2022”.
- XVIII International forum-competition of students and young scientists “Actual problems of subsoil use”.
- IV International Student Scientific Conference “Modern trends in the development of civil law and the civil process”.
- X International Scientific Conference “Young people for Earth sciences”.
- All-Russian conference of leaders of SSS “Vernadsky”.
- XVII All-Russian (with international participation) festival “Yesenin Spring”.
- “Geography” section of the XXXV conference of the scientific society of students of the Voronezh State University.
- International Student Summit of the Institute of Geosciences.
- SSS of the International School of MISIS University.
- Basov readings.
- Expeditions of the Archaeological Museum of the Voronezh State University to explore the settlement “Mikhailovsky cordon” on the northern outskirts of Voronezh.
- Research by the Laboratory of Language, Intercultural and Creative Competences of the National Research University Higher School of Economics.
- Youth online platform “Fundamental Science for Sustainable Development of Regions”.
- Science Slam in Voronezh.
- “Smart route. Social activity” from the Russian society “Knowledge”.



- Meeting of the Voronezh club of political scientists.
- Entrepreneurial competencies trainings from MIPT.
- Games of “What? Where? When?” at VSU.
- Book fair at the Platonov Arts Festival.
- “Garden City” exhibition along with the presentation of medicinal herbs.
- Educational program for volunteers of popular science events from the Creative Science Lab.
- Science Talk training from the Information Centre for Atomic Energy of Voronezh.
- Excursions to the engineering laboratories of the Department of Robotics of the Voronezh State Technical University.
- Excursions to the “Kulikovo Field” museum complex.
- Meeting with employees of the laboratories of the Joint Institute for Nuclear Research.
- Meeting with Fedor Konyukhov.
- Collection of humanitarian aid for civilians of the LPR/DPR and Russian military personnel.

Representatives of SSS VSU participated as jury members for:

- In the regional stage of the Tournament of Young Naturalists.
- Competition of scientific and practical projects of schoolchildren from the school “Albireo”.
- Tournament of Three Sciences.
- School tournament in chemistry at “Lyceum No. 1”.
- VIII Voronezh chemical tournament for schoolchildren on the basis of the Orion educational centre.
- Rhetorical competition of VSU students.



## 5.19. VSU ALUMNI ASSOCIATION

The VSU Alumni Association was founded in December 2012 in order to maintain contact with university graduates, help graduates to stay in touch with each other, and involve them in joint projects.

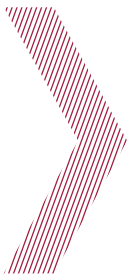
The main activities of the Association in 2022:

- 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 Organisations” dated 12 January 1996. According to the results of the competition, the innovation preaccelerator Innovation League became the winner. The aim of the Innovation League is to develop competencies for innovative projects in grade 7-11 pupils of schools in the Voronezh Region. Graduates of the Innovation League can continue working on their innovative projects when they enrol at VSU. Over the five years of existence of the Innovation League it has trained about 1000 schoolchildren. 80% of those who developed their projects while participating in the Innovation League, enrolled in VSU.
- A victory in the competition of grants from the non-commercial organisation “Image of the Future” with the project “Digital educational ecosystem “Shipova oak forest”” was won. As part of the project, an educational program will be implemented for students in grades 5–11 of the Buturlinovskaya secondary school and other schools in the Buturlinovsky district of the Voronezh region, aimed at developing interest in technical and IT specialities. The goal of the project is to create conditions for the development of research, engineering, and design competencies through the development of skills in working with 2D and 3D modelling programs and the implementation of practical work in the field of VR/AR, as well as the formation of cross-professional skills.
- The association passed the competitive selection and became the organizer of the career guidance events “Green Atom IT Marathon” in Voronezh. As part of the IT marathon held on October 18, 2022, VSU students learned about the career opportunities of the IT unit of the nuclear industry, and also took part in the selection for open internships and training programs.
- Donations amounting to more than 50 thousand roubles were collected. The collected funds are aimed at promoting activities in the development of student self-government at VSU.

The main objectives of the association for 2023 are:

- Updating and supplementing the database of graduates of various years.
- Creation of a mobile application for communication of VSU graduates and informing about events held at the university.
- Receiving altruistic donations from graduates to implement targeted initiatives.

More information about the activities of the VSU Alumni can be found on the website: <https://www.alumnivsu.ru/>, as well as in the group on the VKontakte social network: [https://vk.com/alumni\\_vsu](https://vk.com/alumni_vsu)



## 5.20. GRADUATE 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 problem regarding 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.

### The mission of CDBPC

- The formation of motivation among students and VSU graduates for independent planning and building a career.
- Prompt assistance to graduates in positioning themselves on the modern labour market, maximum assistance in their professional development.

### The priority tasks for the VSU Career Development Centre are:

- To enhance the quality of employment for graduates, including employer-sponsored graduates, people with disabilities, and international graduates.
- To increase the general awareness of students and graduates by means of extracurricular activities aimed at developing career mindfulness, meeting the requirements of employers, and studying the needs and interests of students.
- To offer transparent information as to the demands set by the labour market for the education system.
- To make enterprises and other organisations more involved in the education process, including in practical training and employer-sponsored training.
- To improve career and project oriented events held by the university.
- To improve the labour environment and enhance the appeal of enterprises and partner companies at the university.
- To form stable employee communities at the university.

### Over the past year (2022), in total 155 events were held by the division:

- Introductory meetings with major employers: 31
- Excursions to partner enterprises: 10
- Lectures by experts from leading companies in the Chernozem region: 37





- Career days (online/offline): 10
- Webinars/master classes/career consultations: 17
- Conferences/hackathons/intensive programs: 26
- Competitions/case championships: 12
- Leadership programs/schools: 12

According to an analysis of VSU graduate employment, the share of employed VSU graduates distributed by the level of education in the following way: bachelor's degree - 99% (including 43% of those who continued their studies), specialist's degree - 84% (including 6% of those who continued their studies), master's degree - 83% (including 12% of those who continued their studies), secondary vocational education - 69% (including 26% of those who continued their studies); 85% of graduates who completed employer-sponsored training were employed in 2022.

According to the data provided by the online career platform Facultetus, graduates of the Faculty of Economics, the Faculty of Computer Sciences, the Faculty of Applied Mathematics, Informatics, and Mechanics, and the Faculty of Geology are the most demanded among employers.

#### **Organisational and methodological support of the CDBPC's activities in 2022 included:**

- Extending the database of potential employers (agreements with enterprises on student internships, cooperation with enterprises and companies aimed at VSU students and graduates' employment, etc.).
- Providing senior students and graduates with information from the job bank of the regional employment bodies (cooperation with Voronezh Region Employment Department).
- Organisation of events contributing to students' and graduates' successful employment (career fairs, career days, enterprise days, excursions to partner enterprises, presentations by employers, round table discussions with employers, etc.).
- Training within the framework of the Acceleration Programme run by the Expert Career Centre of the Ministry of Science and Higher Education of the Russian Federation.
- Participation in the meetings of the specialist training board of industrial enterprises of the Voronezh Region, an extended meeting of the board of experts under the aegis of the governor of the Voronezh Region concerning the prospects of the youth policy in the region, and a round table discussion of youth employment held by the Voronezh Regional Duma.
- 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.



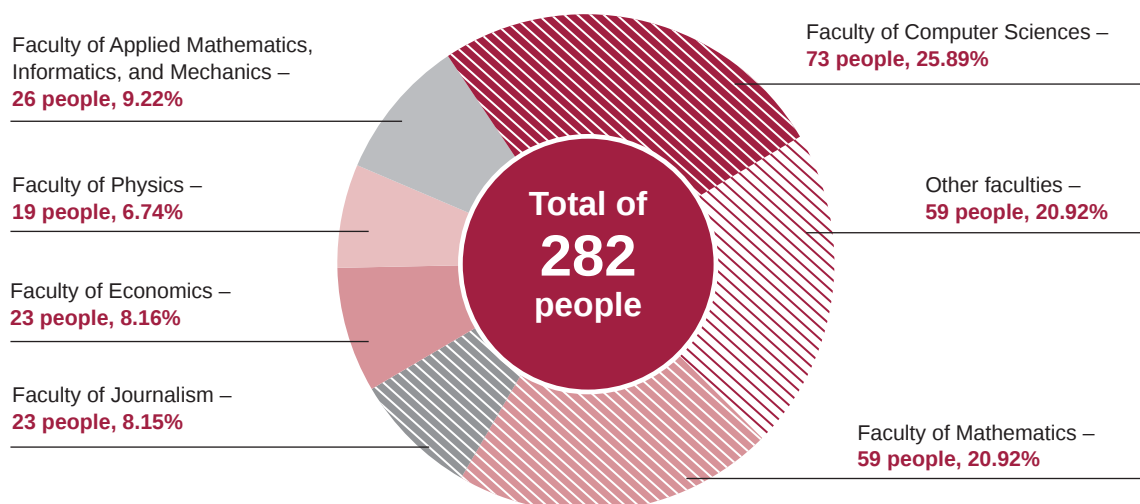
## INFORMATION RESOURCES

As of the beginning of 2023, the centre is actively developing its graduate employment assistance system:

- 330 partnership agreements with employers were signed and 2,110 student accounts were registered at VSU's online career platform Facultetus. The number of open vacancies in the region as of 20 February 2023 is 1,518.
- The number of followers of the official VKontakte group grew to 3,426 people. A Telegram account of the centre (vsucareer) was created in 2022 with the total of 233 followers.
- In 2021-22 the number of effective internship bases was 1,171. 259 agreements were signed with organisations in the Voronezh Region within the framework of the mentorship programme. Following the agreements, VSU students could complete their internships in the form of practical training at relevant organisations over the duration of their study course and under the mentorship of responsible staff members.
- In 2022, 93 agreements were signed with students regarding employer-sponsored training (61 agreements in 2021) as part of the development of the system of employer-sponsored training.

Figure 5.6

### STRUCTURE OF EMPLOYER-SPONSORED TRAINING PROGRAMMES IN 2022 BY FACULTIES





In order to enhance the effectiveness of graduate employment, the following mechanisms and tools of interaction with prospective employers were introduced in 2022-23:

- Digitised interaction between the CDBPC and state and commercial platforms (Facultetus, HeadHunter, Rabota.ru, Superjob.ru).
- Optimisation of the monitoring of the employment of university graduates by CDBPC by means of the Facultetus platform.
- The database of potential employers: updating the status of VSU's strategic partners, adding information on new agreements to the register.
- Development of the communication line prospective students-university-students: social media, identica, etc.
- Organising and holding career 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.

**Main objectives for 2023:**

- 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.
- Developing a mobile application in order to form a relevant graduate database together with the VSU Alumni Association.
- Pooling the efforts of all the university's subdivisions, analysing the obtained results, and developing a roadmap for the CDBPC.



## 5.21. TELECOMMUNICATIONS AND INFORMATION SYSTEM DEVELOPMENT AT VSU IN 2022

The communications and information infrastructure of VSU is based on the university's own telecommunication system which connects 10 university buildings, 8 dormitories, the swimming pool, the botanical garden, and other facilities into a single information system. The communication nodes in the university have core and distribution layer routers with high port density and a data transfer rate of up to 10 Gbit/s. The internet network access channel is 2 Gbit/s. VSU's wireless network covers 90% of the university's buildings. The wireless network has 200 802.11b/g/n/ac Wi-Fi access points. All students and employees have limitless access to the university's wireless network.

The "brain" of the communications and information infrastructure of VSU are six local data processing and storage centres, which have specific tasks and objectives. The centres comprise over 40 physical servers and 150 virtual servers. The total volume of the data storage systems is over 900 TB.

A supercomputer with a total capacity of 39 Tflop/s (27 Tflop/s – LinPack) is used for the mathematical modelling of complex processes and objects and high performance computations.

The university owns over 3,000 desktop PCs and laptops, most of which (74%) are used for teaching. VSU's classrooms are equipped with multimedia equipment (30%), equipment for broadcasting (4%), and access to the Internet via the university's Wi-Fi (over 80%).

The university is actively developing and employing digital services, including e-mail, personal accounts for university entrants, students, and teachers, a video conferencing service, digital timetables, Antiplagiat system for revealing plagiarism in academic papers, a service for booking scientific equipment and library access, etc. 100% of students and employees have access to the digital services of the university. The university has its own electronic education and information system based on the LSM Moodle platform. Online lectures and workshops are held by means of the BigBlueButton video-conference system and the Pruffme cloud service. Over 30% of courses are taught using digital resources available on the university's integrated education and information system. Over 40% of the administrative and managerial staff use specialised software in their work and over 60% use the electronic document flow system. Prospective students can submit their applications and all the necessary documents required to participate in the admission competition using a special service "Enter the university online" or via a personal account on the university's website (<https://enrol.vsu.ru/>). The data is updated thanks to an automated system of electronic data exchange between the internal information systems of the university.

The university also has a laboratory for designing online courses with equipment for audio and video recording and editing. It also employs a platform for massive open online courses (MOOC) (<https://mooc.vsu.ru/>).



VSU also actively employs state information systems, including the Unified Portal of Public and Municipal Services, the Digital Budget state information system, the National Information System for Procurement Procedures, the Monitoring information system of the Ministry of Education and Science of the Russian Federation, the federal information system of the state certification of research, academic and teaching staff, etc.

The university is also improving the digital competencies of the academic staff and administrative and managerial personnel.

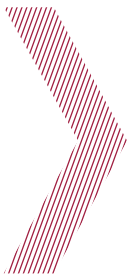
#### **DEVELOPMENT AND SUPPORT OF THE UNIVERSITY'S WEBSITES**

The official website of Voronezh State University ([www.vsu.ru](http://www.vsu.ru)) has been the most popular of the university's information resources (over 1.6 million visits per year). Besides the Russian Federation, the geographical distribution of visitors to the website includes over 170 countries. VSU occupies 18th place in the top 20 ranking of English-language versions of Russian university websites (with 56 points in 2022 and 54 points in 2021)

In the reporting year, over 1,400 information items were published on the website, including news articles (88%) and announcements (12%).

#### **DEVELOPMENT OF THE UNIVERSITY'S TELECOMMUNICATION SYSTEM**

In the reporting year, the activities were aimed at increasing the stability of the network and services and optimising the costs of maintaining the communication infrastructure. In particular, independent optic communication channels were set up, which now connect buildings No. 4 and 10 into a single communication infrastructure. As a result, the university stopped using laser communication networks and withdrew the agreement with one of the telecommunications service providers. The data transfer rate between the communication nodes of the said buildings increased dramatically.



## MEASURES AIMED AT DIGITISATION OF THE EDUCATION ACTIVITIES

### A PILOT PROJECT “UNIFIED REGISTER OF DIGITAL EDUCATION DOCUMENTS”

Voronezh State University actively participated in a pilot project of the Government of the Russian Federation aiming to form digital education documents by means of the “Unified register of digital education documents” module of the federal information system “The Federal Register of Data on Education Documents and (or) about Qualification, Documents on Training” (FRDED) as part of the service “Digital Education Documents Online”.

The project had three stages and was successfully completed in December 2022. As a result, the university’s information system was integrated with the FIS FRDED by means of an API (application programming interface). They now interact automatically. As part of the experiment digital diplomas were received by 145 graduates of bachelor’s, master’s, specialist, and post-graduate programmes.

### AUTOMATED INTERACTION WITH THE STATE INFORMATION SYSTEM “MODERN ELECTRONIC EDUCATION ENVIRONMENT”

Following an agreement No. 23 between the university and the Ministry of Education and Science of the Russian Federation dated 27.12.2021, in 2022 the university organised automated information exchange with the state information system “Modern electronic education environment”.

As a result, algorithms for downloading data from the system “Modern electronic education environment” were developed based on an API. The data exchange is carried out using Continent TLS VPN - a system for secure remote access to web applications using encryption algorithms that comply with GOST.

### AUTOMATED INTERACTION WITH THE “ENTER UNIVERSITY ONLINE” SERVICE

During the 2022-2023 admission campaign, Voronezh State University maintained the interaction between the “Abiturient” information system and the “Enter the university online” service in the form of mutual exchange of messages by means of a secure data transfer network Vipnet. As a result, 23% of prospective students (over 2,000 people) submitted their applications via the Unified Portal of Public Services.





## FACILITIES OF THE ACCREDITATION AND SIMULATION CENTRE OF THE FACULTY OF BIOMEDICAL SCIENCES OF VSU

In 2022, the university opened an accreditation and simulation centre at the Faculty of Biomedical Sciences. The centre is equipped with modern communication equipment, a video recording system, and software by leading Russian developers. In August 2022, graduates of the Medical Biochemistry and Medical Cybernetics programmes successfully acquired their accreditation. Total investment funding, including the purchasing of specialised medical equipment, computer equipment, and software, as well as repairs, amounted to about 15 million roubles.



Opening ceremony of the accreditation and simulation centre at the Faculty of Biomedical Sciences of VSU





### TECHNICAL SUPPORT OF USERS OF VSU'S TELECOMMUNICATION SERVICES

In the reporting year, user support within the university's telecommunications system was performed as usual. Over 9,000 user requests were processed. The portion of successfully solved issues was 97%.

Figure 5.7

#### NUMBER OF PROCESSED USER SUPPORT REQUESTS

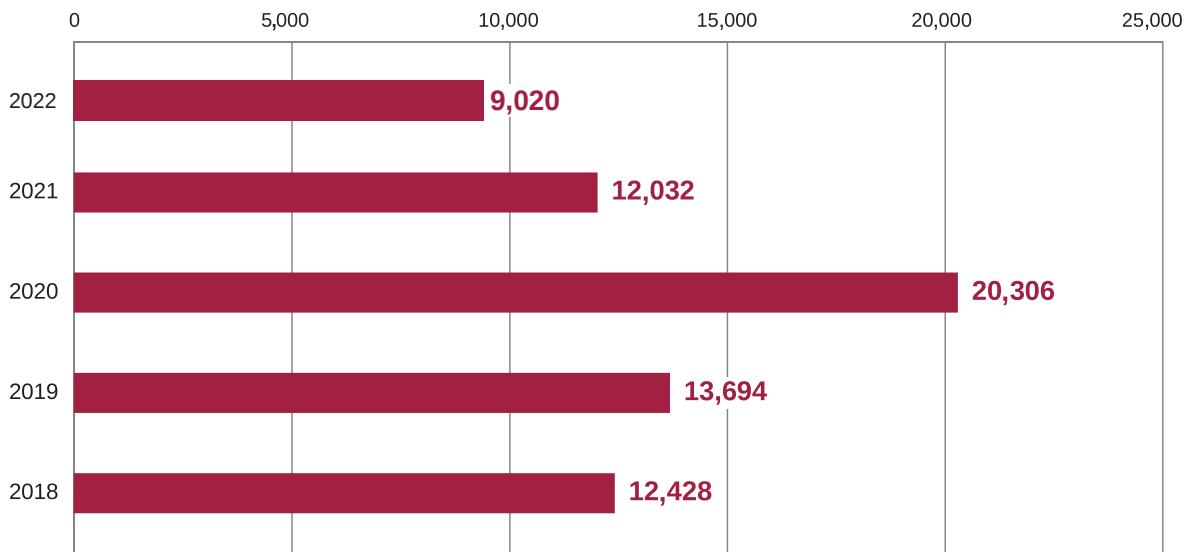
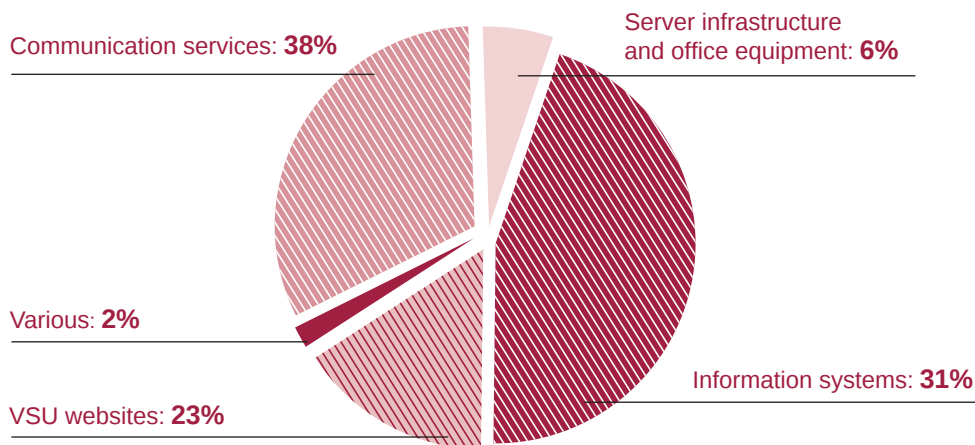


Figure 5.8

#### DISTRIBUTION OF THE NUMBER OF REQUESTS BY TYPE

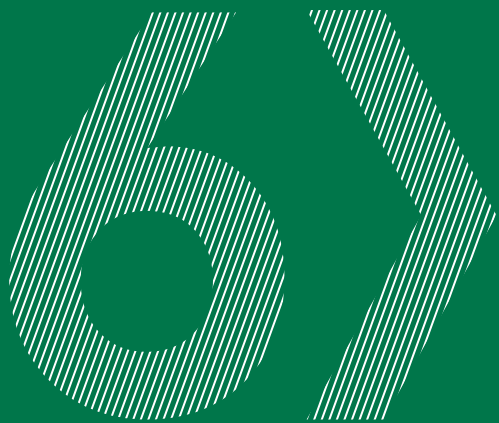


In the reporting year, the largest number of requests concerned the communication services (38%), including the registration of students and staff on the university's wireless network. A similar number of requests concerned the maintenance of the information systems of the VSU (31%). The vast majority of such requests were submitted by the users of the integrated and information system LMS Moodle. 23% of requests related to posting information on VSU websites.

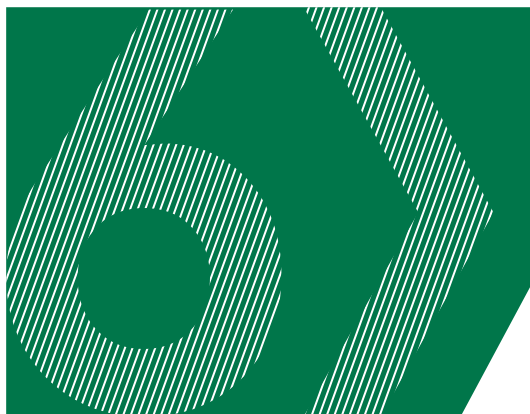




## **ECONOMICS AND CONTRACT SERVICE**







# ECONOMICS AND CONTRACT SERVICE



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and Contract Services

## 6.1. VSU MAJOR OBJECTIVES IN THE SPHERE OF ECONOMICS AND FINANCE IN 2022

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 keep the salaries of academic and research staff at a level of not less than 200% of the average salary in the Voronezh Region.
- To continue the tradition of bonuses for all categories of employees.
- To optimise 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. RECEIPTS IN 2022

In 2022, the total revenue amounted to **3,043,750.0 thousand roubles**, including:

- Government order subsidies: **1,208,614.6 thousand roubles**.
- Targeted subsidies: **382,824.6 thousand roubles**.
- Receipts from the provision of services to natural and legal persons on a fee-paying basis: **1,452,310.8 thousand roubles** (Table 6.1, Fig. 6.1).

Table 6.1

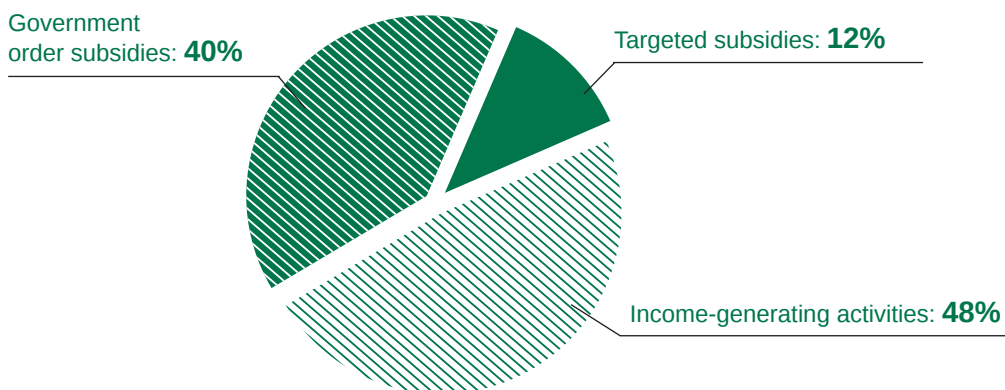
### INCOME STRUCTURE, THOUSAND ROUBLES

Receipts in 2022		Total
Federal budget	Revenue-generating activities	
1,591,439.2	1,452,310.8	<b>3,043,750.0</b>

In 2022, the percentage of income from the federal budget amounted to 52% and 48% was from income-generating activities.

Figure 6.1

### INCOME STRUCTURE, %





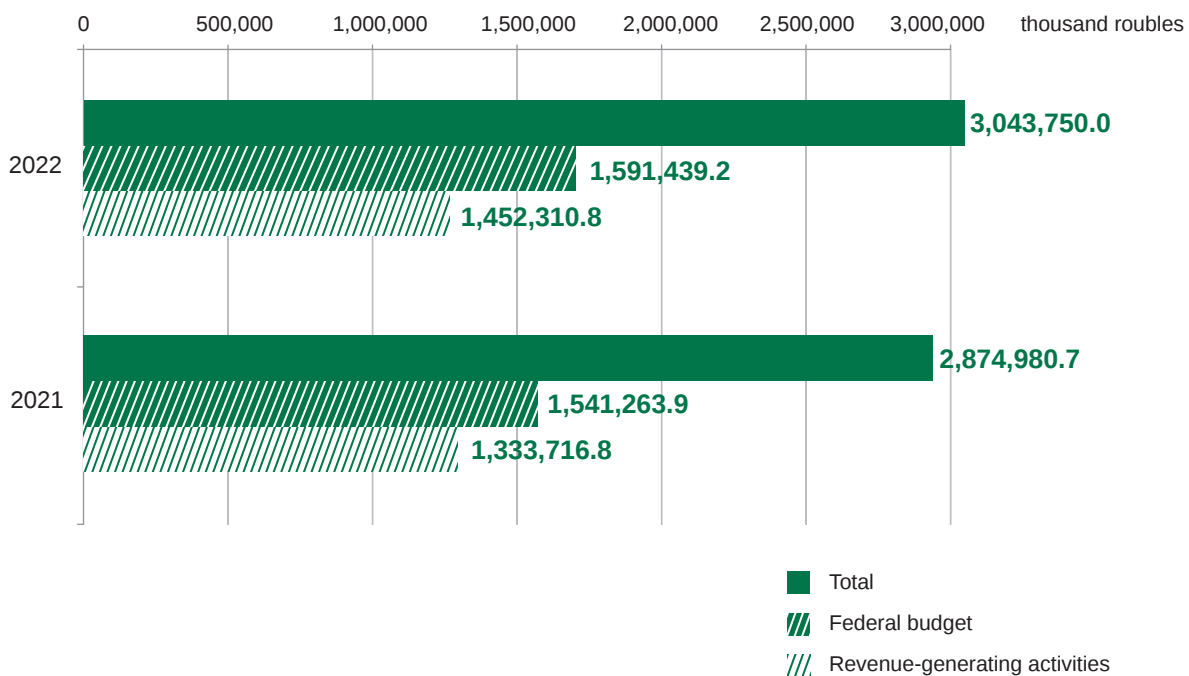
### 6.3. INCOME AS COMPARED TO THE PREVIOUS REPORTING PERIOD

Compared to 2021, the total revenue in 2022 increased by 163,421.2 thousand roubles (or by 6%):

- Subsidies obtained from the Russian Federation state budgetary resources 2022 years increased by 50,175.3 thousand roubles.
- In 2022, extra funding from revenue-generating activities increased by 113,245.9 thousand roubles (Fig. 6.2).

Figure 6.2

#### TOTAL REVENUE IN 2022 INCREASED AS COMPARED TO 2021



## 6.4. TOTAL EXPENSES IN 2022 BY AREA OF EXPENDITURE

Table 6.2

### TOTAL EXPENSES IN 2022 BY AREA OF EXPENDITURE

Name of the indicator	Classification of transactions of general government sector code	Amount for 2022, roubles	Amount for 2021, roubles	Absolute deviation, roubles
Disposal for current operations, total	200	2,994,064,652.68	2,688,873,267.27	305,191,385.41
Including:				
Due to staff compensation and staff compensation payment charges	210	1,978,881,209.67	1,750,811,469.04	228,069,740.63
Among them:				
Due to wages	211	1,536,118,729.41	1,359,035,914.24	177,082,815.17
Due to other staff monetary benefits other than bursaries	212	1,836,400.00	1,357,700.00	478,700.00
Due to staff compensation payment charges	213	440,926,080.26	390,274,432.79	50,651,647.47
Due to other staff benefits in kind other than bursaries	214	–	143,422.01	-143,422.01
Due to payment for works, services	220	544,562,177.23	478,105,990.57	66,456,186.66
Among them:				
Communications services	221	5,995,303.63	7,339,312.97	-1,344,009.34
Transport services	222	2,246,698.58	2,114,172.66	132,525.92
Utility services	223	119,065,138.05	115,818,739.08	3,246,398.97
Property rental (excluding for land plots and other isolated natural objects)	224	836,520.00	866,030.00	-29,510.00
Maintenance works and services	225	124,293,473.35	160,905,085.37	-36,611,612.02
Other works and services	226	291,872,893.24	190,814,742.43	101,058,150.81
Insurance	227	230,150.38	227,908.06	2242.32
Property rental (excluding for land plots and other isolated natural objects)	229	22,000.00	20,000.00	2000.00
Due to social security	260	5,172,123.63	4,414,359.66	757,763.97
Due to pensions and benefits paid by employers to former employees	264	493,044.81	293,000.00	200,044.81
Due to social benefits paid in kind by employers to former employees	265	48,752.76	–	48,752.76
Due to monetary social benefits and reimbursements for staff	266	4,630,326.06	4,121,359.66	508,966.40
Due to other expenses	290	418,921,948.55	417,067,750.19	1,854,198.36
Including:				
Due to payment of taxes, fees, and charges	291	33,168,106.69	49,530,407.33	-16,362,300.64
Due to payment of fines for the infringement of law on taxes and charges and the law on insurance fees	292	105,297.36	126,204.43	-20,907.07
Due to payment of fines for the infringement of law on procurement and violation of agreements	293	3,629.21	286,682.16	-283,052.95
Due to payment of other economic sanctions	295	197,638.20	–	197,638.20
Due to other current payments to individuals	296	384,732,821.63	366,359,419.19	18,373,402.44
Due to other current payments to organisations	297	714,455.46	765,037.08	-50,581.62
Due to purchasing commodities and material assets	340	46,527,193.60	38,473,697.81	8,053,495.79
Including:				
Medicines and materials used for medical purposes	341	23,290.42	84,045.50	-60,755.08
Food products	342	–	169,164.50	-169,164.50
Fuel and lubricants	343	4,071,790.61	3,732,261.86	339,528.75
Construction materials	344	759,209.28	1,100,674.60	-341,465.32
Fabric inventory	345	599,147.70	177,691.00	421,456.70
Other working supplies (materials)	346	29,904,236.73	26,228,173.99	3,676,062.74
Single-use material assets	349	11,169,518.86	6,981,686.36	4,187,832.50

In 2022, the largest percentage in total expenses were payments to personnel, which amounted to 66 % (increased by 228,069,740 roubles 63 kopecks), and expenses for the purchase of goods, works, and services, which amounted to 19% (expenses increased as an absolute expression by 66,456,186 roubles 66 kopecks).





## 6.5. ANALYSIS OF THE EFFECTIVENESS OF THE STRUCTURAL SUBDIVISIONS OF THE UNIVERSITY PROVIDING EDUCATIONAL SERVICES

In 2022, 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: 15.42 and 12.57%, respectively, in the total amount of income from educational activities (Table 6.3, Fig. 6.3).

Table 6.3

### REVENUE FROM THE EDUCATIONAL SERVICES IN THE 2021/22 ACADEMIC YEAR

Faculty	Government order, rub.	Revenue-generating activities, rub.	Total, rub.	Share, %
Faculty of Law	24,955,800	307,929,650	332,885,450	15.42
Faculty of Economics	27,582,200	243,695,400	271,277,600	12.57
Faculty of Applied Mathematics, Informatics, and Mechanics	149,858,317	47,663,550	197,521,867	9.15
Faculty of Computer Sciences	123,712,128	62,419,400	186,131,528	8.62
Faculty of Romance and Germanic Philology	28,754,650	135,275,300	164,029,950	7.60
Faculty of Medicine and Biology	106,365,917	35,603,105	141,969,022	6.58
Faculty of Physics	121,944,900	6,562,500	128,507,400	5.95
Faculty of Journalism	17,630,800	80,571,350	98,202,150	4.55
Faculty of Mathematics	90,840,250	6,305,100	97,145,350	4.50
Faculty of International Relations	15,458,467	72,448,300	87,906,767	4.07
Faculty of Pharmaceutics	31,342,700	43,905,300	75,248,000	3.49
Faculty of Geology	62,150,093	6,575,700	68,725,793	3.18
Faculty of Chemistry	62,528,600	4,502,700	67,031,300	3.11
Faculty of Geography, Geoecology, and Tourism	42,487,800	22,343,300	64,831,100	3.00
Faculty of History	25,009,650	36,817,100	61,826,750	2.86
Faculty of Philology	14,278,200	44,286,700	58,564,900	2.71
Faculty of Philosophy and Psychology	27,636,850	28,673,475	56,310,325	2.61
<b>Total</b>	<b>972,537,321</b>	<b>1,185,577,930</b>	<b>2,158,115,251</b>	<b>100</b>

Figure 6.3

## INCOME STRUCTURE BY FACULTY IN THE 2021/2022 ACADEMIC YEAR

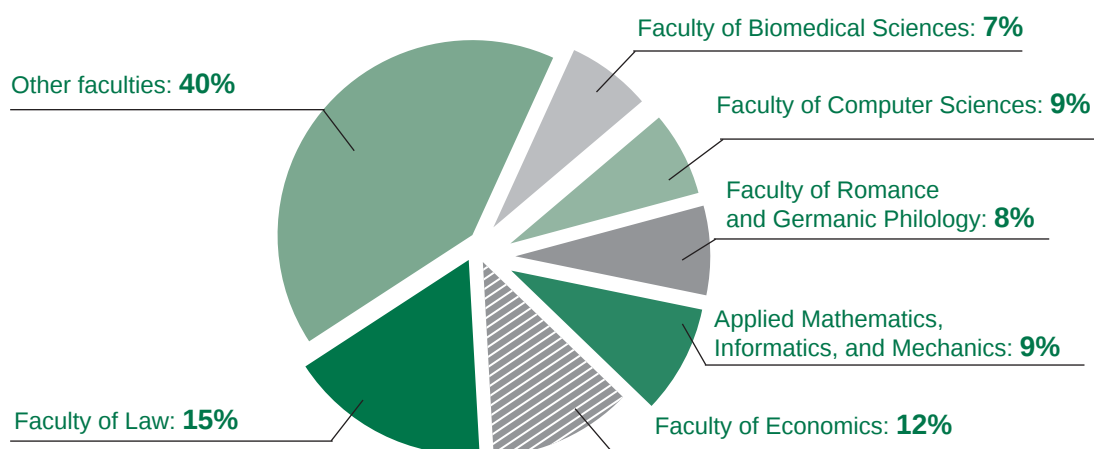


Table 6.4

ANALYSIS OF THE INCOME PLANNING OF FACULTIES OF VSU  
IN THE 2021/22 ACADEMIC YEAR

Faculty	Planned income	Actual income	The achievement of parameters, %	Absolute deviation, (+/-)
Faculty of Philology	34,451,812.00	44,286,700.00	128.55	9,834,888.00
Faculty of Chemistry	3,908,817.00	4,502,700.00	115.19	593,883.00
Faculty of Geography, Geoecology, and Tourism	19,952,418.00	22,343,300.00	111.98	2,390,882.00
Faculty of Medicine and Biology	31,858,954.00	35,603,105.00	111.75	3,744,151.00
Faculty of Computer Sciences	57,105,254.00	62,419,400.00	109.31	5,314,146.00
Faculty of Law	282,353,551.00	307,929,650.00	109.06	25,576,099.00
Faculty of Philosophy and Psychology	26,720,655.00	28,673,475.00	107.31	1,952,820.00
Faculty of Economics	228,567,978.00	243,695,400.00	106.62	15,127,422.00
Faculty of International Relations	68,236,959.00	72,448,300.00	106.17	4,211,341.00
Faculty of Romance and Germanic Philology	132,939,822.00	135,275,300.00	101.76	2,335,478.00
Faculty of History	39,053,447.00	36,817,100.00	94.27	-2,236,347.00
Faculty of Journalism	89,608,990.00	80,571,350.00	89.91	-9,037,640.00
Faculty of Applied Mathematics, Informatics, and Mechanics	55,910,650.00	47,663,550.00	85.25	-8,247,100.00
Faculty of Geology	7,835,780.00	6,575,700.00	83.92	-1,260,080.00
Faculty of Physics	8,678,779.00	6,562,500.00	75.62	-2,116,279.00
Faculty of Pharmaceutics	58,673,870.00	43,905,300.00	74.83	-14,768,570.00
Faculty of Mathematics	12,630,417.00	6,305,000.00	49.92	-6,325,417.00
<b>Total</b>	<b>1,158,488,153.00</b>	<b>1,185,577,830.00</b>	<b>102.00</b>	<b>27,089,677.00</b>



The fulfilment of the income planning for structural divisions providing education services amounted to 102.00%. Unsatisfactory results were the non-fulfilment of the income plan (Faculty of Mathematics) and overachievement of the plan (Faculty of Philology, Faculty of Chemistry, etc.). The reasons for non-fulfilment of the income plan could be falling student admissions, co-financing of SVE programmes by the university, discounts on tuition fees, etc. The method of assessing the financial management of an institution by the founder recognises the non-fulfilment or overfulfillment of plans as negative from the point of view of the total index of financial management of the institution (Table 6.4).

