

2014

VORONEZH STATE UNIVERSITY ANNUAL REPORT 2014

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RECTOR'S ADDRESS





RECTOR'S ADDRESS



Dmitry ENDOVITSKIY,
rector Voronezh
State University

For our university, the year 2014 was fruitful and rich in various events. We can definitely say that this year was guided by the overall objectives set for Russian higher education institutions, and that we made every effort to gain the leading positions which the Voronezh region Governor A.V. Gordeev had emphasized. This is most evident in our position in a large number of international rankings and the monitoring of the Ministry of Education and Science of the Russian Federation. Despite the outside challenges, we were able to ensure the continuity of our "line of development" in all the university's areas of activity.

In the last year, all the staff and members of our university – the faculty, employees, postgraduate and undergraduate students – have repeatedly demonstrated their clear civic and patriotic position. We have become more united and stronger; we have learnt to respond realistically to the challenges of the present situation; and we have been persistent and rather pragmatic in searching for ways of sustaining the progress achieved thus far and continuing to move forward. I hope the information provided below will serve well to illustrate this.

Furthermore, I would like to point out that, in spite of all our achievements, neither the university administration, the faculty deans, nor the heads of academic and teaching departments, have by any means lost their critical attitude to our development. None of us are anywhere near self-complacency. We are well aware of how many more reserves are still untapped; how many tasks are yet to be tackled; how much more has to be done.



KEY FACTORS SHAPING THE DEVELOPMENT OF RUSSIAN UNIVERSITIES IN 2014

In 2014, the activities of VSU, like those of all the Russian universities, were determined by the country's strategy aimed at increasing the international competitiveness of higher education, as well as at improving the quality of training specialists for Russian economic and social sphere. These objectives were outlined in V.V. Putin's presidential decrees (2012) and were once again confirmed by V.V. Putin in his speech at the Tenth conference of the Russian Rectors' Union on 30 October 2014.

In their work, the university administration and VSU's academic and teaching staff are primarily guided by the public policy principles developed by the Ministry of Education and Science of the Russian Federation. The Ministry's main focus is on improving the universities' efficiency, promoting the most effective initiatives, and increasing the requirements for university senior officers and academic staff. Voronezh State University's multi-faceted activities are based largely on the principles of the RF State Program of Education Development until 2020.

Another significant factor determining VSU's work in 2014 was the implementation of a set of measures to improve the social status of the academic staff.

Due to a rise in the number of government tenders in science and innovations, the university's faculty members have taken an active part in submitting applications for scientific research under Federal Target Programmes.



VSU's MAIN ACHIEVEMENTS IN 2014

During the year, Voronezh State University Strategic Development Plan was successfully implemented. In a number of spheres, VSU's results have exceeded previous assessments.

In 2014, new students poured into VSU who we can all take pride in. 3435 students enrolled in Bachelor's and Specialist's degree programmes, and another 806 joined Master's degree programmes. The average exam score was 70.2 for those who enrolled in state-funded programmes (which is 9th among the other classical universities of Russia). A third of the applicants are high school graduates from 75 constituent territories of the Russian Federation, which clearly indicates the high level of VSU's academic reputation and its de facto federal status.

Despite the existing problems, VSU's financial standing has been stable, which has allowed for a substantial wage increase for the academic and teaching staff. The university was able to increase the salaries by 142% of the regional average instead of the planned 135%. VSU's financial sustainability has enabled the construction of a modern comfortable dormitory to be completed.

Yet another area of dynamic development at VSU is *research*. In 2014, we received over 420 million roubles from various funding sources, which is 120 million more than the previous year. There has been an increase in the number of works published by the academic staff and graduate students. Successful implementation of the programme of purchasing new scientific equipment, including some unique items, is going to make it possible to widen the scope of academic research.



In 2014, *the third university performance monitoring was carried out* by the Ministry of Education and Science of the Russian Federation. Despite the toughened standards, our university demonstrated impressive results comparable to those of the best national universities.

In the area of innovations, the university is currently continuing the successful programme of collaboration with the Central Federal District's companies, including some hi-tech production projects. The number of university-based joint small innovative businesses has risen to 30.

In 2014, VSU projects received 237 million roubles as part of the "Research and development in top-priority areas of science and technology in Russia for 2015–2020" Federal Target Programme. It is worth noting that these projects were developed in collaboration with reputable industrial partners. Our young scholars showed the best results at the Voronezh Regional Innovation Cup.

Notwithstanding the strained international atmosphere, our university has been developing *international contacts* with a large number of universities in Europe, the USA, China, and several Arab countries. In 2014, VSU received over 6 million roubles participating in international foundations and programmes. This is one of the best results in Russia, which is further confirmed by the recognition of our work from the European Union Ambassador in Russia. Academic and student exchange programmes are also rapidly expanding.

VSU has been ensuring the successful implementation of a *student social development programme*. The students' persistence and their proactive approach have enabled us to win a grant for student activity development from the Ministry of Education and Science of the Russian Federation.

2014 saw an important contribution to enhancing the university's infrastructure: a new dormitory was completed, and the construction of a new sporting facility with a swimming pool began.

These are only the brightest and the most memorable achievements of the university in the course of 2014. They are described in more detail on the pages of the annual report. Generally, there have been improvements in every sphere of our activity, but this shouldn't make us rest on our laurels – there are a lot of challenging objectives for Voronezh State University in 2015.



VSU's OBJECTIVES FOR 2015

We will continue persistent and goal-oriented work on implementing a set of policies that would enable us to counter negative recessionary tendencies in order to keep our university's "line of development", stipulated by the strategic plan and programmes.

It is our duty to ensure a high level of education and social development of students, taking into consideration the new challenges, scientific achievements and interscientific connections.

The university's scholars are faced with the need to raise the efficiency of scientific research and implement their results in the training and production processes, as well as the task of strengthening co-operation with business entities. This will strengthen the university's leadership position in the region in order for it to continue to have a profound impact on the region's educational, social, economic, and cultural development.

In organizational terms, the challenge ahead is to increase accountability in all sectors of development, among other things, by means of the mechanism of an effective employment contract.

Another possible task is resolving integration issues in the regional system of VSU-based educational establishments.

We are also faced with a rather ambitious challenge of further development of engineering programmes, in addition to obtaining the licence for three medical programmes: medical cybernetics, medical biophysics, and medical biochemistry.



The efforts of the university management must primarily be focused on including the "VSU Information Technologies Centre" project into the Federal Programme of Education Development until 2020.

In 2015, our university is to take an active part in a wide range of programmes and projects as part of the year of "Voronezh as the Cultural Capital of CIS".

Another important date that shouldn't be missed is the 90th anniversary of "Galichya Gora" reserve, which must be celebrated at the university in 2015.

Our principled position is that it is essential to raise awareness of the humanitarian dimension of university education; shaping the students' patriotic and civic position, as well as promoting a healthy lifestyle. It should also be remembered that 2015 is the 70th anniversary year of the Great Patriotic War.

In 2015, we must put an emphasis on developing the university's international contacts and raising our competitiveness in the scientific and educational community.



The abovementioned tasks and ways of dealing with them are explained in more detail in the sections of the report. We are convinced that, even considering all the potential difficulties and challenges, the staff of the university have all the prerequisites for putting all these ideas into practice: professional integrity and professionalism, established traditions and accumulated experience, as well as a desire to work in the interests of the university, the region, and the country as a whole.





UNIVERSITY ADMINISTRATION

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UNIVERSITY ADMINISTRATION

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

The Board of Trustees of FSFEI HPE *Voronezh State University* (hereinafter referred to as the VSU Board of Trustees) was created upon the decision of the VSU Academic Council dated 28 September 2012 in accordance with the Charter of FSFEI HPE VSU (Section 5.28), and is one of VSU's management bodies.

The activities of the VSU Board of Trustees are subject to the *Charter of the Board of Trustees of Voronezh State University* and the *Rules and Procedures of the Board of Trustees of Voronezh State University*. The VSU Board of Trustees consists of 27 people.

Chairman of the Board of Trustees – **Alexander Sokolov**

Deputy Chairs – **Elena Soboleva** and **Evgeny Yurchenko**

Secretary of the Board of Trustees – **Tatiana Davydenko**

MEMBERS OF THE VSU BOARD OF TRUSTEES

1. **Azret Bekkiev**, Director General of JSC Concern *Sozvezdie*.
2. **Vladimir Bubnov**, Director General of OAO *Kombinat Stroitelnykh Detaley*.
3. **Anton Ganzha**, Regional office manager of OAO *Avangard* Joint Stock Commercial Bank.
4. **Yury Goncharov**, President of the Voronezh Regional Chamber of Commerce and Industry.
5. **Tatiana Davydenko**, Vice Rector for Innovations and Technology Commercialization of FSFEI HPE VSU.
6. **Dmitry Endovitskiy**, Rector of FSFEI HPE VSU.



7. **Viktor Yenin**, Director General of UK IP *Perspektiva*.
8. **Valentin Ievlev**, Full Member of the Russian Academy of Sciences, Dr.habil. in Physics and Mathematics, Professor, Head of the Department of Materials Science and the Industry of Nanosystems of the Faculty of Chemistry of FSFEI HPE VSU.
9. **Alexey Kamyshev**, Director of the Voronezh branch of OAO *Rostelekom*.
10. **Petr Koltypin**, Chairman of the Central Black Earth Branch of OAO *Sberbank*.
11. **Dmitriy Lapygin**, Director of Economic Affairs of OOO *RET*.
12. **Gennadiy Makin**, Vice Governor of the Voronezh region – Secretary General of the Governor and Voronezh Regional Government.
13. **Mikhail Moskaltsov**, Head of the main Voronezh regional office of the Central Black Earth Branch of OAO *Sberbank*.
14. **Mikhail Nosyrev**, President of ZAO *Kinoteatr Spartak (Spartak Cinema)*.
15. **Alexey Ponomarev**, Vice President for Industrial Cooperation & Governmental Programs of the Skolkovo Institute of Science and Technology (Moscow).
16. **Vladimir Popov**, First Deputy Chairman of the Government of the Voronezh region.
17. **Igor Risin**, Dr.habil. in Economics, Professor, Associate member of the Russian Academy of Natural Sciences, Head of the Department of Regional Economics and Territorial Administration of FSFEI HPE VSU.
18. **Elena Soboleva**, Director of Educational Projects and Programmes of the Fund for Infrastructure and Educational Programmes (*RUSNANO*, Moscow).
19. **Alexander Sokolov**, Vice President for the Social Policy of OAO *Novolipetsk Steel (NLMK)*.
20. **Natalia Tretyak**, First Deputy Minister of Education and Science of the Russian Federation
21. **Heinze Klaus-Dieter**, Head of the chemical/industrial technopark (Dow Olefinverbund GmbH Leiter ValuePark, Germany).
22. **Andrey Hitskov**, Deputy Head of the branch of VoRU OAO *MInB (Joint-Stock Commercial Bank Moscow Industrial Bank)*.
23. **Valeriy Chernikov**, Board Chairman of ZAO *Insurance Business Group*.
24. **Gennadiy Chernushkin**, Founder of *Angstrom* Group.
25. **Elena Chupandina**, First Vice Rector – Vice Rector for Academic Affairs of FSFEI HPE VSU.
26. **Anatoliy Shmygalev**, Deputy of the Voronezh Regional Duma.
27. **Evgeniy Yurchenko**, Chairman of A.S. Popov Investment Fund (Moscow).



The Board of Trustees includes four commissions: the Commission for the Development of Research and Innovation, the Commission for the Implementation of the Academic Policy; the Commission for Expanding VSU's Physical Infrastructure; the Commission for the Social Support for VSU's Students and Staff, as well as a temporary team formulating proposals on tax concessions for benefactors.

In 2014, there were two sessions of the Board of Trustees.

Both these sessions focused on the current issues concerning the university's development: the organization of VSU-based advanced training and retraining courses for the personnel of the companies and organizations of the Voronezh region; the application of funds obtained as revenue from the discretionary management of the assets of the VSU Endowment Fund; building a database of VSU's innovation projects; improving the efficiency of research equipment utilization; presenting the innovative projects by VSU scholars, etc.

KEY RESULTS OF THE ACTIVITIES OF THE VSU BOARD OF TRUSTEES IN 2014:

1. Proposals were submitted for the Voronezh State University Strategic Development Programme.
2. Upon the recommendation of the VSU Board of Trustees, there was a presentation session of the projects by VSU scholars for the senior management of OAO *Novolipetsk Steel (NLMK)*, and, based on the results of the session, the work of research groups was organized in accordance with NLMK's requirements specifications.
3. The members of the Board of Trustees took part in the work of the Competition jury at the VSU Innovation project contest for young scholars, and a member of the Board of Trustees Anatoliy Shmygalev created a special award for one of the winners of the contest.
4. The Board endorsed the decision to allocate the revenue from the discretionary management of the assets of the VSU Endowment Fund for motivating the best students and the social support for long-service VSU employees.
5. There were a number of proposals aimed at commercializing the results of the innovation projects developed by the university scholars.

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



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

The overall management of the university is conducted by an elected representative body – the VSU Academic Council. The current Academic Council was elected at the Conference of academic staff and the representatives of other categories of employees and students on 30 March 2013 and was approved by the Order #172 of the Rector dated 2 April.

STRUCTURE OF THE ACADEMIC COUNCIL OF VORONEZH STATE UNIVERSITY IN 2014

1. **Dmitry ENDOVITSKIY,**
Rector, Chairman of the Academic Council
2. **Elena CHUPANDINA,**
First Vice Rector – Vice Rector for Academic Affairs
3. **Vasily ANOKHIN,**
Vice Rector for Facilities and Capital Development
4. **Oleg BELENOV,**
Vice Rector for Economics and International Cooperation
5. **Yuriy BUBNOV,**
Vice Rector for Strategic Administrative Management
6. **Oleg GRISHAEV,**
Vice Rector for Student Affairs and Social Development
7. **Tatiana DAVYDENKO,**
Vice Rector for Innovations and Technology Commercialization
8. **Vasily POPOV,**
Vice Rector for Research and Informatisation
9. **Eduard ALGAZINOV,**
Dean of the Faculty of Computer Sciences
10. **Alexander ALBEKOV,**
Associate Professor of the Department of Mineralogy,
Petrology and Geochemistry of the Faculty of Geology
11. **Valeriy ARTYUKHOV,**
Dean of the Faculty of Biology and Soil Sciences
12. **Yuriy ASTAFIEV,**
Head of the Department of Criminal Procedure of the Law Faculty
13. **Alexander BAYEV,**
Dean of the Faculty of Mathematics
14. **Alexander BELANOV,**
Head of the Department of Physical Education and Sports
15. **Olga BERDNIKOVA,**
Dean of the Faculty of Philology
16. **Anatoliy BOBRESHOV,**
Dean of the Faculty of Physics



- 17. Lyudmila VLADIMIROVA,**
Chairman of the Trade Union Committee of VSU
- 18. Karina GAIDAR,**
Head of the Department of General and Social Psychology,
Vice Dean of the Faculty of Philosophy and Psychology
- 19. Sergey GAPONOV,**
Head of the Department of Zoology and Parasitology of the Faculty
of Biology and Soil Sciences
- 20. Vladimir GLAZIEV,**
Dean of the Faculty of History
- 21. Alexandra GLUKHOVA,**
Head of the Department of Sociology and Politology of the Faculty of History
- 22. Yuriy GORDEEV,**
Head of the Department of Theory and Practice of Journalism
of the Faculty of Journalism
- 23. Evelina DOMASHEVSKAYA,**
Head of the Department of Solid-State Physics and Nanostructures
of the Faculty of Physics
- 24. Valentin IEVLEV,**
Head of the Department of Materials Science and the Industry of Nanosystems
of the Faculty of Chemistry
- 25. Pavel KANAPUKHIN,**
Dean of the Faculty of Economics
- 26. Maksim KIRCHANOV,**
Vice Dean of the Faculty of International Relations
- 27. Larisa KOROBEINIKOVA,**
Head of the Department of Economic Analysis and Audit of the Faculty
of Economics
- 28. Vladimir KOSTIN,**
Head of the Department of Mathematical Modelling of the Faculty
of Mathematics
- 29. Nikolay KURALEVIN,**
Head of the Department of Safety and Basic Medical Training
- 30. Semyon KUROLAP,**
Head of the Department of Geoecology and Environmental Monitoring
of the Faculty of Geography, Geoecology and Tourism
- 31. Tatiana LEDENEVA,**
Head of the Department of Computational Mathematics and Applied
Information Technologies of the Faculty of Applied Mathematics,
Informatics and Mechanics
- 32. Mikhail MATVEEV,**
Head of the Department of Information Technologies in Management
of the Faculty of Computer Sciences



- 33. Arkadiy MINAKOV,**
Director of the Regional Scientific Library of Voronezh State University
- 34. Viktor NENAKHOV,**
Dean of the Faculty of Geology
- 35. Tamara NIKONOVA,**
Head of the Department of Russian Literature of XX–XXI Centuries,
the Theory of Literature and Folklore of the Faculty of Philology
- 36. Elena NOSYREVA,**
Head of the Department of Civil Law and Procedure of the Faculty of Law
- 37. Oleg OVCHINNIKOV,**
Head of the Department of Optics and Spectroscopy of the Faculty of Physics
- 38. Valentin PANYUSHKIN,**
Dean of the Faculty of Law
- 39. Mikhail PASHCHENKO,**
Director of VSU's Borisoglebsk Branch
- 40. Lydia RADINA,**
Deputy Director of the International Education Institute
- 41. Vladimir RODIONOV,**
Director of the International Education Institute
- 42. Natalia SAPOZHNIKOVA,**
Head of the Department of Accountancy of the Faculty of Economics
- 43. Vladimir SELEMENEV**
Head of the Department of Analytical Chemistry of the Faculty of Chemistry
- 44. Viktor SEMYONOV,**
Dean of the Faculty of Chemistry
- 45. Nikolay SKOLZNEV,**
Director of the *Galichya Gora* reserve
- 46. Aleksey SLIVKIN,**
Dean of the Faculty of Pharmaceutics
- 47. Andrey STARTSEV,**
Chairman of the primary trade union organization of VSU students
- 48. Vladimir TITOV,**
Counsellor at the VSU administration, Head of the Department of Italian Philology
of the Faculty of Romance and Germanic Philology
- 49. Vladimir TULUPOV,**
Dean of the Faculty of Journalism
- 50. Natalia TURBINA,**
Acting Academic Secretary, Assistant Vice Rector
- 51. Gennadiy USACHEV,**
Head of the Finance and Economics Administration
- 52. Vladimir FEDOTOV,**
Dean of the Faculty of Geography, Geoecology and Tourism



- 53. Natalia FENENKO,**
Dean of the Faculty of Romance and Germanic Philology
- 54. Igor CHASTUKHIN,**
Chief accountant
- 55. Nikolay CHERNYSHOV,**
Head of the Department of Mineralogy, Petrology and Geochemistry
of the Faculty of Geology
- 56. Alexander SHASHKIN,**
Dean of the Faculty of Applied Mathematics, Informatics and Mechanics
- 57. Alexander SHCHERBAKOV,**
Dean of Faculty of Military Education
- 58. Vladimir SHCHERBAKOV,**
Head of the Department of Clinical Pharmacology of the Faculty
of Pharmaceutics
- 59. Natalia YURINA,**
Director of VSU's Stary Oskol Branch
- 60. Tatiana BASHCHEVA,**
5th year student of the Faculty of History
- 61. Elena VOLKOVA,**
5th year student of the Faculty of Geography, Geoecology and Tourism
- 62. Dmitriy VYSOTSKIY,**
5th year student of the Faculty of Computer Sciences
- 63. Tatiana KORNEEVA,**
4th year student of the Faculty of Romance and Germanic Philology
- 64. Oleg LOZENKOV,**
4th year student of the Faculty of Law
- 65. Nikolay SEREDA,**
Chairman of the Joint Students' Board of VSU
- 66. Irina TRISHINA,**
2nd year Master's degree student of the Faculty of Applied Mathematics,
Informatics and Mechanics
- 67. Roman GAZIZOV,**
2nd year Master's degree student of the Faculty of Physics
- 68. Anna LABYNTSEVA,**
2nd year Master's degree student of the Faculty of Economics
- 69. Elena ROMANOVA,**
3rd year postgraduate student of the Faculty of Applied Mathematics,
Informatics and Mechanics
- 70. Sergey KHAUSTOV,**
3rd year postgraduate student of the Faculty of Law



LIST OF KEY ISSUES CONSIDERED BY THE ACADEMIC COUNCIL OF VORONEZH STATE UNIVERSITY IN 2014

January

1. Establishing the Faculty of Fundamental Medicine at the university
2. The "roadmap timeline" of the development of the Faculty of Journalism.
3. The 2014 admission campaign: admission quotas and their allocation.

February

1. Innovation activity and technology commercialization at VSU: current state, challenges, perspectives.
2. The concept of developing the VSU Publishing House

March

1. Awarding Vice President of the Academy of Sciences of the Republic of Cuba Professor Fidel Castro Diaz-Balart with the gown and diploma of Doctor Honoris Causa of Voronezh State University.
2. Awarding Deputy Prime Minister of the Russian Federation, Dr.Habil. in Philosophy Dmitry Rogozin with the title of Doctor Honoris Causa of Voronezh State University.
3. Adopting the Regulations for the 2014 admission campaign.
4. Approving the report on the performance self-evaluation for 2011–2013 conducted by Voronezh State University

April

1. Rector's report on the results of the university's performance in 2013.
2. Vice Rectors' reports on the results of the activities in their responsibility areas.
3. Approving the tuition fees for each category of the university students for 2014/15 academic year.

May

1. Financial and operating performance of VSU: the results of 2013 and adoption of the budget for 2014.
2. Progress report concerning graduate employment.
3. The organizational changes in the university structure.

June

1. Awarding the degree of Doctor Honoris Causa of Voronezh State University to Vitaliy Naumkin, Dr.Habil. in History, Professor, Associate Member of the Russian Academy of Sciences, Director of the Institute of Oriental Studies of the Russian Academy of Sciences
2. The operation of the integrated security system at the university.

September

1. The results of 2014 admissions of first-year students and the objectives for the 2015 admission campaign.
2. Voluntary work programmes at the university.
3. The performance of the Stary Oskol and Liski branches.

October

1. The current state and development prospects for the Borisoglebsk branch.
2. The electronic document management system at the university.

November

1. The 2014 performance record of the VSU Publishing House
2. The strategic development plan for the Faculty of Economics.
3. Performance report of the Joint Students' Board.

December

1. VSU internationalization: the year in review, upcoming trends
2. The strategic development plan for the Faculty of Law



2.3. RECTOR'S OFFICE

Rector

Dmitry ENDOVITSKIY

Dr.habil. in Economics, Professor. Honoured Worker of the Highest Vocational Education of the Russian Federation. The author of over 300 research papers and works.

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

E-mail address: rector@vsu.ru

First Vice Rector – Vice Rector for Academic Affairs

Elena CHUPANDINA

Dr.Habil in Pharmaceutical Sciences, Head of the Department of Economics and Management in Pharmaceutics and Pharmacognosy. The author of over 150 research papers and works, including 5 monographs.

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E-mail address: chupandina@vsu.ru

Vice Rector for Research and Informatisation

Vasily POPOV

Dr.Habil. in Biology, Professor, Head of the Department of Genetics, Cytology and Bioengineering. The author of over 55 articles in national and international journals, 16 study guides, 6 monographs.

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

E-mail address: popov@vsu.ru

Vice Rector for Innovations and Technology Commercialization

Tatiana DAVYDENKO

Dr.habil. in Pedagogy, Professor. The author of over 120 research papers. Advisor for 18 PhD theses and 1 doctoral dissertation.

Tel: +7 (473) 222-61-32

E-mail address: davydenko@vsu.ru



Vice Rector for Economics and International Cooperation

Oleg BELENOV

Dr.Habil. in Economics, Professor, Dean of the Faculty of International Relations. The author of over 140 research papers. Advisor for 9 PhD theses.

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E-mail address: belenov@vsu.ru

Vice Rector for Strategic Administrative Management

Yuriy BUBNOV

Dr.Habil. in Philosophy, Professor, Head of the Department of History of Philosophy of the Faculty of Philosophy and Psychology. The author of 136 research papers. Advisor for 7 PhD theses.

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

E-mail address: bubnov@vsu.ru

Vice Rector for Student Affairs and Social Development

Oleg GRISHAEV

PhD in History, Associate Professor. The author of over 60 research papers and works.

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

E-mail address: grishaev@vsu.ru

Vice Rector for Facilities and Capital Development

Vasily ANOKHIN

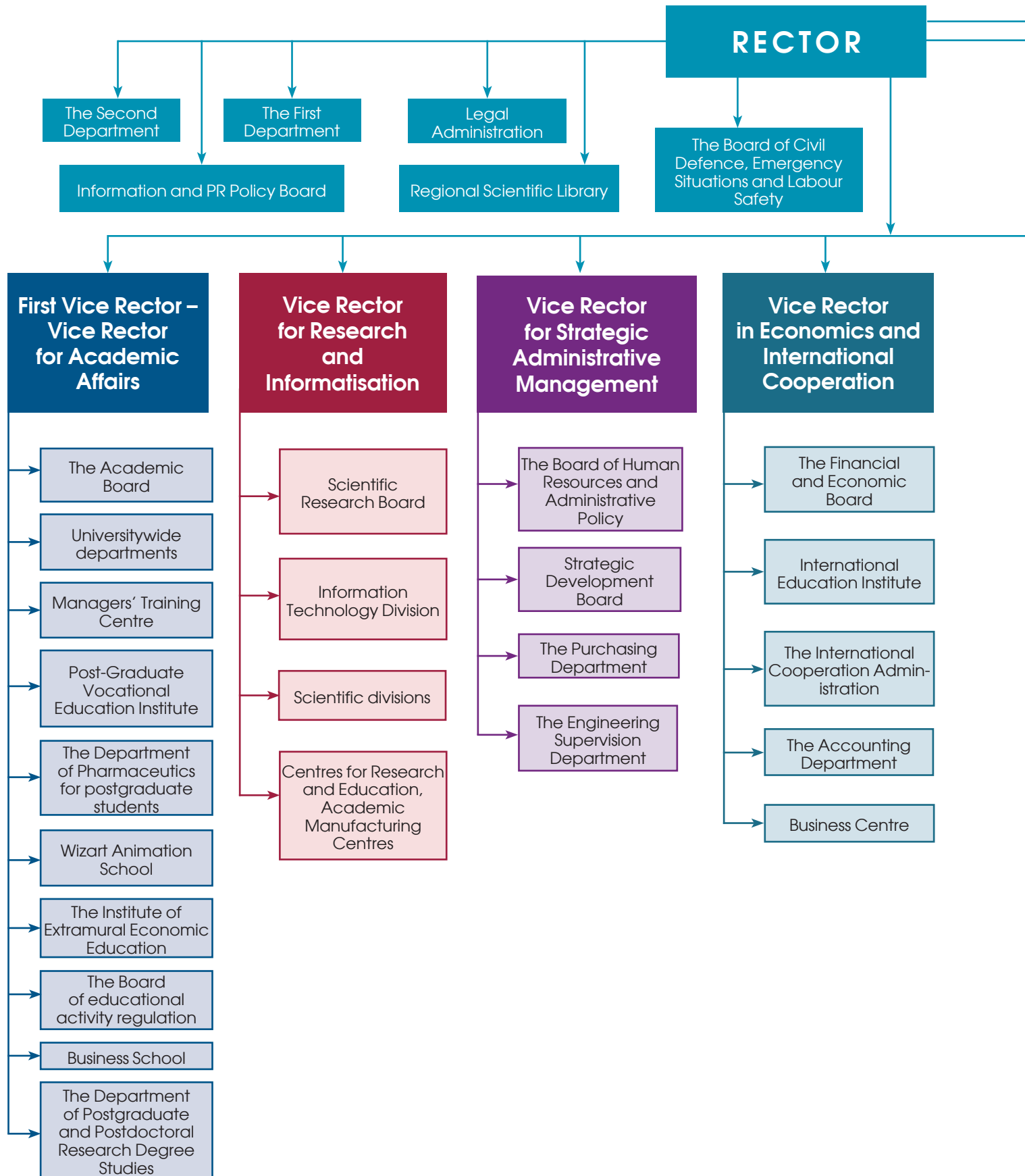
Started working at VSU in 2013.

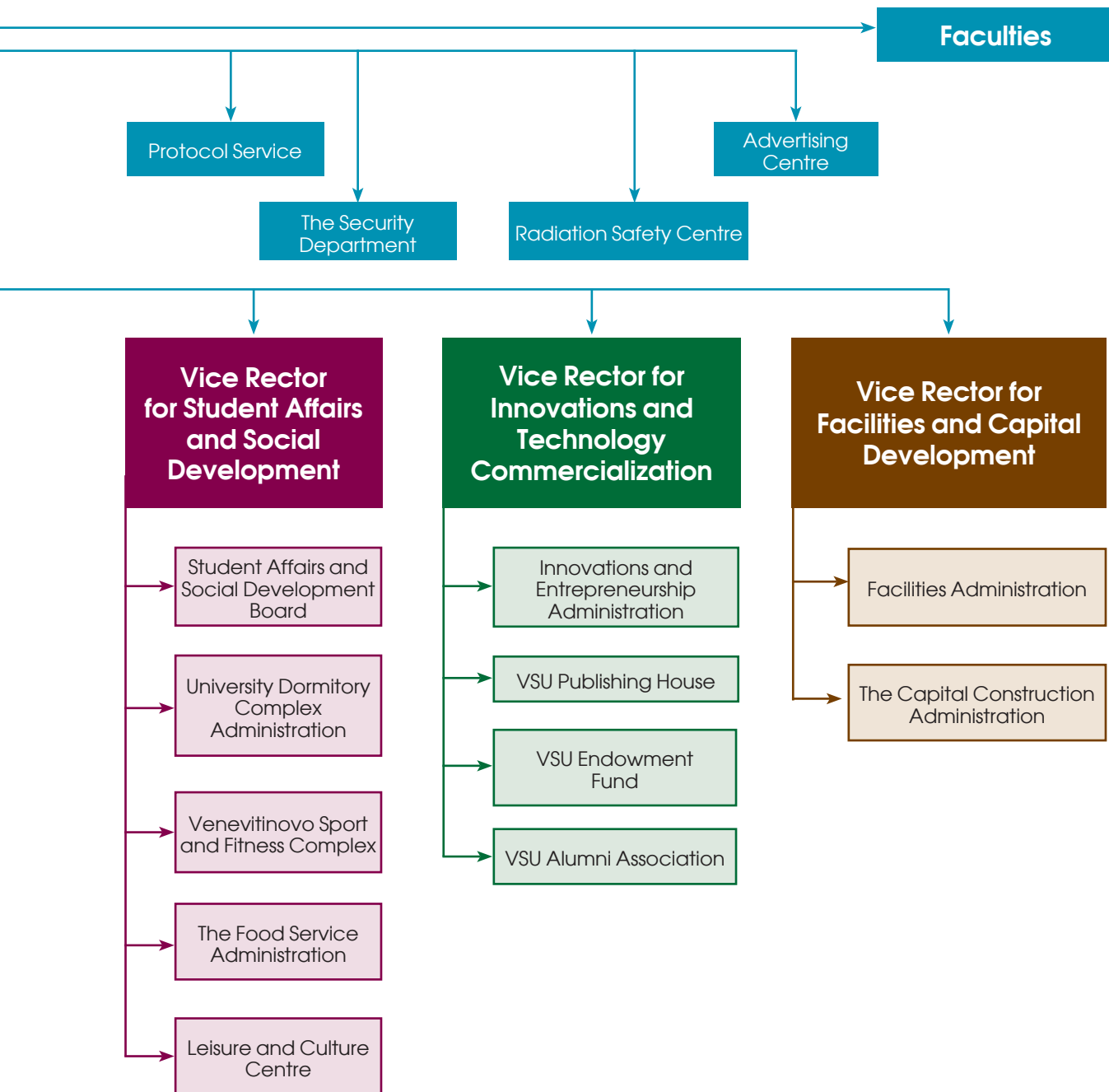
Tel: +7 (473) 220-75-18

E-mail address: anokhin@vsu.ru



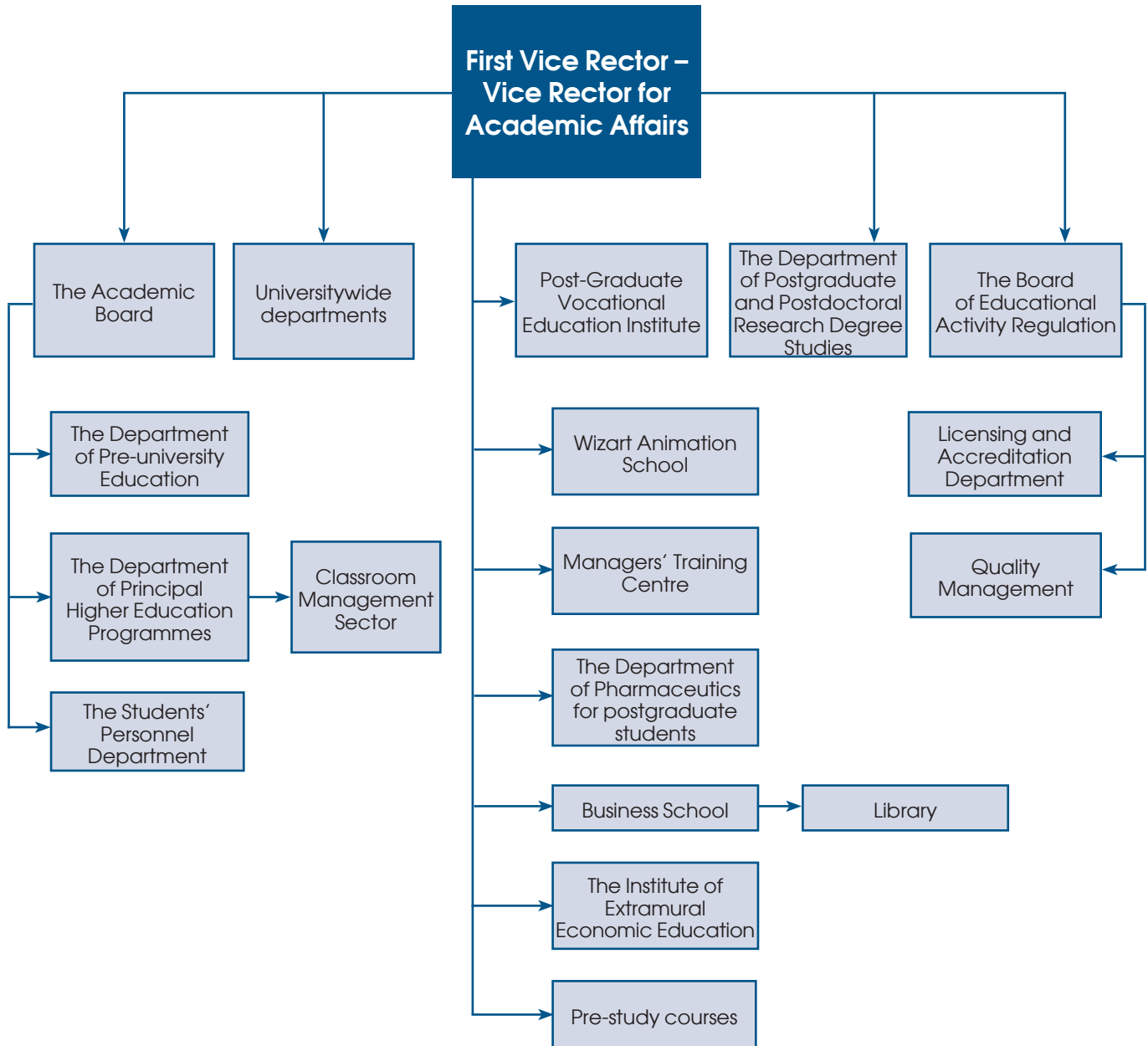
2.4. THE STRUCTURE OF VORONEZH STATE UNIVERSITY





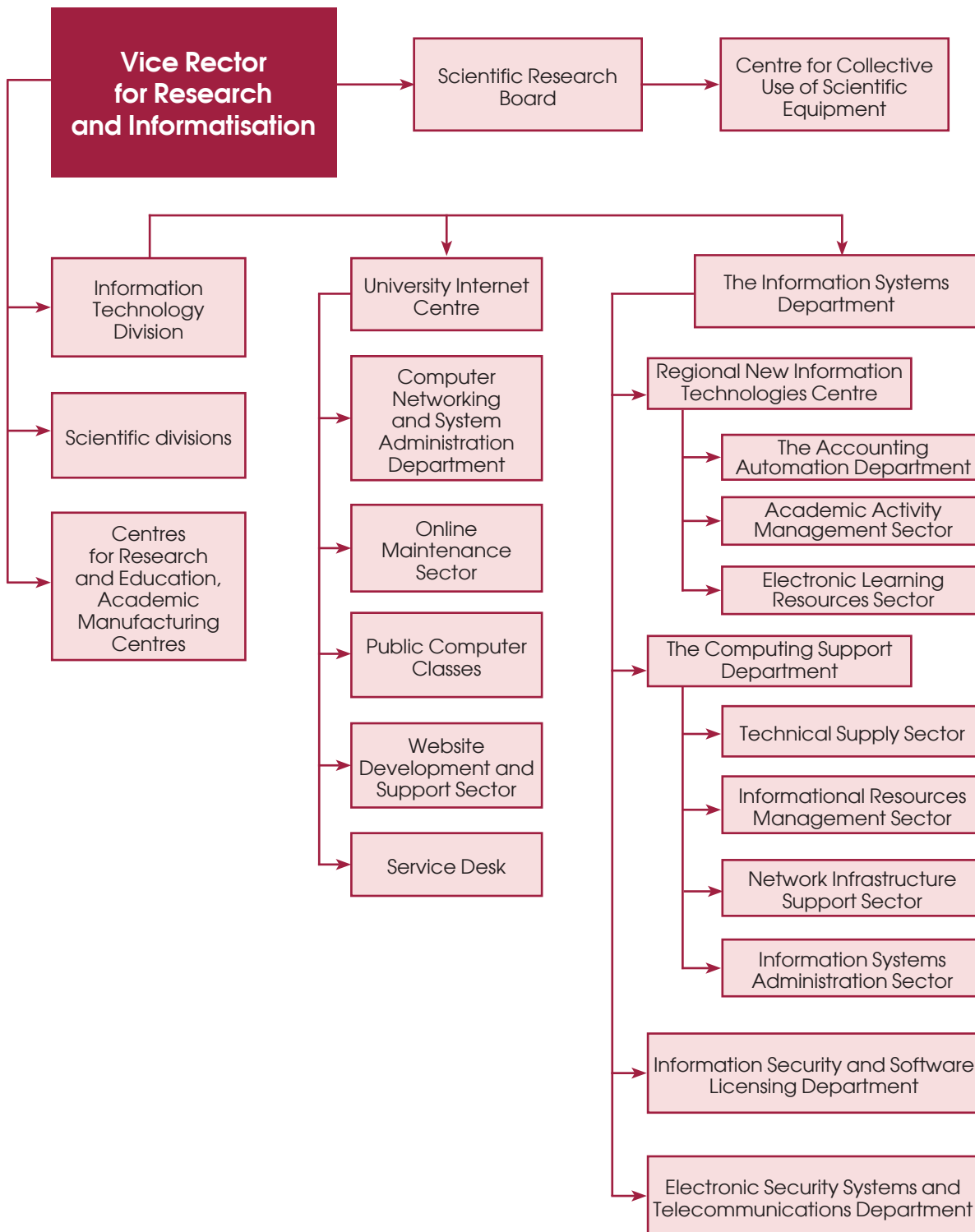


2.5. MANAGEMENT STRUCTURE OF THE FIRST VICE RECTOR – VICE RECTOR FOR ACADEMIC AFFAIRS



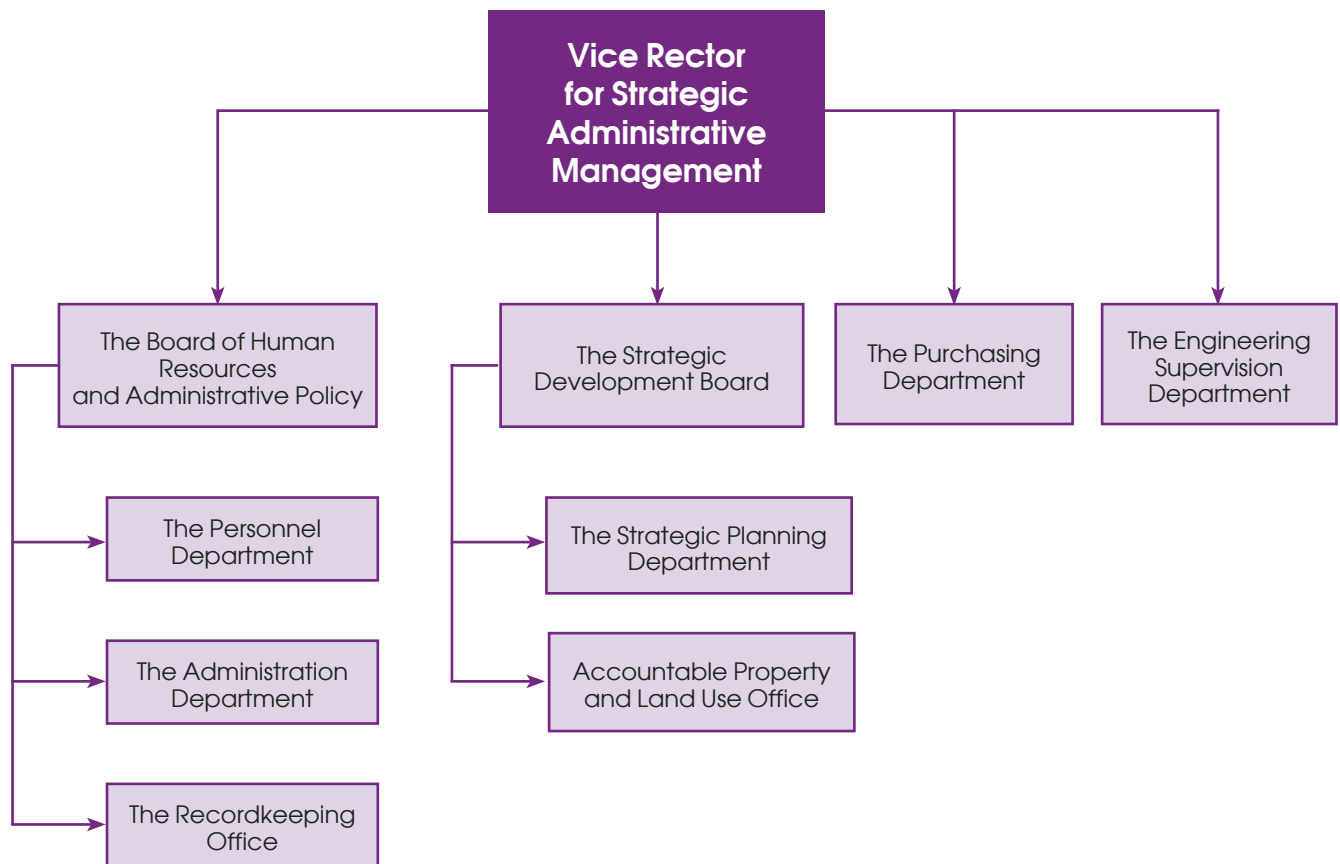


2.6. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR RESEARCH AND INFORMATISATION



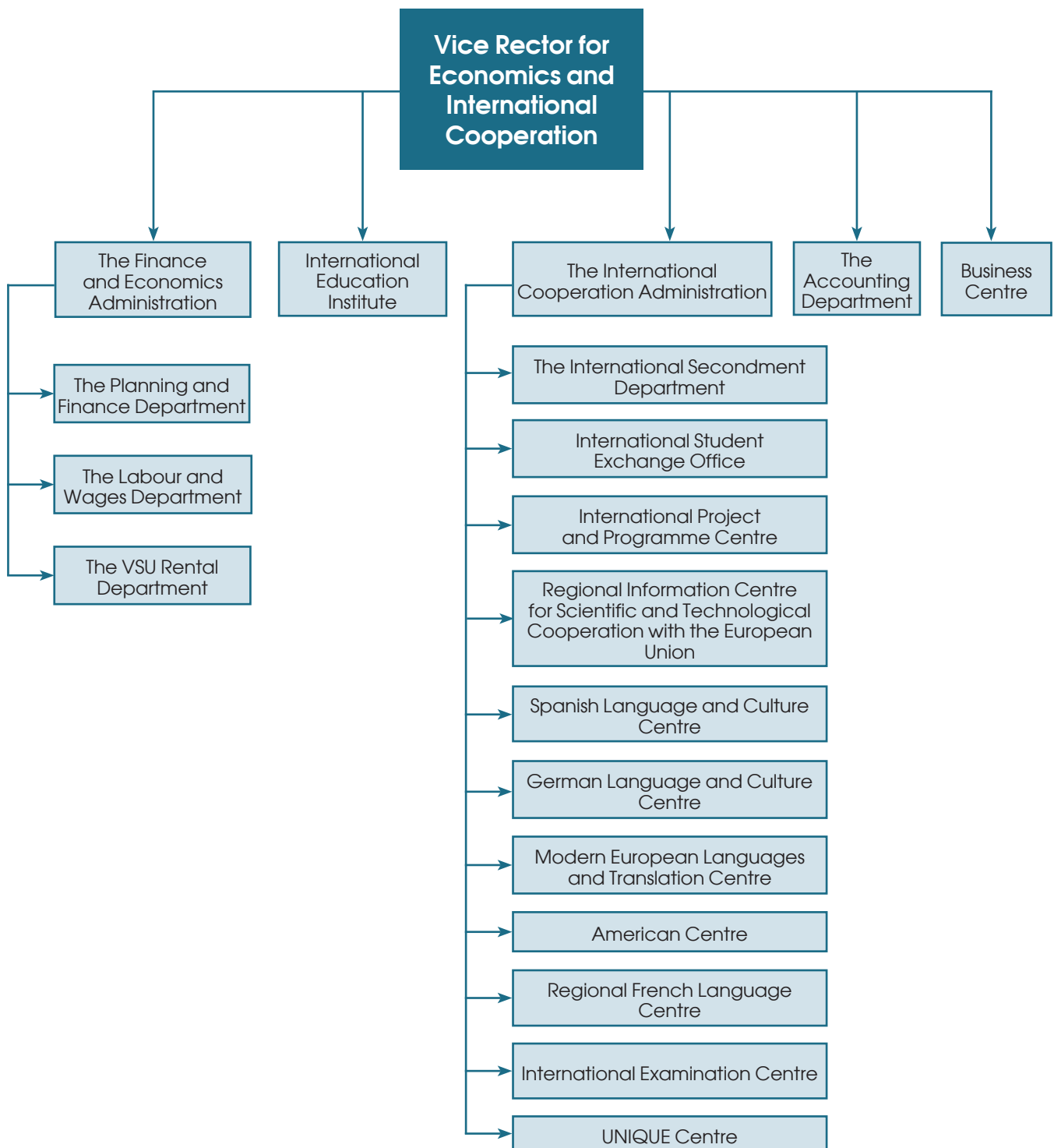


2.7. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STRATEGIC ADMINISTRATIVE MANAGEMENT



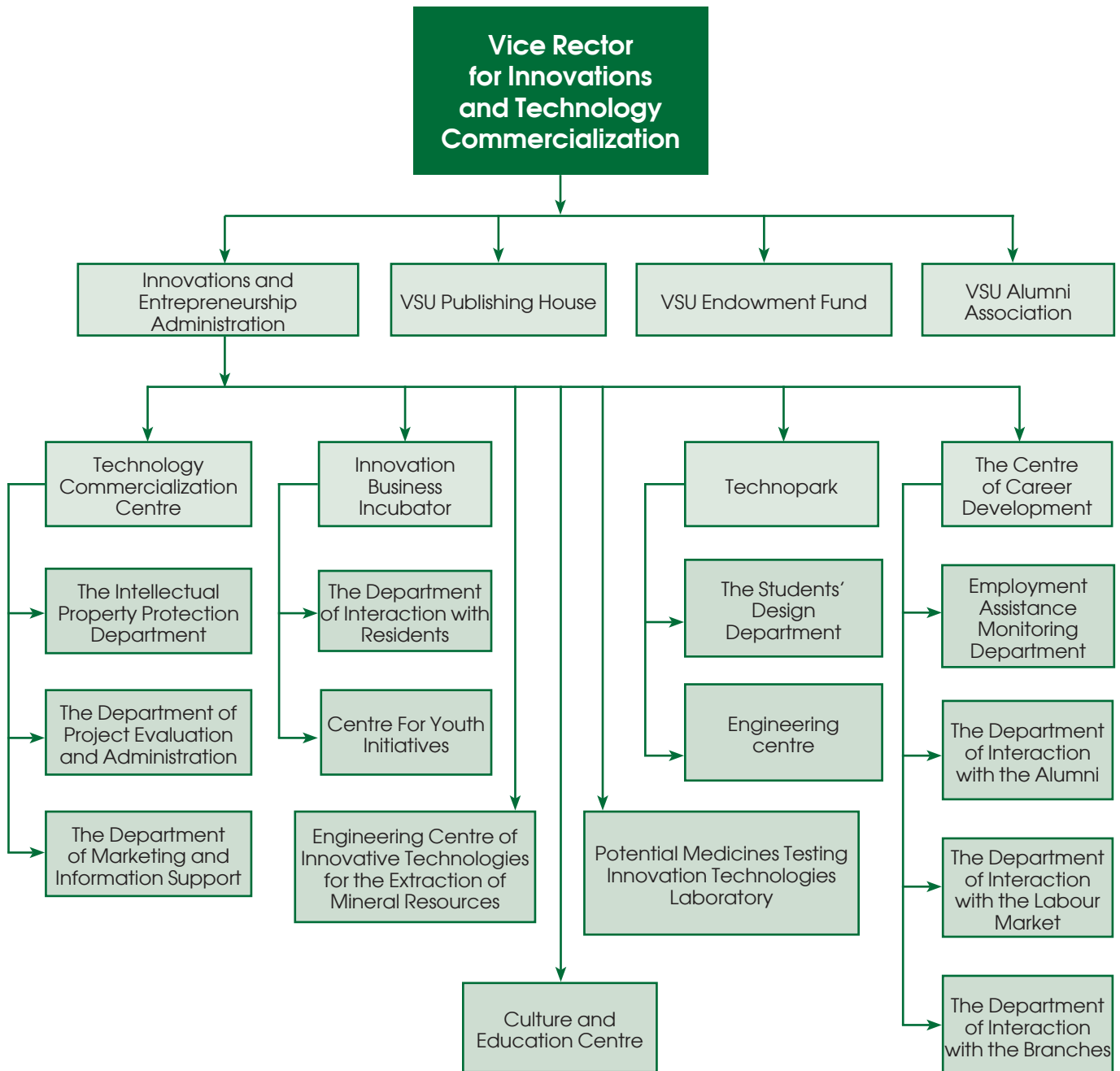


2.8. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR ECONOMIC DEVELOPMENT AND INTERNATIONAL COOPERATION



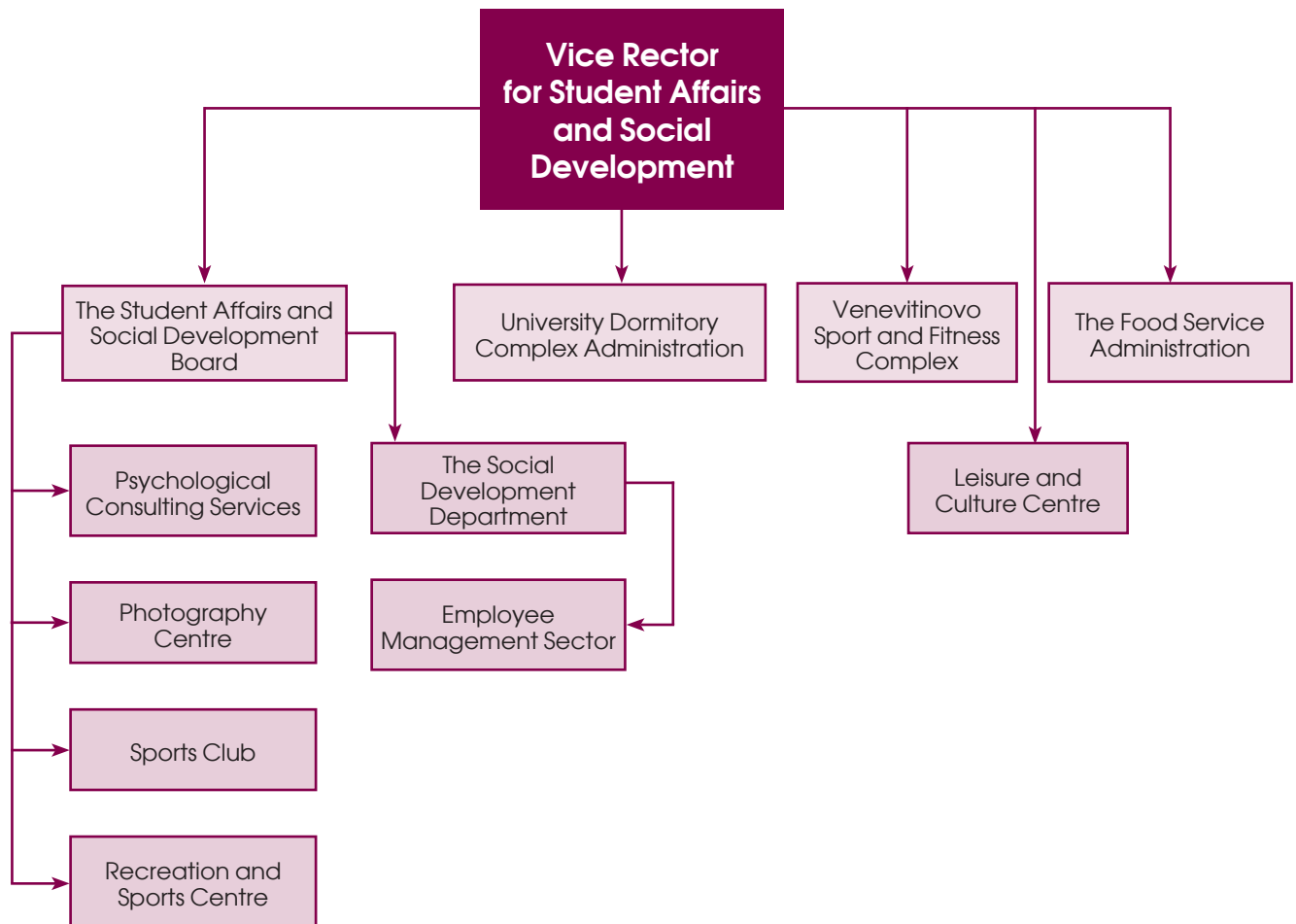


2.9. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR INNOVATIONS AND TECHNOLOGY COMMERCIALIZATION



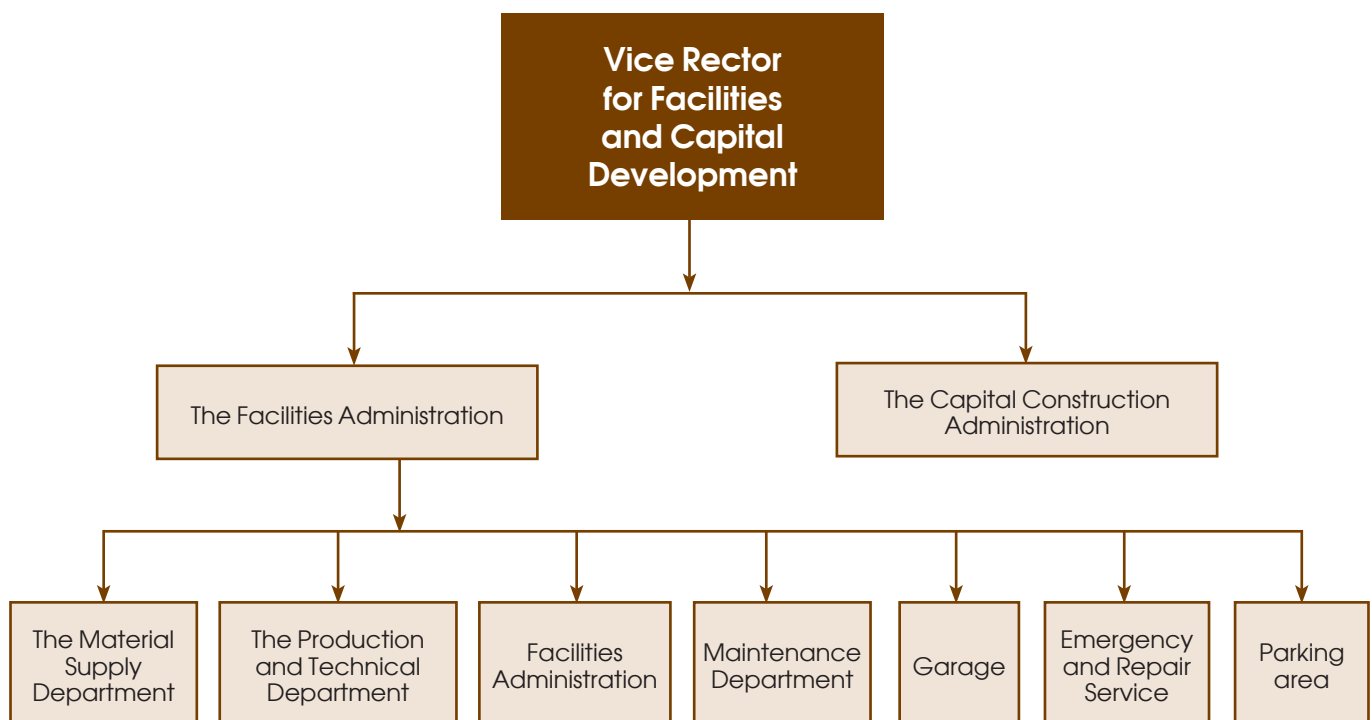


2.10. MANAGEMENT STRUCTURE OF THE VICE RECTOR FOR STUDENT AFFAIRS AND SOCIAL DEVELOPMENT BOARD





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





2.12. FACULTIES AND INSTITUTES

THE FACULTY OF BIOLOGY AND SOIL SCIENCES

Dean **Valeriy ARTYUKHOV**
Tel: +7 (473) 220-88-52 E-mail: artyukhov@bio.vsu.ru

THE FACULTY OF GEOLOGY

Dean **Viktor NENAKHOV**
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THE FACULTY OF HISTORY

Dean **Vladimir GLAZIEV**
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THE FACULTY OF MATHEMATICS

Dean **Alexander BAYEV**
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THE FACULTY OF MILITARY EDUCATION

Dean **Alexander SHCHERBAKOV**
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THE FACULTY OF GEOGRAPHY, GEOECOLOGY AND TOURISM

Dean **Vladimir FEDOTOV**
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THE FACULTY OF JOURNALISM

Dean **Vladimir TULUPOV**
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THE FACULTY OF COMPUTER SCIENCES

Dean **Eduard ALGAZINOV**
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THE FACULTY OF APPLIED MATHEMATICS, INFORMATICS AND MECHANICS

Dean **Alexander SHASHKIN**
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THE FACULTY OF ROMANCE AND GERMANIC PHILOLOGY

Dean **Natalia FENENKO**
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THE FACULTY OF PHILOSOPHY AND PSYCHOLOGY

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THE FACULTY OF PHARMACEUTICS

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THE FACULTY OF PHYSICS

Dean **Anatoliy BOBRESHOV**

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THE FACULTY OF PHYLOLOGY

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THE FACULTY OF CHEMISTRY

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THE FACULTY OF ECONOMICS

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THE FACULTY OF LAW

Dean **Valentin PANYUSHKIN**

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THE FACULTY OF INTERNATIONAL RELATIONS

Dean **Oleg BELENOV**

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THE INSTITUTE OF EXTRAMURAL ECONOMIC EDUCATION

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INTERNATIONAL EDUCATION INSTITUTE

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POST-GRADUATE VOCATIONAL EDUCATION INSTITUTE

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GEOLOGY RESEARCH INSTITUTE

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MATHEMATICS RESEARCH INSTITUTE

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PROJECT MAP OF VORONEZH STATE UNIVERSITY

for the 2014/2015 academic year



First Vice Rector Elena CHUPANDINA

- Project 1.** Opening new academic programmes in:
Medical Biochemistry, Medical Biophysics, Medical Cybernetics.
- Project 2.** Opening interdisciplinary network Master's degree programmes in Economics, Management, Jurisprudence, and Information Technologies.
- Project 3.** Extended Education Institute
- Project 4.** Leader of the Year – Best Professor, Best Associate Professor, Best Assistant.
- Project 5.** Providing competition-based methodological support for the educational process.
- Project 6.** Creating a virtual educational environment.



Vice Rector Yuriy BUBNOV

- Project 1.** Comprehensive analysis of the educational services market of the Central Black Earth region in the segment of higher education.
- Project 2.** The system of effective employment contracts for the academic staff of VSU.
- Project 3.** Improving the system of financial planning and control.
- Project 4.** Property complex modernization.
- Project 5.** Total redevelopment of Voronezh State University Botanical Garden.



Vice Rector Oleg GRISHAEV

- Project 1.** National conference on developing amateur sports at universities.
- Project 2.** Developing donorship and volunteering.
- Project 3.** A regional fraternity conference.
- Project 4.** A school of students' core groups.
- Project 5.** A conference on developing students' building brigades Crimea – Russia
- Project 6.** VSU University Hall.



Vice Rector Vasily ANOKHIN

- Project 1.** Completing the construction of an improved nine-storeyed brick dormitory for 330 people (for Master's degree students, postgraduate students, and international students).
- Project 2.** Completing the construction of the VSU swimming pool in Kholzunova Street, worth a total of 190.2 million roubles.

PROJECT WORK COORDINATION – VSU RECTOR DMITRIY ENDOVITSKIY



Vice Rector Vasily POPOV

- Project 1.** Promoting a system of inner mini-grants for young scholars.
- Project 2.** Publishing highly ranked manuscripts by VSU researchers.
- Project 3.** Developing and promoting VSU journals with a high citation index.
- Project 4.** Promoting VSU dissertation committees.
- Project 5.** Developing the Centre for Collective Use of Scientific Equipment.
- Project 6.** Electronic University.



Vice Rector Tatiana DAVYDENKO

- Project 1.** Developing innovative competencies in VSU students and scholars.
- Project 2.** Developing the intellectual property rights administration system.
- Project 3.** Developing business connections with enterprises and organisations of the Voronezh region and other regions of the Russian Federation.
- Project 4.** Establishing and securing efficient performance of the Centre of Career Development.
- Project 5.** Developing the VSU Publishing House.



Vice Rector Oleg BELENOV

- Project 1.** Developing and implementing joint education programmes (double degree programmes).
- Project 2.** The system of curators for VSU foreign students.
- Project 3.** An information session on “European programmes in the field of education and science: opportunities for Russia”
- Project 4.** An international conference on the “Economic and legal aspects of European Union expansion”.
A summer school on “European companies and Russia: economic and legal aspects”.
- Project 5.** The Fascinating Russian Language.
- Project 6.** Joint distance educational programme in Russian Regional Studies
- Project 7.** Establishing the UNIQUE Information Centre (within the Erasmus Mundus project; UNIQUE – University Quality Exchange).



Dean of the Faculty of Military Education Alexander SHCHERBAKOV

- Project 1.** Developing a new military education system for students: reserve soldiers/sergeants/officers.





VORONEZH STATE UNIVERSITY STRATEGIC DEVELOPMENT



VORONEZH STATE UNIVERSITY STRATEGIC DEVELOPMENT



Yuriy Bubnov,
Vice Rector for Strategic
Administrative Management

3.1. MISSION, VISION, STRATEGIC OBJECTIVES AND PROMISING PROJECTS OF THE UNIVERSITY

The mission of the university is the commitment to ensuring that the educational and research programmes benefit people's living standards.

The strategic objective for 2015–2020 is lasting international recognition of the university as a centre of education and research.

The role of the university in “tomorrow's agenda”: it is at the core of the activities aimed at restructuring higher education, creating and implementing the model of proactive cooperation between universities and business structures.

STRATEGY CONSISTENCY

VSU is continuing the course selected in 2013. In order to win and maintain a competitive edge in the educational services and research market, we have identified the niche of human resource, nature and energy conservation. In this segment, we can make best use of the resources of the powerful natural sciences module and create a springboard for propelling the whole network of the educational and research areas to the level of internationally recognized European universities. A breakthrough in the targeted segment will enable the university to obtain substantial financial assets in order to remain a classical university that is advanced and competitive in all areas of its activity.



VSU PROJECT VISION BY 2020

An internationally recognized classical university whose activities are aimed at raising people's living standards, which is integrated into the system of production and educational clusters and implements network programmes in collaboration with the leading national and international universities.

STRATEGIC OBJECTIVES:

- implementing and promoting the model of proactive cooperation with business structures;
- developing new competitive interdisciplinary programmes and specializations in the area of human resource, nature and energy efficiency;
- maintaining and expanding the market niche in high-tech developments and fundamental education;
- improving the international academic profile of the university.

STRATEGIC PROJECTS AND INITIATIVES

1. Supporting the development of regional production and educational clusters.
2. Establishing the association of higher education institutions aimed at the implementation of joint educational programmes.
3. Reengineering the existing interdisciplinary network academic programmes and creating new ones.
4. Establishing the Interregional Centre of IT research and development.
5. Implementing priority research projects in the field of human resource, nature and energy conservation.

DETAILS OF KEY INDICATORS

The analysis of the strategy implementation in 2014 has demonstrated the need for revising a number of key indicators (Table 3.1). Instead of the position in the general Quacquarelli Symonds (QS) rating, we are now using a more sensitive indicator – the QS BRICS rating. The target level of the income from R&D for 2020 has been doubled due to the fact that, in 2014, the university was able to reach the previously targeted level (300 thousand roubles per person); the figure for the infrastructure investments has been similarly altered.



Table 3.1

KEY INDICATORS OF THE UNIVERSITY'S DEVELOPMENT FOR 2014–2020

| No | Indicator | 2014 | 2020 |
|----|--|-------|------|
| 1 | The share of students enrolled in the network higher education programmes, % | – | 20 |
| 2 | The amount of the endowment fund, million roubles. | 13.4 | 200 |
| 3 | Position in the QS BRICS international ranking | 90 | 50 |
| 4 | Income from R&D per 1 academic staff member, thousand roubles per person | 246.8 | 600 |
| 5 | Investments into the university infrastructure development, million roubles per year | 371.5 | 500 |

3.2. INFORMATION ON THE VORONEZH STATE UNIVERSITY STRATEGIC DEVELOPMENT PROGRAMME AND THE ACHIEVEMENT OF TARGET PARAMETERS FOR 2014

The Voronezh State University Strategic Development Programme has been implemented since 2012 and is to be completed in 2016. Within the scope of this programme, the following strategic tasks are to be carried out:

- modernizing the educational process;
- modernizing the research capacity and innovation activity;
- Human resource development and ensuring a high level of excellence of the enrolment;
- modernizing the infrastructure;
- enhancing the organizational structure of the university and improving the management efficiency.

State funding of the measures taken within the scope of the Strategic Development Programme in 2014 amounted to 87,220 million roubles. (Table 3.2). Despite this fact, the university was able to achieve its target values in 50 out of 53 performance indicators (Table 3.3), while at the same time considerably improving its performance in international and research activities, patent activity, and financial security, compared to 2013.

A full report on the implementation of the programme in 2014 may be found on VSU's official website <http://www.vsu.ru/russian/docs/strategy.html>

Table 3.2

A STATEMENT OF THE APPLICATION OF THE FEDERAL BUDGET SUBSIDIES UNDER THE PROGRAMME OF STRATEGIC DEVELOPMENT IN 2014, million roubles.

| No | Events and projects | Planned | Actual |
|-----------|---|--------------|--------------|
| 1. | Modernizing the educational process (contents and organization) | 5.000 | 3.590 |
| 1.1. | Integration into the international educational framework | 0.000 | 0.000 |
| 1.1.1. | Establishing, equipping, and developing an international innovation centre of educational programmes and technology transfer | 0.000 | 0.000 |
| 1.2. | Developing a comprehensive programme of the university's internationalization | 5.000 | 3.590 |
| 1.2.1. | Establishing a resource centre of international educational programmes | 1.500 | 1.652 |
| 1.2.2. | Developing joint educational programmes in collaboration with the leading European and CIS education centres | 3.5 | 1.938 |
| 2. | Modernizing the process of research and innovation activity (contents and organization) | 2.120 | 0.451 |
| 2.1. | Developing the priority research area of Nanotechnologies and Materials | 0.700 | 0.104 |
| 2.1.1. | Resolving systemic issues connected with the field of Nanotechnologies and Materials on the basis of the Nanotechnologies and Materials Centre for Research and Education and educational and research laboratories | 0.700 | 0.104 |
| 2.2. | Developing the priority research area of Information Technologies | 0.700 | 0.209 |
| 2.2.1. | Resolving systemic issues connected with the field of Information Technologies on the basis of the IT cluster | 0.700 | 0.209 |
| 2.3. | Developing the priority research area of Physico-Chemical Biology and Bioengineering | 0.300 | 0.069 |
| 2.3.1. | Resolving systemic issues connected with the field of Physico-Chemical Biology and Bioengineering on the basis of the Physico-Chemical Biology and Bioengineering Centre for Research and Education and the Centre for Collective Use of Scientific Equipment | 0.300 | 0.069 |
| 2.4. | Developing the priority research area of Applied Material Studies | 0.300 | 0.069 |
| 2.4.1. | Resolving systemic issues connected with the field of Applied Material Studies on the basis of the Applied Material Studies Centre for Research and Education and the Centre for Collective Use of Scientific Equipment | 0.300 | 0.069 |
| 2.5. | Developing the priority research area of Exploration Geology | 0.120 | 0.000 |
| 2.5.1. | Resolving systemic issues connected with the field of Exploration Geology on the basis of the Exploration Geology Centre for Research and Education and the Centre for Collective Use of Scientific Equipment | 0.120 | 0.000 |
| 3. | Human resource development and ensuring a high level of excellence of the students | 4.700 | 1.298 |
| 3.1. | Creating conditions for the postgraduate students and young academic staff members to opt for employment at the university | 4.700 | 1.298 |
| 3.1.1. | Enhancing the national and international mobility of the postgraduate students and young academic staff members of the university | 1.700 | 0.163 |
| 3.1.2. | Organizing competitions in education and research for the postgraduate students and young academic staff members of the university | 3.000 | 1.135 |



End of table 3.2

| No | Events and projects | Planned | Actual |
|--------------|--|---------------|---------------|
| 4. | Modernizing the infrastructure | 70.900 | 72.732 |
| 4.1. | Enhancing the infrastructure for the educational and research activities | 55.900 | 54.770 |
| 4.1.1. | Purchasing advanced analytical and measuring equipment for the Centre for Collective Use of Scientific Equipment in the research area of Applied Material Studies | 3.600 | 8.411 |
| 4.1.2. | Purchasing advanced analytical and measuring equipment for the Centre for Collective Use of Scientific Equipment in the research area of Physico-Chemical Biology and Bioengineering | 50.000 | 32.356 |
| 4.1.3. | Purchasing advanced analytical and measuring equipment for the Centre for Collective Use of Scientific Equipment in the research area of Exploration Geology | 0.000 | 0.000 |
| 4.1.4. | Purchasing high-tech laboratory and training equipment for educational and research laboratories in the research area of Nanotechnologies and Materials | 2.000 | 0.657 |
| 4.1.5. | Purchasing high-tech laboratory and training equipment for the IT cluster in the research area of Information Technologies | 0.300 | 3.727 |
| 4.1.6. | Developing and purchasing computer and telecommunications equipment | 0.000 | 0.000 |
| 4.1.7. | Developing and purchasing the software for industrial process simulation | 0.000 | 7.404 |
| 4.1.8. | Purchasing multimedia equipment for lecture halls and classrooms | 0.000 | 2.215 |
| 4.1.9. | Installing the purchased equipment in the research laboratories, the Centre for Collective Use of Scientific Equipment, and classrooms | 0.000 | 0.000 |
| 4.1.10. | Adjusting and startup procedures | 0.000 | 0.000 |
| 4.2. | Refurbishment of the premises | 15.000 | 17.962 |
| 4.2.1. | Refurbishment of the academic buildings | 5.000 | 10.347 |
| 4.2.2. | Refurbishment of the dormitories | 10.000 | 7.615 |
| 5. | Enhancing the organizational structure of the university and improving the management efficiency | 4.500 | 0.718 |
| 5.1. | Creating and developing an effective management system at the university | 4.500 | 0.718 |
| 5.1.1. | Conducting internal monitoring of the implementation of the university strategic development programme | 4.500 | 0.718 |
| Total | | 87.220 | 78.789 |

Table 3.3

A REPORT ON THE ACHIEVEMENT OF TARGET PARAMETERS OF THE STRATEGIC DEVELOPMENT PROGRAMME FOR 2014

| No | Sets of parameters, parameters | Units of measurement | Planned | Actual | Percentage of completion |
|---|--|----------------------|---------|--------|--------------------------|
| 1. Educational activity success indicators | | | | | |
| 1.1. | The number of main academic programmes in accordance with the licence for educational activities | units | 166 | 174 | 104.82 |
| 1.1.1. | bachelor's degree course, diploma degree (specialist) course | units | 50 | 55 | 110 |
| 1.1.2. | master's degree course | units | 38 | 38 | 100 |
| 1.1.3. | postgraduate school | units | 78 | 81 | 103.85 |
| 1.2. | The share of master's degree students in the reduced contingent at the university | % | 9 | 12.82 | 142.44 |
| 1.3. | The number of postgraduate students per 100 students of the reduced contingent | number of people | 5.1 | 4.62 | 90.59 |
| 1.4. | The share of postgraduate students having defended their dissertation in due time and within one year after the completion of their course of studies, among all the postgraduate students completing the course in the given year | % | 45 | 28.35 | 63 |
| 1.5. | Average annual contingent in advanced training and professional retraining programmes | number of people | 194 | 422 | 217.53 |
| 1.6. | The share of university graduates obtaining employment in their professional field (within three years after graduation) | % | 95 | 98.35 | 103.53 |
| 1.7. | The share of international students from the CIS, the Baltics, Georgia, Abkhazia, and South Ossetia, in the reduced contingent at the university | % | 1.4 | 1.52 | 108.57 |
| 1.8. | The share of international students from countries other than the CIS, the Baltics, Georgia, Abkhazia, and South Ossetia, in the reduced contingent at the university | % | 3 | 3.07 | 102.33 |
| 1.9. | The share of the regular staff in the total number of FTE of the university | % | 98 | 98.45 | 100.46 |
| 1.10. | The share of the regular staff in the total number of the regular FTE of the university | | | | |
| 1.10.1. | under 30 | % | 13.5 | 14.96 | 110.81 |
| 1.10.2. | 30 to 39 | % | 26.4 | 28.97 | 109.73 |
| 1.11. | The share of the regular staff having a PhD or a Dr.Habil. degree in the total number of the regular FTE of the university | | | | |
| 1.11.1. | in total | % | 73.7 | 85.82 | 116.45 |
| 1.11.2. | under 30 | % | 6 | 6.73 | 112.17 |
| 1.11.3. | 30 to 39 | % | 20.5 | 22.88 | 111.61 |
| 1.12. | Ratio of the number of textbooks and study guides written by the regular staff to the total number of the regular FTE academic staff of the university | units | 0.3 | 0.3238 | 107.93 |

| No | Sets of parameters, parameters | Units of measurement | Planned | Actual | Percentage of completion |
|---|---|----------------------|---------|---------|--------------------------|
| 2. The indicators of research capacity effectiveness | | | | | |
| 2.1. | The share of full-time students participating in scientific research and development on payroll or as joint participants in R&D reports, among the total number of full-time students of the university | % | 5.6 | 5.64 | 100.71 |
| 2.2. | The amount of R&D financing from all sources | million roubles | 245.7 | 421.028 | 171.36 |
| 2.3. | The share of R&D financing in the total amount of financing | % | 13.1 | 18.2 | 138.93 |
| 2.4. | The amount of administrative agreement R&D financing | million roubles | 50 | 156.094 | 312.19 |
| 2.5. | The amount of R&D financing in the total number of FTE of the university | thousand roubles | 180 | 278.7 | 154.83 |
| 2.6. | The number of FTE of the university's academic researchers | number of people | 234 | 234 | 100 |
| 2.7. | The number of dissertations defended by the regular academic staff members at the university in the total number of regular FTE of the university | units | 0.02 | 0.0084 | 42 |
| 2.8. | The number of monographs written by the regular academic staff members in the total number of regular FTE of the university | units | 0.07 | 0.0784 | 112 |
| 2.9. | The number of articles written by the regular academic staff members and published in scientific periodical publications indexed by national and international organizations (Web of Science, Scopus, Russian Science Citation Index), as well as in Russian peer-reviewed journals, in the total number of regular FTE of the university | units | 1.5 | 1.532 | 102.13 |
| 3. Innovation activity success indicators | | | | | |
| 3.1. | The number of applications for documents of title for the intellectual property | units | 33 | 76 | 230.3 |
| 3.2. | The number of registered software for computers, databases, integrated circuit topographies | units | 12 | 18 | 150 |
| 3.3. | The number of patents | units | 30 | 34 | 113.33 |
| 3.4. | The number of patents held | units | 50 | 85 | 170 |
| 3.5. | The number of license agreements for other organisations to use the intellectual property items | units | 12 | 15 | 125 |
| 3.6. | The number of small innovative businesses created by the university under the Federal Law No 217-FZ of 2 August 2009 | units | 28 | 28 | 100 |
| 3.7. | Total financing of the universities activity using the funds from the international companies and organisations | million roubles | 3 | 6.938 | 231.27 |

End of table 3.3

| No | Sets of parameters, parameters | Units of measurement | Planned | Actual | Percentage of completion |
|---|---|----------------------|---------|----------|--------------------------|
| 4. Indicators of finance and resource sustainability | | | | | |
| 4.1. | Carrying value of the most valuable assets adjusted for depreciation | million roubles | 168.5 | 214.263 | 127.16 |
| 4.2. | Revenue structure (amount), of which | million roubles | 1871.9 | 2312.775 | 123.55 |
| 4.2.1. | financing by estimate (through the founder's subsidies), total | million roubles | 887.5 | 990.473 | 111.6 |
| 4.2.2. | funds obtained through R&D from other sources | million roubles | 180 | 274.199 | 152.33 |
| 4.2.3. | funds obtained from commercial educational services | million roubles | 801.5 | 813.347 | 101.48 |
| 4.2.4. | other sources | million roubles | 2.9 | 234.756 | 8095.03 |
| 4.3. | Average salary of the academic staff members of the university: | | | | |
| 4.3.1. | in total | thousand roubles | 19.25 | 31.591 | 164.11 |
| 4.3.2. | Assistants | thousand roubles | 15.6 | 17.382 | 111.42 |
| 4.3.3. | Associate Professors | thousand roubles | 25 | 33.346 | 133.38 |
| 4.3.4. | Professors | thousand roubles | 30.7 | 42.535 | 138.55 |
| 4.3.5. | Heads of departments | thousand roubles | 28.4 | 57.136 | 201.18 |
| 4.3.6. | Deans | thousand roubles | 46.2 | 73.896 | 159.95 |
| 4.4. | The ratio of the average monthly salary of the academic staff members of the university to the average monthly salary in the Russian Federation subject where the university is located | % | 135 | 135.18 | 100.13 |
| 4.5. | The share of the funds obtained through income-generating activities in the total amount of funding received by the university from all sources | % | 52.5 | 52.61 | 100.21 |
| 4.6. | The share of the funds from all sources used by the universities for maintaining its property complex | % | 8.5 | 8.6 | 101.18 |
| 4.7. | The share of the funds from all sources used by the universities for developing its property complex | % | 7.5 | 16.06 | 214.13 |
| 4.8. | The share of students provided a place at the dormitory | % | 72 | 88.28 | 122.61 |
| 5. Specific target values | | | | | |
| 5.1. | The area of refurbished academic buildings | m ² | 18 000 | 18 271 | 101.51 |
| 5.2. | The area of refurbished dormitory premises | m ² | 4200 | 4426 | 105.38 |



3.3. VORONEZH STATE UNIVERSITY IN NATIONAL AND INTERNATIONAL RANKINGS

Since 2013, Voronezh State University has been included in Quacquarelli Symonds (QS) global ranking; since 2014 it has also been included in the Academic Ranking of World Universities (ARWU, "Shanghai Ranking"). Compared to the previous year, the university rose in the national Interfax, Expert RA, and e-Library rankings, as well as the international Webometrics ranking (Table 3.4).