The fulfilment of the cost planning of structural divisions providing educational services of secondary vocational education amounted to 98.73%. Unsatisfactory results were shown by the Faculty of History, 87.86%. As part of the assessment of the financial management, the Ministry of Education and Science allows changes in the total expenses to be within 10% as compared to the figure estimated at the beginning of the year (Table 6.5).

Table 6.5

**ANALYSIS OF THE COST PLANNING OF FACULTIES OF VSU  
IN THE 2021/22 ACADEMIC YEAR**

Faculty	Planned cost	Actual cost	The achievement of parameters, %
Faculty of Physics	118,184,297.92	130,394,257.84	110.33
Faculty of Mathematics	91,418,896.54	100,539,761.96	109.98
Faculty of Medicine and Biology	139,160,420.50	144,383,471.98	103.75
Faculty of Chemistry	69,258,831.69	71,424,124.07	103.13
Faculty of International Relations	86,820,448.37	87,636,412.54	100.94
Faculty of Geography, Geoecology, and Tourism	67,107,509.21	66,981,607.76	99.81
Faculty of Computer Sciences	182,703,991.76	182,341,064.06	99.80
Faculty of Geology	77,991,409.93	77,737,334.93	99.67
Faculty of Romance and Germanic Philology	166,616,776.88	165,492,276.95	99.33
Faculty of Philology	53,662,440.56	53,260,331.71	99.25
Faculty of Applied Mathematics, Informatics, and Mechanics	213,402,734.47	209,915,736.48	98.37
Faculty of Journalism	112,855,779.42	109,690,012.68	97.19
Faculty of Pharmaceutics	91,795,016.90	87,995,923.33	95.86
Faculty of Economics	273,065,156.34	260,255,079.43	95.31
Faculty of Law	330,266,252.87	312,066,567.57	94.49
Faculty of Philosophy and Psychology	60,136,075.27	55,106,119.53	91.64
Faculty of History	72,128,447.95	63,372,901.82	87.86
<b>Total</b>	<b>2,206,574,486.58</b>	<b>2,178,592,984.64</b>	<b>98.73</b>

As part of the implementation of SVE programmes, VSU overfulfilled the plan in the 2021/22 academic year by 33.8% as new SVE programmes were opened and the number of students admitted increased. This information was analysed and used for planning for the 2022/23 academic year in order to prevent the overfulfillment of the income plan (Table 6.6).

Table 6.6

ANALYSIS OF INCOME PLANNING FOR FACULTIES AND THE BUSINESS SCHOOL OF VSU  
IMPLEMENTING SVE PROGRAMS AT VORONEZH STATE UNIVERSITY IN THE 2021/22 ACADEMIC YEAR

Faculty	Planned income	Actual income	The achievement of parameters, %	Absolute deviation
SVE of the Faculty of Pharmacy	12,407,800.00	14,268,600.00	115.00	1,860,800.00
Business School of the Faculty of Economics	10,511,930.00	10,835,000.00	103.07	323,070.00
SVE of the Faculty of Journalism	11,672,882.00	21,047,700.00	180.31	9,374,818.00
SVE of the Faculty of Mathematics	8,663,887.00	14,344,600.00	165.57	5,680,713.00
SVE of the faculty of Faculty of Geography, Geocology, and Tourism	4,885,862.00	5,613,300.00	114.89	727,438.00
SVE of the Faculty of Physics	3,429,947.00	2,730,000.00	79.59	-699,947.00
SVE of the Faculty of Economics	2,061,476.00	2,923,800.00	141.83	862,324.00
<b>Total</b>	<b>53,633,784.00</b>	<b>71,763,000.00</b>	<b>133.80</b>	<b>18,129,216.00</b>

## 6.6. CONTRACT SERVICES REPORT

In 2022, Voronezh State University signed 1988 contracts (agreements) for the procurement of goods, works, and services which were funded by the subsidies provided from the budgets of budgetary system, grants, funds provided to fulfil state contracts, and funds obtained from other income-generating activities from individuals and legal entities. In 2022 in the structure of financing of contracts (agreements), the share of grants, funds provided to fulfil state contracts, and funds obtained from individuals and legal entities through other revenue-generating activities traditionally increased.

The analysis of the contents and structure of the contracts signed in 2022 by source of financing is shown in Table 6.7.

Table 6.7

ANALYSIS OF THE NUMBER AND STRUCTURE  
OF THE CONTRACTS (AGREEMENTS) SIGNED IN 2021–2022 BY THE SOURCE OF FINANCING

No.	Funding	Volume of signed contracts (agreements)					Percentage variation, points
		Quantity, pcs		Deviations, pcs. (+, -)	Percentage of the total, %		
		2021	2022		2021	2022	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	1,553	1,674	+121	82.74	84.21	+1.47
2	Subsidies obtained from the Russian Federation state budget resources	324	314	-10	17.26	15.79	-1.47
<b>Total</b>		<b>1,877</b>	<b>1,988</b>	<b>+111</b>	<b>100.0</b>	<b>100.0</b>	<b>-</b>



We can state that compared to 2021, the number of contracts signed in the reporting period increased by 111 or by 5.91%. These contracts were primarily financed by grants; funds obtained from state contract execution; as well as funds obtained from individuals and legal entities through other revenue-generating activities (increase by 121 contracts). The decreased number of contracts signed indicates an increase in lots within the procurement due to subsidies provided from the budgets of the budgetary system of the Russian Federation (314 contracts concluded in the reporting year as compared to 324 contracts signed in the previous year).

The analysis of the content and structure of contracts (agreements) according to the schedule of the purchase of goods, works, and services in 2021-2022 by the source of funding is presented in Table 6.8.

Table 6.8

**ANALYSIS OF THE VALUE AND STRUCTURE OF CONTRACTS (AGREEMENTS) SIGNED IN 2021-2022 BY SOURCE OF FINANCING**

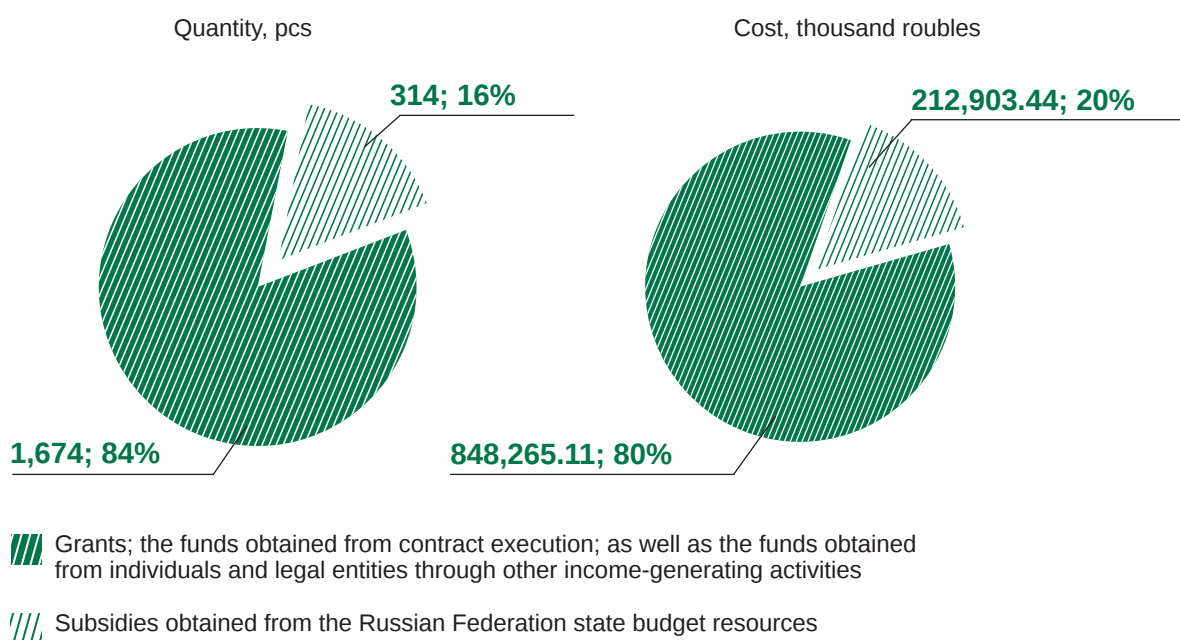
No.	Funding	Volume of signed contracts					
		Value, thousand roubles		Absolute difference, thousand roubles	Percentage of the total, %		Percentage variation, points
		2021	2022		2021	2022	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	520,599.56	848,265.11	327,665.55	64.40	79.94	+15.54
2	Subsidies obtained from the Russian Federation state budget resources	287,801.47	212,903.44	-74,898.03	35.60	20.06	-15.54
<b>Total</b>		<b>808,401.03</b>	<b>1,061,168.55</b>	<b>+252,767.52</b>	<b>100.0</b>	<b>100.0</b>	<b>-</b>

Particular attention should be paid to the growth in total financing of the purchase of goods, works, and services in 2022, which amounted to 31.27%. The growth is the result of purchases of research equipment through the fulfilment of grants as well as newly registered long-term contracts lasting for 3 years which were signed instead of the contracts that were signed previously and lasted until the middle of spring/summer of the reporting year.

As for the procurement of goods, works, and services in the reporting year, the trend of 2021 continued (growth in purchases due to grants and funds obtained from contract execution; funds obtained from individuals and legal entities through other income-generating activities, which increased by 62.94% in 2022). Therefore, the percentage of financing of procurement activities due to grants; funds obtained from contract execution; funds obtained from individuals and legal entities through other income-generating activities amounted to 848,265.11 thousand roubles, which shows a significant change in the proportions in the sources of financing for the purchase of goods, works, and services.

Figure 6.4

## VOLUME AND STRUCTURE OF THE CONTRACTS SIGNED IN 2022



The information presented in Fig. 6.4 shows that in 2022 the share of purchases through grants, through the funds obtained from contract execution, as well as the funds obtained from individuals and legal entities through other income-generating activities significantly increased and amounted to 79.94% of the total volume of signed contracts (agreements).

While performing the analysis, it is necessary to pay attention to the method for the selection of suppliers (contractors, agents), which will allow determining the structure of the use of competitive and non-competitive selection.

The data in Table 6.9 show that in the reporting period, the volume of purchases of goods, works, and services carried out using competitive selection of supplier (contractor, agent) increased by 424,555.8 million roubles. The volume of financing for procurement using subsidies obtained from the Russian Federation state budget resources decreased by almost 65,192.3 million roubles (25.6%) and amounted to 6% of the total volume of financing. It should be noted that purchases through grants, through the funds obtained from contract execution, as well as the funds obtained from other income-generating activities still prevail in case of competitive selection.

Table 6.9

ANALYSIS OF THE VOLUME AND STRUCTURE OF CONTRACTS,  
CONTRACTS SIGNED IN 2021-2022 AS PART OF A PURCHASE  
FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

No.	Funding	Volume of the contracts, contracts signed upon a competitive selection of the supplier					Percentage variation, points
		Value, thousand roubles		Absolute difference, thousand roubles	Percentage of the total, %		
		2021	2022		2021	2022	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	231,757.81	656,313.61	+424,555.8	68.40	94.00	+25.60
2	Subsidies obtained from the Russian Federation state budget resources	107,069.88	41,877.6	-65,192.3	31.60	6.00	-25.60
<b>Total</b>		<b>338,827.69</b>	<b>698,191.21</b>	<b>359,363.5</b>	<b>100.0</b>	<b>100.0</b>	<b>-</b>

The data presented in Table 6.9 show that compared to 2021, in the reporting period structural changes amounted to 25.6% in favour of increasing the procurement through the competitive selection of a supplier due to grants, funds obtained from contract execution, and funds obtained from individuals and legal entities through other income-generating activities.

Figure 6.5

VOLUME AND STRUCTURE OF THE COST OF THE CONTRACTS SIGNED IN 2022  
THROUGH THE COMPETITIVE SELECTION OF SUPPLIERS (CONTRACTORS, AGENTS),  
THOUSAND ROUBLES

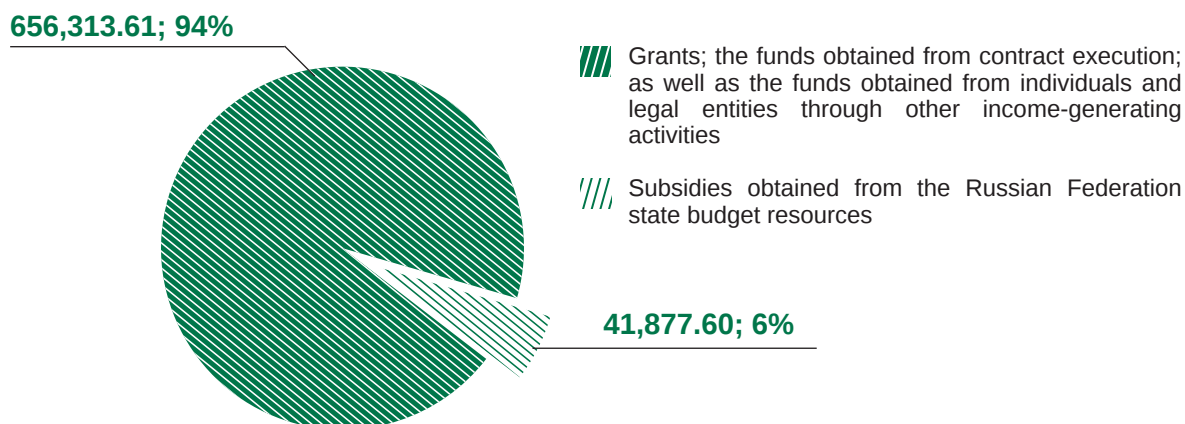


Figure 6.5 shows that the contracts signed using grants, funds obtained from contract execution, and funds obtained from individuals and legal entities through other income-generating activities were significantly prevailing. They amounted to 656,313.61 thousand roubles (94.0%).



The analysis of the content and structure of purchase contracts signed with a single supplier by the source of financing is shown in Table 6.10.

Table 6.10

**ANALYSIS OF THE VOLUME AND STRUCTURE  
OF CONTRACTS SIGNED CONTRACTS IN 2021-2022 AS PART OF A PURCHASE  
FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)**

No.	Funding	Volume of the contracts of purchase from a single supplier					Percentage variation, points
		Value, thousand roubles		Absolute difference, thousand roubles	Percentage of the total, %		
		2021	2022		2021	2022	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	288,841.75	191,951.5	-96,938.8	61.51	61.51	-8.64
2	Subsidies obtained from the Russian Federation state budget resources	180,779.19	171,025.83	-9705.76	38.49	47.12	8.64
<b>Total</b>		<b>469,573.34</b>	<b>362,977.33</b>	<b>-106,644.56</b>	<b>100.0</b>	<b>100.0</b>	<b>-</b>

Table 6.10 shows that structural changes of the contracts (agreements) concluded with a single supplier as compared to contracts (agreements) concluded as a result of competition were not significant. In the reporting year, structural changes affected an increase of concluding contracts due to subsidies obtained from budgets of the budgetary system of the Russian Federation and amounted to 47.12% (as compared to 38.49% in the previous year).

Figure 6.6

**VOLUME OF PURCHASE CONTRACTS, CONTRACTS FROM A SINGLE SUPPLIER  
IN 2022 (CONTRACTOR, AGENT)**

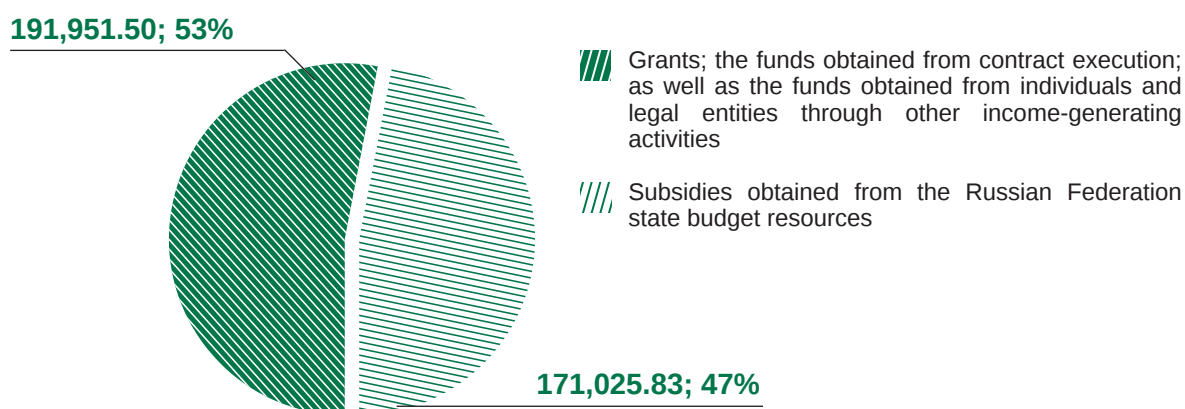




Fig. 6.6 shows that the trend towards concluding contracts mainly using grants, funds obtained from contract execution, and the funds obtained through other income-generating activities remains, and they amounted to 191,951.50 thousand roubles, while those concluded through subsidies obtained from budgets of the budgetary system of the Russian Federation amounted to 171,025.83 thousand roubles.

In 2022, purchases from a single supplier (contractor, agent) were mainly carried out through grants, through the funds obtained from contract execution, and the funds obtained from other income-generating activities, which amounted to 52.88% of the total volume of purchases goods, works, and services from a single supplier. The share of such type of contracts increased by 8.64% as compared to 2021. The share of contracts signed with a single supplier using subsidies obtained from the Russian Federation state budget resources amounted to 47.12%. In the reporting period, the trend of the purchase of goods, works, and services remained both through the competitive selection of a supplier (contractor, agent) and from a single supplier (contractor, agent). The purchases of goods, works, and services using subsidies obtained from the Russian Federation state budget resources increased but the trend did not change.

Attention should be paid to the analysis of the number and structure of the contracts signed with a single supplier in the main areas of purchasing activities presented in Table 6.11.

Table 6.11

**ANALYSIS OF THE CONTENTS AND STRUCTURE OF THE NUMBER OF CONTRACTS SIGNED IN 2021-2022 WITH A SINGLE SUPPLIER (CONTRACTOR, AGENT) BY THE MAIN ITEMS OF EXPENDITURE**

No.	Procurement item	Volume of contracts signed using grants; funds provided to fulfil contract; as well as funds obtained from individuals and legal entities through other revenue-generating activities					
		Quantity, pcs		Absolute difference, pcs. (+, -)	Percentage of the total, %		Percentage variation, points, % (+, -)
		2021	2022		2021	2022	
1	Additions to property, plant, and equipment	91	96	5	6.34	6.12	-0.22
2	Materials	111	178	67	7.74	11.35	3.62
3	Research projects	41	35	-6	2.86	2.23	-0.63
4	Renovations	2	6	4	0.14	0.38	-1.75
5	Utility services	11	7	-4	0.77	0.45	0.24
6	Teaching services provided by non-payroll employees	618	662	44	43.07	42.22	-0.32
7	State fees and membership dues	80	32	-48	5.57	2.04	-3.53
8	Other expenses	481	552	71	33.52	35.20	1.68
<b>Total</b>		<b>1,435</b>	<b>1,568</b>	<b>133</b>	<b>100.00</b>	<b>100.00</b>	<b>-</b>



Table 6.11 shows that the content and structure of the number of contracts have insignificant structural changes in the percentage while purchasing of materials and other expenses increased considerably. As for the indicators, in 2022 the number of contracts for teaching services provided by non-payroll employees continued to increase (662 contracts in the reporting period and 618 in 2021), and other expenses of the university increased as well (552 contracts in the reporting period and 481 in 2021).

Figure 6.7

**ANALYSIS OF THE CONTENT AND STRUCTURE OF PURCHASE CONTRACTS SIGNED IN 2022 WITH A SINGLE SUPPLIER (CONTRACTOR, AGENT), BY THE MAIN ITEMS OF EXPENDITURE**

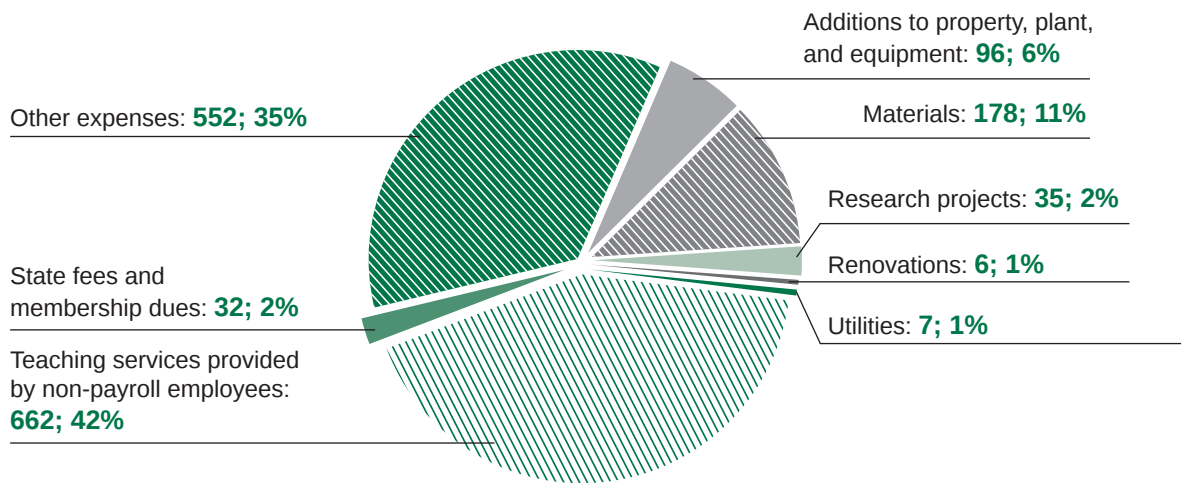


Figure 6.7 shows the distribution of the composition and structure of procurement contracts with a single supplier (contractor, agent) and a significant predominance of contracts for teaching services provided by non-payroll employees as well as contracts for other expenses. Other items are not as significant in quantity compared to them.



According to the data in Table 6.12, contracts concluded with the supplier (contractor, agent) as part of other expenses (57,371.61 thousand roubles) and the performance of research and development (46,042.83 thousand roubles) prevailed in the cost volume. It should be noted that structurally, there was a significant reduction in contracts for utility services, and their percentage decreased by 26.77% and amounted to 13.02% in the current year. The item of expenditure “Other expenses” had the greatest percentage in the reporting year and amounted to 10.63% of the total volume (57,371.61 thousand roubles).

Table 6.12

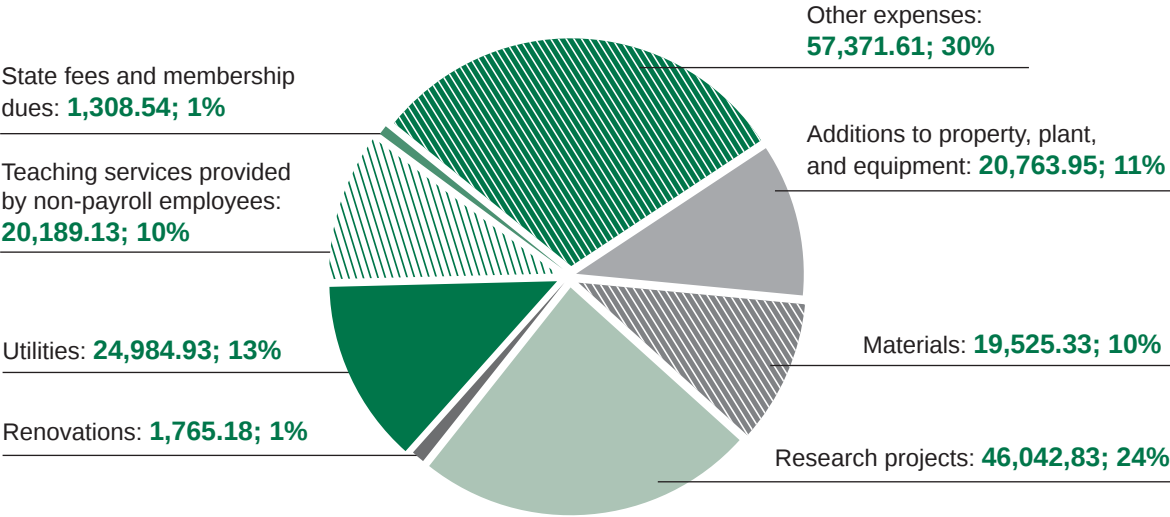
**ANALYSIS OF THE CONTENT AND STRUCTURE OF THE COST OF PURCHASE CONTRACTS SIGNED IN 2021–2022 WITH A SINGLE SUPPLIER (CONTRACTOR, AGENT), BY THE MAIN ITEMS OF EXPENDITURE**

No.	Item of expenditure	Volume of the contracts signed in 2021–2022 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
		2021	2022		2021	2022	
1	Additions to property, plant, and equipment	11,869.82	20,763.95	8894.13	4.09	10.82	6.73
2	Materials	9,778.21	19,525.33	9747.12	3.37	10.17	6.80
3	Research projects	87,507.43	46,042.83	-41,464.60	30.15	23.99	-6.17
4	Renovations	751.64	1,765.18	1,013.54	0.26	0.92	0.66
5	Utility services	115,474.75	24,984.93	-90,489.82	39.79	13.02	-26.77
6	Teaching services provided by non-payroll employees	15,885.55	20,189.13	4303.58	5.47	10.52	5.04
7	State fees and membership dues	1,370.91	1,308.54	-62.37	0.47	0.68	0.21
8	Other expenses	55,885.21	57,371.61	1,486.40	19.26	29.89	10.63
	<b>Total</b>	<b>290,212.66</b>	<b>191,951.50</b>	<b>-98,261.16</b>	<b>100.00</b>	<b>100.00</b>	<b>–</b>



**Figure 6.8**

**ANALYSIS OF THE CONTENT AND STRUCTURE OF PURCHASE CONTRACTS IN 2022 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) in the main areas of purchasing activities presented in Tables 6.11, 6.12, and Fig. 6.8 shows that the greatest number of contracts were signed for utility services and research and development. These contracts also had the greatest cost. The number of contracts for teaching services increased in 2022 although their volume decreased.



Table 6.13 shows an analysis of the contents and structure of the contracts signed in 2022 and financed through subsidies obtained from the Russian Federation state budget resources, signed through various methods of competitive selection of the supplier (contractors, agent).

Table 6.13

**ANALYSIS OF THE VOLUME AND STRUCTURE OF THE CONTRACTS FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES, SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER**

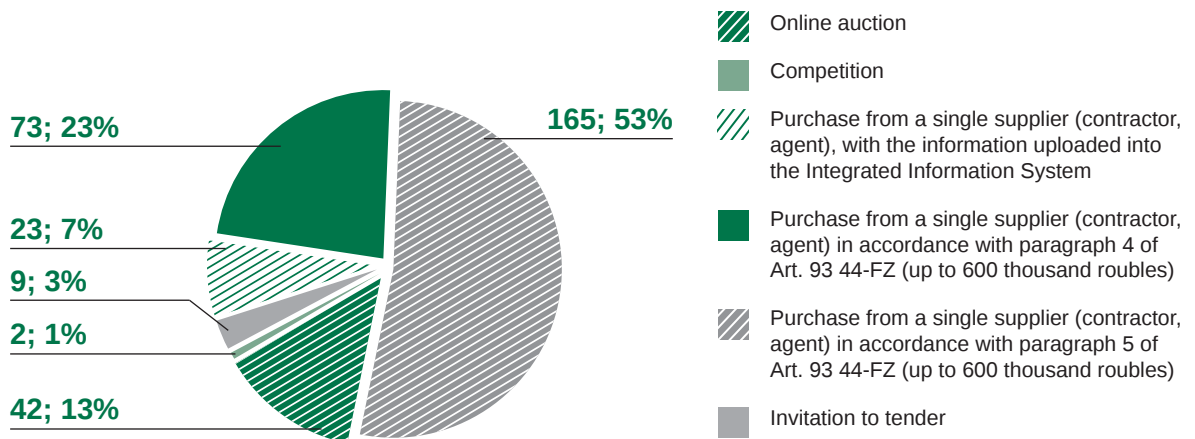
No.	Methods of supplier selection	Volume of the contracts signed in 2021-2022					
		Quantity, pcs		Absolute difference, pcs.	Percentage of the total, %		Percentage variation, points
		2021	2022		2021	2022	
1	Online auction	44	42	-2	13.58	13.58	-0.20
2	Competition	2	2	0	0.62	0.64	0.02
3	Invitation to tender	0	9	9	0.00	2.87	2.87
4	Purchase from a single supplier (contractor, agent), with the information uploaded into the Integrated Information System	31	23	-8	9.57	7.32	-2.24
5	Purchase from a single supplier (contractor, agent) in accordance with paragraph 4 of Art. 93 44-FZ (up to 600 thousand roubles)	85	73	-12	26.23	23.25	2.99
6	Purchase from a single supplier (contractor, agent) in accordance with paragraph 5 of Art. 93 44-FZ (up to 600 thousand roubles)	162	165	3	50.00	52.55	2.55
<b>Total</b>		<b>324</b>	<b>324</b>	<b>-10</b>	<b>100</b>	<b>100</b>	<b>0.00</b>

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 up to 600 thousand roubles (83.12% of the total volume of signed contracts). The percentage of these contracts when compared to the previous year increased by 2.68%. In second place are contracts for the purchase of goods, works, and services using online auctions (13.38% of the total volume of contracts signed using this source of financing). The volume of invitations to tender increased and amounted to 2.87% in the reporting financial year.



Figure 6.9

**ANALYSIS OF THE VOLUME OF CONTRACTS IN 2022 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 with a single supplier. The purchase structure also uses competitive selection of suppliers (contractors, agents), including online auction (13.38% of the total volume of signed contracts), online invitations to tender (2.87% of the total volume of signed contracts), and online competition with the information uploaded into the Integrated Information System (0.64% of the total volume of signed contracts). The use of competitive selection of supplier (contractor, agent) in the reporting period increased in comparison with 2021 and amounted to 41,877.61 thousand roubles of the total volume of purchases due to subsidies provided from the budgets of the budgetary system of the Russian Federation (Fig. 6.9).





Table 6.14

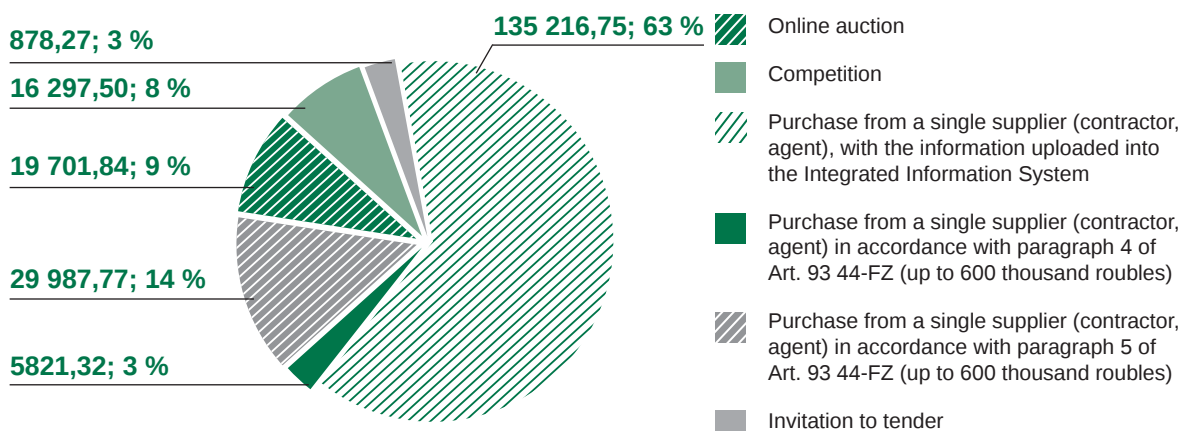
ANALYSIS OF THE VOLUME OF THE CONTRACTS SIGNED IN 2021-2022 AND FINANCED THROUGH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES SIGNED THROUGH VARIOUS METHODS OF COMPETITIVE SELECTION OF THE SUPPLIER (CONTRACTOR, AGENT)

No.	Methods of supplier selection	Volume of the contracts signed in 2020-2021					
		Value, thousand roubles		Absolute difference, thousand roubles	Percentage of the total, %		Percentage variation, points
		2021	2022		2021	2022	
1	Online auction	93,792.88	19,701.84	-74,091.04	32.59	9.25	-23.34
2	Competition	13,277	16,297.5	3,020.5	4.61	7.65	3.04
3	Invitation to tender	0	5,878.27	5,878.27	0.00	2.76	2.76
4	Purchase from a single supplier (contractor, agent), with the information uploaded into the Integrated Information System	143,195.4	135,216.75	-7,978.65	49.75	63.51	13.76
5	Purchase from a single supplier (contractor, agent) in accordance with paragraph 4 of Article 93 44-FZ (up to 600 thousand roubles)	7,995.45	5,821.32	-2,174.13	2.78	2.73	-0.04
6	Purchase from a single supplier (contractor, agent) in accordance with paragraph 5 of Article 93 44-FZ (up to 600 thousand roubles)	29,540.74	29,987.77	447.03	10.26	14.09	3.82
	<b>Total</b>	<b>287,801.47</b>	<b>212,903.45</b>	<b>-74,898.02</b>	<b>100.0</b>	<b>100.0</b>	<b>-</b>

The contracts signed with a single supplier have the largest percentage and amount to 171,025.84 thousand roubles (80.33% of the total value of contracts financed by subsidies obtained from the state budget of the Russian Federation). The competitive selection of suppliers (contractors, agents) in the form of online auction or online competition altogether amounted to 19.67% of the total number of contracts funded with subsidies obtained from the Russian Federation state budget resources.

Figure 6.10

ANALYSIS OF THE VOLUME AND STRUCTURE OF CONTRACTS SIGNED IN 2022 AND FUNDED WITH SUBSIDIES OBTAINED FROM THE RUSSIAN FEDERATION STATE BUDGET RESOURCES USING VARIOUS METHODS FOR SELECTION OF SUPPLIER (CONTRACTOR, AGENT)



Other sources of financing were grants; funds obtained from contract execution; as well as 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 2022, is shown in Table 6.15 and Figure 6.11.

Table 6.15

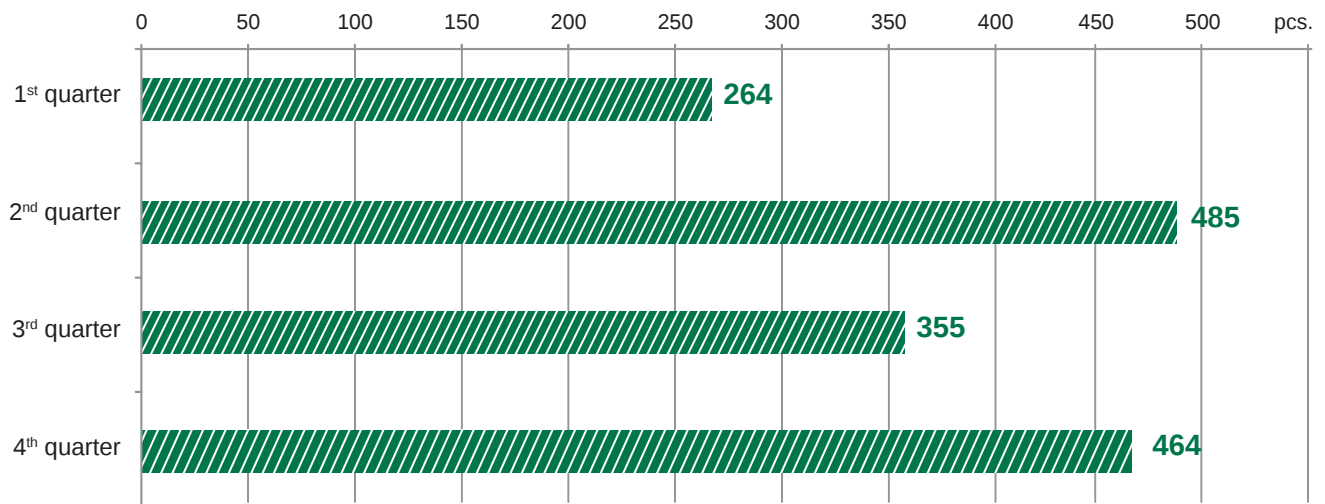
ANALYSIS OF THE VOLUME AND STRUCTURE OF PURCHASE CONTRACTS SIGNED IN 2021–2022 FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

Quarter Period	Volume of the contracts signed in 2021-2022 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
	2021	2022		2021	2022	
1 <sup>st</sup> quarter	179	264	85	12.47	16.84	4.36
2 <sup>nd</sup> quarter	513	485	-28	35.75	30.93	-4.82
3 <sup>rd</sup> quarter	301	355	54	20.98	22.64	1.66
4 <sup>th</sup> quarter	442	464	22	30.80	29.59	-1.21
<b>Total</b>	<b>1,435</b>	<b>1,568</b>	<b>133</b>	<b>100.0</b>	<b>100.0</b>	<b>–</b>



Figure 6.11

ANALYSIS OF THE STRUCTURE OF THE NUMBER OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT), PCS.



The contracts signed with a single supplier (contractor, agent) for the purchases in the 2nd quarter of 2022 have the largest percentage, which amounts to 30.93%. This indicates the absence of tendency to sign a larger number of contracts towards the end of the reporting period, and the value of the previous year was not an exception. As regards this indicator in terms of value, the maximum share of the contracts were signed in the 4<sup>th</sup> quarter of 2022. For comparison, in 2021 the contracts signed with a single supplier (contractor, agent) had the largest percentage in the 4<sup>th</sup> quarter. The quarterly value of goods, works, and services purchased exceeded the average by 48.4%. In 2022, this indicator decreased by 13.4% and amounted to 35.0% (Table 6.16, Fig. 6.12).

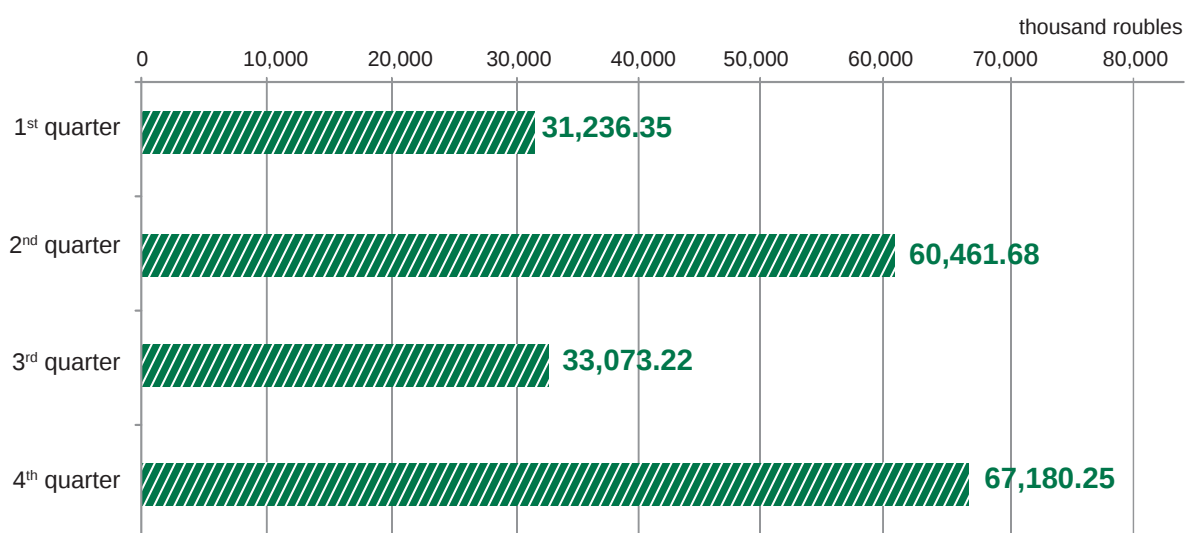
Table 6.16

### ANALYSIS OF THE VOLUME AND STRUCTURE OF PURCHASE CONTRACTS SIGNED IN 2021-2022 FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)

Quarter Period	Volume of the contracts signed in 2021-2022 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
	2021	2022		2021	2022	
1 <sup>st</sup> quarter	93,541.78	31,236.35	-62,305.43	32.39	16.27	-16.11
2 <sup>nd</sup> quarter	31,566.39	60,461.68	28,895.29	10.93	31.50	20.57
3 <sup>rd</sup> quarter	23,933.42	33,073.22	9,139.8	8.29	17.23	8.94
4 <sup>th</sup> quarter	139,800.16	67,180.25	-72,619.91	48.40	35.00	-13.40
<b>Total</b>	<b>288,841.75</b>	<b>191,951.5</b>	<b>-96,890.25</b>	<b>100.00</b>	<b>100.00</b>	<b>-</b>

Figure 6.12

### ANALYSIS OF THE STRUCTURE OF THE VALUE OF PURCHASE CONTRACTS FROM A SINGLE SUPPLIER (CONTRACTOR, AGENT)



The data presented in Table 6.16 show that the uniformity of procurement was impaired. For the 1<sup>st</sup> quarter, 16.27% of the volume is accounted for purchases from a single supplier (contractor, agent). It should be noted that, compared to 2021, this indicator decreased and did not achieve the condition of uniform procurement of 17.06%



The unified schedule of orders for the purchases of goods, works, and services from Voronezh State University subdivisions was created using a unified purchasing request form in the “1C: State and Municipal Purchases” program. In the reporting period, 1,754 requests from the structural subdivisions were processed as part of formation of needs for the procurement of goods, works, and services for the planning period. Compared to 2021, the number of requests increased by 159 units. The analysis of the number of submitted requests and modifications to their content is presented in Table 6.17 and Fig. 6.13.

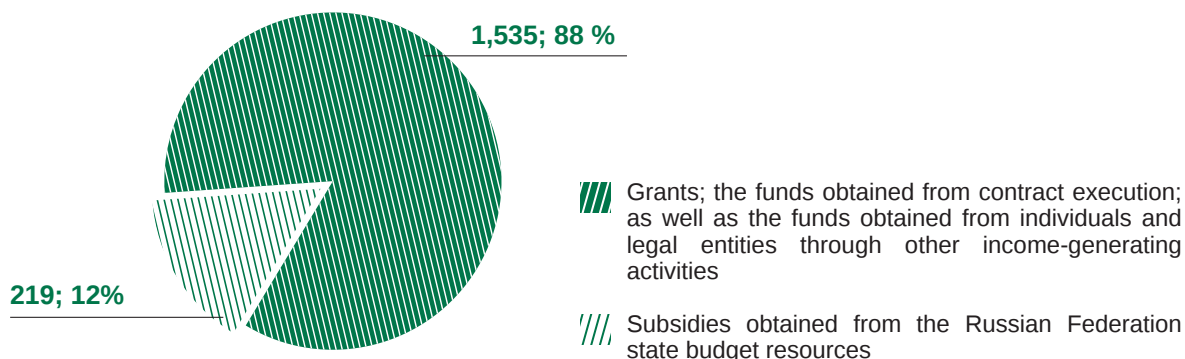
Table 6.17

**ANALYSIS OF THE OF SUBMITTED REQUESTS BY FINANCIAL SOURCES FOR THE PURCHASE OF GOODS, WORKS, AND SERVICES**

No.	Funding	Information on the requests submitted in 2021-2022					
		Quantity, pcs		Absolute difference, pcs.	Percentage of the total, %		Percentage variation, points
		2021	2022		2021	2022	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	1,352	1,535	183	84.76	87.51	2.75
2	Subsidies obtained from the Russian Federation state budget resources	243	219	-24	15.24	12.49	-2.75
<b>Total</b>		<b>1,595</b>	<b>1,754</b>	<b>159</b>	<b>100.00</b>	<b>100.00</b>	<b>-</b>

Figure 6.13

**ANALYSIS OF 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 (Facilities Department, Information Technology Division, the Borisoglebsk branch, Military Training Centre, VSU Publishing House, Security Department), which disregards the deadlines for the cost planning. As a result, their needs for the purchases of goods, works, and services have to be added to the purchasing time-schedule based on organisational and administrative documents from the subdivisions and changes in the time-schedule in the unified information system.

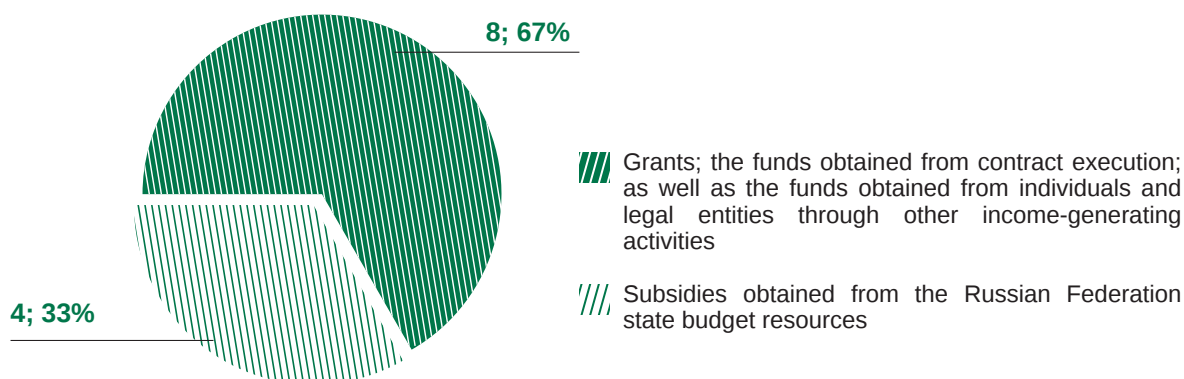
Table 6.18

#### ANALYSIS OF THE NUMBER OF MODIFICATIONS IN 2021-2022 IN THE TIME-SCHEDULE FOR ALL SOURCES OF FINANCING FOR THE PURCHASING ACTIVITIES

No.	Funding	Number of changes to the time-schedule					
		Quantity, pcs		Absolute difference, thousand roubles	Percentage of the total, %		Percentage variation, points
		2021	2022		2021	2022	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	8	8	0	66.67	66.67	0.00
2	Subsidies obtained from the Russian Federation state budget resources	4	4	0	33.33	33.33	0.00
<b>Total</b>		<b>12</b>	<b>12</b>	<b>0</b>	<b>100.00</b>	<b>100.00</b>	<b>-</b>

Figure 6.14

#### ANALYSIS 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 4 times, i.e. less than once per quarterly reporting period. Compared to the previous reporting period, the number of modifications did not change, which means that the procurement planning quality within the Federal Law No. 44-FZ has improved. As part of the implementation of the Federal Law No. 223-FZ, 8 modifications were made in the purchasing time-schedule of goods, works, and services, which is the same as in the previous year and which shows a positive trend in the quality of procurement planning (Table 6.18, Fig. 6.14).

As a part of the implementation of Federal Law No. 223-FZ, 1674 contracts were signed for the amount of 848,265.11 thousand roubles, of which contracts amounting to 673,007.3 thousand roubles were signed using competitive purchasing. This value has significantly increased compared to the previous year due to new long-term contracts which cover the following years (Tables 6.19 and 6.20).

Table 6.19

**ANALYSIS OF THE VOLUME OF CONTRACTS AT THE INITIAL MAXIMUM PRICE BASED ON THE COMPETITIVE SELECTION OF SUPPLIER BY SOURCE OF FINANCING**

No.	Funding	Initial maximum price of the contracts					
		Value, thousand roubles		Absolute difference, thousand roubles	Percentage of the total, %		Percentage variation, points
		2021	2022		2021	2021	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	241,106.6	673,007.3	431,900.7	68.29	93.54	25.25
2	Subsidies obtained from the Russian Federation state budget resources	111,940.78	46,484.33	-65,456.45	31.71	6.46	-25.25
<b>Total</b>		<b>353,047.38</b>	<b>719,491.63</b>	<b>366,444.25</b>	<b>100.00</b>	<b>100.00</b>	<b>-</b>



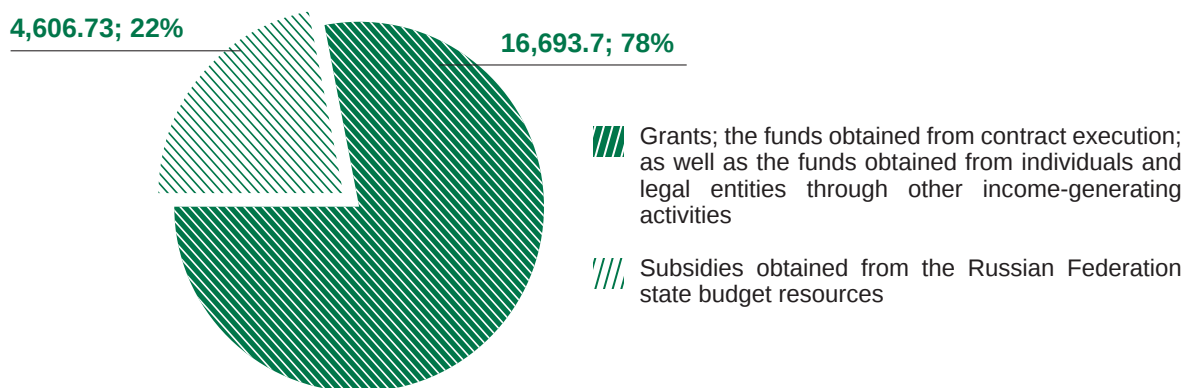
Table 6.20

AMOUNT OF MONEY SAVED THROUGH THE COMPETITIVE SELECTION OF SUPPLIERS (CONTRACTOR, AGENT) BY SOURCE OF FINANCING

No.	Funding	Amount of money saved					
		Value, thousand roubles		Absolute difference, thousand roubles	Percentage of the total, %		Percentage variation, points
		2021	2022		2021	2022	
1	Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities	9348.79	16,693.7	7344.91	65.75	78.37	12.63
2	Subsidies obtained from the Russian Federation state budget resources	4,870.90	4,606.73	-264.17	31.71	21.63	-12.63
<b>Total</b>		<b>14,219.69</b>	<b>21,300.43</b>	<b>7,080.74</b>	<b>100.00</b>	<b>100.00</b>	<b>-</b>

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 6.20 and Fig. 6.15, in the reporting period the amount of financial savings in the source of financing “subsidies obtained from the Russian Federation state budget resources” decreased compared to 2021 and amounted to 21.63% of the total cost savings. The money saved amounted to 4,606.73 roubles of the initial maximum cost of the contracts included in the purchasing time-schedule. The purchases made as part of the implementation of the Federal Law No. 223-FZ resulted in financial savings of 16,693.7 thousand roubles, which is 65.75% of the total cost savings. It should be noted that the reduction of the total cost savings as part of purchasing activities in the reporting year depends on the non-proportional impact of the price change factor in the reporting period, which affected the total cost savings of the university.



## 6.7. ANALYSIS OF VSU'S FINANCIAL ACTIVITIES

In accordance with the balance sheet statistics, the aggregate structure and change in VSU assets and the sources of their formation are shown in Tables 6.21 and 6.22.

Table 6.21

### VSU ASSET DYNAMICS IN 2022 (ACCORDING TO THE DATA FROM THE BALANCE SHEET)

No.	Asset items	As of the beginning of 2022	As of the end of 2022	Absolute change	Growth ratio, %
<b>I. Non-financial assets, thousand roubles</b>					
1	Property, plant and equipment (residual value)	1,364,356.2	1,266,075.5	-98,280.7	92.80
2	Intangible assets (residual value)	20.6	21.6	+1.0	104.85
3	Non-produced assets	1,971,046.2	2,115,289.6	+144,243.4	107.32
4	Material assets	44,535.0	46,937.7	+2402.7	105.40
5	Rights to use assets	33,636.6	35,129.0	+1492.4	104.44
6	Investments in the non-financial assets	69,345.5	114,603.3	+45,257.8	165.26
7	Cost of provision of goods, works, and services	350.3	2,064.0	+1713.7	589.21
8	Prepaid expenses	2,556.0	1,633.0	-923.0	63.89
9	<b>Total non-financial assets</b>	<b>3,485,846.4</b>	<b>3,581,753.7</b>	<b>+95,907.3</b>	<b>102.75</b>
<b>II. Financial assets, thousand roubles</b>					
10	Cash and cash equivalents	1,006,107.6	971,563.6	-34,544.0	96.57
11	Accounts receivable for the settlement of revenues	3,233,299.7	3,057,402.1	-175,897.6	94.56
12	Accounts receivable for payments	82,088.9	61,017.8	-21,071.1	74.33
13	Other settlements with creditors	204.6	493.7	+289.1	241.30
14	<b>Total financial assets</b>	<b>4,321,700.8</b>	<b>4,090,477.2</b>	<b>-231,223.6</b>	<b>94.65</b>
15	<b>Total VSU assets (grand total)</b>	<b>7,807,547.2</b>	<b>7,672,230.9</b>	<b>-135,316.3</b>	<b>98.27</b>

In 2022, the grand total of VSU decreased by 135,316.3 thousand roubles (98.27%) and amounted to 7,672,230.9 thousand roubles. A decrease in the residual value of fixed assets (by 7.2%) had a significant impact on the asset dynamics. It should be said that in 2023 VSU accepted the programme of material assets update for 2023–2025. Due to a reassessment of the cadastral value, the cost of non-produced assets grew by 7.32%. A reduction in the accounts receivable was also observed.

Table 6.22

**VSU ASSET DYNAMICS IN 2022 ACCORDING TO THE DATA FROM THE BALANCE SHEET**

No.	Liability items	As of the beginning of 2022	As of the end of 2022	Absolute change	Growth ratio, %
<b>I. Liabilities, thousand roubles</b>					
1	Accounts payable for payments	22,088.4	33,440.2	+11,351.8	151.39
2	Settlement of payments into the budget	6,791.3	11,125.4	+4,334.1	163.82
3	Other settlements (settlement of loans)	4,617.3	5,342.0	+724.7	115.70
4	Accounts payable for revenues	1,182,104.4	347,335.2	-834,769.2	29.38
5	Settlements with founders	4,040,302.9	4,233,850.6	+193,547.7	104.79
6	Deferred income	2,149,268.3	3,005,469.4	+856,201.1	139.84
7	Provisions for future liabilities	101,818.1	117,223.1	+15,405.0	115.13
8	<b>Total liabilities</b>	<b>7,506,990.7</b>	<b>7,753,785.9</b>	<b>+246,795.2</b>	<b>103.29</b>
<b>II. Financial results, thousand roubles</b>					
9	Financial results of an economic entity	300,556.5	-81,555.0	-382,111.5	-
10	<b>Total sources of VSU assets (grand total)</b>	<b>7,807,547.2</b>	<b>7,672,230.9</b>	<b>-135,316.3</b>	<b>98.27</b>

In 2022, the financial result was negative with a net operating profit in the reporting period and a corresponding reduction in loss from the operating activities of previous reporting periods. In 2022, the financial result was –81,555.00 thousand roubles. It was affected by a revaluation of land assigned to the university (the cost increased by 193,547 thousand roubles), which led to increased settlement with founders (Table 6.23).

Table 6.23

**VSU ASSET STRUCTURE IN 2022 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)**

No.	Index	Share, %		Change (+/-)
		As of the beginning of 2022 years	As of the end of 2022 years	
1	<b>Non-financial assets – total</b>	<b>44.65</b>	<b>46.68</b>	<b>+2.03</b>
	Including:			
	Property, plant and equipment (residual value)	17.48	16.5	-0.98
	Non-produced assets	25.25	27.57	2.32
	Material assets	0.57	0.61	0.04
	Investments in non-financial assets (capital investments)	1.35	2.00	0.65
2	<b>Financial assets – total</b>	<b>55.35</b>	<b>53.32</b>	<b>-2.03</b>
	Including:			
	Cash and cash equivalents	12.89	12.66	-0.23
	Settlements with debtors	42.46	40.66	-1.81
3	<b>Total Assets</b>	<b>100.0</b>	<b>100.0</b>	<b>-</b>



At the end of 2022, the largest percentage in VSU's asset structure was accounted for settlements with debtors (40.66%), non-produced assets (land) (27.57%), property, plant, and equipment (16.5%), cash (12.66%). The increase in non-financial assets in the reporting period led to an increase from 44.65 to 46.68%.

In 2022, 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 6.24).

Table 6.24

**STRUCTURE OF THE SOURCES OF VSU ASSET FORMATION IN 2022  
(ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)**

No.	Index	Share, %		Change (+, -)
		As of the beginning of 2022 years	As of the end of 2022 years	
1	Liabilities to the founder	51.74	55.18	+3.44
2	Liabilities to the creditors – total	44.41	45.88	+1.47
	Including:			
	Settlement of revenues	15.14	4.53	-10.61
	Settlement of accepted obligations	1.65	2.03	+0.38
	Settlement of payments into the budget	0.09	0.15	+0.06
	Other accounts payable	27.53	39.17	+11.64
3	Financial results (internal funds) – total	3.85	-1.06	-4.91
4	Total sources of asset formation	100.0	100.0	–

In 2022, the structure of the formation of VSU's assets saw a considerable decrease in other types of accounts payable (by 11.64%) (income from the future periods reestimated) and settlement of revenues decreased by 10.61 points (Table 6.25).

Table 6.25

**STRUCTURE AND DYNAMICS OF THE ADDITIONS TO PROPERTY, PLANT, AND EQUIPMENT BY FINANCIAL SOURCES**

Financial source	2021		2022		Change (+, -)	
	thousand roubles	Percentage, %	thousand roubles	Percentage, %	thousand roubles	Percentage, %
Property, plant and equipment purchased - total	79,042.8	100.0	111,527.9	100.0	+32,485.1	–
Including:						
Funded by VSU	37,351.0	47.3	54,542.9	48.9	+17,191.9	52.9
By federal subsidies	41,691.8	52.7	56,985.0	51.1	+15,293.2	47.1



In 2022, there was an increase in additions to property, plant, and equipment of 32,485.1 thousand roubles. In 2022, VSU purchased research, laboratory, and other equipment: a software system for accreditation of specialists, a thermocycler for amplification of nucleic acids, an interactive speaker's stand, etc. 52.9% of the additions to property, plant, and equipment were financed by VSU and non-repayable receipts and 47.1% were financed from federal subsidies.

In 2022, due to capital investments into property, plant, and equipment (a unique modular spectromicroscopic complex in the ultra-soft X-ray region which cost 52,500,000 roubles), the depreciation coefficient of these assets was almost at the same level as in the previous year (60.11%). As for VSU's real estate, this figure was 30.47%. The book value of fixed assets increased by 78,460.3 thousand roubles, or 2.53% (Table 6.26).

Table 6.26

## ANALYSIS OF VSU'S FIXED ASSET DEPRECIATION

No.	Index	As of the beginning of 2022	As of the end of 2022	Absolute difference (+, -)	Growth ratio, %
1	Book value of fixed assets, thousand roubles	3,095,269.2	3,173,729.5	+78,460.3	102.14
	Including:				
	Real estate of the establishment	1,435,800.4	1,433,056.8	-2,743.6	102.53
	Most valuable movable assets	752,734.3	823,047.5	+70,313.2	99.81
2	Depreciation of fixed assets, thousand roubles	1,730,913.0	1,907,654.0	+176,741	110.21
	Including:				
	Real estate of the establishment	408,501.2	436,633.8	+28,132.6	106.89
	Most valuable movable assets	502,652.5	620,957.2	+118,304.7	123.54
3	Net value of property, plant, and equipment, thousand roubles	1,364,356.2	1,266,075.5	-98,280.7	92.80
	Including:				
	Real estate of the establishment	1,027,299.2	996,423.0	-30,876.2	96.99
	Most valuable movable assets	250,081.8	202,090.3	-25,654.7	80.81
4	<b>Coefficient of depreciation, %</b>	<b>55.92</b>	<b>60.11</b>	<b>+4.19</b>	<b>×</b>
	Including:				
	Real estate of the establishment	28.45	30.47	+2.02	×
	Most valuable movable assets	66.78	75.45	+8.67	×



An analysis of the assets of the budgetary institution and sources of their formation should be continued with an analysis of liquidity and financial solvency for 2022, which is presented in Table 6.27.

Table 6.27

#### ANALYSIS OF VSU'S CURRENT FINANCIAL SOLVENCY

No.	Index	As of the beginning of 2022	As of the end of 2022	Absolute change (+/ -)
<b>I. Initial values for analysis, thousand roubles</b>				
1	Cash and cash equivalents	1,006,107.6	971,563.6	-34,544.0
2	Resources in settlements with debtors	3,315,593.2	3,118,913.6	-196,679.6
3	Material assets	44,535.0	46,937.7	+2,402.7
4	Total operating assets (Art. 1 + Art. 2 + Art. 3)	4,366,235.8	4,137,414.9	-228,820.9
5	Total liabilities to the creditors	1,215,601.4	397,242.8	-818,358.6
<b>II. Current solvency ratio, coefficient</b>				
6	Absolute liquidity ratio (covering liabilities to creditors using monetary funds)	0.83	2.45	+1.62
7	Marginal liquidity ratio (covering the liabilities to the creditors using monetary funds and the resources in settlements with debtors)	3.56	3.23	-0.33
8	Current liquidity ratio (covering liabilities to creditors using operating assets)	3.59	10.42	+6.83

At the end of the reporting period, the university was able to discharge its liabilities to its creditors in full through available funds. By the end of the reporting period, the current liquidity value increased by 6.83%, and the current liquidity ratio increased by 1.62%.



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) (Table 6.28).

Table 6.28

#### COVERAGE OF THE FIXED ASSETS AND OTHER NON-CURRENT ASSETS BY LONG-TERM SOURCES OF FINANCING

No.	Index	As of the beginning of 2022	As of the end of 2022 years	Absolute change (+, -)
1	Net value of property, plant, and equipment, thousand roubles	1,364,356.2	1,266,075.5	-98,280.7
2	Net value of intangible assets, thousand roubles	20.5	21.6	+1.1
3	Balance value of non-produced assets, thousand roubles	1,971,046.2	2,115,289.6	+144,243.4
4	Investments in the non-financial assets, thousand roubles	69,345.5	114,601.8	+45,256.3
5	<b>Total non-current assets (Art. 1 + Art. 2 + Art. 3 + Art. 4), thousand roubles</b>	<b>3,404,768.4</b>	<b>3,495,988.5</b>	<b>+91,220.1</b>
6	Liabilities to the founder, thousand roubles	4,040,302.9	4,233,850.6	+193,547.7
7	Financial results (internal funds), thousand roubles	300,556.5	-81,555.0	-382,111.5
8	<b>Total value of the sources of non-current asset formation (Art. 6 + Art. 7), thousand roubles</b>	<b>4,340,859.4</b>	<b>4,152,295.6</b>	<b>-188,563.8</b>
9	<b>The ratio of the coverage of the fixed assets by long-term sources of financing, % (Art. 8 : Art. 5)</b>	<b>127.49</b>	<b>118.77</b>	<b>-8.72</b>

Table 6.28 shows an increase in the carrying value of the non-produced assets (by 144,234.4 thousand roubles). A decrease in the residual value of property, plant, and equipment affected (by 98,280.7 thousand roubles) slightly affected the final result of capital assets coverage. The ratio of the coverage shows that the organisation covers the requirements for current assets using own funds and has absolute financial stability.





## 6.8. THE DYNAMICS OF THE STAFF REWARD SYSTEM IN 2021-2022

The payroll budget of the university with staff compensation payment charges (not including the branches) in 2022 was 1,943,547.8 thousand roubles, including:

- From subsidies: 1,143,041.1 thousand roubles.
- From extra-budgetary funds: 800,506.7 thousand roubles (Fig. 6.16).

The payroll budget of the university with staff compensation payment charges (not including the branches) in 2021 was 1,685,382.5 thousand roubles, including:

- From subsidies: 917,482.4 thousand roubles.
- From extra-budgetary funds: 767,900.1 thousand roubles.

Compared to 2021, the payroll budget of the university increased by 15.3%, including:

- 24.6% from subsidies.
- From extra-budgetary funds (4.2%) (Figure 6.17).

Figure 6.16

### PAYROLL BUDGET STRUCTURE BY THE SOURCE OF FINANCING IN 2021

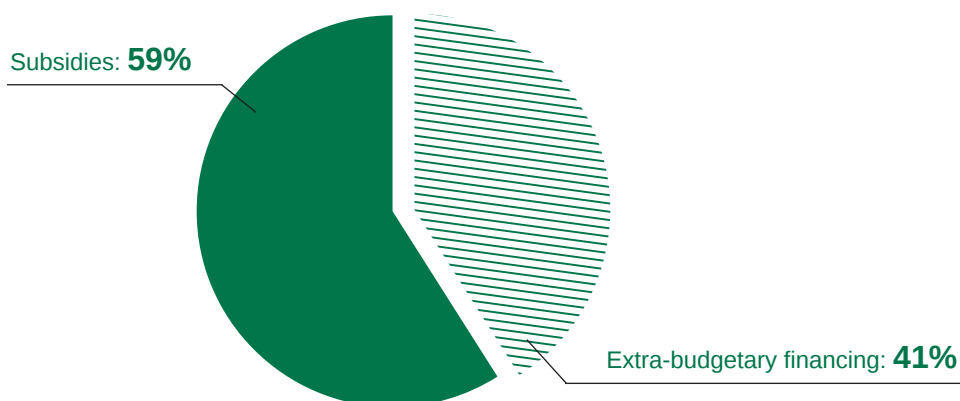
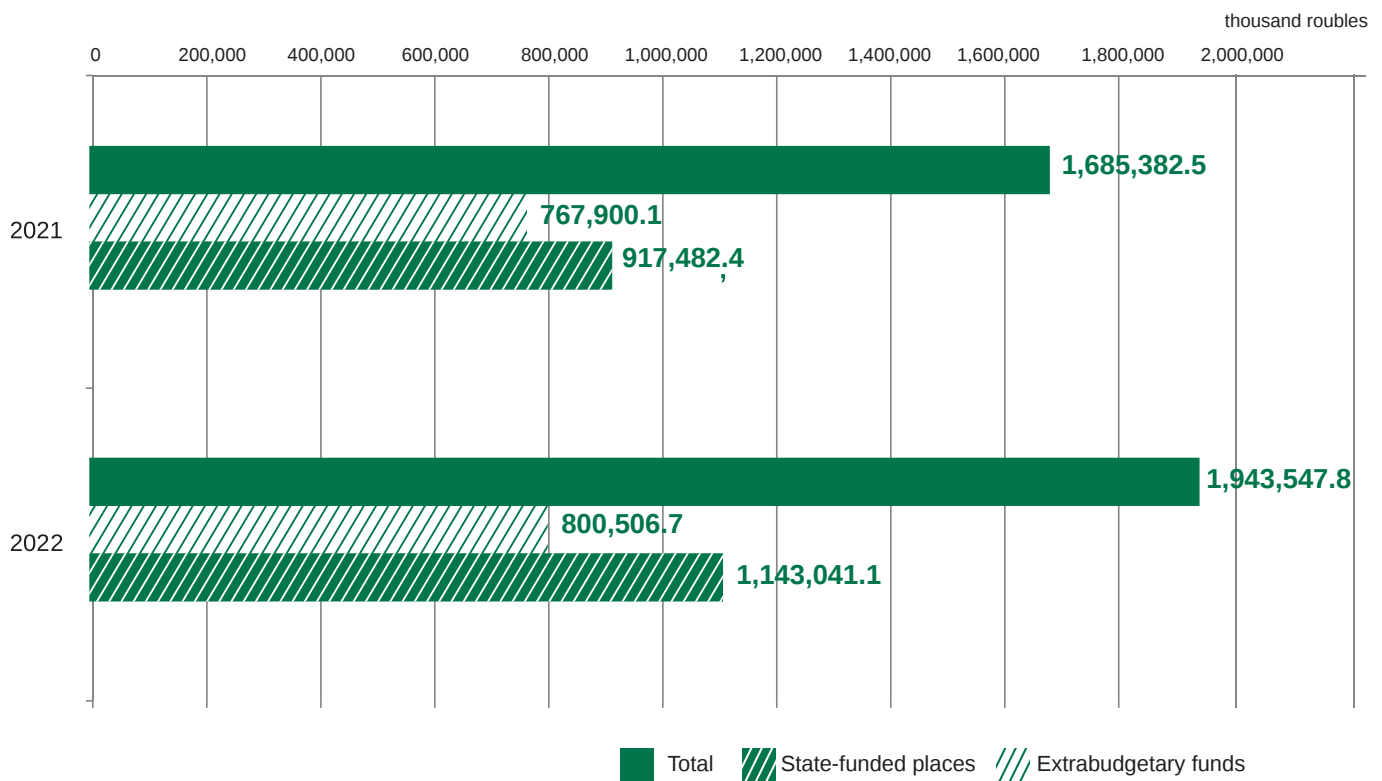




Figure 6.17

## COMPARATIVE ANALYSIS OF THE PAYROLL BUDGET IN 2021 AND 2022



The payroll budget of the university increases annually. The structure of the payroll budget by sources of funding has remained the same since 2014.

#### MEASURES TAKEN TO RAISE THE SALARIES AND SOCIAL WELFARE OF UNIVERSITY STAFF

- Average salary of the academic staff members and research staff amounted to more than 200% of the average monthly income from labour activity in the Voronezh Region, despite its significant growth.
- Within the framework of the Regulation "On indicators of the effectiveness of the activities of academic staff of Voronezh State University" monthly allowances amounting to 20,000 thousand roubles were established for academic staff members. The amount of payments under an effective contract for academic staff increased by 2000 thousand roubles as compared to 2021 (11 %). The number of employees receiving this payment amounted to 307 people (in 2021 it was 177 people).