Table 3.4

VSU POSITION IN UNIVERSITY RANKINGS

| Name of the ranking, organization | | 2014 |
|---|---------------------------|-------|
| Interfax National University Ranking: traditional universities and research universities | | 19–20 |
| Expert RA Ranking of Russian higher education institutions | | 43 |
| Expert RA Ranking of Universities in the Commonwealth of Independent States | | D |
| University reputation ranking: Top-50 in the field of Engineering, natural and exact sciences (Expert RA) | | 46 |
| University reputation ranking: Top-50 in the field of Economics and Management training (Expert RA) | | 20 |
| 100 best Russian universities training specialists for the media industry (Ministry of Communications and Mass Media of the Russian Federation) | | 18 |
| E-Library Ranking of Russian Research Institutions | | 33 |
| The Vladimir Potanin Foundation University Ranking | | 16 |
| Quacquarelli Symonds World University Ranking (QS) | | 701+ |
| QS University Rankings – BRICS | in the Russian Federation | 17 |
| | in the world | 90 |
| QS World University Rankings by Subjects | Linguistics | 4 |
| | Modern Languages | 5 |
| | Geography | 5 |
| University Ranking by Academic Performance (URAP) | in the Russian Federation | 19 |
| | in the world | 1788 |
| SCImago Institutions Ranking (SIR) | in the Russian Federation | 49 |
| | in the world | 2203 |
| SIR – innovations | in the Russian Federation | 71 |
| | in the world | 285 |
| SIR – Web visibility | in the Russian Federation | 27 |
| | in the world | 859 |
| Webometrics Ranking of World Universities | in the Russian Federation | 18 |
| | in the world | 1521 |
| UI GreenMetric World University Ranking | | 231 |
| Academic Ranking of World Universities-European Standard (ARES) | | BBB+ |
| Academic Ranking of World Universities (ARWU) | | 501+ |
| Times Higher Education World University Ranking (THE) | | – |



3.4. THE RESULTS OF THE UNIVERSITY PERFORMANCE MONITORING

In 2014, the University successfully passed the monitoring of the performance of state higher education institutions held by the Ministry of Education and Science of the Russian Federation. Compared to the previous year, the results of the monitoring have improved (7 out of 8 parameters achieved) (Tables 3.5–3.7; Figure 3.1). The results of the monitoring may be found on the website <http://www.miccedu.ru/monitoring/>

Table 3.5

THE RESULTS OF THE PERFORMANCE MONITORING FOR KEY INDICATORS

| No | Parameters | Values | Threshold value |
|-----|---------------------------------|---------|-----------------|
| E.1 | Academic activities | 70.13 | 60 |
| E.2 | Research | 214.18 | 51.28 |
| E.3 | International activity | 4.21 | 1 |
| E.4 | Financial and economic activity | 1400.15 | 1327.57 |
| E.5 | Infrastructure | 15.56 | 13.92 |
| E.6 | Employment | 98.376 | 98.516 |
| E.8 | Additional indicator | 5.38 | 2.78 |

Figure 3.1

THE ACHIEVEMENT OF TARGET PARAMETERS FOR 2014 PERFORMANCE MONITORING, %

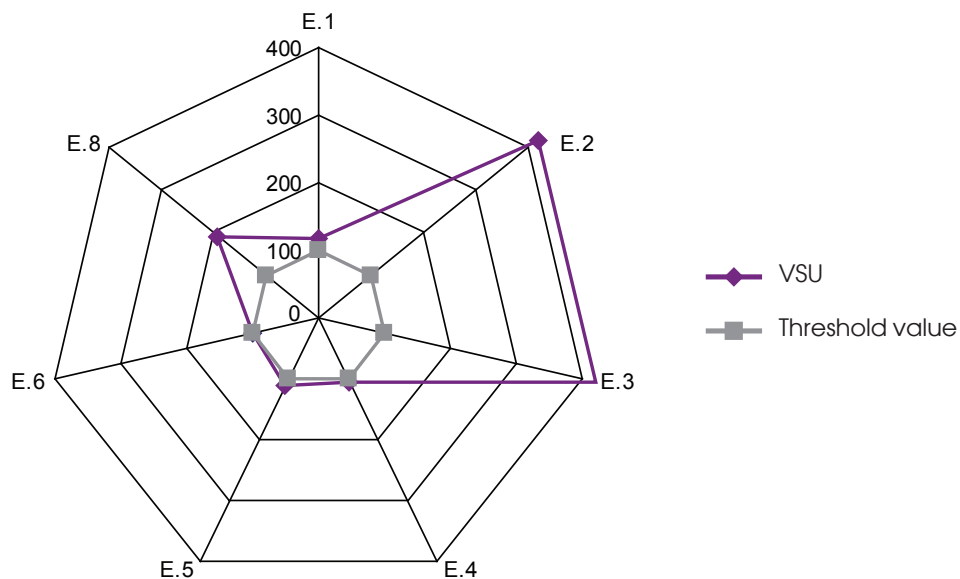




Table 3.6

THE RESULTS OF THE PERFORMANCE MONITORING BY FIELD

| No | Parameters | Units of measurement | Values |
|-------------------------------|---|----------------------|--------|
| 1. Academic activities | | | |
| 1.1 | The average state exam grade of the students who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes funded by the Russian Federation state budget resources. | grade | 74.02 |
| 1.2 | The average state exam grade of the students who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes with the education cost value covered by natural and legal persons. | grade | 67.09 |
| 1.3 | Minimal state exam grade of the students who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes, average for the existing programmes (discipline areas) | grade | 47.87 |
| 1.4 | The number of student winners and awardees of the final stage of the All-Russian Academic Competition among Schoolchildren, members of the Russian Federation national teams having taken part in international competitions, who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes without any admission tests. | number of people | 0 |
| 1.5 | The number of student winners and awardees of the academic competitions held among schoolchildren who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes in the discipline areas corresponding to the competition profile without any admission tests. | number of people | 8 |
| 1.6 | The number of employer-sponsored students who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes | number of people | 40 |
| 1.7 | The percentage of employer-sponsored students who enrolled in full-time bachelor's degree and diploma degree (specialist) study programmes in the total number of students | % | 1.32 |
| 1.8 | The percentage of students (reduced contingent) in master's degree programmes in the total number of the reduced contingent of students | % | 8.23 |
| 1.9 | The percentage of students having a bachelor's, specialist's or master's degree obtained in another establishment who enrolled in master's degree programmes of the educational establishment in the total number of students having enrolled in full-time master's degree programmes | % | 13.45 |
| 1.10 | The number of postgraduate students per 100 students (of the reduced contingent) at the university | number of people | 4.43 |
| 1.11 | The percentage of the participants from outside organizations in the total number of participants completing advanced training and retraining programmes at the university | % | 88.52 |



Table cont. 3.6

| No | Parameters | Units of measurement | Values |
|--------------------|---|----------------------|-----------|
| 2. Research | | | |
| 2.1 | The number of citations of the articles in the Web of Science citation indexing system per 100 academic staff members | units | 108.53 |
| 2.2 | The number of citations of the articles in the Scopus citation indexing system per 100 academic staff members | units | 121.93 |
| 2.3 | The number of citations in the Russian Science Citation Index per 100 academic staff members | units | 123.76 |
| 2.4 | The number of articles in Web of Science per 100 academic staff members | units | 13.53 |
| 2.5 | The number of articles in Scopus per 100 academic staff members | units | 20.93 |
| 2.6 | The number of articles in the Russian Science Citation Index per 100 academic staff members | units | 157.87 |
| 2.7 | The total amount of research and design and experimental work (hereinafter referred to as R&D) | thousand roubles | 303,902.3 |
| 2.8 | The share of the income from R&D in the total income of the educational establishment | units | 13.34 |
| 2.9 | The share of R&D conducted without subcontracting in the total income of the educational establishment obtained from R&D | units | 105.81 |
| 2.10 | The income obtained from R&D (with the exception of the Russian Federation state budget resources and national science foundations funding) per one academic staff member | thousand roubles | 92.05 |
| 2.11 | The number of license agreements | units | 27 |
| 2.12 | The share of the income obtained by the university from intellectual property management in the total income of the university | % | 7.08 |
| 2.13 | The percentage of the academic staff members without a degree – under 30, PhDs – under 35, Dr.Habil. – under 40, in the total number of academic staff members | % | 28.29 |
| 2.14 | The percentage of the academic staff members having obtained a PhD or a Dr.Habil. degree in the year under report, in the total number of academic staff members | % | 2.02 |
| 2.15 | The number of journals, including electronic journals, published by the university | units | 46 |
| 2.16 | The number of grants obtained in the year under report, per 100 academic staff members | units | 7.61 |



Table cont. 3.6

| No | Parameters | Units of measurement | Values |
|---|--|----------------------|--------|
| 3. International activity | | | |
| 3.1 | The percentage of international students (except CIS countries) enrolled in bachelor's, specialist's, and master's degree programmes, in the total number of students (reduced contingent) | % | 3.01 |
| 3.2 | The percentage of international students (from CIS countries) enrolled in bachelor's, specialist's, and master's degree programmes, in the total number of students (reduced contingent) | % | 1.2 |
| 3.3 | The percentage of international students having completed bachelor's, specialist's, and master's degree programmes, in the total number of students (reduced contingent) | % | 4.24 |
| 3.4 | The percentage of international students (except CIS countries) having completed bachelor's, specialist's, and master's degree programmes, in the total number of students (reduced contingent) | % | 3.58 |
| 3.5 | The percentage of international students (from CIS countries) having completed bachelor's, specialist's, and master's degree programmes, in the total number of students (reduced contingent) | % | 0.65 |
| 3.6 | The percentage of the university students enrolled in full-time bachelor's, specialist's, and master's degree programmes who spent at least a semester (academic term) studying abroad, in the total number of full-time students. | % | 1.07 |
| 3.7 | The number of the students of international educational establishments having completed a full-time bachelor's, specialist's, or master's degree programmes for at least a semester (academic term) per 100 full-time students. | units | 0.39 |
| 3.8 | The percentage of foreign residents among the academic staff members | % | 0.49 |
| 3.9 | The percentage of foreign residents (except the CIS countries) among the university postgraduate students in the total number of postgraduate students | % | 6.8 |
| 3.10 | The percentage of foreign residents (from the CIS countries) among the university postgraduate students in the total number of postgraduate students | % | 0.31 |
| 3.11 | The amount of finance obtained by the university from foreign residents and foreign corporations for R&D | thousand roubles | 0 |
| 3.12 | The amount of finance for educational activities obtained by the university from foreign residents and foreign corporations for R&D | thousand roubles | 1034.8 |
| 4. Financial and economic activity | | | |
| 4.1 | The funds obtained through income-generating activities per one academic staff member | thousand roubles | 636.38 |
| 4.2 | The ratio of the average salary of the academic staff members at the university (from all sources) to the average salary in the region | % | 120.81 |



End of table 3.6

| No | Parameters | Units of measurement | Values |
|--------------------------|--|----------------------|--------|
| 4.3 | The income of the university obtained from all sources per the number of students (reduced contingent) | thousand roubles | 135.89 |
| 5. Infrastructure | | | |
| 5.1 | Total floor space of all classrooms and laboratories per one student (of the reduced contingent), including: | m ² | 15.56 |
| 5.1.1 | owned by the university | m ² | 0 |
| 5.1.2 | assigned to the university on the basis of operational management | m ² | 7.67 |
| 5.1.3 | assigned to the university for free use | m ² | 7.9 |
| 5.1.4 | rented by the university | m ² | 0 |
| 5.2 | The number of personal computers per one student (of the reduced contingent) | units | 0.17 |
| 5.3 | The percentage of the value of plant and equipment (no more than 5 years old) at the university in the total value of plant and equipment | % | 56.32 |
| 5.4 | The number of copies of printed educational publications (including textbooks and study guides) in the total number of depository items registered in the library collection per one student (of the reduced contingent) | % | 216.92 |
| 6. Employment | | | |
| 6.1 | The percentage of graduates in the year under report having completed full-time courses of study who applied for employment assistance to the employment assistance authorities | % | 3.79 |
| 6.2 | The percentage of graduates in the year under report having completed full-time courses of study who applied for employment assistance to the employment assistance authorities and declared unemployed | % | 2.81 |
| 6.3 | The percentage of graduates in the year under report having completed full-time courses of study who applied for employment assistance but failed to obtain employment within one year | % | 42.86 |
| 7. Staff | | | |
| 7.1 | The percentage of the academic staff members with a PhD degree in the total number of academic staff members | % | 56.89 |
| 7.2 | The percentage of the academic staff members with a Dr.Habil. degree in the total number of academic staff members | % | 18.96 |
| 7.3 | The percentage of the academic staff members with a PhD or a Dr.Habil. degree in the total number of academic staff members (with the exception of part-time and civil contract employees) | % | 76.71 |
| 7.4 | The number of the academic staff members with a PhD or a Dr. Habil. degree, per 100 students | units | 5.7 |
| 7.5 | The percentage of regular academic staff members in the total number of academic staff members | % | 88.4 |



Table 3.7

THE ROLE OF THE UNIVERSITY IN TRAINING SPECIALISTS FOR THE REGION
(THE VORONEZH REGION)

| Existing aggregative groups of programmes (discipline areas) | Reduced contingent, number of people | Share in the given VSU contingent, % | Share in the region, % | The percentage of graduates who applied for employment assistance, % |
|---|--------------------------------------|--------------------------------------|------------------------|--|
| 010000 – Physics and Mathematics | 2686.5 | 18.38 | 100 | 0.93 |
| 020000 – Natural Science | 2381.4 | 16.29 | 87.01 | 4.35 |
| 030000 – Humanities | 5431.5 | 37.15 | 63.83 | 3.54 |
| 040000 – Social sciences | 185 | 1.27 | 49.61 | 0 |
| 050000 – Education and Pedagogics | 57 | 0.39 | 1.31 | 81.25 |
| 060000 – Healthcare | 449.35 | 3.07 | 8.66 | 0 |
| 080000 – Economics and Management | 2646.4 | 18.1 | 22.2 | 5.33 |
| 100000 – Service sector | 65.3 | 0.45 | 9.21 | 0 |
| 130000 – Geology, surveying and mineral deposit exploration | 8.7 | 0.06 | 2.83 | 0 |
| 140000 – Energetics, power engineering and electric engineering | 88 | 0.6 | 10.97 | 0 |
| 210000 – Radio technology, electronics and telecommunication | 152 | 1.04 | 14.98 | 6.25 |
| 230000 – Computer sciences and computer facilities | 469 | 3.21 | 21.28 | 0.78 |



3.5 HUMAN RESOURCES

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

- developing the system of renewing and enhancing the university's academic staff;
- supporting young scholars and postgraduate students;
- supporting initiatives in the area of education;
- introducing new methods and advanced training and retraining programmes for the academic staff of the university;
- forming the university's personnel reserve;
- developing and implementing a system of rankings for the departments and academic staff of the university;
- developing an effective system of human resource policy management;
- Improving the remuneration system;
- raising the university employees' motivation and commitment levels.

Key quantitative characteristics of the human resources in 2014 (figures 3.2, 3.3):

- total number of the university employees as of 1 January 2015 **3912 people**
among them:
- the number of academic staff members **1595 people**
- the number of educational support personnel **861 people**
- the number of administrative and managerial staff members **340 people**
- the number of scientific and engineering personnel **235 people**
- the number of maintenance staff **881 people**



Figure 3.2

TOTAL NUMBER OF STAFF MEMBERS IN 2012–2014

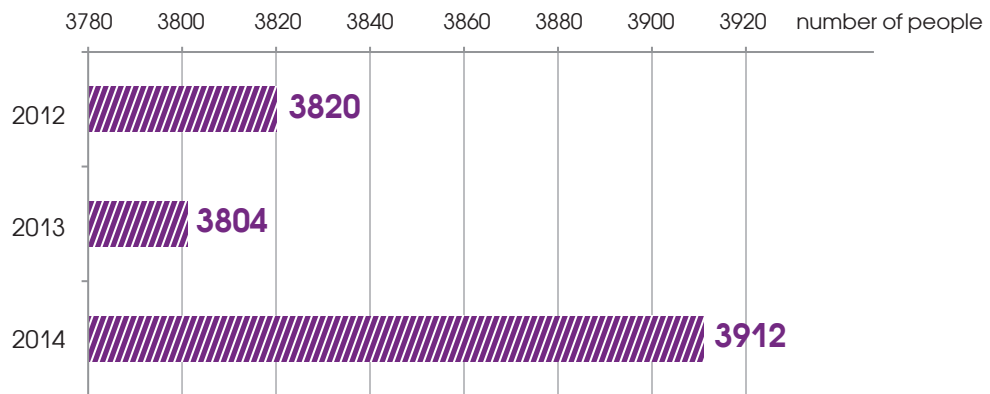
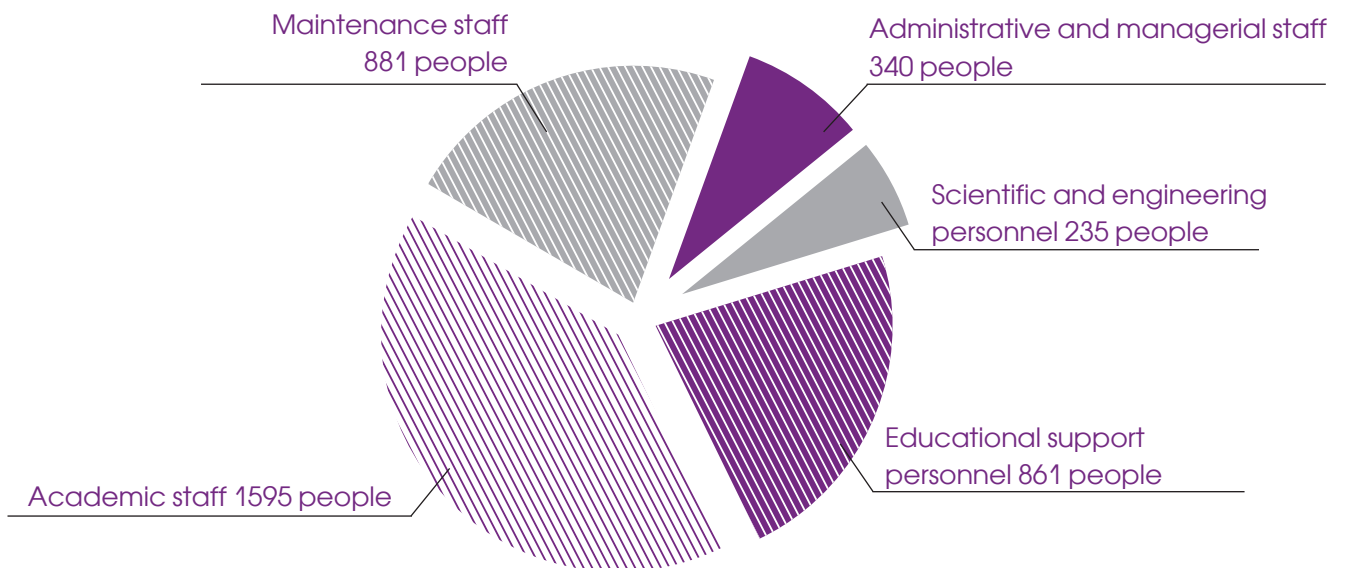


Figure 3.3

THE COMPARISON OF THE NUMBERS OF STAFF MEMBERS BY FUNCTION IN 2014





Quantitative and qualitative indicator dynamics in the university staff composition in total in 2012–2014 is shown in table 3.8.

Table 3.8

HEADCOUNT AND COMPOSITION OF THE UNIVERSITY PERSONNEL IN 2012–2014

| The university staff composition | 2012 | 2013 | 2014 |
|---|-------------|-------------|-------------|
| Total number of employees | 3820 | 3804 | 3912 |
| Academic staff | 1555 | 1584 | 1595 |
| including: | | | |
| total number of staff with a degree | 1274 | 1209 | 1190 |
| Dr.habil. | 299 | 310 | 311 |
| PhD | 975 | 899 | 879 |
| Educational support personnel | 754 | 855 | 861 |
| Administrative and managerial staff | 431 | 339 | 340 |
| Scientific and engineering personnel | 252 | 126 | 235 |
| Maintenance staff | 828 | 900 | 881 |

The analysis of the composition of the university staff demonstrates that 74.6 % of the total number of the academic staff members have an academic degree (1190 people). There are 311 staff members with a Dr.Habil. degree (19.5 %).

The results of the academic staff numbers are shown in Figures 3.4–3.8 and in Tables 3.9–3.12.

Figure 3.4

THE COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS IN 2012–2014

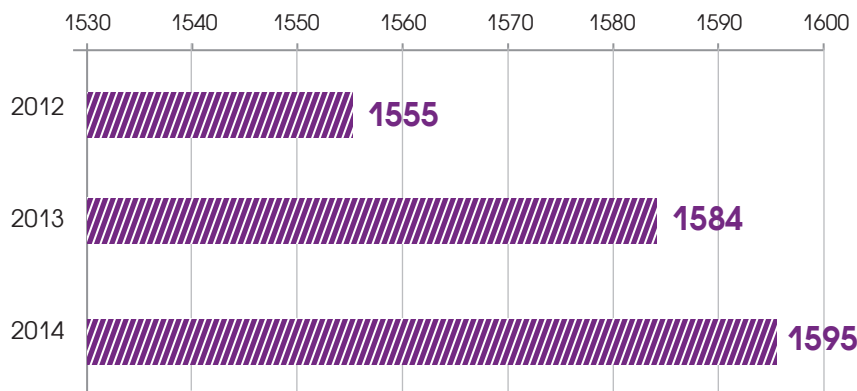




Figure 3.5

THE DISTRIBUTION OF THE ACADEMIC STAFF BY POSITION AS OF 1 JANUARY 2015

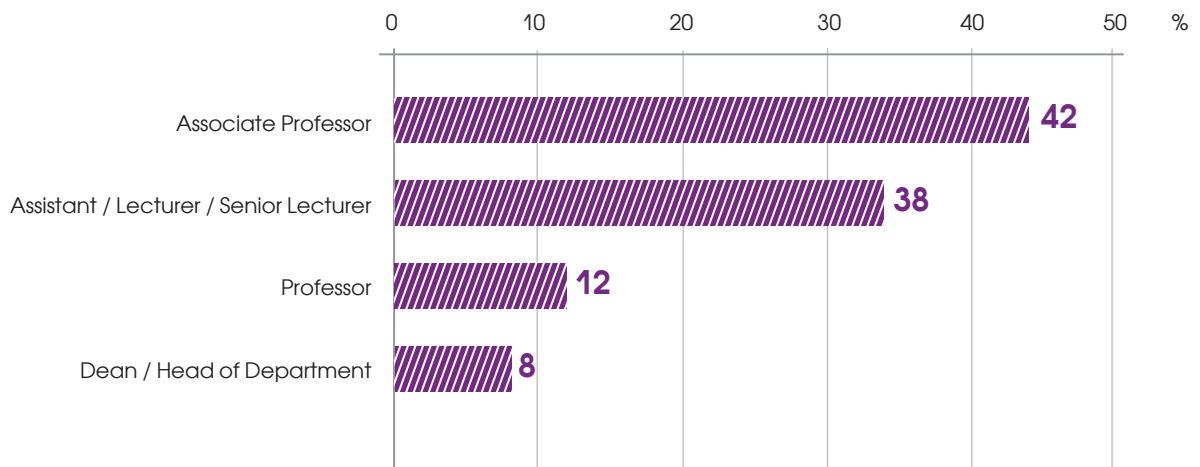


Figure 3.6

THE DISTRIBUTION OF THE ACADEMIC STAFF NUMBERS BY DEGREE AS OF 1 JANUARY 2015

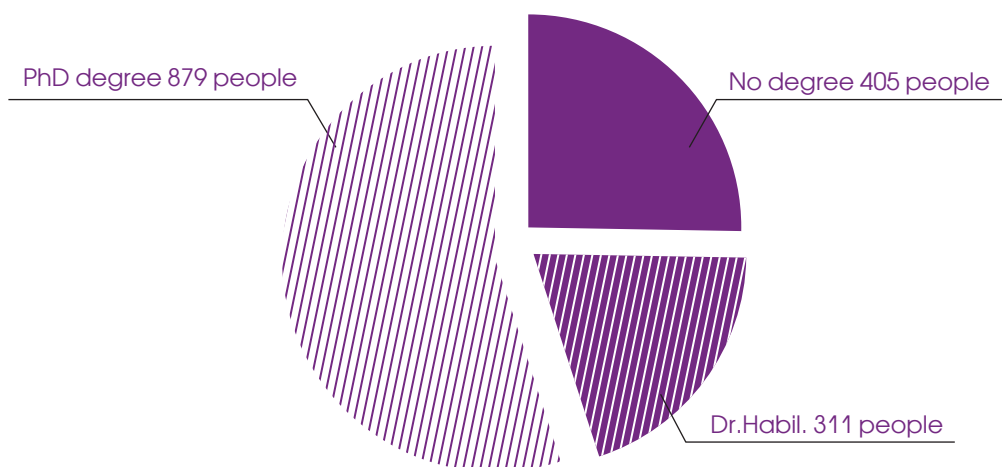


Figure 3.7

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITYWIDE DEPARTMENTS AS OF 1 JANUARY 2015



Table 3.9

THE NUMBER OF ACADEMIC STAFF MEMBERS OF FACULTIES, INSTITUTES, AND UNIVERSITYWIDE DEPARTMENTS AS OF 1 JANUARY 2015

| Structural subdivision | The number of academic staff members | |
|---|--------------------------------------|-------------|
| | full-time | total |
| Биолого-почвенный факультет | 64 | 87 |
| The Faculty of Geography, Geoecology and Tourism | 33 | 45 |
| The Faculty of Geology | 45 | 76 |
| The Faculty of History | 48 | 68 |
| The Faculty of Mathematics | 43 | 67 |
| The Faculty of Military Education | 23 | 25 |
| The Faculty of Journalism | 29 | 50 |
| The Faculty of Computer Sciences | 29 | 59 |
| The Faculty of International Relations | 16 | 35 |
| The Faculty of Applied Mathematics, Informatics and Mechanics | 66 | 117 |
| The Faculty of Romance and Germanic Philology | 131 | 207 |
| The Faculty of Philosophy and Psychology | 45 | 59 |
| The Faculty of Pharmaceutics | 27 | 38 |
| The Faculty of Physics | 94 | 133 |
| The Faculty of Philology | 25 | 70 |
| The Faculty of Chemistry | 45 | 67 |
| The Faculty of Economics | 104 | 156 |
| The Faculty of Law | 68 | 112 |
| The Department of Pharmaceutics for postgraduate students | 2 | 4 |
| The Department of Physical Education and Sports | 40 | 44 |
| The Department of Safety and Basic Medical Training | 7 | 8 |
| International Education Institute | 50 | 51 |
| The Institute Of Extramural Economic Education | 11 | 17 |
| Total | 1045 | 1595 |

Figure 3.8

THE COMPARISON OF THE NUMBERS OF ACADEMIC STAFF MEMBERS WORKING FULL-TIME AND PART-TIME IN 2014



Table 3.10

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

| Structural subdivision | Total number of people | PhDs, % | Dr.habil., % |
|---|------------------------|---------|--------------|
| The Faculty of Biology and Soil Sciences | 87 | 59.8 | 26.4 |
| The Faculty of Geography, Geoecology and Tourism | 45 | 55.6 | 17.8 |
| The Faculty of Geology | 76 | 61.8 | 22.4 |
| The Faculty of History | 68 | 61.8 | 27.9 |
| The Faculty of Mathematics | 67 | 55.2 | 29.9 |
| The Faculty of Military Education | 25 | 12.0 | – |
| The Faculty of Journalism | 50 | 66.0 | 16.0 |
| The Faculty of Computer Sciences | 59 | 50.8 | 22.0 |
| The Faculty of International Relations | 35 | 65.7 | 14.3 |
| The Faculty of Applied Mathematics, Informatics and Mechanics | 117 | 53.0 | 18.8 |
| The Faculty of Romance and Germanic Philology | 207 | 49.3 | 7.2 |
| The Faculty of Philosophy and Psychology | 59 | 59.3 | 22.0 |
| The Faculty of Pharmaceutics | 38 | 50.0 | 15.8 |
| The Faculty of Physics | 133 | 62.4 | 30.1 |
| The Faculty of Philology | 70 | 54.3 | 27.0 |
| The Faculty of Chemistry | 67 | 53.7 | 40.3 |
| The Faculty of Economics | 156 | 58.3 | 19.5 |
| The Faculty of Law | 112 | 63.4 | 18.8 |
| The Department of Pharmaceutics for postgraduate students | 4 | 75 | – |
| The Department of Physical Education and Sports | 44 | 6.8 | – |
| The Department of Safety and Basic Medical Training | 8 | 62.5 | 12.5 |
| International Education Institute | 51 | 52.9 | 2.0 |
| The Institute of Extramural Economic Education | 17 | 70.6 | 17.6 |

Table 3.11

AGE AND ACADEMIC DEGREE OF THE ACADEMIC STAFF MEMBERS

| Degree \ Age | Total | under 35 | 36 to 50 | 51 to 70 | over 70 |
|---|-------------|------------|------------|------------|------------|
| Total: | 1595 | 452 | 465 | 548 | 130 |
| Among them: Have a degree of Dr.Habil. | 311 | 2 | 53 | 186 | 70 |
| Have a PhD degree | 879 | 246 | 323 | 256 | 54 |



Table 3.12

THE DISTRIBUTION OF ACADEMIC STAFF MEMBERS BY FACILITY BY THE AVERAGE AGE

| Structural subdivision | Total number of people | Average age |
|---|------------------------|-------------|
| The Faculty of Biology and Soil Sciences | 87 | 49 |
| The Faculty of Geography, Geoecology and Tourism | 45 | 50 |
| The Faculty Of Geology | 76 | 48 |
| The Faculty of History | 68 | 50 |
| The Faculty of Mathematics | 67 | 51 |
| The Faculty of Military Education | 25 | 47 |
| The Faculty of Journalism | 50 | 48 |
| The Faculty of Computer Sciences | 59 | 45 |
| The Faculty of International Relations | 35 | 41 |
| The Faculty of Applied Mathematics, Informatics and Mechanics | 117 | 45 |
| The Faculty of Romance and Germanic Philology | 207 | 44 |
| The Faculty of Philosophy and Psychology | 59 | 46 |
| The Faculty of Pharmaceutics | 38 | 46 |
| The Faculty of Physics | 133 | 55 |
| The Faculty of Philology | 70 | 50 |
| The Faculty of Chemistry | 67 | 51 |
| The Faculty of Economics | 156 | 47 |
| The Faculty of Law | 112 | 44 |
| The Department of Pharmaceutics for postgraduate students | 4 | 50 |
| The Department of Physical Education and Sports | 44 | 45 |
| The Department of Safety and Basic Medical Training | 8 | 51 |
| International Education Institute | 51 | 47 |
| The Institute of Extramural Economic Education | 17 | 54 |

The analysis of the age of the academic staff members demonstrates that the average age of the academic staff members in the university as a whole is 47.5, whereas the percentage of employees of retirement age is 32.4 %.



3.6. TRAINING ACADEMIC AND TEACHING STAFF

Training the top-qualified specialists in postgraduate academic staff training programmes is one of the key priorities in higher education. Postgraduate students are trained in 17 research areas and 81 fields of study (Table 3.13).

UNIVERSITY POSTGRADUATE RESEARCH AREAS

- 01.00.00** – Mathematics and Mechanics
- 03.00.00** – Physics and Astronomy
- 04.00.00** – Chemistry
- 05.00.00** – Geosciences
- 06.00.00** – Biological Sciences
- 09.00.00** – Computer Science and Computing Technology
- 11.00.00** – Electronics, Radioengineering, and Communication Systems
- 33.00.00** – Pharmaceuticals
- 37.00.00** – Psychological Sciences
- 38.00.00** – Economics and Management
- 40.00.00** – Jurisprudence
- 41.00.00** – Political Sciences and Regional Studies
- 44.00.00** – Education and Pedagogical Sciences
- 45.00.00** – Linguistics and Literary Studies
- 46.00.00** – History and Archaeology
- 47.00.00** – Philosophy, Ethics, and Religion Studies
- 51.00.00** – Culture Studies and Sociocultural Projects



Table 3.13

NAMES AND CODES OF POSTGRADUATE COURSES
AT VORONEZH STATE UNIVERSITY

| No | Field of study | Code |
|----|--|----------|
| 1 | Substantial, Complex and Functional Analysis | 01.01.01 |
| 2 | Differential Equations, Dynamical systems and Optimal Control | 01.01.02 |
| 3 | Solid Mechanics | 01.02.04 |
| 4 | Theoretical Physics | 01.04.02 |
| 5 | Radiophysics | 01.04.03 |
| 6 | Optics | 01.04.05 |
| 7 | Condensed Matter Physics | 01.04.07 |
| 8 | Semiconductor Physics | 01.04.10 |
| 9 | Inorganic Chemistry | 02.00.01 |
| 10 | Analytical Chemistry | 02.00.02 |
| 11 | Organic Chemistry | 02.00.03 |
| 12 | Physical Chemistry | 02.00.04 |
| 13 | Electrochemistry | 02.00.05 |
| 14 | High-molecular Compositions | 02.00.06 |
| 15 | Colloid Chemistry | 02.00.11 |
| 16 | Solid State Chemistry | 02.00.21 |
| 17 | Biophysics | 03.01.02 |
| 18 | Biochemistry | 03.01.04 |
| 19 | Phytophysiology and Phytochemistry | 03.01.05 |
| 20 | Botany | 03.02.01 |
| 21 | Zoology | 03.02.04 |
| 22 | Entomology | 03.02.05 |
| 23 | Genetics | 03.02.07 |
| 24 | Ecology | 03.02.08 |
| 25 | Soil Studies | 03.02.13 |
| 26 | System Analysis, Management and Information Processing (area-based) | 05.13.01 |
| 27 | Management in Social and Economic Systems | 05.13.10 |
| 28 | Theory of Informatics | 05.13.17 |
| 29 | Mathematical Modelling, Numerical Methods and Program Systems | 05.13.18 |
| 30 | Solid-state Electronics, Radioelectronic Components, Microelectronics, Nanoelectronics, Quantum Effect Tools | 05.27.01 |
| 31 | Russian History | 07.00.02 |
| 32 | General History (of a particular period) | 07.00.03 |
| 33 | Archaeology | 07.00.06 |
| 34 | Historiography, Source Studies, and Methods of Historical Research | 07.00.09 |
| 35 | Economics Theory | 08.00.01 |
| 36 | Economics and National Economy Management (by field and sphere of activity) | 08.00.05 |
| 37 | Finance, Currency Circulation and Credit | 08.00.10 |
| 38 | Accounting, Statistics | 08.00.12 |
| 39 | Mathematical and Instrumental Techniques in Economics | 08.00.13 |
| 40 | Ontology and Epistemology | 09.00.01 |
| 41 | Ethics | 09.00.05 |



End of table 3.13

| No | Field of study | Code |
|----|--|----------|
| 42 | Philosophy of Science and Technology | 09.00.08 |
| 43 | Social Philosophy | 09.00.11 |
| 44 | Russian Literature | 10.01.01 |
| 45 | International Literature (specifying the literature) | 10.01.03 |
| 46 | Journalism | 10.01.10 |
| 47 | Russian Language | 10.02.01 |
| 48 | Slavic Languages | 10.02.03 |
| 49 | Germanic Languages | 10.02.04 |
| 50 | Romance Languages | 10.02.05 |
| 51 | Linguistic Theory | 10.02.19 |
| 52 | Comparative, Typological and Contrastive Linguistics | 10.02.20 |
| 53 | Theory and History of State and Law, History of State and Law Studies | 12.00.01 |
| 54 | Constitutional Law, Constitutional Proceedings, Municipal Law | 12.00.02 |
| 55 | Finance Law, Tax Law, Budget Law | 12.00.04 |
| 56 | Labour Law and Social Security Law | 12.00.05 |
| 57 | Criminal Law, Criminology, Criminal and Penal Law | 12.00.08 |
| 58 | Criminal Procedure | 12.00.09 |
| 59 | International and European Law | 12.00.10 |
| 60 | Criminalistics, Judicial and Expert Activity; Operational Investigations | 12.00.12 |
| 61 | Administrative Law, Administrative Procedure | 12.00.14 |
| 62 | Civil and Arbitral Procedure | 12.00.15 |
| 63 | General Pedagogics, History of Pedagogics and Education | 13.00.01 |
| 64 | Pathologic Physiology | 14.03.03 |
| 65 | Pharmacology, Clinical Pharmacology | 14.03.06 |
| 66 | Pharmaceutical Chemistry, Pharmacognosy | 14.04.02 |
| 67 | Pharmacy Business Organization | 14.04.03 |
| 68 | Pedagogical Psychology | 19.00.07 |
| 69 | Political institutions, Processes and Technologies | 23.00.02 |
| 70 | Theory and History of Culture | 24.00.01 |
| 71 | General and Regional Geology | 25.00.01 |
| 72 | Palaeontology and Stratigraphy | 25.00.02 |
| 73 | Petrology, Volcanology | 25.00.04 |
| 74 | Lithology | 25.00.06 |
| 75 | Geohydrology | 25.00.07 |
| 76 | Geological Engineering, Permafrostology and Soil Science | 25.00.08 |
| 77 | Geophysics, Geophysical Methods in Mineral Deposit Exploration | 25.00.10 |
| 78 | Geology, Solid Mineral Deposits Exploration, Minerageny | 25.00.11 |
| 79 | Physical Geography and Biogeography, Soil Geography and Landscape Geochemistry | 25.00.23 |
| 80 | Economic, Social, Political and Recreational Geography | 25.00.24 |
| 81 | Geo-ecology | 25.00.36 |



Since 2014, postgraduate student training has been conducted in accordance with the Federal State Educational Standards based on the education programmes developed and approved by the university.

The programme of postgraduate student training is created and renewed taking into account the current trends in science, culture, economics, engineering, technologies, and the social sphere.

In accordance with the Federal Law on Science and the State Policy in Research and Technology and the amendments of 2013 thereto, postdoctoral research degree studies programme will be opened in those fields of study which have active doctoral dissertation defence boards.

In 2014, postgraduate students enrolled in degree courses in 17 fields of study in accordance with the admission quotas for postgraduate degree programmes approved by the Order of the Ministry of Education and Science of the Russian Federation.

There were 108 students admitted to state-funded full-time postgraduate degree courses, as well as 49 fee-paying students.

In state-funded places, there are 17 international residents (Afghanistan, Iraq, Syria, Cape Verde, Laos, Vietnam, Mali, Senegal);

Transdnistria – 4 people, Kazakhstan – 1 person,

and there are 5 fee-paying postgraduate students (Iraq, Morocco, Sri Lanka, and Thailand).

As of 31 December 2014, there are a total of 652 postgraduate students; among them 519 are full-time students.

In 2014, there were 20 university dissertation boards operating in 43 fields of study (Table 3.14).

The university's postgraduate students and academic staff primarily defend their PhD and doctoral theses in the university dissertation boards.



A total of 18 postgraduate students defended their dissertations in Voronezh State University dissertation boards, whereas 5 postgraduate students had their thesis defence in other universities' dissertation councils.

VSU academic staff defended 8 PhD theses and 3 doctoral theses in Voronezh State University dissertation boards, and 3 doctoral theses were defended in other universities' dissertation councils (Table 3.15).

Special attention is paid to the publications by the members of the board on the topics in the corresponding fields of study, in the journals specifying the Russian Science Citation Index impact factor, the Hirsch index (Web of Science/Russian Science Citation Index), citations in the Russian Science Citation Index in the last 5 years.

The dissertation boards operate within the integrated information system of the state certification of research, academic and teaching staff.

On the university website, there are lists of dissertation boards and their members, as well as the dissertations, dissertation abstracts, the applicants' personal information, the information on the external reviewer, as well as the reviews on dissertations and dissertation abstracts.

The boards perform a self-initiated check of the works on the *Antiplagiat* system for using borrowed material without including a reference to the author or the source.

In 2014, the following postgraduate students received personal scholarships for academic excellence.

Russian Federation Presidential Scholarship in the top-priority fields:

Evgeniy Kiselev – the Faculty of Computer Sciences

Russian Federation Government Scholarship in top-priority areas:

Alexander Ivankov – the Faculty of Computer Sciences

Russian Federation Presidential Scholarship

Elena Parinova – the Faculty of Physics

Alexey Perepelitsyn – the Faculty of Physics

Dmitriy Koyuda – the Faculty of Physics

Russian Federation Government Scholarship

Ekaterina Korabelnikova – the Faculty of Chemistry

Lyudmila Saprionova – the Faculty of Chemistry

Oksana Krizhanovskaya – the Faculty of Chemistry

Scholarships of the Government of the Voronezh Region:

Postgraduate student applicants:

Dmitriy Eliseev – the Faculty of Chemistry

Lyubov Chumachenko – the Faculty of Economics



Table 3.14

DISSERTATION BOARDS AS OF 1 JANUARY 2015

| Code of the dissertation board, fields of study | Chairperson, Academic Secretary contact details |
|--|---|
| D 212.038.01 09.00.01 – Ontology and Epistemology 09.00.11 – Social Philosophy | Alexandr Kravets – Chairperson Eleonora Komissarova – Academic Secretary Phone: +7 (473) 255-08-57 E-mail address: dekanat@phypsy.vsu.ru |
| D 212.038.02 03.01.05 – Phytophysiology and phytochemistry 03.02.13 – Soil science | Dmitriy Shcheglov – Chairperson Lyubov Brekhova – Academic Secretary Phone: +7 (473) 220-83-93 E-mail address: dpoch@mail.ru |
| D 212.038.03 03.01.04 – Biochemistry 03.01.02 – Biophysics | Valeriy Artyukhov – Chairperson Margarita Grabovich – Academic Secretary Phone: +7 (473) 220-89-81 E-mail address: artyukhov@bio.vsu.ru |
| D 212.038.04 12.00.09 – Criminal Procedure 12.00.14 – Administrative Law; Administrative Procedure | Yuriy Starilov – Chairperson Valentina Efanova – Academic Secretary Phone: +7 (473) 220-85-14 E-mail address: Pllaw@main.vsu.ru |
| D 212.038.05 03.02.01 – Botany 03.02.08 – Ecology | Lyudmila Khitsova – Chairperson Galina Barabash – Academic Secretary Phone: +7 (473) 220-88-84 E-mail address: bstmz288@main.vsu.ru |
| D 212.038.06 01.04.02 – Theoretical Physics 01.04.05 – Optics 01.04.07 – Condensed Matter Physics | Boris Zon – Chairperson Sergey Drozhdin – Academic Secretary Phone: +7 (473) 220-87-48 E-mail address: zon@niif.vsu.ru |
| D 212.038.07 10.02.01 – Russian Language 10.02.19 – Linguistic Theory | Alexey Kretov – Chairperson Tatiana Golitsyna – Academic Secretary Phone: +7 (473) 276-92-61 E-mail address: a_a_kretov@rambler.ru |
| D 212.038.08 02.00.01 – Inorganic Chemistry 02.00.04 – Physical Chemistry 02.00.05 – Electrochemistry | Alexander Khaviv – Chairperson Galina Semyonova – Academic Secretary Phone: +7 (473) 220-88-69 E-mail address: kcmf@main.vsu.ru |
| D 212.038.10 01.04.03 – Radiophysics 01.04.10 – Semiconductor Physics 05.13.01 – System Analysis, Management and Information Processing (Radioengineering, Automatics, Communications) | Andrey Trifonov – Chairperson Vladimir Marshakov – Academic Secretary Phone: +7 (473) 220-89-16 E-mail address: trif@phys.vsu.ru |
| D 212.038.12 07.00.02 – Russian History 07.00.06 – Archaeology | Mikhail Karpachev – Chairperson Alexander Akinshin – Academic Secretary Phone: +7 (473) 224-75-15 E-mail address: m-karpach@mail.ru |

End of table 3.14

| Code of the dissertation board, fields of study | Chairperson, Academic Secretary contact details |
|---|--|
| D 212.038.14 10.01.01 – Russian literature 10.01.03 – International Literature (literature of the countries of Germanic and Romance language families) | Viktor Akatkin – Chairperson Alexander Zhitenev – Academic Secretary Phone: +7 (473) 255-99-49, 220-89-41 E-mail address: 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) | Igor Risin – Chairperson Tatiana Gogoleva – Academic Secretary Phone: +7 (473) 228-11-60, Ext. 5130 E-mail address: risin@mail.ru |
| D 212.038.16 10.02.05 – Roman Languages 10.02.04 – Germanic Languages | Lyudmila Grishaeva – Vice Chairperson Tatiana Vella – Academic Secretary Phone: +7 (473) 253-22-38 E-mail address: kashkin2012@yandex.ru |
| D 212.038.17 25.00.23 – Physical Geography and Biogeography, Soil Geography and Landscape Geochemistry 25.00.24 – Economic, Social, Political and Recreational Geography 25.00.36 – Geo-ecology | Vladimir Fedotov – Chairperson Semyon Kurolap – Academic Secretary Phone: +7 (473) 266-07-75 E-mail: root@geogr.vsu.ru |
| D 212.038.18 10.01.10 – Journalism | Vladimir Tulupov – Chairperson Svetlana Gladysheva – Academic Secretary Phone: +7 (473) 274-52-71 E-mail: vlvtul@mail.ru |
| D 212.038.19 02.00.02 – Analytical Chemistry 02.00.03 – Organic Chemistry 02.00.21 – Solid State Chemistry | Alexander Khoviv – Chairperson Nadezhda Stoyanovskaya – Academic Secretary Phone: +7 (473) 220-89-73 E-mail address: kcmf@main.vsu.ru |
| D 212.038.20 05.13.17 – Theory of Informatics (Physics and Mathematics) 05.13.18 – Mathematical Modelling, Numerical Methods and Program Systems (Physics and Mathematics) | Alexander Bayev – Chairperson Sergey Shabrov – Academic Secretary Phone: +7 (473) 220-86-18 E-mail address: pokorny@kma.vsu.ru |
| D 212.038.22 01.01.01 – Substantial, Complex and Functional Analysis 01.01.02 – Differential Equations, Dynamical systems and Optimal Control | Evgeniy Semyonov – Chairperson Yuriy Gliklikh – Academic Secretary Phone: +7 (473) 267-49-03 E-mail address: yeg@math.vsu.ru |
| D 212.038.23 08.00.12 – Accounting, Statistics | Dmitry Endovitskiy – Chairperson Tatiana Pozhidayeva – Academic Secretary Phone: +7 (473) 275-57-27 E-mail address: endov@econ.vsu.ru |
| D 212.038.24 01.02.04 – Solid Mechanics (Physics and Mathematics) 05.13.17 – Theory of Informatics (engineering sciences) | Alexander Shashkin – Chairperson Irina Voronina – Academic Secretary Phone: +7 (473) 220-83-22, 220-82-66 E-mail address: dean@amm.vsu.ru |

Table 3.15

THE NUMBER OF PEOPLE WHO OBTAINED THEIR PHD AND DR.HABIL. DEGREES IN 2014, BY THE FIELD OF STUDY

| Code of the dissertation board | Code of the fields of study that the board is approved to operate in | The number of dissertations considered in 2014 | | | | | | |
|--------------------------------|--|--|-------------|---|---------------------|-------------|-------------------|---------------------|
| | | PhD | | | | Dr.Habil. | | |
| | | Total | Staff VSU | VSU postgraduate students (graduated in 2014) | External applicants | Total | VSU staff members | External applicants |
| D 212.038.01 | 09.00.01 – Ontology and Epistemology 09.00.11 – Social Philosophy | – 1 | – – | – – | – 1 | – – | – – | – – |
| D 212.038.02 | 03.01.05 – Phytophysiology and phytochemistry 03.02.13 – Soil Science | 2 – | – – | – – | 2 – | – – | – – | – – |
| D 212.038.03 | 03.01.02 – Biophysics 03.01.04 – Biochemistry | 3 3 | – – | – 1 | 3 2 | – – | – – | – – |
| D 212.038.04 | 12.00.09 – Criminal Procedure 12.00.14 – Administrative Law; Administrative Procedure | 1 4 | – – | 1 – | – 4 | – – | – – | – – |
| D 212.038.05 | 03.02.01 – Botany 03.02.08 – Ecology | – 4 | – – | – 1 | – 3 | – – | – – | – – |
| D 212.038.06 | 01.04.02 – Theoretical physics 01.04.05 – Optics 01.04.07 – Condensed Matter Physics | – 1 3 | – – – | – 1 1 | – – 2 | – – – | – – – | – – – |
| D 212.038.07 | 10.02.01 – Russian language 10.02.19 – Linguistic theory | 1 4 | – – | 1 1 | – 3 | – 2 | – 1 | – 1 |
| D 212.038.08 | 02.00.01 – Inorganic Chemistry 02.00.04 – Physical Chemistry 02.00.05 – Electrochemistry | 1 1 2 | – – 1 | – – – | 1 1 1 | – – – | – – – | – – – |
| D 212.038.10 | 01.04.03 – Radiophysics 01.04.10 – Semiconductor Physics 05.13.01 – System Analysis, Management and Information Processing | – 1 – | – – – | – – – | – 1 – | – 1 – | – 1 – | – – – |
| D 212.038.12 | 07.00.02 – Russian History 07.00.06 – Archaeology | 3 – | 1 – | – – | 2 – | – – | – – | – – |
| D 212.038.14 | 10.01.01 – Russian Literature 10.01.03 – International Literature (literature of the countries of Germanic and Romance language families) | 1 – | – – | 1 – | – – | – – | – – | – – |
| D 212.038.15 | 08.00.01 – Economics Theory 08.00.05 – Economics and National Economy Management (by field and sphere of activity, including Labour Economics, Regional Economics) | – – | – – | – – | – – | – – | – – | – – |
| D 212.038.16 | 10.02.04 – Germanic Languages 10.02.05 – Romance Languages | 2 – | 1 – | – – | 1 – | – 1 | – – | – 1 |
| D 212.038.17 | 25.00.23 – Physical Geography and Biogeography, Soil Geography and Landscape Geochemistry 25.00.24 – Economic, Social, Political and Recreational Geography 25.00.36 – Geo-ecology | – 1 – | – – – | – – – | – 1 – | – – – | – – – | – – – |
| D 212.038.18 | 10.01.10 – Journalism | 10 | 3 | 4 | 3 | – | – | – |
| D 212.038.19 | 02.00.02 – Analytical Chemistry 02.00.03 – Organic Chemistry 02.00.21 – Solid State Chemistry | 2 – – | – – – | 1 – – | 1 – – | – 1 – | – 1 – | – – – |
| D 212.038.20 | 05.13.17 – Theory of Informatics (Physics and Mathematics) 05.13.18 – Mathematical Modelling, Numerical Methods and Program Systems (Physics and Mathematics) | – 4 | – – | – 2 | – 2 | – – | – – | – – |
| D 212.038.22 | 01.01.01 – Substantial, complex and functional analysis 01.01.02 – Differential equations, dynamical systems and optimal control | 4 3 | – – | 1 1 | 3 2 | – – | – – | – – |
| D 212.038.23 | 08.00.12 – Accounting, Statistics | 1 | – | – | 1 | 1 | – | 1 |
| D 212.038.24 | 01.02.04 – Solid Mechanics (Physics and Mathematics) 05.12.17 – Theory of Informatics (engineering sciences) | – 6 | – 2 | – 1 | – 3 | – – | – – | – – |
| Total | | 69 | 8 | 18 | 51 | 6 | 3 | 3 |



THE UNIVERSITY'S OBJECTIVES IN TRAINING ACADEMIC AND TEACHING STAFF:

- developing main academic programmes in the postgraduate fields of study in accordance with the Federal State Educational Standards;
- providing postgraduate students with the publications and teaching material necessary for the transition to the Federal State Educational Standards;
- maintaining the existing system of dissertation boards, as well as creating joint boards.

3.7. ACTIVITIES OF THE PURCHASING DEPARTMENT

The Purchasing Department was established in accordance with a decision of the Academic Council as a Voronezh State University subdivision and has been in operation since 16 February 2011. In the staff list of the department, there are 9 positions: Head of the Department, 3 economists, 4 engineers and the design estimate documentation development engineer.

KEY FOCUS AREAS OF THE DEPARTMENT:

1. Quarterly planning of the volumes and terms of purchasing goods, works and services (making and revising the time-schedule of purchasing goods, works and services using the subsidies obtained from the Russian Federation state budget resources; as well as the time-schedule of purchasing goods, works and services using the grant funds, within the scope of the contracts, and using the funds obtained from individuals and legal entities through other income-generating activities.
2. Creating schedules of orders from Voronezh State University subdivisions, using a unified purchasing request form depending on the source of financing. Requesting additional materials and the necessary data for implementing the tasks within the Purchasing Department's competence.
3. Revising the methods of supplier selection in accordance with the amendments to the Russian Federation regulatory framework.
4. Recording any correspondence concerning the Department's scope of activities.
5. Monitoring the performance of Voronezh State University structural subdivisions concerning their obligations to provide the required information in the course of purchasing goods, works and services.
6. Placing the purchase orders for goods, works and services at the www.zakupki.gov.ru website. Monitoring the order placement in the electronic document management system on the electronic trading platform.
7. Managing the documents on placing the orders for the purchase of goods, works and services; keeping all the required records for the specified period of time.



8. Organizing the work of drafting the contracts, maintaining the register of existing contracts, their implementation, cancellations, placing the delivery orders for the goods, works and services in a shared information space in accordance with the bidding results.
9. Developing specifications and task orders for the purchase of various kinds of goods, works and services.
10. Maintaining a unified register of public purchases by group, subgroup, and type, for the amount not exceeding the maximum amount of cash transactions specified by the Central Bank of the Russian Federation.
11. Coordinating the work of the Unified committee on order placement by the university.
12. Document management in the Purchasing Department in accordance with the adopted file register.
13. Cooperating with the Supply Department on the issues of storing, recording and distributing the material assets obtained through public purchases among the university's structural subdivisions; as well as organizing warranty repairs.
14. Preparing and submitting quarterly statistical reporting in the 1-torgi (sales) electronic form of the Russian Federal State Statistics Service (for I, II, III, IV quarters of 2014, as well as the yearly report for 2014), 1-zakupki (purchases) for the Russian Federal State Statistics Service regional office (for I and II half-year periods of 2014, as well as the yearly report for 2014).
15. Advanced training of the employees of the Purchasing Department in the following programmes: "A contractual system in the area of purchasing goods, works and services. Purchase management" (120 hours) – 1 person; "Standard training in purchasing under the Federal Law No 223-FZ: Organization and Management of Purchasing Activities in accordance with 223-FZ" (72 hours) – 2 people; "State and municipal orders management" (120 hours) – 4 people; participating in the workshop on "Purchasing in accordance with the Federal Law On the Purchases of Goods, Works, and Services by Certain Categories of Legal Entities" No 223-FZ of 18 July 2011. The practical issues of the application of legislation on purchasing" (8 hours) – 2 people; participating in the workshop on "The implementation of the Federal Law on the Contractual Systems since 1 January 2014. A review of changes to the Federal Law No 44-FZ of 28 December 2013 and the subordinate legislation" (8 hours) – 3 people; participating in the scientific and practical conference "A contractual system. Practical Experience" – 2 people. A certificate of advanced practice professional in pricing and cost estimates in construction – 1 person.

THE ANALYSIS OF THE PURCHASING DEPARTMENT PERFORMANCE

In 2014, 2288 agreements were signed. The sources of financing were the subsidies obtained from the Russian Federation state budget resources; grants; the funds obtained from state contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities (Table 3.16, Figure 3.9). Under the completed contract, upon the placement of the orders for purchasing goods, works and services, the main sources of financing for the purchasing activities were subsidies and target programmes.

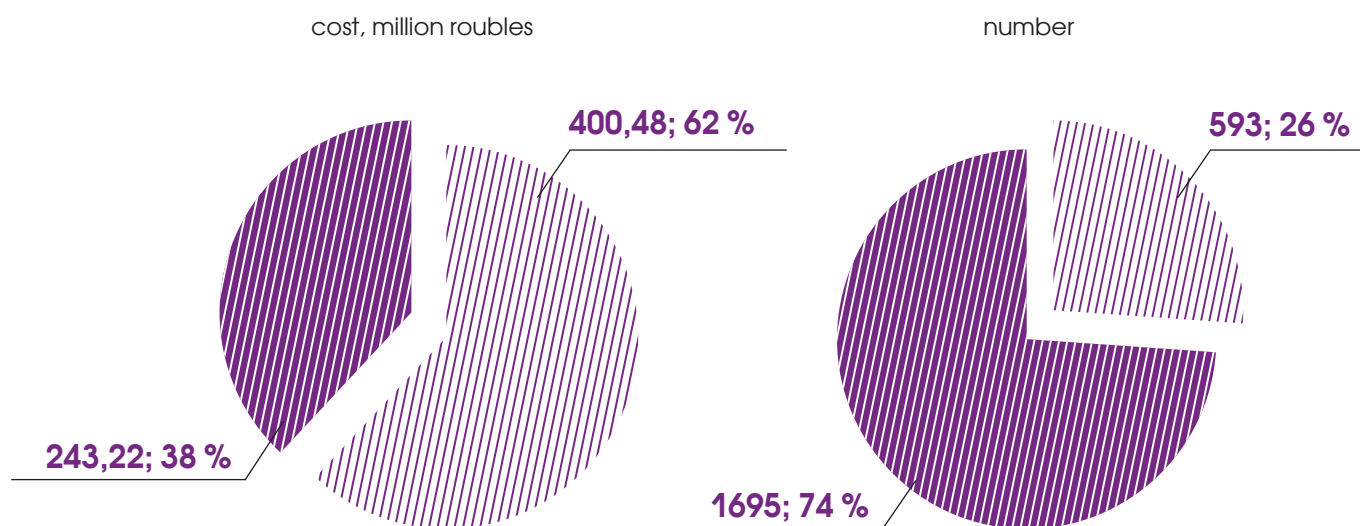
Table 3.16

VOLUME OF THE CONTRACTS SIGNED IN 2014

| No | Source of financing | Volume of the contracts signed in 2014 | | | |
|--------------|--|--|------------------------------------|----------------------|---------------------------------------|
| | | number | percent- age of the total, % | cost, roubles | percent- age of the total, % |
| 1 | grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities | 1695 | 74.1 | 243,218,785.6 | 37.8 |
| 2 | subsidies obtained from the Russian Federation state budget resources | 593 | 25.9 | 400,482,160.0 | 62.2 |
| Total | | 2288 | 100.0 | 643,700,945.6 | 100.0 |

Figure 3.9

VOLUME OF THE CONTRACTS SIGNED IN 2014



▨ Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities

▧ Subsidies obtained from the Russian Federation state budget resources



The financing of the purchasing activities through subsidies amounted to 62.2 % of the total volume of purchases in the reporting period, while the amount of funds obtained from grants and other financing sources was 37.8 % of the total volume of purchases. The information on the contracts signed subsequent to competitive tendering may be found in Table 3.17 and in Figure 3.10.

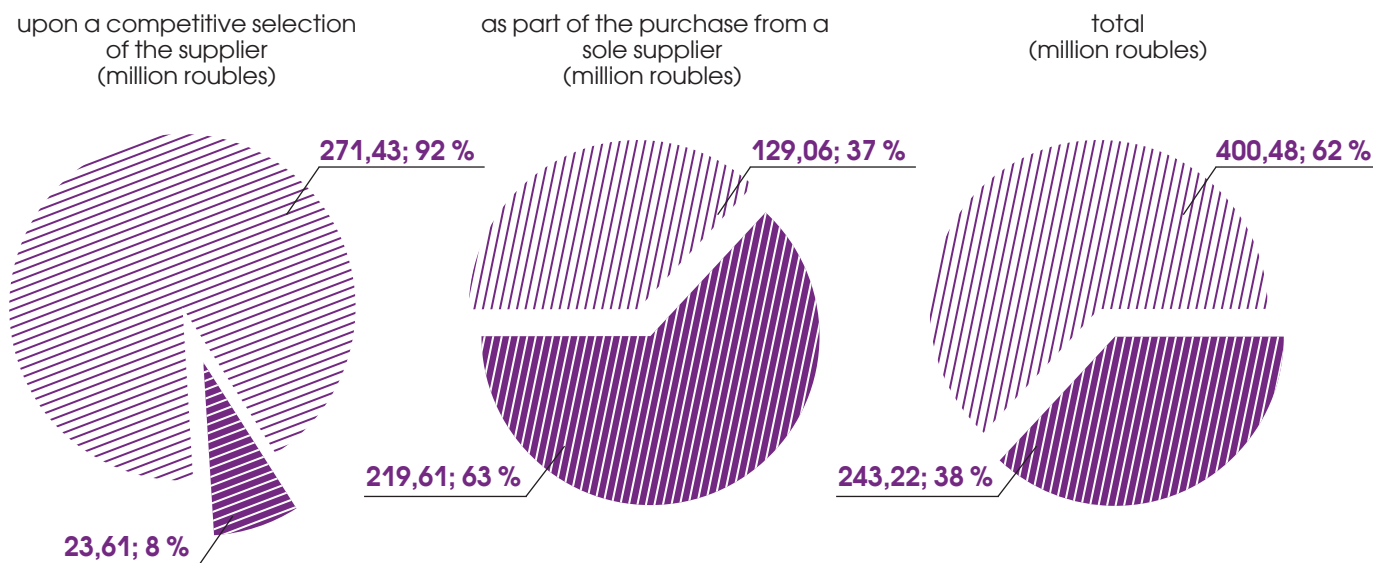
Table 3.17

THE VOLUME OF THE CONTRACTS SIGNED AS PART OF THE ORDER PLACEMENT FOR PURCHASING GOODS, WORKS AND SERVICES IN 2014

| No | Source of financing | Volume of the contracts signed upon a competitive selection of the supplier | | Volume of the contracts signed as part of the purchase from a sole supplier | | Total volume of signed contracts | |
|--------------|--|---|----------------------------|---|----------------------------|----------------------------------|-----------------------------|
| | | cost, roubles | percentage of the total, % | cost, roubles | percentage of the total, % | cost, roubles | percentage of the total, %% |
| 1 | grants; the funds obtained from contract execution; as well as the funds obtained through other income-generating activities from individuals and legal entities | 23,611,302.34 | 8.0 | 219,607,483.26 | 62.9 | 243,218,785.6 | 37.8 |
| 2 | subsidies obtained from the Russian Federation state budget resources | 271,426,880.0 | 92.0 | 129,055,280.0 | 37.1 | 400,482,160.0 | 62.2 |
| Total | | 295,038,182.34 | 100.0 | 348,662,763.26 | 100.0 | 643,700,945.6 | 100.0 |

Figure 3.10

THE VOLUME OF THE SIGNED CONTRACTS



▨▨▨ Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities

▨▨▨▨▨ Subsidies obtained from the Russian Federation state budget resources



It must be noted that, in the reporting period, there was no federal financing for public purchases, so this source of financing for the purchasing activities was not mentioned.

In 2014, the maximum percentage of purchases was accounted for by the contracts signed with a sole supplier. There were 1.5 times as many of them as there were contracts with a competitive selection of the supplier. These contracts were primarily signed using the grants, the funds obtained from state contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities. The contracts signed upon a competitive selection of the supplier were primarily signed using the subsidies obtained from the Russian Federation state budget resources, which accounted for 90.2 % of the total amount of the contracts signed upon a competitive selection of the supplier.

The unified schedule of orders from Voronezh State University subdivisions was created using a unified purchasing request form whose template may be found on the VSU website. In the reporting period, 1499 requests were accepted from the structural subdivisions as part of the registration procedure. Certain subdivisions did not submit requests in the fixed planning dates. These types of purchase requests were to be included in the time-schedules based on the written statements from the subdivisions and the changes to the time-schedules in the shared information space (the purchases website). Table 3.18 and Figures 3.11 and 3.12 present the information on the number of submitted requests and their modification.

Table 3.18

INFORMATION ON THE NUMBER OF REQUESTS AND THEIR MODIFICATIONS

| No | Source of financing | Information on the requests submitted | | The number of changes to the time-schedule | |
|--------------|--|---------------------------------------|----------------------------|--|----------------------------|
| | | number | percentage of the total, % | number | percentage of the total, % |
| 1 | grants; the funds obtained from contract execution; as well as the funds obtained through other income-generating activities from individuals and legal entities | 1136 | 75.8 | 48 | 75.0 |
| 2 | subsidies obtained from the Russian Federation state budget resources | 363 | 24.2 | 16 | 25.0 |
| Total | | 1499 | 100.0 | 64 | 100.0 |

Figure 3.11

NUMBER OF REQUESTS

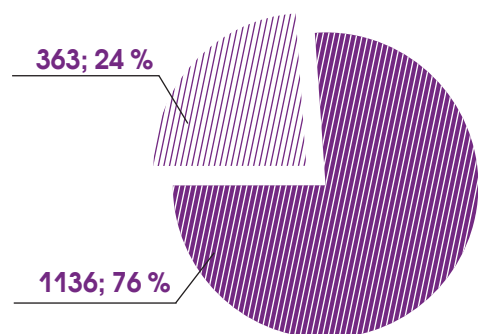
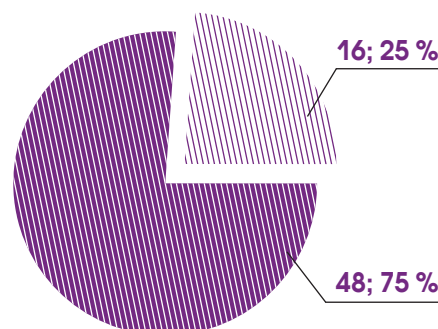


Figure 3.12

THE NUMBER OF CHANGES TO THE TIME-SCHEDULE



See legend for Figure 3.10

As part of the implementation of the Federal Law No 223-FZ of 18 July 2011, 1136 requests were accepted for the total amount of 349,714,254.08 roubles, and 1695 contracts were signed for the amount of 243,218,785.6 roubles. Thus, the amount of money saved as a result of following the procedure amounted to 106,495,468.48 roubles, or 43.4% of the initial maximum cost of the submitted requests. During the formation of a unified purchasing plan as part of the implementation of the Federal Law No 44-FZ, 363 requests were accepted for the total amount of 506,451,890.0 roubles. There were 593 contracts signed for the amount of 400,482,160.0 roubles. The amount of money saved as a result of following the purchasing procedure amounted to 150,969,730.0 roubles, or 26.5%.

The information on the cost savings as a result of a competitive selection of the supplier is shown in Table 3.19.

Table 3.19

THE AMOUNT OF MONEY SAVED THROUGH THE COMPETITIVE SELECTION OF THE SUPPLIER, BY SOURCE OF FINANCING

| No | Source of financing | Volume of the contracts signed upon a competitive selection of the supplier | | Initial maximum price of the contracts | | Cost cutting | |
|--------------|--|---|----------------------------|--|----------------------------|----------------------|----------------------------|
| | | cost, roubles. | percentage of the total, % | cost, roubles | percentage of the total, % | cost, roubles | percentage of the total, % |
| 1 | Grants; the funds obtained from contract execution; as well as the funds obtained from individuals and legal entities through other income-generating activities | 23,611,302.34 | 8.0 | 23,611,302.34 | 5.9 | - | - |
| 2 | Subsidies obtained from the Russian Federation state budget resources | 271,426,880.0 | 92.0 | 377,396,610.0 | 94.1 | 105,967,730.0 | 100.0 |
| Total | | 295,038,182.34 | 100.0 | 401,007,912.34 | 100.0 | 105,967,730.0 | 100.0 |



In Figures 3.13 and 3.14 there are diagrams showing that the financial savings appeared in the source of financing (subsidies obtained from the Russian Federation state budget resources). The amount of money saved added up to 150,969,730.0 roubles, or 26.5 % 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 of 18 July 2011 did not result in any financial savings due to the fact that the auctions were declared void and the contracts were signed based on the initial maximum cost of the contracts.

Figure 3.13

VOLUME OF THE CONTRACTS SIGNED UPON A COMPETITIVE SELECTION OF THE SUPPLIER, MILLION ROUBLES

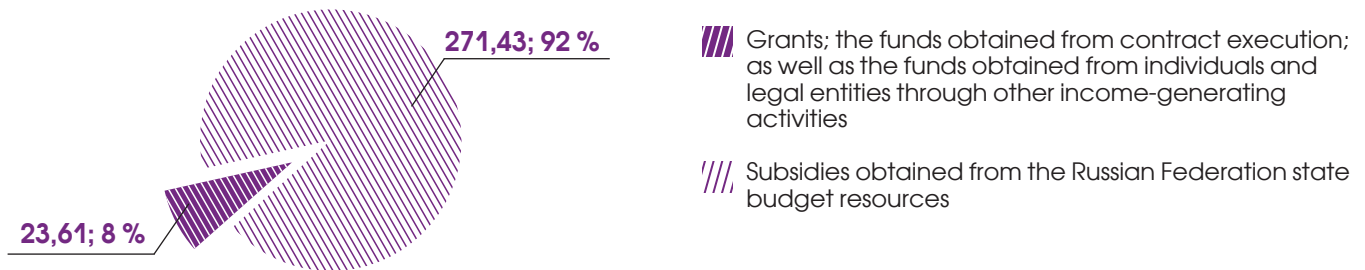


Figure 3.14

INITIAL MAXIMUM PRICE OF THE CONTRACTS, MILLION ROUBLES

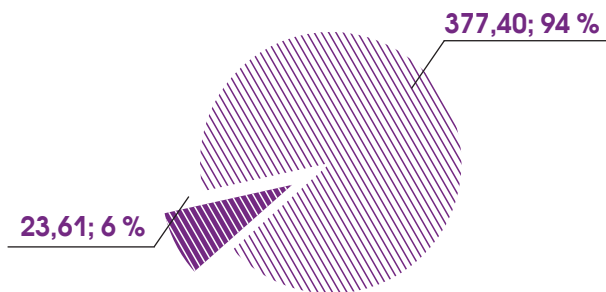
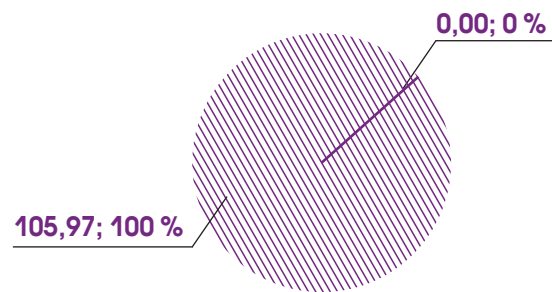


Figure 3.15

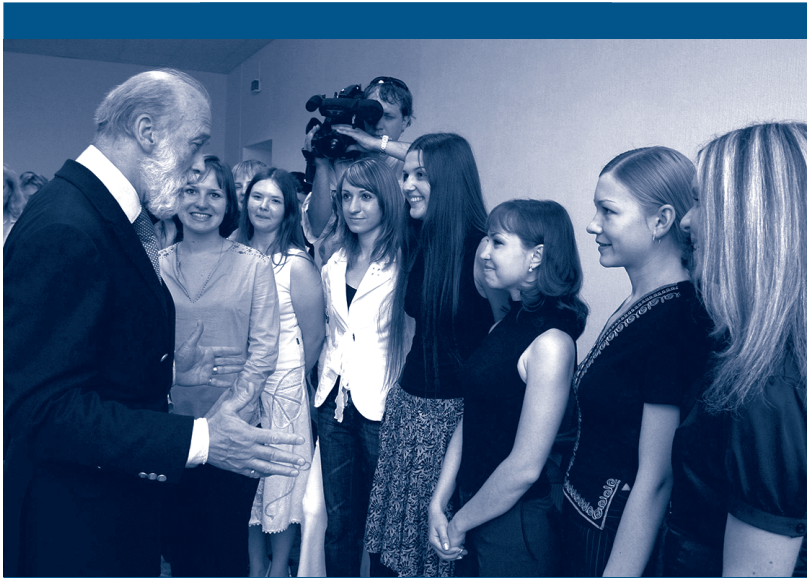
COST CUTTING, MILLION ROUBLES

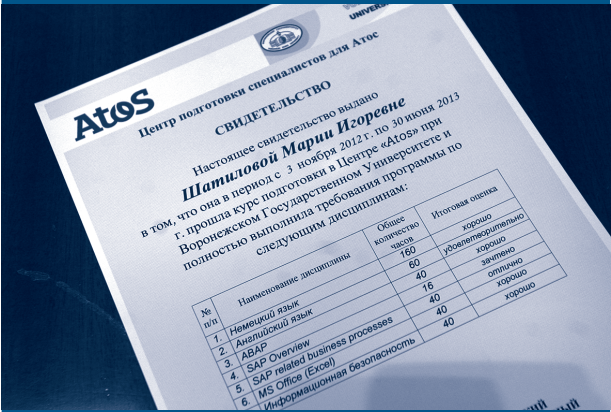
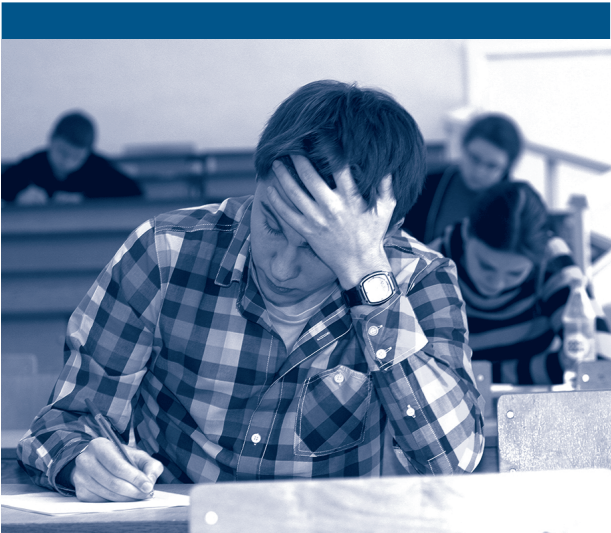


FORMING A UNIFIED PURCHASING PLAN

During the formation of a unified schedule of orders from Voronezh State University subdivisions at the end of 2014, 1499 purchase requests were accepted. The information on them became the basis for two time-schedules for the university's purchases in 2015, depending on the sources of financing. These documents may be found on the public purchases website www.zakupki.gov.ru. The requests conformed to the university's income budget and the strategic development plan.

471 items were included in the time-schedule for purchases using the subsidies obtained from the Russian Federation state budget resources, and, in the calendar reporting period, 377 modifications were made. Thus, in the 16 modifications to the time-schedule, 80 % of the items on the financial document were modified.





ACADEMIC ACTIVITY





ACADEMIC ACTIVITY



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

4.1. MAIN OBJECTIVES OF THE UNIVERSITY ACADEMIC POLICY IN 2014

The University academic policy in 2014 was aimed at achieving the goal which had been set in the Russian Federation State Programme “Education Development” for 2013–2020 approved by the Decree of the Government of the Russian Federation dated 15 April 2014, No 295, namely to ensure the high quality of Russian education in accordance with the people’s changing requirements and long-term objectives to develop Russian society and economy.

MAIN OBJECTIVES OF THE UNIVERSITY ACADEMIC POLICY IN 2014:

- to form a flexible system of continuing education oriented towards the needs of the local society, the system is to develop human potential as well as to meet current and long-term requirements for the social and economic development of the Voronezh Region and the Central Federal District;
- to develop the system of education quality assessment based on the principles of openness, objectivity, transparency, public and expert participation.



THE OBJECTIVES WERE ATTAINED BY IMPLEMENTING THE FOLLOWING MEASURES:

- 1) expanding the variety of the main academic programmes (bachelor's, diploma, master's and postgraduate degree programmes) as a result of opening new profiles, specialities and network programmes;
- 2) increasing the number of fundamental departments at regional enterprises;
- 3) improving the system of further professional education by running programmes in cooperation with employers and government authorities of the region, creating conditions for supplying individual demand in the framework of the "Lifelong Learning" concept, developing information and communications technologies to implement the UNESCO "Education at Home" principle;
- 4) replicating the experience of using innovative technologies in the educational process into all specialities within the main academic programmes (Moodle platform);
- 5) developing the system of education quality assessment as part of the University integrated information system by means of the "Department Quality Assessment" element.

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

In 2014 pre-university training was held within the programme of University strategic development in the field of pre-university work.

VSU pre-university work was carried out in four major areas of focus:

- 1) searching for, identifying, attracting and supporting talented young people;
- 2) expanding fields of work with schoolchildren: from academic activity to the development of creative potential of university entrants in the spheres of mass culture and sport;
- 3) pre-university work with the disabled and physically challenged;
- 4) information support of the university admission.



MAIN RESULTS OF THE WORK WITHIN THE AREAS OF FOCUS

I SEARCHING FOR, IDENTIFYING, ATTRACTING AND SUPPORTING TALENTED YOUNG PEOPLE

Pre-university events usually include presentations of the University opportunities in the implementation of the main academic programmes. Within this area of focus the following events were held:

- University open days in October, February and April. The number of schoolchildren who attended the meetings totalled approximately 5000. About 50 additional meetings took place at the faculties and departments. VSU open day in collaboration with the Department of Education based on the municipal Creativity Centre for Children and Young People was held for the first time. More than 1500 schoolchildren from forms 9–11 took part in the meeting with the rector, vice-rectors and faculty deans;
- over 60 off-site open days at schools in Voronezh and in the districts of Voronezh, Lipetsk, Orel and Tambov regions. More than 30 teacher-parent meetings were attended at schools in Voronezh and the region as well;
- participation in the regional educational exhibitions (“Education – Knowledge and Life” exhibition-forum for form 8–11 schoolchildren, 9 April 2014 and 29–30 October 2014);
- over 60 excursions around the University museums for form 5–11 schoolchildren and a number of VSU strategic partners (Novovoronezh nuclear power plant, concern *Sozvezdie*, and Voronezh IT-companies).

As part of career guidance for university entrants more than 150 schoolchildren took a computer-based test in the framework of the “Proforientator” programme in the University Testing Centre.

In the reporting year considerable attention was paid to the development of integrated academic and career guiding programmes. The University scientists delivered 52 public lectures on popular and scientific topics in Voronezh and the Voronezh Region (in museums, libraries, *Amital* bookshop, and *Petrovskiy* book club).



“A Large University for a Large City” project was developed. The faculties organised public lectures delivered by the University scientists on popular and scientific topics in philology, chemistry, economics, law, etc.

A number of educational discussions which involved exhibit demonstration according to the museum theme (Museum of Books, Museum of University History, Ethnographic Museum, Archaeological Museum, Geological Museum, Soil Museum Named after Professor P. G. Aderikhin, Central Black Earth Region Vegetation Museum Named after Professor K. F. Khmelev, Museum of the Usmanskiy Pinewood Forest, and Virtual Museum of University Computer Centre) took place in VSU.

II EXPANDING FIELDS OF WORK WITH SCHOOLCHILDREN: FROM ACADEMIC ACTIVITY TO THE DEVELOPMENT OF CREATIVE POTENTIAL OF UNIVERSITY ENTRANTS IN THE SPHERES OF MASS CULTURE AND SPORT

In order to attract schoolchildren to scientific research the University has a student scientific society which functions at 17 faculties and includes 23 sections with 65 subsections. In 2014 over 1800 schoolchildren from forms 2–11 studying at 166 educational establishments in Voronezh, Lipetsk, Tambov, Kursk, Orel and Belgorod participated in the University scientific society under the supervision of 62 University lecturers and 320 school teachers.

The University provided strong support to the future university entrants in developing their creative potential by organising schools for young experts and field-specific circles (School for Young Journalists, School for Young Culture Experts, School for Young Experts in International Relations, School for Young Psychologists, School for Young Pharmacutists, School for Young Philologists, School for Young Chemists, “Young Geologists” circle, “Hummingbird” school of poetry, “Information Society and the Humanities” school, and Robotics Centre).

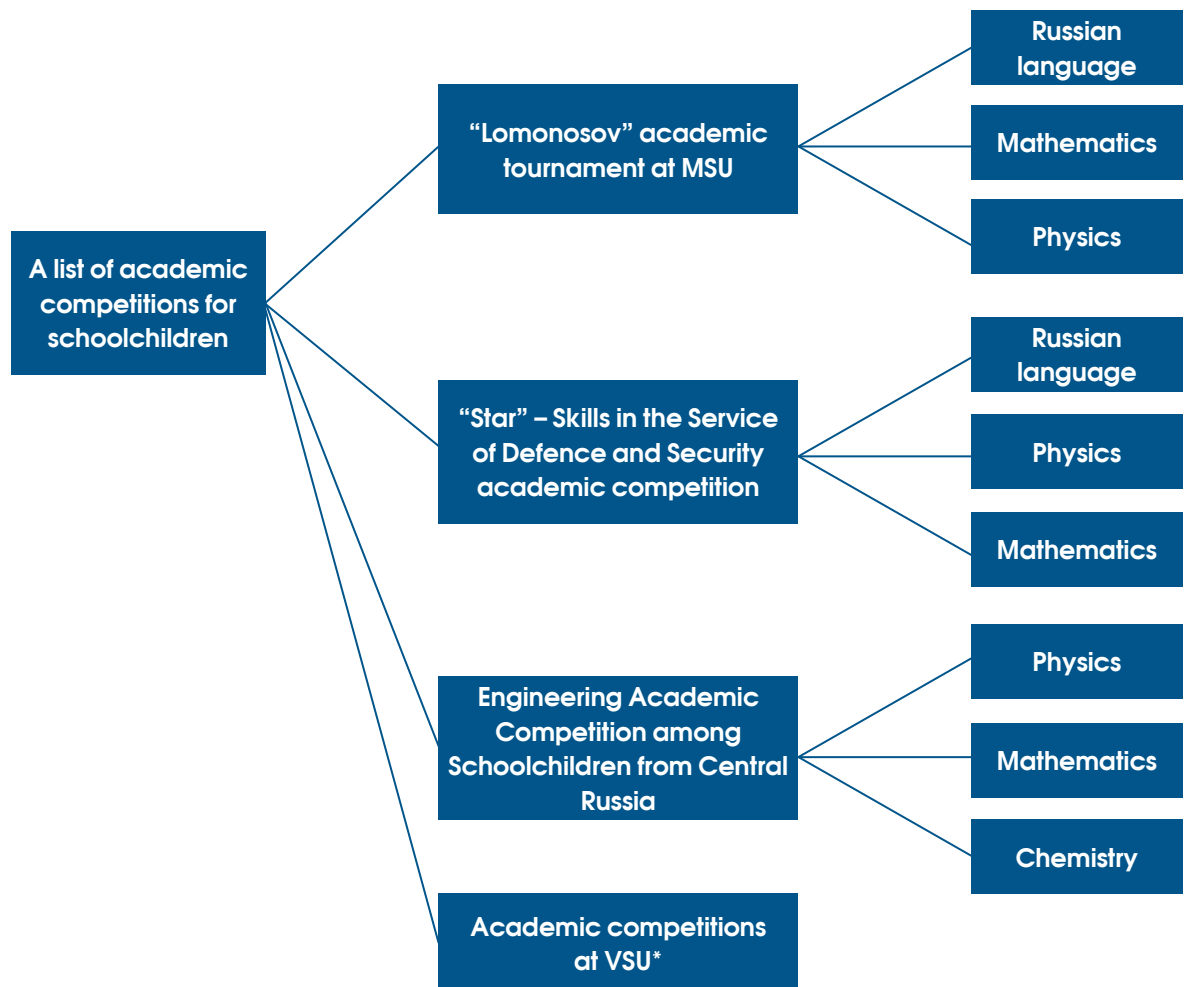
Academic potential of schoolchildren from the Voronezh Region as well as the adjoining regions was developed in the framework of weekend, correspondence and summer schools (Journalism Weekend School, Journalism School, Language School (foreign languages), “Voronezh Industrial Park” HTTM regional school, Physics Correspondence School, and “Scarlet Sails” regional school).

Another major way to attract university entrants and identify talented young people among them is to organise academic competitions, contests and tournaments. Figure 4.1 shows a list of academic competitions and tournaments.



Figure 4.1

A LIST OF ACADEMIC COMPETITIONS HELD AT VSU IN 2014





* ACADEMIC COMPETITIONS AT VSU:

- 1) VSU Open Academic Competition in Physics Named after Professor M. A. Levitskaya (www.phys.vsu.ru/school/S-ris.htm);
- 2) VSU Academic Competition in Informatics for Schoolchildren (<http://moevm.ru/school-olymp/2014/>);
- 3) Academic Competition in Programming within Information Technologies Marathon at the Faculty of Computer Sciences (www.cs.vsu.ru/itolymp);
- 4) Academic Competition in Informatics within Information Technologies Marathon at the Faculty of Computer Sciences (www.cs.vsu.ru/itolymp);
- 5) Project Contest within Information Technologies Marathon at the Faculty of Computer Sciences (www.cs.vsu.ru/itolymp);
- 6) Team Contests within Information Technologies Marathon at the Faculty of Computer Sciences (www.cs.vsu.ru/itolymp);
- 7) "Admission Score" – a regional academic competition in journalism (www.jour.vsu.ru);
- 8) VSU Academic Competition in Law. The competition is organised in cooperation with the Extension Course Institute for Teachers in order to identify trained university entrants for their further participation in All-Russian Academic Competition in Law. Target audience: form 8-11 schoolchildren;
- 9) Voronezh Tournament among Young Naturalists (<http://Rynt.org vk.com/tuerussia>);
- 10) All-Russian Tournament among Young Physicists (<http://rusypt.msu.ru>);
- 11) "Scientific Experiment" – a regional contest among schoolchildren held within the Tournament of Three Sciences (physics, chemistry, biology). Categories of the participants: forms 7, 8, 9, 10, and 11 (<http://vk.com/iturnir>);
- 12) "Scientific Photo" – a regional contest among schoolchildren held within the Tournament of Three Sciences. Categories of the participants: forms 7, 8, 9, 10, and 11 (<http://vk.com/iturnir>);
- 13) "Reporter" – a regional festival of school and university mass media. The aim of the festival is to promote children, teenage and youth mass media;
- 14) The fourth youth festival of advertising "FROG" for high school students, university students, establishments of elementary and secondary vocational education as well as for young advertising experts (<http://vkontakte.ru/frogfest>);
- 15) All-Russian Academic Competition in Basic Education Subjects for schoolchildren from forms 2, 3, and 4. Topic: "A workman is known by his work" (I. A. Krylov);
- 16) All-Russian Contest in Fine Art and Literature dedicated to the Silver Age, for form 5–11 schoolchildren;
- 17) International Championship in Mathematical and Logical Games for form 1–11 schoolchildren.



In the reporting year a wide range of mass culture events was held for university entrants:

- over 300 participants of different ages took the opportunity to perform at the festivals of original songs and poetry “The Stars of the Black Earth Region” and “The Sail of Hope”;
- Russian language festivals and literature games devoted to the works of Russian poets and writers;
- Essay Contest in Contemporary Literature;
- Computer Creativity Festival for Children and Young People, etc.

III PRE-UNIVERSITY WORK WITH THE DISABLED AND PHYSICALLY CHALLENGED

In order to identify the target audience of the disabled and physically challenged students University officials organised a number of personal meetings with the university entrants belonging to this category, a separate page designed especially for the disabled appeared on the website for university entrants www.abitur.vsu.ru, on- and off-campus counselling was also provided on the questions of admission, educational process, etc.



IV INFORMATION SUPPORT OF THE UNIVERSITY ADMISSION

In the reporting year the following measures were taken in order to supply schoolchildren and their parents with the necessary information:

- 129 articles were published on the page “News” at www.vsu.ru , 50 articles were published at www.abitur.vsu.ru , a number of articles were included in the theme magazines “Which University to Choose”, “Chance”, “Success Formula”, etc., as well as in the periodical column and special issues of the “Voronezh State University” newspaper;
- constant update of the information intended for the general public and monitoring investigations carried out by the Ministry of Education and Science of the Russian Federation, non-governmental organisations, etc. was organised. The information on the process of preparing and conducting the admission campaign was provided to www.abitur.vsu.ru website at the stated time;
- addressees were kept informed via e-mail pt@vsu.ru. Over 19 000 letters were received in total;
- information support was offered in VKontakte social network vk.com/abitur_vsu;
- on-line meetings, web seminars and video lectures were held throughout the year.

Within the framework of network cooperation the following informative and educational events for teachers were organised:

- seminars with the authorities of non-state educational establishments from Voronezh and the Voronezh Region;
- agreements on the strategic partnership with the educational establishments of Voronezh, Voronezh, Orel and Lipetsk regions as well as joint events under the signed agreements;
- a seminar “Professional Education System and Education Services Development. Training and Retraining of the Teaching Staff Working at Municipal Budgetary General Education Institutions of Extended Education for Children” and a research-to-practice conference “Teacher’s Professional Standard”.



4.3. MAIN RESULTS OF THE 2014 ADMISSION CAMPAIGN

In 2014 Voronezh State University was allocated 2122 state-funded places for bachelor's, diploma and master's degree programmes, which exceeds the 2013 rate. The major increase occurred within master's programmes whereas within full-time and part-time bachelor's and diploma programmes there was a slight decline in the admission rate (see Figures 4.2–4.4).

Figure 4.2

ADMISSION TO FULL-TIME BACHELOR'S AND DIPLOMA DEGREE PROGRAMMES

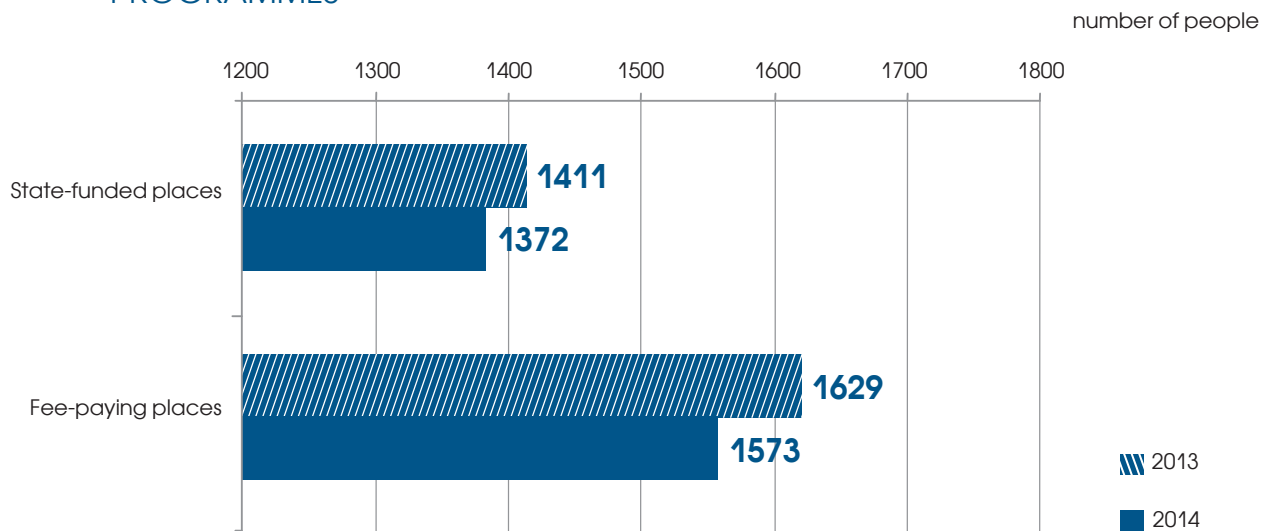


Figure 4.3

ADMISSION TO PART-TIME BACHELOR'S AND DIPLOMA DEGREE PROGRAMMES

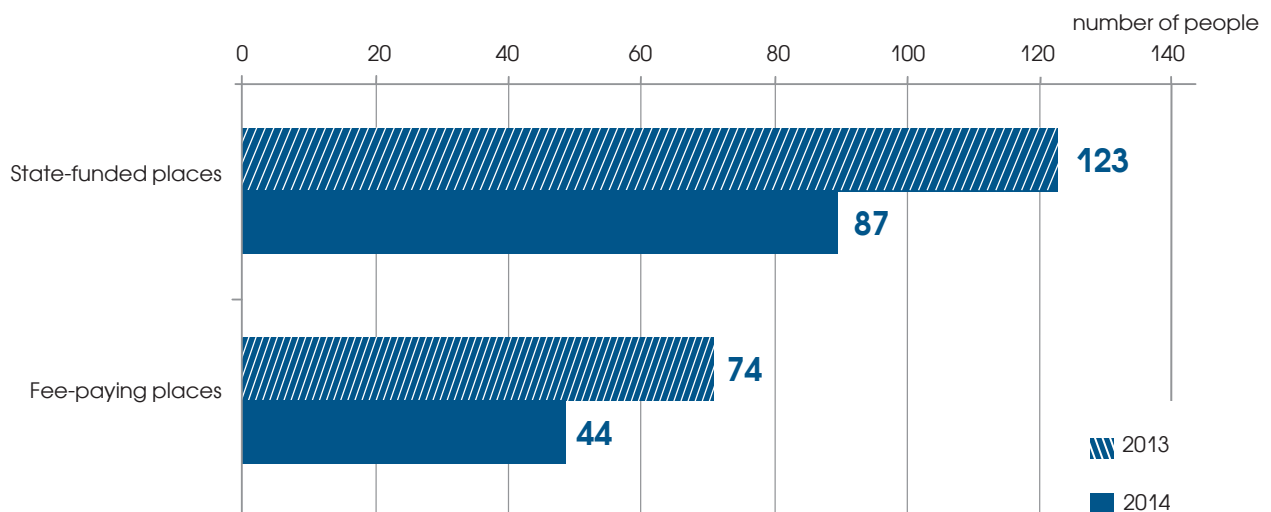
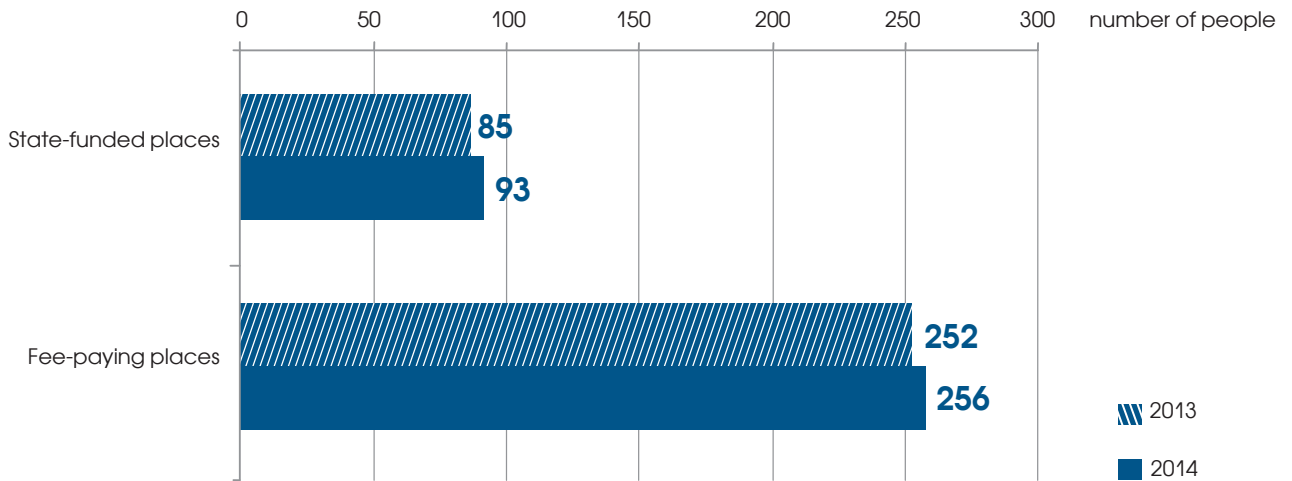


Figure 4.4

ADMISSION TO EXTRAMURAL BACHELOR'S AND DIPLOMA DEGREE PROGRAMMES



The number of master's degree students admitted to all modes of study increased by 2,7% in comparison with 2013 (the number of students increased from 785 to 806). With account of the part-time and extramural master's degree students at the second and the third years of study the proportion of master's degree students in the reduced contingent makes up 8%. Figure 4.5 demonstrates the contingent structure within bachelor's, diploma and master's degree programmes.

Figure 4.5

CONTINGENT STRUCTURE WITHIN BACHELOR'S, DIPLOMA AND MASTER'S DEGREE PROGRAMMES

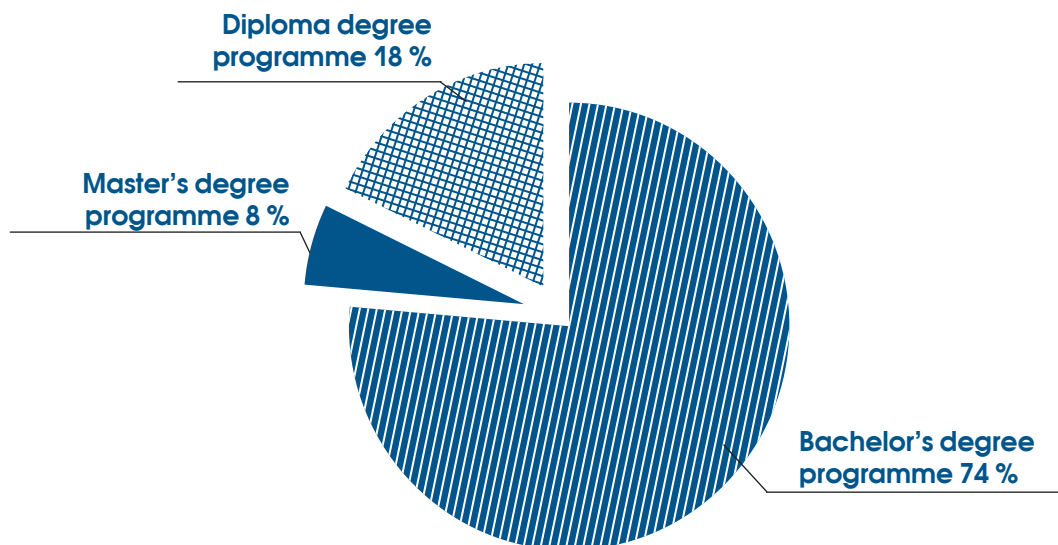
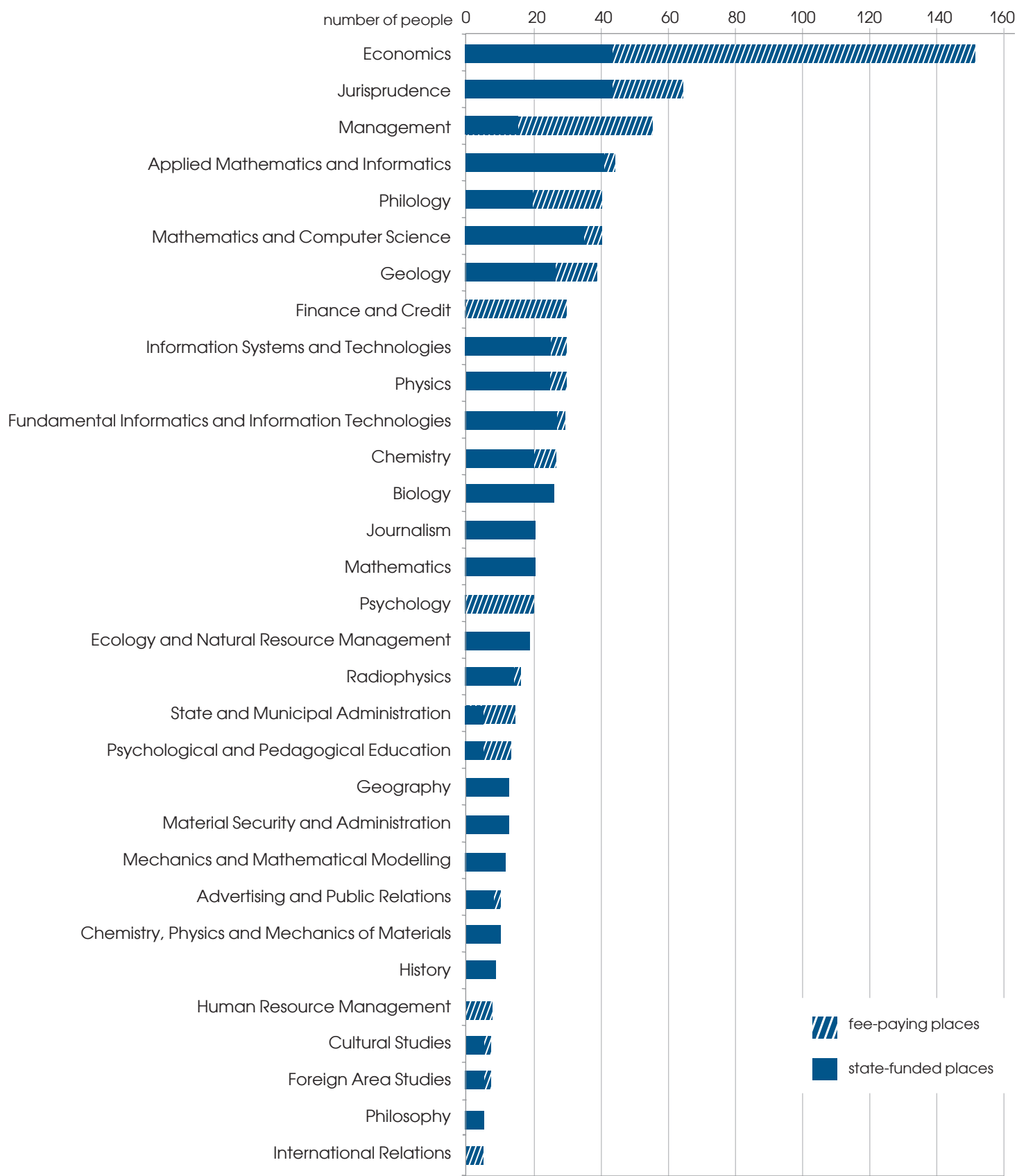




Figure 4.6 shows the structure of 2014 admission to master's degree programmes according to specialities and modes of study.

Figure 4.6

STRUCTURE OF 2014 ADMISSION TO MASTER'S DEGREE PROGRAMMES ACCORDING TO SPECIALITIES AND MODES OF STUDY





Master's degree programmes implemented at VSU in the current academic year are represented in Table 4.1.

Table 4.1

MASTER'S DEGREE PROGRAMMES IMPLEMENTED IN 2014

| Specialities | Programmes |
|---|--|
| THE FACULTY OF BIOLOGY AND SOIL SCIENCES | |
| 06.04.01 – Biology | Botany Biophysics Genetics Biochemistry Human and Animal Physiology Biomedical Sciences Zoology (Vertebrates) Zoology (Invertebrates) Ecology Histology Psychophysiology |
| 05.04.06 – Ecology and Natural Resource Management | Ecological Management |
| THE FACULTY OF GEOGRAPHY, GEOECOLOGY AND TOURISM | |
| 05.04.02 – Geography | Landscape Studies and Landscape Design Social and Economic Geography Recreational Geography and Tourism |
| 05.04.06 – Ecology and Natural Resource Management | Ecological Monitoring and Audit Ecological Monitoring and Radiation Safety |
| 43.04.02 – Tourism | General Theory of Tourism and Tourist Industry |
| THE FACULTY OF GEOLOGY | |
| 05.94.01 – Geology | Ecological Management Engineering Geology Regional Geology Oil and Gas Geophysics Engineering Geophysics Hydrogeoecology Orebody Geophysics |
| THE FACULTY OF JOURNALISM | |
| 42.04.02 – Journalism | Internet and Mass Media TV and Radio Functioning Process Advertising and Public Relations Foreign Journalism in the Context of Globalism Visual Journalism Magazine Journalism Press Functioning Process Tourism and Mass Media Communication Technologies in Business and Politics Opinion Journalism Poetics Journalism and Social Myths Media Technologies in the Social and Cultural Sphere |



| Specialities | Programmes |
|---|--|
| 42.04.01 – Advertising and Public Relations | Advertising and Public Relations in Mass Media Advertising Regulation and Expertise Advertising and Public Relations in Tourism Communication Branding |
| THE FACULTY OF HISTORY | |
| 46.04.01 – History | Archaeology Russian History Modern and Contemporary History of Europe and North America Late Antiquity and Middle Age History of Western Europe Orthodox Church History Ethnology Modern Europe: History, Culture and Politics |
| 41.04.04 – Political Science | History of Political Doctrines Political Institutions Political Processes |
| THE FACULTY OF COMPUTER SCIENCES | |
| 02.04.01 – Mathematics and Computer Science | Mathematical and Computer Modelling Computer Mathematics Parallel Computer Technologies Computer Processing of Signals and Images Mathematical Methods of Computer Assisted Data Analysis Informatics (Computer Science) as a Second Competence |
| 09.04.02 – Information Systems and Technologies | Information Systems Analysis and Synthesis Information Systems Security Information Technologies in Management Information Systems in Research Distributed Information Systems Information Systems Design Technology Communication Technologies Information Technologies in Organisational Management SAP Systems Management (corporate master's degree programme in collaboration with ATOS) Project and Service Management in Information Technologies (corporate master's degree programme in collaboration with ATOS) Informatics as a Second Competence |
| THE FACULTY OF MATHEMATICS | |
| 01.04.01 – Mathematics | Mathematical Modelling Computational Mathematics and Informatics Differential Equations, Dynamical Systems and Optimal Control Substantial, Complex and Functional Analysis |
| 02.04.01 – Mathematics and Computer Science | Mathematical and Computer Modelling Mathematical Basis for Computer Science Mathematical Analysis and its Applications Mathematical Methods in Economics and Finance Mathematical Methods and Computer Technologies in Medicine |

Table cont. 4.1

| Specialities | Programmes |
|---|--|
| THE FACULTY OF INTERNATIONAL RELATIONS | |
| 41.04.05 – International Relations | International Integration and International Organisations |
| 41.04.01 – Foreign Area Studies | European Studies |
| 38.04.02 – Management | International Business |
| 38.04.01 – Economics | Business in the Emerging Markets Economics and International Tourist Activity Management |
| THE FACULTY OF APPLIED MATHEMATICS, INFORMATICS AND MECHANICS | |
| 02.04.02 – Fundamental Informatics and Information Technologies | Management Information Systems Intelligent Information Technologies Parallel Programming and Concurrent Computing Computer Science |
| 01.04.02 – Applied Mathematics and Informatics | Operations Research and System Analysis Mathematical Modelling Optimisation and Optimal Control Systems Programming Numerical Methods Mathematical and Information Support in Economic Activity Mathematical and Software Support for ECM Mathematical Basis for Computer Graphics |
| 02.04.03 – Mathematical Support and Administration of Information Systems | Information Technologies |
| 01.04.03 – Mechanics and Mathematical Modelling | Mathematical and Computer Modelling in Continuum Mechanics Applied Mechanics and Computer Modelling |
| 38.04.05 – Business Informatics | Information Business Intelligence |
| THE FACULTY OF ROMANCE AND GERMANIC PHILOLOGY | |
| 45.04.01 – Philology | General Linguistics, Psycholinguistics and Sociolinguistics (Speech Studies) Romance Philology Linguistic Support for International Business Communication (English) Business Communication in Economics (German) Translation and Translation Studies |
| THE FACULTY OF PHYSICS | |
| 03.04.02 – Physics | Nuclear and Elementary Particle Physics Atomic and Molecular Physics Condensed Matter Physics Physics of Ferroelectrics and Dielectrics Physics of Nanosystems Semiconductor Physics and Microelectronics Optical Physics Optics of Nanostructured Materials Theoretical and Mathematical Physics Medical Physics |
| 03.04.03 – Radiophysics | Statistical Radiophysics Information Systems and Processes Computer Radiophysics |



| Specialities | Programmes |
|--|--|
| THE FACULTY OF PHILOLOGY | |
| 45.04.01 – Philology | Structure and Linguistic Poetics of the Text Psycholinguistics and Forensic Linguistics Russian as a Foreign Language and Intercultural Communication Linguistic Manipulation: Theory and Practice Imagology and Speechwriting Orthodox Culture Basics Linguistic Support for Mass Media Linguistic Support for Intercultural Relations |
| 50.04.01 – Arts and Humanities | Contemporary Arts and Crafts |
| THE FACULTY OF PHILOSOPHY AND PSYCHOLOGY | |
| 47.04.01 – Philosophy | Ontology and Epistemology |
| 37.04.01 – Psychology | Social Psychology Psychology of Personality Clinical and Psychological Follow-Up Psychological and Psycholinguistic Foundations of Socially Oriented Communication |
| 51.04.01 – Cultural Studies | Social and Cultural Management |
| 44.04.02 – Psychological and Pedagogical Education | Educational Psychology Psychology and Pedagogy of Creativity |
| THE FACULTY OF CHEMISTRY | |
| 04.04.01 – Chemistry | Inorganic Chemistry Analytical Chemistry Organic Chemistry Physical Chemistry Environmental Chemistry, Chemical Expertise and Ecoanalytical Chemistry Radiochemistry |
| 04.04.02 – Chemistry, Physics and Mechanics of Materials | Chemistry, Physics and Mechanics of Function Materials |
| THE FACULTY OF ECONOMICS | |
| 38.04.01 – Economics | Accounting, Analysis and Audit Labour Economics Quantitative Analysis in Financial Markets Mathematical Analysis Methods in Social and Economic Systems Economics of Organisations and Markets Economics and E-Commerce |



End of table 4.1

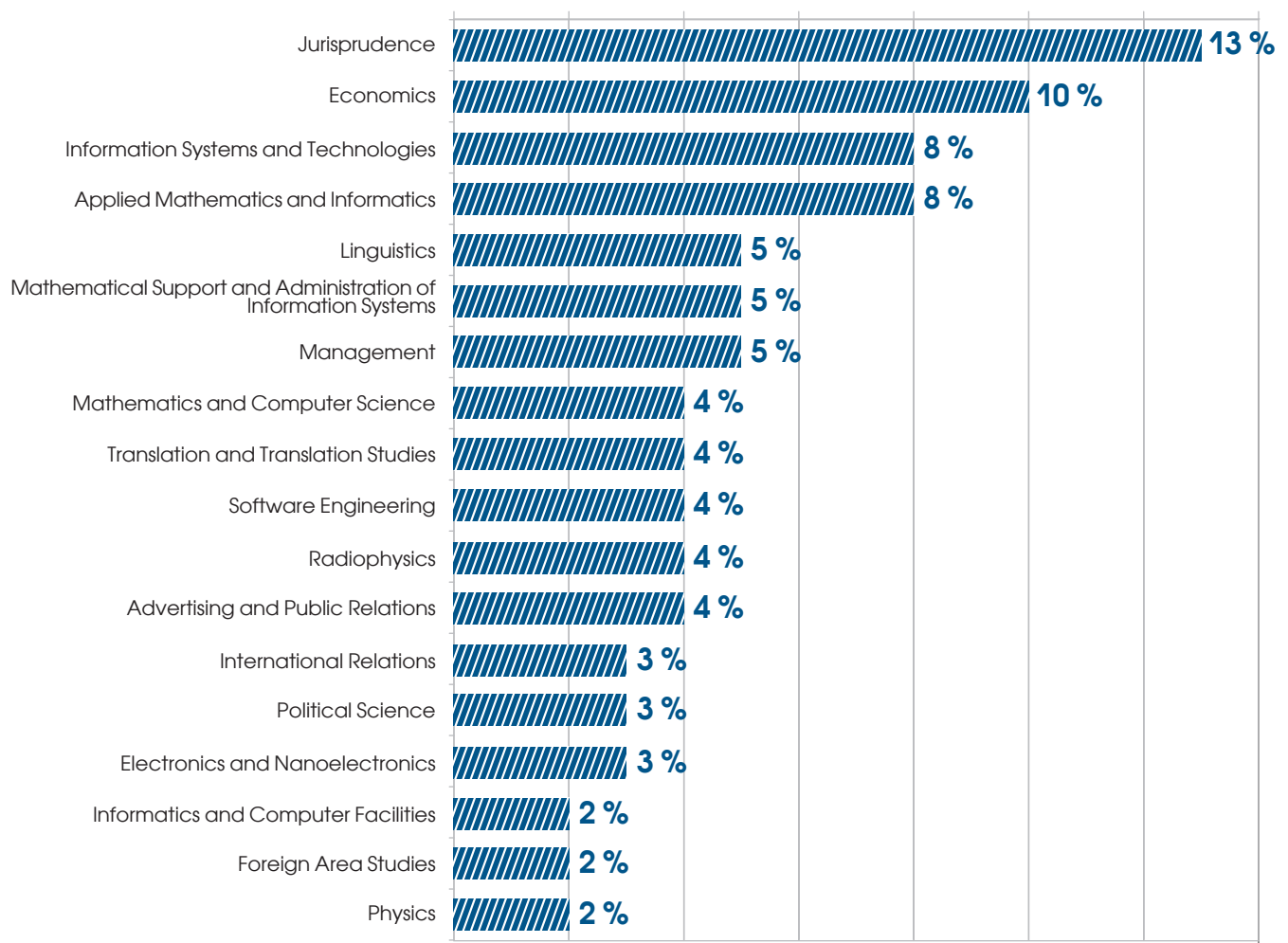
| Specialities | Programmes |
|---|--|
| | Diagnostics of Business Processes and Corporate Reporting Financial Analyst: Investments, Credit Standing, Risks Tax Bookkeeping, Analysis and Control Accounting, Audit and International Law International Audit Corporate Accounting, Financial and Investment Analysis Economics and Entrepreneurship Economics of a Firm Social and Labour Economics |
| 38.04.02 – Management | Economics and Firm Management General and Strategic Management Quantitative Methods of Management Decision Support Quality Management IT Management Economics and Management in Social Industries Accounting and Audit Risk Management Marketing Management Management Consulting Innovation Management |
| 38.04.08 – Finance and Credit | Financial Management Banks and Banking Finance and Stock Market |
| 38.04.04 – State and Municipal Administration | Business and Territory Development Monitoring and Administration Territory Social and Economic Development Administration |
| 38.04.03 – Human Resource Management | Human Resource Management Human Resource Management in International Business |
| THE FACULTY OF LAW | |
| 40.04.01 – Jurisprudence | Organization of the Judicial Power and Law Enforcement Activities Protection of Human Rights and Freedoms Constitutional Legislation Implementation in Social and Economic Area Judicial Support for IT Development and Information Security Criminal Procedure, Criminalistics and Operational Investigations Civil Law, Family Law, Private International Law Civil and Arbitral Procedure Alternative Dispute Resolution State and Municipal Administration International Law and Business Theory and History of State and Law Labour Law and Social Security Law Land and Environmental Law Entrepreneurial Law Financial and Tax Law Taxation and Civil Legislation Criminal Law, Criminology, Criminal and Penal Law |

4

In 2014 there was a considerable increase in the number of students who were admitted to the University as the winners and awardees of the All-Russian Academic Competition among Schoolchildren and other academic competitions held according to the procedure established by the Ministry of Education and Science of the Russian Federation. Most of them chose the Faculty of Law, the Faculty of Economics, or an IT faculty (see Figure 4.7).

Figure 4.7

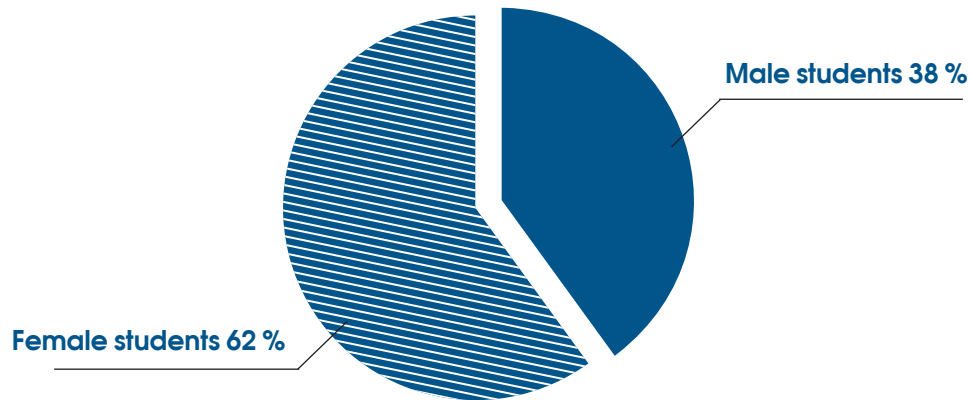
DISTRIBUTION OF THE ACADEMIC COMPETITION WINNERS AND AWARDEES ACCORDING TO THE SPECIALITIES



The gender composition of the admitted students underwent further changes, and the number of female students rose from 60% in 2013 to 62% in 2014 (see Figure 4.8).

Figure 4.8

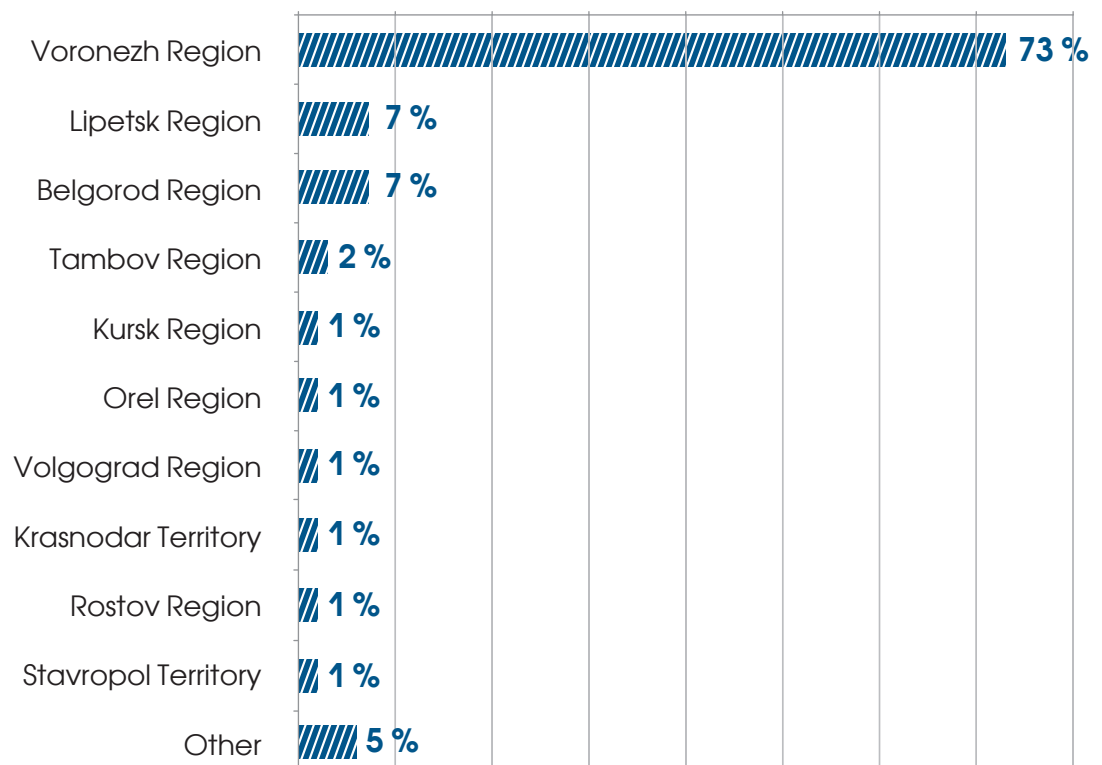
GENDER COMPOSITION OF THE STUDENTS ADMITTED TO VSU



The geography of the students entering Voronezh State University is usually quite broad. In 2014 applicants from more than 70 subjects of the Russian Federation filed their documents to VSU. Following the results of the competitive selection representatives of 62 Russian subjects were admitted to the University. Residents of the Voronezh Region and the adjoining regions of the Central Black Earth Region prevail among them (see Figure 4.9).

Figure 4.9

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





4.4. IMPLEMENTATION OF THE MAIN ACADEMIC PROGRAMMES (BACHELOR'S, DIPLOMA AND MASTER'S DEGREE PROGRAMMES)

In the reporting year the number of students within bachelor's, diploma and master's degree programmes totalled 17 908. The analysed contingent made up 14 123. The distribution of students according to the modes of study, degree levels and specialities is shown in Table 4.2.

Table 4.2

DISTRIBUTION OF STUDENTS ACCORDING TO THE MODES OF STUDY, DEGREE LEVELS AND SPECIALITIES IN 2014

| Degree levels and specialities | Mode of study | | |
|---|---------------|------------|-------------|
| | full-time | part-time | extramural |
| Bachelor's degree programmes in total | 10 129 | 626 | 1408 |
| including: | | | |
| 010100 – Mathematics | 109 | | |
| 010200 – Mathematics and Computer Science | 201 | | |
| 010300 – Fundamental Informatics and Information Technologies | 89 | | |
| 010400 – Applied Mathematics and Informatics | 307 | 63 | |
| 010500 – Mathematical Support and Administration of Information Systems | 109 | | |
| 010800 – Mechanics and Mathematical Modelling | 77 | | |
| 011200 – Physics | 185 | | |
| 011800 – Radiophysics | 257 | 44 | |
| 020100 – Chemistry | 178 | 51 | |
| 020300 – Chemistry, Physics and Mechanics of Materials | 74 | | |
| 020400 – Biology | 248 | 65 | |
| 020700 – Geology | 313 | | 49 |
| 021000 – Geography | 146 | | |
| 021900 – Soil Science | 69 | | |
| 022000 – Ecology and Natural Resource Management | 174 | | 52 |
| 030100 – Philosophy | 55 | | |
| 030200 – Political Science | 60 | | |
| 030300 – Psychology | 149 | 12 | |
| 030600 – History | 120 | | 49 |
| 030900 – Jurisprudence | 1162 | 73 | 294 |

Table cont. 4.2

| Degree levels and specialities | Mode of study | | |
|---|---------------|-----------|------------|
| | full-time | part-time | extramural |
| 031300 – Journalism | 146 | | 71 |
| 031600 – Advertising and Public Relations | 171 | | 92 |
| 031900 – International Relations | 151 | | |
| 032000 – Foreign Area Studies | 90 | | |
| 032700 – Philology | 110 | 21 | |
| 033000 – Cultural Studies | 29 | | |
| 034700 – Archives and Records Management | 29 | | 4 |
| 035000 – Publishing | 67 | | |
| 035100 – Television | 9 | | |
| 035300 – Arts and Humanities | 35 | | |
| 035700 – Linguistics | 425 | 103 | 14 |
| 035800 – Fundamental and Applied Linguistics | 67 | | |
| 040100 – Social Studies | 92 | | |
| 050400 – Psychological and Pedagogical Education | 29 | | |
| 080100 – Economics | 836 | 41 | 274 |
| 080200 – Management | 320 | 10 | 79 |
| 080400 – Human Resource Management | 102 | | |
| 080500 – Business Informatics | 133 | | 15 |
| 081100 – State and Municipal Administration | 69 | | |
| 100400 – Tourism | 48 | | 15 |
| 140800 – Nuclear Physics and Nuclear Technologies | 65 | | |
| 210100 – Electronics and Nanoelectronics | 74 | | |
| 230400 – Information Systems and Technologies | 222 | | |
| 230700 – Applied Informatics | 12 | | |
| 231000 – Software Engineering | 30 | | |
| 231300 – Applied Mathematics | 10 | | |
| 01.03.01 – Mathematics | 32 | | |
| 01.03.02 – Applied Mathematics and Informatics | 100 | 15 | |
| 01.03.03 – Mechanics and Mathematical Modelling | 25 | | |
| 01.03.04 – Applied Mathematics | 10 | | |
| 02.03.01 – Mathematics and Computer Science | 73 | | |
| 02.03.02 – Fundamental Informatics and Information Technologies | 41 | | |
| 02.03.03 – Mathematical Support and Administration of Information Systems | 40 | | |
| 03.03.02 – Physics | 75 | | |



Table cont. 4.2

| Degree levels and specialities | Mode of study | | |
|--|---------------|-----------|------------|
| | full-time | part-time | extramural |
| 03.03.03 – Radiophysics | 80 | 15 | |
| 04.03.01 – Chemistry | 52 | 18 | |
| 04.03.02 – Chemistry, Physics and Mechanics of Materials | 25 | | |
| 05.03.01 – Geology | 106 | | 8 |
| 05.03.02 – Geography | 45 | | |
| 05.03.06 – Ecology and Natural Resource Management | 59 | | 16 |
| 06.03.01 – Biology | 88 | 25 | |
| 06.03.02 – Soil Science | 22 | | |
| 09.03.01 – Informatics and Computer Facilities | 10 | | |
| 09.03.02 – Information Systems and Technologies | 80 | | |
| 09.03.03 – Applied Informatics | 31 | | |
| 09.03.04 – Software Engineering | 14 | | |
| 11.03.04 – Electronics and Nanoelectronics | 25 | | |
| 37.03.01 – Psychology | 74 | | |
| 38.03.01 – Economics | 307 | | 67 |
| 38.03.02 – Management | 92 | | 30 |
| 38.03.03 – Human Resource Management | 43 | | |
| 38.04.03 – State and Municipal Administration | 46 | | |
| 38.03.05 – Business Informatics | 49 | | |
| 39.03.01 – Social Studies | 31 | | |
| 40.03.01 – Jurisprudence | 431 | 22 | 95 |
| 41.03.01 – Foreign Area Studies | 32 | | |
| 41.04.03 – Political Science | 24 | | |
| 41.03.05 – International Relations | 60 | | |
| 42.03.01 – Advertising and Public Relations | 36 | | 26 |
| 42.03.02 – Journalism | 51 | | 17 |
| 42.03.03 – Publishing | 21 | | |
| 42.03.04 – Television | 15 | | |
| 43.03.02 – Tourism | 12 | | 20 |
| 44.03.02 – Psychological and Pedagogical Education | 15 | | |
| 45.03.01 – Philology | 21 | | |
| 45.03.02 – Linguistics | 144 | 31 | 6 |
| 45.03.03 – Fundamental and Applied Linguistics | 38 | | |

Table cont. 4.2

| Degree levels and specialities | Mode of study | | |
|---|---------------|------------|-------------|
| | full-time | part-time | extramural |
| 46.03.01 – History | 35 | | 24 |
| 46.03.02 – Archives and Records Management | 15 | | |
| 47.03.01 – Philosophy | 18 | | |
| 50.03.01 – Arts and Humanities | 18 | | |
| 51.03.01 – Cultural Studies | 12 | | |
| Diploma degree programmes in total | 2382 | 489 | 1064 |
| including: | | | |
| 010701 – Fundamental Mathematics and Mechanics | 68 | | |
| 020201 – Fundamental and Applied Chemistry | 29 | | |
| 035701 – Translation and Translation Studies | 25 | | |
| 060301 – Pharmacy | 241 | 74 | 115 |
| 010101 – Mathematics | 34 | 33 | |
| 010501 – Applied Mathematics and Informatics | 79 | 43 | |
| 010503 – Mathematical Support and Administration of Information Systems | 32 | | |
| 010701 – Physics | 61 | | |
| 010801 – Radiophysics and Electronics | 43 | 43 | |
| 010803 – Microelectronics and Semiconductor Devices | 25 | | |
| 010901 – Mechanics | 20 | | |
| 020101 – Chemistry | 49 | 25 | |
| 020201 – Biology | 47 | 45 | |
| 020301 – Geology | 23 | | |
| 020302 – Geophysics | 20 | | |
| 020304 – Hydrogeology and Geological Engineering | 21 | | |
| 020306 – Ecological Geology | 15 | | |
| 020401 – Geography | 40 | | |
| 020701 – Soil Science | 29 | | |
| 020801 – Ecology | 17 | | |
| 020802 – Natural Resource Management | 13 | | 52 |
| 020804 – Geoecology | 24 | | |
| 030101 – Philosophy | 14 | | |
| 030201 – Political Science | 24 | | |
| 030301 – Psychology | 50 | | |
| 030401 – History | 46 | | 37 |
| 030501 – Jurisprudence | 295 | 109 | 138 |
| 030601 – Journalism | 35 | | 56 |



Table cont. 4.2

| Degree levels and specialities | Mode of study | | |
|--|---------------|-----------|------------|
| | full-time | part-time | extramural |
| 030602 – Public Relations | 32 | | 42 |
| 030701 – International Relations | 29 | | |
| 031001 – Philology | 31 | 23 | |
| 031201 – Theory and Methodology of Foreign Language Teaching | 54 | 25 | 22 |
| 031202 – Translation and Translation Studies | 26 | 20 | |
| 031301 – Theoretical and Applied Linguistics | 12 | 9 | |
| 031401 – Cultural Studies | 10 | | |
| 032001 – Records Management and Document Support of Management | 20 | | 14 |
| 032401 – Advertising | 30 | | 34 |
| 040201 – Social Studies | 45 | | |
| 060108 – Pharmacy | 58 | 32 | 181 |
| 080102 – International Economics | 58 | | |
| 080105 – Finance and Credit | 83 | | 103 |
| 080109 – Accounting, Analysis and Audit | 44 | | 76 |
| 080504 – State and Municipal Administration | | | 29 |
| 080505 – Human Resource Management | 17 | | |
| 080507 – Corporate Management | 20 | | 65 |
| 080801 – Applied Informatics (Area-Based) | 21 | | |
| 100201 – Tourism | 16 | | |
| 130301 – Geological Surveying and Mineral Deposit Exploration | | | 50 |
| 140302 – Physics of Atomic Nuclei and Particles | 19 | | |
| 230201 – Information Systems and Technologies | 56 | | |
| 01.05.01 – Fundamental Mathematics and Mechanics | 30 | | |
| 04.05.01 – Fundamental and Applied Chemistry | 21 | | |
| 33.05.01 – Pharmacy | 95 | 8 | 50 |
| 38.05.01 – Economic Security | 79 | | |
| 45.05.01 – Translation and Translation Studies | 57 | | |
| Master_degree programmes in total | 995 | 62 | 753 |
| including: | | | |
| 010100 – Mathematics | 20 | | |
| 010200 – Mathematics and Computer Science | 41 | | |

Table cont. 4.2

| Degree levels and specialities | Mode of study | | |
|---|---------------|-----------|------------|
| | full-time | part-time | extramural |
| 010300 – Fundamental Informatics and Information Technologies | 27 | | |
| 010400 – Applied Mathematics and Informatics | 40 | | |
| 010500 – Mathematical Support and Administration of Information Systems | 11 | | |
| 010800 – Mechanics and Mathematical Modelling | 11 | | |
| 011200 – Physics | 25 | | |
| 011800 – Radiophysics | 15 | | |
| 020100 – Chemistry | 24 | | |
| 020300 – Chemistry, Physics and Mechanics of Materials | 9 | | |
| 020400 – Biology | 27 | | |
| 020700 – Geology | 27 | | 10 |
| 021000 – Geography | 15 | | |
| 022000 – Ecology and Natural Resource Management | 16 | | |
| 030300 – Psychology | 10 | | |
| 030600 – History | 5 | | |
| 030900 – Jurisprudence | 8 | | 73 |
| 031300 – Journalism | 14 | | 9 |
| 031900 – International Relations | 4 | | |
| 032000 – Foreign Area Studies | 5 | | |
| 032700 – Philology | 22 | | |
| 050400 – Psychological and Pedagogical Education | 7 | | |
| 080100 – Economics | 27 | 4 | 220 |
| 080200 – Management | 29 | 16 | 72 |
| 080300 – Finance and Credit | 9 | 15 | 59 |
| 080400 – Human Resource Management | | | 22 |
| 081100 – State and Municipal Administration | | | 20 |
| 210100 – Electronics and Nanoelectronics | 15 | | |
| 230400 – Information Systems and Technologies | 19 | | |
| 01.04.01 – Mathematics | 20 | | |
| 01.04.02 – Applied Mathematics and Informatics | 43 | | |
| 01.04.03 – Mechanics and Mathematical Modelling | 11 | | |
| 02.04.01 – Mathematics and Computer Science | 39 | | |
| 02.04.02 – Fundamental Informatics and Information Technologies | 29 | | |
| 02.04.03 – Mathematical Support and Administration of Information Systems | 12 | | |
| 03.04.02 – Physics | 29 | | |
| 03.04.03 – Radiophysics | 16 | | |



End of table 4.2

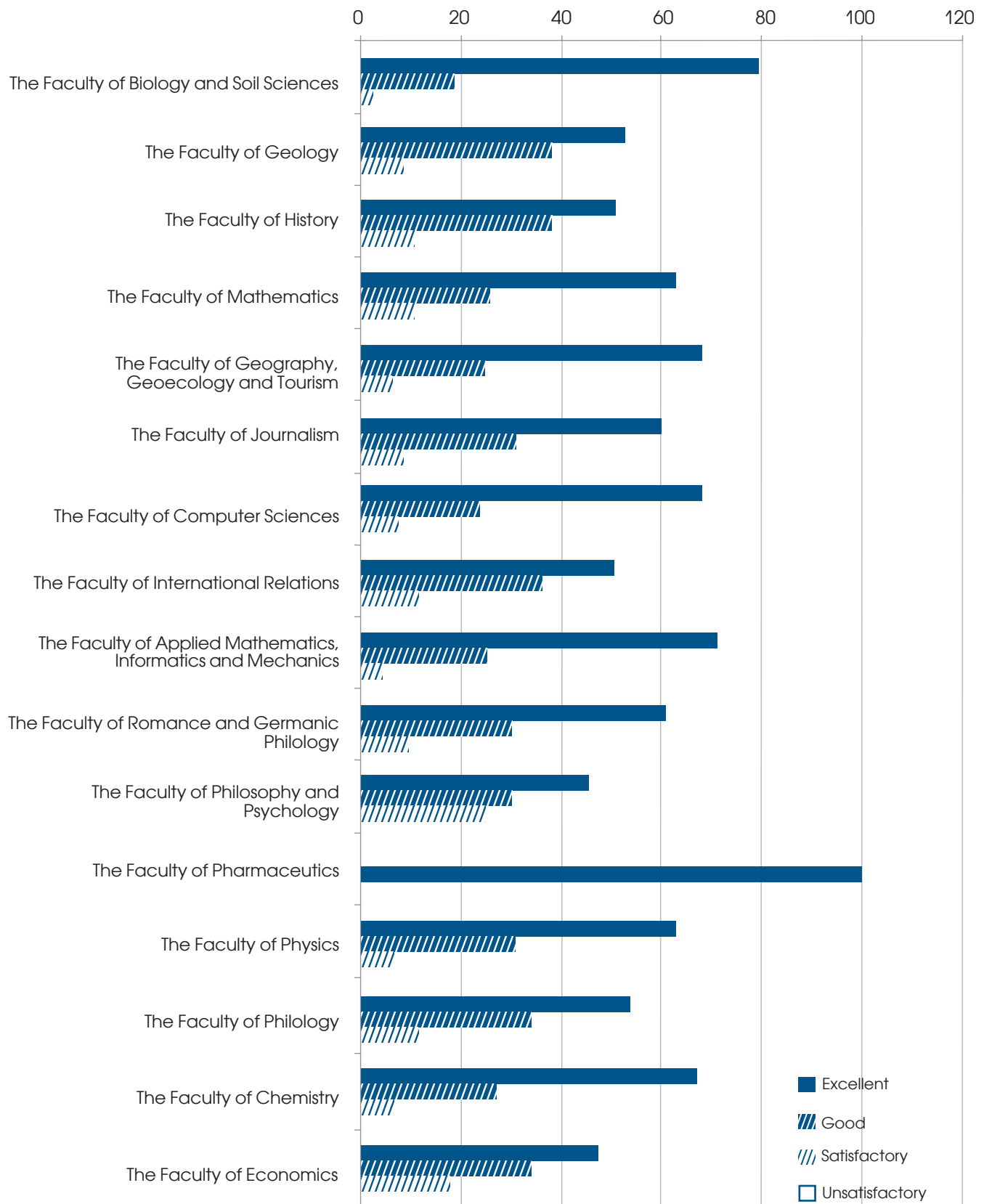
| Degree levels and specialities | Mode of study | | |
|--|---------------|-----------|------------|
| | full-time | part-time | extramural |
| 04.04.01 – Chemistry | 26 | | |
| 04.04.02 – Chemistry, Physics and Mechanics of Materials | 10 | | |
| 05.04.01 – Geology | 25 | | 10 |
| 05.04.02 – Geography | 12 | | |
| 05.04.06 – Ecology and Natural Resource Management | 18 | | |
| 06.04.01 – Biology | 25 | | |
| 09.04.02 – Information Systems and Technologies | 30 | | |
| 37.04.01 – Psychology | 6 | 13 | |
| 38.04.01 – Economics | 32 | | 119 |
| 38.04.02 – Management | 13 | 9 | 33 |
| 38.03.04 – Human Resource Management | | | 7 |
| 38.04.04 – State and Municipal Administration | | 5 | 9 |
| 38.04.08 – Finance and Credit | 4 | | 26 |
| 40.04.01 – Jurisprudence | 20 | | 44 |
| 41.04.01 – Foreign Area Studies | 6 | | |
| 41.04.05 – International Relations | 4 | | |
| 42.04.01 – Advertising and Public Relations | 10 | | |
| 42.04.02 – Journalism | 10 | | 9 |
| 44.04.02 – Psychological and Pedagogical Education | 13 | | |
| 45.04.01 – Philology | 29 | | 10 |
| 46.04.01 – History | 8 | | |
| 47.04.01 – Philosophy | 5 | | |
| 51.04.01 – Cultural Studies | 6 | | |



Figure 4.10 represents the results of graduate qualification paper defences in 2014.

Figure 4.10

RESULTS OF GRADUATE QUALIFICATION PAPER DEFENCES IN 2014

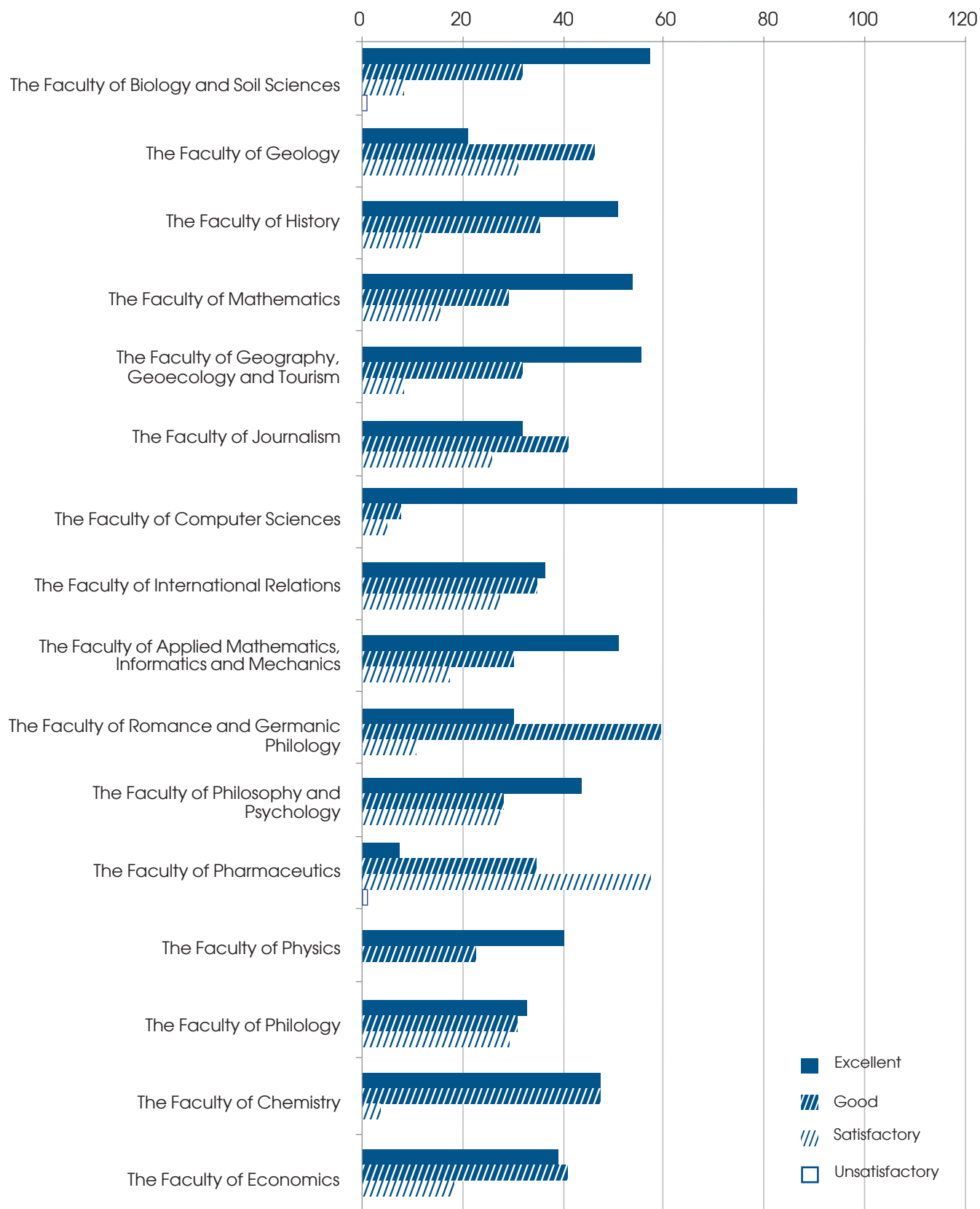




The marks received at the state examinations distributed among the faculties in the following way (see Figure 4.11):

Figure 4.11

MARKS RECEIVED AT THE STATE EXAMINATIONS (DISTRIBUTED AMONG THE FACULTIES)





SECONDARY VOCATIONAL EDUCATION

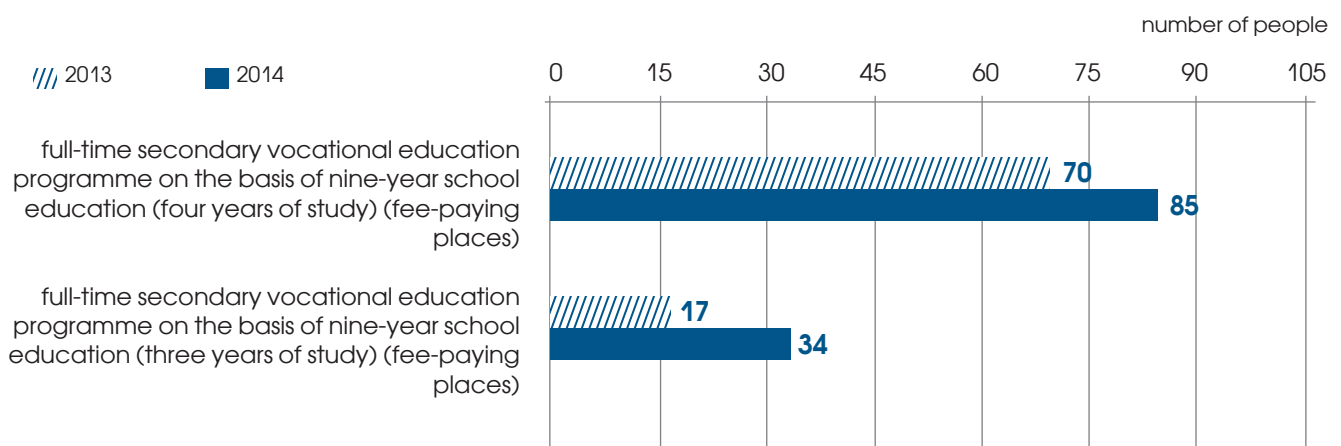
In 2014 an admission campaign for the diploma degree programmes intended for the secondary vocational education specialists of the basic level was conducted within five Federal State Educational Standards of the three-plus generation which include 09.02.01 – Programming in Computer Systems; 33.02.01 – Pharmacy; 38.02.01 – Economics and Accounting (Area-Based); 42.02.01 – Advertising; 43.02.10 – Tourism.

The number of students admitted to the four-year secondary vocational education programmes amounted to 85 in 2014 and 70 in 2013. The number of students admitted to the three-year secondary vocational education programmes amounted to 34 in 2014 and 17 in 2013.

Positive growth in the number of students admitted to the secondary vocational education programmes indicates that the interest in the secondary vocational education shown by university entrants is rising regardless of the programme duration (see Figure 4.12).

Figure 4.12

DYNAMICS OF THE CHANGES IN THE NUMBER OF STUDENTS ADMITTED



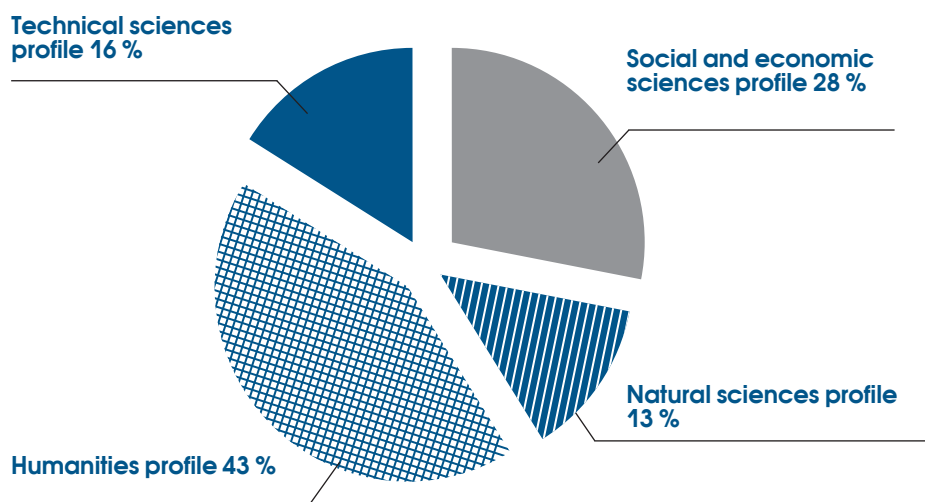
4

TO THE SECONDARY VOCATIONAL EDUCATION PROGRAMMES IN 2013–2014

The distribution of students admitted to the secondary vocational education programmes according to the chosen profile is the following: the overwhelming majority of students (43 %) chose the humanities profile, slightly fewer students (28 %) were admitted to the social and economic sciences profile, and an almost equal number of students chose the natural (13 %) and technical (16 %) sciences profiles (see Figure 4.13).

Figure 4.13

DISTRIBUTION OF STUDENTS ADMITTED TO THE SECONDARY VOCATIONAL EDUCATION PROGRAMMES IN 2014 ACCORDING TO THE CHOSEN PROFILE



The implementation of seven secondary vocational education programmes within the Federal State Educational Standard of the third generation with the further transition to the Federal State Educational Standard of the three-plus generation is currently in progress. These include the following programmes: 031601 – Advertising; 060301 – Pharmacy; 080114 – Economics and Accounting (Area-Based); 100401 – Tourism; 210109 – Solid-State Electronics; 230115 – Programming in Computer Systems; 280711 – Management of Natural and Economic Complexes.

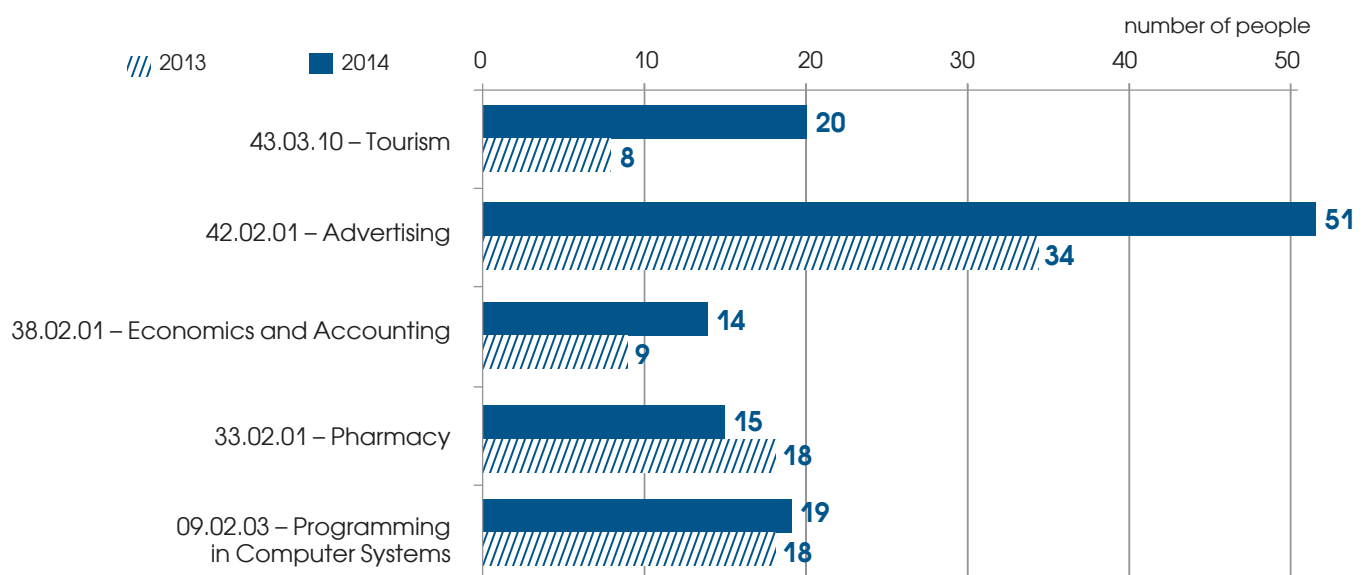
The fastest-developing programmes are 031601 – Advertising and 080114 – Economics and Accounting (Area-Based); the admission to the speciality 100401 – Tourism has more than doubled. In spite of the difficult demographic situation, the admission to the specialities 230115 – Programming in Computer Systems and 060301 – Pharmacy remains quite stable.



The dynamics of the secondary vocational education programmes development is proved by the changes in the number of students within the secondary vocational education programmes implemented in 2013–2014. The number of students admitted to the speciality “Advertising” amounted to 51 in 2014 and 34 in 2013; “Economics and Accounting (Area-Based)” : 14 in 2014 and 9 in 2013; “Tourism”: 20 in 2014 and 8 in 2013; “Pharmacy”: 15 in 2014 and 18 in 2013; “Programming in Computer Systems”: 19 in 2014 and 18 in 2013 (see Figure 4.14).

Figure 4.14

DYNAMICS OF THE CHANGES IN THE NUMBER OF STUDENTS WITHIN THE SECONDARY VOCATIONAL EDUCATION PROGRAMMES IMPLEMENTED IN 2013–2014

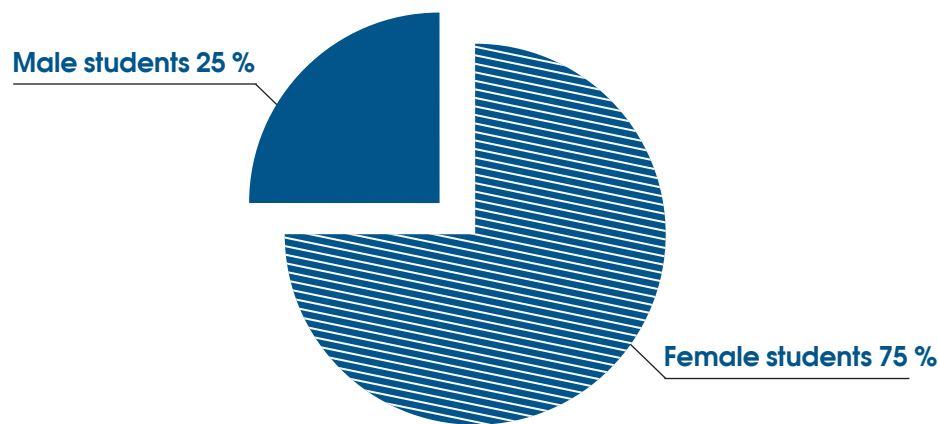


4

As of 1 October 2014 the number of secondary vocational education students of all years and modes of study totalled 340. The distribution according to gender was the following: there were 25.46 % of male students and 74.54 % of female students (see Figure 4.15).

Figure 4.15

GENDER COMPOSITION OF THE SECONDARY VOCATIONAL EDUCATION STUDENTS



An educational and methodological basis for the transition to the educational standards of the three-plus generation was created under the supervision of the certified developer and expert in the field of the main academic programmes for secondary vocational education (certificate by FSAI *FEDI*/SR No 014.1817 dated 17 November 2014), the leading specialist at the Department of Educational Activity Regulation E. D. Chernyshova.

VSU reached an agreement with the Chamber of Commerce and Industry of the Voronezh Region to hold 2015 public and professional accreditation of the following secondary vocational education specialities: 031601 – Advertising, 060301 – Pharmacy, 100401 – Tourism, and 230115 – Programming in Computer Systems.

An application for admission quotas of 15 places within the priority speciality 09.02.03 – Programming in Computer Systems for the 2016–2017 academic year was sent to the Ministry of Education and Science of the Russian Federation. To substantiate the application the agreements on the cooperation with the defence contractors *Sozvezdie* and *Turbonasos* were enclosed.

4.5. INFORMATION ON THE SCHOLARSHIP PROGRAMMES IMPLEMENTED AT VSU

Table 4.3 demonstrates the information on the scholarship programmes implemented at VSU (academic scholarships and bursaries are not included).

Table 4.3

SCHOLARSHIP PROGRAMMES IMPLEMENTED AT VSU IN 2014

| Scholarship programme | Number of scholarships |
|--|--|
| | 2013–2014 |
| FUNDED FROM THE FEDERAL BUDGET | |
| Scholarship of the President of the Russian Federation | 3 students 1 postgraduate student |
| Scholarship of the Government of the Russian Federation | 5 students 1 postgraduate student |
| Scholarship of the President of the Russian Federation in the priority areas | 7 students 1 postgraduate student |
| Scholarship of the Government of the Russian Federation in the priority areas | 11 students 2 postgraduate students |
| FUNDED BY THE LONG-TERM REGIONAL TARGET PROGRAMME "DEVELOPMENT OF THE VORONEZH REGION EDUCATION IN 2011–2015" | |
| Scholarship of the Government of the Voronezh Region | 3 students 3 postgraduate students |
| FUNDED BY VSU | |
| Scholarship of the VSU Academic Council | 6 students |
| Scholarship named after Professor L. D. Kokorev | 1 student |
| Scholarship named after Professor G. F. Gorsky | 1 student |
| Scholarship named after Professor I. A. Galagan | 1 student |
| Scholarship named after Professor V. S. Osnovin | 1 student |
| Scholarship named after Professor M. S. Tochilin | 1 student 1 postgraduate student |
| Scholarship named after Professor M. A. Levitskaya | 2 students |
| Scholarship named after Professor V. A. Lisitsky | 1 student |
| Scholarship named after Professor G. E. Vedel | 1 student |
| Scholarship named after Professor L. T. Gilyarovskaya | 3 students |
| FUNDED BY THE EMPLOYERS | |
| Scholarship of the data provider <i>Informsvyaz-Chernozemye</i> | 10 students |

VSU master's degree students take an active part in the scholarship programme of the Vladimir Potanin Charitable Foundation. In 2014 three master's degree students, Sergey Blagoveshensky, Alina Bolshakova, and Nikolay Lysenko, won the Foundation scholarships.



4.6. INFORMATION ON THE INNOVATIVE TECHNOLOGIES IN EDUCATION

Voronezh State University takes consistent measures to improve the quality of the students' competence by developing their independence and creativity.

In 2014 the University continued to implement three models of educational technologies based on the innovative educational methods:

- innovative educational technologies within the main academic programmes implemented in the traditional way;
- innovative educational technologies within the main academic programmes implemented in the off-campus mode;
- e-learning.

In order to maintain these models the University ensured appropriate logistics conditions. More than 2000 computers were installed, 83 computer labs were equipped, 18 rooms with access to electronic resources were created, and 43 classrooms were fitted out with multimedia equipment at VSU. In addition, students' TV was created, and the data processing centre which stores the collections of electronic learning resources including electronic teaching materials, collections of evaluation materials, textbooks, and guidance papers, was put into operation.

The basic forms of innovative educational technologies within the main academic programmes implemented in the traditional way include using Internet-resources, developing and using lecture multimedia facilities, computer-based testing, professional simulations, and role plays. Such innovative teaching methods, as problem, research and case methods, educational and personal training, modular rating technologies in the organisation of the educational process, and project-based learning, were developed.

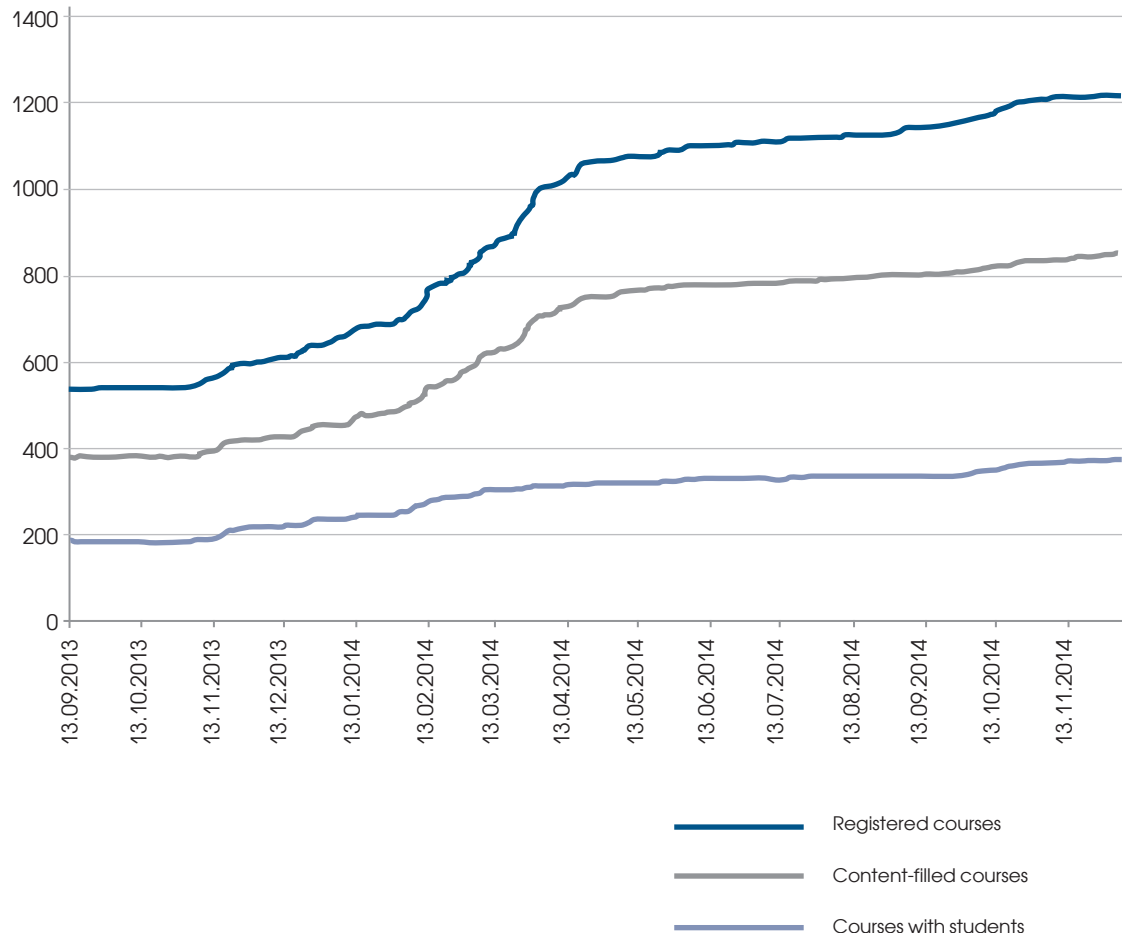
In the main academic programmes innovative teaching methods are implemented within different modes of study.



Technologies of e-learning and educational process monitoring were used at all modes of study. The administrative resource which this work was guided by was the Order of the Rector No 630 dated 18 October 2013 "On the Development of Electronic Teaching Materials within VSU Academic Programmes". The aim of this order was "to promote the work on creating electronic teaching materials and introduce e-learning and off-campus educational technologies into the educational process". In addition, during the reporting period the "E-University" web portal was improved in order to develop its functionality. In particular, the following services were created: the service which binds an e-course to the disciplines from the academic programme curriculum and the service which allows the registering of groups of students from the "Contingent" data base for a course and the deregistering of the students who have completed it. Figure 4.16 shows the number and the dynamics of e-courses.

Figure 4.16

DYNAMICS OF CREATING, CONTENT FILLING AND USING E-COURSES





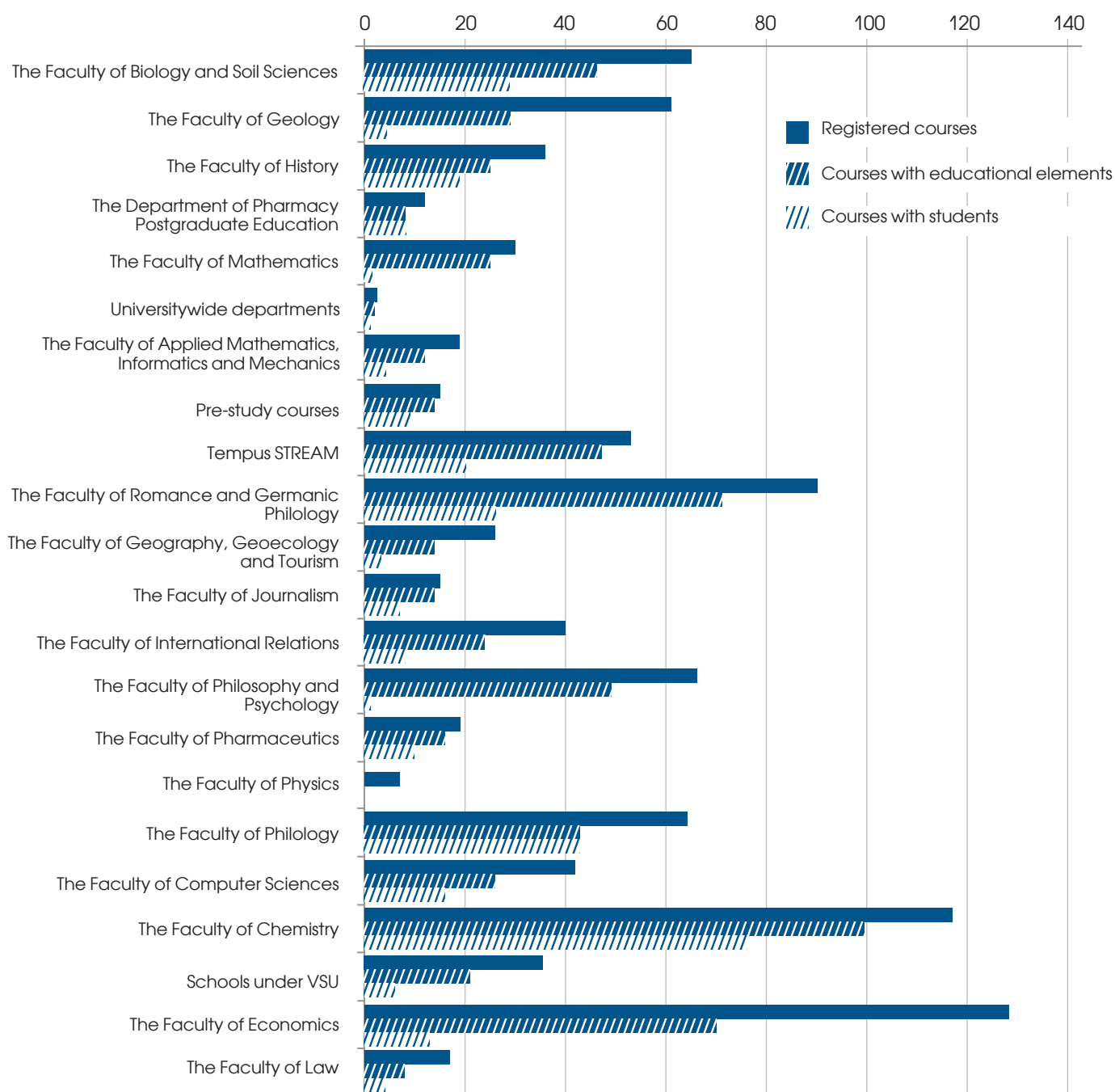
At present the number of users registered at the web portal totals 8490. 5173 students have visited the web portal at least once.

INNOVATIVE EDUCATIONAL TECHNOLOGIES WITHIN THE MAIN ACADEMIC PROGRAMMES IMPLEMENTED IN THE OFF-CAMPUS MODE

Figure 4.17 demonstrates the information on the process of filling the web portal with e-courses in the reporting year according to the University faculties.

Figure 4.17

STRUCTURE AND CONTENT FILLING OF THE E-COURSES ACCORDING TO FACULTIES IN 2014





In 2014 e-courses for off-campus training of potential university entrants preparing them to take the Unified State Examinations were successfully developed within VSU pre-study courses.

A page for VSU off-campus pre-study courses was created on the web portal. This page contains the information necessary for potential users, namely the information on the off-campus registration, fees, learning and acquiring the course graduation certificate. Based on the teaching aids prepared by the lecturers of specific disciplines 12 e-courses on the Unified State Examination disciplines were created.

4.7. QUANTITATIVE AND QUALITATIVE DATA ON FURTHER EDUCATION

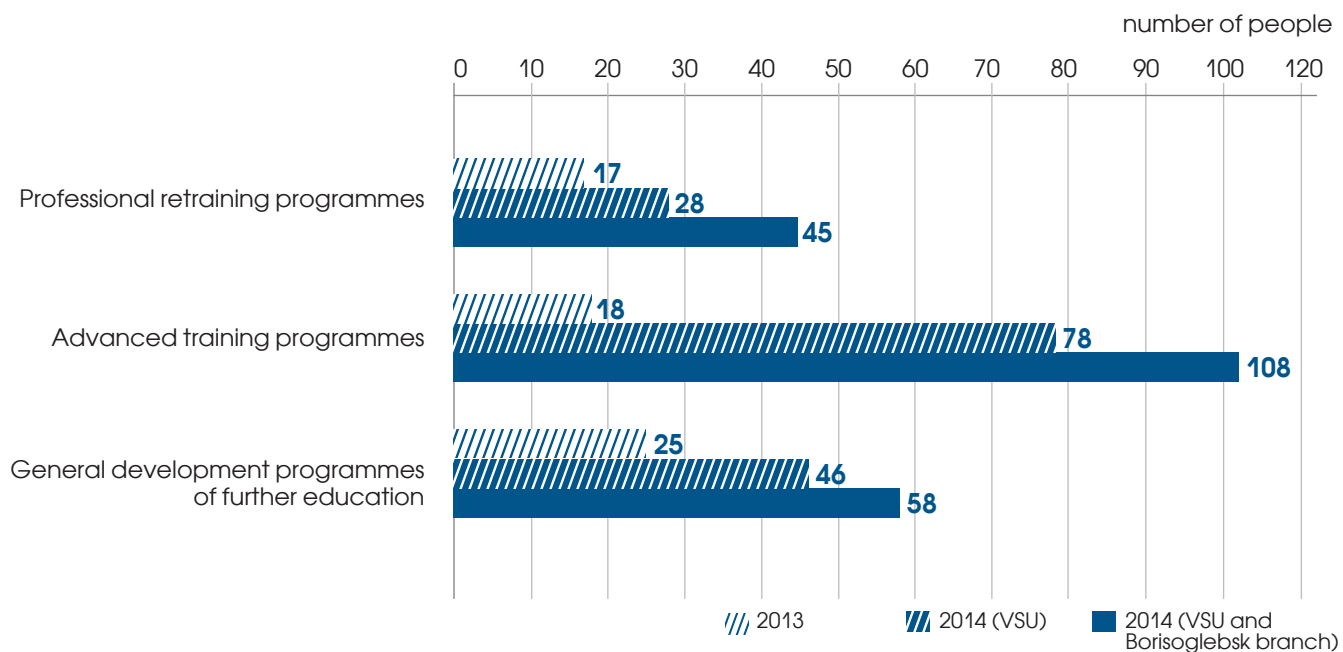
In 2014 the legal and regulatory framework for the implementation of further education programmes (hereinafter – FEP) at VSU was brought in line with the new Federal Law “On Education in the Russian Federation”. P VSU 2.4.02 – 2014 Regulations on the Development and Implementation of Further Education at Voronezh State University were adopted in accordance with the established procedure. The document not only provides the detailed regulation of the programme opening process but also includes the FEP layout as well as samples and forms of all the documents necessary for carrying out educational activities, which considerably simplified the process of new programme development and made the above mentioned area as transparent as possible.

The work of structural subdivisions on designing and opening new further education programmes became more intense. In 2014 Borisoglebsk branch where further education is actively developing became part of FSFEI HPE VSU. 17 professional retraining programmes, 20 advanced training programmes and 12 general development programmes were brought in line with the University documentation, considered and approved by the VSU Research and Methodology Board. At year-end 2014 there were 45 professional retraining programmes, 108 advanced training programmes, and 58 general development programmes in total. Figure 4.18 represents FEP quantitative dynamics.



Figure 4.18

QUANTITATIVE DYNAMICS OF FURTHER EDUCATION PROGRAMMES

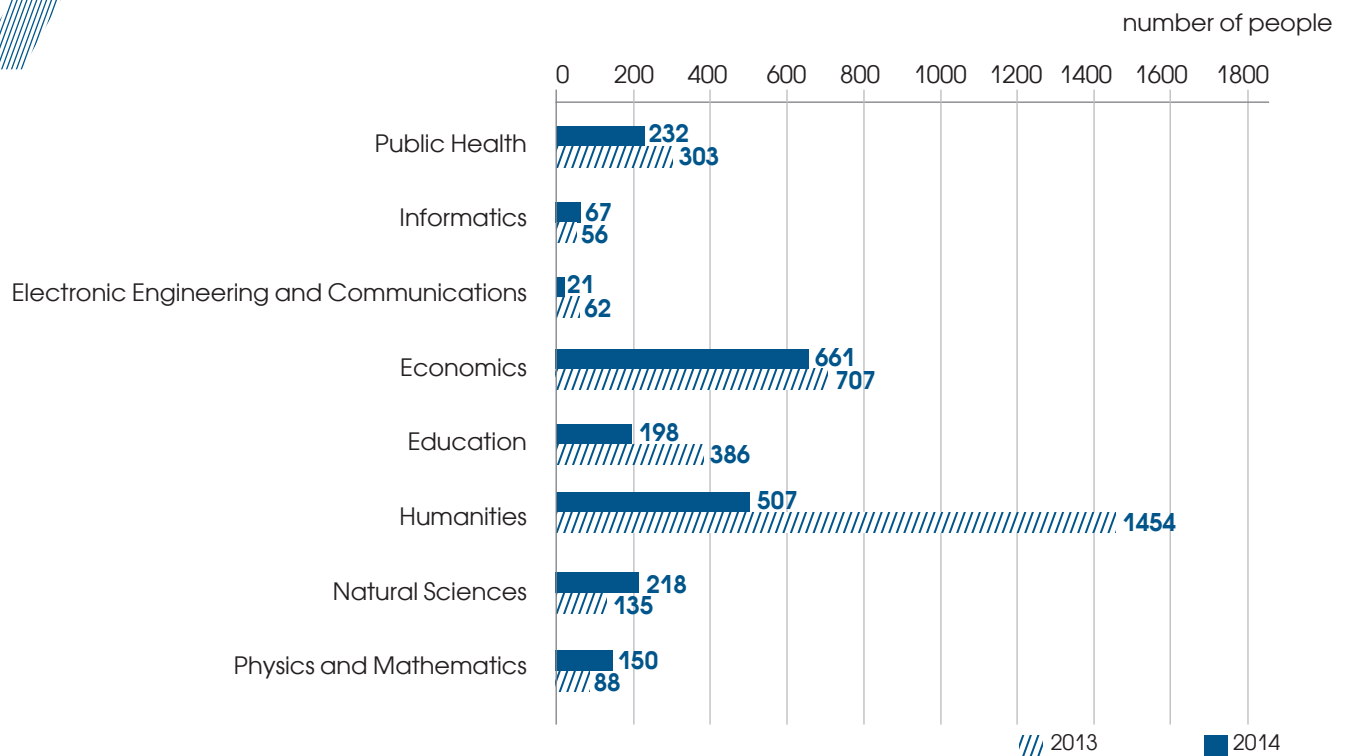


In 2014 2074 participants completed courses within further education programmes.

232 participants were trained in the area of public health, 67 – in informatics, 21 – in electronic engineering and communications, 661 – in economics, 198 – in education, 507 – in the humanities, 218 – in the natural sciences, and 150 – in the area of physics and mathematics. Figure 4.19 shows the frequency distribution of the participants who completed advanced training and professional retraining courses with the specification according to the enlarged speciality groups and in comparison with 2013.