- The following lump sum payments were established for the publication of research articles in leading journals and Q1-Q2 periodicals indexed in Web of Science and Scopus, taking into account the number of co-authors:
  - 120 thousand roubles to article Q1 staff members (in 2021, 120 thousand roubles).
  - 100 thousand roubles to article Q2 staff members (in 2021, 100 thousand roubles).
- The total amount of lump sum payments in this area was 8,513.7 thousand roubles (in 2021, 7000 thousand roubles). The greatest sum paid for Q1-Q2 articles was 478.3 thousand roubles and the lowest was 4.6 thousand roubles. The number of employees receiving this payment amounted to 118 people (in 2021 it was 99 people).
- Lump sum payments of 6,000 roubles were paid for the first time to young lecturers (under 39) with a basic salary.
- The total amount was 94,785 thousand roubles, which was 80.5% more as compared to 2021.

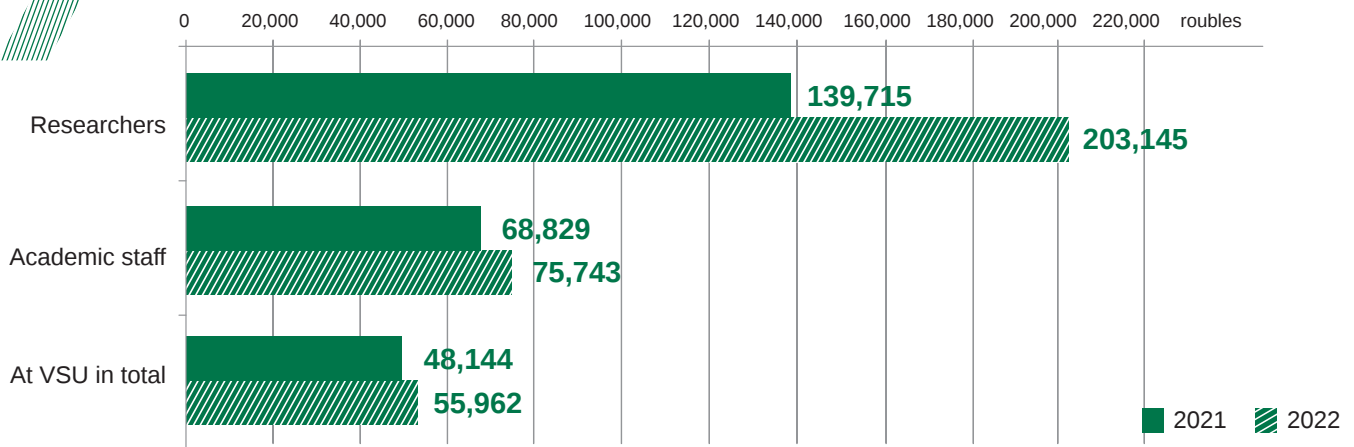
## **6.9. ANALYSIS OF THE AVERAGE SALARY OF THE ACADEMIC STAFF MEMBERS AT VSU COMPARED TO THE AVERAGE SALARY IN THE VORONEZH REGION**

In 2022, the average salary of university staff members (including payments from all sources) amounted to 55,962 roubles, including:

- For academic staff, 75,743 roubles, which is 207% of the average wage in the region and exceeds the target value of the roadmap for 2022, which was 200%.
- For research workers, 203,145 roubles, which is 556% of the average wage in the region and significantly exceeded the target value of the roadmap for 2022, which was 200% (Figure 6.18).

Figure 6.18

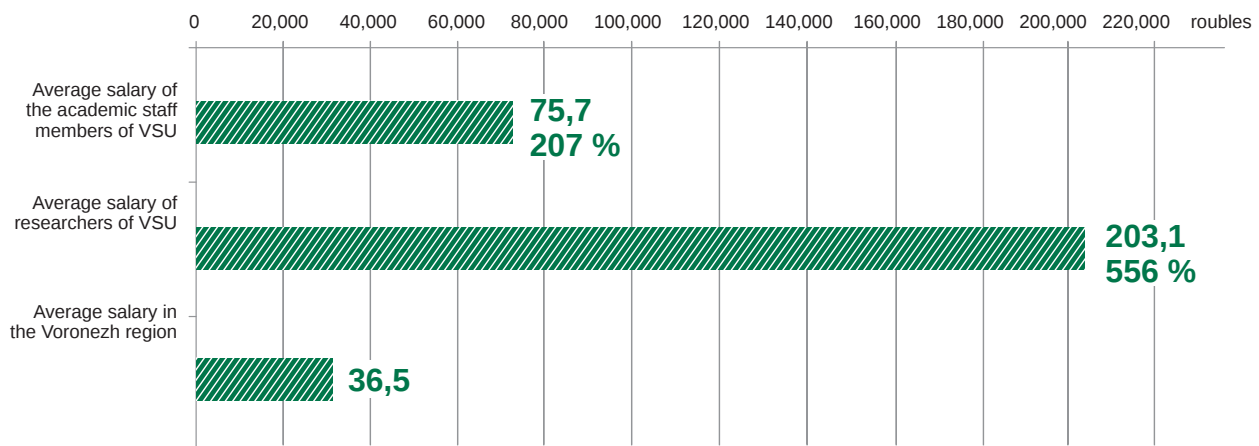
AVERAGE SALARY IN 2021-2022



In 2022, the average salary of university staff members increased by 16.2%.

Figure 6.19

AVERAGE SALARY OF ACADEMIC STAFF AND RESEARCHERS AT VORONEZH STATE UNIVERSITY AND THE AVERAGE SALARY IN THE VORONEZH REGION



In 2022, the average monthly income from labour activity in the Voronezh Region increased by 15.5% (in 2021, it was 31.6 thousand roubles). Despite its significant growth, the university ensured the implementation (and significant overfulfillment regarding research staff) of the Decrees of the President of the Russian Federation concerning the ratio of the average salary of teaching and research staff.

The growth in the average salary of university employees exceeded the growth in the average monthly income from labour activity in the Voronezh Region in 2022.



## 6.10. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2022

### Financial and operating activities:

- Compared to 2021, the total revenue in 2022 increased by 163,421.2 thousand roubles (or by 6%), including subsidies obtained from the federal budget, by 50,175.3 thousand roubles; due to extra funding from revenue-generating activities, by 113,245.9 thousand roubles.
- 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.
- In 2021, the largest percentage in total expenses were payments to personnel, which amounted to 66%, and expenses for the purchase of goods, works, and services, which amounted to 19%.
- The total fulfilment of the income planning for structural divisions providing education services amounted to 102.00%. The total fulfilment of the expenditure planning for structural divisions providing education services amounted to 98,73%.
- Fixed assets and other non-current assets having the greatest percentage in the property of the university covered by long-term sources of financing.
- The organisation covers the requirements for current assets using own funds and has absolute financial stability.

### Purchase activities:

- Compared to 2021, the number of contracts signed in the reporting period increased by 111 or by 5.91%.
- The volume of total financing for the purchasing of goods, works, and services increased by 31.27%.
- Volume of contracts signed using grants, using funds provided to fulfil contract, as well as funds obtained from individuals and legal entities through other revenue-generating activities increased and amounted to 25.6%.



- The number of contracts for teaching services provided by non-payroll employees continued to increase (662 contracts in the reporting period and 618 in 2021), and other expenses of the university increased as well (552 contracts in the reporting period and 481 in 2021).
- The procurement contracts signed for utility services and research and development with a single supplier (contractor, agent) had the greatest number and cost.
- The number of modifications to the provisions of the time-schedule for purchases did not change, which means the planning quality has improved.
- An increase in the total cost savings as part of the procurement activities in the reporting year depended on non-proportional impact of the price change factor.

#### **Salaries and social welfare of the university staff:**

- The payroll budget of the university increased by 15.3%, including subsidies (by 24.6%) and extra-budgetary funds (by 4.2%) as compared to 2021.
- Average salary of the academic staff members and research staff amounted to more than 200% of the average monthly income from labour activity in the Voronezh Region, despite its significant growth.
- The amount of payments under an effective contract for academic staff as compared to 2021 increased by 2,000 thousand roubles (11%); the number of employees receiving this payment amounted to 307 people (in 2021 it was 177 people):
- The total amount of lump sum payments for Q1-Q2 articles was 8,513.7 thousand roubles (in 2021, 7,000 thousand roubles); the number of employees receiving this payment amounted to 118 people (in 2021 it was 99 people).
- Lump sum payments of 6,000 roubles were paid for the first time to young lecturers (under 39) with a basic salary.









## INTERNATIONAL ACTIVITIES





# INTERNATIONAL ACTIVITIES



**A. V. Akulshina,**  
Head of the International  
Relations Office

## 7.1. VSU'S OBJECTIVES IN THE AREA OF INTERNATIONAL COOPERATION IN 2022

VSU's international activities are focused on the following tasks:

- To develop network education programmes with international universities.
- To develop a regulatory framework governing the implementation of international network programmes and a record-keeping system of academic mobility of students and academic staff.
- 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 international educational and research projects and ensure their successful implementation by the university's subdivisions.



## 7.2. DEVELOPING CONTACTS THROUGH DIRECT CONTRACTS AND AGREEMENTS WITH INTERNATIONAL UNIVERSITIES

### ACADEMIC MOBILITY

The international activities of Voronezh State University have undergone dramatic changes: the university now has new priorities as to the regions, directions, and forms of international cooperation. Following a decree by the Ministry of Science and Higher Education of the Russian Federation “On the procedure for signing partnership agreements with international organisations by academic institutions”, the university catalogued all its partnership agreements. In 2021, the university cooperated with international organisations from 47 countries within the framework of 190 partnership agreements. At the moment, the Ministry of Science and Higher Education of the Russian Federation has approved 68 partnership agreements between VSU and universities in 25 countries of the CIS, Europe, Asia, Africa, and Latin America.

**In 2022, the following cooperation agreements and contracts were signed with partner universities:**

1. Partnership agreement with the Armenian State University of Economics (Armenia).
2. Partnership agreement with Masherov Vitebsk State University (Belarus).
3. Partnership agreement with the Institute of Entrepreneurial Activity (Belarus).
4. Memorandum of cooperation in the sphere of education, healthcare, academic, and scientific cooperation with West Kazakhstan Marat Ospanov Medical University (Kazakhstan).
5. Partnership agreement with the L. N. Gumilev Eurasian National University (Kazakhstan).
6. Partnership agreement with the Al Andalus University for Medical Sciences (Syria).
7. Agreement with the French Institute (the French Embassy in Russia).
8. Partnership agreement with the Tashkent State University of Law (Uzbekistan).
9. Partnership agreement with the Belarusian State University (Belarus).
10. Addendum to the memorandum of understanding with the Birla Institute of Management Technology (India) on the prolongation of the agreement.



11. Partnership agreement with the Qingdao University of Science and Technology (China).
12. Addendum to the partnership agreement with the Major Intercontinental School “SUP'MANAGEMENT” (Morocco) on the prolongation of the agreement.
13. Addendum to the partnership agreement in the sphere of organising practical training of students with the Major Intercontinental School “SUP'MANAGEMENT” (Morocco).

**Main areas of cooperation with international higher education institutions:**

- Participation of lecturers and students in scientific conferences, round table meetings, and workshops.
- Participation in projects aimed at promoting educational and scientific cooperation.
- Academic exchange.
- Advanced training.
- Implementation of joint education programmes.

Figure 7.1

**VSU PARTNERS AND COUNTRIES**





### 7.3. INTERNATIONAL ACADEMIC MOBILITY

Academic mobility is a traditional area of international cooperation. The university has joint exchange programmes with partner universities in a large number of countries: in 2022, 25 students completed training courses at universities in Austria, Germany, Spain, China, France, and Estonia. 18 students from Germany, France, Hungary, Turkey, and Indonesia completed training courses at VSU.

In 2022, academic staff of VSU took an active part in international exhibitions, scientific conferences, research, advanced training programmes, and lectures. VSU staff members visited Expo-Russia Armenia 2022 (Armenia), the B.I. Stepanov Institute of Physics of the National Academy of Sciences of Belarus, the Yanka Kupala State University of Grodno (Belarus), the Centre for Geophysical Monitoring of the National Academy of Sciences of Belarus, Francisk Skorina Gomel State University (Belarus), Masherov Vitebsk State University (Belarus), Belarus State Economic University, the Isaac Newton Institute for Mathematical Sciences (Cambridge, the UK), Vietnam National University (Vietnam), the University of Göttingen (Germany), Martin Luther University (Germany), the National Research Centre (Cairo, Egypt), Dokuz Eylül University (Izmir, Turkey), Eskisehir Osmangazi University (Turkey), the third Russian-Uzbek educational forum (Samarkand, Uzbekistan), and the Institute of Engineering (Nepal).

The university continued its tradition of hosting international delegations, including those representing diplomatic missions. In January 2022, the attaché for the Cultural Affairs of the Embassy of Ireland in the Russian Federation visited VSU. In October 2022, VSU was visited by the delegation of the Israel diplomatic mission in the Russian Federation.

Partners from the University of Lille (France), Osh State University (Kyrgyzstan), the Caspian University (Kazakhstan), Eskişehir Osmangazi University (Turkey), and Belarus State Economic University participated in scientific and educational events and gave lectures at VSU.



Figure 7.2

NUMBER OF INTERNATIONAL EXCHANGE STUDENTS AT VSU

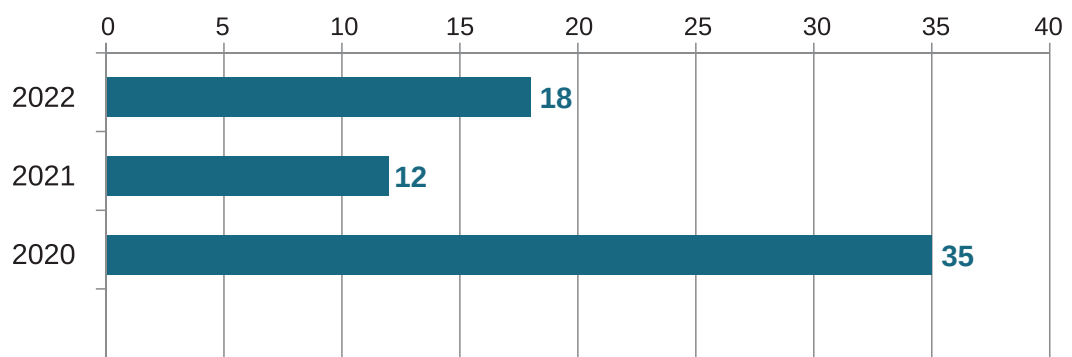
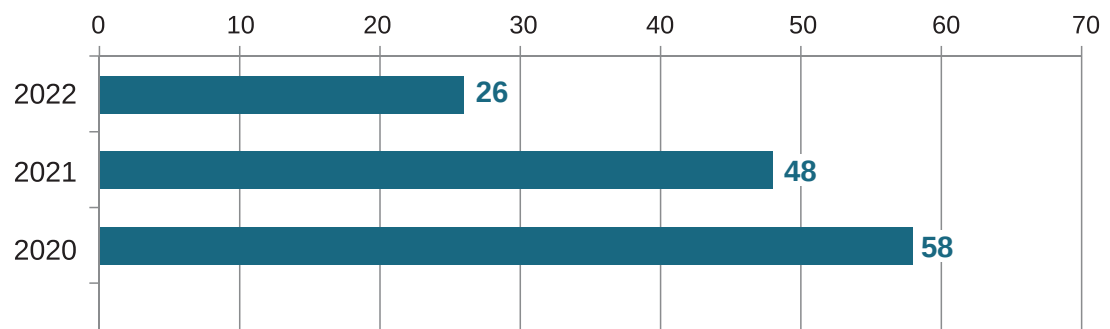


Figure 7.3

NUMBER OF VSU STUDENTS TAKING PART IN ACADEMIC MOBILITY PROGRAMMES





## INTERNATIONAL EVENTS

The university's faculties organised 43 intentional events including scientific conferences, international schools, forums, and workshops.

One of the important events was an international forum "Russia and Europe: mosaic pieces that do not fit" dedicated to the current issues of social and political development: the dialogue between Russia and European countries, particularly in the area of media communication, culture, law, and ecology. The forum was held between 24 and 27 May 2022. It was participated in, both online and offline, by 55 experts from 15 universities in Russia, Kazakhstan, Kyrgyzstan, Italy, and the UK, as well as over 200 students from 10 VSU faculties.

A special part of the forum was a scientific law conference aiming to discuss the interaction of international, national, and European law.

The forum also included an international youth academy "Social Communications in a Risky Society", which discussed the problem of strategic communication in the modern system of international relations, manipulations in the information media space, and social communication in the digital era.

## 7.4. INFORMATION REGARDING JOINT ACADEMIC PROGRAMMES (DOUBLE DEGREE PROGRAMMES) IN 2022

The university takes part in two international network programmes developed jointly with the University of Göttingen: the master's degree programme "Russian Literature in the European Context" and the bachelor's degree programme "World Literature".





## 7.5. INFORMATION ON THE INTERNATIONAL STUDENT POPULATION AND ITS DYNAMICS

### INFORMATION REGARDING TARGET TRAINING OF STUDENTS IN VSU

Table 7.1

#### TOTAL NUMBER OF FOREIGN STUDENTS

No.	Indicator	Number of people	
		2021	2022
1	Total number of foreign residents enrolled in bachelor's, specialist's, and master's degree programmes in VSU	1082	1087
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:	176	249
	Bachelor's degree	125	192
	Specialist's degree	27	28
	Master's degree	24	29
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	127 (60 state-funded, 67 fee-paying)	366 (36 state-funded, 330 fee-paying)

#### Graduated in 2022:

- Bachelor's degree students: 46 people
- Master's degree students: 33 people
- Diploma degree students: 2 people

#### Total: 81 people (12 honours degree)

In 2022, 357 first year students enrolled in bachelor's and master's degree programmes:

- (136 state-funded, 221 fee-paying.)
- 8 students enrolled in postgraduate studies (1 state-funded, 7 fee-paying)
- 366 students enrolled in pre-university training.

Students came from 29 countries.



## INFORMATION REGARDING E-LEARNING AIDS

Pre-university training at the Institute of International Education is provided in the format of blended learning.

Based on two e-courses developed in 2020-2021, “Russian as a Foreign Language. Level A1” and “Russian as a Foreign Language. Level A2–B1”, the institute’s staff compiled a textbook “Khorovod”, which is now being tested. The textbook includes QR codes, which can be used to access the two e-courses on the “Electronic University VSU” portal (Moodle platform).

Self-studying facilities for international students include the “Electronic University VSU” portal, and a “Digital Sub-Faculty” resource on the federal portal “Education in Russian” run by Pushkin State Russian Language Institute and developed jointly with the Institute of International Education of VSU.

The new textbook has four parts (A1, A2–B1, B1, and B2) and ensures the continuity of pre-university training for international students and their further studies at the university’s faculties. Parts B1 and B2 are also connected with an e-course “Foreign language (Russian)”. There are extra grammar and training materials available for self-studying for all students. The textbook includes special grammar modules, where the texts are divided into groups based on academic and professional situations and conversation topics.

There are other digital materials for training and control developed at the Institute of International Education based on its own software platforms that are also used in the education process. This enables students to work efficiently and independently within the framework of blended and online learning. The interfaces of the mobile apps were adapted to various devices.





## 7.6. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2022

- The total number of foreign students in all forms of study in 2022 amounted to 1087 people.
- A new textbook “Khorovod” was developed for teaching Russian to foreign students.
- New priority regions for international cooperation were determined: Belarus, Kazakhstan, Uzbekistan, Kyrgyzstan, China, Vietnam, and Latin America.
- The university organised 43 international events.
- The university runs 2 international network programmes.

In September 2022, a “Concept of Humanitarian Policy of the Russian Federation Abroad” was published. It determines the main objectives and directions of international scientific and educational cooperation, including the following.

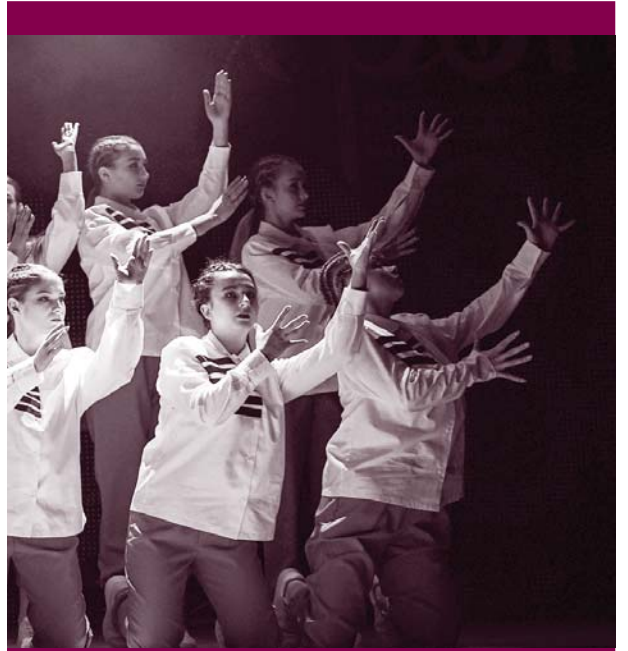
- To promote the role and competitiveness of the Russian language in the modern world.
- To raise awareness of the achievements of Russian people in culture, science, education, sports, and information and communications technologies.
- To increase the competitiveness of the Russian education system and to use its potential to increase the humanitarian impact of Russia in the world.
- To develop international cooperation in the area of culture, science, education, sports, and tourism.
- To increase the number of international students studying at universities in Russia.
- To increase the number of double degree programmes.
- To hold international scientific events in Russia.
- To promote the academic mobility of students and academic staff and encourage their participation in scientific and educational events abroad.



**Based on the current situation, VSU has the following objectives in the area of international cooperation in 2023.**

1. To develop roadmaps for the promotion of international educational and scientific cooperation with strategically important international partners in priority regions.
2. To develop a programme of cultural and academic exchange aimed to promote the academic mobility of students and academic staff of VSU.
3. To open Russian language centres at partner universities in priority regions.
4. To develop projects suggested by Rossotrudnichestvo and the “Russkiy Mir” foundation.
5. To increase the number of network programmes using the positive experience with the existing ones, especially programmes within such an important area as teaching Russian literature, namely “Russian Literature in the European Context”.
6. To develop programmes for international summer schools together with the university’s faculties aimed at promoting the Russian education system, science, and culture.
7. To increase the number of large international events.







# **STUDENT AFFAIRS AND SOCIAL DEVELOPMENT**





## STUDENT AFFAIRS AND SOCIAL DEVELOPMENT



**O. V. Grishaev,**  
Vice-Rector for Student Affairs  
and Social Development

### 8.1. MAIN OBJECTIVES IN THE FIELD OF STUDENT AFFAIRS AND SOCIAL DEVELOPMENT IN 2022

Student affairs and social development have the following purposes:

- To ensure students adopt the axiological, normative, and practical aspects of the relationship between people, between patriots and their homeland, citizens 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 prospects 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.
  - To carry out a set of preventive measures to prevent the spread of COVID-19:
    - Purchasing personal protective equipment and providing it to employees and students.
    - Opening a vaccination centre at the university (with compulsory examination by a doctor).
    - Opening a PCR-testing station.



- Social security and psychological support to the university's students.
- Summer holidays for students and staff, taking into account the epidemiologic situation.
- Controlling the payment of bursaries, allowances, and other types of financial aid for students.

Due to the beginning of the special military operation in February 2022, the following tasks were added to the above:

- To organise the necessary conditions at the university and allocate resources to provide volunteer and psychological assistance to citizens evacuated to the Voronezh Region from the regions affected by the special military operation.
- To provide moral and financial support for staff and students whose close relatives were mobilised to participate in the special military operation.

## 8.2. ORGANISATION OF SUMMER HOLIDAYS FOR VSU STUDENTS AND STAFF IN 2022

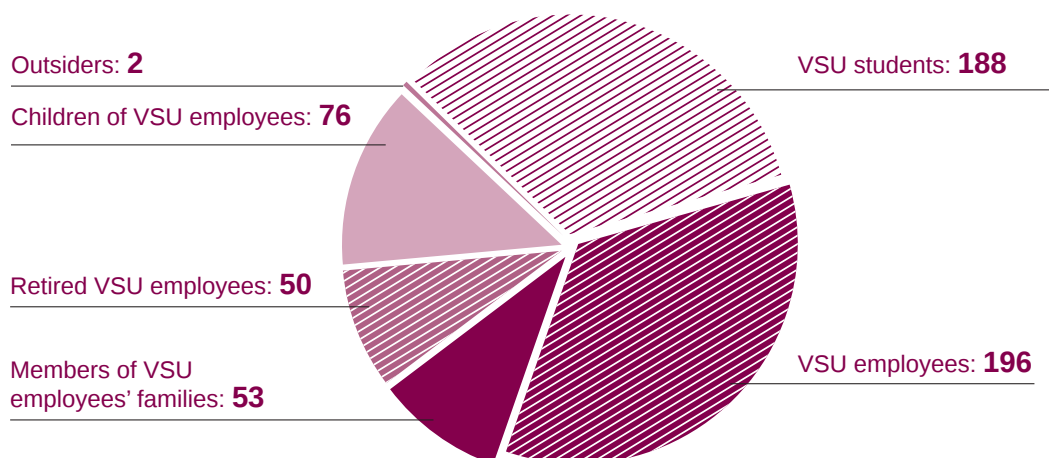
Taking into account the restrictive measures related to the prevention and control of COVID-19, the Department for Social Development and the Trade Union Committee organised summer holidays and recreation for VSU staff members and students at the Venevitinovo scientific and educational, sports and fitness complex and also at the Black Sea coast (Sochi and the Republic of Crimea).

In summer 2022, 600 university students spent holidays at the Black Sea coast (Rosa Khutor, the Republic of Crimea).

In total, 565 people went on holiday to the Venevitinovo recreation facility in 2022, including 196 VSU employees and 53 members of their families, 50 retired VSU employees, 76 children of VSU employees, 2 other visitors who paid the full price, and 188 students of the university (Figure 8.1).

Figure 8.1

### RECREATION AT THE VENEVITINOVO SPORTS AND FITNESS COMPLEX





### **8.3. FINANCIAL AID FOR VSU STUDENTS AND STAFF IN 2022**

The distribution and expenditure of monetary funds that affected the interests of students was supervised by faculty scholarship committees and the trade union organisation of VSU students.

In 2022, the amount of money spent on financial aid to undergraduate and postgraduate students totalled more than 50 million roubles.

In 2022, 459 current and retired university's employees received financial aid which amounted to 2,753,975 roubles.

To commemorate Victory Day, 15 veterans of the Great Patriotic War received material aid in the amount of 10,000 roubles.

Material aid in the amount of 2,000 roubles was paid to 36 retired VSU employees living alone, dedicated to the International Day of Older Persons.

The following one-time payments were made:

- In accordance with clause 5.8.2 of the Collective Agreement, payments totalling 2,723,028.50 roubles were made in connection with retirement after many years of service at the university.
- 30% of the basic salary to employees for a total of 17,839,710.99 roubles.
- 100% of the basic salary to employees for a total of 63,364,350.35 roubles.

An education discount totalling 6,850,280 roubles was provided to a total of 169 people, including 73 university employees who received a discount for a total of 3,003,425 roubles.

A discount for students whose close relatives were mobilised was provided to 18 people for a total of 200,690 roubles.



## 8.4. STUDENTS' BURSARIES

The university administration, together with the students' trade union, 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 2021/2022 academic year, 1,507 students received bursaries for a total of 33,664,703.47 roubles.

Extra bursaries, scholarships for academic results, excellence in research, social, cultural activity, and sports are paid to students monthly.

## 8.5. SUMMARY OF EVENTS OF THE SUBDIVISIONS OF THE JOINT STUDENTS' BOARD OF THE UNIVERSITY FOR 2022

In 2022, the composition of the Joint Students' Board changed substantially. New students' associations were organised, encouraged by fresh ideas, they are successfully developing.

One activity of student organisations that should be highlighted is helping students to find their place in the professional world, which is especially important in today's unstable labour market situation. The VSU Career Club, for example, launched a podcast where students share their employment stories. In 2022, two streams of young lawyers graduated from the Legal Clinic of VSU for the first time, who will now handle real-life legal disputes.

Table 8.1

## EVENTS HELD BY THE SUBDIVISIONS OF THE JOINT STUDENTS' BOARD OF VSU

Area	Event	Status	Form	Dates	Number of participants
Research and education	Programming courses	University	Personal attendance	5 November 2022–25 December 2022	60
	CTF courses	University	Personal attendance	5 October 2022–20 December 2022	70
	Competitive programming courses	University	Personal attendance	20 September 2022–25 December 2022	10
Patriotic activities	We are Together mass meeting	National	Personal attendance	23 September 2022	200
	We are Together mass meeting	National	Personal attendance	1 October 2022	200
	The Immortal Regiment online event	Regional	Online	9 May 2022	1,000
	All-Russian creative art competition “That’s Why I Love Russia”	National	Online	14 September 2022	125
	Humanitarian assistance to veterans	Regional	Personal attendance	9 May 2022	60
	Memorial mass meeting devoted to the Victory Day	Regional	Personal attendance	6 May 2022	350
	Wreath and flower laying event at the Chizhovka memorial associated with the motor rally organised by the DOSAAF of Russia and the Union of Cities of Military Glory, accompanied by the delivery of humanitarian aid to the Donetsk and Lugansk People’s Republics	Regional	Personal attendance	16 September 2022	40
	Watching Soviet films	University		15 May 2022	350
We are Together event	National	Personal attendance	23 September 2022	200	
Career and specialised activities	Instructing people on how to find part-time jobs for students in financial difficulty	University	Personal attendance	3 December 2022	200
	First episode of the podcast “From Student to Student” with representatives from RELEX	University	Online	29 November 2022	9,800
	Second episode of the podcast “From Student to Student” with representatives from Tinkoff	University	Online	18 December 2022	6,750
	Third episode of the podcast “From Student to Student” with representatives from VZPP-Mikron	University	Online	24 December 2022	9,660
	Trends of the Future online lecture	University	Online	27 January 2022	120
	A course of lectures on student employment by the VSU Joint Students’ Board and Career Development and Business Partnership Centre (CDBPC) with the support from the Legal Clinic of VSU	University	Personal attendance	20 February 2022	120
	A course of lectures by the VSU Joint Students’ Board and Career Development and Business Partnership Centre (CDBPC) with the support from the Legal Clinic of VSU	University	Personal attendance	5 March 2022	150
Design and marketing course by SiMM and the VSU Joint Students’ Board	University	Personal attendance	16 September 2022	100	

End of table 8.1

Area	Event	Status	Form	Dates	Number of participants
Student self-governance	Night University	University	Personal attendance	17 December 2022	400
	Meeting of dormitory joint students' boards to discuss issues with the administration	University	Personal attendance	10 November 2022	60
	All Saints' Day event in dormitory No. 2	University	Personal attendance	29 October 2022	30
	Dormitory No. 1 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022– 1 October 2022	170
	Dormitory No. 2 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022– 1 October 2022	170
	Dormitory No. 3 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022–1 October 2022	150
	Dormitory No. 4 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022– 1 October 2022	100
	Dormitory No. 5 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022– 1 October 2022	200
	Dormitory No. 6 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022– 1 October 2022	210
	Dormitory No. 7 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022– 1 October 2022	230
	Dormitory No. 9 meetings, formation of the students' board and internal dormitory chat	University	Personal attendance	1 September 2022– 1 October 2022	450
	Meeting with Joint Students' Board	University	Personal attendance	19 September 2022	2,500
	A Start for Students event	University	Personal attendance	29 August 2022– 31 August 22	300
	"KSTATI" Science Festival	Regional	Personal attendance	10 September 2022	350
	"Svoya Igra"	University	Personal attendance	28 September 2022	250
	"What? Where? When?"	University	Personal attendance	4 April 2022	250
	Film screening	University	Personal attendance	24 October 2022	200
	"Guess the Tune"	University	Personal attendance	14 December 2022	170
Meeting with volunteers from the Faculty of Computer Sciences	University	Personal attendance	16 September 2022	130	
Physical activity	Semi-marathon within the framework of the Zabeg.RF project	University	Personal attendance	21 May 2022–22 May 2022	140
	VSU Universiade between faculties	University	Personal attendance	10 October 2022– 28 October 2022	200



## 8.6. OVERVIEW OF STUDENT COMPETITIONS

To increase the level of artistic creativity of students and student groups involved in the creative environment of the university and participating in the organisation and implementation of cultural and creative events, lectures and master classes were held on the basics of design, lighting and sound design of concerts, acting, and dance production. Students were also given the specifics of recording music tracks, the basics of original genre, etc.

Among the key events and achievements of the students are the festival “University Spring”, in which more than 1,700 students took part, and the regional festival “Students’ Spring – Youth Creativity”, in which more than 120 VSU students took part. Twelve creative performances won first and second places, and the VSU team won first place in the nomination “Programmes”. The success at the regional stage allowed our students to take part in the national stage of the Students’ Spring festival, where they took 2nd place in the “Regional Programme” nomination and received 2nd degree diplomas in the “Theatre. Sketch” nomination.

“My Faculty” artwork competition was held at the university for the first time. For the contest, students presented objects d’art representing their faculties.

In 2022, two grants from Rosmolodezh.grants were won by university students and staff to promote student creativity. The grant-winning projects were the cultural and educational forum “School of Student Activists” and the physical performance “Brave New World”.

Table 8.2

## STUDENT COMPETITIONS

Name	Status	Form	Dates	Number of participants
Youth Forum "All-Russia Student Marathon"	National	Personal attendance	3 February 2022–7 February 2022	70
"University Spring" festival	University	Personal attendance	29 March 2022–16 April 2022	2,500
"Students' Spring – Youth Creativity" festival	Regional	Personal attendance	17 April 2022–24 April 2022	170
"Russian Students' Spring" festival	National	Personal attendance	17 May 2022–22 May 2022	40
Anti-Corruption Festival held by the Voronezh Regional Federal Treasury Department	Regional	Personal attendance	23 May 2022–24 May 2022	15
Educational creative meeting by the art-cluster "Tavrida"	National	Personal attendance	3 July 2022–7 July 2022	2
"School of Student Activists" educational forum	Regional	Personal attendance	28 August 2022–4 September 2022	300
All-Russian educational event "In the First Row"	National	Online	15 October 2022	60
All-Russian competition "Improvisation. Scenes. Students" of the federal project "Improvisation. Teams".	National	Online	28 October 2022	12
"Convention of Artistic Youth" forum	Regional	Personal attendance	18 October 2022–22 October 2022	15
First Year Student festival	University	Personal attendance	7 November 2022–26 November 2022	1,400
"Culture of the Peoples of Russia" festival	Regional	Personal attendance	4 November 2022	10
"School of Student Activists" educational project	Regional	Personal attendance	29 November 2022–30 November 2022	15
"My Faculty" artwork competition	University	Personal attendance	21 December 2022	170
Quiz for the New Year's Eve Academic Council	University	Personal attendance	23 December 2022	70





## 8.7. BRIEF OVERVIEW OF THE EVENTS HELD TO DEVELOP PATRIOTISM AND CIVIC MINDEDNESS

In February 2022, the special military operation was announced. The Voronezh Region welcomed and accommodated refugees from the Donetsk and Lugansk People's Republics and the Kherson and Zaporozhye Regions. An operational headquarters for voluntary assistance was established at the university. It focuses on the following activities:

1. Collecting humanitarian aid in the university's buildings, delivering it, and assisting in the formation of humanitarian consignments. Over two weeks, more than 50 boxes of food, clothing, footwear, household care products, and children's goods were collected. The cadets from the VSU Military Training Centre also took part in packaging of bulk products at the VoronezhKomplekt warehouse. A total of three visits were made, with more than 60 cadets and volunteers participating in the events.
2. Organising a psychological support hotline by the staff of the VSU Psychological Consulting Services.
3. Helping the evacuated people and, in particular, children accommodated in the temporary refugee settlements in the Voronezh Region.