Figure 4.19

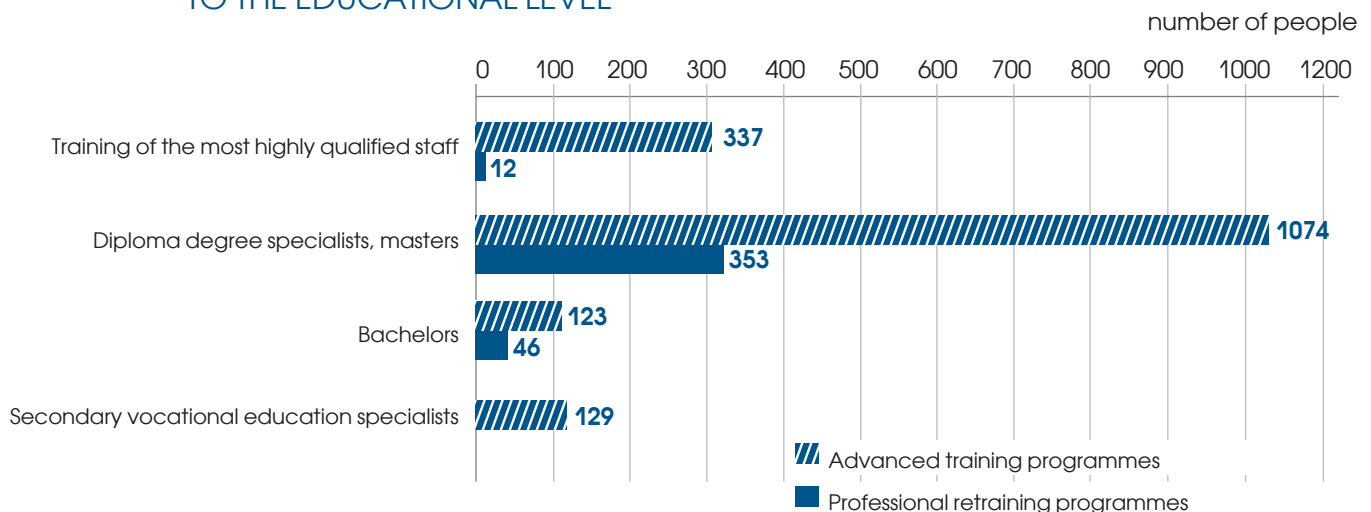
FREQUENCY DISTRIBUTION OF THE PARTICIPANTS ACCORDING TO THE ENLARGED SPECIALITY GROUPS



In 2014 129 participants took advanced training courses on the basis of secondary vocational education. 46 people with the Bachelor's degree completed professional retraining courses, and 123 advanced their qualification. The majority of the participants within further education programmes are Diploma degree specialists: 353 took professional retraining courses, and 1074 – advanced training courses. The most highly qualified staff completed the above mentioned courses as well – 12 and 337 participants respectively (see Figure 4.20).

Figure 4.20

FREQUENCY DISTRIBUTION OF THE PARTICIPANTS ACCORDING TO THE EDUCATIONAL LEVEL



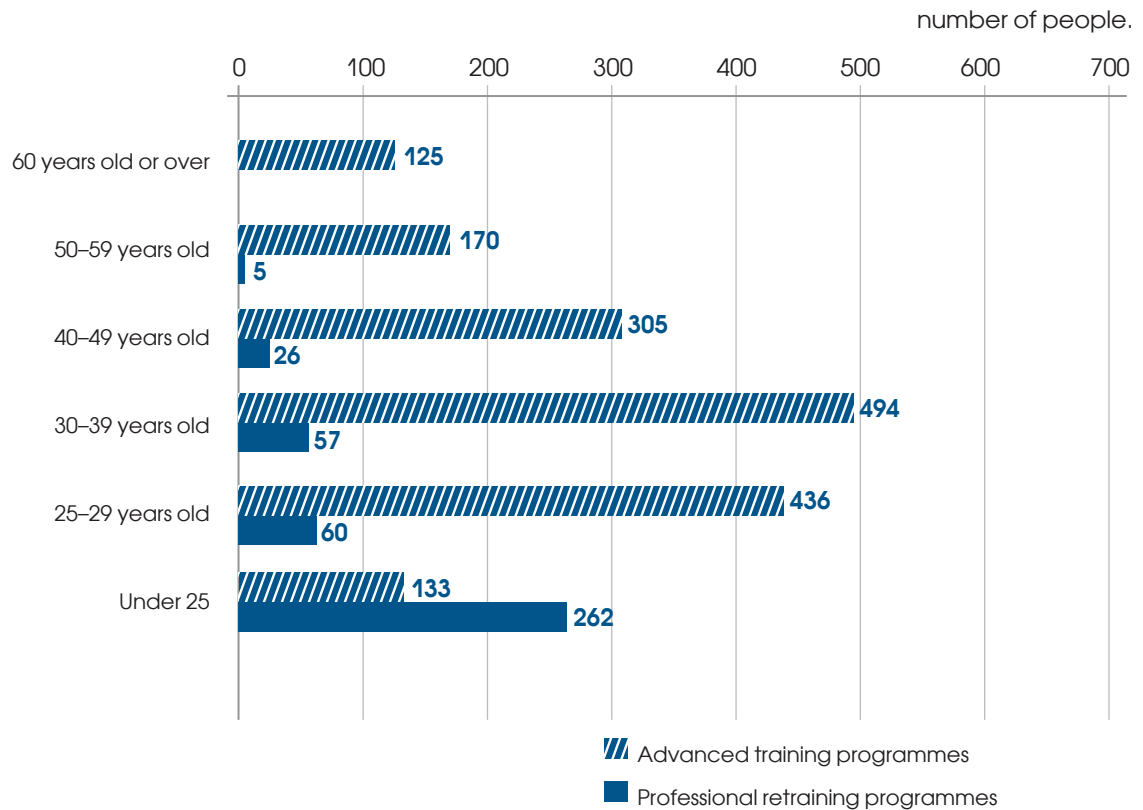
4

262 participants under 25, 60 participants aged 25–29, 57 participants aged 30–39, 26 participants aged 40–49, 5 participants aged 50–59, and 1 participant aged 60 or over took professional retraining programmes implemented at VSU.

Age composition of the participants within advanced training programmes was the following: there were 133 participants under 25, 436 participants aged 25–29, 494 participants aged 30–39, 305 participants aged 40–49, 170 participants aged 50–59, and 125 participants aged 60 or over. Figure 4.21 demonstrates the distribution of the participants within further education programmes according to age.

Figure 4.21

FREQUENCY DISTRIBUTION OF THE PARTICIPANTS ACCORDING TO AGE

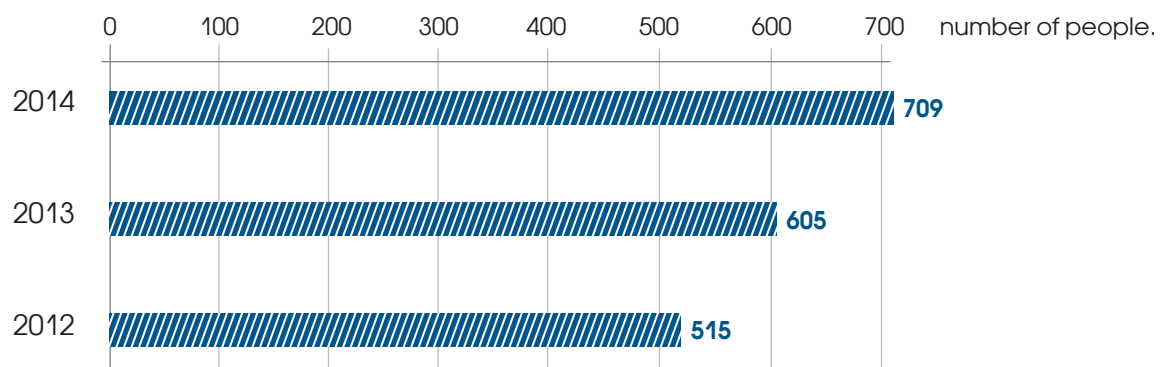




VSU cooperation with local and regional enterprises and organisations in the field of specialists' advanced training and retraining is actively developing. In 2014 709 participants were trained at the expense of their employers, in 2013 there were 605 such participants, and in 2012 – 515 (see Figure 4.22).

Figure 4.22

NUMBER OF PARTICIPANTS TRAINED AT THE EXPENSE OF EMPLOYERS



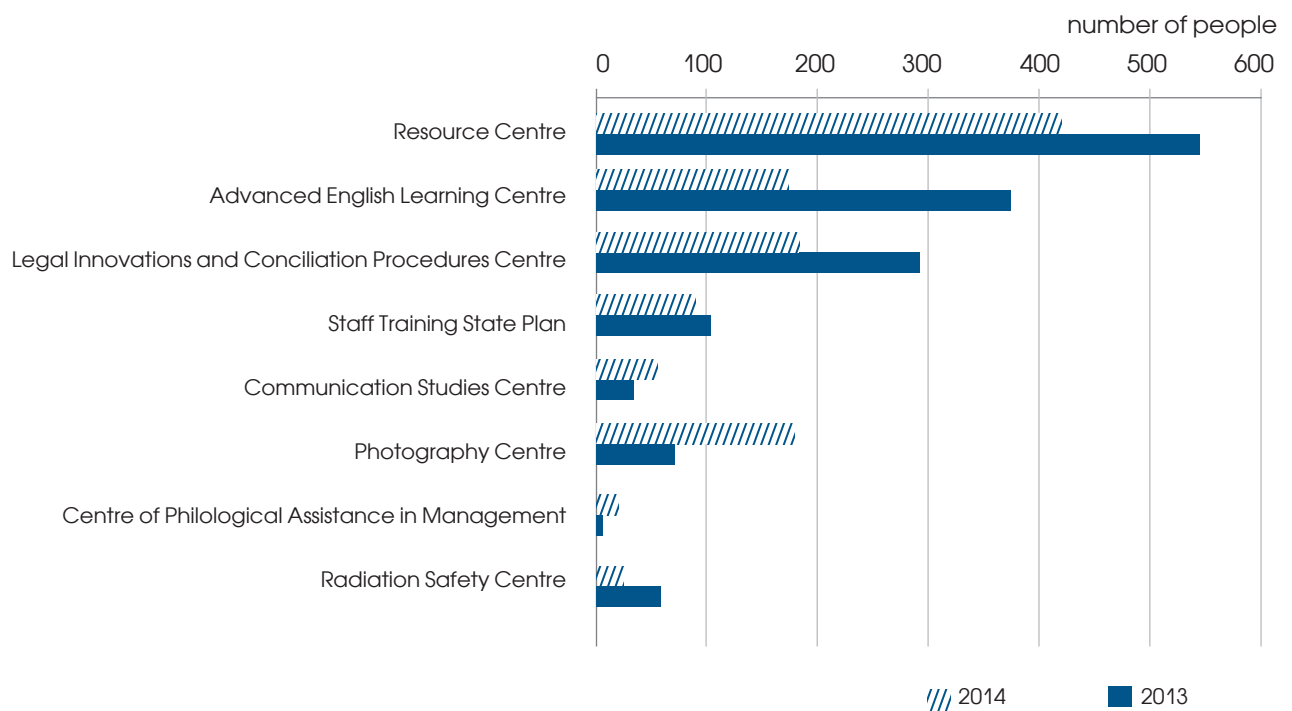
Such organisations as OAO *Novolipetskiy metallurgicheskiy kombinat*, OAO *Voronezhskintezkauchuk*, OAO *Holding Company Mebel Chernozemya*, OAO *Vympel-Kommunikatsii*, Southern branch of ZAO *Mobikom-Tsentr*, OAO *Visant*, OAO *Stalmost*, OAO *Rudgormash*, OAO *Veropharm*, ZAO *Yugo-Vostok TransTeleKom*, OAO *Dairy Plant Voronezhskiy*, OOO *Vebrey-Voronezh*, OOO *Elektronik*, OAO *Concern SOZVEZDIE*, OAO *Voronezhskaya investitsionnaya palata*, etc. regularly send their experts to VSU to be trained within further education programmes.

4

Further education centres by scientific fields are one of the efficient forms of further education organisation. In the reporting period 421 participants were trained at the Resource Centre, 174 – at the Advanced English Learning Centre, 183 – at the Legal Innovations and Conciliation Procedures Centre, 56 – at the Communication Studies Centre, 179 – at the Photography Centre, 20 – at the Centre of Philological Assistance in Management, and 24 – at the Radiation Safety Centre. Figure 4.23 represents the number of participants at further education centres in comparison with 2013.

Figure 4.23

DYNAMICS OF THE NUMBER OF PARTICIPANTS AT THE UNIVERSITY EDUCATIONAL CENTRES





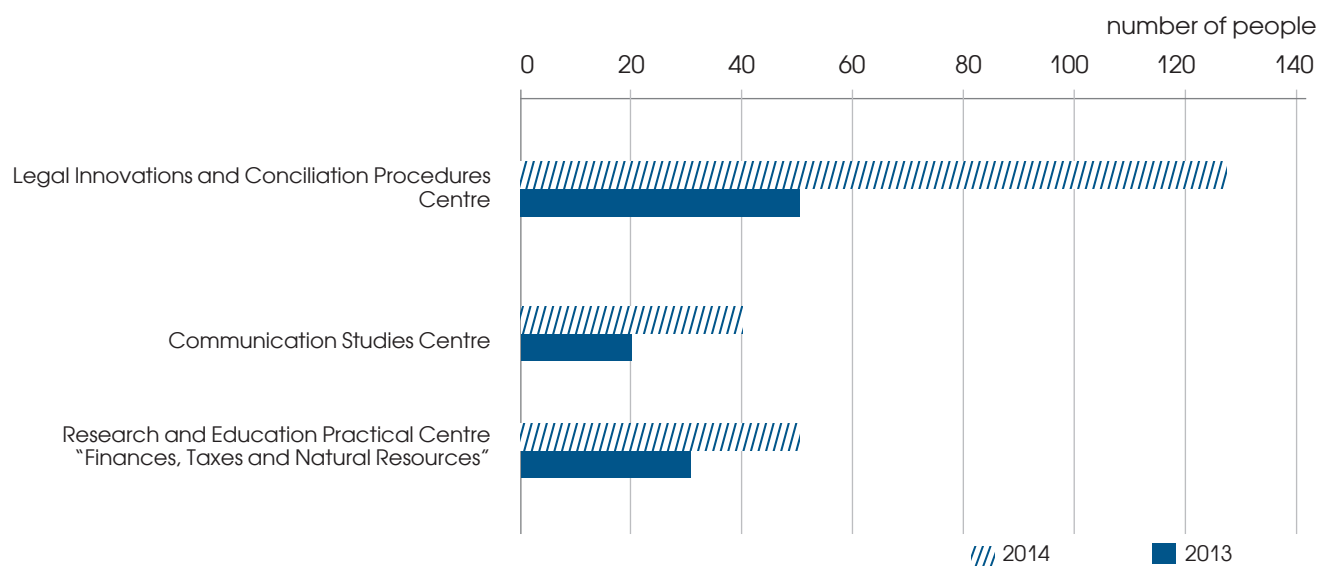
Advanced training of public servants is actively evolving now. For experts and senior officials at the public authorities the Legal Innovations and Conciliation Procedures Centre designed such programmes for advanced training of public servants as “Corruption Prevention in Public Authorities”, “Magistrature Development”, “Development of the Judicial System in the Russian Federation”, “Organisational and Legal Basis for the Magistrature Professional Activity”, “Corruption Prevention in Autonomous Bodies”, “Legal Regulation in the area of Civil Registration”, “Exercising Negotiation (Conflict-Free) Technologies in the Professional Activity of Civil Officers”, and “Legal and Psychological Basis for the Activity of the Educational Process Subjects’ Ombudsman”.

The programme “Finance and Credit Fiscal Policy” created by the Research and Education Practical Centre “Finances, Taxes and Natural Resources” is quite popular. The Communication Studies Centre successfully implements the following advanced training programmes: “Culture of Oral and Written Speech in the Structure of the Civil Officer Professional Competence and Efficient Communication in the Structure of the Civil Officer Professional Competence”.

In 2014 217 civil officers were trained in the framework of the state contracts’ performance. 127 of them completed courses at the Legal Innovations and Conciliation Procedures Centre, 40 – at the Communication Studies Centre, and 50 – at the Research and Education Practical Centre “Finances, Taxes and Natural Resources” (see Figure 4.24).

Figure 4.24

CIVIL OFFICERS TRAINING





In the framework of cooperation in implementing the 2012–2014 Presidential Programme for Advanced Training of Engineering Personnel 20 employees of OAO *Concern Sozvezdie* were trained within the further education programme “Engineering, Production and Application of Nano- and Microelectromechanical Systems for Radioelectronics Navigational Equipment”, and 20 employees of OOO *Voronezhselmash* took advanced training courses within the programme “3D Engineering and Prototyping of Machine Elements and Accessory for Their Production”.

In 2014 VSU won a grant for the development of an advanced training programme in the area of engineering, production and application of nanostructural materials in dentistry for ZAO *Opytno-eksperimentalnyi zavod VladMiVa*.

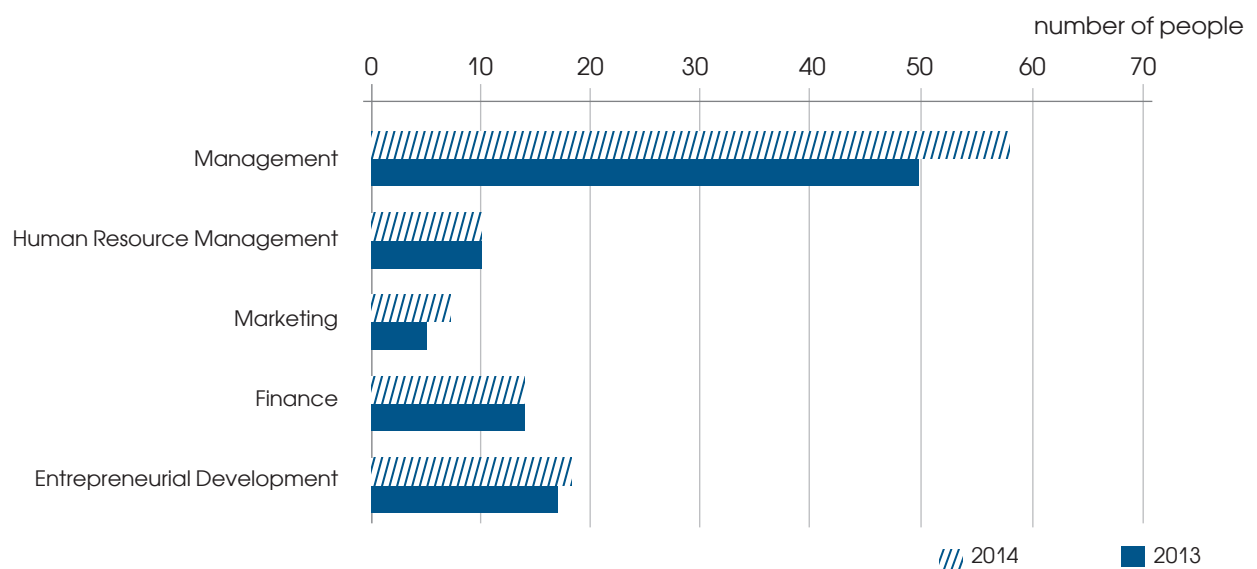
A modular-type programme was created for technologists specialising in manufacturing nanostructural dental materials and chemical components found in medical products, research fellows at the departments of nanostructural materials development and engineering, and restorative general practitioners – research fellows at the departments of nanostructural dental materials application and promotion. 24 participants are being currently trained within this programme.

The state plan programme on training managers for enterprises of national economy of the Russian Federation is now in progress for regional businesses and organisations. In 2014 the number of participants totalled 107. 58 of them were trained within the programme “Management”, 10 – within the programme “Human Resource Management”, 7 – within the programme “Marketing”, 14 – within the programme “Finance”, and 18 – within the programme “Entrepreneurial Development”.



Figure 4.25

IMPLEMENTATION OF THE STATE PLAN PROGRAMMES ON TRAINING MANAGERS FOR ENTERPRISES OF NATIONAL ECONOMY OF THE RUSSIAN FEDERATION



In the reporting period 21 participants were trained within the retraining programme “Production and Application of Micro- and Nanocrystalline Cellulose” created by EFKO-VSU Corporate University.

Advanced training and retraining of professional accountants, auditors and advisers on taxes and levies continue at the VSU Resource Centre. In 2014 421 experts completed courses within these programmes.

Postgraduate professional training of experts with a university degree in Medicine is implemented within the programmes “Pharmacy Economics and Management”, “Pharmaceutical Engineering,” and “Pharmaceutical Chemistry and Pharmacognosy”. In 2014 over 200 participants took courses within professional retraining and certification cycle programmes for pharmacists and pharmacy technicians.

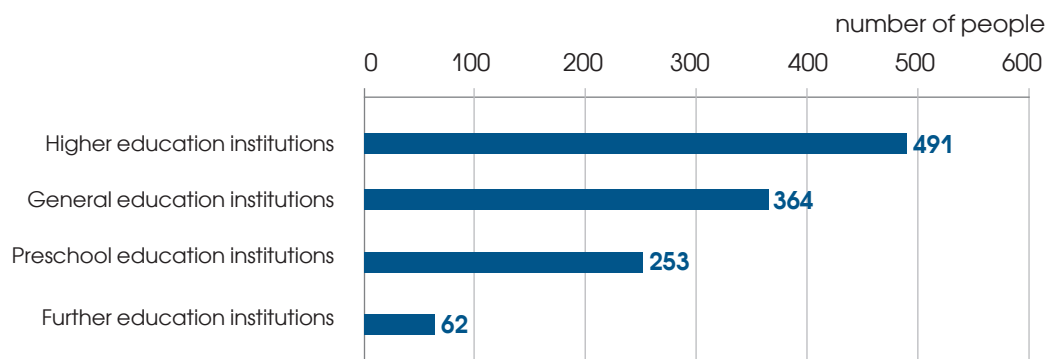
In the reporting period further education training of teaching staff was actively conducted.



In collaboration with Borisoglebsk branch 491 lecturers from higher education institutions, 364 teachers from general education institutions, 253 teaching employees from preschool education institutions, and 62 teaching employees from further education institutions were trained, which totalled 1170 lecturers and teachers (see Figure 4.26).

Figure 4.26

FREQUENCY DISTRIBUTION OF TEACHING EMPLOYEES ACCORDING TO THE PLACE OF EMPLOYMENT



Higher education institution employees from Moscow, Saint Petersburg, Rostov-on-Don, Kazan, Kaliningrad, Voronezh, Lipetsk and other cities completed courses at VSU.

Students continue being awarded a further education qualification of a lecturer. The number of graduates within the above mentioned programmes of professional retraining amounted to 107.

According to the Order of the Ministry of Education and Science of the Russian Federation dated 29 August 2012, Voronezh State University together with the leading Russian institutions of higher and further professional education was reckoned among the participants of the experiment in military personnel professional retraining. In 2014 three military personnel members transferred to the reserve successfully completed courses within the professional retraining programme "Human Resource Management". At the end of the experiment VSU received a subsidy from the Ministry of Education and Science of the Russian Federation for the training reimbursement.

VSU in cooperation with the leading IT-companies consistently implements further education programmes including "CISCO Certified Internetwork Expert" certified training, Atos IT Solutions and Services courses, and "InfoTeCS Certified Training".

Such programmes of Wizart Animation School as "Animation Expert", "Autodesk 3DS Max Expert", "Autodesk Maya Expert", and "Pixologic Zbrush Expert" are much sought after. 49 participants took courses within these programmes.

179 participants were awarded graduation certificates within the following programmes of the VSU Photography Centre: "Photography Basics", "Creative Photography", "A Basic Course in Photography", and "Studio and Staged Photography".

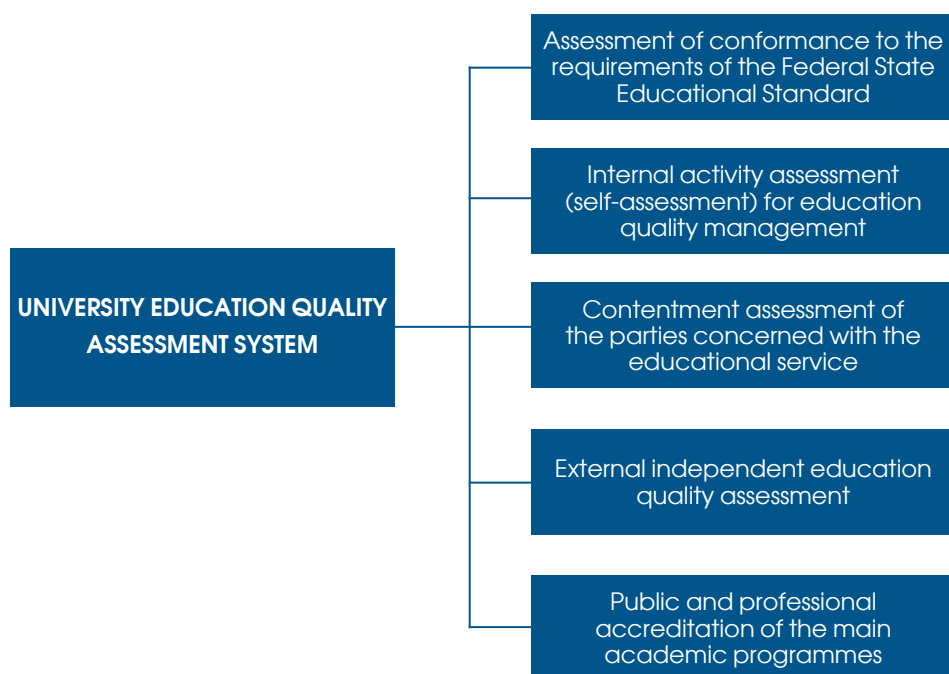
The University created a unified register of further education programmes which is updated on a regular basis. The information about further education can be found on the page "Study" of the official VSU website. A system application for e-register maintaining is planned to be developed.

4.8. EDUCATION QUALITY ASSESSMENT SYSTEM

The University education quality assessment system is aimed at meeting the requirements and expectations of different groups of education subjects concerned (such as students, academic staff, and parents) to the fullest degree. It is also aimed at conformance to the requirements of the Federal State Educational Standards and to the community of employers (see Figure 4.27).

Figure 4.27

MAIN ELEMENTS OF THE UNIVERSITY EDUCATION QUALITY ASSESSMENT SYSTEM



The assessment of conformance to the requirements of the Federal State Educational Standard is an obligatory element and is conducted by the Federal Service for Supervision in the area of Science and Education of the Ministry of Education and Science of the Russian Federation by licensing and accrediting the implemented academic programmes.

Two higher education programmes were accredited in the reporting year: a bachelor's degree programme 100400.62 – Tourism and a master's degree programme 210100.68 – Electronics and Nanoelectronics.

The internal assessment of the University activity (self-assessment) for education quality management is carried out annually according to the procedure established by the Ministry of Education and Science of the Russian Federation. The report results are published on the University website www.vsu.ru/russian/docs/pdf/samoobs/2014.pdf.



The reporting year saw gradual development of the quality management system. The major goals were achieved in the area of education quality: an electronic database of the work programmes for the disciplines from the professional block was created; the main bachelor's, master's and diploma degree programmes were reviewed by employers; an administrative documentation block of the electronic document flow system was put into operation; University branch in Staryi Oskol was certified according to the ISO International Standard. In addition, the proportion of publications in the scientific journals indexed in the bibliographic databases Web of Science and Scopus was brought up to 20% in the total number of indexed publications written by the University academic staff.

In the reporting year the local documents which regulate the activity of the University departments and services as well as the subjects of the educational process were reconsidered and processed. The Quality Manual was modified, the Document Procedures and other regulatory documents were revised. It should be noted that the following University Standards were approved or reapproved: ST VSU 3.2.01 – 2014 Quality Management System. Intellectual Property Management; ST VSU 6.4.1 – 2014 Quality Management System. Voronezh State University Policy Documentation System. General Provisions; ST VSU 6.4.2 – 2014 Quality Management System. Voronezh State University Policy Documentation System. Types of Programmes and Policy Documents. Moreover, the drafts of the following standards were prepared: ST VSU 1.3.02 – 2014 Quality Management System. State Final Examination. General Content Requirements and Procedure; ST VSU 3.0.01 – 2014 Quality Management System. Scientific Research and Innovative Activity. Types, Funding, Technical and Economic Documentation.

In 2014 the compliance audit of the quality management system was conducted. As a result, no reproof was given. However, two cases of discrepancy that could be considered as an opportunity for improvement were revealed. Following the results of the external audit the planned remedial action connected with the calibration of the scientific equipment and expansion of the University auditing corps was taken. Furthermore, the advanced training courses for the University staff within the programme "Internal Audit of the Quality Management System" were held.

In 2014 the internal system of the University education quality assessment was developed by carrying out a survey of different educational process subjects including the survey results for employers and representatives of professional communities. A questionnaire for employers was designed and utilised in collaboration with the Career Development Centre. 1439 students and 211 academic staff members participated in the education quality monitoring. The 2014 assessment of the education quality contentment showed growth in the general contentment among all the groups of the parties concerned. In accordance with P VSU 2.0.13 – 2014 Regulations on Grants for the Academic Staff

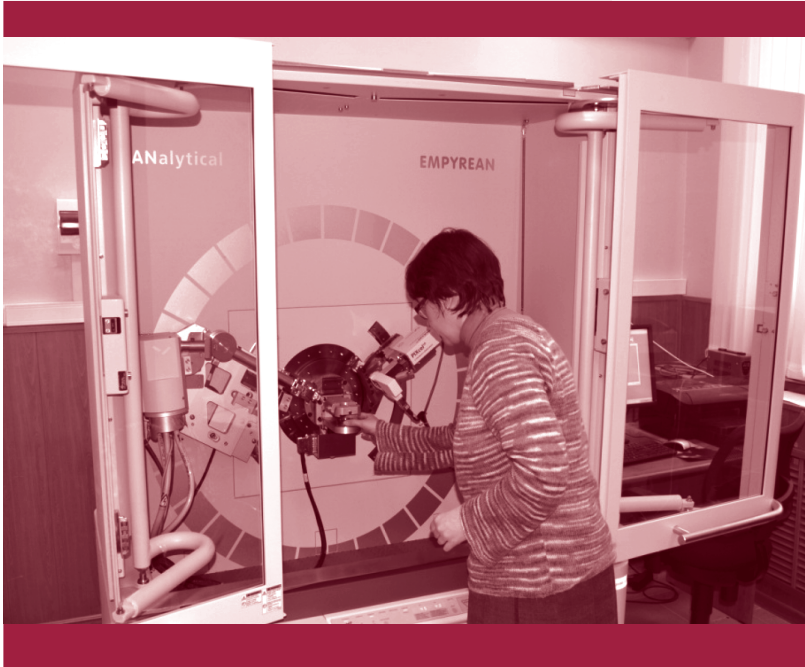


of Voronezh State University, the Order of the Rector No 460 dated 7 July 2014 and the decisions reached at the Expert Board meetings the winners were decided on within the three nominations and received the following monetary rewards: the first nomination – “Professor of the Year” – 100 thousand roubles, “Associate Professor of the Year” – 75 thousand roubles, “Lecturer / Assistant of the Year” – 50 thousand roubles; the second nomination – “Best Electronic Teaching Materials for the Main Academic Programme (ETM MAP)” – 150 thousand roubles; the third nomination – “Best Academic Programme in a Foreign Language (MAP)” – 200 thousand roubles.

Conscious consulting, research and methodology efforts were put forth in order to prepare the secondary vocational education programmes ‘Tourism’, ‘Pharmacy’, ‘Advertising’, and ‘Programming in Computer Networks’ to public and professional accreditation.

4.9. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2014

1. The number of the main academic programmes increased as a result of licensing of four bachelor’s degree programmes (032100.62 – Asian and African Studies, 071900.62 – Library and Information Activity, 090900.62 – Information Security, 200700.62 – Photonics and Optical Informatics), two diploma degree programmes (090301.65 – Computer Security, 090305.65 – Information Analysis Security Systems), and three master’s degree programmes (021900.68 – Soil Science, 035000.68 – Publishing, 050100.68 – Pedagogical Education).
2. Bachelor’s degree programme 100400.62 Tourism and master’s degree programme 210100.68 Electronics and Nanoelectronics were accredited.
3. The number of fundamental departments at regional enterprises expanded.
4. The number of participants who completed courses within further professional education programmes amounted to 2074 people. The proportion of programmes realised on request of employers and government authorities increased, conditions for supplying individual demand in the framework of the “Lifelong Learning” concept were created, and information and communications technologies to implement the UNESCO “Education at Home” principle were developed.
5. The projects “Leader of the Year”, “2014 Professor of the Year”, “2014 Associate Professor of the Year”, “2014 Lecturer of the Year”, “Electronic Teaching Materials”, and “Programme in a Foreign Language” aimed at supporting academic staff were implemented.
6. Public and professional accreditation of Law programmes was carried out.





RESEARCH AND INFORMATISATION

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RESEARCH AND INFORMATISATION



Vasily Popov
Vice rector for Research
and Informatisation

5.1. MAIN OBJECTIVES OF VSU IN THE AREA OF RESEARCH AND INFORMATISATION FOR THE YEAR 2014

VSU Rector Dmitry Yendovitsky set the following objectives in the area of research and informatisation for the year 2014:

- active participation in various scientific contests and competitions organized by Russian research foundations (the Russian Science Foundation, the Russian Foundation for Basic Research, the Russian Foundation for Humanities), as well as in the Federal Target Programmes and international projects competitions;
- higher scientometric indices;
- better funding of interdisciplinary research;
- overall informatisation of the University.

To achieve these goals, the VSU administration and academic staff are carrying out the following projects (for years 2014–2015):

Project 1. Promoting a system of inner mini-grants for young scholars;

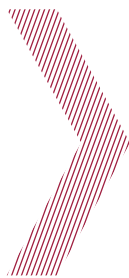
Project 2. Promoting top-rated publications of the VSU researchers;

Project 3. Developing and promoting VSU journals with high citation indices;

Project 4. Promoting VSU dissertation committees;

Project 5. Developing the Centre for Collective Use of Scientific Equipment;

Project 6. Electronic University

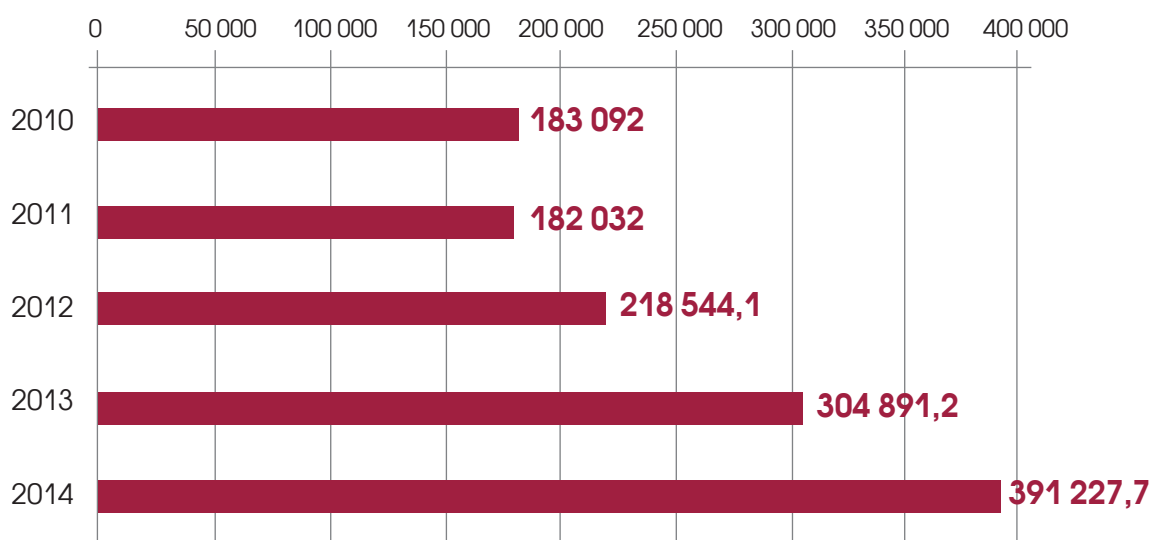


5.2. RESEARCH FUNDING IN 2014

2014 saw a significant increase in research projects funding, with the total funding amounting to 391.2 million roubles (coming from sources other than the VSU budget), which is 86.3 million roubles more than the previous year (Fig. 5.1).

Figure 5.1

RESEARCH FUNDING (THOUSAND ROUBLES)



97.4 million roubles (24.9 %) was received for funding 35 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; 60.1 million roubles (15.4 %) – for funding research and development in top-priority areas of science and technology in Russia for 2014–2020 Federal Target Programme; 46.9 million roubles (12 %) constituted grants from the Russian foundations supporting scientific and technical research and innovations.

In 2014, state funding constituted 57.3 % of the total funding. 40.0 % came from industrial enterprises and other organisations that planned to implement the results of the research. Since the previous period (2013) the total funding has increased by 86.3 million roubles, and financing from enterprises – by 16 million roubles.

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The portion of research carried out within the priority areas of science and technology in Russia was 57.8 %. Research in Social Sciences amounted to 18.3 million roubles (4.7 %).

VSU research funding and sources are shown in Table 5.1.

Table 5.1

VSU RESEARCH FUNDING SOURCES IN 2014

| SOURCE OF FUNDING | % |
|--|------|
| MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION | 40,9 |
| RUSSIAN ECONOMIC ENTITIES | 40,0 |
| RUSSIAN FOUNDATIONS SUPPORTING SCIENTIFIC AND TECHNICAL RESEARCH AND INNOVATIONS | 12,0 |
| OTHER MINISTRIES, FEDERAL AGENCIES, AND INSTITUTIONS | 3,5 |
| OTHER NON-GOVERNMENTAL ORGANISATIONS IN RUSSIA AND VSU FUNDS | 2,7 |
| FEDERATION SUBJECTS AND LOCAL BUDGET | 0,9 |
| INTERNATIONAL SOURCES | 0,01 |

5.3. PAPERS PUBLISHED BY THE VSU ACADEMIC STAFF IN 2014

The statistics on publications by the VSU academic staff members as of 18th February 2015 according to various databases is shown in Tables 5.2, 5.3.

Table 5.2

VSU SCIENTOMETRIC INDICES IN 2013-2014

| No | Parameter | Year | |
|----|---|-------------|-------------|
| | | 2013 | 2014 |
| 1 | Published articles (Academic staff articles database) | 6404 | 5682 |
| 2 | Published articles (Russian Science Citation Index database) | 3570 | 3015 |
| 3 | Total number of citations (Russian Science Citation Index database) | 8180 | 8143 |
| 4 | Articles published in Web of Science journals | 182 | 188 |
| 5 | Total number of citations per year (Web of Science) | 1052 | 1167 |
| 6 | Articles published in Scopus journals | 318 | 334 |

Table 5.3

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

| No | Full name | the Hirsch index |
|----|---------------------------|------------------|
| 1 | Yury Starilov | 22 |
| 2 | Nikolay Minakov | 21 |
| 3 | Dmitry Yendovitsky | 21 |
| 4 | Oleg Baev | 18 |
| 5 | Stanislav Kadmensky | 17 |
| 6 | Iosif Sternin | 16 |
| 7 | Vitaly Ovsyannikov | 16 |
| 8 | Arkady Savko | 16 |
| 9 | Makhail Frolov | 16 |
| 10 | Nikolay Chernyshov | 15 |
| 11 | Vladimir Shaposhnik | 15 |
| 12 | Vladimir Selemenev | 14 |
| 13 | Boris Zon | 14 |
| 14 | Vasily Popov | 14 |
| 15 | Zinaida Popova (Kozyreva) | 13 |
| 16 | Evelina Domashevskaya | 13 |



5.4. VSU ACADEMIC AND SCIENTIFIC SCHOOLS AND RESEARCH AREAS

Research at VSU is carried out within 28 major areas.

1. Analytical, geometrical, and numerical methods of studying differential equations.
2. Function theory and functional analysis.
3. Mathematical modelling, software and dataware, methods of numerical and applied mathematics in fundamental scientific research.
4. Deformable body and fluid mechanics.
5. Solid-state nanostructures. Physics of magnetic and ferroelectric phenomena. Semiconductors and semiconductor structures. Microwave solid-state devices.
6. Fundamental nuclear physics. Cosmic-ray physics and the nuclear aspects of astrophysics. Nuclear physics issues.
7. Fundamental issues of material-radiation interaction.
8. Issues of information transfer, acquisition, processing, and storage. Radioelectronic device electromagnetic compatibility.
9. High-temperature processes in chemistry and materials science.
10. Catalysis, phase equilibrium, physical and chemical processes in solutions, melts, and solid bodies.
11. Surface phenomena, colloids and nanoparticles, clusters.
12. Directed synthesis and extraction of physiologically active chemical compounds and special-purpose substances. Bioactive natural and non-natural substances and low-molecular bioregulators.
13. Ecological, physiological, physical and chemical foundations of interaction between biosystems and the environment.
14. Soil genesis and evolution influenced by natural and anthropogenic factors.
15. Deep structure of the Earth's crust, geodynamics, magma generation and deposit generation and accumulation conditions in the Precambrian in platform sedimentary basins and fold belts.
16. Ecological and geographical aspects of the interaction between society and the environment.



17. The scientific foundation of social and economic policies and business practice.
18. Economics management system: emergence and development.
19. Individuals as subjects of social change: social, humanitarian, and psychological concerns.
20. Archaeology and ethnography of the Central Black Earth Region.
21. Russian and European History.
22. International literatures and languages and their interaction. The issues of international communication.
23. A contrastive-comparative study of Germanic, Romance, and Slavic languages and cultures.
24. Mass media history, theory and practice.
25. The Russian state and its legal framework: modern development, concerns and prospects.
26. Educational processes in the changing sociocultural environment, acmeology.
27. Social and political processes, crises, conflicts.
28. The theory, methodology, and policies of accounting, analysis, and monitoring the activity of economic entities.

THERE ARE 41 ACADEMIC AND SCIENTIFIC SCHOOLS AT VSU

1. Topological Methods In Nonlinear Analysis

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

Head Researcher - Professor V.G. Zvyagin, Dr. habil. in Physics and Mathematics

2. Mathematical analysis

Head Researcher – Professor E.M. Semenov, Dr. habil. in Physics and Mathematics

3. Differential equations, optimal management and nonlinear oscillation theory

Head Researcher – Professor A.I. Perov, Dr. habil. in Physics and Mathematics

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

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

5. Solid mechanics

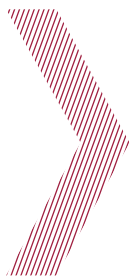
Head Researcher – Professor A.N. Sporykhin, Dr. habil. in Physics and Mathematics, Honoured Scientist of the Russian Federation

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

Head Researcher – Professor B.A. Zon, Dr. habil. in Physics and Mathematics, Honoured Scientist of the Russian Federation

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

Head Researcher – Professor E.A. Algazinov, Dr. habil. in Physics and Mathematics



8. Statistical informatics and radiophysics

Head Researcher – Professor A.P. Trifonov, Dr. habil. in Technical Sciences, Honoured Scientist of the Russian Federation

9. Photostimulated processes on crystals with ion and covalent bonds

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

10. Electron Structure of Condensed Matter

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

11. Nuclear and condensed matter physics

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

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

Head Researcher – Professor G.V. Shatalov, Dr. habil. in Chemistry

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

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

14. Chemistry of ion-exchange and membrane processes

Head Researcher – Professor V.F. Selemenev, Dr. habil. in Chemistry

15. Electrochemistry and electrochemistry of Alloys

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

16. Solid state chemistry (physicochemistry of heterogeneous equilibria)

Head Researcher – Professor E.G. Goncharov, Dr. habil. in Chemistry

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

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

18. Invertebrate animal classification, fauna and ecology: entomology, ecology, hydrology, and parasitology

Head Researcher – Professor O.P. Pogrebov, Dr. habil. in Biology

19. Plant metabolism organization and regulation

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

20. Soil studies (anthropogenic evolution of black soils)

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

Head Researcher – Professor D.I. Scheglov, Dr. habil. in Biology

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

Founded by Professor B.P. Akhtyrtsev, Dr. habil. in Biology, Honoured Scientist of the Russian Federation

Head Researcher – Professor T.A. Dyatlova, Dr. habil. in Biology

22. Geodynamics, Magmatism and Metallogeny of the Early Precambrian History of the Earth

Head Researcher – Professor N.M. Chernyshov, Dr. habil. in Geology, Associate Member of the Russian Academy of Sciences, Honoured Scientist of the Russian Federation

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



23. Lithology and minerals of ancient platforms

Head Researcher – Professor A.D. Savko, Dr. habil. in Geology, Honoured Geologist of the Russian Federation

24. History

Head Researcher – Professor A.Z. Vinnikov, Dr. habil. in History

25. History

Head Researcher – Professor M.D. Karpachev, Dr. habil. in History, Honoured Scientist of the Russian Federation

26. Archaeology. East European Forest-steppe Archaeology

Head Researcher – Professor A.D. Pryakhin, Dr. habil. in History, Honoured Scientist of the Russian Federation

27. Economics theory and the world economy

Founded by Professor Yu.I. Khaustov, Dr. habil. in Economics

28. Labour market research methodology

Head Researcher – Professor I.T. Korogodin, Dr. habil. in Economics

29. Management

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

30. Philosophy, Philosophy of Science

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

31. Russian literature studying and teaching

Head Researcher – Professor V.M. Akatkin, Dr. habil. in Philology, Honoured Scientist of the Russian Federation

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

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

33. History of journalism

Head Researcher – Professor L.E. Kroichik, Dr. habil. in Philology

34. Linguistics. Slavic onomastics

Head Researcher – Professor G.F. Kovalev, Dr. habil. in Philology

35. Linguistics (romance and Germanic languages)

Founded by Professor Yu.A. Rylov, Dr. habil. in Philology

36. World and Russian linguistics

Head Researcher – Professor Z.D. Popova, Dr. habil. in Philology, Honoured Scientist of the Russian Federation

37. Physical geography, geophysics, and landscape geochemistry

Head Researcher – Professor V.I. Fedotov, Dr. habil. in Geography

38. Legal science

Head Researcher – Professor Yu.N. Starilov, Dr. habil. in Law

39. Pedagogical sciences

Head Researcher – Professor N.I. Vyunova, Dr. habil. in Pedagogics

40. Political Sciences

Head Researcher – Professor A.V. Glukhova, Dr. habil. in Politics

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

Head Researcher – Professor V.M. Ilevlev, Dr. habil. in Physics and Mathematics, Full Member of the Russian Academy of Sciences

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



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

SCIENTIFIC RESEARCH AS A BASIC PART OF THE GOVERNMENT ORDER BY THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION (24 PROJECTS)

1019 Research project No 14006 for years 2014–2016

Studying atomic and molecular processes in a strong laser field

Head Researcher – Professor N.L. Manakov, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Theoretical Physics)

848 Research project No 14007 for years 2014–2016

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

Head researcher – Professor A.A. Maksimenko, Dr. habil. in Physics and Mathematics (Science Park)

959 Research project No 14008 for years 2014–2016

The role of Enzymes of major and alternative metabolic pathways in adaptive cell responses of eukaryotic and prokaryotic organisms

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

772 Research project No 14009 for the year 2014

Studying mathematical problems of non-Newtonian hydrodynamics

Head Researcher – Professor V.G. Zvyagin, Dr. habil. in Physics and Mathematics (Mathematics Research Institute)

832 Research project No 14010 for the year 2014

Studying the many-body effect from atom and diatomic molecules interaction with electromagnetic impulses

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

675 Research project No 14011 for years 2014–2016

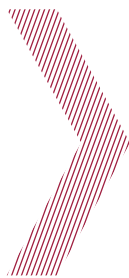
Studying the kinetics and dynamics of physico-chemical processes with adsorption, electrochemical, and transport stages on metals, alloys, and nanostructured metal-polymer composites for further use in electrocatalysis, hydrogen energetics, and anticorrosion protection

Head Researcher – Professor A.V. Vvedensky, Dr. habil. in Chemistry (The Faculty of Chemistry, Department of Physical Chemistry)

951 Research project No 14012 for years 2014–2016

Developing methods and processes for analysing, separating and concentrating physiologically active substances using new polymer and composite nanomaterials

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



1035 Research project No 14013 for years 2014–2016

Expressive breathing control in case of disorders associated with oxidative stress

Head Researcher – Professor V.N. Kalaev, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Genetics, Cytology and Bioengineering)

1122 Research project No 14014 for years 2014–2016

Studying nonpenetrating Rydberg states of atoms and molecules

Head Researcher – Professor V.E. Chernov, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Mathematical Physics)

853 Research project No 14015 for years 2014–2016

Studying ore-forming magmatic systems of non-ferrous and precious metals within the theory of general evolution of the Precambrian lithosphere in Central Russia (assessing the resources and exploration prospects)

Head Researcher – Professor N.M. Chernyshov, Dr. habil. in Geology, Associate Member of the Russian Academy of Sciences (Faculty of Geology, Department of Mineralogy, Petrology and Geochemistry)

978 Research project No 14016 for years 2014–2016

Design and functioning principles of modern radio-electronic equipment based on the use of ultra-wideband signals

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

1296 Research project No 14017 for years 2014–2016

Synthesizing nanosorbents and nanocontainers for drug substances using hetero-phase polymerization in the presence of new emulsifiers

Head Researcher – Professor G.V. Shatalov, Dr. habil. in Chemistry (Faculty of Chemistry, Department of High Molecular Compounds and Colloids)

1546 Research project No 14018 for years 2014–2016

Developing methods and processes for synthesizing new azapolyheterocycles using tandem and multicomponent aminoazol reactions

Head Researcher – Professor A.Yu. Potapov, Dr. habil. in Chemistry (Faculty of Chemistry, Department of organic chemistry)

673 Research project No 14019 or the year 2014

Studying the effect of chemostimulating dopants on the oxidation process of A3B5 semiconductor compounds (GaAs, InAs, GaP, InP) and developing new processes of growing nanoscale films on them for various purposes

Head Researcher – Professor I.Ya. Mittova, Dr. habil. in Chemistry (Faculty of Chemistry, Department of Materials Science and NanosystemsTechnologies)

1226 Research project No 14020 for years 2014–2016

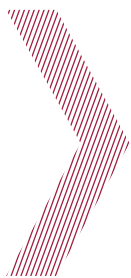
Studying the optical properties of alkaline earth atoms and ions used in quantum metrology and quantum information systems

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

1606 Research project No 14021 for years 2014–2016

Functional nanomaterials synthesis, analysis and precision diagnostics based on various methods, including synchrotron radiation

Head Researcher – S.Yu. Turischev, Dr. habil. in Physics and Mathematics, Associate Professor in Linguistics (Faculty of Physics, the Department of solid-state physics and nanostructures)



1230 Research project No 14022 for years 2014–2016

Studying optical properties and photodynamic response in colloid quantum dots conjugated with dye molecules

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

1485 Research project No 14023 for years 2014–2016

Studying the capacity of the sedimentary mantle of the Central Black Earth region of Russia in order to assess rare mineral raw materials (fire-clay, pottery clay, bentonite clay, and glass sand)

Head Researcher – Associate Professor D.A. Dmytriev, Dr. habil. in Geology (Faculty of Geology, Department of Historical Geology and Paleontology)

1110 Research project No 14024 for years 2014–2016

Studying the spectral theory of operators, linear order relation, and function theory

Head Researcher – Professor A.G. Baskakov, Dr. habil. in Physics and Mathematics (Faculty of Applied Mathematics, Informatics and Mechanics, Department of Mathematical Methods of Operations Research)

1090 Research project No 140204 for years 2014–2016

Studying the regulation mechanisms of antioxidant status and the functioning of human immunocompetent cells under oxidative stress

Head Researcher – Associate Professor A.A. Agarkov, Dr. habil. in Geology (Faculty of Biology and Soil Sciences, Department of Medical Biochemistry and Microbiology)

740 Research project No 14026 for years 2014–2016

Functional nano- and hetero-structures design and diagnostics based on the new-generation optoelectronics – A3B5 semiconductors and silicon

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

1012 Research project No 14097 for years 2014–2016

Studying the effect of strong electromagnetic radiation (harsh synchrotron radiation and high temperature radiation) on atomic and nuclear systems' properties

Head Researcher – Professor I.V. Kopytin, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Theoretical Physics)

1649 Research project No 14098 for years 2014–2016

Theory and practice of nuclear fission and radioactive decay emitting nucleons, light nuclei, and gamma-quantum for nuclear physics processes optimisation

Head Researcher – Professor S.G. Kadomensky, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Nuclear Physics)

1390 Research project No 14096 for years 2014–2016

Studying the molecular interaction processes in multiple-component systems containing organic and inorganic polymer sorbents and highly mineralised solutions of amino acids, vitamins and organic dye

Head Researcher – Professor V.Yu. Khokhlov, Dr. habil. in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)



SCIENTIFIC RESEARCH CARRIED OUT WITHIN THE PROJECT PART OF THE GOVERNMENT ORDER BY THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION (8 PROJECTS)

2477 Research project No 14069 for years 2014–2016

Studying the free-radical homeostasis and correction of its disturbances resulting from rheumatic arthritis

Head Researcher – Professor T.N. Popova, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Medical Biochemistry and Microbiology)

1306 Research project No 14068 for years 2014–2016

Studying the many-body effect from atom and diatomic molecules interaction with electromagnetic impulses

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

2100 Research project No 14067 for years 2014–2016

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

Head Researcher – Professor Kh.S. Shikhaliyev, Dr. habil. in Chemistry (Faculty of Chemistry, Department of Organic Chemistry)

1868 Research project No 14065 for years 2014–2016

Theory and practice in studying the nature of interatomic interactions and electron energy spectrum in metal-oxide nanocomposites using X-ray and electronic spectroscopy with synchrotron radiation

Head Researcher – Professor E.P. Domashevskaya, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of solid-state physics and nanostructures)

1539 Research project No 14072 for years 2014–2016

Studying mathematical problems of non-Newtonian hydrodynamics

Head Researcher – Professor V.G. Zvyagin, Dr. habil. in Physics and Mathematics (Mathematics Research Institute)

225 Research project No 14070 for years 2014–2016

Studying the effect of chemostimulating dopants on the oxidation process of A3B5 semiconductor compounds (GaAs, InAs, GaP, InP) and developing new processes of growing nanoscale films on them for various purposes

Head Researcher – Professor I.Ya. Mittova, Dr. habil. in Chemistry (Faculty of Chemistry, Department of Materials Science and NanosystemsTechnologies)

130 Research project No 14066 for years 2014–2016

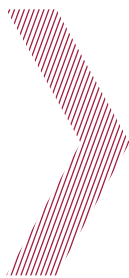
Developing physical and technical approaches for design and diagnostics of epitaxially-integrated AlIBV/Si heterostructures

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

149 Research project No 14071 for years 2014–2016

Reactive oxygen intermediates's metabolism in mitochondria with various pathologies

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



GOVERNMENT ORDER (INTERNATIONAL DEPARTMENT OF THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION)

Research project No 14005 for years 2014–2016

Inducing hepatic carcinoma of various types by deletion of p53 tumor antibody

Head Researcher – A.N. Verevkin, post-graduate student (Faculty of Biology and Soil Sciences, Department of Medical Biochemistry and Microbiology)

GRANTS OF THE PRESIDENT OF THE RUSSIAN FEDERATION FOR SUPPORT OF YOUNG RUSSIAN SCIENTISTS WITH PHD DEGREE (3 PROJECTS)

MK-722.2013.5 Research project No 13029 for years 2013–2014

High-grade Precambrian ferruginous-siliceous formations in the East European Craton (P-T and fluid evolution during metamorphism)

Head Researcher – S.M. Pilyugin, PhD in Geology (Faculty of Geology, Department of Mineral Resources and Mineral Management Studies)

MK-1682.2014.5 Research project No 14057 for years 2014–2015

Developing a model for ecological safety of the Central Black Earth Region' population living in the high ecological risk areas

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

MK-4535.2014.2 Research project No 14056 for years 2014–2015

Specifics of silicon-based low-dimensional oxide systems formation and their properties

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

FEDERAL TARGET PROGRAMME “RESEARCH AND DEVELOPMENT IN TOP-PRIORITY AREAS OF SCIENCE AND TECHNOLOGY IN RUSSIA FOR 2014–2020” (7 PROJECTS)

14.574.21.0027 Research project No 14099 for years 2014–2015

Developing a technique for metastatic tumor growth post-operation monitoring by means of an acellular freely circulating blood DNA analysis

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

14.577.21.0035 Research project No 14094 for years 2014–2016

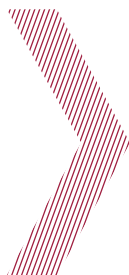
Developing an automated device for plasma cryoconservant preparation for injection by means of microwave radiation volumetric heating with temperature measured in THz-band

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

14.577.21.005 Research project No 14064 for years 2014–2016

Developing technological solutions for formation of nanostructured hybrid membranes and creating on their basis potentiometric multisensor systems for water processing media reagentless express monitoring

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



14.593.21.0001 Research project No 14100 for years 2014–2015

Studying molecular mechanisms of human's immunocyte destruction under UV radiation and reactive oxygen intermediates

Head Researcher – Professor V.G. Artyukhov, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Biophysics and Biotechnology)

14.574.21.0093 Research project No 14104 for years 2014–2016

Development and enhancement of nanomaterials nuclear physical and X-ray diagnostic methods

Head Researcher – Professor E.P. Domashevskaya, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of solid-state physics and nanostructures)

14.593.21.0111 Research project No 14103 for years 2014–2016

New technology and equipment for synthesizing nano-scale magnesian powders from recycled waste of enriched amorphous magnesite production

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

14.574.21.0112 Research project No 14105 for years 2014–2016

Development of a programming and computing suite for the computer modelling of structural, sorption, and electronic properties of fullerenes and carbon nanotubes and adsorption processes

Head Researcher – Professor E.V. Butyrskaya, Dr. habil. in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

RUSSIAN SCIENCE FOUNDATION GRANT FOR CONDUCTING BASIC RESEARCH AND SCIENTIFIC SEARCH (4 PROJECTS)

14-12-00583 Research project No 14062 for years 2014–2016

Acquisition and study of new functional ferroelectric and multiferroic materials with tuneable electrical, magnetic and mechanical properties

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

14-13-01470 Research project No 14063 for years 2014–2016

Synthesis, electromigration, surface properties, and reactivity of modified nanoheterogeneous sensing materials based on the semiconductor oxides with various morphologies

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

14-14-00721 Research project No 14061 for years 2014–2016

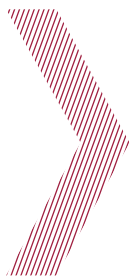
Free-radical, molecular and enzymic mechanisms for coordinating the tricarboxylic acid cycle and the glyoxylate cycle in adaptive responses of plant cells' metabolism to anthropogenic changes in the biosphere

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

14-21-00066 for years 2014–2016

Functional analysis methods for studying the problems of equations of mathematical physics

Head Researcher – Professor V.G. Zvyagin, Dr. habil. in Physics and Mathematics (Mathematics Research Institute)



THE RUSSIAN FOUNDATION FOR BASIC RESEARCH GRANTS (71 PROJECTS)

INITIATIVE PROJECTS

14-05-00722 Research project No 14031 for years 2014–2016

Monitoring the region and mapping the ecological and geochemical factors influencing the health of the people living in the Central Black Earth Region

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

14-02-00516 Research project No 14035 for years 2014–2016

Atomic and ion optical frequency standards

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

14-04-00264 Research project No 14032 for years 2014–2016

Dolichopodidae (Diptera) classification, fauna and genesis in Russia and neighbouring territories

Head Researcher – Professor O.P. Negrobov, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Ecology and Systematics of Invertebrates)

14-01-00141 Research project No 14038 for years 2014–2016

Functional Banach spaces geometry and operator classes

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

14-07-00713 Research project No 14030 for years 2014–2016

Studying and developing methods for information transfer control in sensor networks and telecommunication networks analogous to physical processes of matter and energy transfer in order to enhance stability, capacity and energy efficiency of wireless networks

Head Researcher – Professor Yu.B. Nechaev, Dr. habil. in Physics and Mathematics (Faculty of Computer Sciences, Department of Information Systems)

14-04-00805 Research project No 14037 for years 2014–2016

The role of intracellular calcium and expression of the PIF3 transport factor in the phytochrome signal transduction; the importance of methylation of succinate dehydrogenase subunits' gene promoters in plants under changing lighting conditions and nutrition type

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

14-01-00867 Research project No 14039 for years 2014–2016

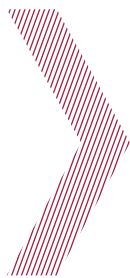
Towards the management problems in mathematical models of complex physical medium

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

14-08-00610 Research project No 14033 for years 2014–2016

Percolation effects in metal-polymer nanocomposites as a basis for a new technology of protecting water and heating systems from oxygen-type corrosion

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



- 14-02-00666 Research project No 14034 for years 2014–2016
Domain walls creep and sliding in low dimensional ferroelectrics
 Head Researcher – Professor A.S. Sidorkin, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Experimental Physics)
- 13-08-00935 Research project No 13016 for years 2014–2016
New functional nanostructured materials based on metals and ion-exchange polymers that can be used as catalytic agents and electrocatalysts
 Head Researcher – E.V. Zolotukhina (Faculty of Chemistry, Department of Physical Chemistry)
- 13-02-00447 Research project No 13010 for years 2014–2016
Effective-range theory for a molecular system in a strong light field applied to the generation of harmonics of laser radiation
 Head Researcher – Professor M.V. Frolov, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Theoretical Physics)
- 13-03-01013 Research project No 13017 for years 2014–2016
New methods for synthesizing sulphide photovoltaic materials
 Head Researcher – Professor A.Yu. Zavrazhnov, Dr. habil. in Chemistry (Faculty of Chemistry, Department of General and Inorganic Chemistry)
- 13-03-00705 Research project No 13018 for years 2014–2016
V₂O₅ as an oxidation catalyst and a modifier of the boundary line and the nanostructure of nanoscale thin films on InP and GaAs
 Head Researcher – Professor I.Ya. Mittova, Dr. habil. in Chemistry (Faculty of Chemistry, Department of Materials Science and Nanosystems Technologies)
- 13-01-00773 Research project No 13024 for years 2014–2016
Statistical analysis of generalized signals' energy detection
 Head Researcher – Professor V.I. Kostylev, Dr. habil. in Physics and Mathematics (Faculty of Applied Mathematics, Informatics and Mechanics, Department of Technical Cybernetics and Control Theory)
- 13-01-00041 Research project No 13019 for years 2014–2016
Topological methods in nonlinear hydrodynamics problems, optimal management problems and stochastic analysis
 Head Researcher – Professor V.G. Zvyagin, Dr. habil. in Physics and Mathematics (Mathematics Research Institute)
- 13-01-00378 Research project No 13028 for years 2014–2016
Methods of representation theory for groups, semigroups and Banach algebras in the spectral analysis of linear operators and linear order relations
 Head Researcher – Professor A.G. Baskakov, Dr. habil. in Physics and Mathematics (Faculty of Applied Mathematics, Computer Sciences and Mechanics, Department of Nonlinear Oscillations)
- 13-02-00420 Research project No 13022 for years 2014–2016
Nonlinear atomic photoprocesses in a strong laser field, including short and ultra-short impulse signals
 Head Researcher – Professor N.L. Manakov, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Theoretical Physics)
- 12-01-00102-a Research project No 12043 for years 2014–2016
Krein space operators and their application
 Head Researcher – Professor T.Ya. Azoziv, Dr. habil. in Physics and Mathematics (Faculty of Mathematics, Department of Geometry and Functional Theory)



12-01-00183-a Research project No 12044 for years 2014–2016

Stochastic differential equations and inclusions with mean derivatives on manifolds and their application

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

12-02-00218-a Research project No 12045 for years 2014–2016

Anisotropy and basic correlation nature in angular and spin distributions of products resulting from dual, triple and tetradic fission of oriented nuclei

Head Researcher – Professor S.G. Kadomensky, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Nuclear Physics)

12-04-00920-a Research project No 12046 for years 2014–2016

New tendencies in studying the colourless sulphur bacteria metabolism and taxonomy: dissimilatory nitrate reduction of Thiotrichaceae and new taxons in Spirochaetaceae

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

12-04-01016-a Research project No 12047 for years 2014–2016

Studying the taxonomy, morphological evolution, and phylogeny of existing and ancient Tingoidea (Heteroptera)

Head Researcher – Professor V.B. Golub, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Ecology and Systematics of Invertebrates)

12-05-00139-a Research project No 12050 for years 2014–2016

VORG – Russian national herbarium as a basis for biogeographic monitoring of phytodiversity of protected steppe landscapes in Central Russian forest-steppe at the current level of natural resources management under global climate changes

Head Researcher – Professor A.Ua. Grogirievskaya, Dr. habil. in Geography (Faculty of Geography, Geoecology and Tourism, Department of Geoecology and Environmental Monitoring)

12-05-00887-a Research project No 12051 for years 2014–2016

Space-time acoustic interferometry of the continental shelf mesoscale heterogeneity

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

12-08-00743-a Research project No 12053 for years 2014–2016

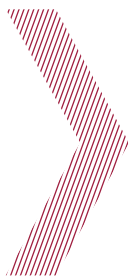
Constructing multisensor complexes using new potentiometric sensors based on nanomodified membranes for quantitative analysis of an aqueous organics medium

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

14-01-313318 for years 2014–2015

Methods and algorithms for studying inconsistent linear equations systems, inequations, and nonlinear programming problems

Head Researcher – Associate Professor A.S. Krasnikov, PhD in Physics and Mathematics (Faculty of Physics, Mathematics and Natural Sciences, Department of Applied Mathematics, Informatics, Physics and Teaching Methodology, Borisoglebsk Branch)



ORGANISING AND HOLDING CONFERENCES AND OTHER SCIENTIFIC EVENTS IN RUSSIA

14-06-20379 Research project No 14101 for the year 2014

Organising the 37th International Conference (Scientific Workshop) "Social and Economic Processes System Modelling" in honour of Professor S.S. Shatalin

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

PROJECT CONTEST FOR ORGANISING LOCAL AND INTERNATIONAL EVENTS IN THE THIRD QUARTER OF 2014

14-06-06027 Research project No 14058 for the year 2014

Organising the 10th International research and practice conference "Economic Forecasting: Models and Methods"

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

JOINT INITIATIVE RESEARCH PROJECTS COMPETITION OF THE RUSSIAN FOUNDATION FOR BASIC RESEARCH AND THE NATURAL SCIENCE FOUNDATION OF CHINA

14-05-91180 Research project No 14049 for years 2014–2015

3D acoustic effects in the non-deep sea with permanent and temporary mesoscale heterogeneity and new methods for acoustic probing in the Ocean

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

COMPETITION FOR ACCESS TO SCIENCE ELECTRONIC INFORMATION SOURCES OF INTERNATIONAL PUBLISHING COMPANIES

14-00-10210 Research project No 14107 for the year 2014

Access to science electronic information sources of international publishing companies

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

13-00-14208 Research project No 13075 for year 2014

Access to science electronic information sources of international publishing companies

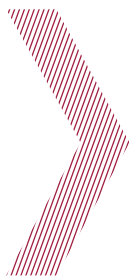
Head Researcher – Professor V.N. Popov, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Genetics, Cytology and Bioengineering)

ORGANISING EXPEDITIONS

14-04-10140 Research project No 14052 for the year 2014

Complex expedition project for studying microbiocenosis of sulphur cycle in continental salt water ecosystems rich in sulphides (the Republic of Bashkortostan)

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



RESEARCH PROJECTS COMPETITION FOR YOUNG SCIENTISTS (MY FIRST GRANT)

14-05-31329 Research project No 14003 for years 2014–2015

Developing a model for environmental quality indication by means of GIS-technologies

Head Researcher – S.V. Shekoyan, research fellow (Faculty of Biology and Soil Sciences, Department of Geoecology and Environmental Monitoring)

14-08-31731 Research project No 14041 for years 2014–2015

Competing reactions under chemisorption of aldehydes by anion-exchange materials from processing medium

Head Researcher – Associate Professor I.V. Voronyuk, PhD in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

14-02-31278 Research project No 14042 for years 2014–2015

Low limiting threshold of the near IR radiation in Ag₂S colloid quantum dots

Head Researcher – T.S. Shatskih, lecturer (Faculty of Physics, Department of Optics and Spectroscopy)

14-01-31228 Research project No 14043 for years 2014–2015

Solvability, attractors and optimisation problems for mathematical models of movement of polymers and fluids with memory

Head Researcher – A.V. Zvyagin, research fellow (Mathematics Research Institute)

14-01-31196 Research project No 14001 for years 2014–2015

Spectral theory of linear operators and linear order relation

Head Researcher – Associate Professor V.B. Didenko, Dr. habil. in Physics and Mathematics (Faculty of Applied Mathematics, Computer Sciences and Mechanics, Department of Nonlinear Oscillations)

14-04-31664 Research project No 14048 for years 2014–2015

Calcium ions and their role in regulating the expression of succinate dehydrogenase in plant leaves in the changed light pattern by means of a phytochrome system

Head Researcher – Associate Professor D.N. Fedorin, PhD in Biology (Faculty of Biology and Soil Sciences, Department of Biochemistry and Cell Physiology)

14-04-31618 Research project No 14045 for years 2014–2015

Bioenergetic properties of bumblebee's (*Bombus terrestris* L.) flight muscles mitochondria

Head Researcher – M.Yu. Syromyatnikov, research fellow (Faculty of Biology and Soil Sciences, Department of Genetics, Cytology and Bioengineering)

14-02-31767 Research project No 14046 for years 2014–2015

Generation of the high harmonics in dual-frequency laser field

Head Researcher – T.S. Sarantseva, research fellow (Faculty of Physics, Department of Theoretical Physics)

14-04-32174 Research project No 14050 for years 2014–2015

Controlling free-radical homeostasis by means of succinic acid and chitosan derivatives for disorders associated with cerebrovascular pathology

Head Researcher – Associate Professor O.A. Safonova, PhD in Biology (Faculty of Biology and Soil Sciences, Department of Medical Biochemistry and Microbiology)



14-02-31315 Research project No 14004 for years 2014–2015

Electronic structure modulation and strong electric field effects in single-wall carbon nanotubes of limited length and supersmall diameter

Head Researcher – A.V. Tuchin, post-graduate student (Faculty of Physics, Department of Semiconductor Physics and Microelectronics)

14-02-31412 Research project No 14002 for years 2014–2015

Modifying spontaneous electron-atom bremsstrahlung by means of a strong laser field

Head Researcher – T.N. Zheltukhin, research fellow (Faculty of Physics, Department of Theoretical Physics)

14-04-31644 Research project No 14044 for years 2014–2015

Phasiinae (Diptera, Tachinidae) species diversity and their host-parasite relationships with Heteroptera

Head Researcher – E.V. Akseenko, lecturer (Faculty of Biology and Soil Sciences, Department of Zoology and Parasitology)

14-02-31646 Research project No 14047 for years 2014–2015

Optical response functions and decoherence mechanisms of CdS colloid quantum dots in various environment

Head Researcher – N.V. Korolev, engineer (Faculty of Physics, Department of Optics and Spectroscopy)

14-05-31159 Research project No 14040 for years 2014–2015

Voronezh anteclise pottery clay origins

Head Researcher – A.V. Krainov, senior lecturer (Faculty of Geology, Department of Historical Geology and Paleontology)

RESEARCH PROJECTS COMPETITION FOR ORGANISING LOCAL AND INTERNATIONAL SCIENTIFIC EVENTS FOR YOUNG SCHOLARS IN THE FIRST HALF OF 2014

14-01-06802 Research project No 14036 for the year 2014

Project of an International conference for young scholars “Voronezh Winter School of Mathematics in honour of S.G. Krein – 2014”

Head Researcher – Professor V.A. Kostin, Dr. habil. in Physics and Mathematics (Faculty of Mathematics, Department of Mathematical Modeling)

14-01-06813 Research project No 14047 for the year 2014

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

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



THE CONTEST OF RESEARCH PROJECTS CARRIED OUT BY YOUNG SCIENTISTS UNDER THE LEADERSHIP OF DOCTORS OF SCIENCE IN SCIENTIFIC ORGANIZATIONS OF THE RUSSIAN FEDERATION

14-32-50043 Research project No 14102 for the year 2014

Dendritic heterojunction – metal in dielectric's pores for identification of supersmall quantity substances based on the effect of Raman enhancement of light scattering

Head Researcher – Associate Professor E.K. Belonogov, Dr. habil. in Technical Sciences (Faculty of Chemistry, Department of Materials Science and Nanosystems Technologies)

14-34-50740 Research project No 14109 for the year 2014

Assessing the stability of genetic material of patients with paranoid schizophrenia at various treatment stages by means of micronucleus test in buccal mucosa

Head Researcher – Professor V.N. Kalaev, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Genetics, Cytology and Bioengineering)

14-34-50200 Research project No 14108 for the year 2014

Determining the molecular basis of the proteolytic enzyme immobilization on a chitosan matrix and ion-exchange fiber in order to create new medical products

Head Researcher – S.I. Karpov, PhD in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

14-34-50505 Research project No 14106 for the year 2014

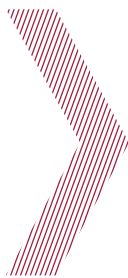
Studying the mutability of seed progeny of introduced species (case study of *Rhododendron ledebourii* Pojark)

Head Researcher – T.V. Baranova, PhD in Biology, research fellow (Botanical Garden)

13-04-90781 Research project No 13081 for the year 2014

Searching for and testing highly affine ligands for further immobilization of inulinase

Head Researcher – M.S. Kondratiev (Faculty of Biology and Soil Sciences, Department of Biophysics and Biotechnology)



BASIC RESEARCH COMPETITION ORIENTED AT CONTEMPORARY INTERDISCIPLINARY PROBLEMS

13-08-12103 Research project No 13072 for years 2013–2015

Composite perfluorinated membranes with oxide nanoparticles for potentiometric multisensor systems

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

REGIONAL COMPETITION “CENTRAL RUSSIA”

13-05-97512 Research project No 13057 for years 2013–2014

Environmental dangers of invasive plants species of man-transformed geosystems as the cause of the Voronezh Region Black Book appearance

Head Researcher – Professor A.Ya. Grogirievskaya, Dr. habil. in Geography (Faculty of Geography, Geoecology and Tourism, Department of Geoecology and Environmental Monitoring)

13-05-97524 Research project No 13059 for years 2013–2014

Landscape and environmental assessment of the municipal districts of the Voronezh Region

Head Researcher – Professor V.B. Mikhno, Dr. habil. in Geography (Faculty of Geography, Geoecology and Tourism, Department of Physical Geography and Landscape Optimization)

13-02-97524 Research project No 13060 for years 2013–2015

Synthesis and study of ferroelectric nanomaterials and nanostructures with tuneable functional properties

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

13-04-97536 Research project No 13055 for years 2013–2015

Correcting oxidant status for disorders associated with cerebrovascular pathology

Head Researcher – Professor T.N. Popova, Dr. habil. in Biology (Faculty of Biology and Soil Sciences, Department of Medical Biochemistry and Microbiology)

13-03-97523 Research project No 13058 for years 2013–2015

Structural transformations in iron-based amorphous alloy activated with photon processing and pointed load

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

13-05-97528 Research project No 13063 for years 2013–2015

Developing a scientific basis for assessing coloured (nickel, copper, cobalt) and precious (platinoids, aurum) strategic metals mineral resources base of Elan ore type at new prospective sites of the Voronezh Region and its economic-geological evaluation

Head Researcher – Professor N.M. Chernyshov, Dr. habil. in Geology, Associate Member of the Russian Academy of Sciences (Faculty of Geology, Department of Mineralogy, Petrology and Geochemistry)



13-04-97516 Research project No 13051 for years 2013–2015

Enzymes of the glyoxylate cycle function during the rat's cells metabolism adaptation to experimental diabetes together with hypoglycemic effect of vegetative protectors

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

13-01-97507 Research project No 13050 for years 2013–2015

Models and methods of implementing new information technologies for digital watermarking in order to protect digital content

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

13-08-97565 Research project No 13048 for years 2013–2015

Developing physicochemical principles of chemisorptive ejection of carbonyl compounds from liquid media by means of polymeric sorbents containing functional amino groups

Head Researcher – T.V. Ellseeva, PhD in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)

13-01-97504 Research project No 13062 for years 2013–2015

Complex processing of images and signals with unknown parameters using new information technologies

Head Researcher – Professor A.P. Trifonov, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of Radiophysics)

13-05-97517 Research project No 13053 for years 2013–2015

Regional environmental diagnostics and assessment of natural resources and socio-economic perspectives for stable natural resources management in the Voronezh Region

Head Researcher – Professor V.I. Fedotov, Dr. habil. in Geography (Faculty of Geography, Geoecology and Tourism, Department of Recreational Geography, Country Studies and Tourism)

13-03-97501 Research project No 13054 for years 2013–2015

Interdiffusion in thin film systems at forming the functional properties of nanoscale heterostructures for the purpose of creating a magnetically sensitive transistor of the new generation

Head Researcher – Professor A.M. Khoviv, Dr. habil. in Chemistry (Faculty of Chemistry, Department of Analytical Chemistry)



13-03-97502 Research project No 13056 for years 2013–2015

Developing potentiometric multisensor systems using PD-sensors based on nanostructured membranes for controlling household and industrial sewage

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

13-02-97500 Research project No 13061 for years 2013–2015

Studying the mechanisms and developing basics for a biochemical technology of restoration of dental enamel destroyed by caries using nanocrystalline hydroxyapatite-based bioactive materials

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

13-02-97510 Research project No 13052 for years 2013–2015

Prognostic computer modelling of nanostructured silicon- and germanium-based functional materials of various scale

Head Researcher – Professor S.I. Kurgansky, Dr. habil. in Physics and Mathematics (Faculty of Physics, Department of solid-state physics and nanostructures)

13-04-97524 Research project No 13049 for years 2013–2015

Mitochondrial respiration protective role in case of pathologies resulting from oxidative stress

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

JOINT RESEARCH PROJECTS COMPETITION BY THE RUSSIAN FEDERATION AND UKRAINE

14-04-90403 Research project No 14095 for years 2014–2015

Assessing the diversity and structure of the adventive flora of the Eastern Europe forest-steppe in order to conserve the ideal function of the specially protected territories

Head Researcher – Professor A.Ya. Grogirievskaya, Dr. habil. in Geography (Faculty of Geography, Geoecology and Tourism, Department of Geoecology and Environmental Monitoring)

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

13-05-41401 for years 2013–2015

Integral assessment and mapping of environmental state of a large industrial centre (case study of Voronezh)

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



RUSSIAN FOUNDATION FOR HUMANITIES GRANTS (4 PROJECTS)

12-04-00128-a Research project No 12059 for years 2012–2014

Theoretical problems of compiling a “Psycholinguistic dictionary of modern Russian language”

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

14-03-00491-a for years 2014–2015

The legitimacy of norms in rational and irrational legal systems

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

13-12-36004 a/p Research project No 13008 for years 2013–2014

Development of urban areas in the Voronezh Region: asynchrony effect, strategic management, benefits and risks

Head Researcher – M.I. Solosina (Interfaculty Research Laboratory for Economics and Management)

14-16-36004 a/p for years 2014–2015

Improving project competence of secondary school teachers: methodology, theory, technology

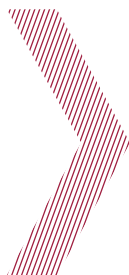
Head Researcher – Professor N.I. Vyunova, Dr. habil. in Pedagogics (Faculty of Philosophy and Psychology, Department of Pedagogics and Pedagogical Psychology)

Table 5.4

RESEARCH, DEVELOPMENT, AND ENGINEERING PROJECTS WITHIN THE AGREEMENTS WITH ORGANISATIONS RECEIVING GRANTS FOR HI TECH INTEGRATED PROJECTS REALISATION

(the Decree of the Russian Government No 218 dated 9 April, 2010)

| Customer | Project | Project Supervisor |
|--|---|--------------------|
| ООО <i>Voronezhsmash</i> Research project No 13005 | Developing a hi-tech fibre optic grain sorter machine | E.K. Algazinov |
| ОАО <i>EFKO</i> Research project No 13006 | Developing a hi-tech industry for plant oil and fibre processing and transformation into non-food products | Kh.S. Shikhaliev |
| ОАО <i>Turbonasos</i> Research project No 14059 | The head executive – <i>FSFEI HPE Voronezh State Technical University</i> ; VSU – joint contractor of the project part Analysis of the present methods and developing an improved method for calculation and optimisation of trunk pipeline pumps. Optimisation of the liquid end of MNN1250, MNN3600, MNN7500, and MNN10000 series trunk pipeline pumps | V.A. Kostin |



5.6. CENTRE FOR COLLECTIVE USE OF SCIENTIFIC EQUIPMENT OF VORONEZH STATE UNIVERSITY

Centre for Collective Use of Scientific Equipment of Voronezh State University (CCUSE) is a scientific division of Voronezh State University.

It was opened in 2000 and houses unique scientific equipment for precise measurement (Table 5.5). The Centre allows the taking of measurements, as well as the development and study of new methods of using scientific equipment, and to obtain new experimental data and enhance the education process.

Table 5.5

SCIENTIFIC EQUIPMENT OF THE CC USE

| No | Item | Country of manufacture |
|----|--|------------------------|
| 1 | Zeiss LIBRA 120 transmission electron microscope | Germany |
| 2 | Agilent 6230 accurate-mass time-of-flight (TOF) LC/MS system | the USA |
| 3 | Thermo ARL X'TRA powder X-ray diffraction system | Switzerland |
| 4 | PANalytical Empyrean X-ray diffractometer | The Netherlands |
| 5 | BrukerS8 Tiger X-ray diffractometer | Germany |
| 6 | JSM-6510LV Series Scanning Electron Microscope | Japan |
| 7 | JSM-6380LV Series Scanning Electron Microscope | Japan |
| 8 | Ion Personal Genome Machine (DNA sequencing system) | the USA |
| 9 | VERTEX 70 series FT-IR spectrometer | Germany |
| 10 | Agilent 7890B/5977A gas chromatograph | the USA |
| 11 | SOLVER P47 atomic force microscope | Russia |
| 12 | Axio Scope A1 laboratory microscope | Germany |
| 13 | A system for carrying out materials testing in vacuum and under UV radiation | Japan |
| 14 | Hardware-software complex for producing liposome-based nanoparticles | Japan |
| 15 | Amersham Imager 600 chemiluminescence imager | the USA |



The equipment of CCUSE can be used to carry out research in the following areas: physics, chemistry, molecular biology, biochemistry, biophysics, physiology of plants, animals and microorganisms, biotechnology, chromatography, medicine, pharmacology, ecology and geology.

The equipment is also used during the lessons and workshops for the VSU undergraduate and post-graduate students, as well as for students of other Voronezh and Central Black Earth Region universities. The Centre organises practical classes and scientific workshops for young scholars in order to improve their knowledge of and provide access to the state-of-the-art methods in X-ray diffraction analysis, as well as chromatographic, spectral and biochemical methods of studying and analysing structures and physicochemical, mechanochemical and biochemical properties of various substances.

The total cost of the Centre's equipment exceeds 100 million roubles.

In 2014, the following modernisation, maintenance and repair measures were taken.

1. Within the Government order framework, a new compensation plan for the Centre's staff was introduced. The employee's salary is no lower than the regional average.
2. A research project is being carried out within the framework of the Federal Target Programme "Research and development in top-priority areas of science and technology in Russia for 2015–2020".
 - 2.1. Project title: "Study of molecular mechanisms of human's immunocyte destruction under UV radiation and reactive oxygen intermediates"
 - 2.2. Project duration 2014–2015
 - 2.3. Total funding: 60 million roubles of state funding, 7.6 million roubles acquired from other funding sources.
3. New scientific equipment was purchased:
 - 3.1. A system for carrying out materials test in vacuum and under UV radiation (OOO Vacuum systems and electronics, Anest Iwata, Russia – Japan);
 - 3.2. Hardware-software complex for producing liposome-based nanoparticles (Nikon, Thermo Scientific, Polygen, EMD Millipore, Japan, the USA, Germany, the USA);
 - 3.3. Amersham Imager 600 Western Blotting complex (GE Healthcare, the USA).



4. The following equipment was put into operation:
 - 4.1. Ion Personal Genome Machine (DNA sequencing system);
 - 4.2. Agilent 6230 accurate-mass time-of-flight (TOF) LC/MS system;
 - 4.3. Agilent 7890B/5977A gas chromatograph.
5. Modernisation and repairs
 - 5.1. GEO-QUANT T software was purchased for BrukerS8 Tiger X-ray diffractometer;
 - 5.2. An attenuated total reflectance tool was purchased for VERTEX 70 series FT-IR spectrometer
 - 5.3. An open-liquid measuring cell was purchased for the SOLVER P47 atomic force microscope for studying biological samples;
 - 5.4. To enhance the stability of power supply for the equipment, a number of UPS units were purchased and put into operation to use with the following equipment:
 - Zeiss LIBRA transmission electron microscope;
 - BrukerS8 Tiger X-ray diffractometer;
 - PANalytical Empyrean X-ray diffractometer;
 - 5.5. The high-voltage power supply for Thermo ARL X'TRA powder X-ray diffraction system was repaired.
6. Organising lessons for the BSc degree and MSc degree students of the Faculty of Physics, the Faculty of Chemistry, the Faculty of Biology and Soil Sciences, the Faculty of Pharmaceutics, and the Faculty of Geology.
7. Carrying out research on behalf of the following organisations:
 - 7.1. The Ministry of Environment and Natural Resources of the Russian Federation, the Federal Agency for Subsoil Resources Management;
 - 7.2. The Department of Subsoil Resources Management of the Central Federal District;
 - 7.3. OOO *Voronezhgeologiya*;
 - 7.4. OAO *Koltsovgeologiya*;
 - 7.5. OAO *Efirmoye*;
 - 7.6. N.N. Burdenko Voronezh State Medical Academy;
 - 7.7. Voronezh State University of Engineering Technologies;
 - 7.8. Voronezh State Technical University;
 - 7.9. VSU-based Small Innovative Businesses.



5.7. TELECOMMUNICATIONS AND INFORMATION SYSTEM DEVELOPMENT AT VSU IN 2014

In 2014, the VSU informatisation activities were focused on the following objectives:

- maintaining and developing the University's telecommunication system, the Wi-Fi network, and the Voice over IP system;
- maintaining and developing the information system for the University management, the University's official website, and all the web portals;
- developing the Data Processing Centre of Voronezh State University;
- developing electronic education technologies, e-learning, and distant learning;
- the University's telecommunication system.

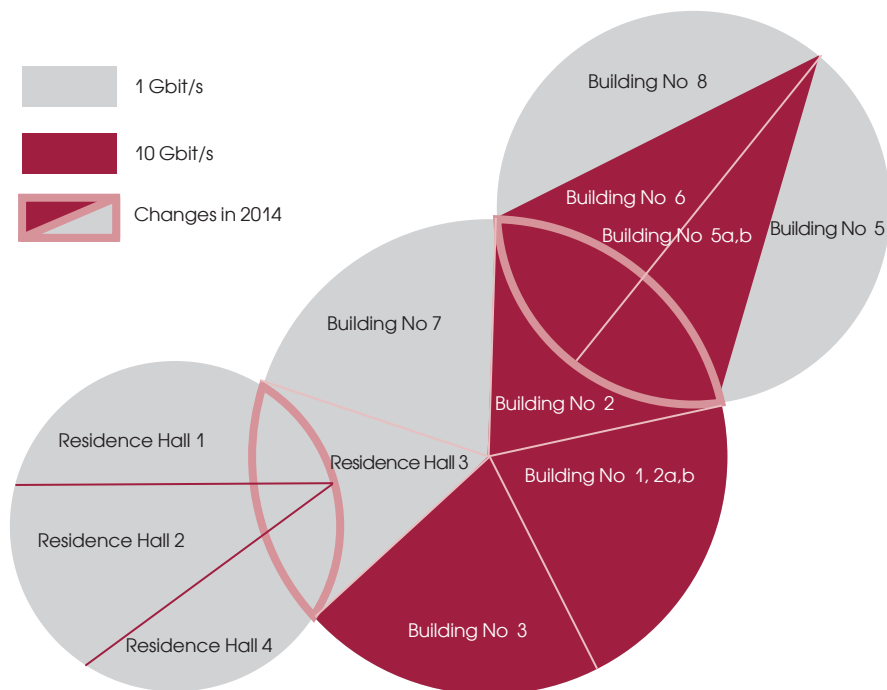
TELECOMMUNICATIONS AND WI-FI WIRELESS NETWORK DEVELOPMENT AT VSU

In 2014, the University fiber-optics network was extended to three halls of residence in Friedrich Engels Street, which has made it possible for the staff members, working there, to use high bit rate channels to access the University information systems and the Internet. These channels will be used for creating free Wi-Fi areas for students living in the halls of residence.

The network node of the Northern campus was reconstructed and modern network equipment installed. This has made it possible to increase the data transfer rate between the Central and the Northern campus buildings by 10 times from 1 Gbit/s to 10 Gbit/s.

Figure 5.2

VSU WIRELESS NETWORK CAPACITY DIAGRAM FOR 2014



The cabling infrastructure (SCS) of the local network in campus building No 6 has been reconstructed, which now allows it to function quickly, stably and safely.

VSU is also taking steps to increase the data transfer rate for the University Buildings No 5 and 8 up to 10 Gbit/s and to extend the university Wi-Fi network to the residence halls in Kholzunova Street.

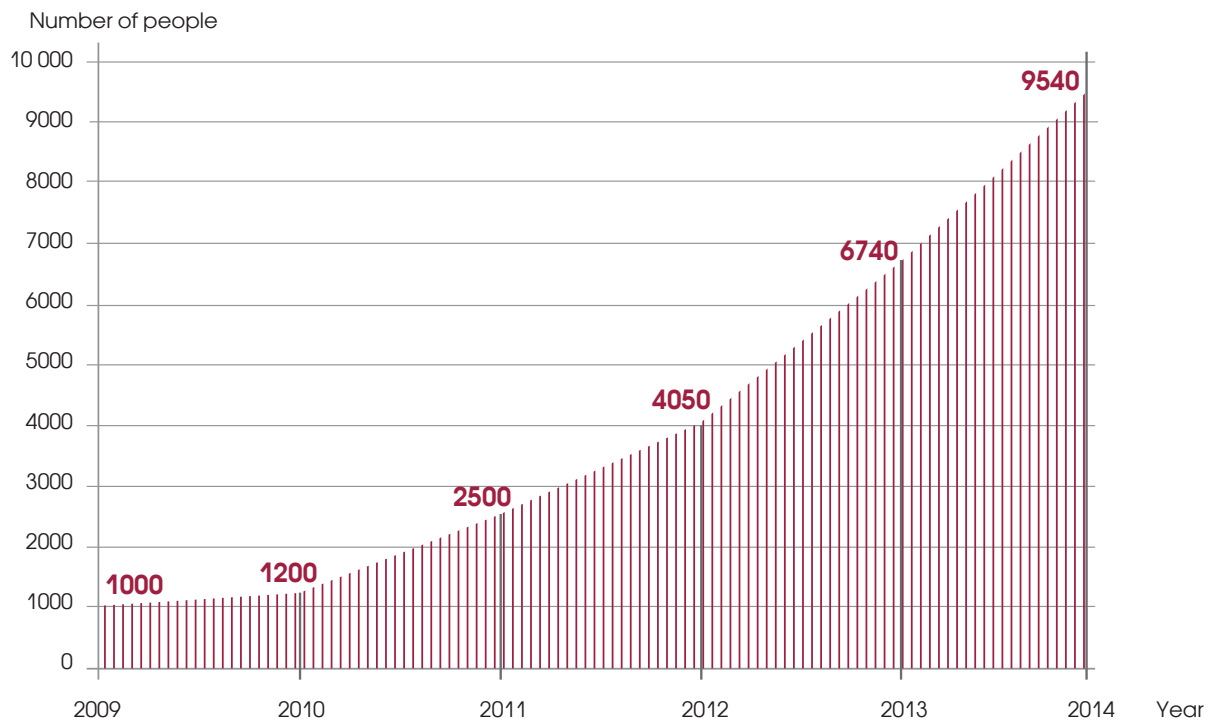
The project to provide wireless access to the network in campus buildings started in 2011 on the initiative of the University administration. During the reporting period, a Wi-Fi network with 100% coverage was installed at Building No 6. There are now 179 Wi-Fi access points at VSU, of which 26 were installed in 2014. The VSU wireless network now covers almost all the University territory. It is available in Buildings 1, 1a, 1b, 2, 3, 4, 5, 5a, 5b, 6, 7, 8, 9, in the Botanical Garden, and the VSU Business Incubator. After the required personal user registration both the University staff and students are authorized wireless network access. There are more than 9500 wireless network users in VSU, and this number is constantly growing.

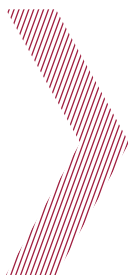
5.3

Figure 5.3 shows a diagram of the increase in the number of Wi-Fi users at VSU.

Figure 5.3

THE INCREASE OF THE NUMBER OF WI-FI AND VOICE OVER IP USERS





DEVELOPING THE VOICE OVER IP NETWORK

In 2014, the VSU employees got an opportunity to use Voice over IP instead of municipal office phone numbers. There are now 324 employees at VSU using the Voice over IP network. 52 VoIP phones were purchased and installed in 2014.

The projects are coordinated by the University Internet Centre (UIC).

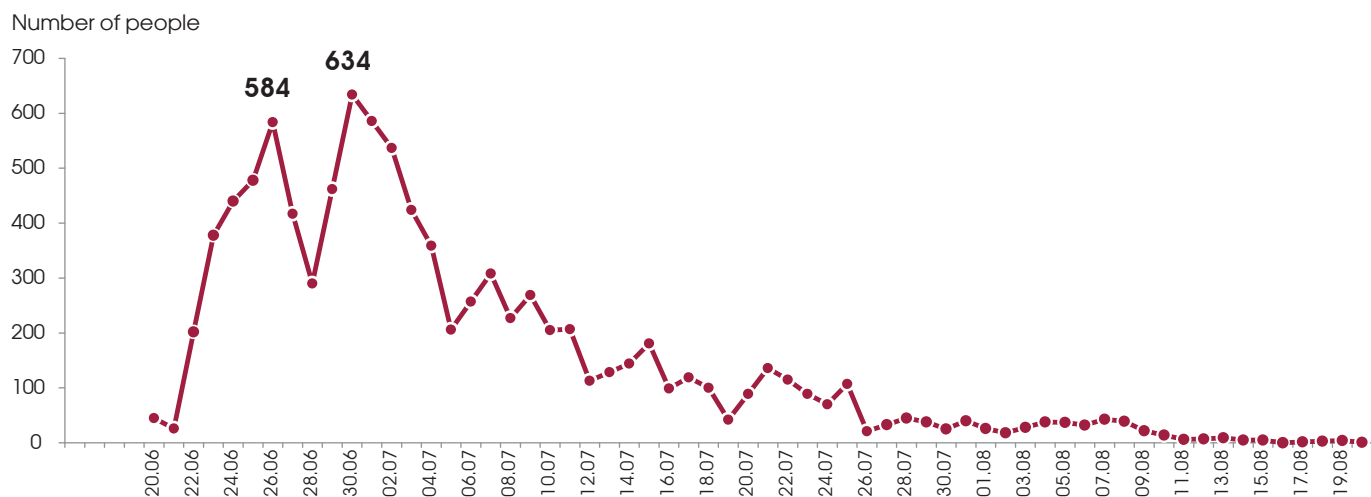
INFORMATION SYSTEMS IN UNIVERSITY MANAGEMENT

Information support of education process

Information support of the 2014 admission campaign. This year the admission campaign included regular reports uploaded to the web portals of the Government order and Recording Centre of the Ministry of Education and Science of the Russian Federation (www.gzgu.ru) and the Federal Information System for Organising Unified State Exam and Monitoring the Admission Campaigns (priem.edu.ru). Prospective VSU students had an opportunity to fill in the application forms in the University Internet Centre IT rooms, where they were assisted by the VSU operators. The total number of applications exceeded 8000 (Fig. 5.4). The peak load on IT rooms per day exceeded 600 applicants.

Figure 5.4

APPLICATIONS SUBMISSION INTENSITY





In 2014, a new distance application system based on digital signatures was introduced, and it has already been used by 100 people.

New design of the “Abiturient Online” portal. The main objective of the renewed web portal for prospective students “Abiturient Online” (www.abitur.vsu.ru) – to make the information easily accessible – was successfully reached. The interface and the content of the portal have changed radically (Fig. 5.5). During the 2014 admission campaign, over 300 various organisational, administrative, and executive documents were published on the portal.

Figure 5.5

“ABITURIENT ONLINE” WEB PORTAL HOMEPAGE

Воронежский государственный университет
pt@vsu.ru @abitureonline В контакте с ВГУ +7 (473) 220-85-93 г. Воронеж, Университетская площадь, 1

Абитуриент Онлайн

- Лицензия
- Свидетельство о государственной аккредитации
- Образовательные программы
- Преподаватели вуза
- Официальный сайт университета

Внимание!
Измененный перечень вступительных испытаний

Поступление в Учебный военный центр

Пробный ЕГЭ
Уважаемые старшеклассники! Приглашаем Вас на пробное ЕГЭ в бланковой форме 17.03.2014 16.52

Заключительный этап олимпиады школьников "Ломоносов" по русскому языку
16 марта 2014 года состоялся заключительный этап олимпиады «Ломоносов» по русскому языку 16.03.2014 16.52

Подготовка к поступлению

- Профорентация
- Подготовительные курсы / льготы
- Научное общество учащихся / программа конференции / доклады
- Дни открытых дверей
- ВГУ-LIVE!

Поступление

- Документы, регламентирующие прием
- Образовательные программы
- План приема на бюджет
- Проходные баллы (2013 год)
- Стоимость обучения (2013 год)
- Раписание ЕГЭ
- Места в общежитии

Приемная кампания

- Справка о конкурсе (2013 год)
- Приказы о зачислении (2013 год)
- Результаты приемной кампании

Первокурснику

- Порядок получения мест в общежитии
- Образец заявления на получение места в общежитии
- Постановка на воинский учет
- Социальная стипендия

Олимпиады

- Воронежская региональная олимпиада школьников
- Олимпиада «Ломоносов»
- Олимпиада «Звезда - Talanty на службе обороны и безопасности»
- Марафон информационных технологий ИИИ
- Всероссийский студенческий Турнир Трех Наук

Об университете

- История университета
- Университет в цифрах и фактах
- ВГУ в международных и российских рейтингах
- Ректоры вуза
- Почетные доктора
- Преподаватели вуза
- Факультеты и филиалы
- Учебные корпуса и общежития
- Приемная комиссия
- Деканы факультетов
- Форум



Developing a system of education process information support (www.infosys.vsu.ru). A new interface ("Annual Report of the Department") has been designed and introduced with access granted to 250 staff members from 132 departments. The system for filling in the diploma forms and printing them out has been modified. New interfaces, such as "Postgraduate's card index", "Call for exam session", and "Verification letter" have been introduced. The data for the following reports has been accumulated: Higher professional education – 1, IX Complex study of the academic performance of students studying at higher education institutions of the Russian Federation (Russian Rectors' Union), Report on the performance self-examination by FSFEI HPE VSU.

Information support of personnel records

New design and modifications.

- Over 70 printed document forms have been transformed into digital format, including HR management orders, extracts, reports, personnel lists, etc.
- A system for immediate statistical data production "Personnel-Statistics" has been modified: new parameters have been added to the final report.
- A software unit "Planned and actual holiday schedule" for automated filling in of the holiday schedule based on the initial template has been introduced.
- An advance request form has been added to the system "Business trips" for preparing business trip documents. A new system has been introduced for preparing documents for students having their field training and practice abroad.

Information support of salary and scholarships calculation

- The system for transferring information on the employees' salaries and students' scholarships to the Federal Tax Service of Russia and to the Pension Fund of the Russian Federation has been upgraded.
- The system for data exchange with banks issuing payroll debit cards for the employees and students has been upgraded.
- The system for salary and scholarship calculation has been modified in accordance with the changed rules of Personal Income Tax and Unified Social Tax calculation.
- 95 document forms have been transformed into digital format, including exam records, reports, extracts, etc.



Information support of document flow management

Electronic document flow system. Following the “Voronezh State University Strategic Development Programme (2012–2016)”, measures have been taken to prepare for transition to the electronic document flow system (EDFS), see Figure 5.6.

The project objectives:

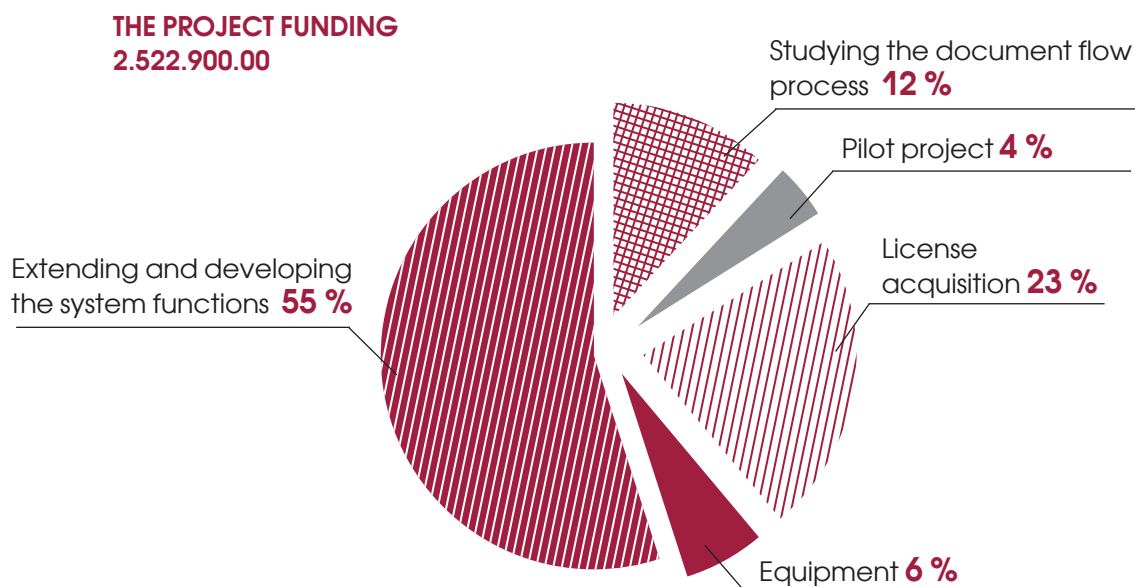
- to lower the time spent on searching, writing, processing and transporting the documents;
- to improve the workers efficiency by making the tasks and their execution transparent;
- to eliminate faults resulting from loss or late document execution;
- to make the document execution process transparent;
- to reduce expenditure on printed document management by reducing the cost of printing equipment use and maintenance (the expenses of paper and printing cartridges).

Prospective results:

- **300** users, with the year’s document flow of **20,000** documents;
- introducing digital versions for the following types of documents: incoming and outgoing information and administrative documents; faculties’ internal regulatory and administrative documents; official correspondence within the University;
- creating a digital documents archive for regulatory and administrative documents, contracts and reports.

Figure 5.6

FUNDING OF THE ELECTRONIC DOCUMENT FLOW SYSTEM INTRODUCTION



Further development plans:

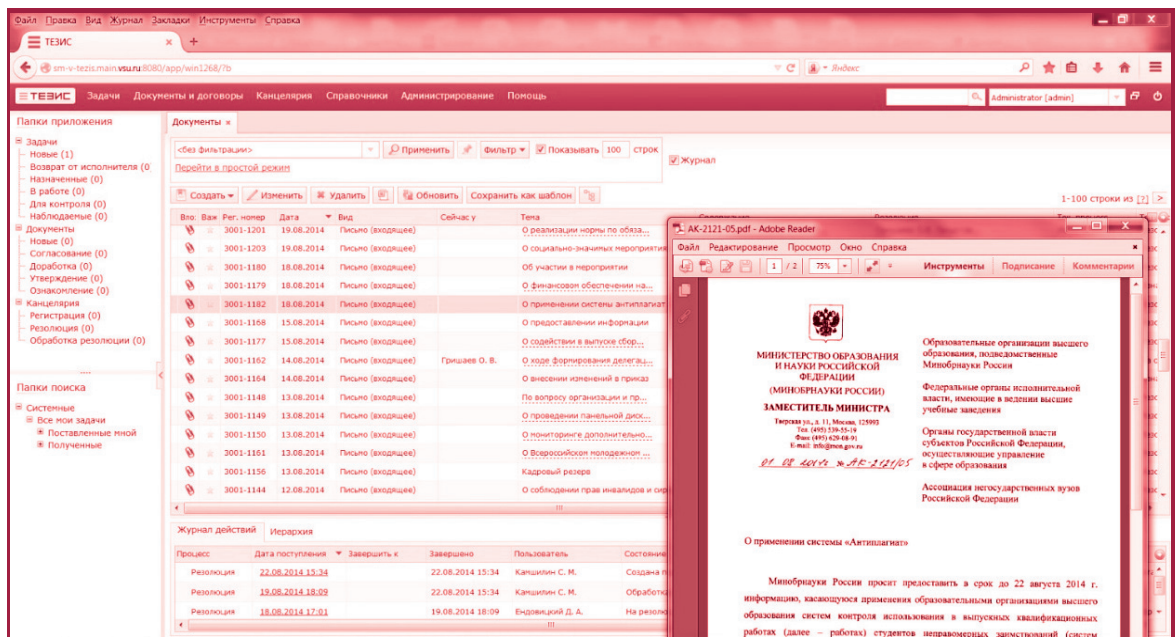
- to computerise 9 document flow procedures introducing over 200 digital document templates to the system;
- to grant access to the system to **300** users and make sure that **100** users can work at the same time;
- provide access within the University Intranet to the regulatory and administrative documents bank by means of the "Tezis:Portal" system (Fig. 5.7).

By the end of 2014:

- the pilot project for introducing EDFS based on "Tezis" system developed by Haulmont company was completed. 34 senior officers of the University, including the rector, the vice-rectors and their assistants, as well as heads of the administrative departments, participated in the project;
- one of the most important activities – processing the rector's incoming correspondence – was automatised;
- over **400** documents were processed, and over **550** orders were given, of which **412** have been fulfilled, and the others are being executed;
- a tender for designing an EDF system on the basis of "Tezis" system was organised.

Figure 5.7

“TEZIS” EDF SYSTEM INTERFACE



The project's target values

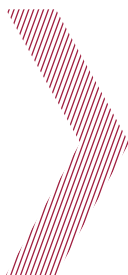
The following target values were introduced to access the project's performance in 2015–2016:

- the number of the administrative staff using the EDFS – 90 %;
- the portion of the digital document flow within the University – 42 %.

Systems for students and teachers

The number of lecturers using the “Antiplagiat” system to find cases of plagiarism increased significantly. There are now 183 registered users (comparing to 71 users in 2013). 7048 papers were examined (1161 papers in 2013).

2014 saw the implementation of the noncommercial project for introducing Microsoft Office 365 cloud services in education institutions. Thus, the VSU students acquired access to modern applications and services of the Microsoft company. All users got 1000 Gb of cloud storage and can use the cloud services to work together with various documents either from a PC, a tablet, or a smartphone. The project was carried out with the help of the VSU partner OOO *Peremena*.



VSU official website

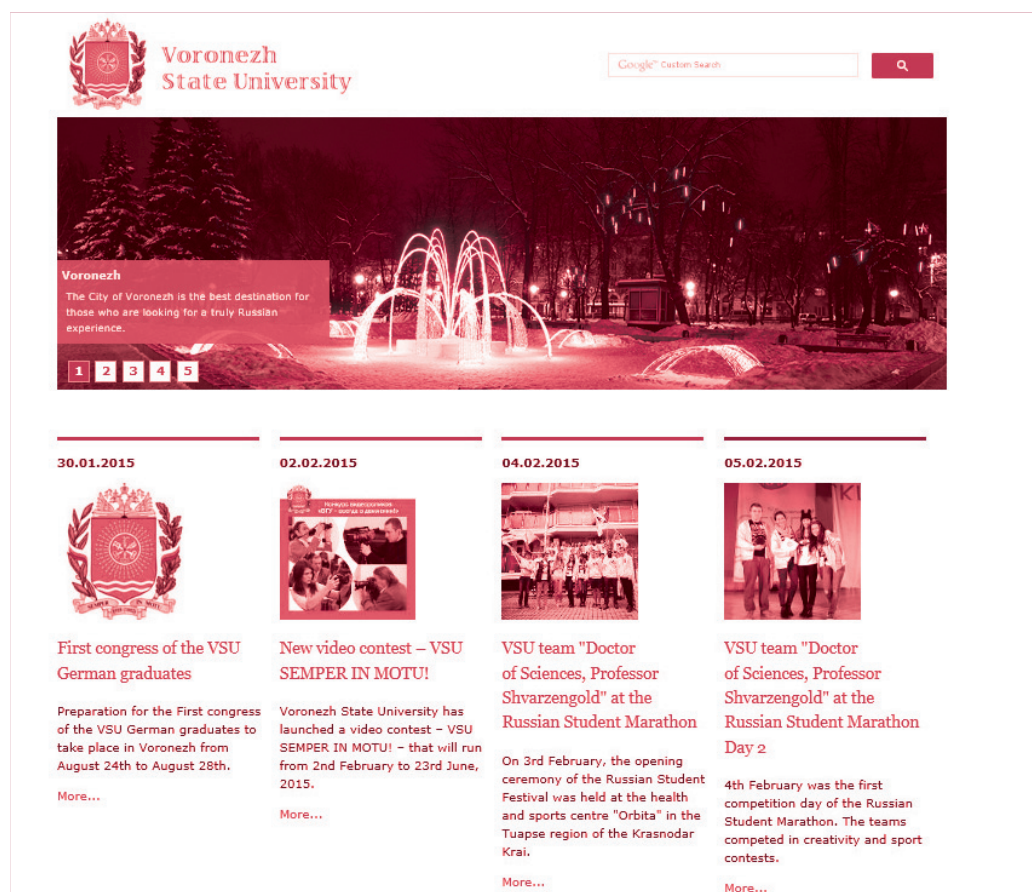
In 2014, the number of publications on the VSU website amounted to 1900, including 1130 news and 206 announcements. A system for automated update of the information about the academic staff was introduced. A voting system for the "The 7 Wonders of the Voronezh Region" project and the "Best Professor", "Best Assistant Professor", and "Best Lecturer" competition was designed and introduced. A new version of the University Voice over IP phone book was developed. A new web analytics system for the VSU websites is being tested. It helps to get the statistics based on various parameters, including the number of downloaded documents.

A new version of a single platform for web applications was introduced. It is now possible to add photos to the news previews, which makes the news feed more interesting.

Following the order of the VSU administration, a new English version of the VSU website was designed and launched (Fig. 5.8) (<http://www.vsu.ru/english/index.html>). The site was renovated, and now presents information about research, education, sports and cultural events at VSU, as well as a large number of photos illustrating the content.

Figure 5.8

ENGLISH VERSION OF THE VSU WEBSITE



5

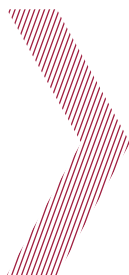
DATA PROCESSING CENTRE OF VORONEZH STATE UNIVERSITY

In 2013, within the framework of the “Electronic University VSU” project the Data Processing Centre (DPC) was opened at VSU (Fig. 5.9). The project’s objective is to lower the resource-demanding IT-infrastructure maintenance, to maximize the effectiveness of the shared resources, save energy and broaden the range of opportunities, and to reduce the down time.

Рисунок 5.9

DATA PROCESSING CENTRE OF VORONEZH STATE UNIVERSITY





To reach the set objectives the following measures were taken by the Regional New Information Technologies Centre of the Information Technology Division:

- a cloud storage was created that allows for simultaneous use by 200 users and information synchronisation. The storage enables remote access from mobile gadgets. The storage volume per user is 25 Gb, and it can be extended up to 50 Gb;
- the communication line was modified so as to increase the link performance and the network link protection between the DPC and the central network equipment from 1 Gb/s to 10 Gb/s;
- the following VSU divisions were provided with the DPC resources: the VSU Scientific Library, the Faculty of Chemistry, the Faculty of Physics. A 42" width equipment rack with a power distribution unit for centralised server hosting was assembled;
- all the applications based on physically old servers and information services for administrative and education support divisions migrated to the DPC.

ELECTRONIC EDUCATION TECHNOLOGIES

All the electronic learning resources are stored at the "Electronic University VSU" portal based on Moodle e-learning system. The distant learning process is also organised by means of this system. The Regional New Information Technologies Centre of the Information Technology Division continued its work on the following projects:

- 1) creating electronic teaching materials;
- 2) developing e-courses for off-campus training for the Unified State Examinations.

More information about these projects can be found in part 4.6.

Figure 5.10

VSU OFF-CAMPUS TRAINING COURSES WEB PAGE

The screenshot shows a web page for 'Дистанционные подготовительные курсы ВГУ'. The main content area includes links to 'О дистанционных подготовительных курсах', 'Новостной форум', 'Форум - вопрос/ответ', 'Контактный телефон 8-473-277-18-86, 228-11-60 доб. 3041', 'Курсы, преподаватели, контакты', 'Правила записи на дистанционные подготовительные курсы', and various forms for application and enrollment. The sidebar contains a navigation menu, a news section with a date '24 Ноя 21:27', a calendar for December 2014, and a legend for events.

Various materials were used to develop the off-campus training courses at VSU:

- 530 noninteractive education elements (html pages and books, glossaries, flash presentations in SCORM format, hyperlinks, commentaries and various files, etc.);
- 346 interactive education elements (tests, exercises, formulas);
- 4298 test questions in question banks.

Most of the courses have already been launched. The total number of students enrolled is 24.

Technical and methodological support for the academic staff. Instructions on working with the “Electronic University VSU” portal


To provide the teachers with technical and methodological support while creating e-courses and performing the teaching process, a special section “Technical and methodological support of the portal” was created (Fig. 5.11). The section contains forums (both for information and for urgent problems), rules and instructions on how to work with the portal, and how to create and use electronic materials in Moodle. The total volume of the instructions amounts to 335 typewritten pages.

Figure 5.11

TECHNICAL AND METHODOLOGICAL SUPPORT OF THE PORTAL

Страница технической и методической поддержки работы в портале

 Новости Центра электронных образовательных технологий


 Форум технической и методической поддержки преподавателей, ведущих обучение в среде портала Электронный университет


Положения

 П ВГУ 2.0.10-2013 Положение об электронных учебно-методических комплексах ВГУ


 П ВГУ 0.0.19-2013 Положение о признании электронных образовательных ресурсов и электронных учебно-методических комплексов в качестве учебно-методического труда ВГУ


Инструкции


 Инструкция. Подача заявки на создание электронного курса


 Инструкция. Привязка курса к дисциплинам учебных планов


 Инструкция. Групповая запись студентов на курс и отписывание студентов от курса


 Инструкция. Формирование электронного курса (ЭУМК начального уровня)

 Краткая инструкция по работе с встроенным текстовым редактором Moodle

 Инструкция. Работа с учебным элементом Форум


 Инструкция. Работа с учебным элементом Задание


 Инструкция. Преобразование презентаций PowerPoint во Flash и SCORM


 Инструкция. Тесты часть 1. Архитектура тестовой системы. Вопросы типа: Описание, Эссе, Да/Нет, Множественный выбор, Короткий ответ, Числовой, На соответствие


 Инструкция. Тесты часть 2. Вычисляемые и Cloze типы вопросов

 Инструкция. Тесты часть 3. Вопросы с перетаскиванием объектов

 Инструкция. Тесты часть 4. Структура банка вопросов. Формирование сценариев тестирования

 Инструкция. Статистика тестов. Определение характеристик качества тестов

 Инструкция. Оценивание учебных результатов

 Инструкция. Работа с журналом оценок



In 2014, more lecturers learned how to work with the portal and create electronic teaching materials. The total number of lecturers instructed was 58 (in 2013 – 60).

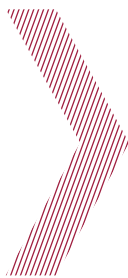
System for collecting education standards, curricula, syllabus, and VSU academic programmes and uploading them to the Internet

Following the requirements of the Federal State Educational Standards of the three-plus generation, the the following documents can now be uploaded to the portal:

- Federal State Educational Standards of the third generation for the VSU Academic Programmes;
- Federal State Educational Standards of the three-plus generation;
- VSU academic programmes' curricula;
- Course syllabuses within the VSU academic programmes;
- VSU Academic Programmes.

The access to some of the portal's resources is granted only to authorised users.

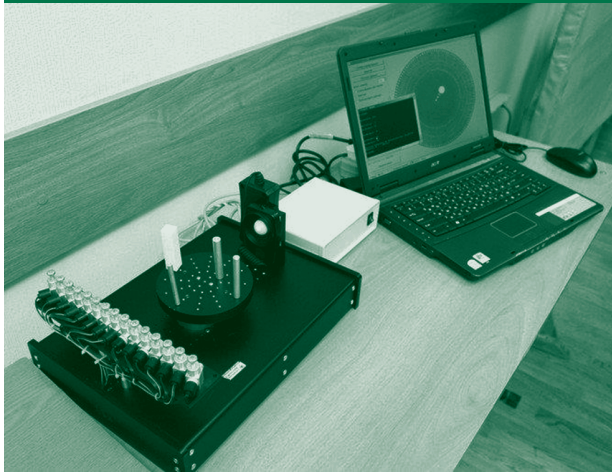
VSU education portal based on the Moodle system integrated with the "Infosys" information system currently fulfils the requirements of the Federal State Educational Standards of the three-plus generation concerning the "Electronic education and information system of the university", except for the exhaustibility of the data representing the whole education process at Voronezh State University.



5.8 BRIEF SUMMARY OF ACHIEVEMENTS IN 2014

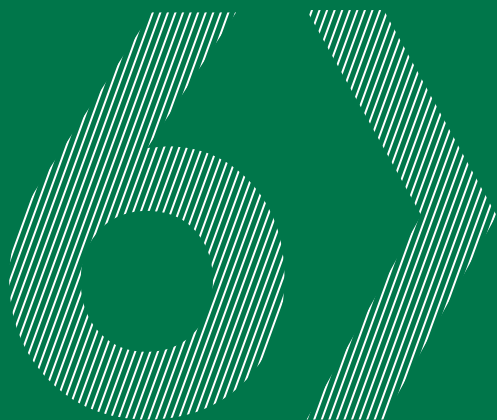
The most prominent results of the scientific research, carried out in 2014, were obtained in the following areas.

- **Solid-state physics and nanostructures.** VSU scientists established on the basis of comprehensive research of atomic and electronic structure of multifunctional nanomaterials new phase formation, structure and electronic structure regularities that enable the materials preparation and application optimization in the field of nanoelectronics, photonics and spintronics (project supervisor – Professor E.P. Domashevskaya).
- **Medical physics.** VSU scientists developed a quick-operation device for plasma cryoconservant preparation for injection that speeds up patient's care and significantly shorten plasma cryoconservant preparation time. The device can be used at hospitals, blood transfusion stations, in war medicine and disaster medicine (project supervisor – Professor B.A. Zon).
- **Chemistry.** A new technology of synthesizing nano-scale magnesian powders from recycled waste of enriched amorphous magnesite production was suggested. The technology enables recycling and disposing of amorphous magnesite materials wastes and utilising the produced nano-scale magnesian powders for different industries (project supervisor – Professor V.F. Selemenev);
- **Chemistry.** VSU scientists developed methods of direct construction of mono- and poly-nuclear linear heterocyclic systems with hydro-quinolinic fragment. Using the developed methods new nitrogen-containing heterocyclic compounds, that offer possibilities for antimicrobial and anticancer preclinical trials, were synthesized (project supervisor – Professor Kh.S. Shikhaliyev).
- **Physical chemistry and electrochemistry.** Metal-ion exchanger nanocomposites with a complex of unique electrocatalytic properties, in particular with increased chemical activity with regard to dissolved oxygen, were formed. It was experimentally-confirmed that metal-polymer nanocomposites can be successfully used in a revolutionary approach to anticorrosion protection of closed-loop circuits of water and heating systems that can be applied in thermal and nuclear energetics (project supervisor – Professor T.A. Kravchenko).
- **Geology.** A model of formation of uniform ore-forming system of gold and platinum mineralization in banded iron formations and danks of Kursk Magnetic Anomaly (Central Russia) was developed. The model is aimed at creating an optimal strategy for development, reproduction and integrated development of coloured and precious strategic metals mineral resources base within the highly industrialized Central Region of the Russian Federation (project supervisor – Associate Member of the Russian Academy of Sciences, Professor N.M. Chernyshev).
- **Ecology.** VSU scientists developed a method of integral assessment and mapping of the environmental state of a large industrial centre (the case study of Voronezh). Social and environmental impact is minimised by defining risk factors that can be manipulated to improve the ecological situation and mitigate exposure to environmental diseases (project supervisor – Professor S.A. Kurolap).





INNOVATION ACTIVITY AND TECHNOLOGY COMMERCIALIZATION





INNOVATION ACTIVITY AND TECHNOLOGY COMMERCIALIZATION



T.M. Davydenko,
Vice Rector for Innovations
and Technology
Commercialization

6.1. VSU INNOVATION ACTIVITY AND RESEARCH RESULTS COMMERCIALIZATION GOALS FOR 2014

VSU MAJOR INNOVATION ACTIVITY AND RESEARCH RESULTS COMMERCIALIZATION GOALS FOR 2014

- attraction of financial resources to the university by means of employees participation in innovation grant competitions and Federal Target Programmes;
- development of partnerships with large and medium innovative businesses (co-operation with real economic sector enterprises, regional and federal organizations for innovation development and support);
- establishment of new and development of existing small innovative businesses (attracting investments, orders, partners and expertise; staff further training; development of regulatory and procedural guidelines for small innovative businesses activity – hereinafter SIB);
- engaging young scholars and students in innovative entrepreneurial activity (organisation of workshops, exhibitions, educational courses; information provision and assistance in filing applications for innovation competitions of various levels; creation of new project teams and student creative communities);



- VSU innovation projects implemented in the 2014/15 academic year:
 - development of innovative competences of VSU students and scholars (enhancing of students' entrepreneurial activity (undergraduate and full-time postgraduate students) and academic staff);
 - development of the system of management of intellectual property (hereinafter IP) rights (enabling competitiveness enhancement and conditions for the university's innovation and technological development);
 - development of business connections with enterprises and organisations of the Voronezh region and other regions of the Russian Federation (implementation of mechanisms of scientific and innovative and practical activity, consulting and other services, VSU innovation image enhancement);
 - creation and performance management of the Centre of Career Development (practical training arrangement, assistance to VSU students and graduates in employment, personal development, vocational and social adaptation);
 - development of the VSU Publishing House (development of financial policy for publishing activity, development of the VSU Publishing House material and technical basis) (see Appendix);
- assistance to Alumni Association;
- assistance to the VSU Endowment Fund;
- organisation of meetings of the VSU Board of Trustees.

BASIC INNOVATION MANAGEMENT SERVICES IN 2014:

- small innovative businesses team building, training company's employees;
- exhibition activities organisation and support;
- preparation and follow-up of projects financed from various funding;
- accounting, consultative and organisation support of SIB registration and operation;
- patent research, intellectual property legal protection, intellectual property assessment and recognition;
- organisation of graduates' employment assistance events;
- consulting regional supporting organisations for small and medium businesses;
- information and resource support and support of other organisations' projects aimed at promotion of business activity in the Voronezh region.

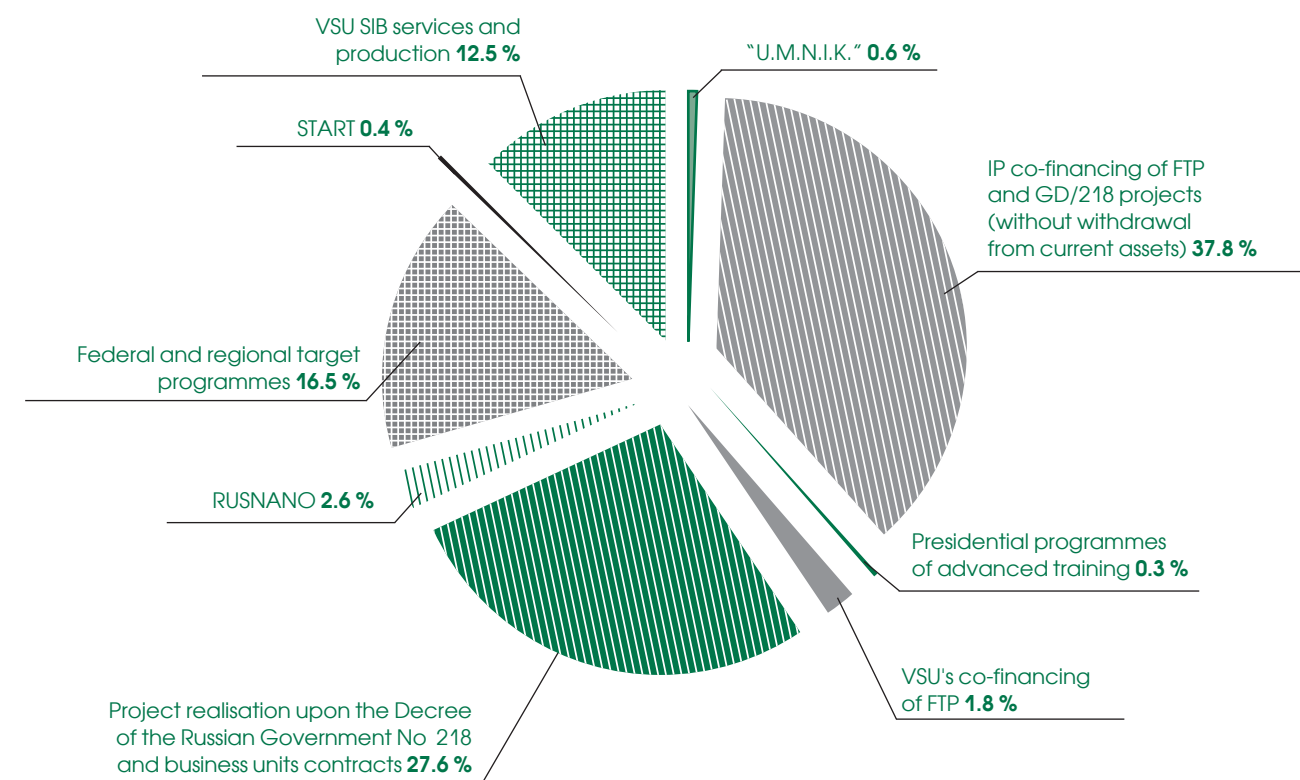


6.2. VSU INNOVATION FINANCIAL SUPPORT IN 2013–2014

In 2014 VSU attracted 365,203.14 thousand roubles for innovation infrastructure and innovation activity development, including SIB income and Foundation for Assistance to Small innovative businesses in Science and Technology financing. Including 100,800.0 thousand roubles of companies' financing within the project realisation programme by the Decree of the Russian Government No 218; 60,100.0 thousand roubles of Federal Target Programmes financing; 9,344.44 thousand roubles of RUSNANO financing; 1,500.0 thousand roubles of the Fund for Promotion of Small Businesses in Scientific and Technical Field financing; 2,200.0 thousand roubles of the "U.M.N.I.K." programme financing; 45,678.7 thousand roubles of VSU SIB products (activities, services) revenue; 137,960.0 thousand roubles of industrial partners co-financing of projects within FTP and GD 218 (without withdrawal from current assets); 6,600.0 thousand roubles of VSU's own funds (projects co-financing), programme of engineers advanced training financing – 1,020.0 thousand roubles. (fig. 6.1).

Figure 6.1

INNOVATION FINANCING, INCLUDING VSU SIB REVENUES, YOUNG SCHOLARS PROJECTS FINANCING AND BUSINESS UNITS FUNDS IN 2014





VSU innovation financial base in 2014 included federal financing, VSU's own extra-budgetary funds as well as industrial companies and organisations funding (tables 6.1, 6.2).

Table 6.1

TOTAL INNOVATION FUNDING FROM VARIOUS SOURCES IN 2013–2014

| No | Project and period | Total contract value (roubles) | Financing in 2013 (roubles) | Financing in 2014 (roubles) |
|----|---|--|--|--|
| 1 | OOO Voronezhselmash (contract 1 of 20.11.2012), (2013–2014) total, including: federal financing Industrial partner co-financing | 160,000,000.00 80,000,000.00 80,000,000.00 | 80,000,000.00 40,000,000.00 40,000,000.00 | 80,000,000.00 40,000,000.00 40,000,000.00 |
| 2 | OAO Efirnoye (contract 183-12 of 12.11.2012), (2013–2015) total, including: federal financing Industrial partner co-financing | 360,000,000.00 180,000,000.00 180,000,000.00 | 88,000,000.00 44,000,000.00 44,000,000.00 | 120,000,000.00 60,000,000.00 60,000,000.00 |
| 3 | Infrastructure and Educational Programmes Fund (contract 2-15/13 of 7.06.2013), (2013–2014) | 8,452,500.48 | 5,819,559.34 | 2,632,901.14 |
| 4 | Infrastructure and Educational Programmes Fund (contract 3-24/13 of 2.12.2013), (2013–2014) | 8,496,000.00 | 1,784,160.00 | 6,711,840.00 |
| 5 | STI NRTU MISIS (contract 506/13078 of 01.11.2013), (2013) | 90,000.00 | 90,000.00 | 0.00 |
| 6 | Voronezh administration (contract 1 of 05.07.2012), (2013) | 200,000.00 | 200,000.00 | 0.00 |
| 7 | Ministry of Education and Science of the Russian Federation, presidential programmes of engineers advanced training financing for 2012–2014 (Agreement 06.z46.21.0021 of 29.05.2014), (2014) total, including: federal financing Industrial partner co-financing | 1,530,000.00 1,020,000.00 510,000.00 | 0.00 0.00 0.00 | 1,530,000.00 1,020,000.00 510,000.00 |
| 8 | Ministry of Education and Science of the Russian Federation, presidential programmes of engineers advanced training financing for 2012–2014 (Agreement 06.B47.21.0011 of 30.05.2013), (2013) total, including: federal financing Industrial partner co-financing | 1,909,782.00 1,220,000.00 689,782.00 | 1,909,782.00 1,220,000.00 689,782.00 | 0.00 0.00 0.00 |
| 9 | FSFEI HPE VSTU (contract unnumb. of 15.07.2013), (contract unnumb. of 31.01.2014), (2013–2014) , total, including: federal financing VSU co-financing | 1,600,000.00 0.00 0.00 | 800,000.00 0.00 0.00 | 800,000.00 0.00 0.00 |
| 10 | Ministry of Education and Science, FTP activity 1.3 “Bioscience” section code “2014-14-579-0001” (Agreement 14.577.21.0035 of 05.06.2014, Head Researcher – professor B. A. Zon), (2014–2016) , total, including: federal financing Industrial partner co-financing VSU co-financing | 90,000,000.00 45,000,000.00 36,000,000.00 9,000,000.00 | 0.00 0.00 0.00 0.00 | 30,000,000.00 15,000,000.00 12,000,000.00 3,000,000.00 |
| 11 | Ministry of Education and Science, FTP activity 1.3 “Nanosystems industry” section code “2014-14-579-0002” (Agreement 14.577.21.0005 of 05.06.2014, Head Researcher – O. V. Bobreshova) (2014–2016) total, including: federal financing Industrial partner co-financing VSU co-financing | 90,000,000.00 45,000,000.00 36,000,000.00 9,000,000.00 | 0.00 0.00 0.00 0.00 | 30,000,000.00 15,000,000.00 12,000,000.00 3,000,000.00 |
| 12 | Ministry of Education and Science, FTP activity 1.2 “Nanosystems industry” section code “2014-14-576-0095” (Agreement 14.574.21.0093 of 11.08.2014, Head Researcher – E. P. Domashevskaya), (2014–2016) total, including: federal financing VSU co-financing Industrial partner co-financing | 21,100,000.00 15,700,000.00 0.00 5,400,000.00 | 0.00 0.00 0.00 0.00 | 6,200,000.00 4,600,000.00 0.00 1,600,000.00 |



End of table 6.1

| No | Project and period | Total contract value (roubles) | Financing in 2013 (roubles) | Financing in 2014 (roubles) |
|---|--|---|-------------------------------------|---|
| 13 | Ministry of Education and Science, FTP activity 1.3 "Natural resource management" section code "2014-14-576-0114" (Agreement 14.577.21.0111 of 22.09.2014, Head Researcher – V.F. Selemenev), (2014–2016) total, including: federal financing VSU co-financing Industrial partner co-financing | 75,000,000.00 45,000,000.00 0.00 30,000,000.00 | 0.00 0.00 0.00 0.00 | 25,000,000.00 15,000,000.00 0.00 10,000,000.00 |
| 14 | Ministry of Education and Science, FTP activity 1.2 "Nanosystems Industry" section code "2014-14-576-0099" (Agreement 14.574.21.0112 of 21.10.2014, Head Researcher – E. V. Buiyrskaya), (2014–2016) total, including: federal financing VSU co-financing Industrial partner co-financing | 20,300,000.00 16,200,000.00 0.00 4,100,000.00 | 0.00 0.00 0.00 0.00 | 8,150,000.00 6,500,000.00 0.00 1,650,000.00 |
| 15 | Ministry of Education and Science, FTP activity 1.2 "Implementation of applied research projects aimed at economic sector development" section code "2014-14-576-0058" (Agreement 14.574.21.0027 of 17.06.2014, Head Researcher – V.N. Popov), (2014–2016) total, including: federal financing VSU co-financing Industrial partner co-financing | 12,000,000.00 10,000,000.00 1,600,000.00 400,000.00 | 0.00 0.00 0.00 0.00 | 4,800,000.00 4,000,000.00 600,000.00 200,000.00 |
| TOTAL received on the VSU account | | 457,978,500.48 | 94,603,501.34 | 171,264,741.14 |
| TOTAL Industrial partners co-financing | | 373,099,782.00 | 84,689,782.00 | 137,960,000.00 |
| TOTAL VSU co-financing | | 19,600,000.00 | 0.00 | 6,600,000.00 |

Table 6.2

INNOVATION FINANCIAL SUPPORT IN 2012–2014, roubles

| Year | Source of financing | | | |
|------|--------------------------------|-------------------------------|-----------------|-----------------------|
| | Federal and regional financing | Commercial contract financing | VSU's own funds | Total |
| 2012 | 44,200,000.00 | 0.00 | 8,301,880.00 | 52,501,880.00 |
| 2013 | 1,420,000.00 | 93,183,501.34 | 0.00 | 94,603,501.34 |
| 2014 | 61,120,000.00 | 110,144,741.14 | 6,600,000.00 | 177,864,741.14 |



Brief description of 2014 projects (implementation of the project «Development of business connections with enterprises and organisations of the Voronezh Region and other regions of the Russian Federation»)

In 2014 VSU implemented three projects in the framework of the open competition between organisations for the right to receive grants for integrated hi-tech production projects realisation (the Decree of the Russian Government No 218).

1. In collaboration with OAO *EFKO* – the project "Developing a hi-tech industry for plant oil and fibre processing and transformation into non-food products". Duration of the project – 01.01.2013–31.12.2015. Total financing – 360 million roubles, including federal grants – 180 million roubles, in 2014 – 60 million roubles.
2. In collaboration with OAO *Voronezhselmash* – the project "Technology-intensive production design for a fibreglass grain and seed separator". Duration of the project – 01.01.2013–30.06.2014. Total financing – 160 million roubles, including federal grants – 80 million roubles, in 2014 – 40 million roubles.
3. In collaboration with OAO *Turbonasos* and FSFEI HPE Voronezh State Technical University (the head executive) – the project "Implementation of a series of calculations necessary for standard series liquid end of MNN series trunk pipeline pumps design by means of multi-criteria optimization methods". Duration of the project – 15.07.2013–23.05.2014. Financing – in 2014 0.8 million roubles (administrative agreement with FSFEI HPE VSTU of 31.01.2014).

List of projects implemented by Voronezh State University in the framework of the Federal Target Programme "Research and development in top-priority areas of science and technology in Russia for 2015–2020".

Activity 1.3 "Bioscience", the project "Development of an automated device for plasma cryoconservant preparation for injection by means of microwave radiation volumetric heating with temperature measured in THz-band", the industrial partner – OAO *Borisoglebsk instrument engineering plant*. The Head Researcher – B.A. Zon. Duration of the project – 05.06.2014–31.12.2016. Total financing – 90 million roubles, including federal grants – 45 million roubles, including 15 million roubles received from the federal budget.

Activity 1.3 "Nanosystems industry", the project "Development of technological solutions for formation of nanostructured hybrid membranes and creation on their basis potentiometric multisensor systems for water processing media reagentless express monitoring", the industrial partner – OOO *Voronezhselmash*. The Head Researcher – O. V. Bobreshova. Duration of the project – 05.06.2014–31.12.2016. Total financing – 90 million roubles, including federal grants – 45 million roubles, including 15 million roubles received from the federal budget.



Activity 1.2 “Nanosystems industry”, the project “Development and enhancement of nanomaterials nuclear physical and X-ray diagnostic methods”, the industrial partner – ZAO *VFSD Micron*. The Head Researcher – E. P. Domashevskaya. Duration of the project – 11.08.2014–31.12.2016. Total financing – 21.1 million roubles, including federal grants – 15.7 million roubles, including 4.6 million roubles received from the federal budget.

Activity 1.3 “Natural resource management”, the project “New technology and equipment for synthesizing nano-scale magnesian powders from recycled waste of enriched amorphous magnesite production”, the industrial partner – OOO *Flux and Magnesian Materials Plant*. The Head Researcher – V.F. Selemenev. Duration of the project – 22.09.2014–31.12.2016. Total financing – 75 million roubles, including federal grants – 45 million roubles, including 15 million roubles received from the federal budget.

Activity 1.2 “Nanosystems industry”, the project “Development of a programming and computing suite for the computer modelling of structural, sorption, and electronic properties of fullerenes and carbon nanotubes and adsorption processes”, the industrial partner – OOO *Manufacturing Company Tekhpromsyntez*. The Head Researcher – E. V. Butyrskaya. Duration of the project – 21.10.2014–31.12.2016. Total financing – 20.3 million roubles, including federal grants – 16.2 million roubles, including 6.5 million roubles received from the federal budget.

Activity 1.2 “Bioscience”, the project “Development of a technique for metastatic tumour growth post-operation monitoring by means of acellular freely circulating blood DNA analysis”, the industrial partner – OOO *Company Khelikon*. The Head Researcher – V.N. Popov. Duration of the project – 17.06.2014–31.12.2015. Total financing – 12 million roubles, including federal grants – 10 million roubles, including 4 million roubles received from the federal budget.



The following projects were implemented in the framework of an open competition of the Infrastructure and Educational Programmes Fund:

1. The project "Development of an educational advanced training programme and teaching materials in the field of design, manufacturing and application of nano- and microelectromechanic systems for radioelectronic and navigating devices". The project was implemented in collaboration with AO Concern Sozvezdie, the Head Researcher – A.M. Bobreshov. Duration of the project: 07.06.2013–01.06.2014, financing – 8,452.5 thousand roubles, including 2,632.9 thousand roubles received in 2014 (administrative agreement 2-15/13).
2. The project "Development of an educational advanced training programme and teaching materials in the field of design, manufacturing and application of nanostructural materials for dentistry". The project was implemented in collaboration with Belgorod experimental plant VladMiVa, the Head Researcher – V.M. Ivlev. Duration of the project: 02.12.2013–01.12.2014, financing – 8,496.0 thousand roubles, including 6,711.8 thousand roubles received in 2014 (administrative agreement 3-24/13).

In the framework of Presidential Programme of engineers advanced training for 2012–2014:

1. The project on development of continuing professional development programmes and internships of engineering staff «3D design and 3D prototyping of the machine components and mechanical facilities for their manufacturing». The project was implemented in collaboration with OOO *Voronezhselmash*, the Head Researcher – A.M. Bobreshov. Duration of the project: 30.04.2014–15.12.2014. Total financing – 1,530.0 thousand roubles, including 1,020.0 thousand roubles of federal financing received in 2014, OOO *Voronezhselmash* co-financing – 510.0 thousand roubles.

Applications submitted in 2014 (implementation of the project «Development of business connections with enterprises and organisations of the Voronezh Region and other regions of the Russian Federation»)

In 2014 145 applications were submitted for participation in various competitions.

7 projects were financed in the framework of FTP "Research and development in top-priority areas of science and technology in Russia for 2015-2020", total federal financing has amounted to 237 million roubles. Co-financing of industrial partners will amount to over 100 million roubles. Industrial partners included the following regional enterprises: OAO *Borisoglebsk instrument engineering plant*, OOO *Voronezhselmash*, ZAO *Voronezh Factory of Semiconductor Devices – Micron* and others.



An application was submitted for an open public contest for state support of pilot projects for creation and development of engineering centres based on higher education institutions subordinate to the Ministry of Education and Science of the Russian Federation (following the order of the Government of the Russian Federation of 23 May 2013 DM-P8-3464 and in the framework of implementation of activities (roadmap timeline) in the field of engineering and industrial design, approved by the government executive order of 23 July 2013 No 1300-r), the second priority.

7 applications were submitted for participation in an open competition between organisations for receiving grants for hi tech integrated projects implementation (in the framework of the Decree of the Government of the Russian Federation No 218), the fifth priority.

4 applications were submitted for participation in the programme "START" of the Fund for Promotion of Small Businesses in Scientific and Technical Field, 3 applications received financing (financing amounts to 1.5 million roubles).

In 2014 VSU took an active part in the annual innovation projects competition held between Voronezh universities – "Innovation Cup" – young VSU scholars submitted for this competition 22 innovation projects. According to the results of the competition, VSU won all prizes – 5 young VSU scholars received grants amounting to 900 thousand roubles.

VSU students presented 17 projects at the national forum Seliger-2014, 3 of them won grants. 25 projects were submitted for the regional contest of projects by young scholars "The Voronezh Region Youth Government Award", 3 projects received the award.

11 projects were financed within the programme "U.M.N.I.K." (financing amounts to 2.2 million roubles).

VSU organised the second innovation projects contest, 32 innovation projects by young scholars were submitted for the first contest (in April-May 2014). Following the results of the contest VSU gave 5 special awards totalling 120 thousand roubles. Forty three applications were submitted for the second contest (in November 2014 – March 2015).

Self-supporting facilities of Voronezh State University were created within the structure of the Innovations and Entrepreneurship Administration (self-financing):

1. Educational and scientific centre "Educational innovations"
2. Engineering centre of innovative technologies for extraction of mineral resources.
3. Potential medicines testing innovation technologies laboratory.

To attract large and medium business financing for innovation projects the University organised on-site presentations for OAO *Novolipetsk Steel*. VSU scholars' projects presentation sessions for large and medium regional industrial enterprises will be continued in the future. The university web-site will present task orders our scholars receive from businesses.



6.3. VSU PATENT ACTIVITY IN 2010–2014

(implementation of the project "Development of the system of management of VSU intellectual property (IP) rights")

In 2014 patent and license activity enhancement was continued. In total, academic staff created 76 copyrightable intellectual property items (in 2013 – 61), 61 patent applications were filed. The results of intellectual activity were used to create 4 new SIBs.

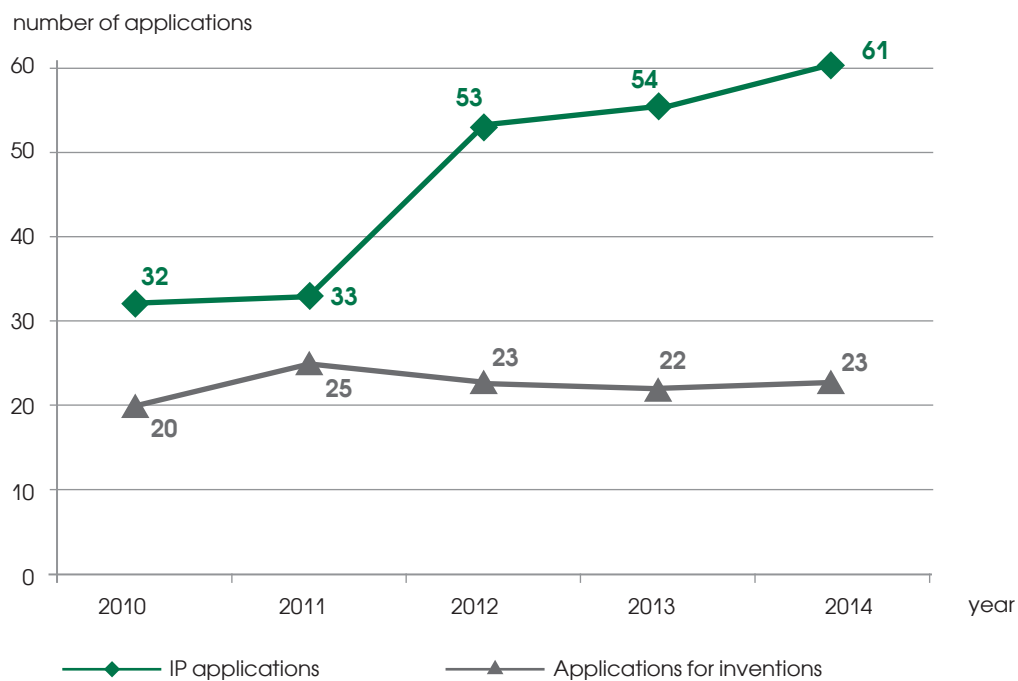
The number of intellectual property applications (hereinafter –IP) increased in 2014 and had a positive growth trend (and was ahead of target performance indicators of the programme of University strategic development).

The growth of application numbers is, first of all, caused by the increase in registered software products as well as devices that are protected as utility models. The number of Applications for inventions among total number of applications for IP is at the same level.

Figure 6.2 shows applications dynamics.

Figure 6.2

IP APPLICATIONS (2010–2014)

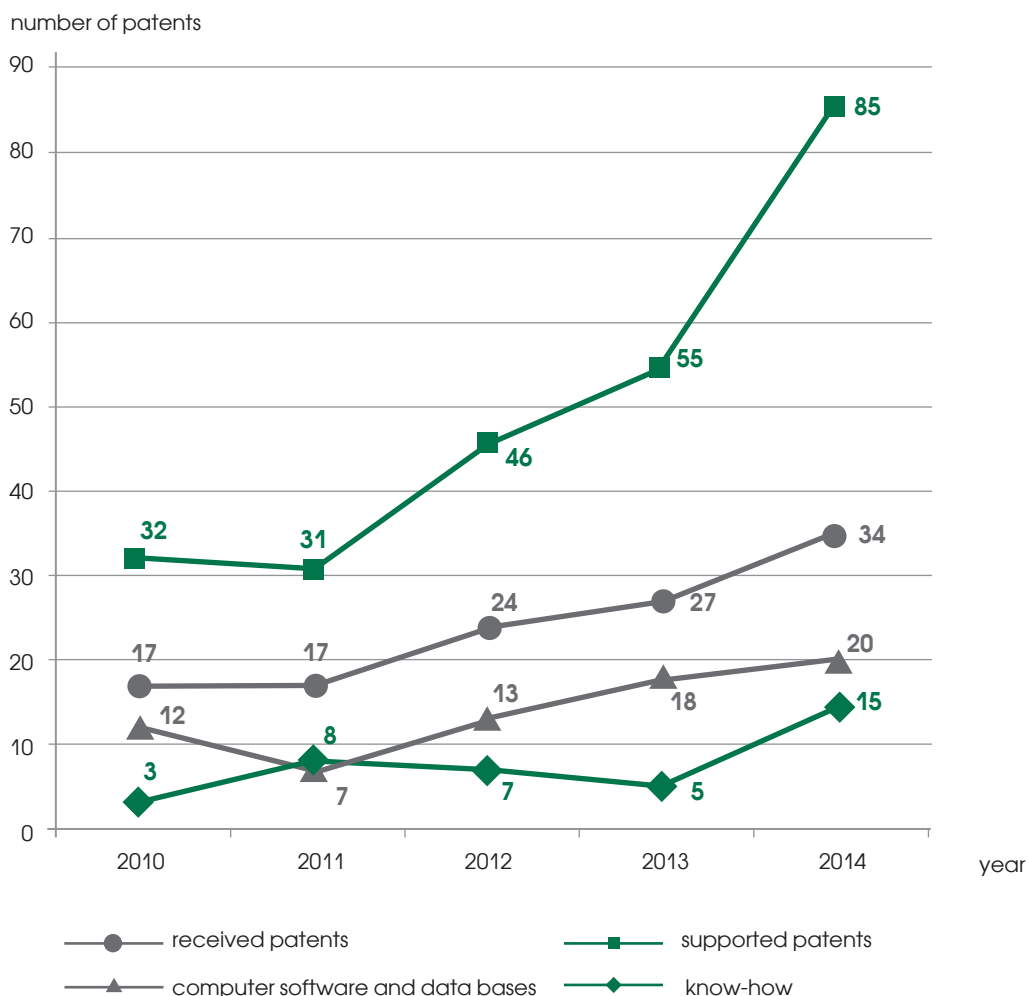




2014 shows the highest figures in registration of know-how – 15, as well as a considerable increase in supported patents. The number of registered computer software and data bases showed steady growth (fig. 6.3).

Figure 6.3

VSU PATENT ACTIVITY (2010–2014)



All applications for a patent and registration certificates are registered in the intellectual property department data base. Information about over 350 applications was entered into the data base in the years 2007 to 2014.

In 2014 85 patents were supported, about 197 thousand roubles from the innovation and business management overhead costs were spent on state due.

The number of results of intellectual activity entered in VSU budgetary accounting records by the end of 2014 amounts to 43 items, total intangible value is 252,480 thousand roubles.



6.4. FILING APPLICATIONS PER FACULTY

(implementation of the project "Development of the system of management of VSU intellectual property (IP) rights")

The following faculties show the most patent activity: Chemistry, Physics and Computer Sciences. The Faculty of Chemistry has been the leader in the number of applications submitted for a few years. It should also be mentioned that the Faculty of Physics, the Faculty of Computer Sciences and the Faculty of Applied Mathematics, Informatics and Mechanics continue to file applications (table 6.3).

Table 6.3

IP APPLICATIONS DYNAMICS

| Faculty \ Year | 2011 | 2012 | 2013 | 2014 |
|--|-----------|-----------|-----------|-----------|
| Biology | 1 | 7 | 2 | 1 |
| Computer Sciences | 3 | 8 | 8 | 11 |
| Pharmaceutics | 8 | 2 | 6 | 7 |
| Physics | 9 | 6 | 14 | 12 |
| Chemistry | 8 | 8 | 15 | 18 |
| Applied Mathematics, Informatics and Mechanics | 2 | 5 | 11 | 9 |
| Mathematics | – | 3 | – | – |
| Geology | – | 11 | – | – |
| Geography | 1 | – | – | – |
| Other units | 1 | 3 | – | 3 |
| Total | 33 | 53 | 56 | 61 |

In 2015 about 100 IP applications are expected from VSU faculties and other units and 35 patents for utility models are expected to be received by the end of the year. Positive dynamics can be seen in computer software and data bases registration, the target for this year is to bring the total number of registration certificates to 20. One of the most accurate indices of VSU innovation activity success is the number of patents of the Russian Federation justified in force. In 2015 this number is expected to reach 100.



6.5. INNOVATIVE VENTURES DEVELOPEMENT: NAMES OF ALL SIBS CREATED, THE BEST VSU SIBS, SIBS EFFECTIVENESS INDEX

In the years 2010 to 2014 30 SIBs were founded with the university's participation, 28 of them – under the federal law "On Education". In 2014 4 enterprises were registered. In all cases the university's contribution to capital stock was rights of utilization of know-how that were transferred under license agreements. VSU SIBs are listed in table 6.4.

Table 6.4

LIST OF VSU SIBS

| No | SIB's name | Capital stock, roubles | Intellectual Property vested into authorised capital | Number of the university staff and students employed at the enterprise | Founded in | Availability of active license agreement for know-how concluded with the university |
|----|--|------------------------|---|--|------------|---|
| 1 | OOO <i>Photo Technologies B</i> | 10,000 | know-how "Technology of synthesis of semiconductor compounds of solar energy conversion multiple-component systems" | 9 | 2010 | yes |
| 2 | OOO <i>Power Circuit Engineering</i> | 10,000 | know-how "Electric power pulse converter power circuit design" | 1 | 2010 | yes |
| 3 | OOO <i>Innovation Laboratory</i> | 25,000 | know-how "Manufacturing methods of acari removal device" | 1 | 2011 | yes |
| 4 | OOO <i>IEP Ecotechnologies</i> | 15,000 | know-how "Integrated method of ecological and geological evaluation of technogenic territories" | 3 | 2012 | yes |
| 5 | OOO <i>TechnoChim</i> | 10,000 | know-how "Methods for synthesizing heterocyclic compound, based on the recyclization reaction" | 2 | 2010 | yes |
| 6 | OOO <i>Voronezh Geological Universal Enterprise</i> | 30,000 | know-how "Exploration geological and geochemical model of ore formations in alpinotype ultrabasite" | 1 | 2011 | yes |
| 7 | OOO <i>Kulon</i> | 10,000 | know-how "Method of operation support of a bridge converter with a phase shift in the soft commutation mode with small output load" | 1 | 2011 | yes |
| 8 | OOO <i>Tsitrin</i> | 10,000 | know-how "Titan-Zirconium ore beneficiation technique" | 6 | 2011 | yes |
| 9 | OOO <i>Voronezh Enterprise of Ecological Soil Monitoring</i> | 10,000 | know-how "Sandy cretaceous rock dump water management optimization method" | 29 | 2011 | yes |
| 10 | OOO <i>Technologies of Bumblebee-Keeping</i> | 10,000 | know-how "Protein feed for bumblebees and honey bees with pollen substitute preparation technique" | 2 | 2011 | yes |
| 11 | OOO <i>RPE VSU Hydrogeocentre</i> | 10,000 | know-how "Programmes set for chemical and analytical research results processing" | 2 | 2012 | yes |
| 12 | OOO <i>Bioint</i> | 10,000 | know-how "Algorithm of biennial roots a field classification" | 15 | 2012 | yes |
| 13 | OOO <i>Nanoimpulse</i> | 10,000 | know-how "Repetitive ultra-short pulse signals receipt and transfer for radio communications systems" | 7 | 2011 | yes |
| 14 | OOO <i>PlazmoSil</i> | 10,000 | know-how "Spintronic memory device" | 5 | 2012 | yes |
| 15 | OOO <i>Institute of System Biotechnologies</i> | 20,000 | know-how "Express methods of evaluation of human sensitivity to natural and genetically engineered interferon preparations" | 1 | 2012 | yes |



End of table 6.4

| No | SIB's name | Capital stock, roubles | Intellectual Property vested into authorised capital | Number of the university staff and students employed at the enterprise | Founded in | Availability of active license agreement for know-how concluded with the university |
|----|---|------------------------|--|--|------------|---|
| 16 | OOO <i>Plasma Innovation Technologies</i> | 10,000 | know-how "Performance specifications for membrane material for hydrogen ultrapurification selective filters" | 1 | 2010 | yes |
| 17 | OOO <i>Regional Centre for Efficient Use of Resources</i> | 500,000 | know-how "Electric power source controller for autonomous power supply package" | 3 | 2012 | yes |
| 18 | OOO <i>AKMA Universal</i> | 38,000 | know-how "Computer program for geotechnical investigations data processing FMS 5.1" | 18 | 2010 | yes |
| 19 | OOO <i>Pharmaceutical Innovations</i> | 10,000 | know-how "Formulation of a nootropic formulated product that enhances cerebrum resistance to hypoxia and toxic substances action" | 1 | 2010 | yes |
| 20 | OOO <i>Chemical Innovations</i> | 15,000 | know-how "Production process of an antituberculous polymeric complex based on oxide-starch, cobalt and isonicotinic acid hydrazide with immunopotentiating activity" | 1 | 2012 | yes |
| 21 | OOO <i>Institute of Corrosion</i> | 10,000 | know-how "Method of inter-operational protection of high strength bolts used in bridge engineering with application of IFHAN inhibitor" | 3 | 2010 | yes |
| 22 | OOO <i>Basic Information Technologies B</i> | 10,000 | Computer program "Information analysis system of "Blood banking" production management" | 1 | 2013 | yes |
| 23 | OOO <i>Efficient Management Centre</i> | 10,000 | know-how "Recirculating method of efficient operation of copy machines" | - | 2013 | yes |
| 24 | OOO <i>New Technologies Spectrum</i> | 10,000 | know-how "Complex artificial environment management system" | - | 2013 | none |
| 25 | OOO <i>Start</i> | 13,100 | know-how "Multivariable adaptable information transfer system with active radio-camouflage" | - | 2013 | none |
| 26 | OOO <i>VSU Consulting Centre</i> | 10,000 | know-how "Method of application of process approach to project management system design" | 1 | 2013 | yes |
| 27 | OOO <i>Greensorb-Oil</i> | 25,000 | know-how "Production process of mineral sorbent for oil products" | - | 2014 | yes |
| 28 | OOO <i>Magnesian Materials Plant</i> | 25,000 | know-how "Production process of high-density magnesia ceramics" | - | 2014 | yes |
| 29 | OOO <i>Optoferronano-silicide</i> | 10,000 | know-how "Nanostructured transition metal silicides (Si-Ni) generator" | 1 | 2014 | none |
| 30 | OOO <i>NPO Membranes</i> | 20,000 | know-how "Double-layer combining membrane" | 1 | 2014 | none |



Generally, there is a little slowdown in creation of new enterprises caused by changes in the Civil Code of the Russian Federation. The university's shareholding is decreasing, as well as small businesses' capital turnover. The table 6.5 shows data for the best businesses based on the results for 2014 as compared to 2013, the license agreements and technology commercialization mechanisms data are presented in table 6.6–6.7.

Table 6.5

THE BEST VSU SIBS

| SIB's name | Production in 2013, million roubles | Production in 2014, million roubles |
|-------------------------------|--|--|
| OOO AKMA Universal | 12.2 | 12.3 |
| OOO VPPEM | 8.5 | 11.0 |
| OOO TechnoChim | 8.9 | 7.1 |
| OOO Nanoimpulse | 1.0 | 4.3 |
| OOO RPE Hydrogeocentre | 1.9 | 3.6 |
| OOO Bioint | 1.0 | 2.4 |

Table 6.6

LICENSE AGREEMENTS INDICES

| Indices | Period | | | | | |
|--|--------|------|------|--------|--------|---|
| | | 2010 | 2011 | 2012 | 2013 | 2014 |
| 1. Number of SIBs created | | 7 | 7 | 7 | 5 | 4 |
| 2. Number of license agreements concluded | | 7 | 7 | 7 | 5 | 4 |
| 2.1. Number of SIB-referenced license agreements concluded | | 7 | 7 | 6 | 4 | 2 |
| 2.2. Number of concluded license agreements with no reference to SIB | | – | – | 1 | 1 | 2 (including 1 agreement on the cession of rights) |
| 3. Number of active license agreements (increment total) | | 7 | 14 | 21 | 26 | 29 |
| 4. License agreement sales revenue, roubles | | | | 50,000 | 65,300 | 45,600 |

Table 6.7

TECHNOLOGY COMMERCIALIZATION MECHANISMS

| Forms of commercialization | Period | 2011 | 2012 | 2013 | 2014 |
|---|------------|------|------|------|------|
| | SIB | | 14 | 21 | 26 |
| License agreements | | 14 | 21 | 26 | 28 |
| Agreements on the alienation of rights | | – | – | – | 1 |

A number of small enterprises received significant financial support by obtaining grants in the framework of the programme “START” of the Fund for Promotion of Small Businesses in Scientific and Technical Field. In 2014 3 enterprises received the grant: OOO *Regional Centre for Efficient Use of Resources*, OOO *Magnesian Materials Plant*, OOO *Basic Information Technologies B*.

In 2014 VSU joined 8 technology platforms that provided support for 13 R&D projects submitted for competitions within the federal programme “Research and development in top-priority areas of science and technology in Russia”. Technology platforms data and the number of supported projects are shown in table 6.8.

Table 6.8

VSU PARTICIPATION IN TECHNOLOGY PLATFORMS

| No | Technology platforms VSU participates in | Number of projects supported by technology platforms |
|----|---|--|
| 1 | Materials and technologies of metallurgy (since 2013) | 3 |
| 2 | Medicine of the Future (since 2013) | 1 |
| 3 | New polymer and composite materials and technologies | – |
| 4 | Radiation technologies | 2 |
| 5 | Technologies for the food processing industry of AIC – healthy food | 2 |
| 6 | Ecological development technologies | 4 |
| 7 | Solid mineral deposits technologies | 1 |
| 8 | National supercomputer technological platform | – |
| 9 | National programming platform | – |
| 10 | Innovative laser, optical and optoelectronic technologies – Photonics | – |



The most efficient cooperation was with the technological platforms "Ecological development technologies" and "Materials and technologies of metallurgy". The projects supported within these platforms are listed in table 6.9.

Table 6.9

R&D PROJECTS SUPPORTED BY TECHNOLOGICAL PLATFORMS IN 2014

| No | Name of the project | Head Researcher, faculty | Name of the supporting platform |
|----|--|--|--|
| 1 | Development of a programming and computing suite for the computer modelling of structural, sorption, and electronic properties of fullerenes and carbon nanotubes and adsorption processes | E. V. Butyrskaya, Faculty of Chemistry | Ecological development technologies |
| 2 | Implementation of applied research and experimental developments aimed at creation of photovoltaic converters on the basis of organic dyes of the nitrogen-containing heterocyclic compound class (project was supported by two technological platforms) | Kh.S. Shikhaliev, Faculty of Chemistry | Ecological development technologies |
| 3 | Development of a distributed programming suite for capacity and energy efficiency enhancement and energy control of housing and utilities infrastructure | Faculty of Computer Sciences | Ecological development technologies |
| 4 | Development of nanoporous silicone synthesis and modification technology for application in medicine for physiologically active substance and packaged electronic circuit thermophysical protection separation and analysis | E. V. Butyrskaya, Faculty of Chemistry | Ecological development technologies |
| 5 | Synthesis and study of ferroelectric nanomaterials with tuneable functional properties | A.S. Sidorkin, Faculty of Physics | Materials and technologies of metallurgy |
| 6 | Implementation of applied research and experimental developments aimed at creation of photovoltaic converters on the basis of organic dyes of the nitrogen-containing heterocyclic compound class (project was supported by two technological platforms) | Kh.S. Shikhaliev, Faculty of Chemistry | Materials and technologies of metallurgy |
| 7 | Development of new copper and its alloys corrosion inhibitors of substituted weedazol class providing positive heat exchange in various instruments and devices | Kh.S. Shikhaliev, Faculty of Chemistry | Materials and technologies of metallurgy |

Presentations of 6 projects in line with the technological platforms' strategic research programmes "Ecological development technologies" and "Innovative laser, optical and optoelectronic technologies – Photonics" were prepared for pre-selection for concessional lending by the Industrial Development Fund. Technological platforms' experts continue to review projects.



6.6. OVERVIEW OF INTERMEDIARY RESULTS WITH RESPECT TO THE PROJECTS IN THE FRAMEWORK OF THE DECREE OF THE RUSSIAN GOVERNMENT No 218 AND THE PROJECTS IN THE FRAMEWORK OF THE FTP "RESEARCH AND DEVELOPMENT IN TOP-PRIORITY AREAS OF SCIENCE AND TECHNOLOGY IN RUSSIA FOR 2014–2020"

In 2014 in the framework of the competition for grants for projects implemented within the Decree of the Government of the Russian Federation No 218 "State support of development of cooperation between Russian universities and organisations that realise integrated hi-tech production projects" three projects were implemented.

1. In collaboration with OAO *EFKO* – the project "Developing a hi-tech industry for plant oil and fibre processing and transformation into non-food products". Head Researcher – Dr. habil. in Chemistry, professor Kh.S. Shikhaliev.

Duration of the project: 01.01.2013–31.12.2015. Total financing – 360 million roubles, including federal grants – 180 million roubles. In 2014 – 60 million roubles of federal financing was used.

Aim of the project: creation and development of production technologies for new surface-active materials compositions based on natural raw material, including oil and fibre, and their processing waste (VSU development) in the framework of the planned construction of a fat-containing waste recycling plant (OAO *EFKO* development).

Within the project with OAO *EFKO* staff of the Department of Organic Chemistry develop a new line of research: investigation of the possibility of introduction of heterocyclic units into the SAS structure to provide a number of new properties (anticorrosive, antimicrobial and others) – the market for these products is one of the most promising in the world and in Russia. New recipes of SAS compositions are being developed that can be used as a lubricant, foam boosters, foam stabilizers and viscosity increasing agents, etc. in cosmetics and detergents.

In 2014 synthesis methods and laboratory regulations for creating a wide range of SAS (emollients and foam boosters) on the basis of fatty acid derivatives of various oils (sunflower, palm, coconut, and soya-bean oils) were developed; unique methods of analytical control of synthetic processes and desired product purity on the basis of gas and high performance liquid chromatography in combination with mass spectrometry-based detection were suggested, microbiologic and radiological testing of synthesized SAS were carried out. Obtained samples of surface-active materials were used to produce compositions of emollients, foam boosters and viscosity increasing agents based on natural oils with characteristics compatible with those of commercial versions of the same product made from synthetic fatty acids; projects of experimental-industrial regulations with regard to creation of the given compositions for their manufacturing application were developed.



2. In collaboration with OAO *Voronezhselmash* – the project “Technology-intensive production design for a fibreglass grain and seed separator”. Head Researcher – Dr. habil. in Physics and Mathematics, professor E. K. Algazinov.

Project duration 01.01.2013–30.06.2014. Total financing – 160 million roubles, including federal grants – 80 million roubles. In 2014 – 40 million roubles of federal financing was used.

Goal of the integrated project: development and mastering of the full-scale production of fibreglass grain and seed separator enabling separating of grains according to their external features and structural properties.

The obtained results in relation to the project with OAO *Voronezhselmash* are of fundamental importance for creation of the machinery of the new generation – fibreglass grain and seed separators unparalleled anywhere in the world that enable the solving of the problem of grain separation according to their external features and structural properties.

In 2014, the following research and design and experimental tasks were accomplished: a unique fibre laser sweeping system was developed and grain separation methods suggested, and a colour sorting machine developed on its basis. As a result, pure seeds output is increased up to 99.99 % of the total processed volume at the capacity range up to 17 tonnes per hour – such results are unparalleled anywhere in the national and foreign markets.

3. In collaboration with OAO *Turbonasos* and FSFEI HPE *Voronezh State Technological University* (the head executive) – the project “Analysis of the present methods and developing an improved method for calculation and optimisation of trunk pipeline pumps. Optimisation of the liquid end of MNN1250, MNN3600, MNN7500, and MNN10000 series trunk pipeline pumps”. Head Researcher – Dr. habil. in Physics and Mathematics, professor V.A. Kostin.

Duration of the project: 15.07.2013–23.05.2014. Financing in 2014 amounted to 0.8 million roubles.

Goal of the research, development, and engineering projects: development of an improved method for calculation and optimisation of a new generation trunk pipeline pumps of MNN series with changeable cylinder barrels with the capacity range from 1,000 m³/hour to 12,500 m³/hour and discharge head from 150 to 250 m.



In 2014, the following research tasks were accomplished:

1. Hydrological design of the trunk pipeline pump MNN10000 in the ANSYS environment with design models verification based on the results of the hydraulic testing.
2. Development trunk pipeline pumps hydrological design and optimisation using the ANSYS environment.
3. Obtaining of optimised design values of MNN7500, MNN10000, MNN3600, MNN1250 centrifugal trunk pipeline pumps offtakes..

All works in relation to the three integrated projects were accomplished according to the schedule for 2014. The relevant supporting report documents were provided to the customers, monitoring organisations, and the Ministry of Education and Science of the Russian Federation. The results of the project implemented in collaboration with OAO *Voronezhselmash* were highly valued by the inspectors of the Ministry of Education and Science of the Russian Federation in June 2014.

The amount of work in relation to the projects accomplished in the framework of the Decree of the Russian Government No 218 in 2014 equalled 100.8 million roubles. – 25.76 % of total annual VSU research (in 2013 – 84.8 million roubles and 27.8 % correspondingly).

In 2014, 6 projects were also implemented in the framework of the Federal Target Programme “Research and development in top-priority areas of science and technology in Russia for 2014–2020”.

1. In collaboration with OAO *Borisoglebsk Instrument Engineering Plant* – the project “Developing an automated device for plasma cryoconservant preparation for injection by means of microwave radiation volumetric heating with temperature measured in terahertz (THz) band”. Head Researcher – Dr. habil. in Physics and Mathematics, professor B.A. Zon.

Duration of the project: 05.06.2014–31.12.2016. Total financing – 90 million roubles, including federal grants – 45 million roubles. In 2014 – 15 million roubles of federal financing was used.

The *goal* of the applied research is: development of a method and an automated device for plasma cryoconservant preparation for injection by means of microwave radiation volumetric heating with temperature measured in terahertz (THz) band, including development of a time optimal microwave radiation generator (magnetrons) control algorithm, construction of the unit, creation of an experimental model, development and creation of draft engineering and technical documentation, implementation of biological, medical and technical testing.

The following results in the area of medical physics were gained:

- overview and analysis of the modern scientific and technical, normative and methodological literature concerning the scientific and technical problem investigated within the applied research, including literature on existing methods of plasma cryoconservant preparation for injection were implemented;
- theoretical study, including thermodynamics of the process of plasma cryoconservant thawing/heating by means of microwave radiation, working chamber geometry, architecture of a time optimal algorithm of thermodynamic and physical parameters control based on the stochastic non-Markov processes theory was implemented.



2. In collaboration with OAO *Voronezhselmash* – the project “Developing technological solutions for formation of nanostructured hybrid membranes and creating on their basis potentiometric multisensor systems for water processing media reagentless express monitoring”. Head Researcher – Dr. habil. in Chemistry, professor O. V. Bobreshova.

Duration of the project: 05.06.2014–31.12.2016. Total financing – 90 million roubles, including federal grants – 45 million roubles. In 2014, 15 million roubles of federal financing was used.