Children's camps and sanatoriums in the region were allocated to accommodate refugees. However, these facilities were not equipped to accommodate children during the winter period. Student teams were a huge help in preparing the territories as part of the "Snow Landing" campaign. They visited children's camps "Goluboy Ekran" and "Kirovets". The initiative of organising entertainment and educational activities for children was supported by the students' boards of all faculties and student clubs. Students arranged storytelling events, workshops, adaptive games, sports tournaments, and much more. During March and April 2022, 21 trips were organised, with more than 30 staff members and over 120 students participating. In total, more than 500 children were reached during the trips.

In 2022, patriotic education was given particular attention. During the year, more than 10 university and regional events were organised, and students took part in 4 national and 8 regional forums and events. Students were most interested in the "Letter to a Soldier" initiative and the patriotic "1,418" run. The participants had to run a distance of 1,418 metres, which is the number of days our country fought in the Great Patriotic War.

In September 2022, the university opened the "Height 155" student patriotic club. In four months, the club held 5 memorial events and organised a New Year's Eve event "Soviet Cartoons". Its participants shot a video dedicated to the Day of the Heroes of the Fatherland about the heroes after whom the streets of Voronezh are named.

Table 8.3

## SUMMARY OF PATRIOTIC EDUCATION ACTIVITIES

Event	Status	Form	Dates	Venue	Number of participants (views)
Essay competition dedicated to the day of the liberation of Voronezh from the Nazi invaders	University	Personal attendance	25 January 2022	VSU	20
Rally dedicated to the day of the liberation of Voronezh from the Nazi invaders	University	Personal attendance	25 January 2022	VSU	100
A lesson of courage dedicated to the memory of internationalist soldiers	University	Personal attendance	15 February 2022	VSU	45
"My History" series of lectures	University	Personal attendance	1 March 2022–1 April 2022	VSU	8,479
"Historical Truth as a Constitutional Value" series of lectures	University	Personal attendance	1 April 2022–15 May 2022	VSU	3,520
All-Army stage of the 7th International Olympiad	National	Personal attendance	5 April 2022	Smolensk	4
Day of United Action	National	Personal attendance	19 April 2022–23 April 2022	VSU	670
Publication of archival materials as part of a nationwide Research Regiment campaign	National	Online	19 April 2022–22 June 2022	VSU	20,000
Maintaining the graves of the Great Patriotic War veterans	University	Personal attendance	4 May 2022	VSU	25
Victory Day meeting	University	Personal attendance	6 May 2022	VSU	200
"St. George Ribbon" event	National	Personal attendance	11 May 2022	VSU	70
"Zarnitsa" patriotic game for kindergarten children in Voronezh	Municipal	Personal attendance	12 May 2022	Voronezh	30
Georgian Sports Games tournament	National	Personal attendance	4 September 2022	Moscow	45
The Immortal Regiment online event.	University	Online	5 September 2022	VSU	922
Student patriotic run	University	Personal attendance	24 September 2022	VSU	500
Letter to a Soldier campaign	National	Personal attendance	25 October 2022	VSU	157
I am Proud of the Heroes campaign	University	Personal attendance	25 November 2022	VSU	30
Training for the student patriotic club leaders by the "I am Proud" association	National	Personal attendance	25 November 2022	Rostov	2
Day of the Heroes of the Fatherland	University	Personal attendance	9 December 2022	VSU	400
New Year's Eve film screening "Soviet cartoons"	University	Personal attendance	23 December 2022	VSU	62



As part of the implementation of the Comprehensive Plan to Combat Extremism and Terrorism for 2019-2023, supervisors gave talks to first year students on the unacceptability of extremist and terrorist ideology (2,500 participants). Traditionally, special meetings were held by supervisors on Solidarity Day against Terrorism on 3 September, in memory of the tragedy in Beslan, which took place in 2004. The same day, there was also a “Drop of Life” event and a rally attended by university staff and students (150 participants).

Another civic education activity was the nationwide campaign “Children of Russia”, during which students were given lectures on the dangers of drug use. Face-to-face lectures for 600 students were held by representatives of the Faculty of Pharmaceutics, police officers, and representatives of the Centre for Drug Abuse Control.

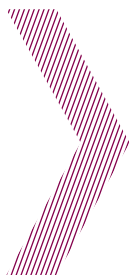
The series of commemorative events began with the interregional conference “Peter’s Assembly”, which was held at the university on 1 June. More than 100 people took part in the conference offline, and there were also participants who participated via video-conferencing.

## **8.8. SPORTS AND A HEALTHY LIFESTYLE**

In 2022, all sports events were supported by the Department of Physical Education and Sports, the VSU Sports Club, the Regional Department of Physical Education and Sports, and the Association of Student Sports Clubs of Russia.

For example, in February-March 2022 the VSU students’ sports club “Khitschnye Bobry” (Rapacious Beavers) held the university stage of the ASSC Championship in 13 sports disciplines. As a result, more than 40 athletes advanced to the All-Russian Superfinal of the ASSC Championship in Kazan. At the Superfinal, our students showed a high level of performance and won three 3rd places and one 1st place. A specialist from the Department of Student Affairs of VSU was also awarded a letter of acknowledgement for promoting sports among students.

From June to September, the VSU students’ sports club “Khitschnye Bobry” continued the “Khitschnaya zaryadka” campaign, which originated in the university in 2021 to promote a healthy lifestyle. Among this year’s invited guests were Dmitry Sobolev, Head of the Department of Physical Culture and Sports of the Voronezh Region, and representatives of SIBUR’s Voronezh office. The highlight of the year was a SUP board trip with the VSU rector under the hashtag #СРекторомНаОднойВолне (On the Same Wavelength with the Rector).



“Khitschnye Bobry” entered the top 10 in the Best Students’ Sports Club competition and were invited to the All-Russian Forum of Students’ Sports Clubs in Dagestan, where our students represented not only the university, but also the Voronezh Region. The ASSC recognised the club’s significant contribution to the development of mass student sport in the region.

At the end of November, the “Russian Sport” National Sports Festival was held, supported by a grant from the Federal Agency for Youth Affairs. Representatives from two federal districts competed in Voronezh in national sports such as gorodki, lapta, etc.

In 2022, the traditional Universiade of the Voronezh Region was held in 28 disciplines. More than 2,500 students took part in it. As a result, VSU won prizes in 16 sports disciplines.

Another mass event in 2022 was the Ready for Labour and Defence festival, which took place in September. Over 1,000 students took part in the festival. More than 20% of them achieved gold, silver, or bronze Ready for Labour and Defence badges.

Moreover, there were some achievements in the area of cybersports. During the reporting period, the activists of this area held three university tournaments (more than 200 participants) and one municipal tournament (more than 200 participants). The VSU team won first place in the municipal stage of the All-Russian Cybersports Student League. VSU students also became winners and awardees in many other competitions.

## 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 180 students with disabilities and special needs. There are 9 students with visual disabilities (1 of them with special needs), 5 students with hearing disabilities (1 of them with special needs), 16 students with musculoskeletal disorders (including 3 people with special needs), 32 students with somatic diseases, and 118 students with no category.

Students with disabilities receive psychological and pedagogical, sociocultural, and information support over the whole training period.

A group for disabled students of Voronezh State University was created on the VK social network (Inclusive Education Centre at Voronezh State University). Today, it has 325 members.

Online conferences and workshops were held regularly for the university staff, students, and applicants in order to obtain insights into the psychological and physiological characteristics of students with disabilities, including those with special needs, the specifics of admission, and the peculiarities of teaching students of various nosological groups.



A meeting was held with representatives of the Legal Clinic of VSU to discuss the legal support of socially disadvantaged citizens: benefits, guarantees, and legal aspects.

The competition “On Your Way to Your Career 2022” was held in Voronezh in March. It is a unique project for students and graduates with disabilities. The VSU students proved themselves to be active and well-prepared professionals, and took prize-winning places: Ilya Samoilenko (Faculty of Geography, Geoecology, and Tourism) took 2nd place, Nikita Trofimov (Faculty of Computer Sciences) was rated the best in the “Future of Skolkovo” nomination. They received valuable prizes and job and internship offers.

In May 2022, the 7th Voronezh Abilympix Championship was held. VSU was represented by seven students with disabilities and an expert in the competencies of Jurisprudence and Pharmacy. Our students took all the prizes in these competences.

Regular trainings and workshops on disability awareness are held. These activities build tolerant attitudes among students and university staff towards persons with disabilities and special needs.

In December, the employees of VSU (13 people) attended advanced training under the programmes “Special Features of Interaction with Disabled People and People with Special Needs during the Educational and Onsite Practical Trainings” and “Peculiarities of the admission and training of students with disabilities and special needs in higher education institutions” held by Bauman Moscow State Technical University.

The VSU website has a special Accessible Environment section with the information about the availability of the environment for disabled people, types of education support, availability of special educational hardware and software, etc.

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. Psychological Consulting Services at VSU

The Psychological Consulting Services at VSU organise work in the following areas: psychological diagnostics, preventive work, psychological counselling, awareness-raising, and methodological work.

### 1. Psychological diagnostics.

From 12 September to 21 October 2022, a psychological study aimed at identifying risk groups was carried out. A total of 2,223 first year bachelor's and specialist's degree students took part in the study.

From 16 to 25 November 2022, a psychological study was carried out, aimed at identifying risk groups among first year secondary vocational education students. There were 156 participants.

In April and November 2022, a social and psychological testing aimed at identifying the risk of alcohol and drug addiction among students was carried out. A total of 5,369 students were tested.

Throughout the year, psychological examinations of individual student groups and students were carried out at the request of the administration of the faculties.

### 2. Preventive work.

The service organised activities aimed at the promotion of a healthy lifestyle and prevention of harmful habits among students. There was a lecture on healthy lifestyle, and a video on drug addiction prevention was shot together with students.

Throughout the year, anti-drug videos were shown to students, and a course of lectures "Against Psychoactive Substances" was held.

In December, a lecture and psychological training on the prevention of stress conditions during the session took place.

### 3. Psychological counselling.

In 2022, 101 psychological counselling sessions were conducted.

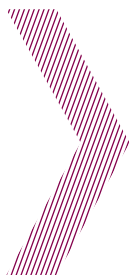
At the request of the university administration, a psychological hotline was opened at VSU, offering counselling activities as well.

### 4. Awareness-raising.

Five lectures were held on personal psychohygiene, personal self-determination, life and career choices, and building relationships with parents, peers, and the opposite sex.

### 5. Methodological work.

Diagnostic materials were developed to identify risk groups among students. Prevention and psycho-correction programmes for risk groups were designed.



## 8.11. MAIN ACHIEVEMENTS OF 2022

Table 8.4

### KEY ACHIEVEMENTS OF THE UNIVERSITY'S TEAMS AND INDIVIDUAL STUDENTS IN 2022

Event	Venue	Achievements
<b>Art and culture</b>		
"Students' Spring – Youth Creativity" regional festival	Voronezh	First degree diploma: "Vocal Performance (group)", "Musical ensemble", "Contemporary Dance (small groups)", "Contemporary Dance (large groups)", "Street Dance (large groups)", "Sketch", "Original Genre Performance", and "Graphic Design" Second degree diploma: "Documentary", "Short Film", and "Vocal Performance (solo)" 1st place in the "Regional Programme" nomination
All-Russian festival "Russian Students' Spring"	Nizhny Novgorod	3rd places in the "Regional programme" and "Sketch" nominations
Anti-Corruption Festival held by the Voronezh Regional Federal Treasury Department	Voronezh	2nd place in the "Sketch" nomination
National contest for youth projects among higher education institutions by Rosmolodezh	Moscow	"School of Student Activists" project: winner "Russian Sport" project: winner
Project competition at the "Tavrida Art" Education Forum	Crimea	Physical Performance "Brave New World": winner
Youth Forum "All-Russia Student Marathon"	Sochi	"School of Student Activists" project: winner of the Social Design School of the Students' Coordination Council of the National Academic Trade Union 1st place in the competitions "DJs", "Hip-Hop Dance" 2nd place in the competitions "Humour", "Artwork", and "Vocal" 2nd place in the "Creative Programme" nomination 3rd place in the "Russian Patterns" bodypainting competition 1st team place
<b>Sports</b>		
Youth Forum "All-Russia Student Marathon"	Sochi	1st place in table tennis, indoor soccer, speedcubing, and gorodki 1st place in the "Sports Programme" nomination 2nd place in the Streetball tournament and FIFA2022 cyber tournament
Freestyle Wrestling Championship of the Voronezh Region	Voronezh	1st place (in three disciplines) 3rd place
Freestyle Wrestling Championship of the Central Federal District	Voronezh	1st place
Russian Wrestling Championship	Kaspiysk	3rd place



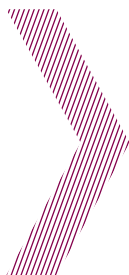


Table cont. 8.4

Event	Venue	Achievements
Wrestling (Freestyle) Championship of the Central Federal District	Bryansk	2nd and 3rd places
26th International Wrestling Tournament	Gomel, Belarus	1st place (in two disciplines)
International Junior Freestyle Wrestling Tournament	Yakutsk	1st place
National Freestyle Wrestling Generation Tournament	Stary Oskol	1st place, 2nd place (in two disciplines)
National Championship in Freestyle Wrestling dedicated to the honoured coach, S. I. Gorozhankin	Voronezh	1st, 2nd, and 3rd places
Absolute Championship of Russia in Freestyle Wrestling among men dedicated to the honoured coach, A. Z. Dzgoev	Naro-Fominsk	3rd place
Regional indoor soccer competitions among men	Voronezh	1st place
Russian Relay Race Championship and Competition	Adler	1st place
Eurasian Martial Arts Festival by International Kobudo Association	Minsk	1st and 2nd places
4th (11th) All-Russian Shotokan Martial Arts Competition	Ryazan	1st place
Russian Martial Arts Competition, Kobudo discipline	Podolsk	1st place
Russian Martial Arts Cup, Kobudo discipline	Podolsk	3rd place
Martial Arts Championship and Regional Competition, Shotokan discipline	Voronezh	1st place
29th Russian Kudo Championship	Moscow	2nd place
Kudo Championship of the Central Federal District	Yaroslavl	1st place
Rowing and Canoeing Tournament of the Voronezh Region	Voronezh	1st and 2nd places, 3rd places (in different disciplines)
Regional rowing and canoeing competition	Voronezh	1st place
Rowing and Canoeing Championship of the Voronezh Region	Voronezh	1st places (in three disciplines), 2nd place

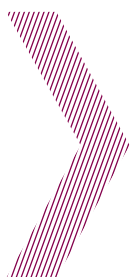


Table cont. 8.4

Event	Venue	Achievements
All-Russian Rowing and Canoeing Competition dedicated to the honoured coach, V. K. Trunin	Engels	2nd places (in two disciplines), 3rd place
Climbing Championship of the Voronezh Region	Voronezh	2nd and 3rd places
Badminton Championship of the Voronezh Region (26-27 November 2022)	Voronezh	2nd places (in three disciplines), 3rd place
Badminton Championship of the Voronezh Region (29-30 April 2022)	Voronezh	1st place, 2nd places (in two disciplines)
Badminton Cup of the Voronezh Region	Voronezh	2nd place, 3rd places (in two disciplines)
Russian Track-and-Field Athletics Cup	Bryansk	2nd and 3rd places
Russian Track-and-Field Athletics Championship	Bryansk	1st place
Russian Track-and-Field Athletics Tournament	Kazan	2nd place
All-Russian Summer Sports Spartakiad for the strongest athletes	Chelyabinsk	2nd place
Russian Indoor Track-and-Field Athletics Tournament	Saint-Petersburg	1st place
All-Russian Indoor Track-and-Field Athletics Competition	Moscow	2nd place
All-Russian Track-and-Field Athletics Competition "Orenburg Mile"	Orenburg	3rd place
Indoor Track-and-Field Athletics Championship and Tournament of the Central Federal District	Smolensk	1st places (in three disciplines), 2nd place
V. P. Kuts Memorial Moscow Cup	Moscow	1st places (in two disciplines)
Boxing Championship of the Voronezh Region	Voronezh	1st place
All-Russia Indoor Track-and-Field Athletics Competition	Chelyabinsk	1st place
Voronezh Region Indoor Track-and-Field Athletics Tournament	Voronezh	3rd places (in three disciplines)
Voronezh Region Track-and-Field Athletics Team Championship	Voronezh	3rd place
Open Table Tennis Championship among women's teams from educational institutions of the Voronezh Region	Voronezh	1st and 2nd places
National student games festival "Ready for Labour and Defence" among university students of the Voronezh Region	Voronezh	1st places (in two disciplines in the individual competition), 3rd place (team).
Table Tennis Competition of the Spartakiad of Employees (Corporate Games) of the Voronezh Region	Voronezh	2nd place – VSU team

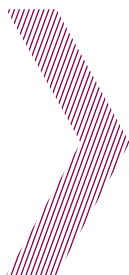
Table cont. 8.4

Event	Venue	Achievements
Individual Table Tennis Championship of the Voronezh Region among students	Voronezh	1st place, 2nd places (in two disciplines of the individual competition)
Table Tennis Championship of the Central Federal District	Voronezh	2nd place
Regional stage of the 40th All-Russian Open Mass Cross-Country Skiing Race "Russian Ski Track"	Voronezh	2nd and 3rd places
Regional cross-country skiing competition	Voronezh	3rd places (in two disciplines)
Regional cross-country skiing competition	Voronezh	3rd places (in three disciplines) 2nd place (in two disciplines)
Regional cross-country skiing competition "Race for the strongest cross-country skiers"	Voronezh	2nd places (in two disciplines), 3rd places (in two disciplines)
Regional traditional cross-country skiing competition "Marathon 100"	Voronezh	1st and 2nd places
Regional cross-country skiing competition (roller ski)	Voronezh	1st place, 3rd places (in two disciplines)
Cross-Country Skiing Championship of the Voronezh Region (roller ski)	Voronezh	1st and 3rd places
Cross-Country Skiing Championship and Tournament of the Voronezh Region	Voronezh	1st place
All-Russian Skeet Shooting Competition	Lipetsk	2nd place
Championship and Tournament of the Voronezh Region in Orienteering	Voronezh	2nd place
Russian Orienteering Tournament	Tambov	3rd place
Russian Taekwondo Championship	Vladivostok	3rd place
"Taganrog Spring Sails" All-Russian Sailing Competition	Taganrog	2nd place
Russian Sailing Championship	Yevpatoria	2nd place
Sailing Championship of the Voronezh Region	Voronezh	1st place
Sailing Championship of the Moscow Region	Moscow	1st place
Handball Championship of the Voronezh Region	Voronezh	2nd place
Qualifying stage of the All-Russian "Georgian Games" Tournament	Moscow	1st places (in three disciplines) 3rd places (in two disciplines) 1st team place
Final stage of the All-Russian "Georgian Games" Tournament	Moscow	2nd place, 3rd places (in two disciplines) 1st team place



Table cont. 8.4

Event	Venue	Achievements
All-Russian ASSC Championship	Kazan	1st place – ultimate frisbee 2nd place – table tennis (men) 3rd place – streetball (women) 3rd place – table tennis (team)
Regional Tournament of the National League of Student Clubs	Voronezh	1st place – volleyball (mixed), streetball (mixed), and handball (mixed) 2nd place – indoor soccer (men) 3rd place – darts 1st team place
Selection for the 8th All-Russian Summer Universiade	Ufa, Ulyanovsk, Nizhny Novgorod	Badminton, table tennis, indoor football, and chess teams
Interuniversity Universiade	Voronezh	1st place – table tennis (men), table tennis (women), indoor soccer (men), chess, and badminton 2nd place – cross-country skiing (women), cross-country skiing (men), Greco-Roman wrestling, freestyle wrestling, swimming, and track-and-field athletics 3rd place – volleyball (women), volleyball (men), basketball (men), basketball (women), handball (men), football, orienteering, kettlebell lifting, and Ready for Labour and Defence disciplines
Bogachev Regional Basketball Tournament	Voronezh	1st place
“U19” 3x3 Streetball Championship of the Central Federal District	Smolensk	2nd place (men)
ASB Basketball Championship (the Voronezh Region)	Voronezh	2nd place – men
ASB 3x3 Basketball Championship (the Voronezh Region)	Voronezh	3rd place (men) 3rd place (women)
Voronezh Basketball Cup	Voronezh	1st place (men) 2nd place (women)
Voronezh Basketball League Championship	Voronezh	2nd place
3x3 Junior Basketball Championship	Kaliningrad	1st place
Interregional festival of national sports “Russian Sport”	Voronezh	2nd place – gorodki 3rd place – kettlebell lifting 3rd place – Russian lapta
Orange Ball	Voronezh	1st place (men) 3rd place (women)
<b>Patriotic activities</b>		
All-Russian Competition “I am Proud of You, Russia!”	Moscow	1st place



End of table 8.4

Event	Venue	Achievements
<b>Student self-governance</b>		
Your Move National Competition	Moscow	Winner in the "Create" educational category
"Student of the year – 2022" regional competition	Voronezh	1st place – Cybersports Club 1st, 2nd, and 3rd places – "Pharmacist of the Year"
<b>Intellectual activities</b>		
Youth Forum "All-Russia Student Marathon"	Sochi	2nd place – "IQ Marathon", "Brain Ring", and "Svoya Igra" 2nd place in the "Intellectual Programme" nomination
"Brain-Time" Intellectual Festival for Higher Education Students	Voronezh	2nd place
9th Central Federal District Cup in the "Voroshilovskiy Strelak" quiz	Moscow	Top 16 Intellectual Clubs of Russia 3rd place in the individual competition (women)
<b>Promotion of student team activities</b>		
International Student Team Construction Competition	Kazan	2nd place
Regional Mister and Miss Student Team Competition	Voronezh	1st place – Mister Voronezh student teams 1st place – Miss Voronezh student teams
Regional Student Team Spartakiad	Voronezh	2nd place
Regional competition for the best student team headquarters of higher education institutions	Voronezh	2nd place
Regional Student Team Art Festival	Voronezh	1st place – Dance (duet) 1st place – Small-Scale Theatre Production 3rd place – Mass Dance, Performance, Original Song, and Video
Student Team Art Festival of the Central Federal District	Voronezh	1st place – Vocal (group)
"Crimean Breeze" interregional project of the student service teams	Crimea	1st place
Regional Competition for the Best Student Pedagogical Team in the Voronezh Region	Voronezh	2nd and 3rd places
Regional Competition for the Best Student Team of Conductors	Voronezh	1st place – Performance, Best Member, and Best Leader
Regional Competition for the Best Student Service Team	Voronezh	1st place – Best Member
Mister and Miss Student Team Competition of the Central Federal District	Voronezh	1st place – Mister Central Federal District student teams







## **OPERATION AND CONSTRUCTION OF FACILITIES**







# OPERATION AND CONSTRUCTION OF FACILITIES



**N. I. Bryantsev,**  
Vice Rector for Facilities  
and Capital Development

## 9.1. VSU MAJOR BUILDING OPERATIONS AND CONSTRUCTION GOALS FOR 2022

- To maintain and develop the university's property assets.
  - To maintain and operate facilities in accordance with the requirements of technical procedures, design documentation, laws, and regulations of the Russian Federation.
  - To provide the infrastructure for educational activities, and to maintain the normal operation of utility systems: electricity, gas, heat, water supply, and the system for waste water.
  - 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 THE 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.

The replacement of boilers in boiler-house No. 2 was performed, a pump in an artesian well of the Galichya Gora nature reserve was replaced, a sewer outlet was fully replaced in the basement of educational building No. 2, the water measurement unit of educational building No. 8 was repaired with the replacement of obsolete pipes with polyethylene pipes and the fitting and installation of a pressure regulator, arrangement of a security post for the dining room of educational building No. 1 was performed, major repairs of dormitory No. 5, classrooms and heating systems in educational building No. 2 were repaired, technical inspection of the brick chimney of boiler room No. 1 was done, flushing and cleaning of the external sewerage at the skiing centre and in the main building of the university was performed, restoration of weather regulation of the heating system of the educational building No. 9 was performed, major repairs of classrooms in the educational building No. 1 was done. A large amount of work has been carried out on a technical review of the Venevitinovo Dormitory that is under construction. The design of a new VSU dormitory at the address: 10a Friedrich Engels st. was performed. Tests of automatic fire alarm systems and internal fire-fighting pipelines were carried out in dormitories No. 2, 3, 4. Also, the fire alarm, warning system and internal fire-fighting pipelines were examined. Working design estimate documentation was developed for dormitories No. 2, 3, 4, 5, 9. A survey of building structures, engineering networks, electrical equipment and the wiring of dormitories No. 2, 3, 4, 5, 6, 7, 8 was carried out.

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 REPAIRS

At the expense of budgetary funds, the following major repairs were carried out:

- The design of a new VSU dormitory at the address: 10a Friedrich Engels st. in the amount of 599,900 roubles.
- Repair of classroom No. 12 of educational building No. 2 in the amount of 474,971 roubles.
- Major repairs of classroom No. 415 of the main building in the amount of 66,708 roubles.
- Major repairs of classroom No. 312 of the main building in the amount of 287,215 roubles. Repair of classroom 333a of the main building in the amount of 206,596 roubles.

In the main building, premises No. 111, 121, 122, 127, 230, 249, 415, reading hall (1st floor), a photo studio (2nd tier of the auditorium) were repaired (Figs. 9.1–9.8).

Figure 9.1

### PREMISES 415





Figure 9.2

PREMISES 249



Figure 9.3

PREMISES 230







Figure 9.4

### READING HALL



Figure 9.5

### PREMISES 122





Figure 9.6

PREMISES 121



Figure 9.7

PREMISES 127



Figure 9.8

PHOTO STUDIO





In university building No. 9, the lamps in the auditorium were replaced (Fig. 9.9).

Figure 9.9

#### AUDITORIUM



With sponsorship by university partners, high-quality major repairs were carried out in auditoriums No. 297 and 329 of the main university building and auditorium No. 407 of university building No. 7, with a total area of 170 m<sup>2</sup>.

In 2022, the service organization OOO Blesk performed the following work: 2243 m<sup>2</sup> of premises were repaired (plastered, puttied, and painted), 248 m<sup>2</sup> of Armstrong ceiling tiles were replaced, 462 m<sup>2</sup> of floors were whitewashed, 662 m of entrance steps were concreted and painted, 85 m of fence were painted, 63 m of perimeter paving were repaired, 206 m<sup>2</sup> of building façades were repaired, 42 benches were painted, 3 window glass units were replaced, 498 locks were repaired or replaced, 340 air conditioners were repaired and maintained, 361 m of heating pipes were replaced, 20 heating valves were replaced, 399 water taps were replaced, 947 m of electric wiring were replaced or repaired, 160 toilet cistern mechanisms were replaced, 348 sockets, switches, and circuit breakers were replaced, 2025 luminescent lamps were replaced, 21 LED spotlights were installed to restore the lighting, 411 taps for water of different diameters were replaced; 148 m of thermal insulation of pipelines of the heating system were replaced; 13 heating units (radiators, registers, convectors) were replaced; 317 water supply systems were replaced, 156 door/window/furniture handles were replaced



Boiler room No. 2 was prepared for the 2022/23 heating season, two steel boilers (Figs. 9, 10) were replaced. These works totalled 4812,763 thousand roubles. The renovation was carried out by a specialised organisation, OOO VoronezhTechnoGas. A technical inspection of the brick chimney of boiler room No. 1 was carried out. These works totalled 19,898.91 roubles.

Figure 9.10

#### BOILERS ARCUS IGNIS R-1000 IN BOILER ROOM NO. 2 AFTER REPLACEMENT



An inspection of flues in boiler rooms was carried out in the amount of 7,070 roubles. Ventilation air exchange from the chemical laboratory No. 8 of the main building was improved by installing an additional fan. Major repairs to the ventilation of the chemical laboratory No. 358 of the main educational building was completed with the replacement of the fan with a similar one.

A significant amount of work has been done related to the repair of heating systems in the educational buildings of the university.

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 and approved.

In the educational buildings, the university carried out electrical works to replace 385 lamps with energy saving LED lamps and 4704 incandescent lamps with LED lamps. Six fluorescent lamps with light on/off control sensors and 2 emergency lighting fixtures were installed. Two electricity meters and 21 LED spotlights were installed to restore the lighting.

Electrical works included the maintaining of substations.



### 9.3. OVERVIEW OF WORK PERFORMED BY TRANSPORT DEPARTMENT

Staff members of the Transportation Department carried out a significant amount of work (Table 9.1).

Provided:

- Transport services upon request from the university's structural units.
- Transport services for volunteer movement and trips of students to the children of the Donetsk and Luhansk republics.
- Transport for student summer practice in the Voronezh, Lipetsk, Kursk, Astrakhan and Rostov regions, the Republics of Crimea and Adygea.

Table 9.1

#### TRANSPORTATION

No.	Name	2021	2022
1	Transportation for conferences (pcs)	5	7
2	Number of passengers (people)	1,700	1,982
3	Cargo turnover (tonnes)	41.3	25.7
4	Distance driven (thousand km)	51.2	103.4
5	Fuel consumption (l):		
5.1	– petrol A-95	22,036	20,112
5.2	– petrol A-92	12,908	14,034
5.3	– diesel	42,999	23,870
5.4	– liquefied gas	2,800	2,800

A Kia car was purchased.

The Ministry of Education and Science of the Russian Federation commissioned a Ford Transit minibus.



## 9.4. MAJOR REPAIRS AND MAINTENANCE FINANCING BY SOURCE OF FUNDING

Figure 9.11

SITES FINANCED IN 2022, THOUSAND ROUBLES

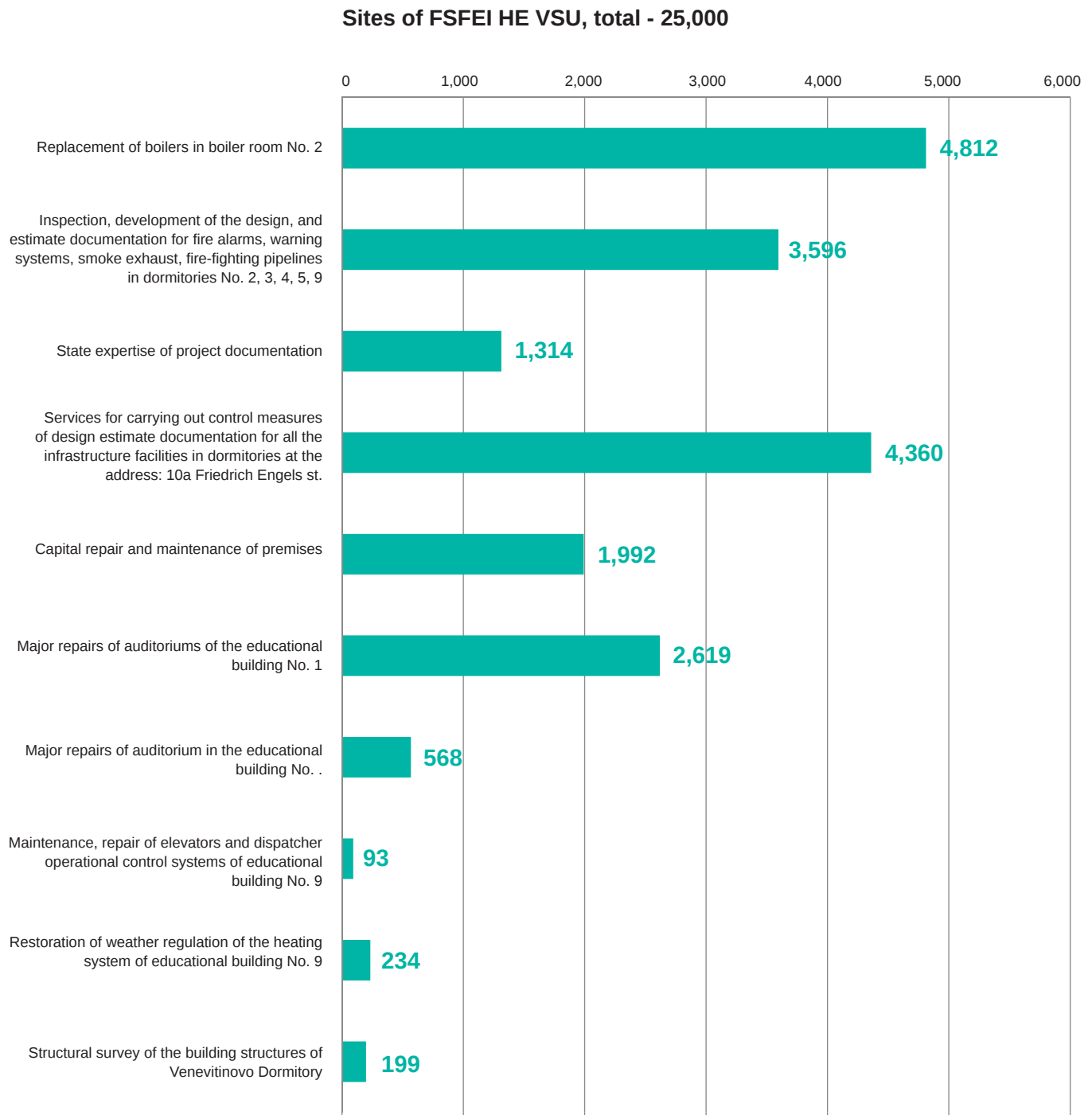




Figure 9.12

STRUCTURE FOR UTILITY BILL EXPENDITURE IN 2021 AND 2022,  
thousand roubles

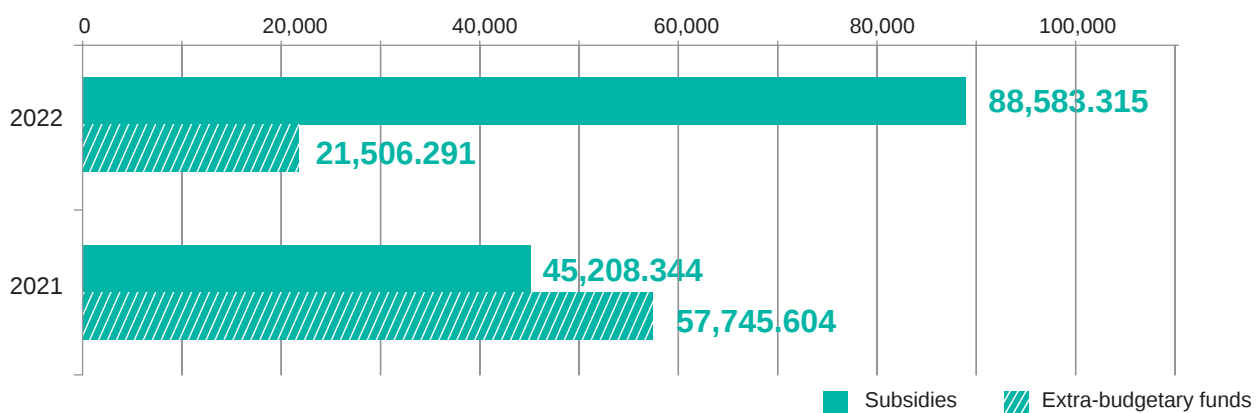


Table 9.2

VOLUMES AND COST OF CONSUMED RESOURCES IN ROUBLES

Type of energy resource	2020		2021		2022	
	volume	sum	volume	sum	volume	sum
Electrical energy	6,269,421 kWh	40,150,477	6,725,475 kWh	44,783,768	7,131,666 kWh	48,662,984
Natural gas	1435.063 thousand m <sup>3</sup>	10,286 881	1,414.017 thousand m <sup>3</sup>	10,466,715	1,409.888 thousand m <sup>3</sup>	11,178,696
Heat supply, including hot water	14,594 Gcal	27,939 196	16,806 Gcal	33,457,505	15,956 Gcal	34,498,146
Water, drainage	253,992 m <sup>3</sup>	10,554,666	271,915 m <sup>3</sup>	14,245,960	272,831 m <sup>3</sup>	15,749,780
	280,606 m <sup>3</sup>		301,440 m <sup>3</sup>		308,969 m <sup>3</sup>	
<b>Total</b>		<b>88,931,220</b>		<b>102,953,948</b>		<b>110,089,606</b>



## 9.5. MAIN RESULTS OF THE ACTIVITIES IN 2022

The facilities were inspected, defective lists were compiled, project documentation was prepared, major and current repairs were completed for a total amount of more than 25 million roubles.