The goals of the applied research:

- development and optimization of approaches to hybrid membranes synthesis on the basis of perfluorinated sulfocationite polymers with dopant nanoparticles with various sorption and metathetical properties;
- development of potentiometric cross-type sensors based on hybrid membranes for quantitative determination of organic and inorganic ions in multi-component aqueous media;
- detection of correlation between composition, properties and nanostructure of hybrid membranes and properties of potentiometric cross-type sensors on their basis;
- development of multisensor systems for quantitative determination of key components of water processing media of different purposes;
- creation of technological advance for multisensor systems for water processing media reagentless express monitoring;
- development of laboratory and process procedures for creation of hybrid membranes with tailor-made properties;
- creation of task orders for R&D, draft engineering and software documentation.

The main results of the project:

- chosen methods and study techniques for hybrid membranes structure and properties, possible compositions of membranes for potentiometric sensors, the most advanced technique for determination of components of polyionic solutions of potentiometric multisensor systems using unique cross-type sensors were justified.
- a unique evaluation method of membrane sorption coefficients for different ions and electrolytes was developed;



- elemental composition and structural properties of hybrid membranes were studied;
- a unique programme for multi-dimensional graduation of responses of an array of cross-type sensors in polyionic solutions for nonorthogonal experimental designs was developed.

3. In collaboration with ZAO VFSD *Micron* – the project “Development and enhancement of nanomaterials nuclear physical and X-ray diagnostic methods”. Head Researcher – Dr. habil. in Physics and Mathematics, professor E. P. Domashevskaya.

Duration of the project: 11.08.2014–31.12.2016. Total financing – 21.1 million roubles, including federal grants – 15.7 million roubles. In 2014, 4.6 million roubles of federal financing was used.

The goals of the applied research:

- enhancement of X-ray and nuclear physical methods of analysis of thin-film silicone-based nanostructures and hybrid biological nanoobjects (Dps proteins);
- detection by means of the electron microscopy method of changes in the phase composition of substructural-morphological transformations in thin-film silicone-based nanostructures received at different stages of the crystalline production process flow;
- development of the technique for formation of nanomaterials-based passivating coatings by means of based on step-wise study of thin-film silicone-based nanostructures.

The following results were obtained:

- analysis of the existing diagnostic methods of thin-film silicone-based nanostructure and hybrid biological nanoobjects (Dps proteins) was implemented. Atomic force microscopy, IR, X-ray photoelectronic, ultrasoft X-ray emission Auger spectroscopy, transmission electron microscopy. Application of radiographic research methods. Nuclear-physical analysis methods – Moessbauer spectroscopy for diagnostics of the charge type of iron ions in ferritins – hybrid biological nanoobjects;
- development of the synthesis technique for experimental samples of hybrid biological nanoobjects (Dps proteins) was implemented;
- synthesis of experimental samples of hybrid biological nanoobjects (Dps proteins) was implemented;
- selection and test measurement of calibration samples by means of USXES method were carried out;
- preparation of the production equipment and preliminary practising of the procedures for production of experimental samples of thin-film silicone-based nanostructures were implemented.



4. In collaboration with OOO *Flux and Magnesian Materials Plant* – the project “New technology and equipment for synthesizing nano-scale magnesian powders from recycled waste of enriched amorphous magnesite production”. Head Researcher – Dr. habil. in Chemistry, professor V.F. Selemenev.

Duration of the project: 22.09.2014–31.12.2016. Total financing – 75 million roubles, including federal grants – 45 million roubles. In 2014, 15 million roubles of federal financing was used.

The goals of the applied research:

- development and experimental implementation of a new technology of recycling waste resulting from mining and processing of amorphous magnesite with production of market products in the form of nano-scale magnesian powders enabling reduction of the environmental damage on territories adjacent to mining and concentration plants;
- development of scientific and technological foundation for the technology of synthesizing nano-scale magnesian powders from recycled waste of enriched amorphous magnesite production for chemical industry, medicine and agriculture.

The following results were obtained:

- an analytical overview of scientific and information resources in relation to synthesizing nano-scale magnesian powders and composite magnesia ceramics as a result of recycling of waste of enriched amorphous magnesite as well as influence of the material recycling methods on the structure and properties of the obtained materials was carried out;
- the choice of the field of research aimed at development of a technology of synthesizing nano-scale magnesian powders from recycled waste of enriched amorphous magnesite production was justified;
- regularities of influence of enrichment waste grain composition and magnetic field intensity on the degree of weak magnetic particles separation when using magnetic separation method for the waste recycling were revealed;
- research of technical-and-economic indices of the existing technologies of recycling of enriched amorphous magnesite waste was carried out.



5. In collaboration with OOO *Manufacturing Company Tekhpromsyntez* – the project “Development of a programming and computing suite for the computer modelling of structural, sorption, and electronic properties of fullerenes and carbon nanotubes and adsorption processes”. Head Researcher – Dr. habil. in Chemistry, professor E. V. Butyrskaya.

Duration of the project: 21.10.2014–31.12.2016. Total financing – 20.3 million roubles, including federal grants – 16.2 million roubles. In 2014, 6.5 million roubles of federal financing was used.

The goals of the applied research:

- development of programming and computing suite (hereinafter PCS), for modelling of structural, electronic and sorption properties of carbon nanostructured absorbents for fullerenes and carbon nanotubes and adsorption processes with enhanced matching accuracy of the characteristics of the simulated absorbent and the real absorbent in comparison to existing simulations;
- implementation of experimental studies of adsorption properties of carbon nanoparticles in relation to various inorganic and organic and chemical compounds;
- development of the technology of polymer doping with carbon nanotubes using the example of ethoxylane coating composition and zeolites and comparative analysis of properties of lacquered and undoped materials;
- study of conditions for generation of functional bionanostructures with carbon nanotubes using the example of hybrid of glucoamylase-CNT-8U2-51 and study of their functional properties.

The main results of the project:

- the programme of calculation of coordinates of carbon atoms in carbon nanotubes with different structures was developed;
- computer modelling of electronic energy spectrum of carbon nanoparticles (hereinafter – CNP) with different structures was implemented;
- the technique for paint accelerated corrosion testing with impedance spectroscopy method was developed;
- reactivity of carbon nanotubes of different manufacturers to hybrid bionanostructures of glucoamylase CNT-SiO₂-Si was studied and the CNP with the most reactivity were chosen.



6. In collaboration with OOO Company *Khelikon* – the project “Developing a technique for metastatic tumour growth post-operation monitoring by means of acellular freely circulating blood DNA analysis”. Head Researcher – Dr. habil. in Biology, professor V.N. Popov.

Duration of the project: 17.06.2014–31.12.2015. Total financing – 12 million roubles, including federal grants – 10 million roubles. In 2014, 4 million roubles of federal financing was used.

The *goal* of the applied research is: development of methodological approaches to a patient-specific diagnostics of early stage primary tumour metastasis and development of production technology of an individual medical test for the most affordable, economically acceptable and non-invasive monitoring of tumour metastasis development by means of the patient’s acellular freely circulating blood DNA analysis.

The following results were obtained:

- optimization of the technique of freely circulating DNA extraction from blood and tumour tissues was implemented;
- library of DNA samples extracted from patients' tumour tissues and blood was created;
- laboratory and process procedures for receiving DNA-probes from the patient's acellular blood fractions were developed.

The amount of work in relation to the projects accomplished in the framework of FTP “Research and development in top-priority areas of science and technology in Russia for 2014–2020” in 2014 equalled 60.1 million roubles – 15.36 % of total annual VSU research.

Generally, the following university subdivisions implemented projects in the framework of the Decree of the Government of the Russian Federation No 218 and FTP “Research and development in top-priority areas of science and technology in Russia for 2014–2020”:

- departments: Information Systems, Information Procession and Protection Technologies, Electronics, Mathematical Physics, Solid-State Physics and Nanostructures, Organic Chemistry, Analytical Chemistry, Materials Science and Nanosystems Technologies, Genetics, Cytology and Bioengineering, Mathematical Modelling;
- Physics Research Institute;
- VSU Centre for Collective Use of Scientific Equipment.

The data with regard to the paid participation of employees of the above mentioned divisions in projects can be found in table 6.10.

Table 6.10
UNIVERSITY EMPLOYEES' PAID PARTICIPATION IN PROJECTS

| Title | 2013 | 2014 |
|---|-----------|------------|
| Engineering and technical assistants, including educational support personnel | 14 | 56 |
| Academic staff | 35 | 77 |
| Postgraduate students | 8 | 15 |
| Full-time students | 22 | 27 |
| Total | 79 | 175 |

Out of 175 people participating in projects 90 employees are under the age of 35 years old (51 %), in 2013 53 employees under the age of 35 years old (67 %) participated in projects. Project performers in 2013-2014 are shown in table 6.11 and 6.12.

Table 6.11
INTEGRATED PROJECTS' PERFORMERS

| Joint projects between VSU and organisations | Academic staff | | | | Engineering and technical assistants | | Postgraduate students | Students | Total | Including young scholars |
|--|----------------|------------------------------|-------------------|-------------------------------|--------------------------------------|--------------------|-----------------------|-----------|-----------|--------------------------|
| | PhDs | young scholars with a degree | doctors habilitis | young scholars with no degree | Over 35 years old | Under 35 years old | | | | |
| 2013 (the Decree of the Russian Government No 218) | | | | | | | | | | |
| Project with OAO <i>EFKO</i> | 3 | 4 | 2 | 1 | 4 | 5 | 7 | 15 | 41 | 32 |
| Project with OAO <i>VSM</i> | 4 | 7 | 2 | – | 1 | 3 | 1 | 5 | 23 | 16 |
| Project with OAO <i>Turbonasos</i> | 4 | 3 | 5 | – | 1 | – | – | 2 | 15 | 5 |
| People in total | 11 | 14 | 9 | 1 | 6 | 8 | 8 | 22 | 79 | 53 |
| | | | | | 14 | | | | | |
| 2014 (the Decree of the Russian Government No 218) | | | | | | | | | | |
| Project with OAO <i>EFKO</i> | 3 | 2 | 2 | – | 11 | 3 | 4 | 5 | 30 | 14 |
| Project with OAO <i>VSM</i> | – | 6 | 2 | – | 5 | 3 | 1 | 3 | 20 | 13 |
| Project with OAO <i>Turbonasos</i> | 4 | 2 | 5 | – | 1 | – | 1 | 4 | 17 | 7 |
| People in total | 7 | 10 | 9 | – | 17 | 6 | 6 | 12 | 67 | 34 |
| | | | | | 23 | | | | | |
| | | | | | 26 | | | | | |



Table 6.12

PERFORMERS OF PROJECTS IN 2014 (FTP)

| Joint projects between VSU and organisations | Academic staff | | | | Engineering and technical assistants | | Postgraduate students | Students | Total | Including young scholars |
|---|----------------|------------------------------|-------------------|-------------------------------|--------------------------------------|--------------------|-----------------------|-----------|------------|--------------------------|
| | PhDs | Young scholars with a degree | doctors habilitis | Young scholars with no degree | Over 35 years old | Under 35 years old | | | | |
| Project with OAO <i>Borisoglebsk Instrument Engineering Plant</i> | 9 | 3 | 2 | – | – | – | – | 5 | 19 | 8 |
| Project with OAO <i>VSM</i> | – | 5 | 4 | 2 | – | 2 | 1 | 2 | 16 | 12 |
| Project with ZAO <i>VFSD Micron</i> | 3 | 3 | 5 | 1 | 9 | 1 | 2 | 2 | 26 | 9 |
| Project with OOO <i>Flux and Magnesian Materials Plant</i> | 3 | 2 | 2 | – | 3 | 3 | 4 | 2 | 19 | 11 |
| Project with OOO <i>Manufacturing Company Tekhpromsyntez</i> | – | 1 | 4 | – | 8 | 3 | 1 | 4 | 21 | 9 |
| Project with OOO <i>Company Khellkon</i> | – | 2 | 1 | – | 2 | 2 | 2 | 1 | 10 | 7 |
| People in total | 15 | 16 | 18 | 3 | 22 | 11 | 10 | 16 | 111 | 56 |
| | | 52 | | | 33 | | | | | |

Implementation of integrated projects in the framework of the Decree of the Russian Government No 218 in 2013–2014 and FTP in 2014 made it possible to renovate VSU’s fleet of scientific equipment by introducing modern devices that can be used both for current tasks within the projects and for research and developments at the Faculties of Chemistry, Biology and Soil Sciences, Pharmaceutics, Physics, Mathematics, and Computer Sciences. To achieve these goals 72.7 million roubles were spent (in 2013 – 37.4 million roubles). The project compensation fund amounted to 37.33 million roubles (in 2013 – 23.3 million roubles), co-investigators received in compliance with the requirements of the Ministry of Education and Science of the Russian Federation 34.08 million roubles (in 2013 – 17.4 million roubles), 1.568 million roubles (in 2013 – 7.1 million roubles) was spent on other purposes.

Thus, as a result of implementing work under the projects the investigators’ compensation fund in addition to the basic salary in 2013 amounted to 23.3 million roubles and in 2014 – 37.33 million roubles.

Compensation share for investigators (postgraduate students, research fellows, engineers, lecturers) under the age of 35 years old amounted to 27.3 % (in 2013 – 47 %) of the total project compensation fund. These figures show that a personnel reserve is being formed in VSU and postgraduate and undergraduate students are being involved in research.

The key indicators for the projects are shown in tables 6.13, 6.14.

Table 6.13

ACHIEVEMENT OF TARGET PARAMETERS FOR INTEGRATED PROJECTS WITHIN THE DECREE OF THE GOVERNMENT OF THE RUSSIAN FEDERATION No 218

| No | Parameters | Projects | with OAO <i>EFKO</i> | | with OOO <i>Voronezhselmash</i> | | with OAO <i>Turbonasos</i> | |
|----|---|--|----------------------|--------|---------------------------------|--------|----------------------------|--------|
| | | | 2013 | 2014 | 2013 | 2014 | 2013 | 2014 |
| 1 | Number of young scholars involved in research, development, and engineering projects (people): | – undergraduate students | 15 | 5 | 5 | 3 | 2 | 4 |
| | | – postgraduate students | 7 | 4 | 1 | 1 | – | 1 |
| | | – young scholars/academic staff (under the age of 35) | 5 | 2 | 7 | 5 | 3 | 2 |
| | | – young engineering and technical assistants (under the age of 35) | 5 | 3 | 3 | 3 | – | – |
| | | | | | | | | |
| 2 | Salary in relation to the project (roubles): | – undergraduate students | 12,291 | 12,011 | 12,506 | 9600 | 8500 | 8500 |
| | | – postgraduate students | 26,092 | 20,530 | 32,110 | 27,600 | – | – |
| | | – young scholars/academic staff (under the age of 35) | 66,990 | 45,200 | 53,771 | 39,200 | 25,600 | 25,100 |
| | | – young engineering and technical assistants (under the age of 35) | 29,797 | 11,229 | 20,169 | 21,600 | – | – |
| | | | | | | | | |
| 3 | Share of expenditures on attraction of young scholars (specialists), postgraduate and undergraduate students in the total project compensation fund | 48.5 % | 39.7 % | 44.4 % | 33.3 % | 35.4 % | 37.2 % | |
| 4 | Patent applications submitted | 2 | 2 | – | 5 | – | – | |
| 5 | Number of publications concerning the research, development, and engineering projects in Russian and foreign journals, including: | | 7 | 34 | 1 | 8 | – | 3 |
| | | in Russian journals, pcs | 5 | 27 | 1 | 5 | – | 3 |
| | | in foreign journals, pcs | 2 | 7 | – | 3 | – | – |



Table 6.14

ACHIEVEMENT OF TARGET PARAMETERS FOR FTP PROJECTS IN 2014

| No | Parameters | Projects | | | | | |
|----|--|--|------------------|----------------------|---|--------------------------------|---------------------------|
| | | with OAO Borisoglebsk Instrument Engineering Plant | with OAO VSM | with ZAO VFSD Micron | with OOO Flux and Magnesian Materials Plant | with OOO Manufacturing Company | with OOO Company Kheilkon |
| 1 | Number of young scholars involved in research, development, and engineering projects (people): – undergraduate students – postgraduate students – young scholars/academic staff (under the age of 35) – young engineering and technical assistants (under the age of 35) | 5 – 3 – | 2 1 7 2 | 2 2 4 1 | 2 4 2 4 | 4 1 1 3 | 1 2 2 2 |
| 2 | Share of expenditures on attraction of young scholars (specialists), postgraduate and undergraduate students in the total project compensation fund | 20.3 % | 10.9 % | 14.9 % | 28.8 % | 25.3 % | 43.4 % |
| 3 | Patent applications submitted | – | – | – | – | – | 1 |
| 4 | Number of publications concerning the research, development, and engineering projects in Russian and foreign journals, including: | | 2 | 1 | 1 | 1 | 1 |
| | in Russian journals, pcs | – | 1 | 1 | – | 1 | – |
| | in foreign journals, pc | – | 1 | – | 1 | – | 1 |

Significantly, the projects boosted cooperation with enterprises:

- Fundamental Department of Natural Compounds Chemistry was established where 6 Master's degree students study in 2014/2015 academic year;
- Fundamental Department of Additive Technology was established;
- monthly business meetings of Research and Development Board with participation of representatives of OAO *EFKO* and FSFEI HPE VSU were held;
- joint initiative research dedicated to development of methods of synthesis and analysis of new and commercially attractive products, oil processing and differentiation of products created within the project were held;



- joint initiative research dedicated to development of methods for calculation and optimisation of trunk pipeline pumps was carried out;
- graduate qualification works (master's dissertations, bachelors' and diploma degree students' graduate qualification works) in relation with the integrated projects are written;
- OAO *EFKO* held initiative research projects competition for VSU students;
- VSU graduates are employed by enterprises and scientific centres of the company *EFKO* (at present 15 people are employed – graduates of the Faculty of Chemistry of 2011–2014); 1 graduate of 2014 is employed at OAO *Voronezhselmash*;
- VSU and OAO *Voronezhselmash* jointly participated in exhibitions and scientific events – «Voronezh industrial forum» and the 15th International scientific and technical conference «Cybernetics and high technologies of the 21st century».

6.7. BRIEF OVERVIEW OF INNOVATION BUSINESS INCUBATOR

(implementation of the project: "Development of innovative competences of VSU students and scholars (enhancing of students' entrepreneurial activity (undergraduate and full-time postgraduate students) and academic staff)")

VSU Innovation Business Incubator is not only a university facility but also a unique platform that unites VSU SIBs' administration, representatives of scientists and experts of other universities, as well as specialized departments of Voronezh and the Voronezh Region administration.

In 2014 among priorities of the Innovation Business Incubator were:

- concluding contracts with contracting organizations to enable efficient business of the VSU Business Incubator: contracts with 4 service providers (OOO *Stroipozhservis* (fire protection service), OAO *SKBKM* (water supply and sewerage), OOO *Centre for Preventive Disinfection* (disinfection and deraturation services), ZAO *Quant-telecom* (telephony services);
- promotion of key developments of VSU's small innovative businesses at the innovation centre Skolkovo: 7 developments of VSU scientists and VSU SIBs (OOO Institute of System Biotechnologies, OOO *Ecogeo-technologies*, OOO *Plasma Innovation Technologies*, OOO *TechnoChim*) were presented at the start-up conference «Start-up village» on 2–3 June 2014;
- participation of the employees in educational workshops on modern issues of private-public partnerships, R&D projects planning, management and commercialisation: participation in the workshop of the Federal State Autonomous Establishment "Russian Technological Development Fund" on 24–25 April, the programme "R&D projects planning and management peculiarities. R&D project results commercialization" was completed, a certificate of participation was received;
- integrated support of the VSU Innovation Projects Competition 2014: Innovation Business Incubator-based VSU Innovation Projects Competition 2014 (01.04.2014–10.06.2014) (hereinafter Competition) was held.



For the qualifying stage of the Competition the university undergraduate and postgraduate students and young scholars submitted 32 applications in the following fields: Information Technologies – 10 projects, Physics – 2 projects, Chemistry – 2 projects, Pharmacy – 6 projects; Social Activities – 12 projects.

As a result the 10 best projects participated in the finals of the Competition – the presentation session.

The prizes were awarded as following.

The first prize – 50 thousand roubles – P. Fedosov, a 5th year student of the Faculty of Pharmaceutics. The project “Creating a new chitosan-based wound-healing medicine”.

The second prize – 30 thousand roubles – T. Rapava, a 5th year student of the Faculty of Computer Sciences. The project “Developing and producing a pilot batch of wireless wrist-wearable photoplethysmographs that could transmit the information to a smart phone or a PC, in order to collect, process, and analyse the data on a person’s stress level and the state of their cardiovascular system”.

The third prize – 20 thousand roubles – K. Titov, a 1st year postgraduate student of the Faculty of Computer Sciences. The project “An informational system of copyright protection of multimedia content of users of Android-based mobile devices”.

Two projects were given special awards:

A special award – 10 thousand roubles (“Social innovation project” nomination) was given to O. Ivanova, PhD in Pedagogy, a lecturer of the Department of Pedagogy and Pedagogical Psychology. The project “A medical, psychological and pedagogical model of children’s rehabilitation in an inclusive camp”.

A special award – 10 thousand roubles (“Innovation project in a regional priority field of social and economic development” nomination) was given to A. Kruzhilin, a 1st year Master’s degree student of the Faculty of Chemistry. The project “A study of self-organizing nanodimensional layers of heterocyclic phosphonic acids on the surface of low-alloy steel for anticorrosion protection purposes”.

Two finalists received special awards established by investors:

A. Kruzhilin – 15 thousand-rouble award by OOO *Instep*;

K. Titov – 15 thousand-rouble award by OOO *TK Kontakt*.

- consultative and administrative support of development of VSU students and staff innovation projects for participation in the competition held between Voronezh universities “Innovation Cup – 2014”.

In 2014, VSU took part in the annual innovation projects competition held between Voronezh universities – “Innovation Cup”. Young VSU scholars submitted 22 innovation projects for the competition. According to the Competition results, VSU took all prizes:

The first prize – 300 thousand roubles – G. Uskov, an Associate Professor at the Department of Electronics, the Head of the Fundamental Department of Additive Technologies of the Faculty of Physics with the project “Ultra-Wideband Radioelectronic and Location Systems Creation Technology and Techniques Using Ultra-Short Impulse Signals of Nano and Subnanosecond”.



The second prize – 200 thousand roubles – A. Perepelitsa, a postgraduate student at the Department of Optics and Spectroscopy of the Faculty of Physics with the project “A unit for sol-gel synthesis of nano particles with size dependable optical properties”.

Two third prizes – 150 thousand roubles each – M. Syromyatnikov, a research fellow at the Department of Genetics, Cytology and Bioengineering of the Faculty of Biology and Soil Sciences with the project “Development of biotechnologies for plant pollinating and protection from pests and vermin in greenhouses” and A. Maksimenko, a research fellow at the Department of Materials Science and the Industry of Nanosystems of the Faculty of Chemistry with the project “Development and creation of membrane units for high purity hydrogen evolution from ultrathin Pd alloy foil-based gas mixtures”.

The fourth prize – 100 thousand roubles – A. Khvan, the Head of the VSU Innovative Business Incubator with the project “Organisation of design and production of the newest hydraulic electric pumps”.

- development of the integrated system of cooperation between small business state support agencies, SIB, and VSU staff and students.

Over 10 projects and events were implemented in collaboration with other organisations (The Regional Public Establishment Innovations and Development Agency, State-financed Institution Development Centre, The Voronezh Regional Entrepreneurial Union OPORA, Civil Union Leader, etc) to enhance VSU staff and students' entrepreneurial activity:

- the innovation ideas competition "Rules of development";
 - the business reality show project "It will work out well!"
 - the round table «Creation of electronic investment start-up platform» in the framework of the project implementation «The Voronezh Region business climate enhancement portal»;
 - the conference «The Voronezh Region Innovation Development – Sign of leadership»;
 - the forum "Youth Business in Russia";
 - the VSU-based workshop of the Voronezh Region Development Fund "Mentoring and business development";
 - 3 workshops in collaboration with the Business and Consumer Market Development Office of Voronezh Administration;
 - the forum "RIF-Voronezh 2014".
- consulting services for external organisations: consulting services were provided to external organisations totalling over 60 thousand roubles.

17 VSU SIBs have legal addresses in the Innovation Business Incubator, in 2013 – 14.



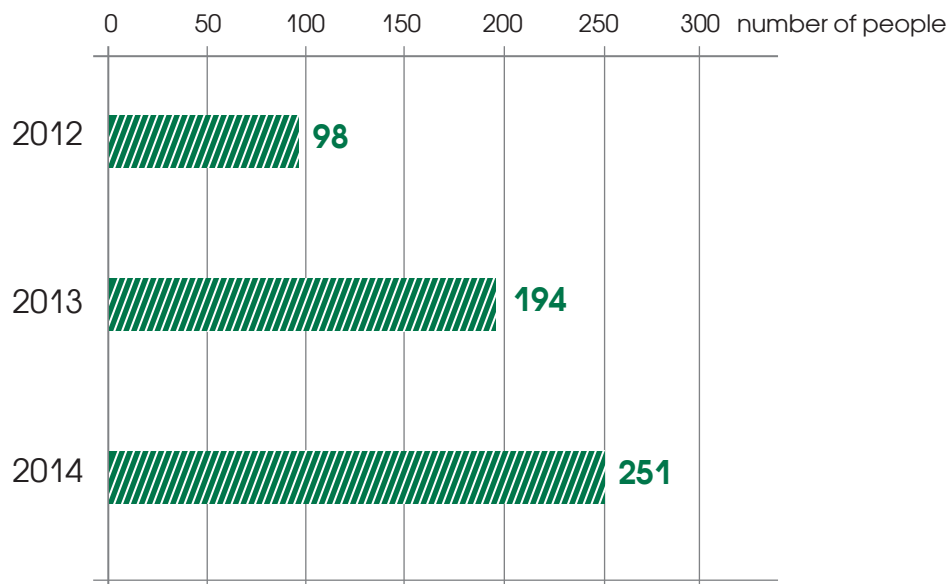
INNOVATION BUSINESS INCUBATOR'S CENTRE FOR YOUTH INITIATIVES

Innovation Business Incubator's Centre for Youth Initiatives (hereinafter CYI) is an innovation platform for students' self-fulfilment and development of project management skills.

In 2014, the key goal of CYI was to engage students into innovation projects. As a result of CYI's activity, key effectiveness indicators have been worked out – the number of project teams, the number of projects and the number of project ideas. These indicators reflect qualitative component of the number of students involved in the VSU innovation activity. At present about 250 VSU students are involved in youth innovation projects, including federal projects. Innovation activity of the university students in 2012–2014 is shown in fig. 6.4.

Figure 6.4

DYNAMICS OF VSU STUDENTS' PARTICIPATION IN INNOVATION PROJECTS





The table 6.15 shows CYI's projects that participated in regional and national competitions of youth projects in 2014.

Table 6.15

PROJECTS PARTICIPATING IN REGIONAL AND NATIONAL COMPETITIONS OF YOUTH PROJECTS IN 2014

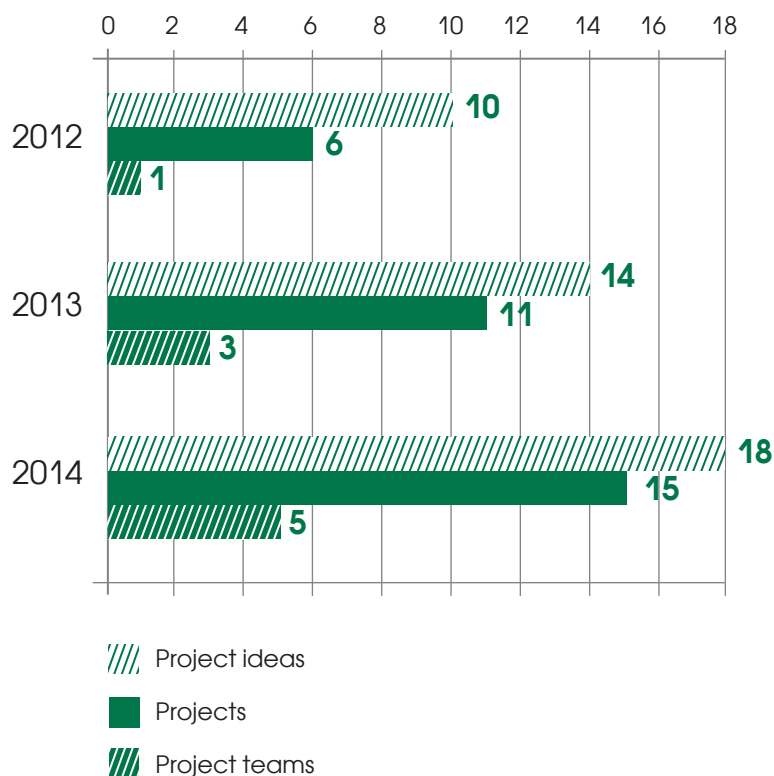
| No | Name of the project | Faculty | Name of the head researcher |
|----|---|--|------------------------------------|
| 1 | Interuniversity educational project "BrainGame" | The Faculty of Physics | Gor Pargevovich Oganyan |
| 2 | Talent and intelligence competition "Miss Physics" | The Faculty of Physics | Daria Dmitriyevna Kharitonova |
| 3 | Inclusive animation workshop for children with autism | Faculty of Journalism | Daria Ivanovna Somova |
| 4 | Student radio "StudFM" | The Faculty of Physics | Andrei Vitalyevich Lazarev |
| 5 | School of open national administration | Faculty of Journalism | Vyacheslav Gennadyevich Zavalin |
| 6 | Young trainer academy | The Faculty of Mathematics | Sergei Mikhailovich Tibatkin |
| 7 | Regional healthy lifestyle forum "Great Life – Healthy Life!" | The Faculty of Physics | Roman Rashidovich Gazizov |
| 8 | Student television "LikeTV" | The Faculty of International Relations | Aleksandra Vladimirovna Timofeyeva |
| 9 | Sport festival "National team" | The Faculty of Physics | Kirill Eduardovich Mikhailov |
| 10 | The project "Voronezh: Mine and Yours" | The Faculty of Physics | Dmitry Aleksandrovich Kiriyenko |
| 11 | The project "Sport fair" | The Faculty of Physics | Tatiana Viktorovna Krynina |
| 12 | The project "Young Olympic Athletes" | The Faculty of Philosophy and Psychology | Daria Valeryevna Kosykh |
| 13 | Cooking studio | The Faculty of Physics | Kristina Yevgenyevna Kuleshova |
| 14 | Regional housing and utility headquarters | The Faculty of Physics | Maksim Yuryevich Arzamastsev |



Innovation activity was judged by the number of students involved in youth innovation and social projects (fig. 6.5).

Figure 6.5

STUDENTS' INNOVATION ACTIVITY DYNAMICS



The key competitions of projects by young scholars for VSU CYI that characterise students' innovation activity are the Competition of Projects by Young Scholars of the National Forum "Seliger" and the regional competition of projects by young scholars "The Voronezh Region Youth Government Award".

National educational forum "Seliger" is an annual final event for VSU students that had achieved best results in project and innovation activity. At the forum "Seliger" project teams defend their projects, participate in competitions of projects by young scholars, get the skills, the experience, and the contacts necessary for development of their projects. In 2014, 17 projects by young scholars were presented at the forum "Seliger", 3 of them got prizes.

25 projects were submitted for the regional contest of projects by young scholars "The Voronezh Region Youth Government Award", 3 projects received the award.



The efforts aimed at engaging undergraduate and postgraduate students in innovation and project activity resulted in a number of achievements in 2014:

1. VSU CYI organised 2 platforms (out of 10) at the regional educational forum "Molgorod-2014": the platform "Follow me" and "Team-2018".
2. 6 projects by young scholars won national and regional competitions.
3. Originally the CYI-based project "Student radio" was launched and moved to the municipal level and was transformed into the youth media school "YNG Media school".
4. VSU CYI informational platform in social networks was created that has 1350 participants.
5. In the framework of the Global Entrepreneurship Week jointly with the programme "Youth business in Russia" Voronezh State University organised the educational platform "Entrepreneurship and its history. Tips for a successful business start".
6. In the framework of the federal project "Team-2018" VSU students started a sport volunteers society (over 50 people). The participants can organise sport events at the municipal, regional and national levels.

"U.M.N.I.K." PROGRAMME WINNERS IN 2014

In 2014, VSU received 7 grants within the programme: "Participant of the Youth Scientific and Innovation Competition" "U.M.N.I.K.". Among the winners are students of the Faculty of Chemistry (2 people), the Faculty of Computer Sciences (2 people), the Faculty of Physics (1 person), the Faculty of Pharmaceutics (1 person), the Faculty of Biology and Soil Sciences (1 person). 4 projects have been implemented since 2013. The total projects financing in 2014 amounted to 2 million 200 thousand roubles. Data with regard to VSU participation in the programme "U.M.N.I.K." is shown in table 6.16.

Table 6.16

PARTICIPATION IN THE "U.M.N.I.K." PROGRAMME

| Parameters | Year | 2012 | 2013 | 2014 |
|---|------|------|------|------|
| Applications submitted for the "U.M.N.I.K." programme | | 20 | 17 | 21 |
| Winners "U.M.N.I.K." conferences | | 11 | 4 | 7 |

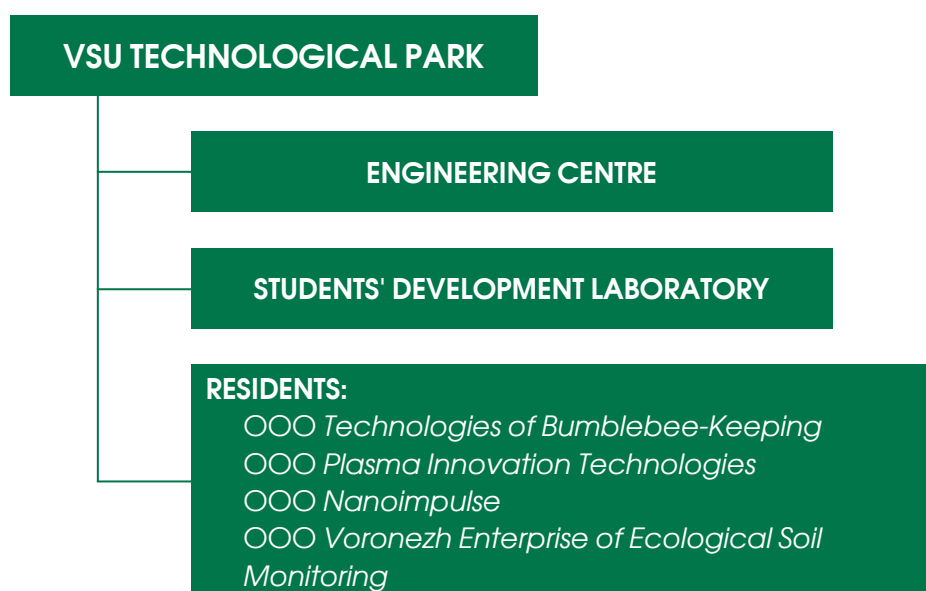


VSU SCIENCE PARK

The floor area of the VSU Science Park is 605.8 m², including 127 m² occupied by residents. The VSU Science Park consists of an Engineering Centre and a Students' Development Laboratory (fig. 6.6).

Figure 6.6

VSU SCIENCE PARK STRUCTURE



The Engineering Centre is fitted with unique vacuum technological equipment as well as equipment for mechanical processing and 3D prototyping.

VSU Science Park equipment is used for joint research with lecturers and research fellows of the Department of Materials Science and the Industry of Nanosystems of the Faculty of Chemistry of VSU, an introductory training of 1st year students of the Department of Materials Science and the Industry of Nanosystems of the Faculty of Chemistry of VSU and practical classes in "Physical basis of vacuum technology" and "Materials formation methods". 45 students and 18 master's students participated in the programme.

Works in the framework of the Government order by the Ministry of Education and



210 INNOVATION ACTIVITY AND TECHNOLOGY COMMERCIALIZATION Science of the Russian Federation as a part of research within the basic part of the Government order "Synthesis, structure, and properties of composites of membrane elements for hydrogen ultrapurification" were implemented. The Head Researcher – A.A. Maksimenko. Federal financing of the projects amounted to 1065 thousand roubles.

Two of the VSU Science Park-based projects carried out in 2013-2014 resulted in two master's dissertations.

In 2014, 6 students were involved in work in the Students' Development Laboratory where they worked on developing and production of trial models of supply units for external customers (total financing – 52 thousand roubles).

VSU PARTICIPATION IN NATIONAL AND INTERNATIONAL EXHIBITIONS

Collection of 20 VSU designed products manufactured at the VSU SIBs participated in 4 international exhibitions (Paris, Strasbourg, Abu Dhabi and Nuremberg) and 6 national exhibitions to promote the VSU brand (in 2013 – 5 exhibitions). Participation in international exhibitions brought 4 medals: Salon of Inventions "Lepine Competition" (Strasbourg, France) – bronze medal, the project's author – A.A. Maksimenko, a research fellow of the Department of Materials Science and the Industry of Nanosystems of the Faculty of Chemistry (fig. 6.7); 66th International Exhibition "Ideas – Inventions – New products", IENA-2014 (Nuremberg, Germany) – a research team headed by B.A. Zon, Dr. habil. in Physics and Mathematics, professor, the Head of the Department of Mathematical Physics of the Faculty of Physics received the silver and the bronze medal for the presented developments as well as a special diploma and medal for "A high level of applied research" founded by Warsaw Applied Chemistry Institute (fig. 6.8).

Figure 6.7

RESULTS OF PARTICIPATION IN THE SALON OF INVENTIONS "LEPINE COMPETITION", STRASBURGH, FRANCE – BRONZE MEDAL





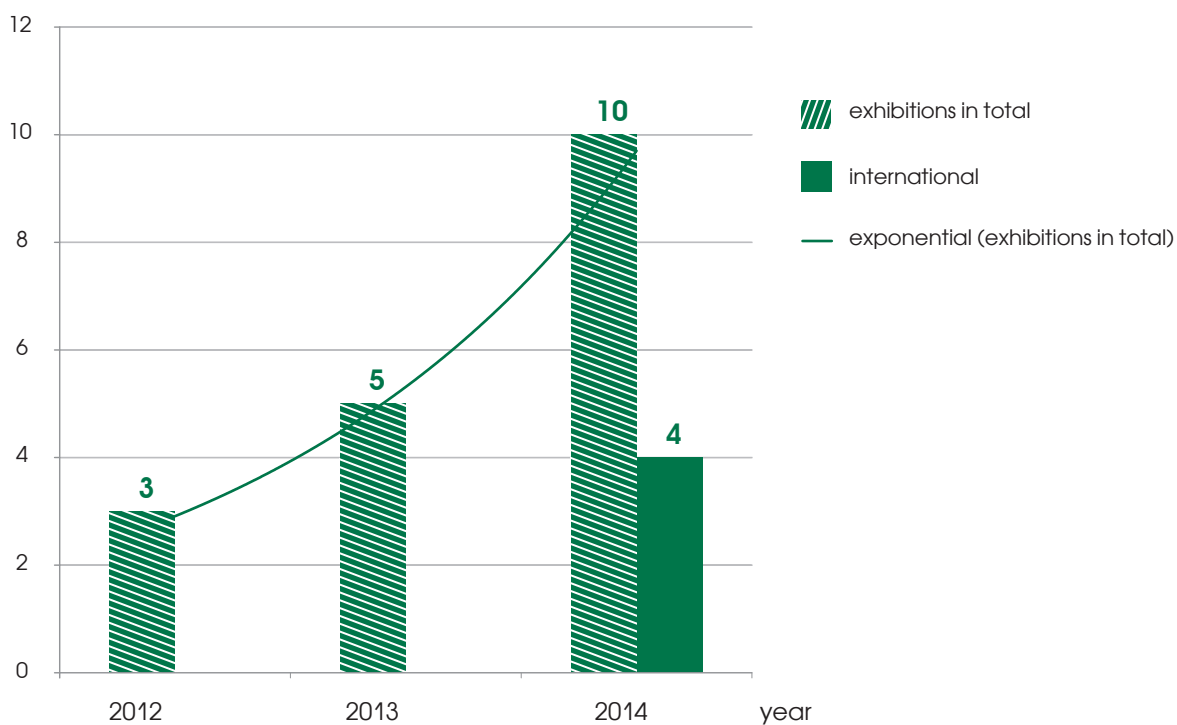
AWARDS OF THE 66TH INTERNATIONAL EXHIBITION "IDEAS – INVENTIONS – NEW PRODUCTS" IENA-2014, NUREMBERG, GERMANY



Dynamics of VSU participation in national and international exhibitions in 2012–2014 is shown in fig. 6.9.

Figure 6.9

VSU PARTICIPATION IN NATIONAL AND INTERNATIONAL EXHIBITIONS





In 2014 Voronezh State University took part in 10 exhibitions (in 2013 – five) (table 6.17).

Table 6.17

**VSU PARTICIPATION IN INTERNATIONAL AND NATIONAL EXHIBITIONS
(2012–2014)**

| VSU PARTICIPATION IN INTERNATIONAL AND NATIONAL EXHIBITIONS (2012–2014) | |
|--|---|
| 2012 | <ol style="list-style-type: none"> 1. An Exhibition of innovation projects and developments by young VSU scholars and innovation companies of the Voronezh Region. 2. IV International Intellectual Property Forum “Expipriority 2012”. 3. The forum «The Voronezh Region is your partner». |
| 2013 | <ol style="list-style-type: none"> 1. Voronezh Industrial Forum. 2. Exhibition of Innovation Products for Housing and Utilities Infrastructure Organisations and Municipal State-Funded Institutions of Voronezh. 3. The exhibition "Open Innovations Expo", Moscow. 4. The forum «The Voronezh Region is your partner», Voronezh. 5. VUZPROMEKSP0-2013, Moscow. |
| 2014 | <ol style="list-style-type: none"> 1. The 13th International Exhibition NDT Russia "Non-Destructive Testing and Technical diagnostics in industry", Moscow. 2. International Exhibition of Educational Technologies and Services, Paris, France. 3. II International Air Transport Forum, Ulyanovsk. 4. European Salon of Inventions "Lepine Competition", Strasbourg, France. 5. International Conference and Exhibition for the Middle East Power Generation Industry "Power-Gen Middle East", Abu-Dhabi, UAE. 6. VUZPROMEKSP0-2014, Moscow. 7. Open Innovations Expo, Moscow. 8. The 66th International Exhibition "Ideas – Inventions – New Products" IENA-2014, Nuremberg, Germany. 9. Exhibition for the Oil and Gas Industry of the Russian Federation, Voronezh. 10. Exhibition of the Innovation Projects by Young Scholars for "Sberbank Russia" Representatives, Voronezh. |



List of exhibits represented at the exhibitions is shown in table 6.18.

Table 6.18

EXHIBITS REPRESENTED AT THE EXHIBITIONS IN 2012–2014

| EXHIBITS REPRESENTED AT THE EXHIBITIONS IN 2012–2014 | |
|--|---|
| 2012 | <ol style="list-style-type: none"> 1. Stereophotogrammetrical active 3-D scan system Russian3DScanner. 2. Human-Machine interface line. 3. 3D Screen. 4. Sun-light collector-based autonomous heat supply system. 5. Wideband communication system model. 6. System of testing of water media of different purposes. 7. Industrial equipment and transport supply unit model. |
| 2013 | <ol style="list-style-type: none"> 1. Seeds and grain fibre-optic separator. 2. Solar thermal collector SCPP-5. 3. Potentiometric automated complexes for express analysis of liquid media. 4. Stereophotogrammetrical active 3-D scan system Russian3DScanner. 5. Measurement system for fibre heat insulation material humidity control. 6. SEP5001T. 7. 14 dB Wi-Fi beam antenna system based on 802.11n standard. 8. Human-computer interface. 9. Exhibits presenting the university's innovation activity. |
| 2014 | <ol style="list-style-type: none"> 1. Innovative technologies of nanostructured ceramics production. 2. Anticorrosion protection of low-alloy steel with heterocyclic phosphonic acids. 3. Innovative technologies of preliminary thermomechanical treatment aimed at hardening cutting and measuring tools. 4. Materials presenting the university's innovation activity. 5. Membranes for extracting high-purity hydrogen from hydrogen-containing gases. 6. 14 dB Wi-Fi beam antennas system based on 802.11n standard. 7. Innovative material for moisture absorption and retention. 8. Ultra-reliable power supply SEP5001T for the railway rolling equipment facilities. 9. Video module. 10. Seeds and grain fibre -optic separator. 11. Independent device for determination of the extent of blood loss. 12. Sorption materials for oil spill clean-ups and soil replacement. 13. Computer tomography visualisation simulator using visible radiation. 14. Chitosan-based wound healing gel. 15. Solar thermal collector SCPP-5. 16. Posters of innovative development by young scholars. 17. SEP5001T. |



6.8. VSU R&D PROJECTS DATA BASE INFORMATION

14 projects were added to the VSU innovation projects data base. Most of them were in Geology and Geoecology. All in all, the data base has 78 R&D projects.

To inform potential investors about scientific and technological developments of the scientists the university website page “Innovations”, section “Innovative developments”, has R&D projects’ annotations available to the public. The results were classified by scientific and technological priorities and include information about how recent the project is, the function and the scope of application, advantages over existing analogues, intellectual property objects.

6.9. VSU ENDOWMENT FUND INFORMATION

VSU Endowment Fund (hereinafter Fund) was created in March 2013 to attract additional resources to provide long-term financing of the university’s scientific, social and infrastructural programmes and projects. The supreme corporate body of the Fund is the Management Board that decides on the main issues concerning the Fund’s activities, including expenditure targets of the previous year’s income. The endowment’s assets are under trust in OAO *Gazprombank – Assets Management*.

According to the results of 2013, revenue from holding the endowment’s assets on trust amounted to 437,309 roubles. The Fund Management Board decided (Record No 5 of 18 April 2014) to spend the income to pay a lump sum of 10 thousand roubles to students (17 grants – one per each Faculty) and to pay lump sum benefits of 6 thousand roubles to 36 long-service employees with the length of service to the Voronezh State University over 50 years.

The public action aimed at the Fund replenishment “I love VSU” was launched. The first stage of the campaign among students took place in November-December 2014. As a result about 10 thousand roubles was collected. The next stages of the campaign will be organised in 2015 during student public events and the admission campaign.

Fund-raising among business partners and VSU graduates continued. 100 submission letters were sent to potential contributors. New donations made in 2014 amounted to 376,800 roubles. By the end of the year, the endowment’s assets reached 13,378,200 roubles. The total assets figure could have been larger if it was not for the economic crisis that did not only influence exchange rates but also all market instruments.

Replenishment dynamics of VSU Endowment Fund in 2013–2014 is shown in fig. 6.10.

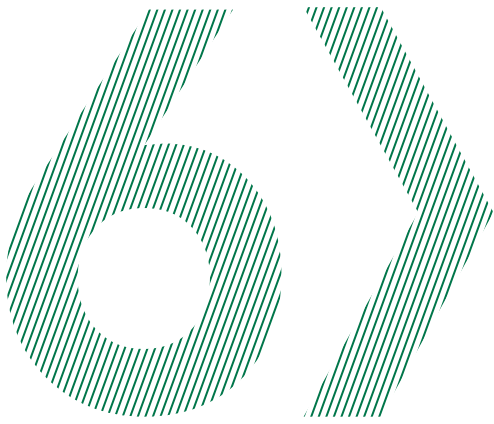
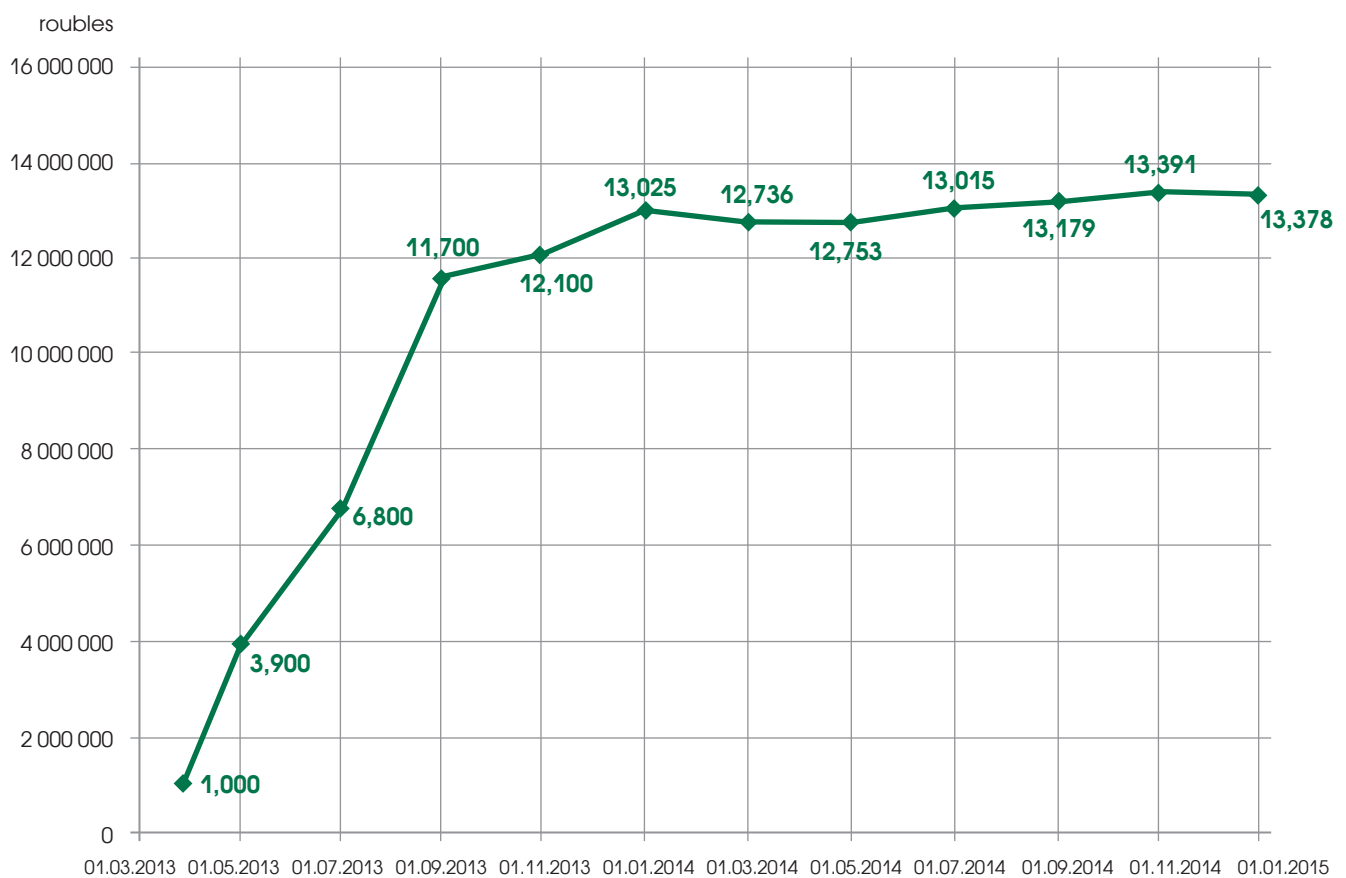


Figure 6.10

REPLENISHMENT DYNAMICS OF VSU ENDOWMENT FUND (2013–2014)



The Fund's activity was assessed positively as a result of audit.

Information about the Fund's activity as well as its Annual Report and Audit Report can be found at the Fund's website at (<http://www.vsu.ru/endowment-fund/>).



6.10. VSU ALUMNI ASSOCIATION INFORMATION

Non-profit partnership VSU Alumni Association was founded in 2012. By the end of 2014, the number of its members reached 79 people and the number of registered users of the Association's website was 176 people.

An extraordinary general meeting of the Association members was held and changes to the Association Board were adopted.

The Association website provides information about faculty events that graduates can participate in (<http://www.alumni.vsu.ru/>).

6.11. GRADUATES EMPLOYMENT ASSISTANCE ACTIVITIES

(implementation of the project "Creation and performance management of the Centre of Career Development (assistance to VSU students and graduates in employment, personal development, vocational and social adaptation")

In 2014, graduates' employment assistance activities were organised by Graduates' Employment Assistance Office (hereinafter GEAO), that was reorganised into the Centre of Career Development of the VSU Department of Innovation and Business (hereinafter CCD DIB) pursuant to the Rector's order of 20th June 2014 (fig. 6.11).

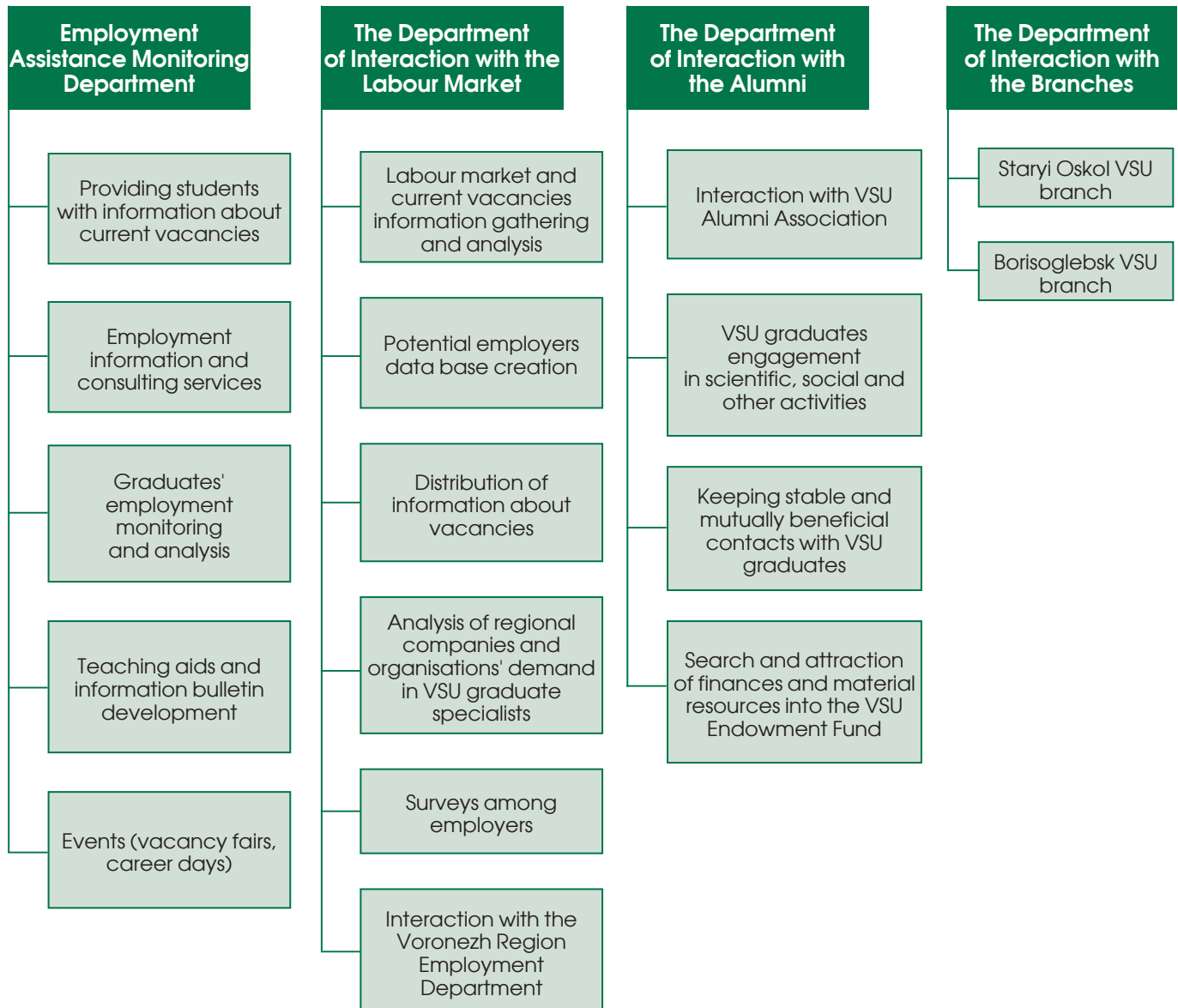
The goal of CCD is to provide information and consulting services to students and graduates on employment opportunities in the area of specialisation.

The main goal is to increase VSU graduates' mobility and competitiveness at the labour market, extending social partnerships and enhancement of the University –Employer system.



Figure 6.11

CCD KEY ACTIVITIES CONSULTING SERVICES FOR STUDENTS





CONSULTING SERVICES FOR STUDENTS

Consulting activities on self-presentation, professional orientation and providing information about labour market, including the following:

- telephone interviews with the graduates about their employment and occupation aimed at extending the graduates data base;
- organising polls among senior students (employment plans, contact details, employment assistance required, etc.) (2,109 graduates);
- providing information about labour market, current vacancies at the regional enterprises ("Perspektiva" youth forums);
- individual consulting of students and graduates (on career planning and development, self-presentation and job interview skills, testing, employment and work place adaptation) (115 graduates);
- trainings for students and graduates within "Successful Employment Techniques" programme, youth social adaptation workshops (736 students);
- providing information about current vacancies at Voronezh enterprises and organisations by means of placing advertisements and announcements at information stands in the main building of VSU and at each faculty as well as in social networks and on the VSU official web-site

ORGANISATION OF VACANCY FAIRS, CAREER DAYS AND COMPANIES PRESENTATIONS

In collaboration with the employment centre "Molodezhniy" and employers' representatives VSU organised "Vacancy Fairs" for graduates and senior students to provide them with information about labour market and the most demanded specialities. Students had a chance to meet in person with employers' representatives and find out the employment conditions in the companies, job seekers could leave their CVs and fill in forms to get an invitation for a job interview.

In 2014, VSU introduced a new form of professional orientation activities – "Perspektiva" forum. Two youth forums were organised in March and May of 2014 and three training forums were held in November 2014. At the forums students had a chance to ask questions to successful VSU graduates, and plan their careers after meeting key regional companies.



INTERNET RESOURCES IN CCD ACTIVITIES

CCD has its page at the official VSU website (<http://job.vsu.ru>). The data base of permanent and temporary vacancies in Voronezh and the Russian Federation is updated daily. It allows senior students and graduates to find the job that meets their requirements and knowledge and the employers have a chance to find among students and graduates an employee with the required professional knowledge and skills.

CCD staff published important information during the year at the VSU official website in the section "News" and the section "Graduates Employment".

CCD has its own page in the social network Vkontakte and it cooperates with the VSU official group and faculties groups in Vkontakte. The groups publish reports about CCD events aimed at successful employment of VSU students and graduates.

In 2014, electronic polling system for senior students was developed and tested. It shows real employment situation and optimizes the process of VSU graduates data bases creation.

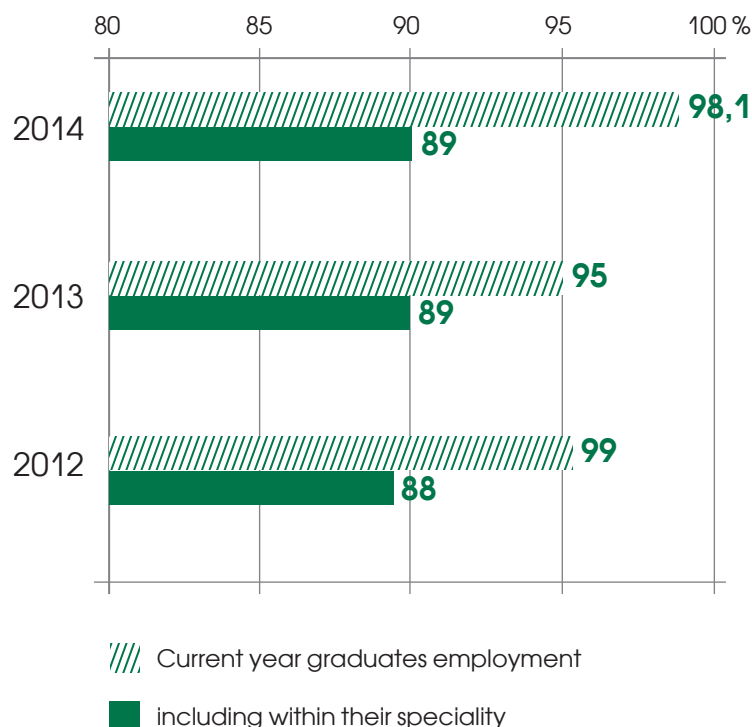
965 graduates of 2013/14 took part in the electronic polling.

Graduates employment monitoring results

The current CCD activities involve graduates employment monitoring aimed at investigating graduates distribution along employment channels, identification of specialities most demanded at the labour market as well as specialities that cause most employment problems for graduates.

Figure 6.12

VSU GRADUATES EMPLOYMENT RESULTS FOR 3 YEAR PERIOD (2012–2014), %





From 2012 to 2014 employed graduates share was within $96 \pm 2\%$ (fig. 6.12). It means that university graduates are eager to get work experience in the first place. Starting with 2012, there is slight gradual growth in number of graduates working within their speciality. In 2014, the share of graduates employed within their speciality in relation to the total number of graduates was about 89 %.

The analysis of distribution of graduates of 2014 along employment channels (fig. 6.13) shows dominance of the section “Continued their studies” – 16 %. The number of graduates on maternity leave and drafted to do military service in the Armed Forces of the Russian Federation is 5 %. The key graduates employment parameters have been almost the same for the last three years.

Figure 6.13

DISTRIBUTION OF GRADUATES OF 2014 ALONG EMPLOYMENT CHANNELS

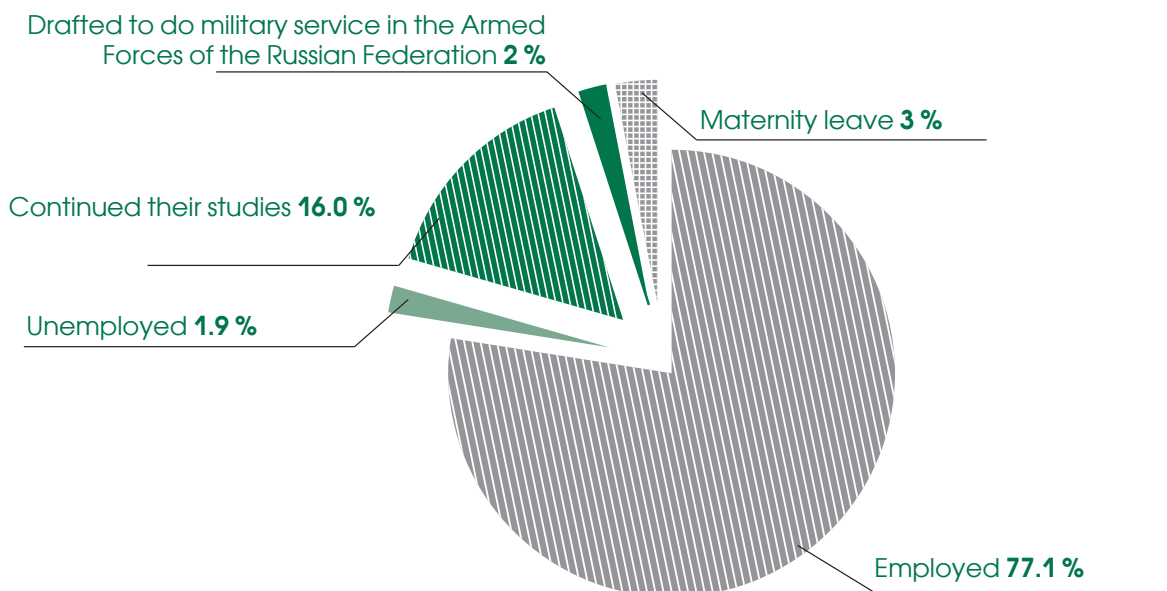
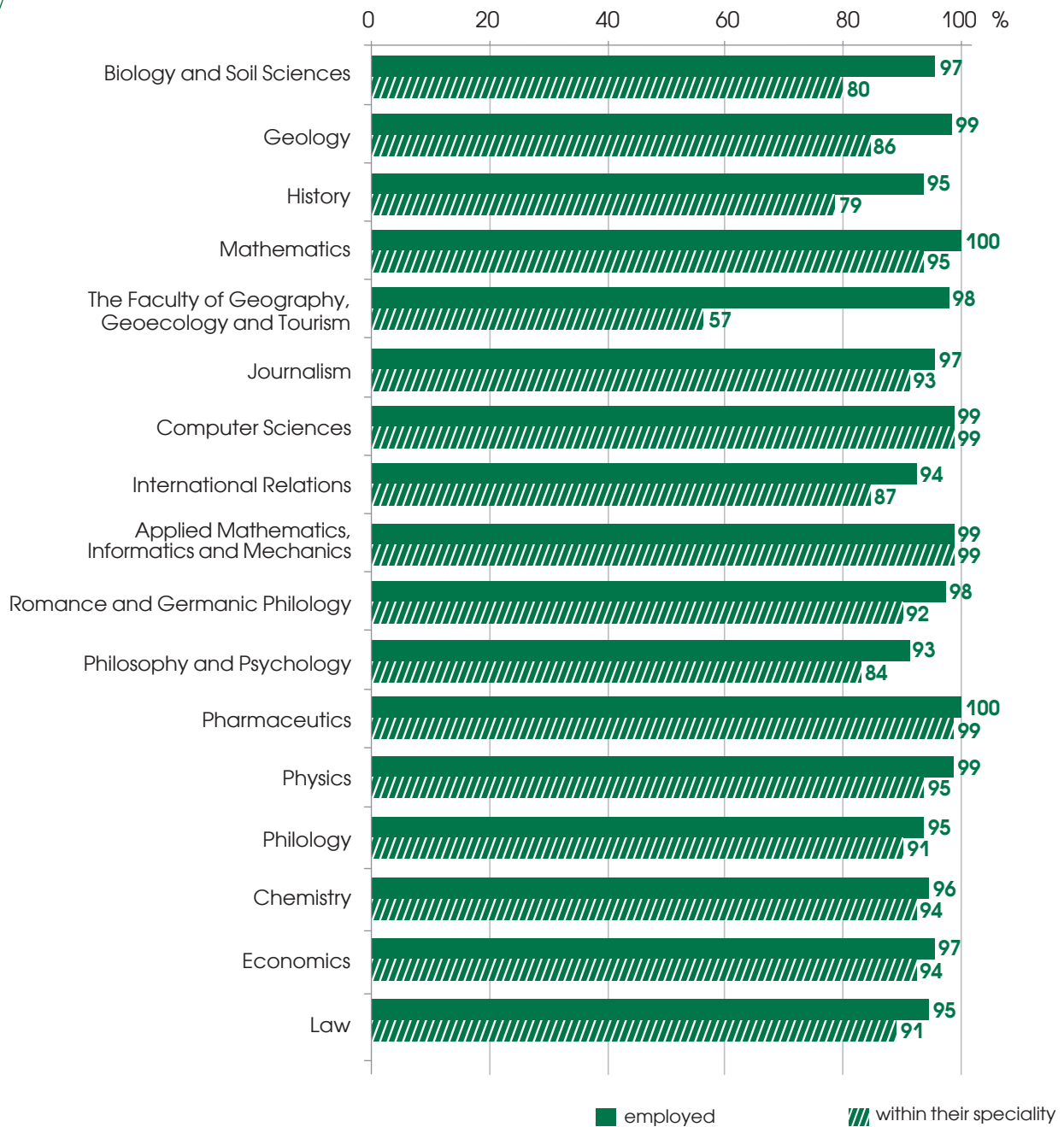


Figure 6.14

DATA ON DEMAND FOR GRADUATES OF 2014 OF DIFFERENT SPECIALITIES



The fig. 6.14 shows that 3 of 17 faculties have almost 100 % employment within speciality. Those are the Faculty of Applied Mathematics, Informatics and Mechanics, Computer Sciences and Pharmaceutics. The Humanities graduates (History, Philology, International Relations, Cultural Studies and Social Pedagogy), as well as Sciences graduates (Geography, Ecology and Biology) have difficulties in employment within their specialities as a result of discrepancy between training and labour market demands in the today's social and economic situation and also uncertainties that the graduates experience with regard to their occupational and professional interests.



COOPERATION WITH NON-GOVERNMENTAL ORGANISATIONS AND EMPLOYERS' ASSOCIATIONS

CCD is involved in active cooperation with the Chamber of Commerce and Industry of the Voronezh Region, the VSU Board of Trustees and the VSU Student Council and engages the organisations and associations' staff in participating in professional orientation and employment events for students.

In 2014, evaluation of the employers' satisfaction with the quality the VSU graduates' professional training was carried out by means of the following questionnaires developed by the CCD:

- 1) "Strategic partnership of Voronezh State University and businesses";
- 2) "Employers' evaluation of Voronezh State University graduates professional training quality".

Employers' opinions were studied by means of gathering, processing and analysis of the information presented in the questionnaires and obtained as a result of interviews with representatives of companies that employ VSU graduates.

According to the polling results:

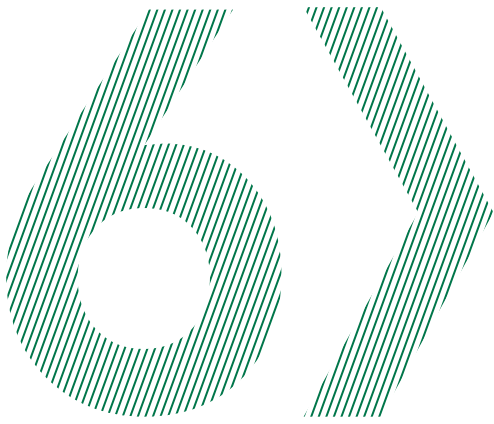
- **73 %** of companies are ready to take part in organisation of practical training, graduation work research and internships;
- **53 %** of companies are ready to offer temporary employment for students during non-study time;
- **40 %** of companies are ready to engage company's specialists in teaching activities – to prepare and teach new courses, give lectures, workshops, and trainings;
- **33.3 %** of companies are ready to do research jointly with VSU and engage students into company orientated research.

All employers (100%) find the university students' training level sufficient for professional activity. Employers are willing to continue offering positions to VSU graduates in the future.

Among the key **advantages** of VSU graduates' professional training the employers mention the following:

- **80 %** – the graduates are aimed at self-realisation and self-education;
- **66.7 %** – the graduates possess high-level theoretical knowledge;
- **46.6 %** – the graduates have quick reaction in non-standard situations.

As a result of high demand for VSU graduates among regional employers CCD regularly receives employment proposals and invitations to participate in VSU professional orientation events. In order to regulate cooperation with employers CCD developed an Agreement Form for cooperation with enterprises and companies aimed at VSU students and graduates' employment.



6.12. BRIEF SUMMARY OF ACHIEVEMENTS IN 2014

- Total innovation projects financing in 2014 amounted to 365.2 million roubles (in 2013 – 178.6 million roubles), including 160.9 million roubles – federal financing (in 2013 – 94.6 million roubles), 144.56 million roubles – industrial partners co-financing (without withdrawal from current assets) and VSU financing (in 2013 – 84 million roubles), SIB income – 45.68 million roubles, 9.34 million roubles – RUSNANO financing; 1.5 million roubles – the Fund for Promotion of Small Businesses in Scientific and Technical Field financing; 2.2 million roubles – U.M.N.I.K programme financing, Program of engineers advanced training financing – 1.02 million roubles. Salaries of the VSU staff participating in projects amounted to 50 million roubles.
- VSU successfully implemented three hi-tech production projects (in the framework of the Decree of the Russian Government No 218). Projects financing in 2014 amounted to 100.8 million roubles. Compensation share for executives under the age of 35 years old amounted to 37 % of total project compensation fund.
- VSU implemented 6 applied research projects in the framework of the Federal Target Programme "Research and development in top-priority areas of science and technology in Russia for 2014-2020". Financing in 2014 amounted to 60.1 million roubles. Industrial partners co-financing in 2014 amounted to 37.45 million roubles. VSU spent 6.6 million roubles of its own funds. Compensation share for executives under the age of 35 amounted to 19 % of total project compensation fund.
- VSU implemented projects aimed at developing continuing professional development programmes (further training programmes) of engineering staff (RUSNANO, the Ministry of Education and Science of the Russian Federation). Total financing of existing contracts amounts to 20,388 thousand roubles, in 2014 VSU received 10,873.7 thousand roubles.
- Patent and license activity enhancement was continued. VSU created 76 copyrightable intellectual property items (in 2013 – 61). VSU supported 25 license agreements providing SIBs with the right to use the university's intellectual property in their operational activities. Additionally, three license agreements and one agreement on the cession of rights for intellectual property were concluded.



- "VSU joined 8 technology platforms that provided support for 13 R&D projects submitted for competitions within the Federal Programme "Research and development in top-priority areas of science and technology in Russia".
- VSU registered 4 SIBs (30 SIBs in total). Three VSU's SIBs won grants within the "START" programme of the Foundation for Assistance to Small Businesses in Science and Technology; the financing amounted to 1 million 500 thousand roubles.
- Twenty two projects by young scholars were submitted for the annual innovation projects competition "Innovation Cup-2014". All 5 prizes were awarded to VSU's projects.
- VSU organised the second innovation projects contest, 32 innovation projects by young scholars were submitted for the first contest (in April-May 2014). Following the results of the contest, VSU gave 5 special awards totalling 120 thousand roubles. Forty three applications were submitted for the second contest (in November 2014 – March 2015).
- Eleven projects by young scholars were sponsored within the "U.M.N.I.K" programme (total financing in 2014 amounted to 2 million 200 thousand roubles). Seventeen projects by young scholars were submitted for the national forum Seliger-2014 (3 of them won grants) and 25 students' projects were presented at the regional contest of projects by young scholars «The Voronezh Region Youth Government Award» (3 projects received the award).
- To promote the VSU brand and products university collections participated in 10 international and national exhibitions (in 2013 – in 5 exhibitions). They presented 20 exhibits, including small innovative businesses production. Participation in international exhibitions brought 4 medals.
- Electronic alumni database of the Centre of Career Development contains data about 965 people.
- Youth Employment trainings and workshops attracted 736 senior students; 115 students and graduates received career consultation.
- The Graduate employment index showed a 2 % increase as compared to the previous year and amounted to 98.1 %.



PROJECT «THE VSU PUBLISHING HOUSE DEVELOPMENT»

THE VSU PUBLISHING HOUSE PERFORMANCE AND FINANCIAL INFORMATION IN 2014

Analysis of the VSU Publishing House (hereinafter VSU PH) revenues for 2014 shows increase in volume of products (table 1, fig. 1–2).

For example, the sales revenue in 2014 (8,450 thousand roubles) compared to 2013 figures (5,583.3 thousand roubles) amounted to 151.3 %. Average monthly revenue in 2014 amounted to 704.2 thousand roubles (in 2013 – 465.3 thousand roubles).

Table 1

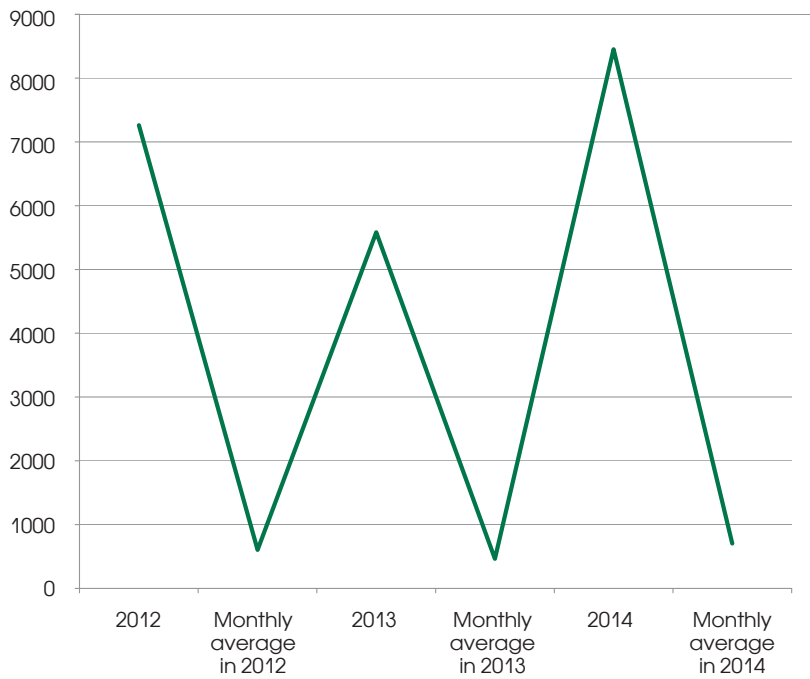
VSU PH SALES REVENUE IN 2012–2014, thousand roubles

| No | Item | Total in 2012 | Monthly average in 2012 | Total in 2013 | Monthly average in 2013 | Total in 2014 | Monthly average in 2014 |
|----|--------------------------------|---------------|-------------------------|---------------|-------------------------|---------------|-------------------------|
| 1 | Sales revenue | 7,260.7 | 605.1 | 5,583.3 | 465.3 | 8,450 | 704.2 |
| 2 | Including commercial contracts | 530.8 | 44.2 | 617.2 | 51.4 | 2,352.2 | 196.0 |



Figure 1

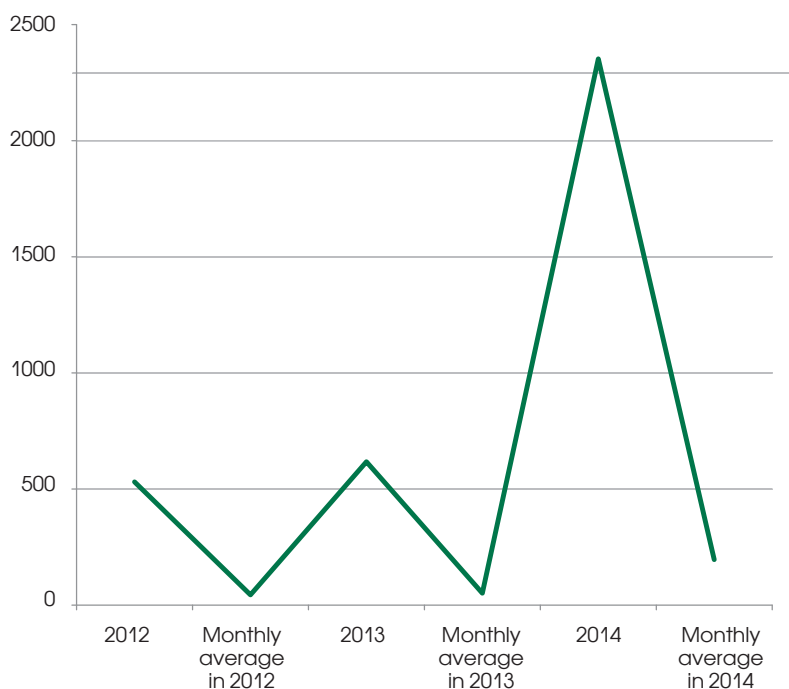
SALES REVENUE



In 2014, the VSU PH was involved in development of commercial activity. For instance, last year the unit completed commercial contracts totalling to 2,352.2 thousand roubles that is 281.1 % to the figures of 2013 (617.2 thousand roubles) and 443.1 % to the figures of 2012

Figure 2

COMMERCIAL CONTRACTS





The key VSU PH activity is book publishing. In 2014, production of books (hard- and soft cover) was 75 % of the sales value. Sales revenue from sheet full colour printing amounted to 11 %, forms printing – 6 %, and other small printing services (business cards, invitations, bookbinding, etc.) – 8 %.

In 2014, the core business line yielded publishing of 329 titles, including 85 text books, 178 teaching aids, 35 journals “Vestnik VGU” of different series and other journals, 31 literary and art editions.

ENHANCEMENT OF THE VSU PH FACILITIES IN 2014

In 2014, the following equipment purchased in 2011 was removed from storage and commissioned:

- collator Horizon SPF-200A with modules – a modern high-performance machine with one of the highest performance parameters for comparable machines – 8,900 sheets per hour. Potentially, it can also be integrated into a unified system that enables collation on both sides;
- Horizon BQ-270V single-clamp binder – one of the most advanced machines of its kind that enables high quality binding of books with the volume of up to 400 pages;
- in 2014, an agreement was concluded with regard to purchasing of a unique Konica Minolta bizhub PRESS C1070 digital printing system – the best system available today in the world market of quick printing. Introduction of the system will enable production of up to 350,000 A4 copy prints of perfect image quality per month.



THE VSU PH EDITORIAL AND PUBLISHING POLICY FOR 2015

The VSU PH Editorial and publishing policy is regulated by the Editorial Advisory Board of Voronezh State University.

1. Text books and teaching materials publishing

In 2015, the VSU PH provides the whole text book and teaching material publishing production cycle for all faculties of Voronezh State University, as well as publishing of all series of the journal “Vestnik VGU” free of charge. All consumables required for the publishing process will be either financed by the university budget (up to 80 conventional printed sheets) or by the faculty budget (over 80 conventional printed sheets).

2. VSU staff and professors monograph publishing

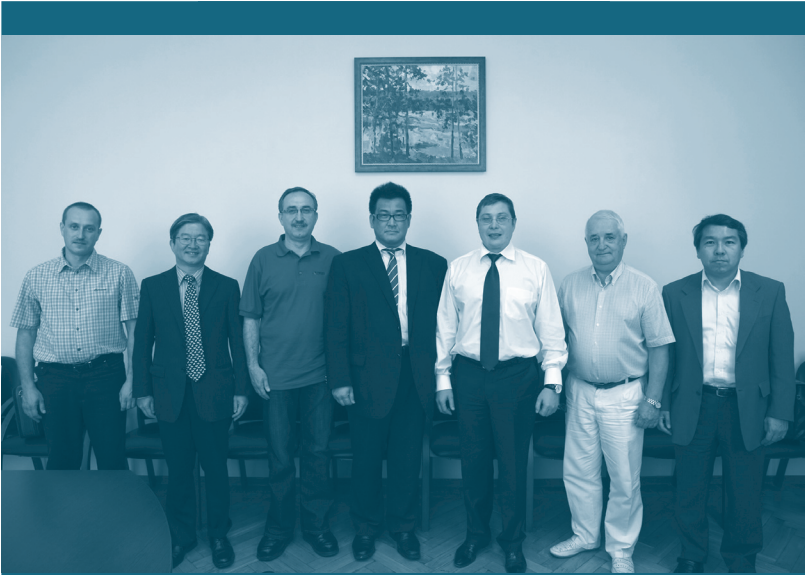
Monograph publishing procedures have been established. At the first stage monograph publishing applications supported with external and internal reviews are submitted to the VSU PH. Then they are sent for examination and decision-making to the dedicated expert committee of the Editorial Advisory Board of Voronezh State University. If a positive decision is made on application VSU PH accepts the manuscript and handles the question of the financing, in case of negative decision – the monograph publishing is charged according to the commercial price-list tariff.

3. Other literature publishing

Other literature publishing is charged according to the commercial price-list tariffs.

LIST OF THE VSU PH SERVICES

- Publishing of books, journals, brochures, forms, posters and drawings.
- Production of booklets, business cards, certificates, and calendars.
- Desktop publishing and design.
- Editing.
- Proofreading.
- Photo copying.
- Binding.
- Laminating.
- Blocking.
- Paper cutting.





ECONOMICS AND INTERNATIONAL COOPERATION





ECONOMICS AND INTERNATIONAL COOPERATION



Oleg Belenov,
Vice Rector for Economics
and International
Cooperation

7.1. MAJOR OBJECTIVES IN THE AREA OF ECONOMICS AND FINANCE IN 2014

The plan of Voronezh State University financial and business operations for 2014–2016 was made and approved as a financial document that is to lay the foundations for the development and implementation of the programmes aimed at enhancing the university's infrastructure and the social support provided to the VSU personee.

The major objectives in the area of economics and finance in 2014 were as follows:

- VSU budget was to amount to no less than 2,045.2 million roubles
- the size of the payroll fund to increase by at least 10 %;
- the ratio of the average salary of VSU academic and teaching staff to the average salary in the Voronezh region to reach at least 130 %;
- the monthly increment for the educational support personnel to be increased from 10 % to 30 % of the basic salary;
- an increment of 15 % of the basic salary to be introduced for the maintenance staff.

7.2. INCOME STRUCTURE BY THE SOURCE OF FINANCING IN 2014

In 2014, the total income amounted to **2,531,033.4** thousand roubles, including (Table 7.1, Figure 7.1):

- government order grant – **990,473.0** thousand roubles;
- action grant – **404,801.6** thousand roubles;
- budget investments – **129,200.0** thousand roubles;
- income from the federal state institution rendering services to the natural and legal persons on a paying basis – **1,006,558.8** thousand roubles.

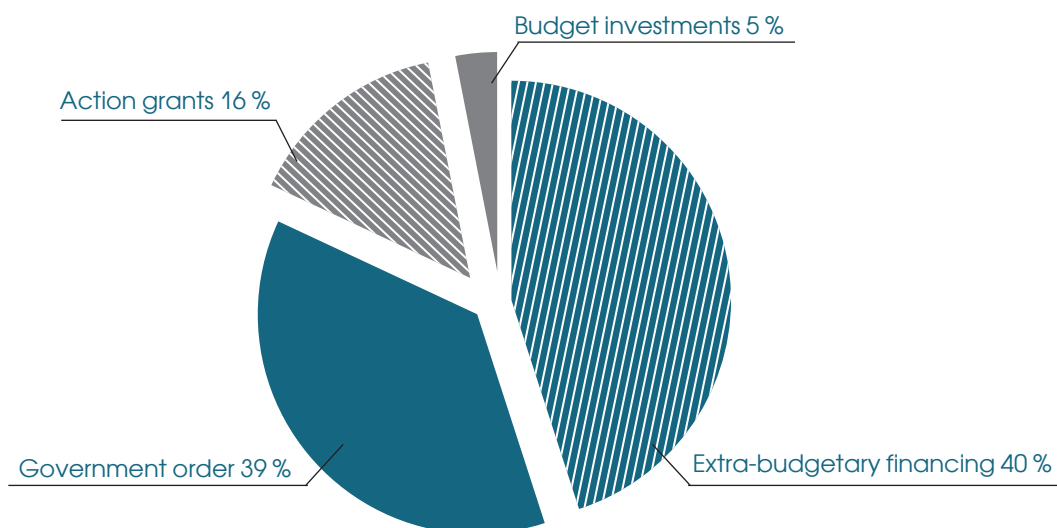
Table 7.1

INCOME STRUCTURE BY THE SOURCE OF FINANCING,
thousand roubles

| Receipts in 2014 | | Total |
|------------------|----------------------|--------------------|
| subsidies | extrabudgetary funds | |
| 1,524,474.6 | 1,006,558.8 | 2,531,033.4 |

Figure 7.1

INCOME STRUCTURE BY THE SOURCE OF FINANCING,
thousand roubles





7.3. THE INCREASE IN RECEIPTS IN 2014 COMPARED TO 2013, BROKEN DOWN BY STATE FINANCING, EXTRA-BUDGETARY FINANCING, AND TOTAL VALUES

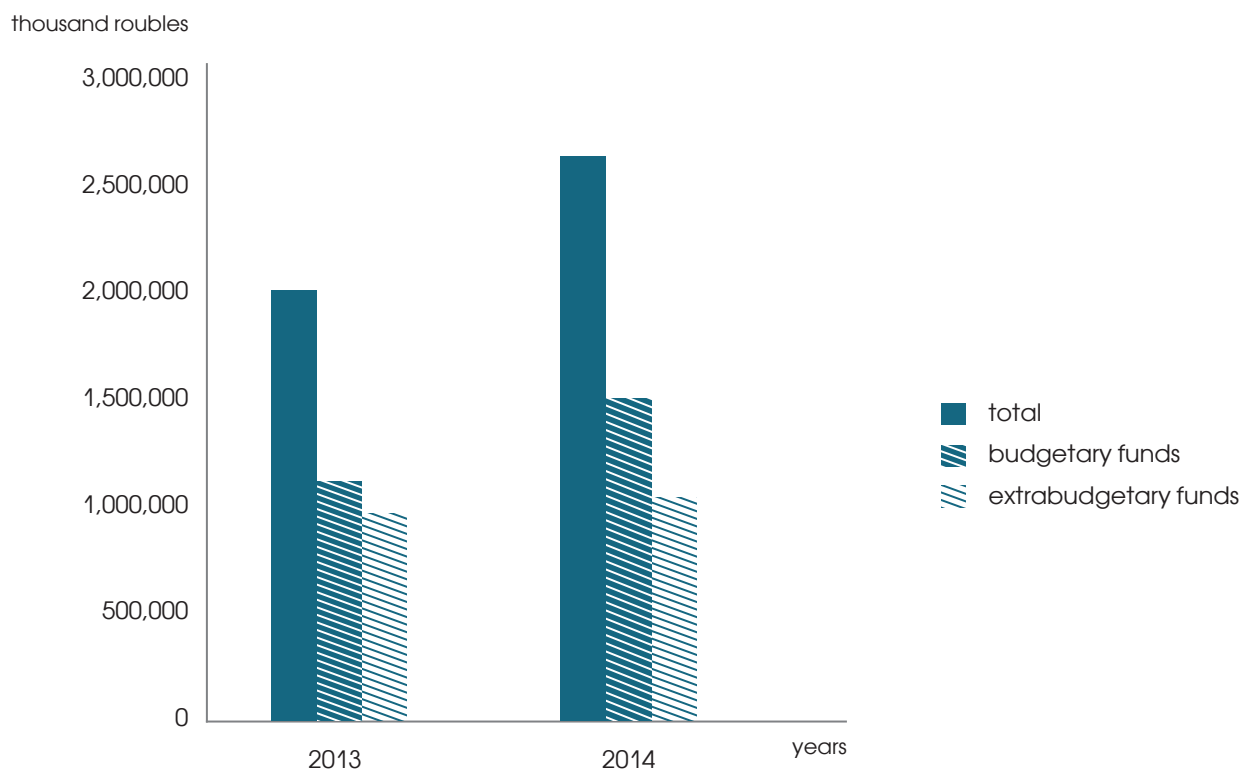
The total increase in receipts in 2014 compared to 2013 was **564,978.8 thousand roubles**, or 28.7 % (Figure 7.2), including:

- budgetary funds, namely:
 - government order grants increased by **260,663.1 thousand roubles**;
 - action grants increased by **100,890.4 thousand roubles**;
 - budget investments increased by **79,200.0 thousand roubles**;

- the amount of extra-budgetary financing increased by **124,225.3 thousand roubles**.

Figure 7.2

INCOME INCREASE IN 2014 COMPARED TO 2013



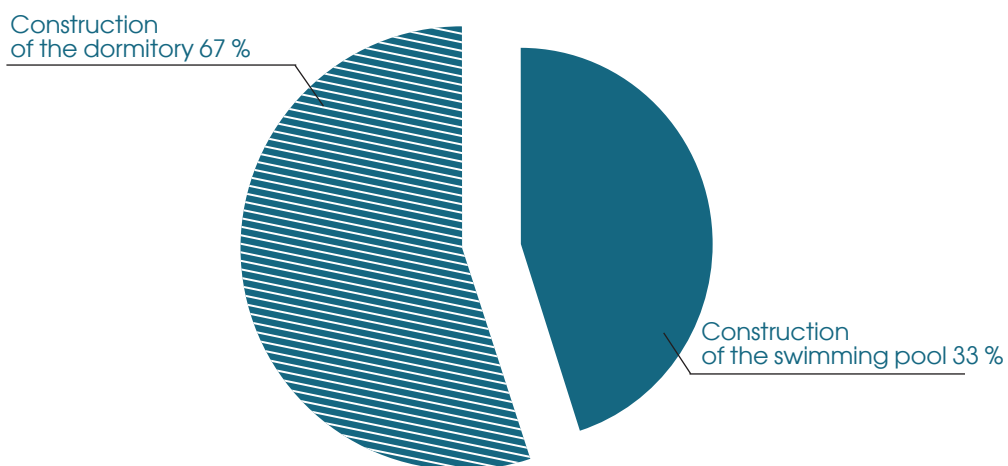


As a result of the focused actions taken by the university administration in 2014, there was a total additional inflow of budgetary funds of **192,700 thousand roubles** (Figure 7.3), including:

- budget investments (building a new dormitory at 42a Kholzunova Street) – **129,200 thousand roubles;**
- action grant (building a swimming pool at 42a Kholzunova Street) – **63,500 thousand roubles.**

Figure 7.3

THE STRUCTURE OF ADDITIONALLY ATTRACTED BUDGETARY FUNDS, BY PURPOSE





7.4. 2014 BUDGET EXPENDITURE REPORT

Table 7.2

2014 BUDGET EXPENDITURE REPORT RESULTS

| Cost item, thousand roubles | Subsidies | Extrabudgetary funds | Total | Percentage, % |
|------------------------------------|-----------------------|----------------------|---------------------|---------------|
| 211 Salaries and wages | 536,101.50 | 521,569.80 | 1,057,671.30 | 42.9 |
| 212 Other payments | 1368.30 | 6199.00 | 7567.30 | 0.3 |
| 213 Payment charges | 153,981.30 | 141,390.60 | 295,371.90 | 12.0 |
| 221 Communications services | 374.00 | 6841.80 | 7215.80 | 0.3 |
| 222 Transportation services | 2,970.50 | 13,112.40 | 16,082.90 | 0.7 |
| 223 Utility costs | 60,952.70 | 31,213.80 | 92,166.50 | 3.7 |
| 224 Property rental | 0 | 3871.50 | 3,871.50 | 0.2 |
| 225 Maintenance works and services | 16,390.30 | 15,815.80 | 32,206.10 | 1.3 |
| 226 Other works and services | 75,848.80 | 110,117.80 | 185,966.60 | 7.5 |
| 262 Welfare benefits | 25,649.40 | 0 | 25,649.40 | 1.0 |
| 290 Other operating expenses | 356,412.40 | 21,323.30 | 377,735.70 | 15.3 |
| 310 Fixed asset value increase | 77,653.40 | 63,105.40 | 140,758.80 | 5.7 |
| Construction | 129,200.00 | 304.50 | 129,504.50 | 5.3 |
| 340 Material asset value increase | 21,142.30 | 73,539.00 | 94,681.30 | 3.8 |
| Total | 1,458,044.90 * | 1,008,404.70 | 2,466,449.60 | 100.0 |

* This amount includes public liabilities for the social welfare benefits for orphaned children amounting to 25,649.4 thousand roubles.

7.5. INCOME BY FACULTY AND ITS PERCENTAGE IN THE TOTAL INCOME

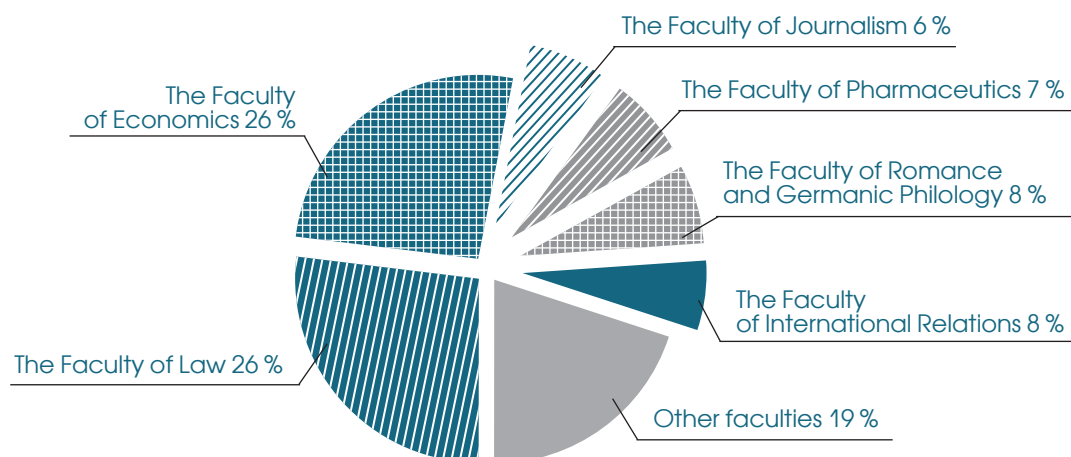
Table 7.3

INCOME BY FACULTY AND THEIR PERCENTAGE IN THE TOTAL INCOME

| Faculty | Income, roubles | | Faculty percentage, % | |
|---|--|--|-------------------------------|-------------------------------|
| | 2013/14 from 01.07.13 until 31.01.14 | 2014/15 from 01/07/2014 until 31/01/2015 | 2013/2014 academic year | 2014/2015 academic year |
| The Faculty of Biology and Soil Sciences | 2,472,980 | 2,748,390 | 0.5 | 0.5 |
| The Faculty of Geography, Geocology and Tourism | 5,338,960 | 5,793,442 | 1.0 | 1.1 |
| The Faculty of Geology | 4,326,036 | 4,085,665 | 0.8 | 0.7 |
| The Faculty of Journalism | 32,650,884 | 33,426,330 | 6.3 | 6.1 |
| The Faculty of History | 15,263,997 | 14,565,514 | 2.9 | 2.7 |
| The Faculty of Computer Sciences | 13,418,036 | 13,428,715 | 2.6 | 2.5 |
| The Faculty of Mathematics | 1,796,190 | 1,748,668 | 0.3 | 0.3 |
| The Faculty of International Relations | 39,012,929 | 42,155,413 | 7.5 | 7.7 |
| The Faculty of Applied Mathematics, Informatics and Mechanics | 16,032,154 | 17,142,351 | 3.1 | 3.1 |
| The Faculty of Romance and Germanic Philology | 34,346,981 | 42,792,815 | 6.6 | 7.8 |
| The Faculty of Pharmaceutics | 36,412,847 | 39,788,757 | 7.0 | 7.3 |
| The Faculty of Physics | 543,725 | 1,003,789 | 0.1 | 0.2 |
| The Faculty of Philology | 8,359,382 | 10,479,610 | 1.6 | 1.9 |
| The Faculty of Philosophy and Psychology | 14,886,288 | 16,614,054 | 2.9 | 3.0 |
| The Faculty of Chemistry | 3,018,300 | 3,004,050 | 0.6 | 0.5 |
| The Faculty of Economics | 133,099,650 | 141,374,507 | 25.7 | 25.8 |
| The Faculty of Law | 140,474,012 | 143,908,575 | 27.1 | 26.3 |
| International Education Institute | 4,254,640 | 4,514,900 | 0.8 | 0.8 |
| The Institute of Extramural Economic Education | 12,093,000 | 8,398,440 | 2.3 | 1.5 |
| Total | 517,800,991 | 546,973,985 | 100.0 | 100.0 |

Figure 7.4

INCOME STRUCTURE BY FACULTY IN 2013–2014





7.6. INFORMATION ON LEASES

In 2014, there was an inventory drawn up of leasable areas and an analysis of financial results was carried out regarding the leasable areas. As of the beginning of the year, there were a total of 14 federal property rental contracts, 18 fee-based service contracts, and 17 public service contracts.

The action plan for 2014 included the following measures:

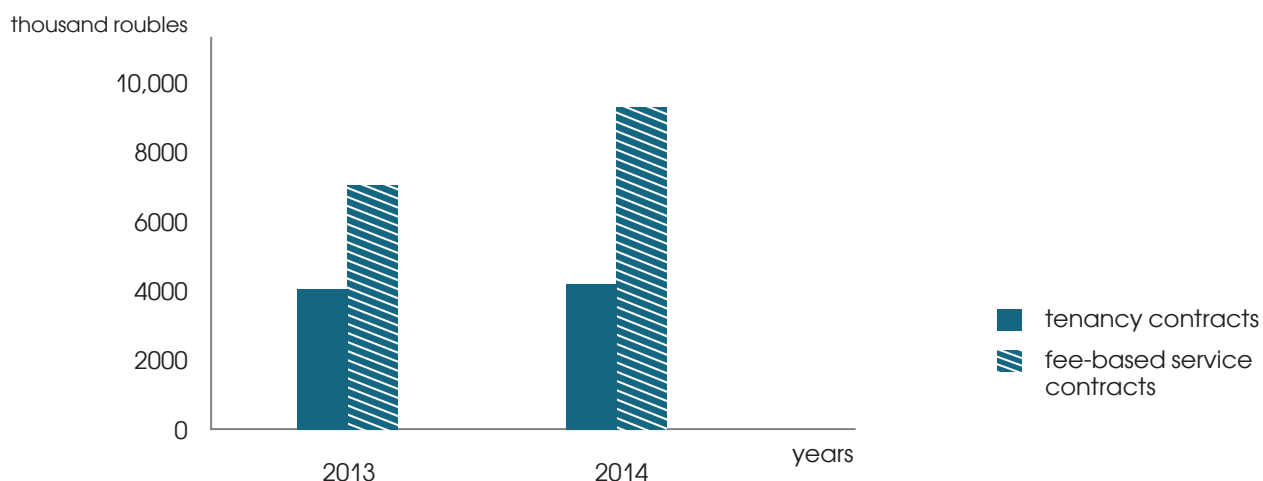
1. Enhancing the tenants' financial discipline and reducing the arrears in payments.
2. Monthly proceeds control by means of payment reconciliation with the tenants.
3. Monitoring of compliance with the terms of the contracts.
4. Prompt cooperation with the Ministry of Education and Science of the Russian Federation and the Voronezh Regional Office of the Federal Agency for State Property Management.
5. Obtaining the approval of the transactions of the handover of premises not used in the academic training process from the Ministry of Education and Science of the Russian Federation.

In accordance with the plan of financial and business operations approved for 2014, the following results were achieved:

1. Income from the leasable premises in 2014 amounted to **12,470.1 thousand roubles** (an increase of 16.8 %) (Figure 7.5), including:
 - from federal property rental contracts – **3,821.1 thousand roubles** (in 2013 – 3,889.6 thousand roubles);
 - from fee-based service contracts and public service contracts – **8,64 thousand roubles** (in 2013 – 6,782.4 thousand roubles);

Figure 7.5

INCREASE IN THE INCOME FROM LEASES IN 2014 COMPARED TO 2013





2. As a result of working with the tenants, financial discipline was enhanced, while payment arrears were reduced by 50 %.
3. Monitoring of compliance with the terms of the contracts was exercised by means of site visits and regular visits to the tenants (12 site visits were made during the year).
4. Upon obtaining the approval from the Ministry of Education and Science of the Russian Federation, two tenancy contracts were signed – with individual entrepreneurs S.V. Galchanskiy and I.V. Privalov.
5. In the current year, documents were drafted and completed for obtaining the approval from the Ministry of Education and Science of the Russian Federation for the lend-lease of the training facility premises not used in the academic process located at 13a Solnechnaya St., Voronezh, to small innovative business OOO Ortoferronosilitsid and OOO Magnesian Compound Plant..
6. In order to promote non-cash payments, the following automatic teller machines were placed in the university buildings:
 - Sberbank in the university buildings No 1 and 5a;
 - Moscow Industrial Bank in the university buildings No 1, 5, 8.
7. The vending machine network has been expanded in VSU academic buildings and dormitories, which made it possible to provide the university students and staff with a wider range of services.
8. Due to an increase in public service rates, the university re-executed 17 public service contracts, 25 fee-based service contracts, and signed 2 fee-based service contracts with mobile phone service providers.
9. In accordance with the analysis of the real estate price behaviour in the Voronezh region in 2014, the Rental Department obtained the approval of the limit of the rent increase from the Voronezh Regional Office of the Federal Agency for State Property Management and registered 12 amendment agreements with the tenants regarding the change in the VSU pricing policy at the Department of the Federal Service for State Registration, Cadastral Records and Cartography for the Voronezh region.



7.7. VSU FINANCIAL ACTIVITIES ANALYSIS

VSU's financial standing may be characterized by the use of funds obtained from various financial sources, as well as the use of assets.

The aggregate structure and change in VSU's assets and the sources of their formation are demonstrated in Tables 7.4 and 7.5 in accordance with the balance sheet statistics.

Table 7.4

CHANGE IN VSU ASSETS IN 2014

| Asset items | At the beginning of 2014 | At the end of 2014 | Absolute change | Growth ratio, % |
|--|--------------------------|--------------------|---------------------|------------------------------|
| Non-financial assets, thousand roubles | | | | |
| 1. Property, plant and equipment (residual value) | 852,365.7 | 1,147,539.3 | +295,173.6 | 134.6 |
| 2. Intangible assets (residual value) | 4.0 | 4.0 | – | 100.0 |
| 3. Non-derivative assets | – | 2,876,106.1 | +2,876,106.1 | – |
| 4. Material assets | 19,533.6 | 21,404.7 | +1871.1 | 109.6 |
| 5. Investments in the non-financial assets | 181,812.1 | 85,839.3 | –95,372.8 | 47.2 |
| 6. Total non-financial assets | 1,053,715.4 | 4 130893.4 | +3,077,178.0 | 392.0 (3.9 times) |
| II. Financial assets, thousand roubles | | | | |
| 7. Cash assets of the organization | 16,198.2 | 86,999.1 | +70,800.9 | 537.1 (5.4 times) |
| 8. Settlements of advance paid out | 19,745.1 | 22,624.7 | +2879.6 | 114.6 |
| 9 Settlements with accountable persons | 50.8 | 388.4 | +337.6 | 764.6 (7.6 times) |
| 10. Settlements of property damaged | 143.0 | – | –143.0 | – |
| 11. Settlements of VAT on the purchased material assets, works, and services | 668.8 | 283.8 | –385.0 | 42.4 |
| 12. Total financial assets | 36,805.9 | 110,296.0 | +73,490.1 | 299.7 (3.0 times) |
| 13. Total VSU assets | 1,090,521.3 | 4,241,189.4 | +3,150,668.1 | 388.9 (3.9 times) |

Table 7.5

CHANGE IN SOURCES OF THE FORMATION OF VSU ASSETS IN 2014

| Asset items | At the beginning of 2014 | At the end of 2014 | Absolute change | Growth ratio, % |
|--|--------------------------|--------------------|---------------------|--------------------------|
| I. Liabilities to the founder, thousand roubles | | | | |
| 1. Settlements with founders (residual value of most valuable assets) | 746,343.2 | 3,864,966.5 | +3,118,623.3 | 517.9 (5.2 раза) |
| II. Liabilities to the creditors, thousand roubles | | | | |
| 2. Accounts payable for the settlement of revenues | 105,874.8 | 288,352.9 | +182,478.1 | 272.4 (2.7 times) |
| 3. Settlement of accepted obligations | 8931.3 | 26,278.7 | +17,347.4 | 294.2 (2.9 times) |
| 4. Settlement of payments into the budget | 26,243.5 | 27,269.2 | +1025.7 | 103.9 |
| 5. Other settlements with creditors | 1805.9 | 7496.9 | +5691.0 | 415.1 (4.2 times) |
| 6. Total liabilities to the creditors | 142,855.5 | 349,397.7 | +206,542.2 | 244.6 (2.4 times) |
| III. Financial results (internal funds), thousand roubles | | | | |
| 7. Financial results of the previous reporting periods | (201,546.9) | (417,143.1) | +(215,596.2) | 207.0 (2.1 times) |
| 8. Financial results from accrual of depreciation of most valuable assets | 395,868.9 | 443,968.3 | +48,099.4 | 112.2 |
| 9. Deferred income | 7000.6 | – | –7000.6 | – |
| 10. Total financial results of VSU | 201,322.6 | 26,825.2 | –174,497.4 | 13.3 |
| 11. Total sources of the formation of VSU assets | 1,090,521.3 | 4,241,189.4 | +3,150,668.1 | 388.9 (3.9 times) |



In 2014, the aggregate value of assets, including the ones assigned by the founder on the basis of operational management, increased by 3.9 times and by the end of the reporting period amounted to 4,241,189.4 thousand roubles. The positive dynamics in VSU assets is due to the acceptance of the ownership of the land (where the university's real property assets are located) transferred by the founder (the Ministry of Education and Science of the Russian Federation) in 2014 into operational management, for the amount of 2,876,106.1 thousand roubles, as well as a significant increase in fixed assets of 295,173.6, or by 1.3 times, which was, among other things, as a result of the commissioning of the extension to academic building No 5 at 40 Kholzunova St., the ownership for which was registered in 2014. A positive fact was an increase in the most liquid residual assets of the university – the monetary assets – of 70,800.9 thousand roubles, or by 5.3 times.

in 2014, there was a significant increase in the sources of the formation of VSU assets (by 3.9 times) which was largely due to an increase in the liabilities to the founder regarding the property assigned to the university on the basis of operational management (land, real estate and most valuable assets), resulting from VSU's acceptance of the transfer of ownership of the land and the entry of the extension to academic building No 5 into the books as an article of fixed assets (See Table 7.5).

It must be taken into account that the economic substance of the accounts payable to the founder for the property transferred into operational management of VSU implies, on the one hand, the liabilities which are fully secured by this property, are long-term and do not require settlement using monetary funds or funds expected from the debtors, while on the other hand they may be assumed to be equivalent to the founder's contribution to the authorized fund (capital) like in the case of for-profit organizations. Consequently, the liabilities to the founder should be regarded as equivalent to the internal funds.

There has been an increase in the liabilities to the creditors of 206,542.2 thousand roubles, or by 2.4 times, resulting from an increase in accounts payable for the settlement of revenues and accepted obligations. This is due to a decrease in the amounts owed by the students for the tuition (which brought about an increase in cash inflow shown in the balance sheet as accounts payable for the settlement of revenues), as well as a 25 % increase in the budgetary financing of the construction of the dormitory and the swimming pool, as well as the research projects (such remaining balance is shown in the balance sheet as accounts payable for the settlement of accepted obligations).

At the same time, in 2014 there was a decrease of 174,497.4 thousand roubles, or by 7.5 times, in the financial result of the university due to an increase in the loss from operating activities of the previous reporting periods by 2.1 times.

As of the end of 2014, the largest percentage in VSU's asset structure (Table 7.6) were the non-produced assets (land) (67.8 %) and property, plant and equipment (27.1 %). A significant increase in the non-financial assets in the reporting year led to a decrease in financial assets from 3.4 to 2.6 %.

Table 7.6

VSU ASSET STRUCTURE IN 2014
 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

| Parameters | Percentage, % | | Change (+, -) |
|---|--------------------------|--------------------|---------------|
| | at the beginning of 2014 | at the end of 2014 | |
| 1. Non-financial assets – total | 96.6 | 97.4 | +0.8 |
| including: | | | |
| property, plant and equipment (residual value) | 78.2 | 27.1 | -51.1 |
| non-produced assets | – | 67.8 | +67.8 |
| material assets | 1.8 | 0.5 | -1.3 |
| investments in non-financial assets (capital investments) | 16.6 | 2.0 | -14.6 |
| 2. Financial assets – total | 3.4 | 2.6 | -0.8 |
| including: | | | |
| cash assets of the organization | 1.5 | 2.1 | +0.6 |
| settlements with debtors | 1.9 | 0.5 | -1.4 |
| 3. Total Assets | 100.0 | 100.0 | – |

In the structure of the formation of VSU assets (Table 7.7), there was a significant increase (of 22.7 points) in the share of the liabilities to the founder. As of the end of 2014, it amounted to 91.1 %. Accounts payable to the creditors decreased from 13.1 to 8.2 %.

Table 7.7

STRUCTURE OF THE SOURCES OF THE FORMATION OF VSU ASSETS IN 2014
 (ACCORDING TO THE DATA FROM THE ANALYTICAL DATA SHEET)

| Parameters | Percentage, % | | Change (+, -) |
|--|--------------------------|--------------------|---------------|
| | at the beginning of 2014 | at the end of 2014 | |
| 1. Liabilities to the founder | 68.4 | 91.1 | +22.7 |
| 2. Liabilities to the creditors – total | 13.1 | 8.2 | -4.9 |
| including: | | | |
| accounts payable for the settlement of revenues | 9.7 | 6.8 | -2.9 |
| settlement of payments into the budget | 2.4 | 0.6 | -1.8 |
| other accounts payable | 1.0 | 0.8 | -0.2 |
| 3. Financial results – total | 18.5 | 0.7 | -17.8 |
| including: | | | |
| financial results of the previous reporting periods | (18.4) | (9.8) | -(8.6) |
| financial results from accrual of depreciation of most valuable assets | 36.3 | 10.5 | -25.8 |
| deferred income | 0.6 | – | -0.6 |
| 4. Total sources of asset formation | 100.0 | 100.0 | – |



A significant increase in financial assets in 2014 (by 3 times), including monetary funds (by 5.4 times), which took place in 2014, had a positive impact on the current level of VSU's financial solvency. As of the end of the reporting period, the absolute liquidity of the university increased. However, the active assets (monetary funds, funds expected from the debtors and material assets) are not enough for the full satisfaction of accounts payable (Table 7.8).

Table 7.8

THE ANALYSIS OF VSU'S CURRENT FINANCIAL SOLVENCY

| Parameters | At the beginning of 2014 | At the end of 2014 | Absolute change (+, -) |
|--|--------------------------|--------------------|------------------------|
| I. Initial values for analysis, thousand roubles | | | |
| 1. Cash assets of the organization | 16,198.2 | 86,999.1 | +70,800.9 |
| 2. Resources in settlements with debtors | 20,607.7 | 23,296.9 | +2689.2 |
| 3. Material assets | 19,533.6 | 21,404.7 | +1871.1 |
| 4. Total operating assets (Art. 1 + Art. 2 + Art. 3) | 56,339.5 | 131,700.7 | +75,361.2 |
| 5. Total liabilities to the creditors | 142,855.5 | 349,397.7 | +206,542.2 |
| II. Current solvency ratio | | | |
| 6. Absolute liquidity ratio (covering the liabilities to the creditors using monetary funds) | 0.113 | 0.249 | +0.136 |
| 7. Marginal liquidity ratio (covering the liabilities to the creditors using monetary funds and the resources in settlements with debtors) | 0.258 | 0.316 | +0.158 |
| 8. Current liquidity ratio (covering the liabilities to the creditors using operating assets) | 0.394 | 0.377 | -0.017 |

In the assessment of financial stability, there is a special emphasis on determining the coverage of the fixed assets and other non-current assets having the greatest percentage in the property of the university by long-term sources of financing – liabilities to the founder and internal funds in the form of the financial result (from operating activities, accrual of depreciation, deferred income). As of the beginning of 2014, this indicator amounted to 91.6 %. By the end of the reporting period, the shortage of long-term sources of funding was down by 3.1 points, which has a positive impact on the financial stability of the university (Table 7.9).

Table 7.9

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

| Parameters | At the beginning of 2014 | At the end of 2014 | Absolute change (+, -) |
|--|--------------------------|--------------------|------------------------|
| 1. Net value of property, plant and equipment, thousand roubles | 852,365.7 | 1,147,539.3 | +295,173.6 |
| 2. Net value of intangible assets, thousand roubles | 4.0 | 4.0 | - |
| 3. Balance value of non-produced assets, thousand roubles | - | 2,876,106.1 | +2,876,106.1 |
| 4. Investments in the non-financial assets, thousand roubles | 181,812.1 | 85,839.3 | -95,372.8 |
| 5. Total non-current assets (Art. 1 + Art. 2 + Art. 3 + Art. 4), thousand roubles | 1,034,181.8 | 4,109,488.7 | +3,075,306.9 |
| 6. Liabilities to the founder, thousand roubles | 746,343.2 | 3,864,966.5 | +3,118,623.3 |
| 7. Financial results, thousand roubles | 201,322.6 | 26,825.2 | -174,497.4 |
| 8. Total value of the sources of non-current asset formation (Art. 6 + Art. 7), thousand roubles | 947,665.8 | 3,891,791.7 | +2,944,125.9 |
| 9. The ratio of the coverage of the fixed assets by long-term sources of financing, % (Art. 8 : Art. 5) | 91.6 | 94.7 | +3.1 |

As a result of the outstripping growth rate of the university's total assets compared to the rate of growth of the income, in 2014 there was a minor deceleration in the asset turnover (without including the non-produced assets – land) by 4 days. Considering the fact that the largest percentage in VSU's property structure belongs to the land and property, plant and equipment, which are long-term assets, the level of the asset turnover remains at an acceptable level (204 days, which is less than a year, and 442 if land is taken into consideration). The turnover period for the operating assets increased by 1 day, whereas the period of settlements with debtors increased by 2 days.



Table 7.10

VSU ASSET TURNOVER ANALYSIS

| Parameters | 2013 | 2014 | Absolute change (+, -) | Growth ratio, % |
|---|-------------|-------------|------------------------|----------------------|
| I. Initial values for analysis, thousand roubles | | | | |
| 1. Average annual cash balance | 46,364.8 | 51,598.7 | +5233.9 | 111.3 |
| 2. Average annual amount of funds in settlements with debtors (accounts receivable) | 11,301.2 | 21,952.3 | +10,651.1 | 194.2 |
| 3. Average annual amount of material assets | 20,392.4 | 20,469.2 | +76.8 | 100.4 |
| 4. Total average annual amount of operating assets | 78,058.4 | 94,020.2 | +15,961.8 | 120.4 |
| 5. Average annual amount of total assets | 1,049,672.9 | 2,665,855.4 | +1,616,182.5 | 254.0 (2.5 times) |
| 6. Average annual amount of total assets without non-produced assets | 1,049,672.9 | 1,227,802.3 | +178,129.4 | 117.0 |
| 7. Total income of the university | 1,890,292.1 | 2,170,045.0 | +279,752.5 | 114.8 |
| II. Asset turnover ratio, days | | | | |
| 8. Turnover period for total assets | 200 | 442 | +242 | 221.0 (2.2 times) |
| 9. Turnover period for total assets without non-produced assets | 200 | 204 | +4 | 102.0 |
| 10. Turnover period for operating assets | 15 | 16 | +1 | 106.7 |
| 11. Turnover period in settlements with debtors (accounts receivable) | 2 | 4 | +2 | 200.0 (2.0 times) |
| 12. Turnover period for material assets | 4 | 4 | - | 100.0 |



The main reasons for the weakening of the financial standing of the university in 2014 were as follows:

- an increase in the salaries of the academic staff and the educational support personnel, and, as a consequence, an increase in the total salary fund of 86,582.7 thousand roubles, or 9.8 %;
- costs incurred due to the continued construction of the dormitory and the swimming pool from VSU's own funds amounting to 15.0 million roubles;
- a reduction of 12.78 million roubles in the co-financing of the Voronezh State University Strategic Development Plan from the federal budget;
- uneven receipt of the subsidy for the financial support of the execution of the government order for rendering state services from the federal budget;
- disproportionate distribution of the incoming budgetary funds and the university's spending throughout the year.

An important factor that is to ensure the university's financial solvency is the establishing of the endowment fund in 2013. The amount of the assets placed under the management of ZAO Gazprombank Asset Management was 13,025 thousand roubles, as of 01 January 2014. In the reporting year, it increased by 805 thousand roubles (6.2 %) and reached 13,878 thousand roubles. The number of contributors reached 122 organizations and individuals (Table 7.11).

Table 7.11

THE ANALYSIS OF THE RATE OF FORMATION AND CAPITAL PRODUCTIVITY OF THE VSU ENDOWMENT FUND (AS OF 01 JANUARY 2015)

| Parameters | At the beginning of 2014 | At the beginning of 2015 | Absolute change (+, -) | Growth ratio, % |
|--|--------------------------|--------------------------|------------------------|-----------------|
| 1. VSU endowment assets, thousand roubles | 13,025 | 13,878 | +805 | 106.2.0 |
| 2. The number of contributors people / companies | 113 | 122 | +9 | 108.0 |
| 3. Age of the endowment, months | 9 | 21 | +12 | × |
| 4. Net revenue from the discretionary management of the assets of the Endowment Fund, thousand roubles | 437 | 400 | -37 | 91.5 |
| 5. The rate of capital formation, thousand roubles per month (Art. 1 : Art. 3) | 1447.2 | 660.8 | -786.4 | 45.7 |
| 6. Capital productivity, thousand roubles per person (Art. 1: Art. 2) | 115.7 | 113.8 | -1.9 | 98.4 |
| 7. Return on the capital of the Endowment Fund, % | 3.4 | 2.9 | -0.5 | × |

Due to the fact that the bulk of the contributions were made during the first year of the existence of the Endowment Fund, in 2014 there was a reduction in the rate of endowment formation. Because of the deterioration of the economic situation in the Russian financial market in the reporting year, the net revenue fell by 37 thousand roubles and amounted to 400 thousand roubles. Amid the growth of the endowment fund, this led to a decrease in the return on the endowment from 3.4 to 2.9 %.



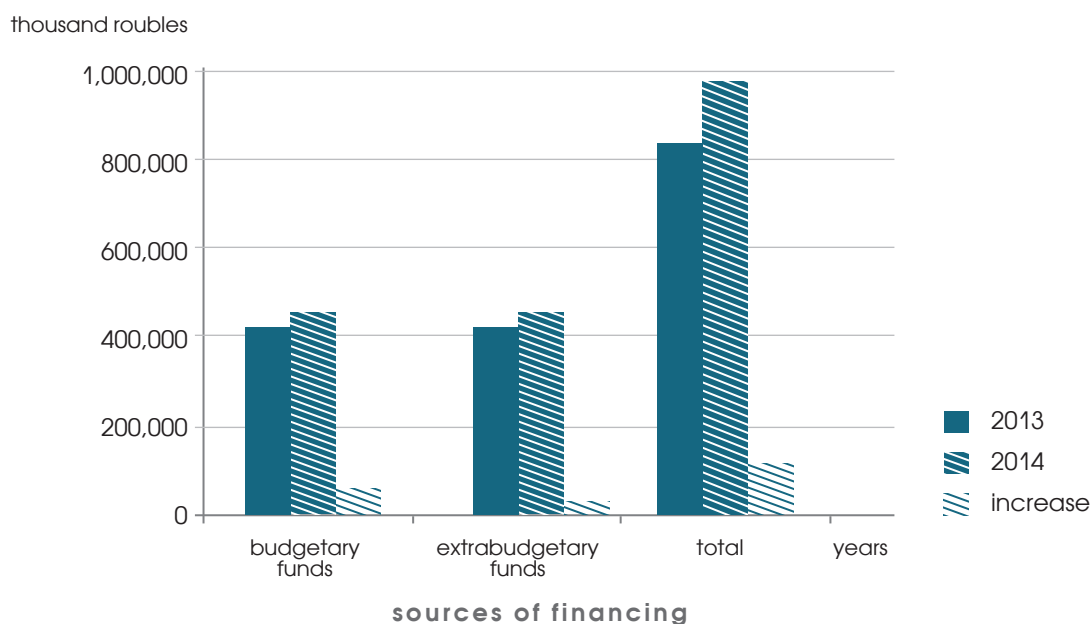
7.8. THE DYNAMICS OF THE STAFF REWARD SYSTEM IN 2013–2014

The payroll budget of the university (not including the branches) amounted to:

- in 2013 – **887,340.2 thousand roubles** (a growth of 17.8 % compared to the payroll budget in 2012). of which:
 - from subsidies **437,138.5 thousand roubles** (a growth of 15.4 % compared to the payroll budget in 2012).
 - from extra-budgetary funds **450 201,7 thousand roubles** (a growth of 20.3 % compared to the payroll budget in 2012).
- in 2014 – **973,922.9 thousand roubles** (a growth of 9.8 % compared to the payroll budget in 2013). of which:
 - from subsidies **487,390.2 thousand roubles** (a growth of 11.5 % compared to the payroll budget in 2013).
 - from extra-budgetary funds **486,532.7 thousand roubles** (a growth of 8.1% compared to the payroll budget in 2013).

Figure 7.6

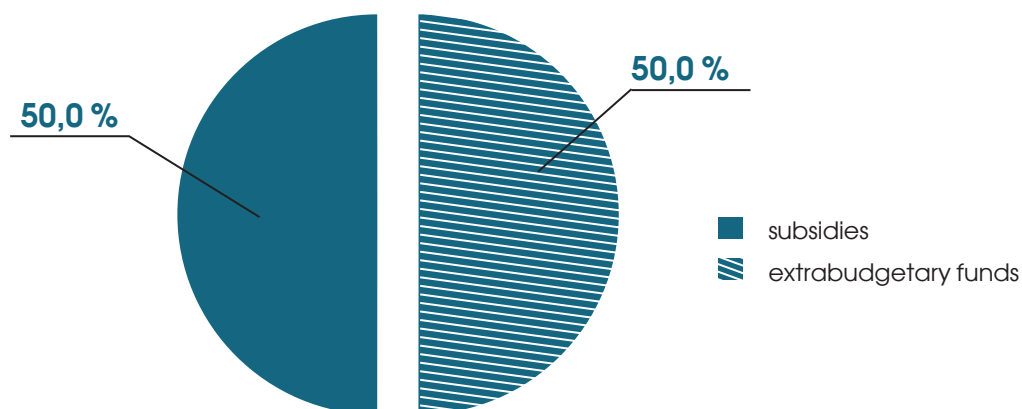
THE COMPARATIVE ANALYSIS OF THE PAYROLL BUDGET IN 2013 AND 2014



In 2014, there was a growth of 86,582.7 thousand roubles in the payroll budget compared to 2013. (a growth of 109.8 %) (Fig. 7.7).

Figure 7.7

PAYROLL BUDGET STRUCTURE BY THE SOURCE OF FINANCING IN 2014



Measures taken to raise the salaries and social welfare of the university staff

Starting from 1 January 2014, there was a 1.15 % increase of the salaries for various job groups and qualification levels (Order of the Rector No 1-3135 dated 30 December 2013).

Starting from 1 September 2014, in accordance with the social policy implemented by the university, a monthly increment for the regular educational support personnel with VSU as the primary place of employment (including the Faculty of Military Education and the International Education Institute) increased from 10 % to 30 % of the basic salary (Order of the Rector No 1-1911 dated 15 August 2014).

Starting from 1 September 2014, a monthly increment for the the Regional Scientific Library educational support personnel with VSU as the primary place of employment increased from 10 % to 15 % of the basic salary (Order of the Rector No 1-1912 dated 15 August 2014).

Starting from 1 January 2014, for the first time, an increment of 15 % of the basic salary was added for maintenance staff with VSU as the primary place of employment (Order of the Rector No 1-1913 dated 15 August 2014).



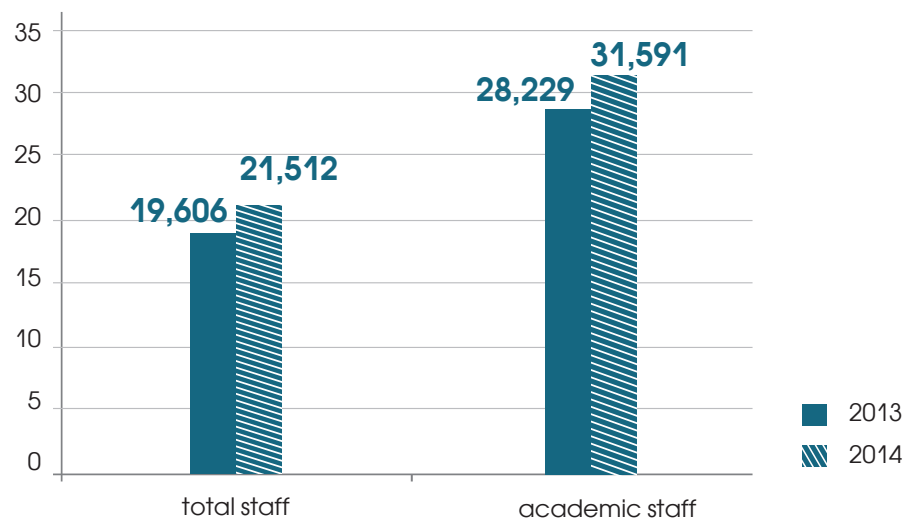
7.9. THE ANALYSIS OF THE AVERAGE SALARY OF THE ACADEMIC STAFF MEMBERS AT VSU COMPARED TO THE AVERAGE SALARY IN THE VORONEZH REGION

In 2014, the average salary of the university staff members (including extra-budgetary fund payments) amounted to 21,512 roubles, whereas the average salary of the academic staff members was 31,591 roubles, which is 135.2 % of the average salary in the region and exceeds the target value of the 2014 roadmap, which equalled 125 % (Fig. 7.8).

Figure 7.8

THE AVERAGE SALARY IN 2013–2014

thousand roubles

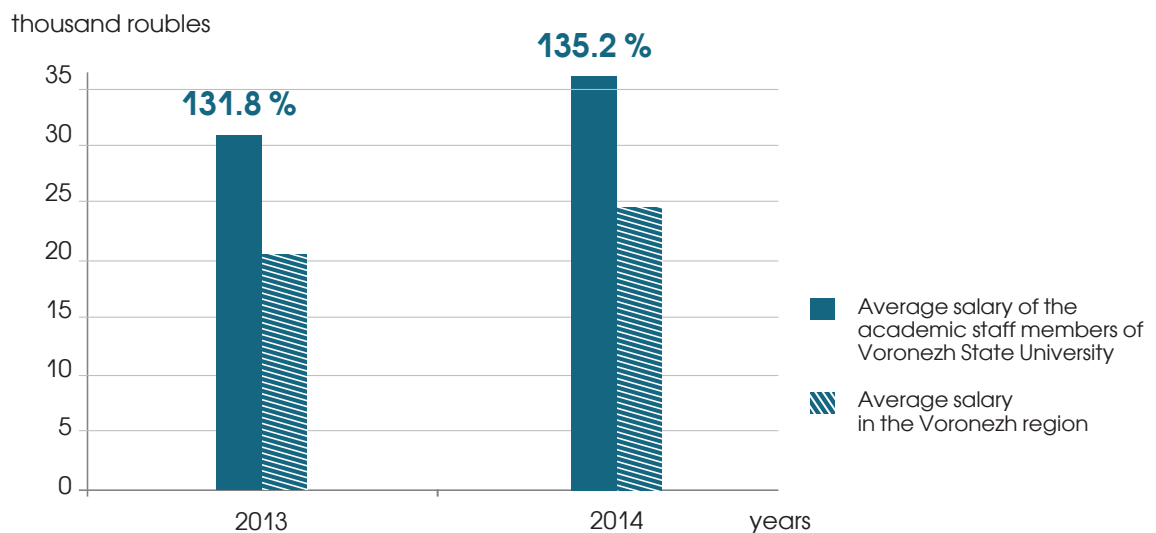




The increase in the average salary of all the staff in 2014 was 109.7 %, while for the academic and teaching staff it amounted to 1111.9 % (Fig. 7.9).

Figure 7.9

THE AVERAGE SALARY OF VSU ACADEMIC STAFF AND THE AVERAGE SALARY IN THE VORONEZH REGION



Based on the performance in 2014, the staff of the university received bonuses amounting to 15,554.9 thousand roubles financed by a subsidy and 22,375.9 thousand roubles from extra-budgetary funds.



7.10. MAJOR ACHIEVEMENTS IN ECONOMICS AND FINANCE IN 2014

According to the results of financial and economic activity of VSU in 2014, all the tasks were performed entirely, as follows:

- the funds received by the VSU budget totalled **2,531,033.4 thousand roubles**, which is **564,978.8 thousand roubles** higher (28.7 %) in comparison with the year 2013;
- the ratio of the average salary of VSU teaching staff to the average wage in the Voronezh region was 135.2 %;
- the amount of the payroll was **973,922.9 thousand roubles**, which is **86,582.7 thousand roubles** more than it was in 2013 (an increase of 9.8 %);
- a monthly increment for the University educational support personnel increased from 10 % to 30 % of the basic salary;
- a monthly increment for the the Regional Scientific Library educational support personnel increased from 10 % to 15 % of the basic salary;
- for the first time, an increment of 15 % of the basic salary was added for maintenance staff.



7.11. VSU OBJECTIVES IN THE SPHERE OF INTERNATIONAL COOPERATION IN 2014

In 2014, VSU's international activities were focused on the following tasks:

- starting two double-degree programmes with international partner universities;
- developing at least 10 courses in the English language;
- enrolling two groups of teachers in the Academic English programme;
- introducing an incentive scheme for the lecturers teaching courses in foreign languages;
- having a total of 15 leading international scholars involved in the educational process organization;
- involving more of VSU's faculties in the international projects;
- increasing the number of international master's degree students (to 110 people);
- developing the projects for adaptation of international students; enhancing VSU's physical and social infrastructure for international students.



7.12. DEVELOPING COMMUNICATION THROUGH DIRECT CONTRACTS AND AGREEMENTS WITH INTERNATIONAL UNIVERSITIES

In 2014, Voronezh State University signed 19 treaties and agreements on academic cooperation with the leading universities of the USA, Central Europe and Asia, as well as the universities of CIS (Belarus, Kazakhstan), South-Eastern Europe (Macedonia, Croatia), Latin America (the Republic of Cuba) (Table 7.12).

Table 7.12

THE LIST OF AGREEMENTS WITH INTERNATIONAL UNIVERSITIES SIGNED IN 2014

| No | Programme (project title), university, country | Type of agreement |
|----|--|--|
| 1 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and UO <i>Baranovichi State University</i> (Belarus) | Academic cooperation and staff exchange |
| 2 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and UO <i>Francisk Scarnia Gomel State University</i> (Gomel, Belarus) | Academic cooperation and student exchange programmes |
| 3 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and AO <i>Kazakh Economic University named after T. Ryskulov</i> | Academic cooperation and student exchange programmes |
| 4 | Partnership agreement between the Faculty of Applied Mathematics, Computer Sciences and Mechanics at FSFEI HPE <i>Voronezh State University</i> and the Münster School of Business and Economics (Germany) | Academic cooperation and student exchange programmes |
| 5 | Partner contract for joining the French Embassy's Language Assistants programme | Academic cooperation |
| 6 | Partnership agreement with the University of Texas at Brownsville (USA) | Academic cooperation and student exchange programmes |
| 7 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the Department of Philosophy of the University of Göttingen (Germany) | Academic cooperation and student exchange programmes |
| 8 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the University of Debrecen (Hungary) | Academic cooperation and student exchange programmes |
| 9 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the Martin Luther University of Halle-Wittenberg aimed at opening a joint "Business Communication in Economics: the German Language" master's degree programme in Philology (Germany) | Academic cooperation and student exchange programmes |
| 10 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the University of Tel Aviv (Israel) | Academic cooperation and student exchange programmes |
| 11 | Academic partnership agreement between FSFEI HPE <i>Voronezh State University</i> and S.Seifullin Kazakh Agrotechnical University (the Republic of Kazakhstan) | Academic cooperation |



End of table 7.12

| No | Programme (project title), university, country | Type of agreement |
|----|---|--|
| 12 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the Goce Delce University of Shtip (Macedonia) | Academic cooperation |
| 13 | Memorandum of understanding between FSFEI HPE <i>Voronezh State University</i> and the University of Burgos (Spain) | Academic cooperation |
| 14 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the Goce Delce University of Shtip (Macedonia) | Academic cooperation |
| 15 | Memorandum of understanding between FSFEI HPE <i>Voronezh State University</i> and the University of Burgos (Spain) | Academic cooperation |
| 16 | Framework partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the University of Havana (the Republic of Cuba) | Academic cooperation and student exchange programmes |
| 17 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the University of Holguin "Oscar Lucero Moya" in Holguin (the Republic of Cuba) | Academic cooperation and student exchange programmes |
| 18 | Framework partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the University of Information Technologies (the Republic of Cuba) | Academic cooperation and student exchange programmes |
| 19 | Memorandum of understanding and cooperation between the Faculties of Economics and Law of FSFEI HPE <i>Voronezh State University</i> and the Faculty of Economics at the University of Zagreb (Croatia) | Academic cooperation and student exchange programmes |
| 20 | Partnership agreement between FSFEI HPE <i>Voronezh State University</i> and the Faculty of Economics and Media of the Hochschule Fresenius (Germany) | Academic cooperation and student exchange programmes |
| 21 | Partnership agreement between the department of Economics and Organisations Management of the Faculty of Economics of FSFEI HPE <i>Voronezh State University</i> and the Faculty of Economics and Media of the Hochschule Fresenius (Germany) | Academic cooperation and student exchange programmes |



In accordance with the partnership agreement signed in 2014 between VSU and the Martin Luther University of Halle-Wittenberg, the first group of VSU students are to go to the Martin Luther University to complete a course of study there.

On 23 June 2014, a Memorandum of understanding was signed between VSU and the University of Münster (Westfälische Wilhelms-Universität Münster), as well as a partnership agreement between the Münster School of Business and Economics and the Faculty of Applied Mathematics and Mechanics of VSU. Additionally, a trilateral agreement was signed by VSU, the University of Münster and ASAPIO CIS company, which stipulates a two-stage study programme for VSU students: first in Russia, and then in Germany. For that, a fundamental department of VSU is to be created at ASAPIO CIS. The advantage of the agreement is that the education of the Russian students in Germany will be financed by the company.

The university is expanding the scope of cooperation with the partners from Eastern Europe. In June 2014, within the framework of TEMPUS project "InterEULawEast" the VSU Faculties of Law and Economics signed a memorandum of understanding with the Faculty of Economics at the University of Zagreb (Croatia). They are now working on two master's programmes: "International and European law" in Eastern Europe, and "Banking" – a specialized personnel training programme for Sberbank of Russia.

The "American direction" of VSU's international activity is also developing. On 12–13 July 2014, there was a visit by the delegation from the University of Texas at Brownsville, including Dean of the College of Science, Mathematics and Technology Mikhail M. Bouniaev, Ph.D. and Executive Director of Global Engagement Alla Paroiatnikova. During the visit, there was a discussion of the specific details of the programme of collaboration under the agreement signed in June 2014, as well as the plan of developing joint academic programmes in Physics, Mathematics, and Information Technologies, by the University of Texas at Brownsville and Voronezh State University.

VSU also collaborates actively with foreign embassies and foreign representative offices in Russia.

On 23 April 2014, VSU was visited by a delegation headed by Attaché for the English language teaching of the US Embassy in Moscow Francis Westbrook, Head of the Moscow Office of Cambridge University Press Natalia Bochorishvili, Projects and Partnerships Manager of the British Council Elena Borovikova, and President of the National Association of Teachers of English in Russia, President of the Faculty of Foreign Languages and Area Studies at Lomonosov Moscow State University Svetlana Ter-Minasova. During the visit, joint publishing, research, and scientific projects were discussed.



On 16 June 2014, VSU was visited by Deputy Head of the Israel diplomatic mission in the Russian Federation Olga Slov and Attaché for Cultural Affairs Jaffa Olivitski Coen. In the course of the visit, Olga Slov gave an open lecture for the VSU students regarding "International Relations in the Middle East".

On 26 February 2014, VSU was visited by Carlos von Engel – Counsellor of the political department, Authorized Representative of the Embassy of the Federal Republic of Germany in the Voronezh region. His visit was mainly aimed at discussing the results of cooperation between VSU and German universities.

On 25 March 2014, VSU was visited by Nicolas De Lacoste – First Counsellor of the Embassy of France in the Russian Federation. He took part in a VSU working group meeting regarding the implementation of a project of the Seventh Framework Programme of the European Union on scientific and technological development "European Identity, Cultural Diversity and Political Change".

On 4 December, VSU was visited by Head of the Delegation of the European Union in Russia, Ambassador, his Excellency Vygaudas Ušackas, as well as Head of the EU-Russian Cooperation Programme of the Delegation of the European Union to Russia Nicola Scaramuzzo and Counsellor of the Political Section of the EU Delegation to Russia Piet Blondé. The Ambassador gave an open lecture on the relationships between Russia and the European Union and told the audience about the new EU programmes in education and research, namely Horizon 2020 (a tender project for both scientists and students) and a new Erasmus+ programme which will be financed solely by the European party.

Thus, in 2013/2014 the fruitful collaboration of the Faculty staff, as well as the administrative departments responsible for the international project implementation was aimed at continuing the integration of Voronezh State University into the international academic community.

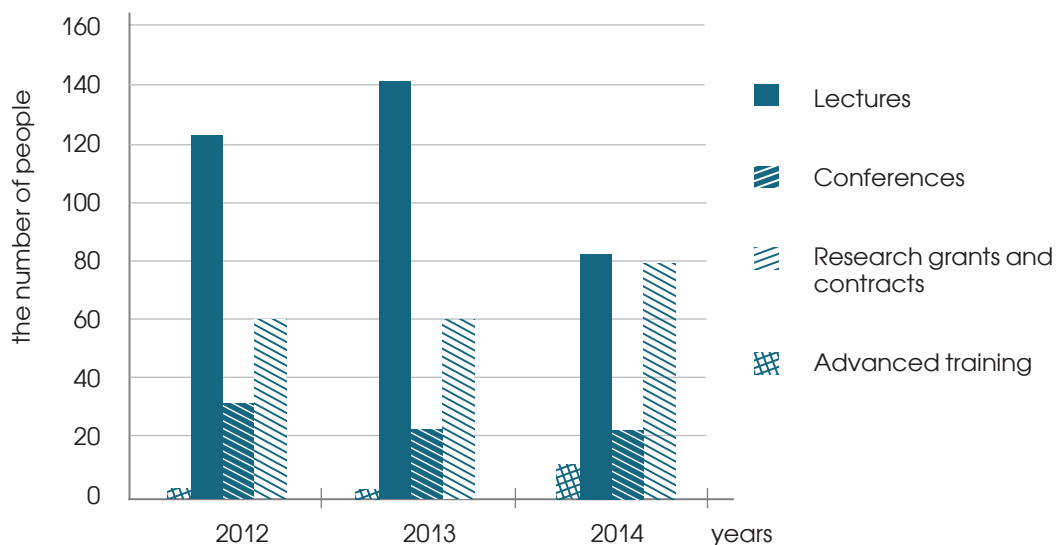


ACADEMIC MOBILITY OF VSU ACADEMIC AND RESEARCH STAFF

In 2014, 217 VSU academic staff members were sent to other countries with the purpose of participating in international scientific conferences, doing research, completing advanced training programmes and guest lecturing (Fig. 7.10).

Figure 7.10

ACADEMIC MOBILITY OF VSU PROFESSORS (BY PURPOSE)

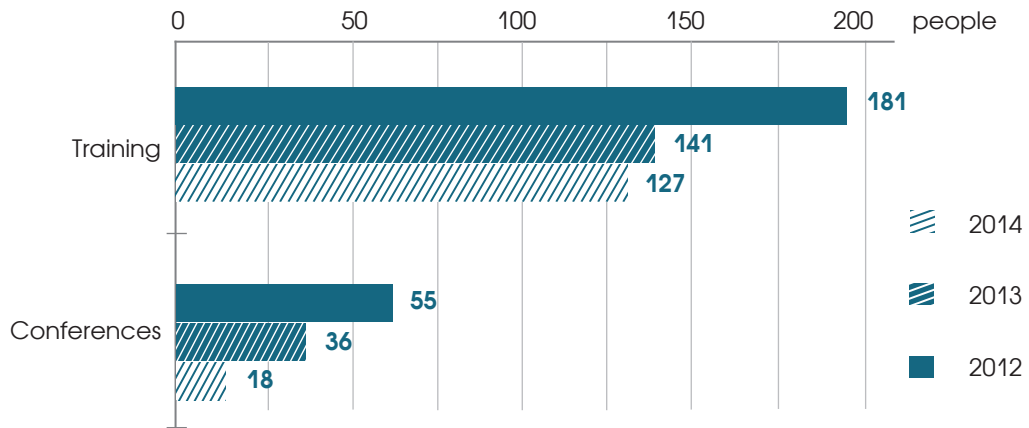


ACADEMIC MOBILITY OF VSU STUDENTS TO INTERNATIONAL PARTNER UNIVERSITIES

In 2014, 145 undergraduate and postgraduate students went to international universities under collaboration agreements for various types of courses (one-year, one-semester, language courses, internships, pre-graduation practical training, introductory practical training, as well as conducting research under Treaties and Agreements with international universities) (Fig. 7.11).

Figure 7.11

ACADEMIC MOBILITY OF VSU STUDENTS TO INTERNATIONAL PARTNER UNIVERSITIES (TOTAL NUMBER)

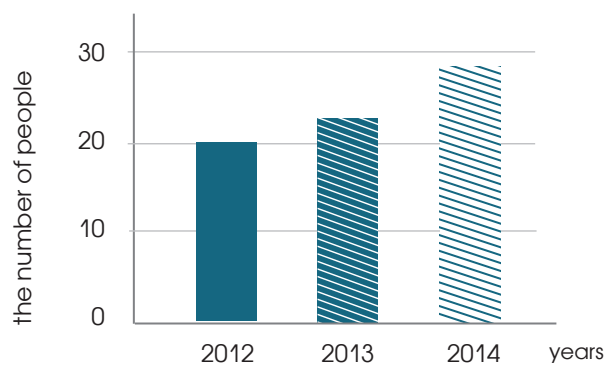


THE TOTAL NUMBER OF INTERNATIONAL EXPERTS INVOLVED IN ACADEMIC AND RESEARCH ACTIVITIES AT VSU

In order to ensure the high level of academic activity that would conform to the international standards and to keep in line with the principles of the “Bologna process”, in 2014 VSU continued its activities aimed at involving the teachers from international partner universities in the academic process. In 2014, their total number at the university reached 28 (Fig. 7.12).

Figure 7.12

THE NUMBER OF INTERNATIONAL EXPERTS INVOLVED IN ACADEMIC AND RESEARCH ACTIVITIES





7.13. INFORMATION ON THE JOINT ACADEMIC PROGRAMMES IMPLEMENTED AT VSU IN 2014 (double degree programmes)

Currently, the University is running 6 education programmes in cooperation with its foreign partners.

In 2014, the preparation and implementation of joint academic programmes was continued in collaboration with the international partner universities. Seven new double degree programmes are being actively developed (signing an agreement on the implementation of double-degree programmes, adjusting the curricula, selecting the academic and teaching staff).

Among the innovative projects is a distance learning programme “Regional Studies in Russia”, developed by the Faculty of International Relations in collaboration with the Spanish colleagues from the University of San Carlos (Madrid, Spain) (Tables 7.13–7.14).

Table 7.13

JOINT EDUCATIONAL PROGRAMMES AT VSU IN 2014

| No | Programme | Study option | VSU participating faculty | Partner-university |
|----|--|---------------------|---|--|
| 1 | Business Administration | Bachelor's degree | the Faculty of International Relations | Hochschule Harz (Wernigerode, Germany) |
| 2 | Linguistics. Teaching Italian as a Foreign Language | Specialist's degree | Faculty of Romance and Germanic Philology | University for Foreigners of Perugia (Italy) |
| 3 | Tourism Management | Master's degree | Faculty of International Relations Faculty of Romance and Germanic Philology | The University Paris-Est Marne-la-Vallée (Paris, France) |
| 4 | Business in the Emerging Markets | Master's degree | the Faculty of Romance and Germanic Philology | FH Joanneum University of Applied Sciences (Graz, Austria) |
| 5 | Contrastive Philology | Master's degree | Faculty of Romance and Germanic Philology | University of Leon (Spain) |
| 6 | Business Communication in Economics: the German Language | Master's degree | the Faculty of Romance and Germanic Philology | Martin Luther University of Halle-Wittenberg (Germany) |



Table 7.14

JOINT EDUCATIONAL PROGRAMMES BEING DEVELOPED AT THE MOMENT (2014/2015 ACADEMIC YEAR)

| No | Programme | Mode of study | VSU participating faculty | International university |
|----|---|-----------------------------|---|---|
| 1 | International and European Law in Eastern Europe | Master's degree programme | The Faculty of Law, The Faculty of Economics | The University of Zagreb (Croatia), The University of Maribor (Slovenia) |
| 2 | Corporate Management | Master's degree programme | The Faculty of Law, The Faculty of Economics | The University of Zagreb (Croatia) |
| 3 | World economy | Bachelor's degree programme | Faculty of International Relations | University of Leon (Spain) |
| 4 | Commercial network management | Master's degree programme | Faculty of International Relations | Lille University of Science and Technology (The Université Lille 1, France) |
| 5 | Regional Studies in Russia Distance learning programme | Master's degree programme | Faculty of International Relations | The University of Alcalá (Spain) Liceus company |
| 6 | Mathematics / Applied mathematics | Master's degree programme | The Faculty of Mathematics, The Faculty of Applied Mathematics, Informatics and Mechanics | The University of Texas at Brownsville (USA) |
| 7 | Physics | Master's degree programme | The Faculty of Physics | The University of Texas at Brownsville (USA) |
| 8 | Russian as a Foreign Language | | International Education Institute | ABY Educational Group (Madrid, Spain) |



7.14. VSU'S PARTICIPATION IN THE COMPETITIONS FOR INTERNATIONAL FUNDS AND PROGRAMMES

Since 2014, VSU has been implementing 11 international projects, including:

- six Tempus projects;
- 3 projects of the Seventh Framework Programme of the European Union;
- one Erasmus Mundus project;
- A programme of scientific cooperation between Eastern Europe and Switzerland.

In the current year, the International Project and Programme Centre of VSU's International Cooperation Department, in collaboration with the university departments, prepared 20 projects within major educational and scientific programmes, such as Tempus, Erasmus, the Seventh Framework Programme of the European Union.

In 2014, 6,231,712 roubles was received in the course of the implementation of these projects, which is a significant motivational factor for the modernization of academic and research activities.

PROJECTS AIMED AT DEVELOPING INTERNATIONAL ACTIVITY

Working within the framework of international projects and programmes requires special skills and abilities.

At VSU, there is an annual professional development course in "International scientific and educational projects aimed at improving the quality of education" (72 hours), whose graduates receive a certificate of completing a short-term advanced training programme from the Ministry of Education and Science of the Russian Federation.

An information session "European programmes in the Field of Education and Science: Opportunities for Russia" was held in 2014. Among the participants there were the Acting Head of the EU-Russian Cooperation Programme, Delegation of the European Commission to the Russian Federation Nicola Scaramuzzo (who presented new European education and academic mobility programmes), the Deputy Director of national office Erasmus+ in the Russian Federation Anna Muravieva and the Head of the DAAD in Moscow Gregor Berghorn.



Since 2013, at the Faculty of Romance and Germanic Philology there has been an “Academic English” project aimed at teaching the English language to the academic and teaching staff of the university.. The main purpose of the project is to improve the English-language skills and competencies for academic and scientific activity in English.

In 2014, there were three groups consisting of teachers from eight of the VSU faculties working on this project.

For 2014–2015, seven projects are planned aimed at developing VSU’s international activity, as well as at its further internationalization. The following projects were included in the project map of Voronezh State University for 2014/2015 academic year:

- Preparing and implementing seven joint academic programmes.
- The system of curators for VSU foreign students.
- An information session on “European programmes in the field of education and science: opportunities for Russia”
- An international conference on the economic and legal aspects of European Union expansion. A summer school on “European companies and Russia: economic and legal aspects”.
- A distance course The Fascinating Russian Language.
- Joint distance educational programme in Russian Regional Studies
- UNIQUE Centre created within the framework of the Erasmus Mundus project “UNIQUE – University Quality Exchange”.

The following projects were implemented in the current year: in September 2014, an information session was held on “European programmes in the field of education and science: opportunities for Russia”; in December 2014 the UNIQUE (University Quality Exchange) Centre was introduced into the structure of the VSU International Department; a System of Curators for VSU foreign students was organized. From September to December 2014, six events were organized for the international students enroller in one-semester courses at VSU in accordance with the partnership contracts and collaboration agreements. There were two main directions of work: organizing various social events for the international students and working with the VSU volunteer team. By November 2014, there were 35 applications submitted to the International Student Exchange Office of the Voronezh State University International Cooperation Administration from those willing to take part in the programme.



7.15. INFORMATION ON THE INTERNATIONAL STUDENT POPULATION AND DYNAMICS

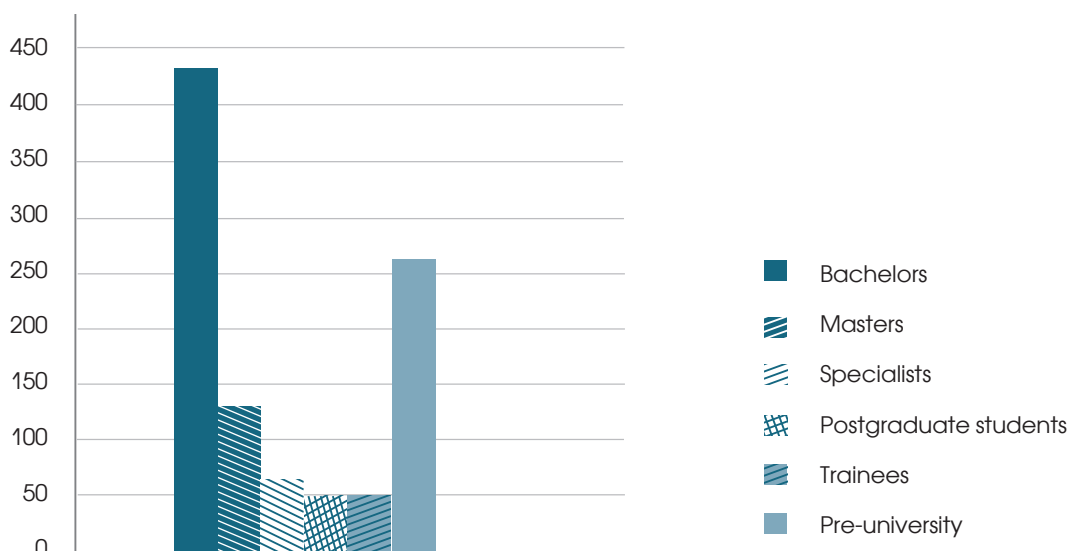
The work on enrolling foreign residents in study programmes on a free basis (funded from the budget of the Russian Federation) was done in collaboration with Rossotrudnichestvo and the Ministry of Education and Science of the Russian Federation, using the information system of the allocation of quotas for international student admissions russia-edu.ru of the Ministry of Education and Science of the Russian Federation).

Following the results of a competitive selection, Voronezh State University was the third in the country by the number of international students allowed to be admitted on a free basis, with only the Peoples' Friendship University of Russia and Saint Petersburg State Polytechnic University (engineering fields and programmes) ahead.

Total number of international students studying at VSU in 2014–2015 is 1026. In 2014, there were 265 people admitted to pre-university education courses on the free and fee-paying basis – this is the largest number of students in the last 20 years. (Fig. 7.13).

Figure 7.13

TOTAL NUMBER OF INTERNATIONAL STUDENTS STUDYING AT VSU IN 2014–2015 (BY THE DEGREE)





The III International Student Conference “Student research as a resource of innovative potential for development” was organized by the VSU International Education Institute in collaboration with the VSU faculties. 87 international students and postgraduates took an active part in the conference.

There were reports presented by the students of 10 VSU faculties. Apart from them, a number of students from other Russian and international universities took part: the Zhukovsky – Gagarin Air Force Academy, the Pushkin State Russian Language Institute, as well as VSU partner universities – Qingdao University of Science and Technology (People’s Republic of China), Martin Luther University (Germany), and the University of Tartu (Estonia).

VII Festival of the Russian Language for international students was held at VSU by the VSU Institute of International Education. The festival was attended by 19 teams of international students winning the qualifying competitions, from the leading academic centres for training of foreign citizens at different universities of the Russian Federation. Grand Prix of the Festival was awarded to a Macedonian student of the VSU Institute of International Education Kosta Tomovski; the first prize in the team event was awarded to the team of the Pushkin State Russian Language Institute (Moscow), and the team of VSU international students won the 2nd prize.

In collaboration with the Department of Culture of the Voronezh Municipal Government, the VSU Institute of International Education organized the XIII International Song and Dance Festival. Over 700 participants took part in the three-day marathon, staging over 200 performances. At the closing concert of the festival, there were over two thousand people.

On the initiative of the VSU Rector, supported by the partner Minzu University of China (Beijing), the VSU Institute of International Education organized the very first Festival of the Chinese Language, Literature, and Culture. Both Russian and Chinese students, as well as the teachers and a large delegation from the Minzu University of China took part in the festival. The colourful and creative programme evoked a wide response from the Russian and Chinese mass media.



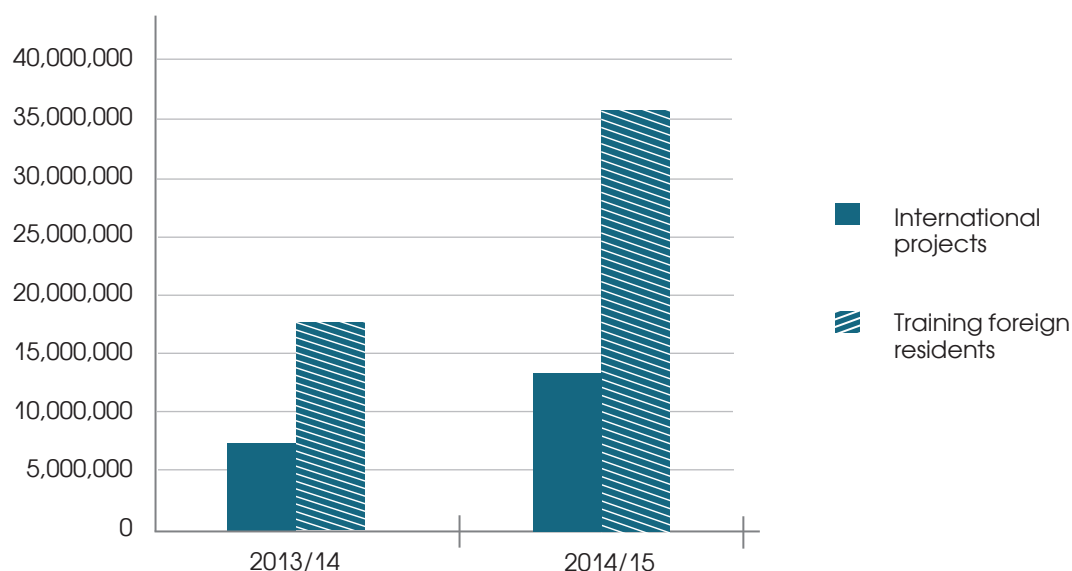
In collaboration with the communities and groups of international students, a number of cultural and sports events were held, aimed at strengthening the friendly ties among international students and establishing connections with the Russian young people, including:

- programmes of orphanage patronage were continued in Novaya Usman and Semiluki (several concerts were organized and donations of equipment, clothes, and school supplies were made);
- there were five “friendship lessons” held at schools, vocational schools, and technical colleges of the city;
- popular traditional students’ contests were held, such as “Miss Institute of International Education”, “Mister Institute of International Education”; the “Russian Club” was very active; national holidays of the international students were celebrated; sports tournaments were held in indoor soccer, table tennis, and chess;
- the team of the VSU Institute of International Education won the third prize at the traditional Russian indoor soccer tournament organized by the INSOTEK company;
- VSU international students started performing regularly at the celebrations of the City Day and Victory Day. the international students took part in the local patriotic song contest, as well as a number of local mass cultural events;
- at the invitation of the Regional Department of Education, Culture and Youth Policy, the international students took part in two ceremonies in honour of the best teachers of the region, as well as the Regional Tolerance Forum;
- they took part in a number of universitywide events.

The income from training fee-paying international students at VSU amounted to 35,760,529 roubles. (Fig. 7.14).

Figure 7. 14

TOTAL VSU INCOME FROM INTERNATIONAL ACTIVITY, roubles





7.16. BRIEF SUMMARY OF ACHIEVEMENTS IN 2014

1. Nineteen treaties and agreements on academic cooperation with the leading universities of Europe and Asia were signed.
2. Seven new double degree programmes are being actively developed.
3. Seven academic programmes (including one distance learning programme) are being developed in cooperation with foreign higher education institutions.
4. Twenty projects were developed under the major European programmes in Education and Science (Erasmus, Tempus, and EU's Seventh Framework Programme). Following the results of a competitive selection, VSU had five of its projects sponsored: three TEMPUS projects and two FP7 projects. Thus, the success rate of VSU's international projects is 25 %, which is higher than the average for most Russian universities.
5. A project for adaptation of international students has been launched.
6. An information session "European programmes in the field of Education and Science: Opportunities for Russia" was held. Among the participants there were the Acting Head of the EU-Russian Cooperation Programme, Delegation of the European Commission to the Russian Federation Nicola Scaramuzzo (who presented new European education and academic mobility programmes), the Deputy Director of national office Erasmus+ in the Russian Federation Anna Muravieva and the Head of the DAAD in Moscow Gregor Berghorn.
7. UNIQUE Centre was introduced into the structure of the VSU International Department (in the framework of the Erasmus Mundus project "UNIQUE – University Quality Exchange").
8. The amount of contracts in the framework of VSU international projects in 2014 was 295 000 euro (13.57 million roubles).
9. 28 teachers from leading foreign partner universities were involved in scientific and academic activity at VSU.
10. The total number of international students at Voronezh State University is more than 1,026 people.
11. 265 international students were trained at pre-university courses.
12. 87 international students and postgraduates took part in the III International Student Conference "Student research as a resource of innovative potential for development".
13. VII Festival of the Russian Language for international students was held at VSU. The festival was attended by 19 teams of international students winning the qualifying competitions, from the leading academic centres for training of foreign citizens at different universities of the Russian Federation. The team of VSU international students won the 2nd prize.





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 AREA OF STUDENT AFFAIRS AND SOCIAL DEVELOPMENT IN 2014

The objectives in the area of student affairs and social development in 2014 were stated in the August reports of the Rector. They include engaging a wide range of University students in the organisation of socially relevant extra-curricular activities, grounding student activists in management, developing the activity of student self-governance authorities, volunteer, environmental and construction brigade movements, and creating conditions for the development of student initiatives and implementation of various student projects at VSU.

8.2. ORGANISATION OF SUMMER HOLIDAYS

The Department of Student Affairs and Social Development (DSASD) ensured the organisation of summer holidays and recreation for the University staff and students at the Venevitinovo sport and fitness complex, the Black Sea coast and on the isle of Corfu.

In summer-2014 the number of people who spent their holidays at the Venevitinovo recreation facility totalled 985, including 448 VSU employees and members of their families, 30 retired VSU employees, 120 children of the VSU employees, 54 outsiders who paid the full price, and 333 students. 329 students went on holiday to the Black Sea coast, and 220 students – to Corfu (see figures 8.1–8.4).

Figure 8.1

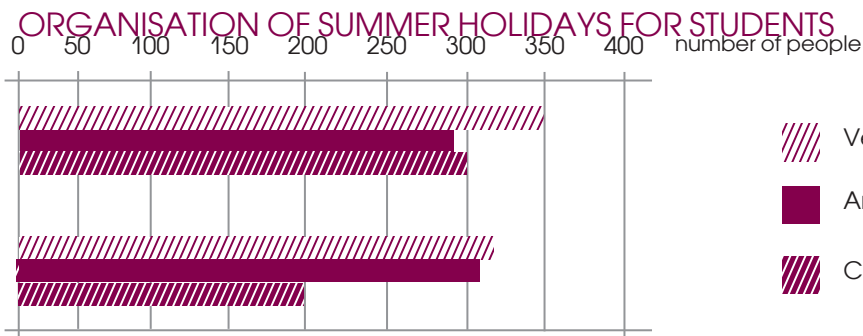


Figure 8.2



Figure 8.3



Figure 8.4



Moreover, the University continued to reimburse its employees for health resort treatment expenses. In 2014 the reimbursement received by 42 VSU employees amounted to 1,933,535 rubles (see Figures 8.5–8.6).

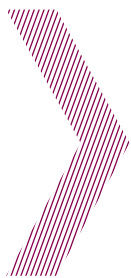


Figure 8.5

NUMBER OF EMPLOYEES HAVING RECEIVED THE REIMBURSEMENT, ROUBLES

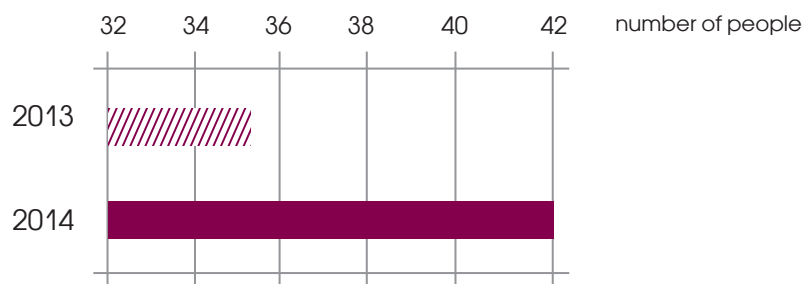
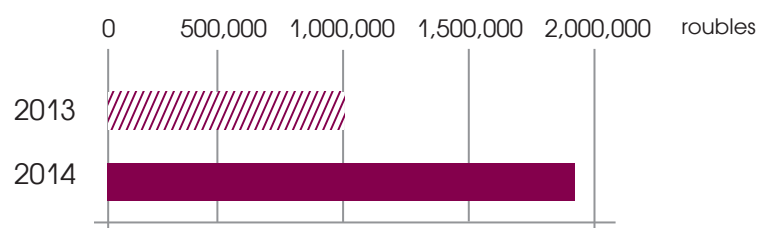


Figure 8.6

MONEY SPENT ON REIMBURSING EMPLOYEES FOR HEALTH RESORT TREATMENT EXPENSES, ROUBLES



8.3. FINANCIAL AID

In 2014 on the grounds of the Regulations on Terms and Conditions of Rendering Financial Aid to the Employees of Voronezh State University and the Regulations on Social Support for the Single Retired Employees of Voronezh State University 306 current and retired VSU employees received financial aid which amounted to 2,266,500 roubles (1,634,00 roubles – from the University budget, 3,000 roubles – from the subdivisions' budget, 629,500 roubles – from the State budget) (see Figures 8.7–8.8).

Figure 8.7

FINANCIAL AID TO EMPLOYEES

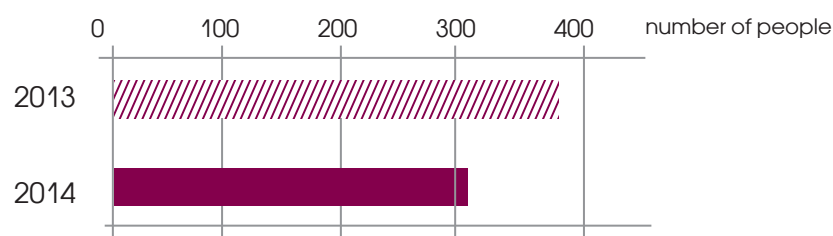
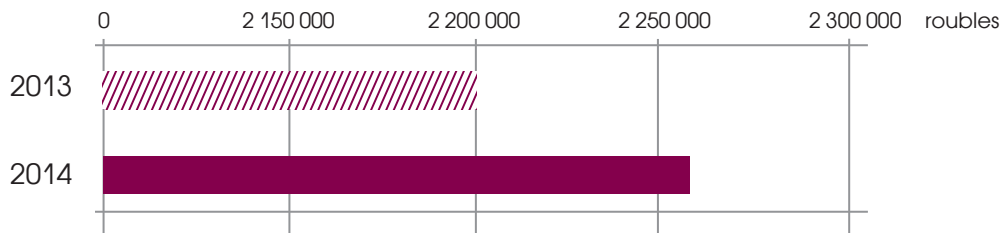


Figure 8.8

MONEY SPENT ON THE FINANCIAL AID TO EMPLOYEES, ROUBLES



In 2014 the amount of money spent on the financial aid to undergraduate and post-graduate students totalled 58,781,933 roubles. The aid was rendered to 11,556 people (see Figures 8.9–8.10).

Figure 8.9

FINANCIAL AID TO STUDENTS

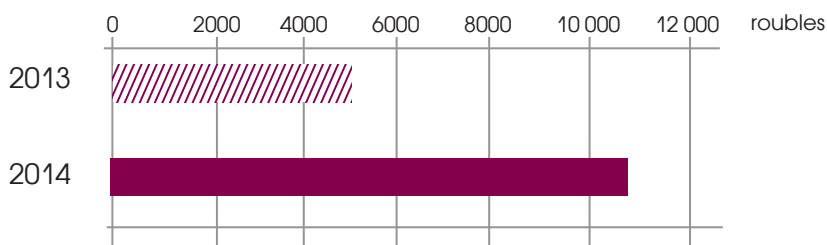
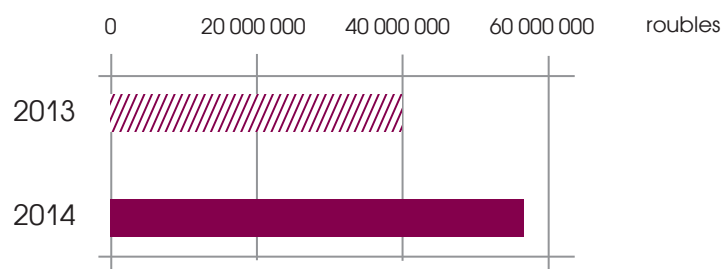


Figure 8.10

MONEY SPENT ON THE FINANCIAL AID TO STUDENTS, roubles





8.4. BURSARIES

An academic scholarship for the full-time students occupying state-funded places and receiving good or excellent and good marks amounted to 1900 roubles; an academic scholarship for the students receiving only excellent marks amounted to 2400 roubles, and a bursary amounted to 2300 roubles.

In 2014 the sum of bursaries paid to students totalled 22,549,486 roubles (see Figures 8.11–8.12).