Work continued on the program of energy saving and energy efficiency of buildings, structures and equipment of the university.

All repair work was carried out taking into account the implementation of measures to implement the program to create an “accessible environment” for people with disabilities.

Engineering services ensured the uninterrupted operation of all technical systems and the necessary parameters for the maintenance of buildings, structures and residential premises throughout the past year.



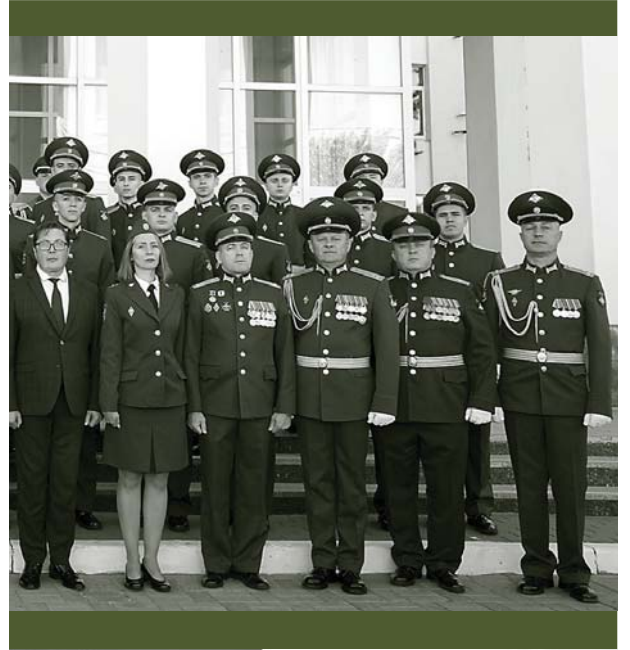
## 9.6. INFORMATION ON PROMISING PROJECTS FOR THE DEVELOPMENT OF THE PROPERTY COMPLEX IN 2022 AND IN SUBSEQUENT YEARS

- Documentation was sent for the inclusion of a new dormitory for 400 students with an area of 11,000 m<sup>2</sup> on the territory located at 10a Friedrich Engels st. in the federal investment program to finance the construction by the federal budget.
- To take measures aimed at creating a living environment offering equal opportunities for people with disabilities and people with limited mobility.
- To complete the construction of Venevitinovo Dormitory, create a working group of employees of the Voronezh State University and representatives of the Department of Education, Science and Youth Policy of the Voronezh Region for elaboration of the issue of allocating funding from the regional budget and other sources of funding.
- To begin designing a new energy-efficient gas boiler-house (main university building), which should be in a free-standing building, not in the basement. The boiler room in the basement was commissioned in 1963 as a temporary solution.
- Continue the development of design estimate documentation for major repairs of dormitory No. 7.
- To prepare design documentation for the repair of auditoriums of university building No. 3 and the Inclusive Education Centre in accordance with the requirements of the Directorate for the Protection of Cultural Heritage.
- To implement the requirements of the instructions of the supervisory activities and prevention authorities of the Ministry of Emergency Situations, fire safety standards.
- To create an environment that meets fire safety requirements and makes it possible to introduce modern research and academic technologies. To replace the supply and exhaust ventilation systems, which are worn out and have long outlived their service period.



- To prepare design documentation for the repair of university building No. 7 in accordance with the requirements of the Directorate for the Protection of Cultural Heritage.
- To develop project documentation for the construction of a multifunctional sports stadium with open stands and auxiliary facilities on the territory located at Kholzunov st.
- To take measures to ensure energy savings and energy efficiency to meet the requirements of the Order of the Ministry of Education and Science of the Russian Federation No. 309 dated 18 April 2012 on Energy Conservation and Energy Efficiency Improvement.
- To continue the reconstruction of buildings and facilities in the “Galichya Gora” nature reserve and to finish reconstruction of the Visitor Centre.
- To prepare the buildings and facilities of the Venevitinovo recreation facility for the summer season of 2023.
- To prepare the project documentation for major repairs to the “Ski Lodge” sports complex.
- To perform a major renovation of the canteen in educational building No. 2.
- To finish major repairs to the ventilation and lighting of the attic of the main building.
- To perform a phased implementation of the concept for the reconstruction and improvement of the Botanical Garden (72.32ha).
- To perform work on the installation of a non-permanent structure for temporary residence at Nickel field training base in the Adygeya republic.
- To ensure the safe operation of buildings and facilities and engineering networks and systems at the facilities that are managed by VSU.







# **MILITARY EDUCATION AT VORONEZH STATE UNIVERSITY**

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 2022

- 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 graduating citizens studying at the MTC:

- Implementation of military training programmes for the students and the 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 with 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".





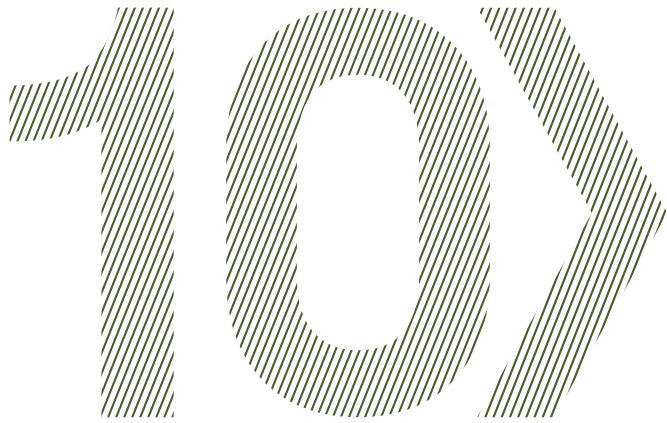
### In the field of preparation for new admissions at the MTC:

- 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 passed the competitive selection.
- 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 2022

No.	Military speciality	Number of students	
		Personnel	Reserve
1	Military Units and Anti-Tank Artillery Warfare	14	–
2	Military Units and Ground Artillery Warfare	54	67
3	Anti-Tank Guided Missile (ATGM) Warfare	50	68
4	Mortar Warfare	55	63
5	IT Support of Military Activities	16	46
6	Information and Psychological Support of Military Activities	27	46
7	Information Support Organisation	17	–
8	Psychological support	6	–
9	Artillery. Gun commander	–	104
10	Anti-tank missile systems. Track commander	–	101



### **10.3. A BRIEF REPORT ON THE ACTIVITIES OF THE MILITARY TRAINING CENTRE FOR THE TRAINING OF OFFICERS TO SERVE UNDER CONTRACT**

In 2022, according to the order of the commander of the Western Military District of 9 December 2021 No. 757dsp and 24 January 2021 No. 30dsp, training camps and internships were held.

Trainings with 5<sup>th</sup> year students enrolled in cadre officer training programs were held from 21 February to 22 March 2022:

- In Troop Unit 31969 (Tambov) for military speciality 030404, 17 people. For military speciality 030405, 20 people. For military speciality 030600, 19 people. For military speciality 380201, 2 people. In total, 58 people were sent, 58 people were trained.
- In Troop Unit 54607 (Tambov) for military speciality 093400, 8 people. For military speciality 093500, 10 people, for military speciality 380201, 2 people. In total, 20 people were sent, 20 people were trained.
- In Troop Unit 91711 (Boguchar) for military speciality 380201, 2 people were sent, 2 people were trained.
- In Troop Unit 91727 (Boguchar) for military speciality 380201, 2 people were sent, 2 people were trained.
- In the Press Service of the Western Military District (Saint Petersburg) for military speciality 808000, 2 people were sent, 2 people were trained.
- In the Press Service of the Central Military District (Yekaterinburg) for military speciality 808000, 3 people were sent, 3 people were trained.
- In the Press Service of the Southern Military District (Rostov-on-Don) for military speciality 808000, 2 people were sent, 2 people were trained.
- In the Military Training Centre (Linguistics Centre of the Ministry of Defence of the Russian Federation, Moscow) for military speciality 808000, 2 people were sent, 2 people were trained.



The number of students who completed the training period was 91.

Upon completing the training programs, students of the Military Training Centre have acquired the practical skills for independent performance of their official and special duties in primary officer positions in accordance with their specialisation; their theoretical knowledge acquired during the study of special tactical, special military, and general military disciplines was checked; students also acquired the practical skills required for the control of subdivisions when performing various tasks as well as skills in the field of maintenance, repairs, and conservation of military hardware, military equipment, maintenance and repair facilities, and also accounting, categorisation, and writing-off of weapons and military equipment. In addition, they studied the organisation of the everyday activities of troops.

Training camps with fourth year students enrolled in cadre officer training programs were held from 20 June to 3 July 2022:

- At Troop Unit 31969 (Tambov) for military speciality 030405, 18 people were sent for training, 16 people were trained.
- At Troop Unit 54607 (Tambov) for military speciality 093500, 9 people were sent for training, 8 people were trained.

The number of students on the training programs for officers who were sent to training camps was 27. 24 of them completed the training.

The administrations of the training camps were assigned as the commanders of the above-mentioned troop units. According to the applications, weapons and military equipment, military technical supplies, motor resources, military uniforms and gear, and food supplies were provided.

The troops that were sent to training camps for field training were accommodated in military barracks. Three meals were provided daily during the training. There were no complaints about the quality of food from the troops. Medical support was provided at the medical offices of the troop units. Medical aid, when needed, was delivered quickly and professionally. A bath-and-laundry service was offered, including changes of underclothing and bed linen.

At the military shooting range on the training grounds for troop units, the students involved in the training camps performed 1 firing exercise with a Makarov gun, 1 practice range shooting, and 2 practice range shootings with an AK-74 assault rifle during the course of their basics training with weapons using small arms.

The following standards were practised during the course of training:

- Tactical Standard No. 1 "Covered movement towards enemy units".
- Nuclear, Biological and Chemical Protection Troops Standard No. 4 "Putting on military protective gear, a protective film suit, and a gas mask".
- Communication Standard No. 1 "Operation preparation and adjustment of a P-159 portable radio station".
- Medical Training Standard No. 1 "First-aid dressing".
- Engineering Training Standard No. 1 "Equipping a trench for shooting from a prone position".



Training points with multimedia equipment and Artera software (MTC 030400, 030405) were fully used when performing exam fire task No. 3 K in the course of training.

By Order of the Minister of Defence of the Russian Federation of 1 March 2022 No. 125, 48 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.

By Order of the Minister of Defence of the Russian Federation of 1 September 2022 No. 975dsp, 33 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.

Students were enrolled in the training program for cadre officers of the Military Training Centre based on the target figures in student admissions and the VSU Rector’s directive No. 3-2219 of 31 August 2022. The enrolment was competition-based, and applicants had passed a military medical examination and qualified as ready for service, passed the fitness level examination and the psychological tests, and had signed the contract with the Ministry of Defence of the Russian Federation in the prescribed form for the military occupational speciality 030400 (20 people).

For reference only: the number of prospective students for the Military Training Centre at Voronezh State University is determined in accordance with the Government Executive Order of the Russian Federation No. 3538-rs of 10 December 2021.

Table 10.2

ADMISSION TO THE MILITARY TRAINING CENTRE IN 2022  
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	38.05.01 – Economic Security	7
Anti-Tank Guided Missile (ATGM) Warfare	10.05.04 – Information Analysis Security Systems	5
Information Support Organisation	56.05.05 – War Journalism	10
<b>Total</b>		<b>40</b>





## **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 23, 2022 at Troop Unit 31969 (Boguchar) for military speciality people. For military speciality 030405, 24 people. For military speciality 030600, 21 people. For military speciality 139177, 36 people. For military speciality 131181, 36 people. For military speciality 143181, 32 people.

The number of students at the training programs for reserve officers and sergeants who were sent to training camps was 129.

At the military shooting range No. Part 31969 (Tambov) the students involved in the training camps performed 1 practice range shooting and 3 firing exercises with an AK-74 assault rifle in the course of the basics of weapons training using small arms.

At the military shooting range the students also practised in Tactics (MTC 030400, 030405, 030600) and Special Training (MTC 137181, 139177) with elements of tactical exercises.

Training points with multimedia equipment and Artera software (MTC 030400, 030405, 030600) were fully used when performing exam fire task No. 3 of the artillery training course developed by the academic and teaching staff and the students of the Military Training Centre to perform fire tasks No. 1 and No. 2 of the artillery training course (MTC 030600, 139177).

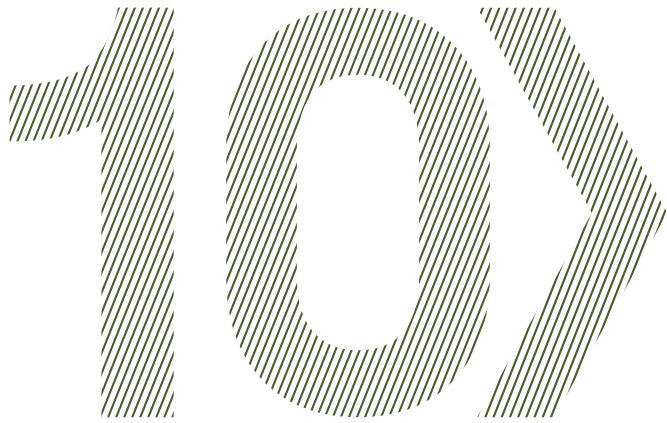
The organisation of training in different disciplines (Firing and Gun Control, Artillery Intelligence, Combat Performance, Special Training, and Engineering Training) with a change of training places allowed effectively using the existing training equipment and weapons and improving the quality of training while the performance of tasks as student crews (reserve officers and sergeants together) brought the effectiveness and results of training to a new level.

Apart from that, there were meetings with the administrations of the training camps and a presentation of military traditions of the region, army, and troop units.

Considerable attention was paid to sporting and mass participation events. Routine tasks (morning exercises, sporting and mass participation events) were fully completed. In accordance with the plan of sporting and mass participation events, military sporting complex standards were checked and football and volleyball competitions among training platoons were arranged.

The military oath ceremony was performed during the training period.

By order of the military commissar of the Voronezh Region as of 25 July 2022 No. 294, 74 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.



By Order of the Minister of Defence of the Russian Federation of March 24, 2022 No. 1183, 69 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.

In 2022, 442 applications were submitted to the Department of Missile Forces and Artillery, 144 students were accepted. The competition for places was 3.1 people per place.

In 2022, 167 applications were submitted to the department of Special Training, 48 students were accepted. The competition for places was 3.5 people per place.

Table 10.3

TRAINING PROGRAMS FOR RESERVE OFFICERS (SERGEANTS)

No.	Military speciality	Number of students		
		2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year
1	Anti-Tank Guided Missile (ATGM) Warfare	24	24	23
2	Military Units and Ground Artillery Warfare	24	23	22
3	Military Units and Mortar Warfare	24	23	23
4	IT Support of Military Activities	24	24	22
5	Information and Psychological Support of Military Activities	24	24	22
6	Artillery. Gun commander	36	34	35
7	Anti-tank missile systems. Track commander	36	35	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

- VSU Rector Dmitry Endovitsky took part in military-patriotic events: laying wreaths in honour of Victory Day and the trooping of the colours 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.
- On 24 May 2022, VSU Rector Dmitry Endovitsky received a letter from V. V. Barabanshikova, Head of the Department of Psychological Support of the Ministry of Defence of the Russian Federation, informing about the introduction of reserve officer training for the military occupational speciality “Psychological Support” at the Military Training Centre at VSU in 2023/24 academic year.
- On 19 December 2022, VSU Rector Dmitry Endovitsky received a letter from the Deputy Minister of Defence of the Russian Federation, Head of the Main Military-Political Directorate of the Armed Forces of the Russian Federation informing about the introduction of training of reserve officers for the military occupational speciality “Military-Political Operations in Troops (Forces)” at the Military Training Centre at VSU in 2023/24 academic year.
- Under the leadership of VSU Rector Dmitry Endovitsky, the team of the MTC at Voronezh State University developed a study guide “Military-political work” (published in 2021 in the publishing house KNORUS (Moscow)), for which the authors were awarded a laureate diploma in the “Acknowledged leader” nomination and an “Honoured author” badge. In December 2022 they also received a first degree diploma of the IX National Book Prize “Gold Fund” in the “Acknowledged leader” nomination and an appreciation letter to VSU Rector.
- In March 2022 VSU Rector Dmitry Endovitsky, Head of the Military Training Centre Yu. N. Korenchuk, and Professor of the Department of General Military Training at the Military Training Centre of Voronezh State University V. G. Shamaev contributed to the All-Russian scientific-practical conference “Dynamics of the development of the military education system”. The conference was held at the Military Training Centre of the Ural Federal University. The delegation from Voronezh participated in the forum via videoconferencing.

The results of the conference were published in the electronic proceedings of the conference with the best research articles of the participants. Among them is the article “Military-political training as a subject in the educational process: reforming, experience, and conclusions”. The article was written by VSU Rector Dmitry Endovitsky, Head of the Military Training Centre Yury Korenchuk, and Professor of the Department of General Military Training, retired lieutenant colonel V. G. Shamaev.

The article “Specific features of training military specialists in a classical university” was also published in the proceedings. The article was written by VSU Rector Dmitry Endovitsky, Head of the Teaching Department and Deputy Head of the Military Training Centre, colonel Evgeny Popov, and Professor of the Department of General Military Training, retired lieutenant colonel V. G. Shamaev.



- In July 2022, VSU Rector Dmitry Endovitsky, Head of the Military Training Centre at VSU Yu. N. Korenchuk, Professor of the Department of General Military Training at the Military Training Centre of Voronezh State University V. G. Shamaev, and Deputy Head of the Military Training Centre, colonel Evgeny Popov contributed to the All-Russian scientific-practical conference dedicated to the 80<sup>th</sup> anniversary of the beginning of the Battle of Stalingrad. The conference was held at the Military Training Centre of the Omsk State Technical University. The delegation from Voronezh participated in the forum via videoconferencing. The results of the conference were published in the electronic proceedings of the conference with the best research articles of the participants. Among the works was the article “The Battle of Stalingrad through the eyes of Wilhelm Adam, colonel of the 6th German Army”. The article was written by VSU Rector Dmitry Endovitsky, Head of the Military Training Centre Yury Korenchuk, Professor of the Department of General Military Training, retired lieutenant colonel V. G. Shamaev, and Head of the Teaching Department and Deputy Head of the Military Training Centre, colonel Evgeny Popov.

- The 5<sup>th</sup> All-Russian research and practice conference with international participation “Theory and practice of military education in civilian universities: a pedagogical search”, dedicated to the 100<sup>th</sup> anniversary of the Hero of the Soviet Union Boris Rossokhin was held at the MTC of the Ural Federal University in Yekaterinburg between 17 and 18 November. The delegation from Voronezh participated in the forum via videoconferencing. The article “Military and political (educational) operations at the Military Training Centre of VSU” was published under the leadership of VSU Rector Professor Dmitry Endovitsky, full member of the Academy of Military Science. The material was compiled together with Head of the Military Training Centre Yury Korenchuk, Professor of the Academy of Military Science Victor Shamaev, and Head of the Teaching Department and Deputy Head of the Military Training Centre Evgeny Popov. The results of the conference have been published in the proceedings with academic papers by the participants.

- On 31 March 2022, state general education institution of the Voronezh Region “Gorozhanka Cossack Cadet School” hosted the 9<sup>th</sup> All-Russian research and practice conference “The main development areas of cadet and Cossack cadet education: approaches and prospects”.

Lieutenant colonels from the MTC of VSU Zlata Morozova and Ivan Korolev presented their report “Cadets’ motivation for military service in the Russian Federation”. It was based on the “dynasty principle: the priority of admitting military personnel family members to educational institutions”. Zlata’s son Lev is a cadet at the Mihailovsky military school, and her father, colonel Stanislav Morozov, is the Hero of the Russian Federation. When she was a child, Zlata lived with her parents in Afghanistan. She has first-hand knowledge of what war is like.

Head of the Teaching Department and Deputy Head of the Military Training Centre Evgeny Popov presented a report “Project on general and military patriotic education for children from childbirth to the graduation from university”.

- On 15 March, a new step in the development of a joint project on education for children from childbirth to the graduation from university was discussed by the heads of the Russian Classical School (private general education institution “School of the Future”) and VSU. The meeting was held in the White Hall of Voronezh State University. The idea of creating a cadet class at the School of the Future was born here, at VSU.



## 10.6. SUMMARY OF KEY ACHIEVEMENTS IN 2022

- A local research and methodology conference dedicated to the 80<sup>th</sup> anniversary of military education at VSU was held online at the MTC as part of the research session. The main speech “The role and place of the system of military training in the education of students” was presented by VSU Rector Dmitry Endovitsky.
- For the first time in the 96-year history of military education at Voronezh State University, the MTC operated in 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.
- MTC received the documents from the Ministry of Defence of the Russian Federation regarding the introduction of new military occupational specialities “Military-Political Operations in Troops (Forces)” and “Psychological Support”.
- 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 organised 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.







## **VSU REGIONAL SCIENTIFIC LIBRARY**







## VSU REGIONAL SCIENTIFIC LIBRARY



**A. Yu. Minakov,**  
Director of the VSU Regional  
Scientific Library

The Regional Scientific Library of Voronezh State University (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 2022, 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](http://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 2022, the unified library collection of Voronezh State University was comprised of **3,087,087** items on physical media in various languages. The collection is comprised of the sources necessary for all the education programmes implemented at VSU according to the thematic and typological acquisition plan: [www.lib.vsu.ru/Преподавателям](http://www.lib.vsu.ru/Преподавателям). The education materials meet the requirements set in the State Educational Standards and exceed them, they also meet the requirements set by VSU. 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 2022, the library collection was enlarged by **15,823** items on physical media. On average, the aggregate collection contained about **121** items per subscriber. The collection was increased by a ratio of 0.5, and the study books collection ratio increased by 1. The majority of items in the collection are books, journals, and scientific and educational literature (Fig. 11.1–11.4).



Figure 11.1

COLLECTION STRUCTURE ACCORDING TO THE TYPES OF ITEMS  
(3,087,087 ITEMS AS OF 1 NOVEMBER)

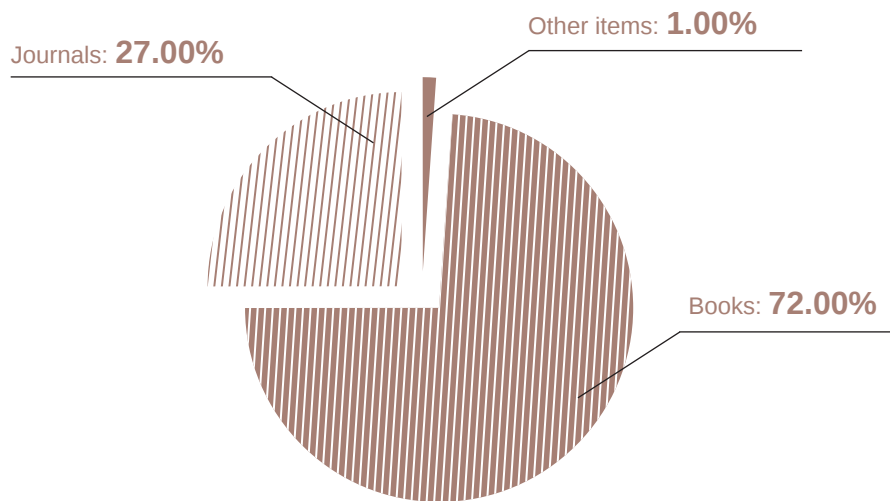


Figure 11.2

COLLECTION STRUCTURE ACCORDING TO THE PURPOSE OF ITEMS  
(3,087,087 ITEMS AS OF 1 NOVEMBER)

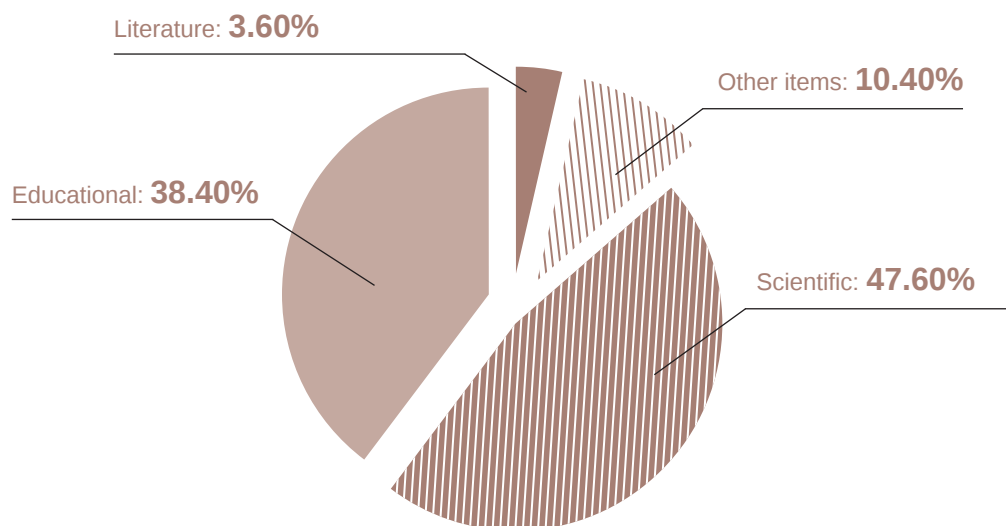




Figure 11.3

### NUMBER OF NEW ITEMS IN THE COLLECTION

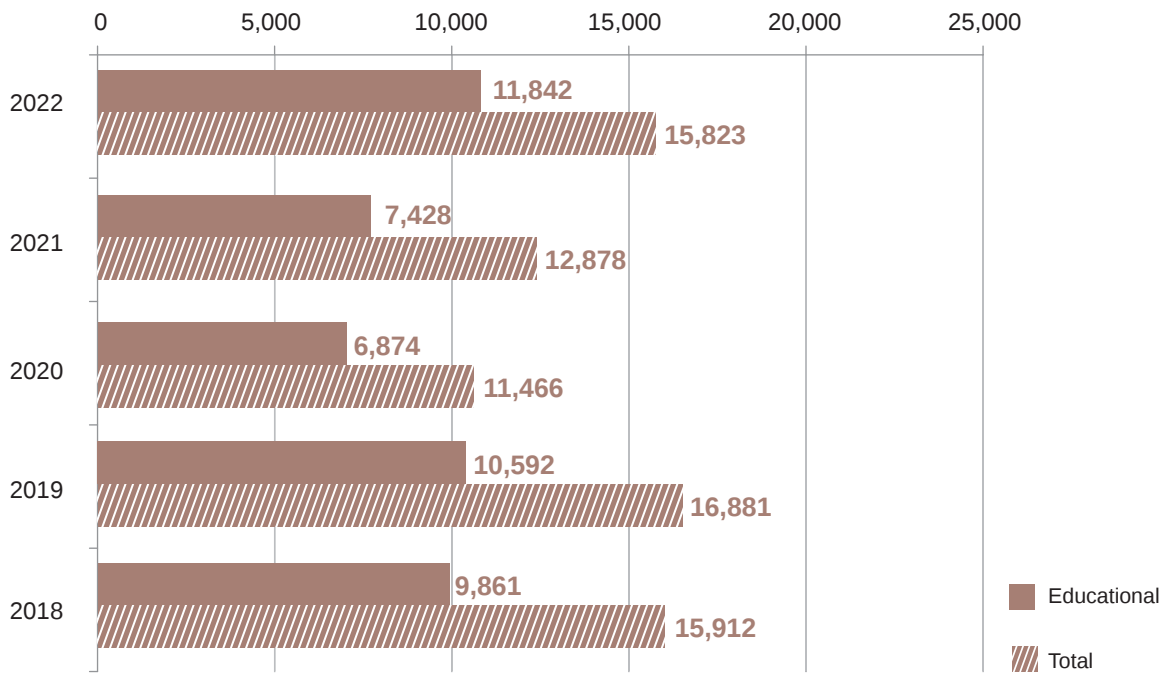
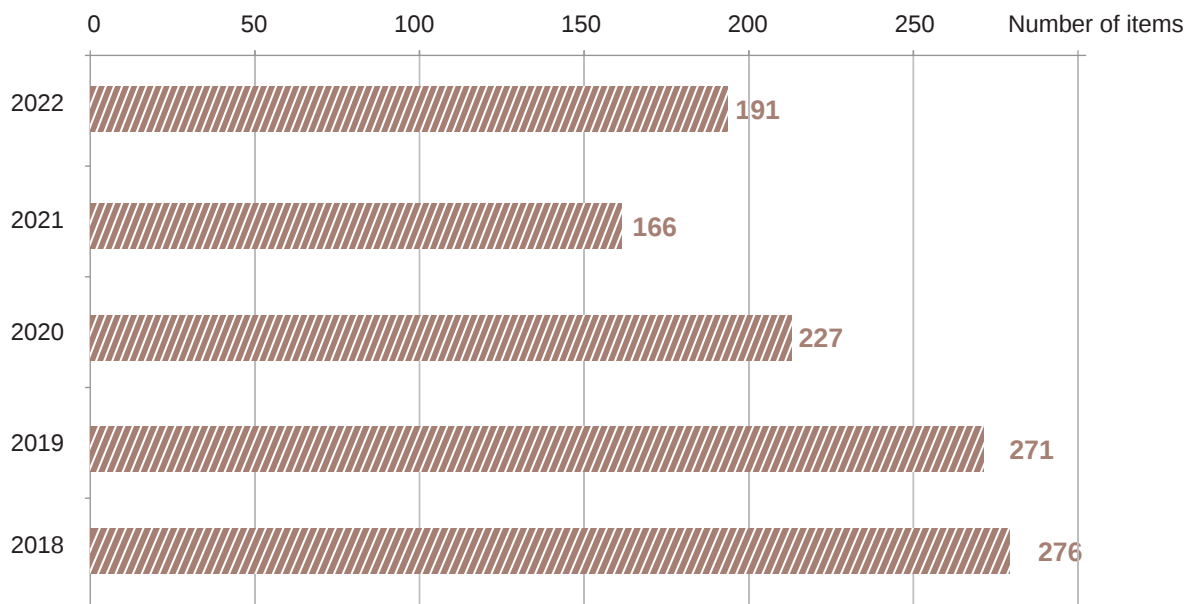


Figure 11.4

### NUMBER OF NEW SUBSCRIPTION PERIODICALS IN THE COLLECTION





Moreover, in 2022, library subscribers were able to gain remote access to **3,015,062** items. To achieve this, the library provided access to **52** information databases, including international ones, via coordinated national subscription. In addition, library subscribers were able to use open access electronic resources and such e-library systems as University Library Online, Politechresurs, Lan Publishing, and Urait. The library has subscribed to the electronic periodicals of IVIS. The library continues to manage a full-text database “VSU E-Library”.

The acquisition expenses amounted to **9,721,402 roubles 99 kopecks**.

The library’s collection of rare documents includes about **100,000** items. It consists of unique Russian and foreign editions of the 16<sup>th</sup>-21<sup>st</sup> centuries, represented by manuscripts, books, and periodicals. The university’s rare book collection was augmented by **91 items** published from the 18<sup>th</sup> to the beginning of the 20<sup>th</sup> century. They had been taken from occupied Voronezh by a German officer and sent back from Germany by his son. The official ceremony of returning the old books to their rightful owner, Voronezh State University, was conducted with the assistance of Professor Wolfgang Eichwede from the University of Bremen.

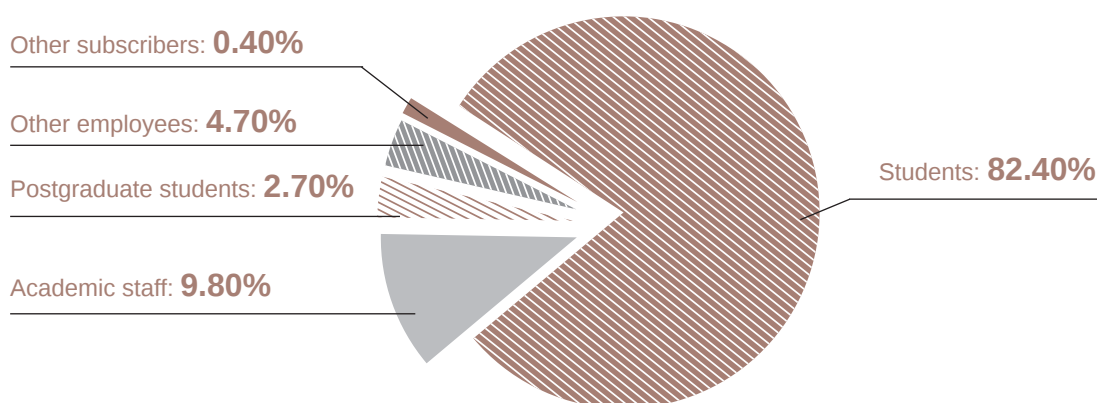
The library maintains its e-catalogue, which provides information about the items in the collection, and can be found on the library website. As of 1 December 2022, the catalogue contained **1,087,276 entries**.

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 2022, the index included **234,275** 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 2022, the University was ranked 21<sup>st</sup> among Russian universities by such an essential bibliometric parameter as the number of publications.

In 2022, there were **25,414 entries** in the unified registration catalogue of the library subscribers (Figure 11.5). Altogether, the library provided its services to **49,968 subscribers**. **101,335 subscribers** were served remotely.

Figure 11.5

#### COMPOSITION OF THE LIBRARY SUBSCRIBERS IN 2022



In 2022, library subscribers were given access to **388,311 items** on physical media, whereas the number of items read online amounted to **523,402**.









## **THE "GALICHYA GORA" NATURE RESERVE**





## THE “GALICHYA GORA” NATURE RESERVE”



**N. Ya. Skolznev,**  
Director of the “Galichya Gora”  
nature reserve

### PROGRESS REPORT FOR 2022

The “Galichya Gora” nature reserve was founded in 1925 in the territory of what is now the Lipetsk Region for conservation and studying the non-native flora of the area. In 1936, the reserve was handed over to Voronezh State University.

It is the only nature reserve under the Ministry of Science and Higher Education of the Russian Federation.

It currently comprises seven separate sites of 11 to 96 hectares each, located in four administrative districts of the Lipetsk Region. The total area of the reserve is 234.4 hectares. “Galichya Gora” is included in the Guinness Book of World Records as the smallest reserve in the world. The protected territory is the centre of the River Don region with unique landscapes and a variety of relict flora and entomofauna.

The reserve is the leading research, educational, and conservation centre of Voronezh State University in the Lipetsk Region. High-profile specialists in botany, zoology, and ecology work at the nature reserve’s research centre. The research centre has 4 laboratories, a variety of collections, a meteorological station, and a scientific library.

The collections include internationally well-known exhibits, such as:

- the Herbarium of the Central Russian Upland and Contiguous Territories (42.63 thousand items),
- the Collection of Invertebrates (298 thousand items), and
- the Mycological Collection (4.64 thousand items).





In 1990, the nursery for carnivorous birds registered in The Red Book of the Russian Federation, was founded. More than 400 saker falcons were released into the wild. Most eyes are bought by falconry lovers from Russia and abroad. The reserve also functions as a rehabilitation centre. The old Russian tradition of falconry is gradually being revived.

The reserve was awarded with a badge of honour for serving Voronezh State University.