Figure 8.11

NUMBER OF STUDENTS HAVING RECEIVED BURSARIES

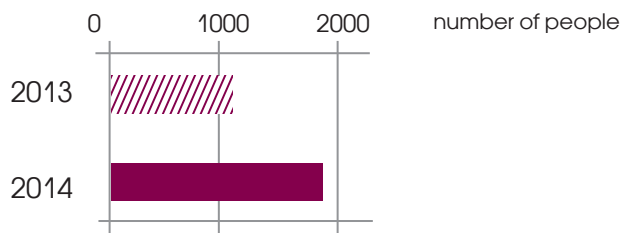
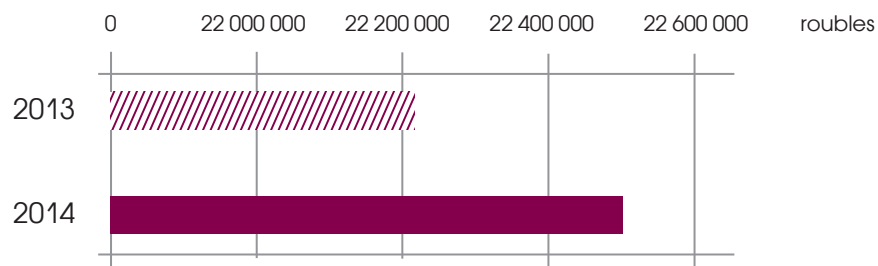


Figure 8.12

MONEY SPENT ON BURSARIES, ROUBLES





8.5. INTERACTION WITH THE VSU TRADE UNION

IN ACCORDANCE WITH THE LABOUR CODE OF THE RUSSIAN FEDERATION, ARTICLE 24 THE UNIVERSITY IMPLEMENTED REAL SOCIAL PARTNERSHIP IN PRACTISE

1. COLLECTIVE CONTRACT

Improvements to the Collective Contract are made on a regular basis. In addition, a joint negotiation committee continues its work. As a result, due to the changes in the legal and regulatory framework for occupational safety and health as well as the specifications in a number of the Contract provisions amendments to the Collective Contract were considered and made in April, July and November 2014. Preparation for the prolongation of the Collective Contract for the next three years in accordance with the Labour Code of the Russian Federation, Article 43 is in progress at the moment.

2. VENEVITINOVO

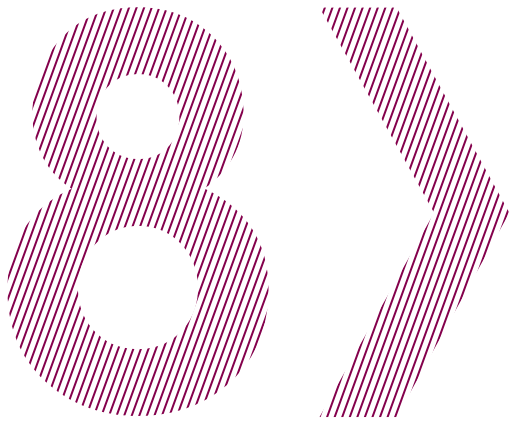
A joint monitoring of the housing and recreation conditions at the Venevitinovo complex is carried out regularly. A pricing policy concerning a holiday package price for different groups of tourists is elaborated jointly as well. A joint committee occasionally visits the site, participates in planning the preparatory work for the opening of the recreation facility and examines recreation conditions for each group of employees.

As a result of such visits six reports and several memorandums aimed at the improvement of the complex work were drawn up in 2014. 323 employees, 120 preschool- and school-aged children of employees, 125 other family members of employees, 30 retired employees, and 54 outsiders spent their holidays at Venevitinovo during the last summer season. The number of tourists who spent their holidays at the Venevitinovo recreation facility during 2014 summer season totalled 652.

3. PHILHARMONIC HALL

The Rectorate actively supports the programme initiated by the Trade Union Committee which provides University employees with an opportunity to attend classical music concerts held at the Philharmonic Hall. The Trade Union Committee issues season tickets bought by the University for such concerts among VSU current and retired employees at reduced prices.

In both spring and autumn seasons concerts of the Voronezh Academic Symphony Orchestra and Voronezh Youth Symphony Orchestra were attended by 60 and 30 people respectively. The University also runs programmes for one-time visits to certain philharmonic concerts (March 2014, D. Matsuev) and has started to organise concerts of the performers popular with the VSU audience (March 2014, V. Durdenko).



4. TEACHING LOAD

Collaborative work on the analysis of the structure and volume of the academic staff teaching load is done on a regular basis. A joint committee analyses the dynamics of these indices according to departments and at the University on the whole. The committee productively collaborates with the VSU Research and Methodology Board.

5. EFFECTIVE CONTRACT

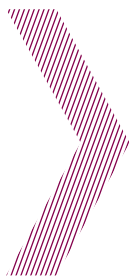
Collaborative work on the preparation for a transition to an effective contract was conducted throughout 2014. Various versions of effective contract systems implemented at a number of higher education institutions were considered at different-level meetings. Effectiveness criteria and indices which allow the carrying out of a quantitative assessment of these criteria for various groups of University employees within the framework of an effective contract were discussed and formulated as well. Since such a system will lead to a considerable differentiation between employees' salaries the parties make every endeavour in order to ensure clarity and transparency in the work assessment of any employee by providing quantitative data for the indices of their work effectiveness.

6. EXPERT COMMITTEES ON INTERNAL GRANTS

The Trade Union participated in the work of expert committees to identify the best professor, the best associate professor, the best lecturer, the best teaching materials and the best programme in a foreign language through the system of internal University grants which contributed to the popularisation of this useful Rectorate's initiative aimed at supporting the best in pedagogics.

7. NUTRITION

The Trade Union Committee in collaboration with DSASD and student organisations regularly assesses the quality of nutrition at University food courts. Probe reports are drawn up and suggestions for the improvement of food and service quality at VSU canteens and cafeterias are generated. These suggestions are then discussed with the management of the Public Catering Department which serves as a basis for further decisions.



8. VICTORY DAY CELEBRATION

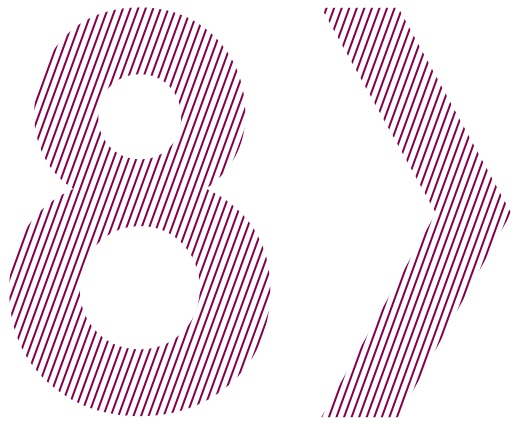
In 2014 the Trade Union Committee together with DSASD organised and participated in the anniversary celebration of the Victory in the Great Patriotic War. Veterans themselves admitted that last year's joint celebration in their honour was particularly warm and heartfelt although such events have long been a University tradition. Unfortunately, the activity of the Veterans Council was not fully restored at the University as the Council chair could not be selected.

9. SINGLE RETIRED EMPLOYEES

DSASD in collaboration with the Trade Union Committee supervises single retired VSU employees. In 2014 all of them received one-time payments for the International Women's Day and the International Day of Older Persons. At the moment the list of single retired VSU employees includes 50 people.

10. CONSTANT COLLABORATION WITH DSASD

At present collaborative work of the Trade Union Committee and the Rectorate is conducted in due course within all areas of focus crucial for employees. The cooperation with DSASD supervised by the Vice Rector O. V. Grishaev is carried out in a continuous mode and includes rendering financial aid, partial reimbursement for health resort treatment expenses, considering bank credit offers, collaboration with construction companies in the field of social housing, etc.



8.6. PROGRESS REPORT ON THE GRANT OF THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION FOR STUDENT COMMUNITIES DEVELOPMENT

In 2014 VSU for the second time in a row won the Contest of Programmes for Student Communities Development. The grant amounted to 10 million roubles.

The targets within all areas of the Programme's focus were exceeded which proves that not only the Programme on the whole but also all its sections were implemented successfully.

In the section "**3.1. Science and Innovations**" a course for the student research popularisation held in 2012 when implementing the programme "Breakthrough" was preserved. Last year even a greater number of students were provided an opportunity to travel and deliver their presentations at different-level conferences and symposiums. As a result, in 2014 the number of awardees increased by 30 students in comparison with 2013.

In the section "**3.3. Career and Employment**" owing to the extended coverage of vocational guidance and employment events the number of students attending such events as well as the number of partner enterprises delivering their presentations and willing to employ VSU graduates rose. The targets for the above mentioned event were exceeded by 37%.

In the section "**3.5. Student Self-Governance Development**" the events dedicated to the student self-governance popularisation attracted a great number of participants. Student self-governance authorities were created at all faculties. The Cup of Seventeen was successfully held. The Joint Council of VSU Students is now considering regulations on several new public associations. Many students submit individual applications to take part in projects.

In the section "**3.7. Sports and Healthy Lifestyle**" a VSU team of sports event organisers has been recently formed. Sports events held at VSU include among others the Futsal Cup among Student Dormitory Teams and the All-Russian Conference in Amateur Sports Development. These two events attracted a great number of participants from different cities and regions. All participants made special reference to the high level of organisation and an interesting programme of the sports tournaments.



In the section “**3.11. International Youth Cooperation**” within the framework of the International Student Exchange Programme VSU students visited in 2014 Thessaloniki and held three meetings with the student councils of the Aristotle University, the University of Macedonia and the University of Sheffield, the United Kingdom as well as with the Russian community in Greece. The students presented Voronezh State University, the Development Programme, sports and creative events. The VSU Student Council was invited to a number of social and creative events organised by the Russian community. The forum “We Speak One Language” also attracted great attention. Over 500 people including participants from the CIS countries, Germany, England, Finland, Estonia and Latvia took part in the forum.

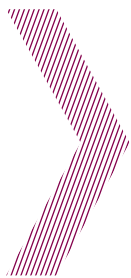
8.7. BRIEF OVERVIEW OF THE CONTESTS “FIRST-YEAR STUDENT”, “STUDENTS’ SPRING”, “WHAT? WHERE? WHEN?”

“FIRST-YEAR STUDENT”

The “First-Year Student” festival is a traditional event aimed at identifying creative skills of the students newly admitted to VSU. In 2014 the festival was held in November at the VSU Concert Hall. Approximately 200 students performed at the event, and about 2000 students came to see it.

The distribution of places according to faculties:

- 17 – the Faculty of Biology and Soil Sciences
- 16 – the Faculty of International Relations
- 15 – the Faculty of Journalism
- 14 – the Faculty of Philology
- 13 – the Faculty of Chemistry
- 12 – the Faculty of Economics
- 11 – the Faculty of Geography, Geoecology and Tourism
- 10 – the Faculty of Pharmaceutics
- 9 – the Faculty of Geology
- 8 – the Faculty of History
- 7 – the Faculty of Romance and Germanic Philology
- 6 – the Faculty of Philosophy and Psychology
- 5 – the Faculty of Applied Mathematics, Informatics and Mechanics
- 4 – the Faculty of Law
- 3 – the Faculty of Computer Sciences
- 2 – the Faculty of Mathematics
- 1 – the Faculty of Physics



“STUDENTS’ SPRING”

“The University Spring” is a gala performance which lasts for almost two weeks at the VSU Concert Hall. Each faculty makes a fully-fledged two-hour concert which includes performances of various genres and trends (dancing, theatrical, musical and original genres) united by one style and director’s scenario. Every year the festival provides an opportunity to discover new talents who then participate in the regional round of the festival.

The First League

The distribution of places according to faculties:

- 9 – the Faculty of History
- 8 – the Faculty of International Relations
- 7 – the Faculty of Pharmaceutics
- 6 – the Faculty of Mathematics
- 5 – the Faculty of Biology and Soil Sciences
- 4 – the Faculty of Philosophy and Psychology
- 3 – the Faculty of Chemistry
- 2 – the Faculty of Geography, Geoecology and Tourism
- 1 – the Faculty of Philology

The Premier League

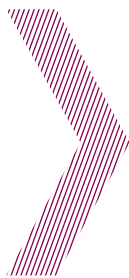
The distribution of places according to faculties:

- 8 – the Faculty of Journalism
- 7 – the Faculty of Romance and Germanic Philology
- 6 – the Faculty of Economics
- 5 – the Faculty of Applied Mathematics, Informatics and Mechanics
- 4 – the Faculty of Law
- 3 – the Faculty of Geology
- 2 – the Faculty of Physics
- 1 – the Faculty of Computer Sciences

The number of students who participated in the festival totalled approximately 500, and the number of students who came to see it amounted to almost 3000.

At the “Regional Spring” interuniversity contest VSU students became the winners in the following nominations:

- 1) Grand Prix in the nomination “Programme”;
- 2) a performance “Wanderers” (“Top Rate” band under the supervision of A. Goncharov) – dancing genre – “The Best Popular Dance”;
- 3) a performance “Freezlight” (a team of VSU students from the Faculty of Physics) – the best performance in the nomination “Original Genre”;
- 4) a miniature “Proposal” (P. Bagina, A. Chuykov) – theatrical genre – “The Best Miniature”;
- 5) S. Astakhov – “The Best Actor” (a miniature “Buckwheat” – theatrical genre);
- 6) a dance “When It’s Not Too Late” (A. Goncharov, K. Gornostaev, D. Kharlan) – laureates in the dancing genre.



As a part of the delegation the winners of the regional contest participated in the “Russian Students’ Spring” contest. As a result, VSU students defending the honour of the University and the region on the whole became awardees in the following nominations:

- “Top Rate” band – the second place in the nomination “Mass Dance” for the performance “Wanderers”;
- A.Goncharov, D. Kharlan, K. Gornostaev – the second place in the nomination “Contemporary Dance. Small Forms” for the performance “When It’s Not Too Late”.

“WHAT? WHERE? WHEN?”

“The Open Cup of the Black Earth Region”, a large-scale tournament of intellectual games, was held in Voronezh in the autumn 2014 at the Event-Hall concert hall on the initiative of VSU students. Participants from Armenia, Belarus, Israel, Kazakhstan, Latvia, Turkmenistan, Uzbekistan, and Ukraine as well as from 20 Russian cities took part in the event. The tournament was organised by such famous experts as Mikhail Malkin, Anatoliy Vasserman, Nikita Saprykin, Andrey Klimov, Ivan and Maria Eikhgolts, Yaroslav Arnautov, Arkadiy Illarionov, Viktoria Testova, Aleksey Proshin, Evgeniy Lyapin, Maksim Andreyshev, Irina Gavrilova, Darya Kobozeva, Olesya Zibrova, and Pavel Sirotin.

8.8. BRIEF OVERVIEW OF THE EVENTS HELD TO DEVELOP PATRIOTISM AND CIVIC POSITION

Laying flowers in front of the monument of the VSU employees and students who died during the Great Patriotic War is a traditional event for this area of focus. Such events are timed to the following commemorative dates: 22 June, 9 May, and the Day of Voronezh Liberation from Nazi Invaders.

A research-to-practice conference “Cultural and Historical Heritage of the Central Black Earth Region” took place 29 September 2014. The conference was organised by the representatives of the project “Archaeological Heritage of the Central Black Earth Region”. It was held at the premises of the Faculty of History, VSU with the support of the Joint Council of VSU Students. The conference was attended by scientists and experts specialising in different fields: professional archaeologists, teachers, university lecturers, further education experts, public persons, local history experts, and students. The geography of the participants was quite broad: Voronezh, the Voronezh Region, Lipetsk, and Omsk. The conference focus was determined by the urgent problems in the area of conservation, popularisation and usage of the historical and cultural heritage objects. The topic of patriotic education through the familiarization with historical and cultural monuments occupied a special place at the conference.



8.9. BRIEF OVERVIEW OF THE STUDENT FESTIVALS, CONCERTS, CAMPAIGNS AND CHARITY

VSU Volunteer Club has been functioning at the University since 2012. Student members of this club participated in the Platonov Festival. In addition, they regularly organise charity campaigns and render assistance in holding events. Moreover, two charitable organisations operate at VSU on a regular basis: "Students to Children" (renders assistance to orphanages) and "Swings" (a youth organisation of voluntary donors). Last year students conducted a number of campaigns at large higher education institutions of the region attracting over 2500 people to voluntary donorship. In 2013 by efforts of this organisation the deficiency of donor blood in the Voronezh Region was compensated for the first time.

The School of the Students' Spring held at the VSU premises became one of the major events in the autumn 2014. The event took place from 15 to 18 November. 115 participants from 12 regions of the Central Federal District came to Voronezh at that time. The event itself was aimed at supporting and developing student amateur talent activities as well as at generating new innovative methods of collaboration between government authorities and non-governmental organisations in the area of student creativity support and development. The School's lectures and workshops were conducted by the Honoured Artist of the Russian Federation Andrey Bil, the director of the production centre Début Sergey Kharin, Artemiy Manukyan, the Honoured Artist of the Republic of North Ossetia-Alania Zarina Khubaeva, and the director of the programme "Russian Students' Spring" Anastasiya Makhnakova.

VSU traditional "School for Student Activists" held at the Venevitinovo recreation facility in September became one of the most impressive events. The most experienced in performing senior students organised and managed the event. They delivered lectures on the concert organisation, fund-raising, background music and equipment for a concert, performance invention and stage hairdos. The format of the event was quite interesting – on the same day the participants were asked to demonstrate the knowledge acquired during the theoretical part in practise. 43 senior students took part in the event as organisers, and 160 second- and third-year students from all VSU faculties – as participants.



8.10. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2014

The information presented here can be divided in two groups: the achievements in the area of student affairs and creative activity, and the achievements in the social development sphere.

The achievements in the area of student affairs and creative activity:

- the VSU team successfully performed at the annual festival “Students’ Spring of the Voronezh Region”;
- the VSU thematic space was organised on the City Day;
- in 2014 “The Open Cup of the Black Earth Region” was held for the first time where Voronezh, and VSU in particular, earned a reputation as of one of the centres of intellectual games in Russia. This event attracted participants not only from the Black Earth Region but also from various distant cities of Russia such as Ufa, Chelyabinsk, and Chita, as well as participants from Armenia, Belarus, Israel, Kazakhstan, Latvia, Turkmenistan, Uzbekistan, and Ukraine. Some celebrities from the TV versions of the games also took part: Anatoliy Vasserman, Iliya Ber, Iliya Novikov;
- at the end of 2014 VSU for the third time in a row won the Contest of Programmes for Student Communities Development held by the Ministry of Education and Science of the Russian Federation. The prize amounted to 14 million roubles.

The achievements in the social development sphere:

- student bursaries were increased and amounted to 2300 roubles;
- decreasing coefficients for dormitory accommodation charges were introduced;
- financial aid increased and amounted to 3500 roubles, 5000 roubles (for the death of a family member), and 10000 roubles (for the death of a VSU current or retired employee);
- the level of employees’ social security improved, the amount of money for rendering financial aid to VSU current and retired employees as well as for reimbursing for health resort treatment expenses increased.





CAPITAL DEVELOPMENT AND FACILITIES





CAPITAL DEVELOPMENT AND FACILITIES



V.F. Anokhin

Vice Rector for facilities
and capital development

9.1. MAIN OBJECTIVES IN THE SPHERE OF CAPITAL DEVELOPMENT AND FACILITIES IN 2014

To comply with the University property assets modernisation plan the Capital Construction Board carried out a number of construction activities.

VSU major objectives in the area of capital development in 2014:

- completion and commissioning of a new dormitory. To achieve these goals 129.366 million roubles were spent, including:
 - subsidies – 129.2 million roubles;
 - extra-budgetary financing – 0.166 million roubles;
- participation in the “Edinaya Rossia” party “500 swimming pools” programme and the beginning of VSU swimming pool construction. The task was totally accomplished. VSU started construction of the “Training swimming pool of FSFEI HPE VSU in Voronezh”. The project requires financing in the amount of 190.2 million roubles;
- construction of a footbridge between university buildings No 5 and 5a, located at 40, Kholzunov street. The construction was completed. The task was funded by the Strategic Development Programme and 1700.126 thousand roubles were spent to accomplish the task;
- enhancement of the university facilities. In 2014, to accomplish the task the following events were held. The competition for development of design documentation for



construction of the “Storage facility for training military equipment” for the Faculty of Military Education located at university building No 3 was held. In 2014, the necessary technical conditions were fulfilled and reconstruction design works for a storage facility for military training equipment located at university building No 3 (24, Prospekt Revolutsiy) were implemented.

Construction work in process:

an urgent decision has to be made on construction of a gas boiler house at 10, F. Engels street (for a complex of dormitories No 1, 2, 3, 4 and other buildings in Voronezh). In the framework of events arranged to meet the requirements of the supervision bodies concerning basement boiler houses replacement.

9.2. LIST OF COMPLETED CONSTRUCTION WORKS AND MAJOR REPAIRS IN 2014

In accordance with the set objectives:

- In 2014, the Capital Construction Board completed construction of the dormitory at 42d, Kholzunov street and a footbridge between university buildings No 5 and 5a;
- In 2014, Facilities Administration developed technical documentation and 11 auction applications in the amount of 7,741,715 roubles were submitted (7,649,304 roubles – federal financing; 92,411 roubles – extra-budgetary financing (table 9.1)).

11 applications submitted included:

- 3 applications for development of design documentation for construction of the “Storage facility for military training equipment” for the Faculty of Military Education located at university building No 3 in the amount of 597,472 roubles;
- 8 applications for university buildings renovations in the amount of 7,144,243 roubles.

Table 9.1

LIST OF COMPLETED MAJOR REPAIRS WORK

| No | Activity | Source of financing | |
|--------------|---|--------------------------------------|--|
| | | State-funded, thousand roubles | Extra budgetary funds, thousand roubles |
| 1 | Renovations of rooms No 307-3, 302, 410 of university building No 3 (24, Prospekt Revolutsiy) | 792,760.44 | |
| 2 | Renovations of room No 130 of the library of university building No 3 (first priority) (24, Prospekt Revolutsiy) | 1,836,198.47 | |
| 3 | Renovations of rooms No 115, 118 and the hall of university building No 4, replacement of window units of university building No 3, room No 413 (24, Prospekt Revolutsiy) | 2,152,269.22 | |
| 4 | Renovations of room No 108, ground floor lavatories, the entrance door of university building No 8 | 366,605.08 | |
| 5 | Renovations of room No 428 of university building No 1, rooms No 290, 477 of university building No 1a | 762,106.95 | |
| 6 | Front elevation work in university building No 1 | | 92,411.45 |
| 7 | Renovations of the third floor lavatories in university building No 2 | 501,900.41 | |
| 8 | Renovations of rooms No 11, 12, 13 and blind area and pavement repair work at university building No 10 (14, Nikitinskaya Street) | 640,000.00 | |
| Total | | 7,051,831.57 | 92,411.45 |

In the reserve "Galichya Gora" gas supply installation and construction work was implemented in the amount of **1,201,000 roubles**.

In 2014, Facilities Administration staff carried out work in the amount of **8,229.0 thousand roubles** financed from extra-budgetary funds (tables 9.2–9.5).

Table 9.2

PLUMBING

| Site | 2013 Amount, thousand roubles | 2014 Amount, thousand roubles |
|------------------------------|----------------------------------|----------------------------------|
| University building No 1, 1a | 80.0 | 97.2 |
| University building No 2 | 60.0 | 78.4 |
| University building No 3 | 50.0 | 56.3 |
| University building No 4 | 60.0 | 67.1 |
| University building No 5 | 70.0 | 68.5 |
| University building No 6 | 70.0 | 92.4 |
| University building No 7 | 80.0 | 56.8 |
| University building No 8 | 90.0 | 73.5 |
| University building No 9 | 90.0 | 92.2 |
| Total | 650.0 | 682.4 |

Table 9.3

ELECTRICAL WORKS

| Site | 2013 Amount, thousand roubles | 2014 Amount, thousand roubles |
|------------------------------|-------------------------------------|-------------------------------------|
| University building No 1, 1a | 565.810 | 680.000 |
| University building No 2 | 77.700 | 88.4000 |
| University building No 3 | 79.000 | 120.000 |
| University building No 4 | 19.678 | 125.000 |
| University building No 5, 5a | 227.300 | 145.000 |
| University building No 6 | 102.800 | 130.000 |
| University building No 7 | 23.800 | 90.000 |
| University building No 8 | 5.600 | 180.00 |
| University building No 9 | 3.950 | 20.000 |
| University building No 10 | 5.300 | 85.000 |
| Total | 1,110.938 | 1,663.400 |

Table 9.4

GENERAL CONSTRUCTION WORK

| Site | 2013 Amount, thousand roubles | 2014 Amount, thousand roubles |
|--|-------------------------------------|-------------------------------------|
| University building No 1, 1a | 2,488.0 | 2,321.0 |
| University building No 2 | 255.0 | 335.0 |
| University building No 3 | 151.0 | 238.0 |
| University building No 4 | 340.0 | 392.0 |
| University building No 5, 5a | 673.0 | 621.0 |
| University building No 6 | 126.0 | 151.0 |
| University building No 7 | 36.0 | 41.0 |
| University building No 8 | 104.0 | 89.0 |
| University building No 9 | 146.0 | 139.0 |
| Central heat supply station, maintenance department | 97.0 | 152.0 |
| Total | 4,416.0 | 4,479.0 |



Table 9.5

VENTILATION WORKS

| Site | 2013 Amount, thousand roubles | 2014 Amount, thousand roubles |
|----------------------------------|-------------------------------------|-------------------------------------|
| University building No 1, 1a, 1b | 186.0 | 213.0 |
| University building No 2 | 50.0 | – |
| University building No 3 | 73.0 | – |
| University building No 5, 5a | – | 36.0 |
| University building No 6 | – | 25.0 |
| University building No 7 | 35.0 | 19.0 |
| University building No 8 | – | 21.0 |
| Total | 344.0 | 314.0 |

A lot of repair work was done with regard to boiler house equipment and the heating system in the university buildings.

220,200 roubles were spent on boiler house repair work.

To meet the requirements of the supervision bodies heating system flushing and pressure testing was implemented and the corresponding certificates of readiness were prepared and signed. To achieve these goals **870 thousand roubles** were spent.

Additionally, other essential works were implemented (table 9.6):

Table 9.6

LIST OF ADDITIONAL WORKS

| No | Activity | Amount, roubles |
|--------------|--|------------------------|
| 1 | Maintenance, emergency control service and repairs of three boiler houses at: <ul style="list-style-type: none"> • 1, Universitetskaya Ploschad; • 10, F. Engels Street; • settlement Somovo 23, Gruzinskaya Street | 92,323.86 |
| 2 | Heat meters maintenance in the university buildings and dormitories. Number of VSU buildings – 12 | 129,600.00 |
| 3 | Boiler house measuring instruments calibration: <ul style="list-style-type: none"> • SPG 761.2 rectifier; • TMT thermometer; • leakage detection system, combustible gas detector gas hazard alarms | 19,942.64 |
| 4 | Boiler house chimneys and boilers check-up: <ul style="list-style-type: none"> • 1, Universitetskaya Ploschad – "Minsk1", "KTS2"; • 10, F. Engels Street – "Universal5", "KTS1", settlement Somovo – "DTG X 48 N" | 30,680.00 |
| 5 | Heat meters calibration TMK-H1, KM5-4 | 121,632.56 |
| 6 | Filing the statement concerning technical ability of gas supply by OOO <i>Gazprom transgaz Moskva</i> for the new boiler house at 10, F. Engels Street. Issuing the decision by OOO <i>Gazprom transgaz Moskva</i> | 35,900.00 6,000.00 |
| 7 | Calibration of measuring instruments in the energy material metering unit in university building No 9 (10a, Ploschad Lenina) | 17,040.00 |
| 8 | Development of a schedule of measures aimed at localisation and management of accidents in 2 VSU boiler houses | 56,000.00 |
| 9 | Hazardous facility public liability insurance for 2015: <ul style="list-style-type: none"> • FSFEI HPE VSU gas consumption channels; • heat supply system | 35,000.00 14,000.00 |
| Total | | 558,119.06 |

Total utility costs in 2014 amounted to 88,820.7 thousand roubles, including:

- subsidies – **51,885.3 thousand roubles;**
- extra-budgetary funds – **36,935.4 thousand roubles.**



9.3. FINANCING OF CAPITAL DEVELOPMENT AND FACILITIES BY SOURCE OF FUNDING IN COMPARISON WITH 2013

Figure 9.1

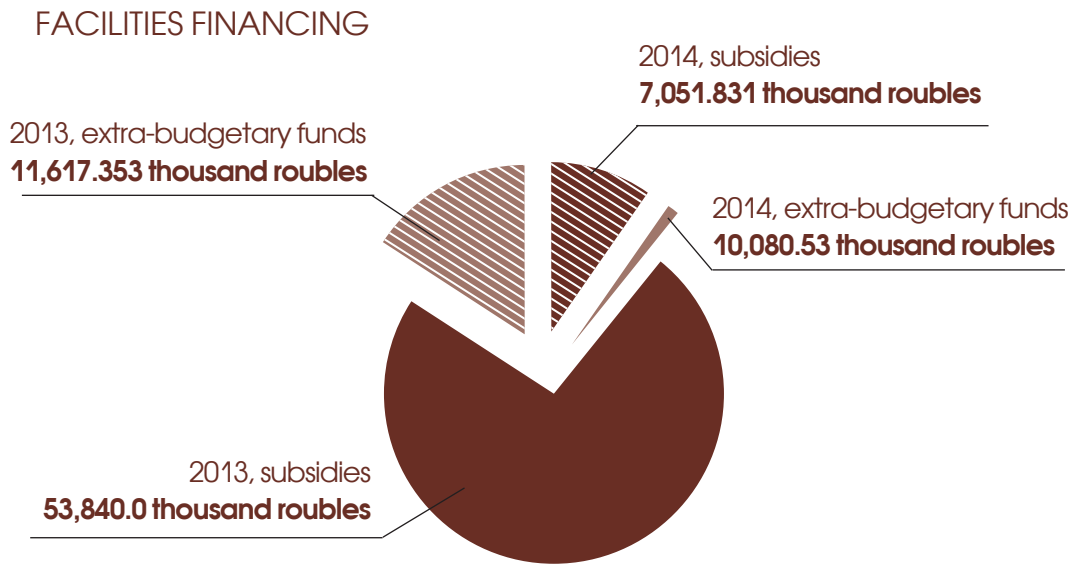


Figure 9.2

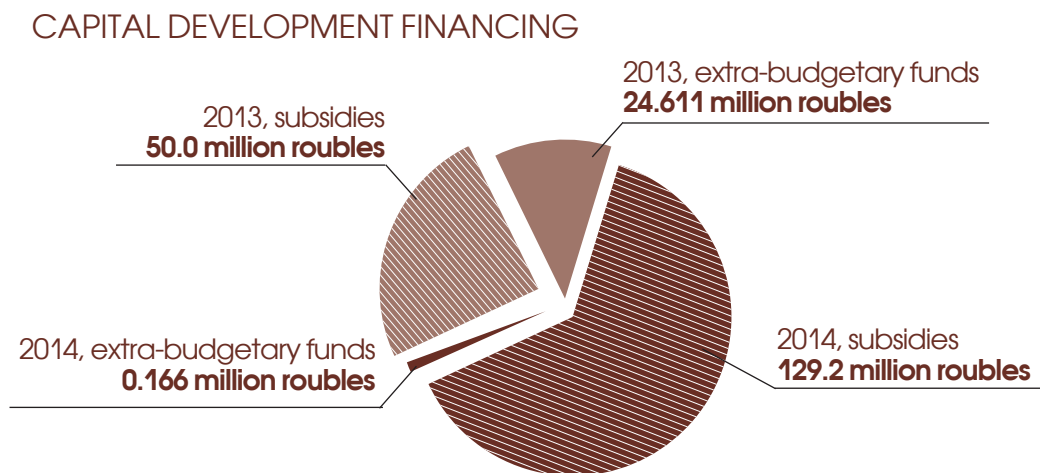
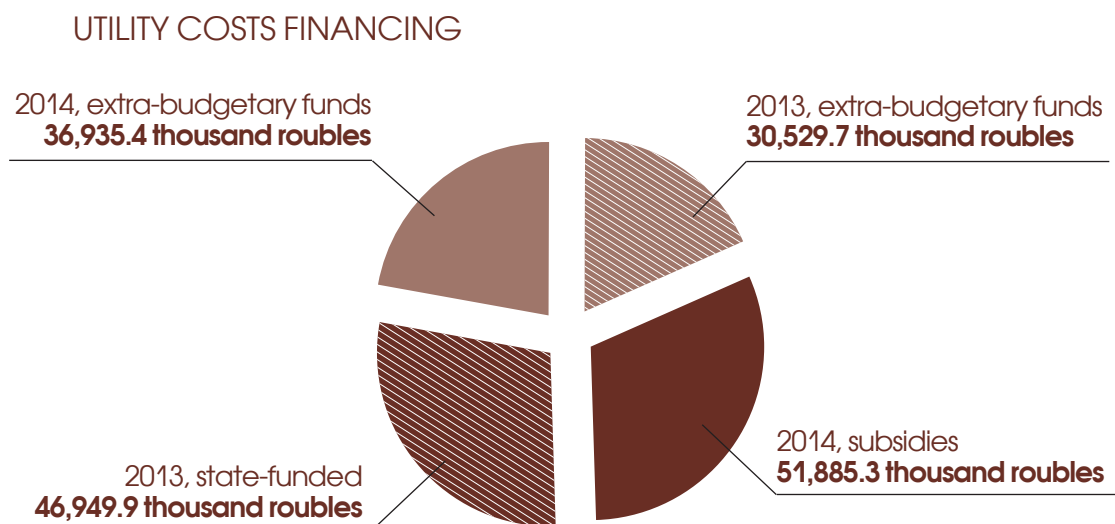


Figure 9.3





9.4. OVERVIEW OF PROMISING CAPITAL DEVELOPMENT PROJECTS IN PROCESS IN 2014

VSU was carrying out the following promising capital development projects:

- construction of “Training swimming pool of FSFEI HPE VSU in Voronezh” with a total area 2,562 m²;
- completing the construction of the boiler house at the address Voronezh, 10k F. Engels Street (construction was started in 2002);
- construction of a footbridge in university building No 5 at 40, Kholzunov Street in Voronezh.

9.5. OVERVIEW OF VSU GARAGE OPERATIONS IN 2014

Garage staff were involved in a lot of activity:

- summer training for students in Voronezh, Lipetsk, Kursk, Leningrad, Moscow regions, the Republic of Adygeya, and the Republic of Crimea was held;
- 280 thousand passengers were carried;
- cargo turnover amounted to 954.3 thousand tonnes;
- 81 thousand tonnes of goods were transported.

9.6. BRIEF SUMMARY OF THE MAIN ACHIEVEMENTS IN 2014

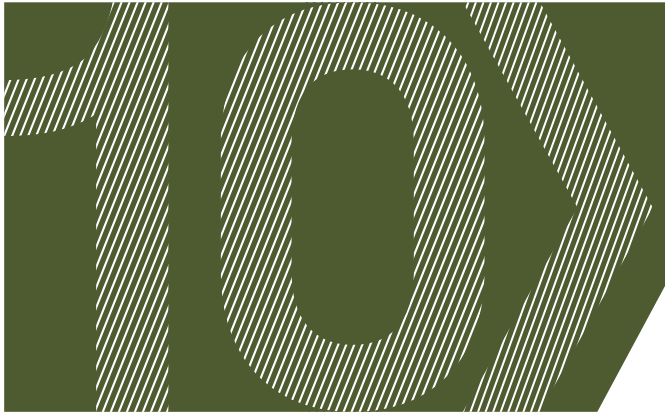
- A new dormitory at 42d, Kholzunov Street designed to accommodate 330 people, was completed within the federal targeted investment programme.
- The construction of the VSU 25-meter swimming pool with 6 lap lanes was started.
- Implementation of the energy saving and energy efficiency programme for buildings and facilities was continued.
- The fulfilling of accessibility requirements was started.
- Facilities Administration Engineering Services provided the necessary sustainment parameters for building and facilities.





MILITARY EDUCATION AT VORONEZH STATE UNIVERSITY





MILITARY EDUCATION AT VORONEZH STATE UNIVERSITY



Colonel **Alexander SCHERBAKOV**,
Dean of the Faculty of Military
Education

10.1. VSU MAJOR OBJECTIVES IN THE AREA OF MILITARY EDUCATION IN 2014

- implementing the message of the President of the Russian Federation Vladimir Putin on training soldiers and noncommissioned officers at the reserve officer training departments;
- implementing the military education programme at the VSU Military Training Centre and training officers for further military service under contract;
- implementing the education programmes in military occupational specialities for noncommissioned officers at the reserve officer training departments;
- participating in patriotic educational campaigns and providing military career guidance for the youth.

THE FACULTY OF MILITARY EDUCATION MAJOR OBJECTIVES

- implementing the military training programme for the Faculty's students, and organising field training and Military Oath ceremony for the 4th year students of the Reserve Officer Training Department;
- organising final certification exams for students completing the field training.



MAJOR OBJECTIVES OF THE ADMISSION CAMPAIGNS OF THE MILITARY TRAINING CENTRE AND THE RESERVE OFFICER TRAINING DEPARTMENT

- organising a PR-campaign to attract a greater number of students;
- revising the education process documentation at the Military Training Centre and the Reserve Officer Training Department and coordinating it with the customer;
- holding the admission campaign at the Military Training Centre and the Reserve Officer Training Department;
- organising the preselection of students applying for the soldiers and noncommissioned officers programmes;
- admitting the applicants meeting the requirements to the Military Training Centre and students to the Reserve Officer Training Department.

10.2. MILITARY OCCUPATIONAL SPECIALITIES IMPLEMENTED AT THE FACULTY OF MILITARY EDUCATION IN 2014 (AVAILABLE FOR ALL THE VSU STUDENTS)

Table 10.1

NUMBER OF STUDENT STUDYING THE MILITARY OCCUPATIONAL SPECIALITIES PROGRAMMES AT THE FACULTY OF MILITARY EDUCATION IN 2014

| No | Programme | Number of students | |
|----|---|--------------------------|-------------------------------------|
| | | Military Training Centre | Reserve Officer Training Department |
| 1 | Linguistic Support of Military Activities | 35 | – |
| 2 | Military Unit and Anti-Tank Artillery Warfare | 38 | 147 |
| 3 | Anti-Tank Guided Missile (ATGM) Warfar | 47 | 185 |

10

10.3. MILITARY TRAINING CENTRE PROGRESS REPORT

The students are admitted to the Centre by the rector's order after they have passed the military medical examination, the psychological tests, the fitness level examination, and have signed the contract with the University. The list of military specialities is given in Tabl 10.2.

Table 10.2

NUMBER OF STUDENT ENROLLED IN 2014

| No | Military speciality | Programme | Number of students |
|--------------|---|---|--------------------|
| 1 | Linguistic Support of Military Activities | 035701 – Translation and translation studies | 10 |
| 2 | Anti-Tank Guided Missile (ATGM) Warfare | 010701 – Fundamental Mathematics and Mechanics | 19 |
| 3 | Military Unit and Anti-Tank Artillery Warfare | 010701 – Fundamental Mathematics and Mechanics | 11 |
| Total | | | 40 |



10.4. RESERVE OFFICER TRAINING DEPARTMENT PROGRESS REPORT

161 students completed the field training and swore the Military Oath. 179 graduates of the University were allotted service number and commissioned (reserve) by the order of the Ministry of Defence of the Russian Federation. In 2014, 316 students submitted their applications to the Reserve Officer Training Department, of which 241 were admitted (86 students to the noncommissioned officer training programme, and 155 students to the reserve soldier training programme) (Table 10.3).

Table 10.3

RESERVE OFFICER TRAINING DEPARTMENT PROGRAMMES

| No | Military speciality | Number of students | | |
|--------------|---|--------------------|-----------|------------|
| | | 2nd year | 3rd year | 4th year |
| 1 | Military Unit and Anti-Tank Artillery Warfare | 25 | 39 | 72 |
| 2 | Anti-Tank Guided Missile (ATGM) Warfare | 48 | 48 | 89 |
| 3 | Military Unit and mortar Warfare | 13 | – | – |
| 4 | Anti-tank Artillery commander | 26 | – | – |
| 5 | Anti-tank Artillery crewman | 52 | – | – |
| 6 | ATGM commander | 30 | – | – |
| 7 | ATGM operator | 47 | – | – |
| Total | | 241 | 87 | 161 |

10

10.5. EVENTS AND MEETINGS HELD BY THE VSU ADMINISTRATION AND THE FACULTY OF MILITARY EDUCATION

21 JANUARY 2014, Professor Dmitry Yendovitsky took part in the meeting of the collegium of the Ministry of Defence of the Russian Federation with the rectors of the leading Russian universities, held by Sergey Shoygu, the Minister of Defence of the Russian Federation. The VSU rector participated in discussing the plan for developing a military education system in order to provide the Russian military forces with qualified soldiers and officers.

18 FEBRUARY 2014, Professor Dmitry Yendovitsky took part in the plenary assembly of the Public Council of the Ministry of Defence of the Russian Federation. The meeting discussed the problems of organising a new system of military education at higher education institutions. According to the sources, the VSU rector was very optimistic about the prospective development of the military education system at VSU:

“We are now discussing a unique chance for students to choose whether to become soldiers, reserve noncommissioned officers or reserve officers. I think this is a very good system.

We have already discussed the issue with students, other Voronezh universities’ rectors, the Association of Higher Education Institutions of the Central Black Earth Region, and all of them are quite in favour of the programme. The students’ parents also support the idea”, – said Dmitry Yendovitsky.

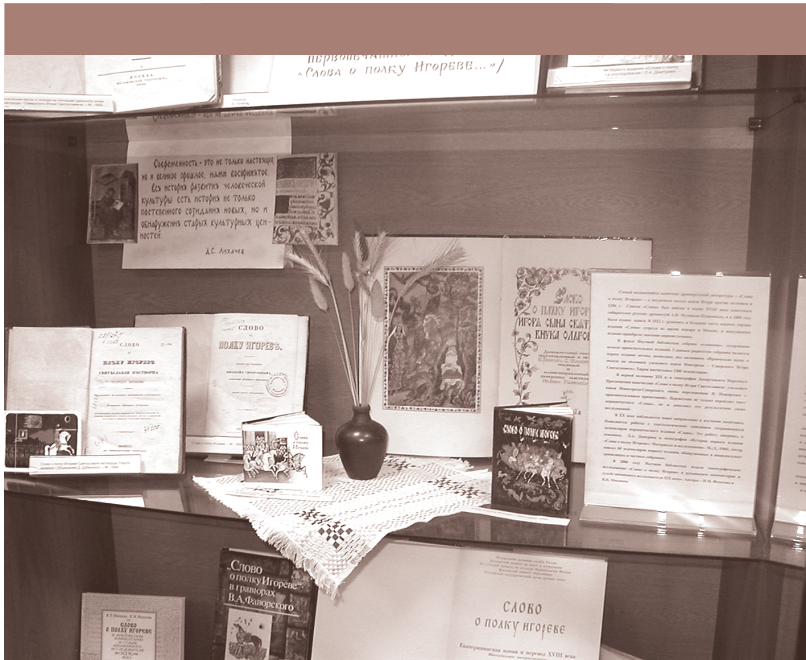
“The idea also got positive commentaries in social media – blogs, Twitter, Facebook. I believe, it is only right and reasonable for the Ministry of Defence to consider the interests and wishes of our students”, – said Dmitry Yendovitsky.

10 SEPTEMBER 2014, VSU rector took part in the meeting of rectors and students from all over Russia held at Bauman MOSCOW STATE TECHNICAL UNIVERSITY by Sergey Shoygu, the Minister of Defence of the Russian Federation. The Minister said that students had begun studying at the soldiers and noncommissioned officers programmes in September 2014.



10.6 BRIEF SUMMARY OF VSU'S ACHIEVEMENTS IN 2014

- In response to the message of the President of the Russian Federation Vladimir Putin on training of soldiers and non-commissioned officers in reserve at the reserve officer training departments VSU was the first university in the Central Black Earth Region to admit students to soldiers and non-commissioned officers in reserve training programmes at the Reserve Officer Training Department of military occupational specialities:
 - Gun-commanders and crew members at the following faculties: of Biology and Soil Sciences; Geology, Geography, Geoecology and Tourism; Mathematics, Chemistry and Economics;
 - Antitank guided missile vehicle commanders and antitank guided missile operators at the following faculties: of Computer Sciences; Applied Mathematics; Physics;
- The department carried out prequalification of students at the following faculties: of Journalism; History; International Relations; Romance and Germanic Philology; Pharmaceutics; Philology; Philosophy and Psychology and Law Faculty for training of reserve soldier-drivers on the basis of Voluntary Association for Assistance to Army, Air Force and Navy;
- The Military Education Centre continued its work. Organisational work was carried out to introduce training of regular officers for:
 - The Press and Information Office of the Ministry of Defence of the Russian Federation (War Journalism);
 - Army Rocket Troops and Artillery (as an addition to the Fundamental Mathematics and Mechanics; Economic Security, Information Analysis Security Systems, Computer Security);
 - The Main Personnel Directorate of the Ministry of Defence of the Russian Federation and General Staff of the Ministry of Defence of the Russian Federation (Translation and Translation Studies);
- The Reserve Officer Training Department admitted students for the newly introduced military occupational speciality.





**REGIONAL SCIENTIFIC
LIBRARY OF VORONEZH
STATE UNIVERSITY**





REGIONAL SCIENTIFIC LIBRARY OF VORONEZH STATE UNIVERSITY



Arkady MINAKOV,
head of the VSU Regional
Scientific Library

The regional Scientific Library of Voronezh State University is one of the largest university libraries and a regional methodology centre for the libraries of higher education institutions of the Central Black Earth Region. It provides methodological assistance and consultations to the regional university libraries and organises continuing professional development courses for their staff members. The library provides its services to various groups of subscribers. It manages the multi-purpose collection that houses both Russian and foreign books and documents with the help of modern computer technologies. The complete list of the services provided can be found at the library's website www.lib.vsu.ru.

The services are provided in full compliance with the ISO international standard. The library was granted an international quality certificate for its services.

As of 1 November 2014, the library collection comprises 3,194,617 titles in various languages and in different formats. The collection comprises sources necessary for all the education programmes and disciplines implemented at VSU according to the thematic plan for book acquisition (www.lib.vsu.ru/Преподавателям). The number of study guides in the collection fits the need of the education process and the requirements of State Educational Standards.

The library's special collection of rarities comprises about 100 000 titles – unique Russian and foreign editions of the XVI–XXI centuries (manuscripts, books, and periodicals).

In 2014, the collection was enriched by 36548 titles. The expenses of acquisition amounted to 11,881,794 roubles. On average the collection contains about 114 titles per subscriber. The general ratio of the collection enrichment is 1.1, the ratio of the study books collection enrichment is 1.4. The majority of the items in the collection are books, journals, scientific and education literature (Fig. 11.1–11.3).

Figure 11. 1

THE COLLECTION STRUCTURE BY THE TYPE OF ITEMS
(1 November 2014 – 3,194,617 items)

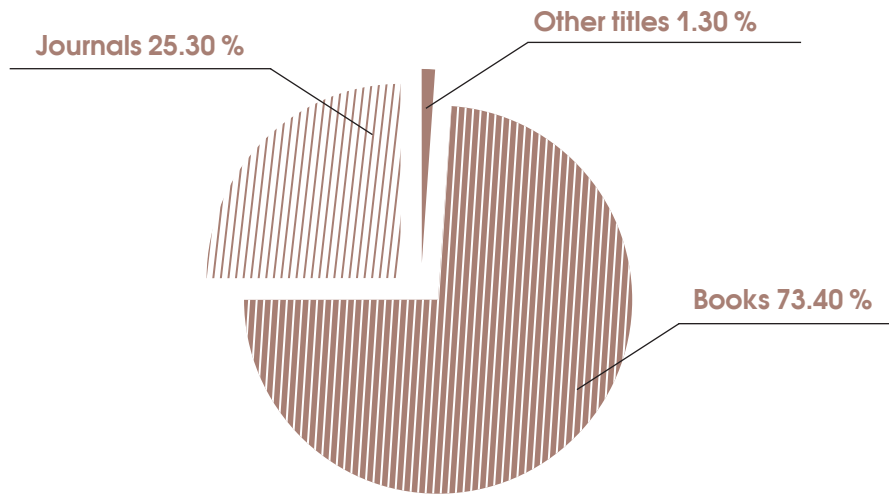


Figure 11. 2

THE COLLECTION STRUCTURE BY THE TITLES PURPOSE
(1 November 2014 – 3,194,617 items)

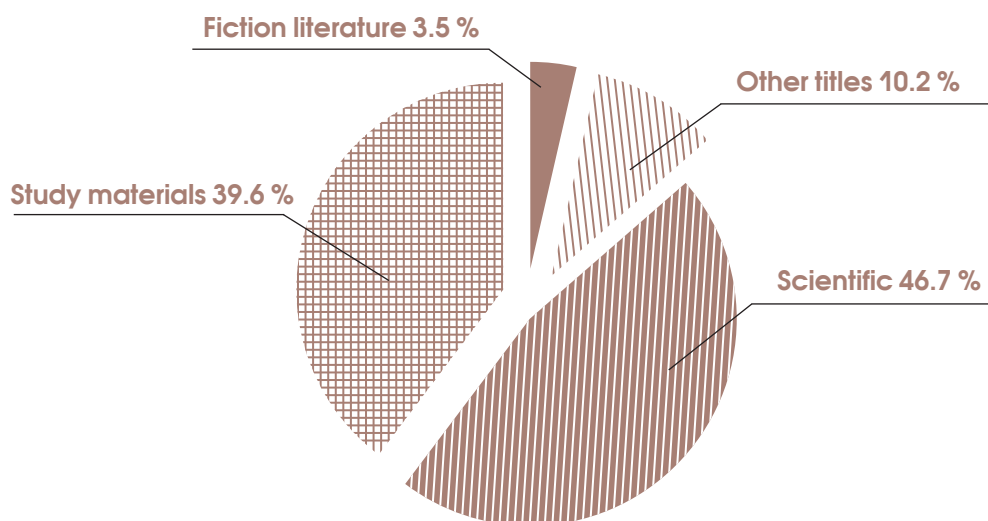
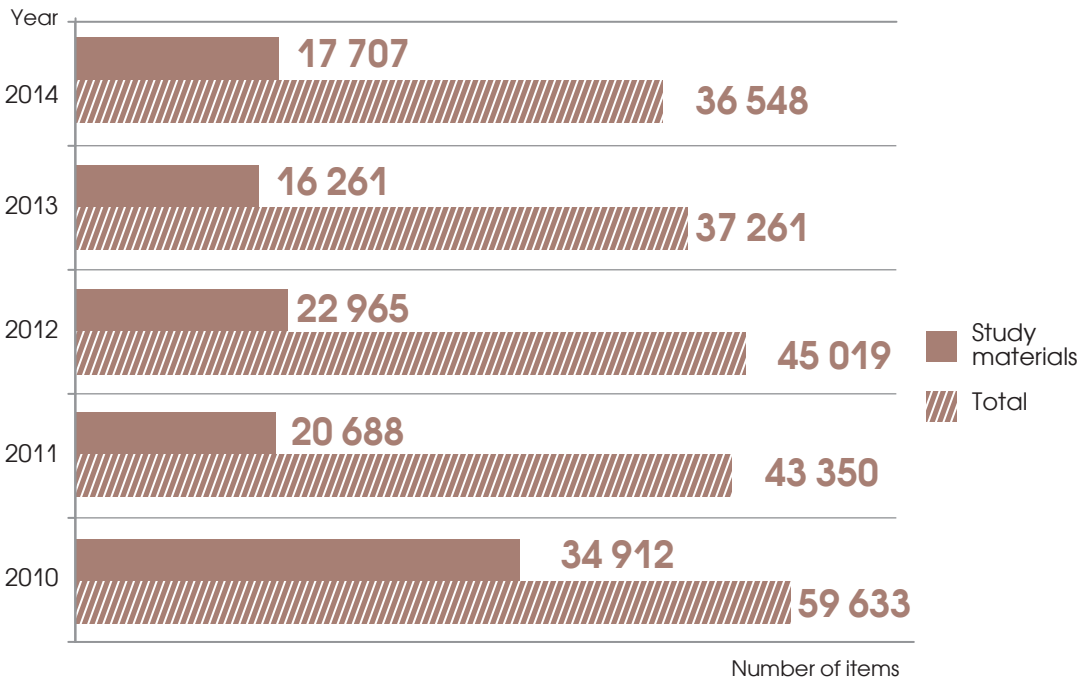




Figure 11.3

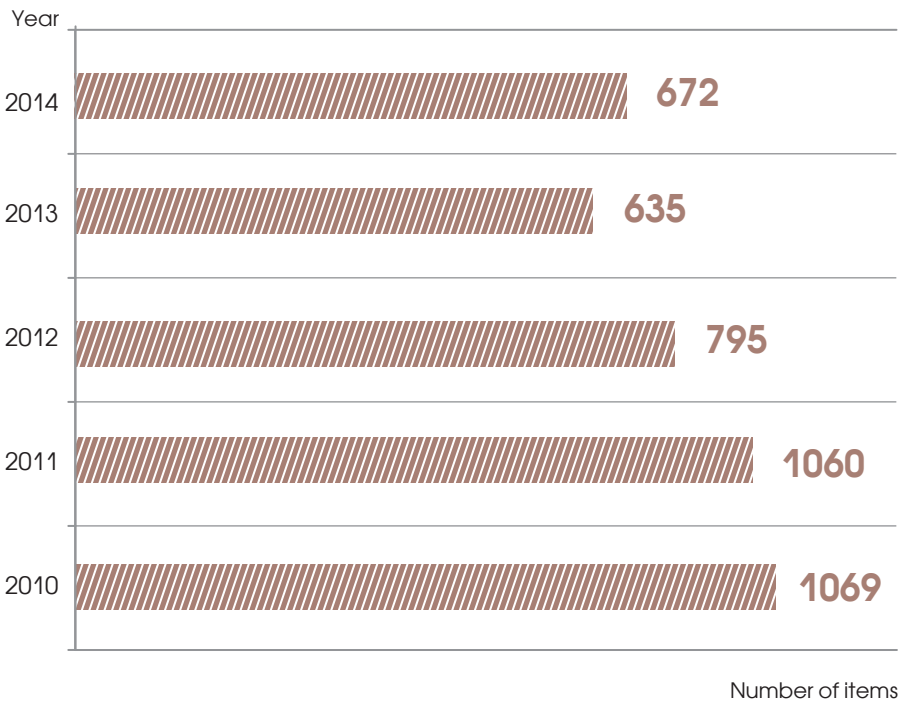
NUMBER OF NEW TITLES IN THE COLLECTION PER YEAR



On behalf of the University the library also subscribes to certain periodicals (Fig. 11.4), buys electronic abstract journals, and provides access to international electronic information resources.

Figure 11.4

NUMBER OF NEW PERIODICALS IN THE COLLECTION PER YEAR





In order to provide the education programmes with electronic information sources, a subscription to the following e-library systems was organised and paid: "University library Online", "Student Assist" and "E-library for technical universities" (Medicine and Health), "Lan Publishing" (Informatics, Mathematics, Physics).

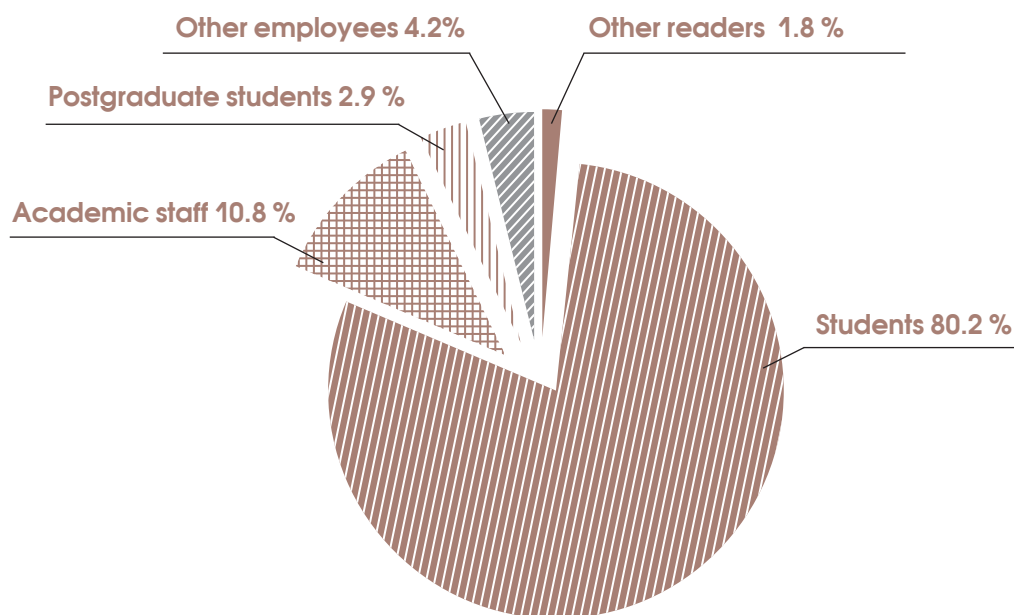
The library manages the VSU collection at the National digital resource Rucont (<http://rucont.ru>), and is responsible for organising the VSU e-library. It also collaborates with other Russian and international libraries, conducts book-exchange with 55 organisations in 22 countries, and maintains its digital catalogue (containing 884,143 entries as of 1 December, 2014), which can be found at the library's website.

To preserve the scientific heritage of the University, the library keeps an electronic index of the VSU academic staff proceedings. As of 1 December 2014, the index includes 165,576 entries. To improve the University academic and scientific rating, the library constantly updates information about the VSU staff publications and uploads it to the eLIBRARY database. In 2014, VSU was ranked 9th among the Russian universities according to its bibliometric parameters.

In 2014, there were 27,967 entries in the library's registration catalogue "Regional Scientific Library Readers". 62,768 readers were served. 164 readers were granted remote access through their personal accounts. The number of requests to the library's website was 404,477.

Figure 11.5

VSU REGIONAL SCIENTIFIC LIBRARY READERS IN 2014 (27,967 people)





In 2014, 725,125 titles were lent out, while the number of titles read online was 7,199.

From 2014, more than half of the library's computers function in accordance with the "Plan for transition to free software usage at the federal administrative institutions and the federal state-funded institutions" (Fig. 11.6–11.7).

Figure 11.6

NUMBER OF THE VSU LIBRARY COMPUTERS WITH LINUX OS

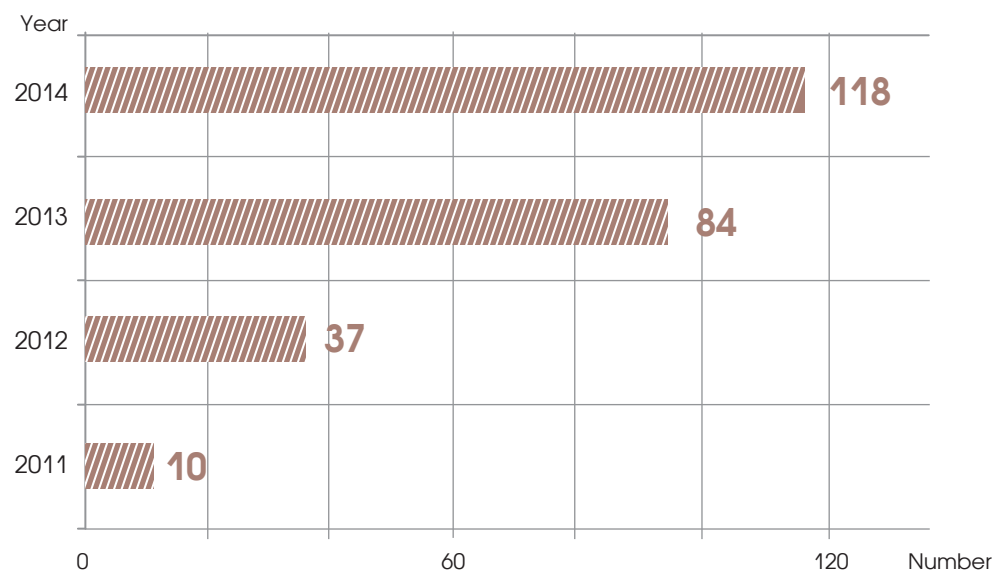
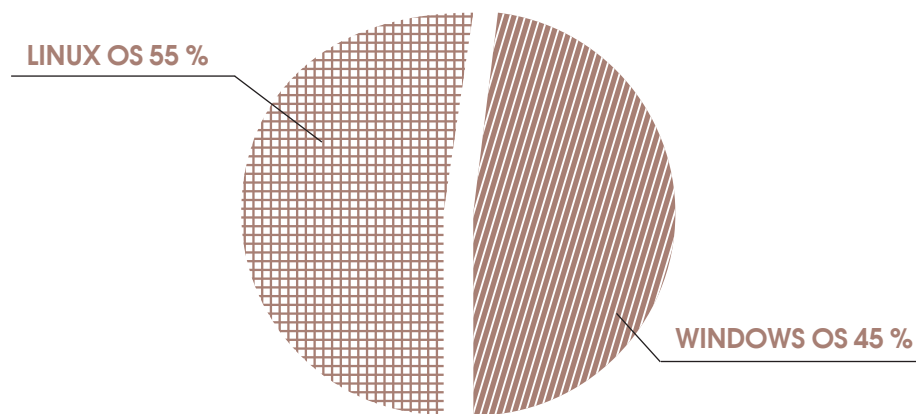




Figure 11.7

PROPORTION OF THE LIBRARY'S COMPUTERS WITH WINDOWS OS AND LINUX OS (2014)



The library uses diskless workstations booting from PXE, which helps to reduce the cost of a working place (a system block, a monitor, a keyboard and a mouse) by 35–45 %.





**RESERVE
“GALICHYA GORA”**





RESERVE “GALICHYA GORA”

PROGRESS REPORT FOR 2014



N.YA. SKOLZNEV,
head of the reserve
“Galichya Gora”

The reserve “Galichya Gora” was founded in 1925 on the territory of what is today the Lipetsk Region for conservation and studying the uncharacteristic flora of the area. In 1936 the reserve was handed over to Voronezh State University.

It now comprises 7 separate sectors of 11 to 96 hectares located in 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 variety of flora and entomofauna.

The reserve is the leading research, educational and conservation centre of Voronezh State University in the Lipetsk region. High-profile specialists in botany, zoology and ecology work at the reserve’s research centre.

The collection fund contains internationally well-known exhibits, such as Herbarium of Middle Russian Hills and contiguous territories (42.55 000 items), Collection of invertebrate animals (295 000 items), and Mycological Collection (4 600 items). There is also a weather station and a scientific library.

In 1990, the nursery for carnivorous bird registered in The Red Book of the Russian Federation, was established. About 380 saker falcons were released into the wild. The reserve also functions as a rehabilitation centre. The old Russian tradition of falconry is gradually being revived.

The reserve was granted a badge of honour for serving Voronezh State University.



Galichya Gora is the only reserve in the Russian education and research system.

Last year saw the continuation of the Reserve's natural complexes' state and dynamics assessment that have been carried out since 1974. The general research theme "Scientific basis and methods of conserving the variety of landscapes and ecosystems of the specially protected territories of the Upper Don river" was divided into 7 sub-themes, covering the main biota taxons of the region: fungi, plants, invertebrate and vertebrate animals.

The research on the postpyrogenic development of the Galichya Gora natural complexes, conducted under the state order since 2012, was completed.

The Collection fund of the reserve has been enriched. About 28 saker falcons were released into the wild.

The Collection fund of the reserve has been enriched.

As a result of the research conducted in 2014, our scientists published the following works:

- 3 monographs (39.1 printed sheets);
- 34 scientific articles, of which 11 were published in the reviewed journals of the Russian Federation, 8 – in the Russian conferences' proceedings, 1 – in international conference materials, 13 – in other Russian journals, and 1 – in international journals.

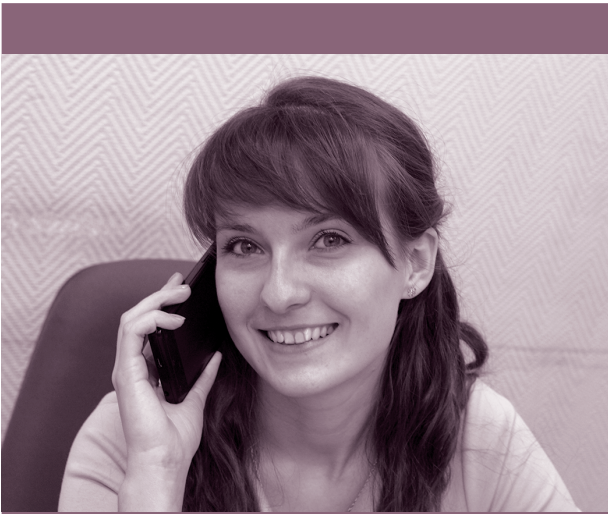
8 articles were published in journals indexed by the Russian Science Citation Index, 3 articles – in Scopus journals.

Our researchers took part in 8 international and federal conferences with 16 reports.

In 2014 specialists from the Komarov Botanical Institute and the Institute of Forest Science of the Russian Academy of Sciences, All-Russian institute of medicinal and aromatic plants, All-Russian institute of fresh-water fish-industry, and some other universities and nature reserves of the Russian Federation worked at Galichya Gora.

The economic activity resulted in securing the permanent land rights for the land plots and transfer of the real estate under the operational management of VSU. The reserve now has its own gas pipe line with a gas-distributing point, and the gas is supplied to all the residential and administrative zones of the reserve.





INFORMATION AND PR POLICY BOARD

13



INFORMATION AND PR POLICY BOARD



Anna Kondratova,
Head of the Centre
for Information and PR policy

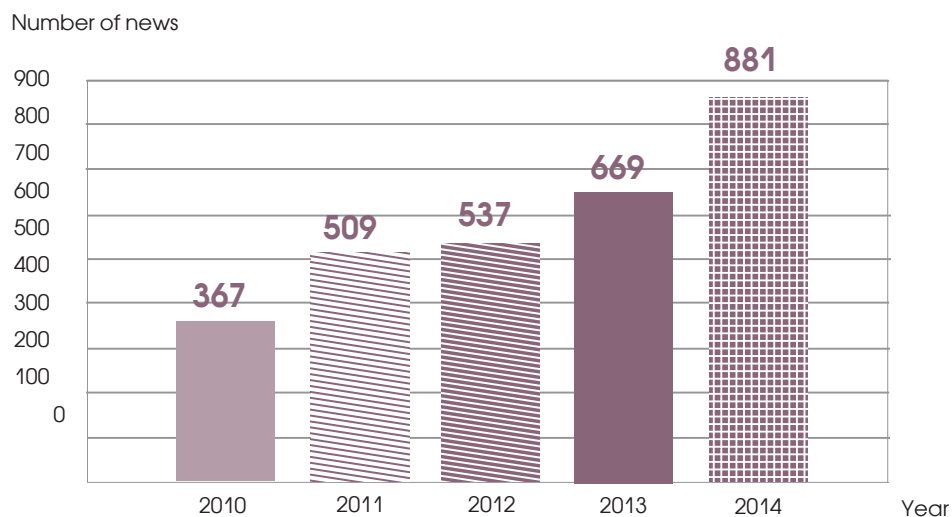
13.1. VSU OFFICIAL WEBSITE

The Information and PR Policy Board every day renews the University website news feed (<http://www.vsu.ru/>), telling about every aspect of the University life: educational, scientific and innovative activities, pre-university training, students' life, open lectures by prominent scholars and famous people, etc.

The number of news reports on the VSU official website is getting larger every year. 2014 is well ahead comparing to the previous five years by the number of news reports per year, and the number of published materials per month.

Figure 13.1

NEWS PUBLISHED AT WWW.VSU.RU IN 2014





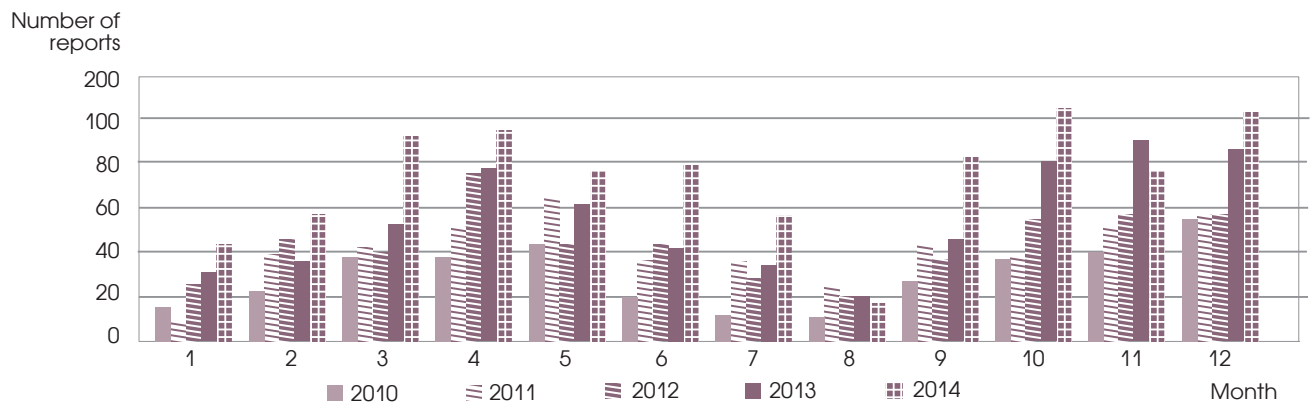
The news feed dynamics in Figure 13.1 demonstrates that in 2014, the University website published 881 news, which is 25 % more than in 2013 (669 news) and 58 % more than in 2011 (367 news).

2014 saw a greater number of news coming from the VSU students, as well as more news about pre-university training, research and VSU international activities.

The same pattern can be seen in the monthly dynamics of news feed (fig. 13.2).

Figure 13.2

NEWS REPORTS PUBLISHED AT WWW.VSU.RU IN 2010–2014

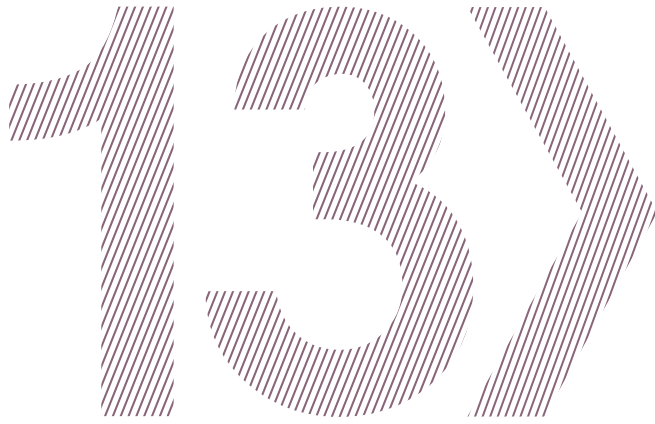


2014 set a new record of news per month

| Year \ Month | Month | | | | | | | | | | | |
|--------------|---------|----------|-------|-------|-----|------|------|--------|-----------|---------|----------|----------|
| | January | February | March | April | May | June | July | August | September | October | November | December |
| 2010 | 15 | 25 | 38 | 38 | 45 | 20 | 13 | 12 | 28 | 36 | 40 | 57 |
| 2011 | 9 | 39 | 44 | 53 | 68 | 37 | 38 | 25 | 44 | 39 | 54 | 59 |
| 2012 | 26 | 50 | 41 | 75 | 45 | 46 | 27 | 21 | 38 | 53 | 57 | 58 |
| 2013 | 32 | 36 | 54 | 78 | 63 | 44 | 36 | 21 | 46 | 82 | 91 | 86 |
| 2014 | 43 | 56 | 94 | 95 | 75 | 77 | 57 | 16 | 82 | 105 | 78 | 103 |

There were 94 reports published at the website in March (54 in March 2013), 95 in April (78 in April 2013), 105 in October (82 in October 2013), and 103 in December (86 in December 2013).

What is more, all the news from the VSU website is translated into English and then published at the English version of the website (<http://www.vsu.ru/english/index.html>).



13.2. VORONEZH STATE UNIVERSITY NEWSPAPER

There were 30 issues of the newspaper in 2014.

Most issues were published by OOO STP printing house that had won the state tender.

The paper contained mainly official information and brief reports on the most urgent events at the University. This year, the most active reporter was a string correspondent A. Makarova. At the same time, the publication policy has been gradually changing towards opinion journalism. The paper began publishing problematic questions for open discussion, articles about outstanding people and interesting events, reports about the teachers' and researchers' work.

During the year, the column "The University man" was publishing piece by piece an article by M.L. Steinberg about Professor M.S. Tsvet. The article proved to be very interesting and was highly praised by the readers. The newspaper also published congratulations on all the state holidays for students, teachers and other VSU staff.

A special event celebrated the 85th anniversary of the newspaper. A special exposition was prepared for the date at the VSU Museum.

The newspaper was granted a diploma by the Council of Rectors of Voronezh Region for participating in the university newspaper competition.

The list of vacancies for the academic staff is published regularly (sometimes in special issues).



The newspaper projects included the following:

- publishing the English-language appendix “Never Before”;
- publishing the “Field news” appendix jointly with the Faculty of Military Education;
- publishing a 108-column issue dedicated to the Poetry Day at VSU;
- publishing a special 8-column issue for the admission campaign of 2014 with details about the university and the admission procedure. The issue was distributed among the prospective students during the campaign;
- delivering the newspaper to all the University Buildings;
- publishing the digital version of the newspaper on the VSU website.

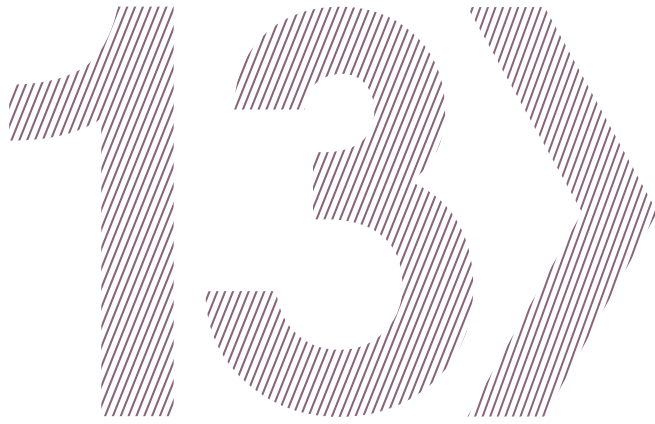
The special issue dedicated to the Victory Day was printed on coated paper.

Closing the summer holidays a special issue was published describing the Venevitinovo sport and fitness complex.

Following the order of the VSU administration, the VSU Publishing House printed a special New Year issue of the University newspaper in a magazine format with a thick-paper cover. The new format is due to be adopted permanently in Spring 2015.

In 2014, a new project – “UniverCity”, the newspaper appendix dedicated to students’ life – was launched. “UniverCity” is a monthly colour edition of A5 format created by students and for students. The issue usually includes from 16 to 24 columns and is dedicated to a certain topic.

One of its objectives is to show the students studying at different faculties various activities they can be involved in within the University, tell about the events held by other faculties, their traditions, etc. A lot of VSU students who are not studying at the Faculty of Journalism got an opportunity to show their talents in this sphere. Any student who feels interested in journalism can become a reporter of the VSU newspaper. The Newspaper is delivered to all the University Buildings and Residence Halls, as well as some Voronezh schools, so the students can tell everyone about their interests and ideas. The VSU administration, in their turn, got a new means of communication with the students.



13.3. SOCIAL NETWORKS

The Information and PR Policy Board is also responsible for keeping the University official profiles at various social networks.

Vkontakte

(<https://vk.com/vsumain>; https://vk.com/abitur_vsu)

- number of new followers – 2.2 thousand (from January 2014 to January 2015);
- number of followers of the “VSU” community – 11 537;
- number of followers of the “SCHOOL STUDENTS in contact with VSU” community – 9544;
- 5 posts per day (research, education, memes, riddles, polls) + VSU website news;
- new content every day.

Facebook

(<https://www.facebook.com/vsumain>)

- the page was created in April 2013;
- 613 followers;
- 3 posts per day (research, education, memes, riddles, polls) + VSU website news;
- new content every day.

Instagram

(<http://instagram.com/vsumain#>)

- account was created in July 2013;
- 15–200 likes per post;
- 615 followers;
- 271 posts in total;
- 7 posts per month.

We shall point out that only a few universities have their accounts at Instagram, including the Northern (Arctic) Federal University named after M.V. Lomonosov (1286 subscribers as at 5 February 2015), the Ural Federal University named after the first President of Russia B. N. Yeltsin (2038 subscribers as at 5 February 2015), and Immanuel Kant Baltic Federal University (192 subscribers as at 5 February 2015). Thus, VSU is one of the leading universities in this field.



Twitter

(<https://twitter.com/vsumain>)

- account registered in January 2012;
- over 1865 followers;
- over 13700 tweets in total;
- 18 tweets per day;
- broadcasting the major events

English version Twitter

(<https://twitter.com/vsumainE>)

- account registered in May 2014;
- over 180 followers;
- over 2100 tweets in total;
- about 10 tweets per day
- The account is used to publish news about the major VSU events in English. Among its subscribers is the Ministry of Foreign Affairs of the Russian Federation (@mfa_russia).

We shall point out that only a few universities have English versions of their Twitter accounts, such as North-Eastern Federal University, Kazan Federal University, and the Ural Federal University named after the first President of Russia B. N. Yeltsin.

Youtube channel

(<http://www.youtube.com/user/VSUPRESS?feature=watch>)

- account registered in January 2012;
- 131 followers;
- 56,936 views;
- 4 videos per month;
- 40 videos in 2014.

LiveJournal

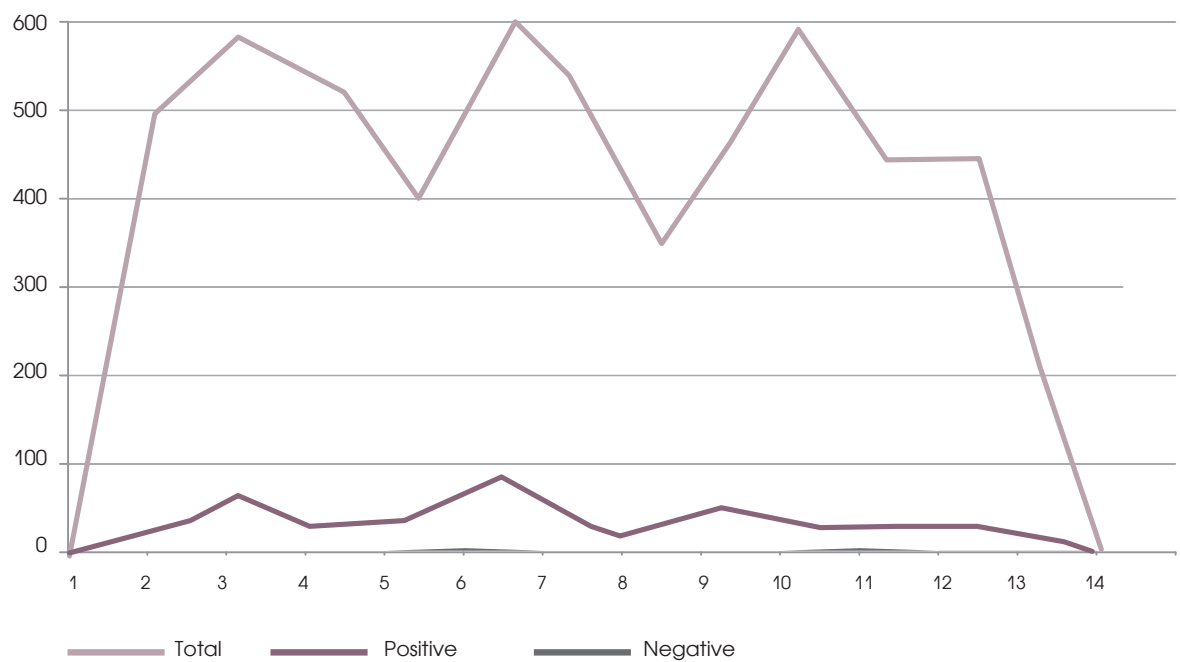
(<http://vsumain.livejournal.com/>)

- account registered in March 2012;
- still remains a unique project; only few other universities have their LiveJournal accounts;
- 30 subscribers;
- one post per week (usually unique, not published in other sources);
- 30 posts in 2014.

13

13.4. VSU MENTIONED IN VORONEZH MASS MEDIA¹

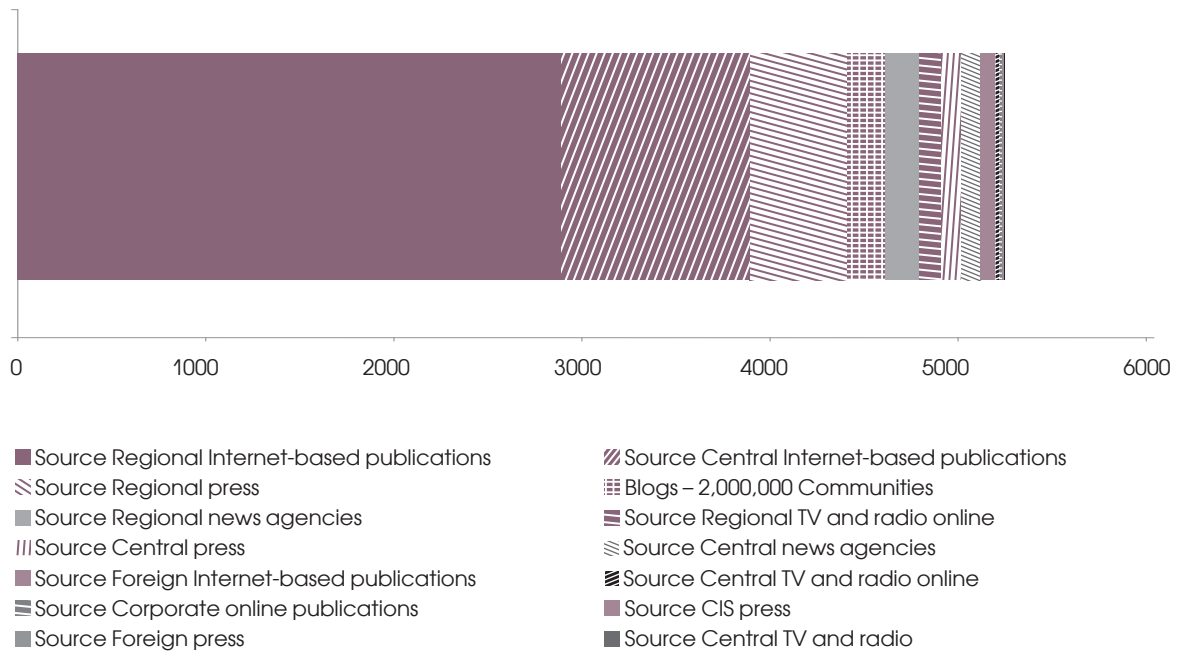
DYNAMICS OF REFERENCES TO VORONEZH STATE UNIVERSITY
IN MASS MEDIA (%)



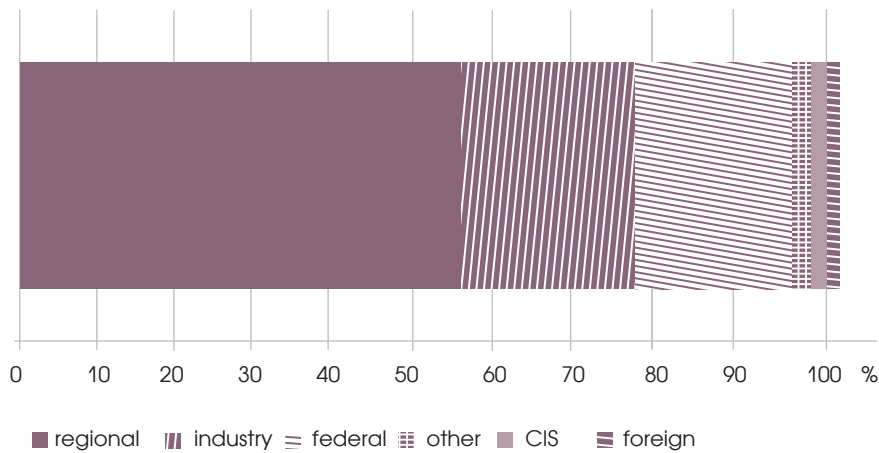
¹ According to the media analysis by OOO *IntegrumMedia* as of January 2015.



REFERENCES TO VSU BY THE SOURCE TYPE



REFERENCES TO VSU BY THE SOURCE LEVEL



QUANTITATIVE ASSESSMENT OF REFERENCES TO VORONEZH STATE UNIVERSITY BY THE SOURCE TYPE AND LEVEL

| Source type | Other | Federal | Regional | CIS | Foreign | Industry |
|----------------------|-------|---------|----------|-----|---------|----------|
| Magazines | 0 | 23 | 41 | 0 | 1 | 49 |
| Newspapers | 0 | 43 | 487 | 2 | 1 | 13 |
| Information agencies | 0 | 100 | 174 | 0 | 0 | 5 |
| Internet | 0 | 648 | 2163 | 66 | 12 | 1198 |
| TV | 0 | 1 | 0 | 0 | 0 | 0 |
| Blogs | 154 | 49 | 1 | 0 | 0 | 0 |



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