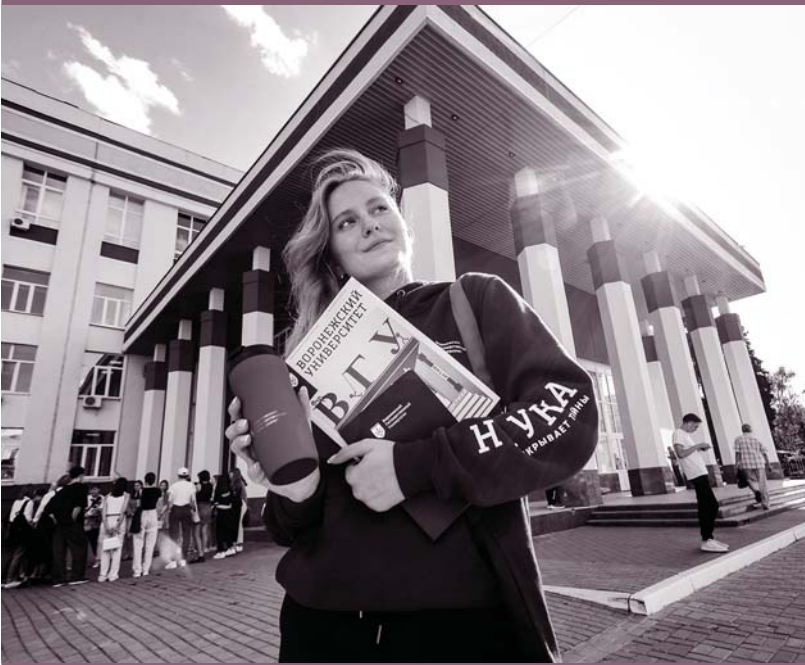
In 2022, research projects were carried out by eight full-time specialists in accordance with the approved research program and plans. The reserve's staff continued to monitor the state and dynamics of the natural habitats. Such monitoring has been carried out continually since 1974. Materials for the 49th 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 taxa of the area: fungi, plants, invertebrates, and vertebrates. The reserve's collections have been enriched.

As a result of the research conducted in 2022, the staff published 24 scientific articles and participated in four international and Russian conferences where they presented six reports. They also prepared and published a new collection of scientific articles (Lipetsk Ornithological Bulletin. Issue 3: collected articles / ed. by V. S. Sarychev. Voronezh, Tsifrovaya Poligrafiya Publ., 2022. 194 p.).

In 2022, experts from the All-Russian Research Institute of Medicinal and Aromatic Plants, 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 employees of the reserve came up with the idea to create a new especially protected natural territory in the Izmalkovo District of the Lipetsk Region where a great Russian scientist and political analyst N. Ya. Danilvesky was born and lived, and together with the Lipetsk Regional Museum of Local Lore they prepared the required project proposals and validations. Academic support of young natural scientists from the Lipetsk Region and other regions of Russia remained another important area of activity of the reserve's scientific department.





# **INFORMATION POLICY**

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## INFORMATION POLICY



**Alexandra O. Ganina,**  
Head of the Department  
of Information Policy

The Department of Information Policy of VSU creates and distributes content on the university's channels. In 2022, VSU used seven channels:

- Website: [vsu.ru](http://vsu.ru)
- Groups on the VKontakte social network: [vk.com/vsumain](https://vk.com/vsumain) and [vk.com/abitur\\_vsu](https://vk.com/abitur_vsu)
- Telegram channels: [@vsumain](https://t.me/vsumain) and [@abiturvsu](https://t.me/abiturvsu) (a channel for entrants)
- YouTube and Rutube-channels
- A page on the Odnoklassniki social network
- Voronezh State University newspaper

### WEBSITE

In 2022, **940** news stories were published on the university's website. The most fruitful month was November (**140** news stories).

New faculty tags were introduced on the website. Now, it is possible to see which faculties are most interested in publishing materials about themselves. The leaders were the Faculty of Philology, the Faculty of Geography, Geology, and Tourism, the Faculty of Physics, the Faculty of Journalism, and the Faculty of Computer Sciences.

Since the introduction of tags, the most popular sections have been Education (**3,257** news items), Science (**2,066**), and Collaboration (**2,004**). In addition, irrelevant videos and tags were removed from the website.





Версия для слабовидящих  
Сведения об образовательной  
организации



**ВГУ**  
ВОРОНЕЖСКИЙ  
ГОСУДАРСТВЕННЫЙ  
УНИВЕРСИТЕТ  
*Semper in motu*

Технологии Gop



## VORONEZH STATE UNIVERSITY NEWSPAPER

Voronezh University (VU) is a full-colour corporate newspaper published in magazine format. The newspaper regularly publishes the most important and interesting news stories of the university, exclusive stories by full-time and freelance authors, opinions and statements by representatives of the university community dedicated to important topics. Among the key topics are science, cooperation with the business community, culture, education, and student life.

All issues were published by VSU's Publishing House. The newspaper production cycle uses two types of production: offset printing and with the help of digital equipment.

### TYPE-FORMING FEATURES

**Format:** A4 (staple binding).

**Frequency:** monthly.

**Print parameters:** the edition is published on glossy paper, full-colour, with a large number of illustrations.

**Design:** a lot of spaces between lines and letters, a combination of bright illustrations and classical design; a consistent heading and text format (section – header – author's signature – lead – text); alternated single-column and two-column layout.



**Goals:** to create a positive image of the institution, i.e. an image of a prestigious university, in the university community (within the university and beyond, at the municipal and regional levels); to provide an objective coverage of the university life; to tell the audience about the present and past of the university, to contribute to the preservation of its traditions, and to form new social and cultural drivers of VSU; to tell the audience about people and events at the university.

**Audience:** university community (administration, academic staff, employees, VSU students, entrants and their families).

**Distribution:** educational buildings of VSU and institutions subordinate to VSU (Borisoglebsk branch, the “Galichya Gora” Nature Reserve, etc.). The digital version of Voronezh State University newspaper is available on the VSU website: <http://www.vsu.ru/ru/publishing/npvu/> and in the official group of VSU on the “VKontakte” social network: [vk.com/vsumain](https://vk.com/vsumain).

**Content and genres:** most texts are devoted to the achievements of the university in the area of science, events in which the university administration and its key representatives take part, and business partnerships. In addition, the editorial board pays great attention to student life, biographies of academic staff members, history, and culture of the university, memorable events at faculties. Information genres predominate (articles, reports, photo reports, and interviews). Historical essays and portrait interviews are also popular.

**Print run:** 900 copies (since 2022; previous print run: 800 copies).

#### PREPARING ISSUES OF THE NEWSPAPER IN 2022

The structure of each issue follows the hierarchy:

**university → faculty → department**

This reflects the key mission of the university: to be an educational centre, a unique “house of knowledge”. Such structure allows covering large social groups at the university: academic staff and students.



The cover of the newspaper also contributes to this goal: each issue has an original cover that matches the theme of the issue. The goal of the editorial board is to cover the maximum number of faculties at the university during the year and to show in the newspaper their activities and current situation. The authors of the newspaper try to evenly distribute the amount of coverage for each faculty to avoid an unbalanced representation of faculties.

In 2022, there were regular news stories dedicated to the following faculties: the Faculty of Geography, Geocology, and Tourism, the Faculty of Philology, the Faculty of Law, the Faculty of Physics, the Faculty of Computer Sciences, the Faculty of Applied Mathematics, Informatics and Mechanics, the Faculty of Romance and Germanic Philology, the Faculty of Chemistry. Traditionally, the 8th issue of the newspaper was dedicated to Knowledge Day and the 12th issue was dedicated to the New Year.

In 2022, 12 issues of the newspaper were published, including one double issue (No. 6–7 of 30.06.2022) and one special issue dedicated to the Day of Higher Education Lecturers (No. 11 of 18.11.2022), in which a representative from each faculty of VSU spoke about the lecturer's mission and their teaching paths. Thus, we drew the attention of the university community to the professional holiday and to the profession of lecturer as a whole. In this issue, the reader can learn about the history of different VSU faculties, learn the names of outstanding lecturers and scientists, who contributed to the development of science on the university, regional, and national levels. This allows preserving information about important events in the past and strengthening the connections between generations. As a result, this helps students and young researchers to more clearly understand the importance of their activities and to choose their career paths.

In November, a special issue of Never Before (No. 39 of 14.11.2022) was published. This English supplement to the newspaper (editor-in-chief M. Sternina) was also dedicated to the Day of Higher Education Lecturers.

In 2022, partnerships were established with a number of organisations that became advertisers of the newspaper. One of them was the optical store “Glazastik”, whose advertisements were published in issues 9–12.

The list of vacancies for the academic staff provided by the Personnel Department is published regularly in the issues of the newspaper. For example, in 2022, the lists of vacancies were published in numbers 4, 5, 6–7, and 11.

#### WORK WITH AUTHORS

The editorial board of the newspaper attracted freelance authors and created the so-called “correspondent reserve” at the faculties and structural subdivisions of the university. In the summer, the editorial office worked with interns, students from the Faculty of Journalism.

This allowed adding a number of representatives of various areas of the university to the team of newspaper authors: pedagogical and scientific communities, students, and university staff.





Groups of full-time and freelance authors include the following subgroups.

#### FULL-TIME AUTHORS OF THE VORONEZH STATE UNIVERSITY NEWSPAPER IN 2022

**Writers:** Alexandra Ganina, Pavel Ponomarev, Mikhail Shteinberg, Angelina Tatarintseva, Ekaterina Kochetova, Anna Novokhatskaya, and Julia Belaya.

**Photographers:** Dmitry Chernov, Yulia Ustyantseva, Sergei Chechenev, Alexander Isaev.

**Layout, design:** Yulia Ustyantseva.

#### FREELANCE AUTHORS OF THE VORONEZH STATE UNIVERSITY NEWSPAPER IN 2022

**Lecturers/researchers:** Mariana Rosenfeld, Vladimir Kostin, and Ludmila Nadezhka.

**Employees:** Alexandra Stepykina, Vladimir Ryapolov, Elvira Parkhots, and Ekaterina Mikhailuk.

**Students:** Alena Cherevatuk, Irina Golik, Julia Sokolova, Daniil Sopin, and Anastasia Orekhova.

**Interns:** Rimma Troynikova and Alisa Onishchenko.

**Creative teams:** representatives from structural subdivisions of the university: the Faculty of Physics, the Department of Solid State and Nanostructure Physics.

#### SECTIONS IN 2022

In 2022, a number of new sections were added to such traditional newspaper sections as “Partnership”, “Students’ Life”, and “Science”.

“**Service of the Russian Language**” is a regular column by M. Rosenfeld (issues 5-12) devoted to current issues of the contemporary Russian language and pronunciation.

“**#VSU\_recommends**” (issues 6/7-12) is a column in which academic staff and other employees of the university talk about their favourite mass art works and cultural preferences.



“**Night. Camera. Library**” (issues 5-8) is a joint project of the editorial board of the Voronezh State University newspaper and VSU library, in which representatives from the university (students, academic staff, and other employees) perform as characters from literary works and tell stories about them. The material was published as a series of photographs and accompanying texts.

The following sections were featured in the newspaper in 2022:

- Events
- Research
- Student life
- Partnership
- History (by M. Shteinberg)
- Interview
- Education
- Culture
- Dates
- Sports
- University person
- Career
- University without borders

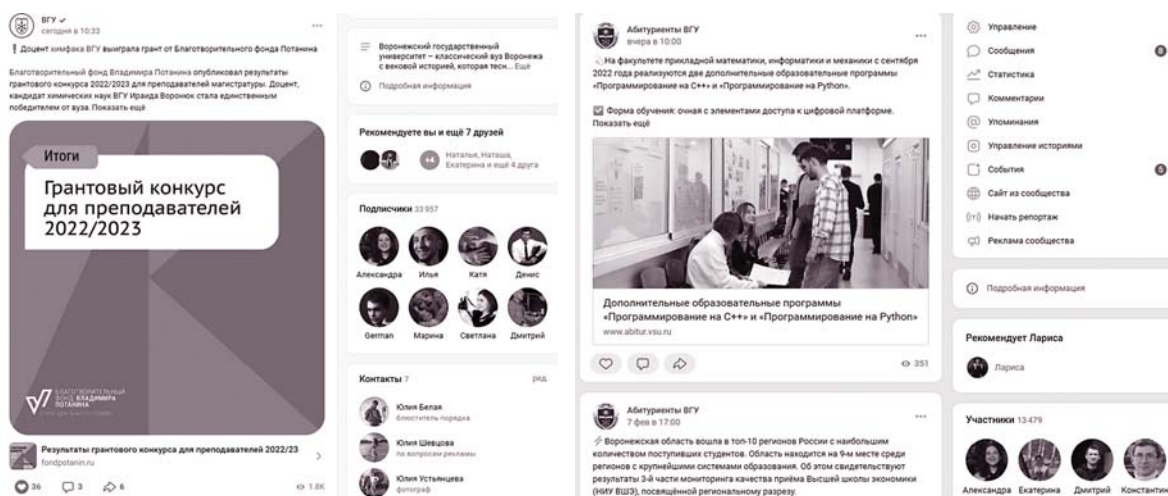


A total of 17 columns were published in the newspaper in 2022.



## “VSU” AND “ABITURIENT VSU” COMMUNITIES ON THE VKONTAKTE SOCIAL NETWORK

During the year 2022, the number of subscribers to the VSU community on the VKontakte social network increased by 2,050 users and reached 33,725 subscribers as of 31.12.2022.



The “Abiturient VSU” community, whose audience constantly changes, grew by over 850 users and reached a total of 13,444 subscribers (31.12.2022).

In 2022, the “VSU” group was verified and gained the status of an official university community. In February, the “VSU” group was included in the ranking of university media activity published by the Ministry of Education and Science of the Russian Federation. VSU took sixth place out of over 200 for the effectiveness of its social media.

At least five posts are published on university communities every day. The main focus is on student life, education, and research. The university also publishes information about the key events and competitions, as well as surveys, announcements, videos, and photos.

In 2022, new sections were introduced in the community, which show high rates of user engagement and click-through rates (CTR between 0.5 and 1.5): These are posts within the “#vsu\_recommends” and “Friday nostalgia”.

The official university community also regularly hosts the “Yes, future!” podcast, which is particularly popular among the student audience of the community.



## “YES, FUTURE!” PODCAST

“Yes, future!” podcast is a dialogue between the presenters, staff, and students from VSU who discuss issues of concern among the community of students.

Between March 2022 and January 2023, 11 episodes were produced, the duration of each was 30-45 minutes.

The statistics for the best episodes:

- 1st episode “Anxiety: How to handle it? A supportive episode” of 28.03.2022  
227 listens, 88 likes, 82 reposts, 2 comments
- 3rd episode “Planning, chronotypes, and deadlines. The episode that will save your time” of 25.04.2022  
80 listens, 32 likes, 28 reposts, 2 comments
- 5th episode “Scholarships, discounts, and coffee costs. The episode that will save your money” of 27.06.2022  
141 listens, 51 likes, 40 reposts, 5 comments
- 6th episode “What am I to do when I graduate? Final episode”  
99 listens, 38 likes, 43 reposts, 15 comments
- 7th episode “How to learn to learn? A motivational episode”  
102 listens, 57 likes, 81 reposts, 0 comments

ВГУ ✓  
28 мар 2022

Мы запустили новый подкаст – “Yes, future!”

Подкаст о том, что волнует и вдохновляет современных миллениалов-зумеров: ментальное здоровье, карьера, отношения, путешествия, жизненные выборы и многое другое.

Зачем мы придумали этот подкаст? Потому что хотели создать пространство для общения, обмена опытом и мыслями – как будто на кухне с друзьями. А ещё потому, что это мечта одной из наших соведущих.

Кто мы? Сотрудники и студенты Воронежского государственного университета: Аня Новохатская, Маша Хорошилова, Саша Ганина и Серёжа Чеченев.

Будем рады отзывам, оценкам и любой обратной связи!

**Тревожность: как с ней справиться? Поддерживающий выпуск**

ВГУ

▶ СЛУШАТЬ

37 мин



## ODNOKLASSNIKI, YOUTUBE, AND RUTUBE

VSU has channels on YouTube (<https://www.youtube.com/user/VSUPRESS>),

Rutube (<https://rutube.ru/channel/25506975/>), and Odnoklassniki social networks (<https://ok.ru/profile/587590960610>).

In the reporting year, the videos published on the channel were viewed 57,560 times. The channel currently has 2,200 subscribers.

In 2022, the Rutube channel featured regular videos “**7 questions to a scientist**”, a new format aimed at popularising science among young people and ensuring feedback from the student community. The characters in the videos are university academics answering questions which students have asked on social media.

### PROJECT “7 QUESTIONS TO A SCIENTIST”

Each issue of this media project aimed at popularising science and the profession of scientist features a university employee or a representative of a scientific area.

- 1st episode “7 questions to a scientist: Gavriil Melkumov” of 10.10.2022.  
214 views, 217 likes, 98 reposts, 2 comments
- 2nd episode “7 questions to a scientist: Alexei Maximov” of 28.11.2022.  
146 views, 85 likes, 57 reposts, 6 comments
- 3rd episode “7 questions to a scientist: Ekaterina Strelnikova” of 23.12.2022.  
78 views, 72 likes, 18 reposts, 0 comments
- 4th episode “7 questions to a scientist: Dmitry Zhukalin” of 01.02.2022.  
109 views, 106 likes, 40 reposts, 2 comments

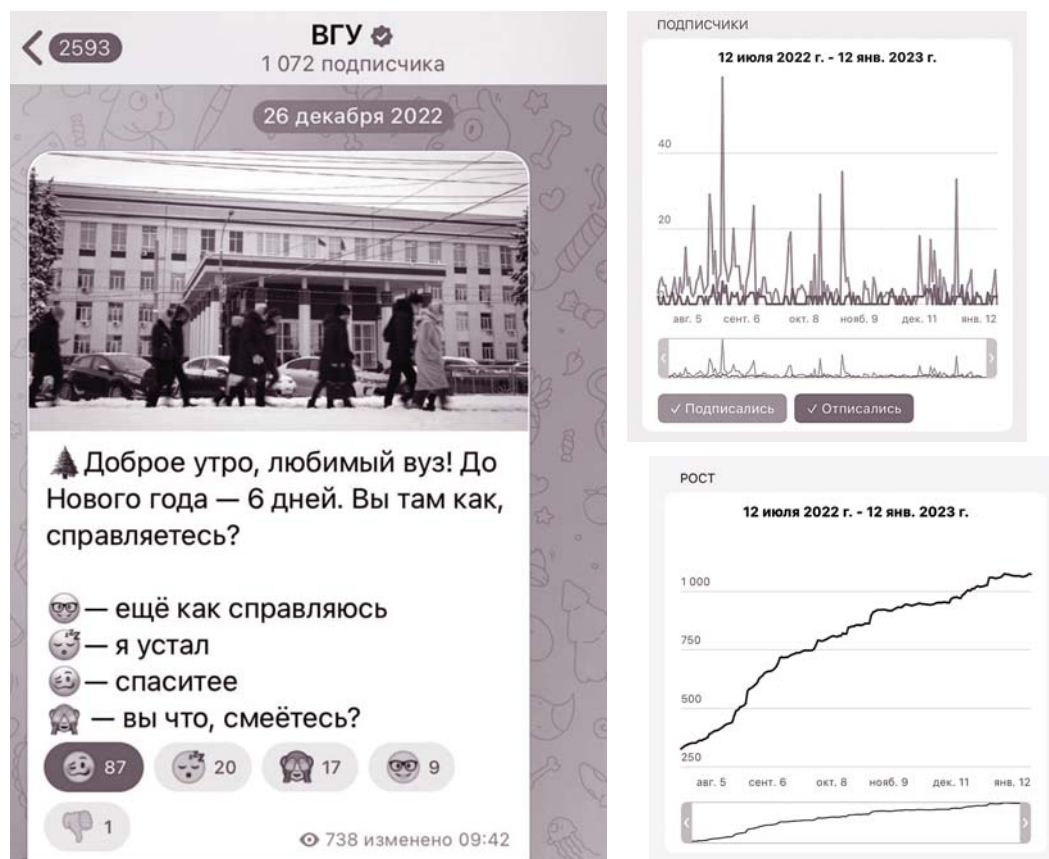






## TELEGRAM CHANNEL

The VSU Telegram channel was created at the end of April 2022. Over nine months, the number of subscriptions increased to 1,142 (as of 10.02.2023). On average, 108 subscriptions are added each month. The average number of views per month is 857, the number of comments is 31 and likes 648. A total of 50 to 90 posts a month are published.



## COOPERATION WITH MEDIA

In 2022, the Department of Information Policy collaborated with the Argumenty i Fakty (AIF) portal, OOO RBC-Chernozemye, and ITAR-TASS. A total of 30 stories were published on these platforms:

- Argumenty i Fakty: 16 news stories, 2 articles
- OOO RBC-Chernozemye: 7 stories and interviews with the rector
- ITAR-TASS: 3 news stories, 2 articles in the Science feed

Examples of news stories:

**AIF:** Voronezh State University opens a computer graphics laboratory ([vrn.aif.ru/edu/study/v\\_voronezhskom\\_universitete\\_otkryli\\_laboratoriyu\\_kompyuternoy\\_grafiki](http://vrn.aif.ru/edu/study/v_voronezhskom_universitete_otkryli_laboratoriyu_kompyuternoy_grafiki)).

Bright minds. A congress of young scientists held in Voronezh ([https://vrn.aif.ru/society/svetlye\\_ummy\\_v\\_voronezhe\\_proshel\\_kongress\\_molodyh\\_uchenyh](https://vrn.aif.ru/society/svetlye_ummy_v_voronezhe_proshel_kongress_molodyh_uchenyh)).

**Interview with a rector, RBC:** (<https://chr.plus.rbc.ru/partners/62c3d4917a8aa931d2309373>).

**TASS:** (<https://tass.ru/ekonomika/16219057>; <https://nauka.tass.ru/nauka/13377655>).





СИСТЕМА СЕРТИФИКАЦИИ РУССКОГО РЕГИСТРА  
RUSSIAN REGISTER CERTIFICATION SYSTEM



Annex to the Certificate  
№ 21.2150.026  
of 22<sup>nd</sup> November, 2021  
registration form № 01-017362

**Certification scope of management system of  
Voronezh State University**

1. Product / s  
of higher  
activities.

2. The require  
of QMS.

Director Gene  
Association "R

СИСТЕМА СЕРТИФИКАЦИИ РУССКОГО РЕГИСТРА  
RUSSIAN REGISTER CERTIFICATION SYSTEM



Приложение к Сертификату  
№ 21.2150.026  
от 22 ноября 2021 г.  
бланк № 01-017361

**Область сертификации системы менеджмента  
Федерального государственного бюджетного образовательного  
учреждения высшего образования "Воронежский  
государственный университет" (ФГБОУ ВО "ВГУ")**

1. Продукция / услуги: проектирование, разработка и предоставление образовательных услуг в области высшего, среднего профессионального и дополнительного образования; научно-исследовательская и инновационная деятельность.

2. Требования п. 8.5.5 ISO 9001:2015 не применяются к области сертификации СМК.

Генеральный директор Ассоциации по сертификации "Русский Регистр"  А.В. Владимирцев

1-1



**ANALYSIS  
OF THE UNIVERSITY'S  
QUALITY  
MANAGEMENT SYSTEM  
BY THE MANAGEMENT**

14



## **ANALYSIS OF THE UNIVERSITY'S QUALITY MANAGEMENT SYSTEM BY THE MANAGEMENT**



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

### **14.1. AIMS AND OBJECTIVES OF THE ANALYSIS OF THE UNIVERSITY'S QUALITY MANAGEMENT SYSTEM**

The university management analyses the university's quality management system (hereinafter referred to as QMS) with due account of the quality policy and objectives in order to assess its effectiveness, to determine the level of its performance, and to consolidate information related to its functioning.

The analysis procedure is designed in accordance with section 9.3 of the international standard ISO 9001:2015 Quality Management Systems – Requirements. The purpose of the QMS analysis is to assess the opportunities for improvement and the need for changes in the quality management system of VSU to ensure its feasibility, adequacy, effectiveness, and consistency with the strategic areas of the university's development.

#### **Objectives of the analysis:**

1. To determine:

- The effectiveness of the QMS.
- The degree of achievement of quality objectives.
- The degree of clients' satisfaction.
- The degree of compliance of services and products with client requirements.
- The status of nonconformities and corrective actions.
- The effectiveness of response to risks and opportunities.



## 2. To identify:

- Changes in external and internal factors related to the QMS.
- The areas and opportunities for its improvement.

The university's QMS is based on the process approach and risk-oriented management implemented as tools to prevent possible difficulties, minimise risks, and to implement opportunities most effectively.

A Quality Council was created at the university. Its purpose is to coordinate the process of development, implementation, and continuous improvement of the QMS.

During the reporting period, the Quality Council considered the following issues:

1. The results of the certification audit of the QMS of VSU.
2. Corrective action plan based on the results of the certification audit.
3. The main bylaws governing the functioning of the QMS at the university.
4. Internal audit programme for 2022.
5. Results of the student survey for the academic year 2020/21.
6. Interim results of internal audits for March-May 2022.
7. Schedule for updating the bylaws of VSU in 2022.
8. Quality objectives and action plan for academic year 2022/23.
9. Internal audit programme for October-December 2022.
10. Preparation for the external surveillance audit of the QMS.
11. The results of the first surveillance audit of the QMS of VSU.
12. Corrective action plan based on the results of the surveillance audit.
13. Preparing to conduct a questionnaire survey of students.

The results of the QMS analysis are aimed at improving the functioning of the university's processes and can be used by all stakeholders.



# 14

## **14.2. THE STATUS OF RESPONSES TO PREVIOUS QMS PERFORMANCE ANALYSES BY THE MANAGEMENT**

Based on the results of the previous performance analysis and improvement of the QMS of VSU, the quality objectives for 2022 were revised.

During the reporting period, the number of processes was reduced to seven, which made it possible to concentrate efforts to achieve the objectives and improve process and management effectiveness. We improved the Quality Manual in terms of response to risks and opportunities, as well as internal regulatory documents governing the main processes.

The quality objectives and action plan of Voronezh State University for the academic year 2022/23 were developed. Taking them into account, the action plan of the structural units is being designed.

In order to minimise the risk of changes in legislation, the university constantly monitors the emergence of new laws and regulations of the Government of the Russian Federation and the Ministry of Science and Higher Education and amendments to existing ones. In order to bring the university's bylaws in correspondence with federal legislation and to improve its performance, 292 documents were approved in 2022, including 75 provisions, 73 provisions on structural divisions, 33 instructions, 5 standard job descriptions, 3 plans, 1 manual, 1 documented procedure, 1 regulation, and 98 forms. These documents are available on the webpage "VSU: Education Quality" <http://www.tqm.vsu.ru/>.

These and other documents allow the university to regulate the provision of educational services in accordance with Russian law and with the VSU Charter, combining the principles of single authority and collegiality.



### 14.3. CHANGES IN EXTERNAL AND INTERNAL FACTORS INFLUENCING THE UNIVERSITY'S QMS

The surveillance audit by the Certification Association "Russian Register" extended the validity of the certificate obtained by the university for designing, developing, and providing educational services in the area of higher, secondary vocational, and further education, research, and innovation activities.

During the reporting period, accreditation indicators were introduced at the federal level. The educational programmes accredited as of March 1, 2023 were granted the indefinite status. Rosobrnadzor introduced periodic accreditation monitoring based on the risk-oriented approach to control and supervision activities.

Due to the introduction of the federal state requirements, the main educational programmes for training of academic staff at postgraduate level were significantly amended. Also, there were changes in the admission rules for postgraduate programmes determining the enrolment of students.

In 2022, VSU obtained licences for the following new education programmes:

#### **Secondary vocational education**

- 09.02.07 – Information Systems and Programming

#### **Master's degree**

- 09.04.04 – Software Engineering
- 11.04.02 – Information and Communication Technologies and Communication Systems
- 12.04.03 – Photonics and Optical Informatics
- 31.08.05 – Clinical Laboratory Diagnostics





The following programmes successfully underwent the state accreditation process:

**Secondary vocational education**

- 38.02.01 – Economics and Accounting (area-based) (Borisoglebsk Branch)

**Bachelor's degree**

- 38.03.10 – Housing and Utilities Infrastructure

**Master's degree**

- 39.04.01 – Sociology (the Faculty of History)
- 44.04.01 – Pedagogical Education (Borisoglebsk Branch)

New educational programmes were developed and approved in the following specialities:

**Bachelor's degree**

- Field of study: Embedded Systems and the Internet of Things (speciality 09.03.02 – Information Systems and Technologies)
- Field of study: Economic Analysis and Audit (speciality 38.03.01 – Economics)

**Master's degree**

- Field of study: Business Journalism and Corporate Communication (speciality 42.04.02 – Journalism)
- Field of study: Economics and Human Capital Management (speciality 38.04.01 – Economics)

The Borisoglebsk branch of VSU graduated its first master's students under programme 44.04.01 – Pedagogical Education (field of study: Pedagogy of Professional Education). Twelve people successfully passed the final state examination and defended their graduate qualification papers.



## 14.4. INFORMATION ON THE UNIVERSITY'S QMS PERFORMANCE AND EFFECTIVENESS INDICATORS FOR THE MAIN PROCESSES

The analysis of the university's QMS effectiveness was carried out according to several indicators.

### 1. Client satisfaction and feedback from relevant stakeholders.

During the reporting period, the university received 67 appeals. All appeals were registered in the electronic register of appeals of the Administration Department of VSU and forwarded to the relevant subdivisions for review and decision-making. If necessary, measures to improve processes were taken as a result of the review of appeals.

In order to determine the degree of satisfaction with the quality of education at the university, an annual survey was conducted to study the students' opinion on the quality of services. In 2022, 9,354 students took part in the survey, including 6,857 bachelor's degree students (73.4%), 865 specialist's degree students (9.2%), and 1,632 master's degree students (17.4%). 2,618 respondents were first year students. The survey was conducted using three questionnaires: Evaluation of the Quality of Education Under Higher Education Programmes, Evaluation of the Quality of Education Under Secondary Vocational Education Programmes, and Freshman Questionnaire.

The results of the study showed an increasing trend in students' satisfaction with the quality of education since 2020 (Figure 14.1). In 2022, the index of overall satisfaction was 0.62 points, it increased by 5% compared to the previous period (in 2021 it was 0.59, and 0.57 in 2020). The index of satisfaction of freshmen also increased by 8.5% compared to 2021 (0.47 in 2021 vs. 0.51 in 2022). As for the index of satisfaction with education under the chosen programme, it exceeded the level of 2021 (0.57 in 2021 vs. 0.59 in 2022).

Students highly rated such factors as the level of teaching and content of courses, the attitude of library and educational support personnel, as well as the availability and sufficiency of text books and study guides. There was a trend of increasing satisfaction with availability and sufficiency of electronic textbooks, level of teaching specialised courses, level of teaching physical education (the increase of indices compared to the previous year was 14, 4, and 56% respectively). Among the factors reducing the degree of satisfaction, students noted the university's facilities, the opportunity to choose specialised elective courses, and the attitude of dean's office staff to students. The decline in these parameters was respectively 11, 28, and 6% compared to the figures in 2021. Despite the positive dynamics of the indices, the quality of medical care and catering were rated traditionally low (Figure 14.2).



Figure 14.1

### THE LEVEL OF STUDENTS' SATISFACTION WITH THE QUALITY OF EDUCATION, INDICES BY FACULTIES

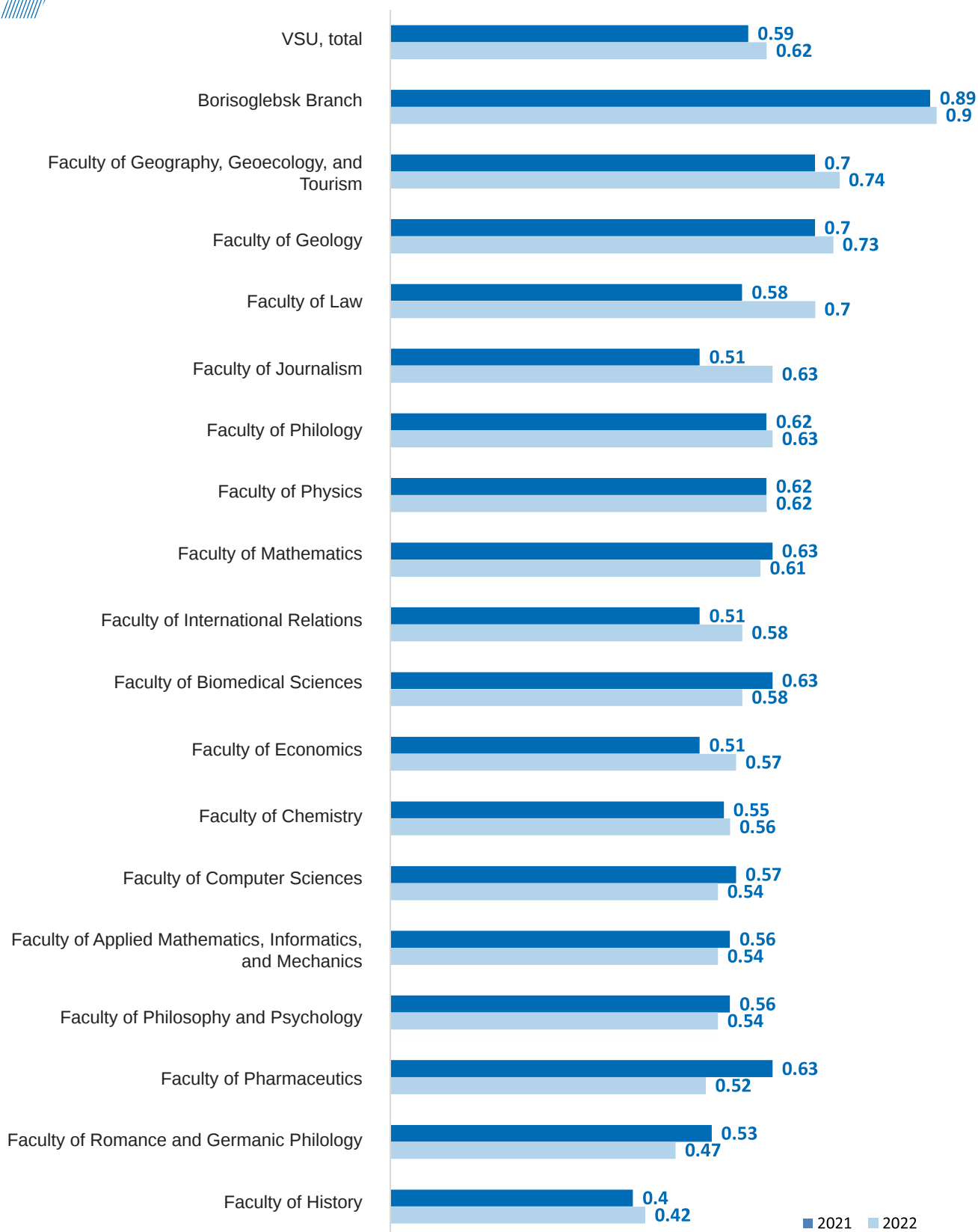
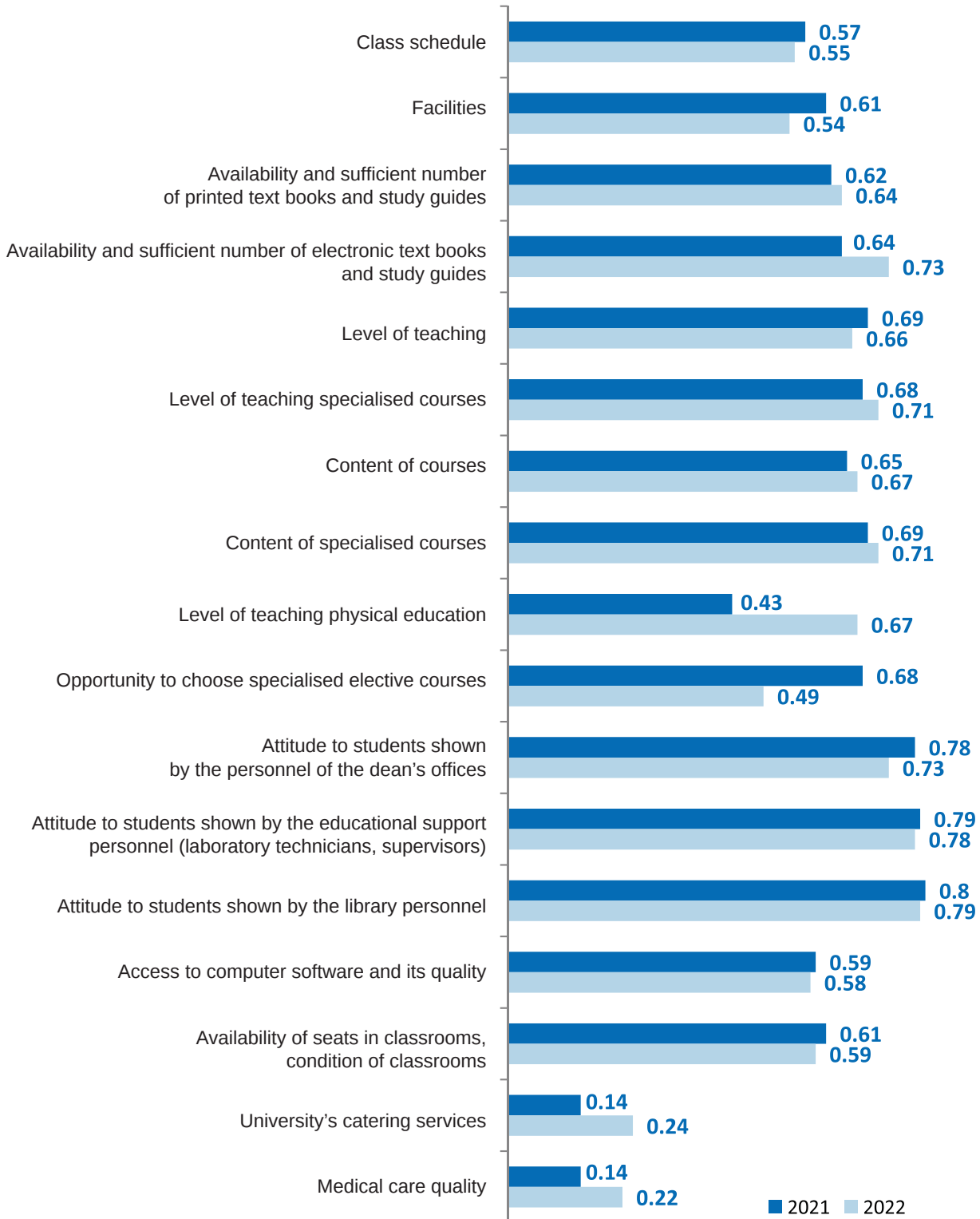


Figure 14.2

## STUDENTS' SATISFACTION WITH EDUCATIONAL PROCESS ELEMENTS



# 14

The implementation of research and project activities was assessed by the level of students' involvement. In 2022, 30% of university students were involved in such activities, including participation in conferences, preparation and publication of articles and theses, and participation in start-ups and scientific competitions (Table 14.1).

Table 14.1

## NUMBER OF STUDENTS PARTICIPATING IN RESEARCH AND PROJECT ACTIVITIES IN 2022, BY FACULTY

Faculty	Share of students, %
VSU, total	30.04
Faculty of Philology	50.5
Faculty of International Relations	49.7
Faculty of Biomedical Sciences	46.1
Faculty of Philosophy and Psychology	45.9
Faculty of Journalism	38.3
Faculty of Chemistry	35.1
Faculty of History	32.2
Faculty of Economics	32.1
Faculty of Geology	31.6
Faculty of Law	26.8
Faculty of Geography, Geoecology, and Tourism	25.0
Faculty of Romance and Germanic Philology	24.8
Faculty of Computer Sciences	24.6
Faculty of Physics	20.0
Faculty of Applied Mathematics, Informatics, and Mechanics	18.0
Faculty of Mathematics	16.8
Faculty of Pharmaceutics	14.8



In view of the decline in students' satisfaction with the university's facilities in 2022, the Academic Council of VSU approved the Programme for Developing the Facilities of VSU for the Execution of the State Assignment and the Provision of Commercial Educational Services for the Period of 2023–2026. In order to increase students' engagement and interest in research activities, the university has developed programmes to integrate project-based learning into the educational process. This includes the research, production, social, commercial, and other types of projects.

In 2022, VSU took part in the 25th All-Russian competition of the “100 Best Russian Products” programme, where an independent assessment by consumers and stakeholders confirmed the high quality of the university's services in the higher education system. The university was awarded a diploma of the competition laureate and an honorary “Golden Hundred” diploma (Figure 14.3).

Figure 14.3

#### DIPLOMAS OF THE 25TH NATIONAL COMPETITION “100 BEST RUSSIAN PRODUCTS” RECEIVED BY THE UNIVERSITY IN 2022



A high level of services provided by the university was also proved by professional and public accreditation. The register of educational programmes which underwent professional and public accreditation is available on the official website of VSU in the section “Information About the Educational Organisation” (<http://www.vsu.ru/sveden/education/>). It currently contains 85 accredited educational programmes. The accrediting organisations were: the union of the Voronezh Regional Chamber of Commerce and Industry, National Association of Telecommunication Companies “Quality Control for Infocommunications”, All-Russian Public Organisation “Association of Russian Lawyers”, and Non-Profit Autonomous Organisation “International Academy of Management and Quality of Business”.



# 14

## 14.5. THE DEGREE OF ACHIEVEMENT OF QUALITY OBJECTIVES FOR THE UNIVERSITY'S MAIN PROCESSES

The quality objectives of the university for 2022 were:

1. To conduct an external independent assessment of the quality of education at VSU.
2. To arrange preparation for control and supervisory activities.
3. To update the functioning of the university's QMS in accordance with the process model. To ensure the preparation and organisation of the university's QMS certification to confirm its compliance with the requirements of international standard ISO 9001:2015. To demonstrate the evolution of the QMS of VSU in terms of its main processes.
4. To assess the quality of implementation of educational programmes in all specialities based on the results of internal independent evaluation of the quality of education.
5. To assess the quality of students' training under the university's educational programmes.
6. To assess the satisfaction of clients and executives with the quality of the educational process.

In 2022, the quality objectives were fully met.

1. In 2022, VSU once again underwent an independent quality assessment of the conditions of academic activities. *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 to examine the conditions of academic activities. The university received high scores on the main criteria, which was confirmed by the Independent Quality Assessment Certificate 2022 ([https://nok-mon.ru/sertificateNOK2/sertificate\\_302.pdf](https://nok-mon.ru/sertificateNOK2/sertificate_302.pdf), Figure 14.4).

Figure 14.4

CERTIFICATE OF INDEPENDENT ASSESSMENT OF THE CONDITIONS OF ACADEMIC ACTIVITY ISSUED BY OOO VERKONT SERVICE, A FEDERAL OPERATOR FOR INDEPENDENT QUALITY ASSESSMENT



- In order to arrange preparation for control and supervision activities, the list of documents subject to inspection by Federal Service for Supervision in Education and Science (Rosobrnadzor) was analysed, and a preparation plan was drawn up. In addition, the necessary registers were developed to enable the structural units to use the university-wide data for the design of educational programmes.

An electronic resource for keeping documents required for supervision activities is being developed and populated.

- In order to demonstrate the evolution of the QMS of VSU in terms of the main processes in 2022, the objectives were formulated and the plan of quality enhancement measures for the year was developed, the rector's order on planning in the sphere of quality was issued.

A programme of internal audits in the structural units of VSU for the year was prepared, taking into account the need to cover most structural units and all processes implemented by the university.

The results of internal audits for 2022 were summarised, deviations, inconsistencies, and concerns in the system processes were identified and discussed at the meeting of the Quality Council. A schedule for updating the local acts of VSU for 2023 was developed, taking into account the recommendations of the external auditor.

# 14

4. Assessment of the quality of implementation of educational programmes for all specialities at the university is carried out as part of the internal system of independent education quality assessment, as well as external independent quality assessment of educational programmes. It takes into account the opinion and satisfaction of clients and all stakeholders, including assessment for compliance with federal educational standards, assessment by representatives of professional communities and employers, assessment of the quality of the conditions for academic activity, and assessment of the quality of the university management system for compliance with international ISO standards.

To ensure the functioning of the internal system of independent quality assessment at the faculties, the plans for internal independent assessment of the quality of education were developed.

The use of e-learning and distance learning technologies is being actively introduced in the educational process. In this regard, university's bylaws regulating the remote attestations have been modified, and the proctoring service has been introduced.

5. As part of assessing the quality of students' training under the university's educational programmes, VSU developed and tested the assessment materials determining students' performance level under individual educational programmes. The results of testing were considered at the meeting of the Research and Methodology Board. Following this meeting, specific recommendations were given to the faculties.
6. The objectives were achieved in terms of assessing client satisfaction. The content of questionnaires to study VSU student and lecturer satisfaction with the quality of the educational process was updated.

A survey of university students was conducted at the faculties. The results of the survey helped to identify the key issues and find their possible solutions.

Thus, the activities aimed at achieving the quality objectives were carried out as planned and in sufficient scope.



## 14.6. FUNCTIONING OF PROCESSES AND COMPLIANCE OF SERVICES

The university uses a register aimed at achieving results in accordance with the quality policy. It was updated following the requirements of clients and includes seven processes: Strategic planning, design and development of educational process, work with applicants, educational process (SVE, part-time, further professional education programmes), research and innovation activities, personnel management, and internal audits. Overall management of the processes is carried out by process managers, who assess the performance of the processes according to relevant criteria.

Key performance criteria for the process “Design and Development of the Educational Process”:

1. Licence for educational activities.
2. Decision of the Academic Council of VSU on the opening of an educational programme.

In 2022, the appendix to the licence for educational activities was amended, and new educational programmes were included in the admission plan:

- 09.02.07 – Information Systems and Programming
- 09.04.04 – Software Engineering
- 11.04.02 – Information and Communication Technologies and Communication Systems
- 12.04.03 – Photonics and Optical Informatics
- 31.08.05 – Clinical Laboratory Diagnostics

The register of the university's educational programmes under the existing licence was amended:

- Field of study: Embedded Systems and the Internet of Things (speciality 09.03.02 – Information Systems and Technologies)
- Field of study: Business Journalism and Corporate Communication (speciality 42.04.02 – Journalism)
- Field of study: Economic Analysis and Audit (speciality 38.03.01 – Economics), Economics and Human Capital Management (speciality 38.04.01 – Economics)



As we can see, the performance criteria for the process “Design and Development of Educational Process” were met, the process functions effectively.

For the “Work with Applicants” process, the following performance criteria were outlined:

1. Fulfilling the admission quotas and plans for the admission to fee-paying programmes.
2. The average state exam score of full-time applicants is no lower than 70.
3. The percentage of master’s, residency, and postgraduate students in the normalised contingent is not less than 20%.
4. The employer-sponsored students admitted is at least 5%.

In 2022 the admission quotas and plans for the admission to fee-paying programmes were fulfilled by 90% (the admission quotas were not fulfilled at the Faculty of Chemistry, the Faculty of Physics, and the Faculty of Geography). The average state exam score of full-time applicants was 69.82%. At the end of the reporting period the share of students on master’s, residency, and postgraduate programmes in the normalised contingent was 14.27%, which is lower than the expected parameter. The share of the employer-sponsored student enrolment of 1.51% was also below the planned threshold.

Of the four criteria, only two were achieved. Therefore, the performance criteria were amended for the next year. As demonstrated by the performance assessment, the “Work with Applicants” process was functioning with some limitations due to the decline in overall demand from potential clients for master’s, residency, and postgraduate level of education.

The performance criteria for the “Research and Innovation” process were as follows:

1. R&D revenues are not less than 80% of the strategic target of the VSU Development Strategy.
2. The number of publications indexed in the Web of Science (WoS) information and analysis system of science citation is no less than 21 scientific publications per 100 employees.
3. The number of publications indexed in the Scopus information and analysis system of science citation is no less than 29 scientific publications per 100 employees.

At the end of 2022, R&D revenues amounted to 341,672,400 roubles, with a target of 300 million roubles. During the reporting period, there were 239 publications indexed in the WoS system and 497 papers indexed in Scopus, which corresponds to 24 and 50 scientific publications per 100 employees, respectively. It should be noted that the WoS and Scopus scientific citation systems became unavailable in 2022.

Thus, all performance targets for 2022 were achieved, the “Research and Innovation” process functions effectively.



Three performance criteria were proposed for the process “Educational Process (SVE, higher education, further education programmes)”:

1. Retention of students is not less than 90%.
2. Clients' satisfaction with the quality of educational services is not lower than 95%.
3. Conformity of the results of the educational programmes with the requirements of the Federal State Educational Standard (FSES) and Federal State Requirements (FSR).

During the reporting period, the overall student retention rate was 94%. The rates by levels of education were:

- Bachelor's degree programme: 94.7%
- Specialist's degree programme: 96.15%
- Master's degree programme: 90.38%
- Postgraduate programme: 96.37%
- Residency programme: 100%
- SVE: 95.28%.

According to the survey, the overall satisfaction of students with the quality of services was below the target threshold, namely 81%.

As for the performance on state final examination, the overall score for the university was 99.8%.

Thus, two out of three targets were achieved, which corresponds to 66%. Based on the obtained results, it can be said that the process is effective, but there are some issues related to the clients' satisfaction. Some parameters reducing the overall level of satisfaction were identified and mechanisms for their improvement were developed.

Performance criteria for the “Personnel Management” process:

1. The share of department/faculty employees with PhD and DSc degrees is not lower than 60%.
2. Ensuring the lecturer/student ratio of 1 lecturer to 13 students as required by the Government of the Russian Federation.
3. Fulfilment of requirements of FSES and legislation of the Russian Federation to the employees' qualification (advanced training).
4. A relevant approved plan of measures to comply with the anti-corruption legislation is prepared, and the planned measures are implemented in full.





According to the data for 2022, the proportion of academic staff with PhD and DSc degrees at the university exceeded 71%. The lecturer/student ratio met the target parameter. 100% of employees were recruited in accordance with the qualification requirements. The planned activities in the field of anti-corruption legislation were fully implemented. Consequently, all criteria for the “Personnel Management” process were met, the process functions effectively.

The performance criterion for the “Strategic Planning” process is the achievement of at least 70% of the planned strategic targets.

Analysis of the values of the key strategic development indicators for 2022 showed that the university exceeded the planned thresholds of 70% for most indicators. The target values were significantly exceeded in several areas, such as R&D revenues, publications, etc. The university failed to reach the target for a number of indicators. Among such indicators are the number of PhD and DSc defences and the number of full-time researchers at the end of the reporting year.

There are also indicators which could not be measured and evaluated due to external factors. Such criteria may include: citations of papers published in the last 5 years, including the reference year, as per WoS and Scopus.

Thus, the performance criterion for the “Strategic Planning” process was fulfilled only partially, the process is functioning efficiently, but some of its components need to be revised.

The performance criterion for the “Internal Audit” process was the implementation of an internal audit programme by at least 80%.

During 2022, 13 internal audits were carried out, covering all functioning processes. The programme of internal audits was 100% completed. In the reporting period, 19 structural units of the university were audited, including five faculties, six departments, one institute, two centres, four administrative departments, and the university’s scientific library. Therefore, the performance criterion for the process “Internal Audit” was met, the process functions effectively.

## **14.7. NONCONFORMITIES AND CORRECTIVE ACTIONS**

In the course of internal audits, nonconformities in the university were revealed and corrective actions were taken.

As a result of internal audits, 47 cases of nonconformity with the requirements of international standard ISO 9001:2015 “Quality Management System” and local regulations of the university were identified, as well as eight observations were outlined, including:

- 3 nonconformities for “Quality Objectives and Policy”.
- 8 nonconformities and 5 observations for “Activity Planning” (including nonconformities and observations regarding process planning).



- 9 nonconformities and 1 observation for “Educational Process (SVE, higher education, further education programmes)” (excluding nonconformities and observations regarding activity planning).
- 8 nonconformities for “Design and Development of the Educational Process”.
- 1 nonconformity for “Research and Innovation” (excluding nonconformities regarding activity planning).
- 2 nonconformities and 1 observation for “Strategic Planning”.
- 14 nonconformities and 1 observation for “Personnel Management” (excluding observations regarding activity planning).
- 1 nonconformity for “Work with Applicants” (excluding nonconformities and observations regarding activity planning).
- 1 nonconformity for “Internal Audit”.

Based on the internal audits, the most common nonconformities were identified.

1. The quality objectives and activities of VSU are not fully incorporated into the plans for the faculties' activities; in a number of faculties the planned quality objectives are not measurable and are not subject to monitoring.
2. Some structural units lack planning for individual activities and reporting on the implementation of planned.
3. A number of documents are missing, or the requirements of the regulations for the educational and strategic processes are not met.
4. Requests for procurement of literature lack the name of the corresponding course and/or programme, which does not allow to check the overall book supply for the course.
5. Educational programmes and their components are not fully presented on the website of VSU, in the section “Information About the Educational Organisation”.
6. Job descriptions of employees and regulations on structural units are not up-to-date, in particular, they contain outdated data on both structural units and types of interaction.
7. A number of structural subdivisions do not have administrative documents on the assignment of functional responsibilities to employees.
8. In the corrective action plan of structural units, the type of planned corrective measures (correction or corrective action) is not specified.

In order to improve the functioning of the QMS processes and taking into account the nonconformities and observations, the heads of all audited structural units developed corrective action plans, including correction and corrective actions.



## 14.8. MONITORING AND MEASUREMENT RESULTS

External monitoring and measurement of the university's performance is carried out as part of the federal state control (supervision) in the field of education. It can also be carried out through professional and public accreditation conducted by employers, employer associations, as well as authorised organisations, including foreign organisations, or authorised national professional and public organisations that are part of international structures.

Internal monitoring is carried out as part of the system of internal independent assessment of the quality of education (IAQE) in accordance with the Regulations on the Independent Evaluation of the Quality of Education at Voronezh State University and internal audits of the QMS.

The internal IAQE system is aimed at independent assessment of the quality of students' training, academic staff, and resources for education. The Regulation on the Independent Evaluation of the Quality of Education at Voronezh State University provides options of organising and conducting external and internal IAQE by the university in accordance with the current legislation of the Russian Federation. It defines general approaches to education quality assessment, the main directions and content of the units' activity in order to ensure the functioning of the IAQE system at the university. The internal IAQE is carried out on a continuous basis engaging the university's internal resources. Its results are promptly used in order to improve the functioning of the processes.

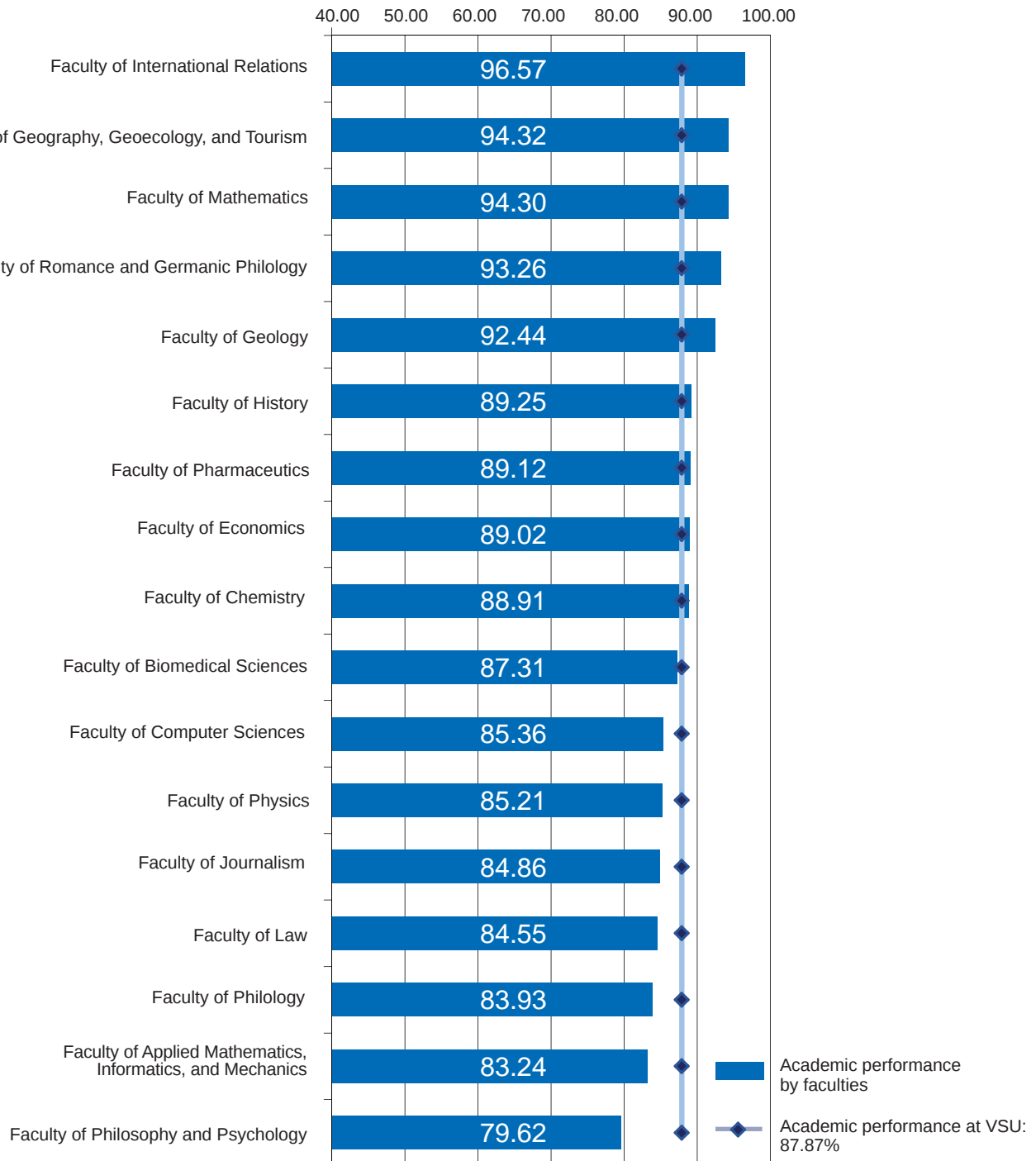
The level of training of the university's students is measured by the following means:

- Midterm assessment of students on courses (modules), on the results of practical training, course papers, and course projects, as well as on the results of their involvement in project activities.
- Entrance control of the level of students' knowledge at the beginning of the course (module).
- Measures to control the students' knowledge of previously studied courses (modules).
- Analysis of the portfolio of educational and non-academic achievements of students.
- State final examination.

In the 2021/22 academic year, over 17 thousand students took their mid-year examinations. 87.87% of the students managed to pass them with good marks, which exceeded the rate of the previous end-of-year examinations by 2.51% (Figure 14.5).

Figure 14.5

### ACADEMIC PERFORMANCE OF THE UNIVERSITY'S STUDENTS IN THE MID-YEAR EXAMINATIONS IN THE 2021/22 ACADEMIC YEAR, BY FACULTY



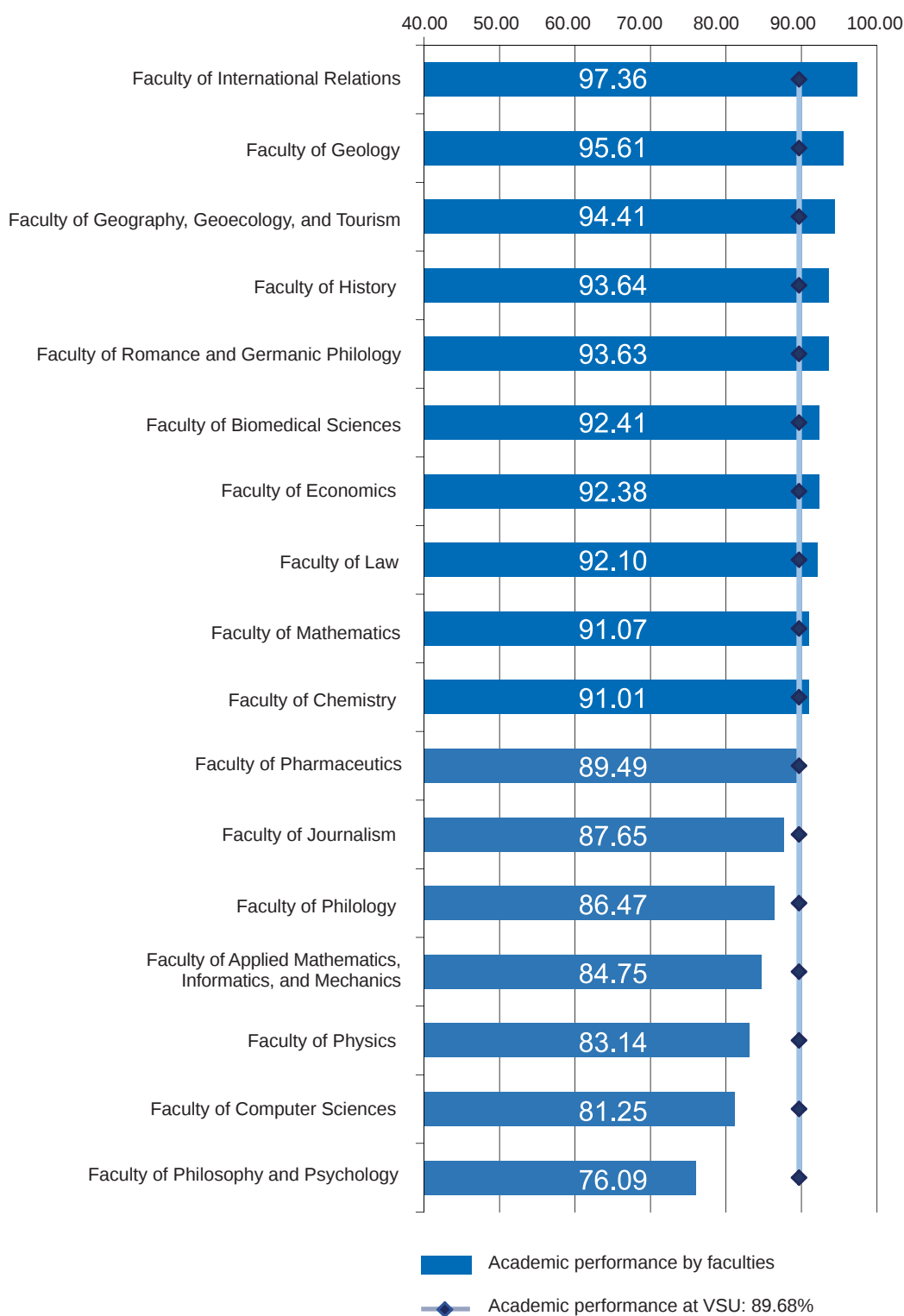
In the 2021/22 academic year, the average grade for the mid-year examinations amounted to 3.97, which was 0.09 lower than in the two previous mid-year examinations. This value corresponded to the average levels for 2012–2018 (3.95–4). The Faculty of Romance and Germanic Philology had the highest average mark (4.29), and the Faculty of Mathematics had the lowest average mark (3.71).



In the 2021/22 academic year, 15.6 thousand students took the end-of-year examinations. 89.68% of the students managed to pass them with good marks, which exceeded the rate of the previous end-of-year examinations by 1.04% (Figure 14.6).

Figure 14.6

### ACADEMIC PERFORMANCE OF THE UNIVERSITY'S STUDENTS IN THE END-OF-YEAR EXAMINATIONS IN THE 2021/22 ACADEMIC YEAR, BY FACULTY





In the 2021/22 academic year, the average grade for the end-of-year examinations amounted to 4.02, which was higher than the figure of the previous end-of-year examinations by 0.01. The Faculty of Philosophy and Psychology had the highest average mark (4.32), and the Faculty of Mathematics had the lowest average mark (3.78).

The quality of the performance of the academic staff involved in the implementation of the educational programme is assessed by:

- Participation of lecturers in open external competitions of different levels (international, national, regional, etc.).
- Systemic monitoring of the qualification of academic staff (assessment of the quality of lecturers' work in all areas: involvement in educational activities, research work, and student affairs, etc.).
- Analysis of the portfolio of professional achievements of academic staff of VSU.
- Procedures for assessing the quality of academic staff by students (the survey of students in the course of educational interaction and at the end of the course, the study of graduates' opinions).

The supervisor of the educational programme analyses the compliance of the facilities, equipment, educational and methodological, library and information support of the educational process with the FSES requirements, taking into account the results of the students' survey.

The results of the internal IAQE are analysed at the end of the academic year.

Students, representatives of employers, and key partners in employment of graduates are involved in assessing the quality of educational programmes. A feedback system for students, employers, including key employment partners, was introduced at the university: A feedback system for students, employers, including key employment partners, was introduced at the university: employers provide feedback on the quality of graduates' training. Based on this feedback, managerial decisions on improvement are made.

## 14.9. RESULTS OF EXTERNAL AUDITS

In 2022, a team of auditors from the Certification Association "Russian Register" conducted an inspection of the university's QMS.

Objectives of the inspection:

- Random inspection of the QMS compliance with the requirements of ISO 9001:2015, established processes, and QMS documentation.
- Assessing the ability of the QMS to ensure compliance with applicable legal, regulatory, and contractual requirements.
- Assessing the effectiveness of the QMS to ensure that objectives can be achieved.
- If possible, identifying areas for improvement in the QMS.



# 14

In order to achieve the objectives, the audit team carried out:

- Random verification of QMS compliance with audit criteria (including internal audit, management review, complaints/claims handling, and production activities).
- Assessment of the maintenance of the QMS and its effectiveness.
- Analysis of the corrective actions taken in relation to nonconformities identified in the previous audit.
- Verification of progress in the implementation of measures aimed at continuous improvement.
- Analysis and evaluation of the changes in the university.
- Inspection of the university's compliance with the rules and procedures of the Certification Association "Russian Register" regarding the use of the conformity mark and information on QMS certification.

The audit was conducted in relation to the design, development, and provision of educational services in the area of higher, secondary vocational, and further education, research and innovation activities. It was agreed that the requirements of clause 8.5.5 of ISO 9001:2015 are not applicable due to the fact that the university is not liable for the actions after the provision of educational services and research activities.

The scope of the audit included verification of appropriateness and compliance of QMS activities and elements, including production, management, and support processes, policies, objectives, organisational management structure, and QMS documentation.

During the audit of the adequacy it was noted that during the reporting period the following documents were revised: "Quality Manual" RC VGU 1.0.01-2022 (version of 21 January 2022) and "Internal Audit" DP VGU 1.3.10.750-2022 (version of 21 January 2022).

Based on the results of the previous audit, corrective actions regarding nonconformities and preventive actions regarding observations were performed in a timely manner. There are no repeated similar nonconformities. Corrective actions are effective.

The external auditors appreciated the management's commitment to the requirements of ISO 9001:2015, planning (policy, goals, and objectives), QMS analysis by the management, continuous improvement, and discussion of QMS-related issues at various meetings.

During the inspection, the experts also analysed the compliance of the university with the



certification conditions, rules, and procedures of the Certification Association “Russian Register” on the use of the certificate and the conformity mark. No violations were identified. Certification information is used for promotional purposes on the website and presentation materials.

The external auditors found that the management system was maintained in operation, evolving in accordance with the principle of continuous improvement.

Based on the results of the external inspection audit, the certificate of compliance of the QMS of VSU with the requirements of the international standard ISO 9001:2015 was renewed (Fig. 14.7).

Figure 14.7

**CERTIFICATES PROVING THAT THE UNIVERSITY'S QMS COMPLIES WITH THE REQUIREMENTS OF THE INTERNATIONAL ISO 9001:2015 STANDARD, VERIFIED BY THE CERTIFICATION ASSOCIATION “RUSSIAN REGISTER”**



**14.10. FUNCTIONING OF EXTERNAL SUPPLIERS**

External supplies include any process, product, or service from an external supplier that the university does not manage directly. Interaction with external suppliers is carried out in accordance with the university's Procurement Regulations, which includes criteria for evaluation, selection, performance monitoring, and re-evaluation of external suppliers based on their ability to perform processes or deliver products and services in accordance with the requirements. All service delivery and product output processes are indirectly related to this process. The results of educational, research, and innovation activities depend on the supplies received by the university and its structural units.



At present, the formation of network programmes can be considered as external resources, as it involves the resources of other universities. The Regulation on the Procedure for Organisation and Implementation of Educational Activities under Network Educational Programmes regulates the educational activities within the framework of network educational programmes.

Involvement of external unique resources ensures the improvement of the quality of education and expands the range of competences obtained by the students. In addition, international programmes allow increasing the global awareness of the university's brand.

### **14.11. SUFFICIENCY OF RESOURCES**

The resources required for the educational process are preliminarily analysed by the structural units implementing the educational programmes. They are approved in accordance with the Regulations on the Procedure for the Development and Approval of Main Educational Programmes of Higher Education.

In the academic year 2022/23, more than 500 educational programmes are implemented, so the resources for each of them were determined in advance, which is reflected in Section 6 "Conditions for the Implementation of Educational Activities" of the educational programmes: 6.1 "General requirements", 6.2 "Facilities, equipment, and educational and methodological support of the educational programme", 6.3 "Personnel requirements of the programme", and 6.4 "Financial requirements of the programme".

In order to effectively use the infrastructural resources of the university, each semester the schedule of classes is formed. The analysis showed that the utilisation of the classrooms was 100%.

The sufficiency of the university's resources is assessed by the relevant structural units and is reflected in the relevant sections of this annual report.

The university is properly supplied with the necessary resources, in particular, for the activities aimed at improving the state and functioning of its QMS.

### **14.12. RESPONSES TO RISKS AND OPPORTUNITIES**

The activities of the structural units of the university within the framework of the functioning processes are aimed at preventing the risks described in the relevant documented procedures and realising the opportunities. All the activities outlined in the relevant sections of this annual report are intended to minimise or prevent risk situations and to use the identified opportunities to develop the university activities focusing on the needs of clients and stakeholders. They are also aimed at improving the QMS in the field of educational, research, and innovation activities of the university.



### 14.13. OPPORTUNITIES FOR IMPROVEMENT

The long-term development of VSU involves solving diverse tasks and training highly qualified in-demand academic staff and professionals. It synthesises the educational, research, and cultural functions of the university. Therefore, among major areas for improvement in terms of university programmes implementation are the following:

- Improving the academic, methodological, informational, and logistical aspects of the educational process, involving the effective use of e-learning resources, including Massive Open Online Courses.
- Developing organisational, methodological, and software support for the digitalisation of the educational process, in particular, introducing electronic credit books, a digital service for the automated completion of the individual lecturer's work plan for progress reports, and improvements to the "Automated Course/Practical Training Syllabus" service.
- Eliminating the redundancy of local regulations by consolidating structural units that require separate regulations.
- Increasing the accessibility of professional education and inclusive education for persons with disabilities and special needs by providing a barrier-free architectural environment at university facilities, sites, and dormitories; implementing inclusive programmes using assistive technologies in higher education and further professional education programmes; expanding the range of measures (psychological, pedagogical, informational, scientific, methodological, and sociocultural) for the rehabilitation and habilitation of students with disabilities and special needs; and building an inclusive culture of managerial, academic, and educational support staff at the university.
- Intensifying the university's social partnership with employers in the Voronezh Region in the training and employment of graduates, including an increase in the number of graduate theses commissioned by employers.
- Developing the system of further professional education.
- Intensifying basic and applied scientific research and contributing to the global research agenda.
- Improving the innovation environment of the university, among other things, in order to strengthen the position of VSU as a university centre for innovative and technological development of the Voronezh Region.

Overall, the analysis showed that the QMS of the university is functioning in accordance with the requirements defined in the international standard ISO 9001:2015, with sufficient performance and room for improvement.



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