

National Research University Higher School of Economics

Global competitiveness program

Strategic academic unit

EDUCATION AND HUMAN DEVELOPMENT IN THE CHANGING WORLD

Description

Moscow, 2016

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# 1. STRATEGIC ACADEMIC UNIT “EDUCATION AND HUMAN DEVELOPMENT IN THE CHANGING WORLD”

## 1.1 Project summary

*Goal:* to build first in Russia and globally competitive academic Center of Excellence in the area of education and human development focused on interdisciplinary research.

*Main Objectives:*

- to implement the interdisciplinary research and development program focused on major global and national challenges in the area of education and human development within and beyond the frameworks of social institutes, including joint comparative international projects with universities and research centers of USA, European and BRIC countries;

- to create a “think tank” designing and analyzing state policy and reforms in the sphere of education;

- to become one of the leading graduate schools of education in Europe due to the development of the global postgraduate educational programs in English, integrated with the R&D activities of STRA-U, as well as to the modular master and professional development programs.

*Key success indicators:*

We will know we are successful, if

- STRA-U is the national leader in international comparative studies, who acts as a “access point” for Russia into the global education research agenda, especially when considering education systems and institutes transformation, longitudinal studies on education and work trajectories, factors, influencing educational achievements and human development within and beyond educational institutions;

- STRA-U secures a degree of financial resource stability and dependable data collection through consulting international and national clients and creation of mirror laboratories in partner institutions;

- STRA-U enrolls best Russian and international students in graduate educational programs, such as Comparative Education, Education and Human Development, Evidence-based Education Policy, Measurement in Psychology, and Education, and Higher Education Management.

- Recognition of HSE in the international academic community, based on the university’s position in top global rankings: HSE should rank in the Top 100 of the QS World University Rankings by Subject in “Social Sciences & Management” and in “Development Studies”, “Education” and “Sociology”.

*Brief description of the STRA-U role and contribution into the University development and achievement of goals and target performance indicators of the Global Competitiveness Program*

Educational research is widely considered to be one of the weakest areas of expertise in Russia. It is plagued by continuing isolation from the international scholarship, ideologically colored theory and practices, unsophisticated methods, and severe lack of quality empirical studies. The pipeline of trained researchers does not exist, therefore we must train our own young scholars; hence the emphasis on graduate education.

HSE is the first Russian university to engage in large-scale empirical studies in education, first to establish an international laboratory, and first to put together a modern doctoral program in Education. We were the first to prove the rise in inequality in the Russian education. STRA-U’s focus on countries, undergoing post-socialistic transformation (and broadly conceived transitional economies) defines our unique research niche. The intentional interdisciplinarity, as well as active engagement with the education reform efforts will facilitate the entrance of the

wider Russian research community into the global network of knowledge about education and human development. Today:

- STRA-U is HSE's laboratory for interdisciplinary and theme-based research.
- STRA-U solidifies HSE's reputation as one of the leading centers in Education research.
- STRA-U transfers the best pedagogical and management models into the Russian education system; it enhances the University's brand as the center of professional development for educators and educational administrators.
- STRA-U supports financial stability of the university in times of economic downturn with its consulting business.
- In 2015, STRA-U has made the major contribution into the HSE performance in the QS subject rankings "Social Sciences & Management" (161<sup>st</sup> place, ranks second in Russia after Lomonosov Moscow State University), as well as in QS subject rankings on "Development Studies"(51-100, the only university in Russia), and "Sociology" (51-100, the only university in Russia).

## 1.2 Project Fact-sheet

*STRA-U key contributing units:*

1. Institute of education HSE: <https://ioe.hse.ru/en/>.
2. International Laboratory for Education Policy Analysis: <https://ioe.hse.ru/en/lepa/>.

*Key partners of STRA-U within HSE*

The STRA-U is the driver in the area of Education. STRA-U and its partner units jointly conduct research and education projects:

1. Center of Institutional Studies,
2. Faculty of Social Sciences and its structural subdivisions,
3. St. Petersburg School of Social Sciences and Humanities,
4. Institute for Historical and Theoretical Studies in the Humanities.

*STRA-U Research Adviser:* Martin Carnoy, Academic Supervisor of the International Laboratory for Education Policy Analysis, HSE, Professor of Stanford University. <https://www.hse.ru/en/org/persons/27538693>.

*STRA-U Academic Leader:* Isak D. Froumin, Academic Supervisor of the Institute of Education, HSE National Research University. <https://www.hse.ru/en/org/persons/372992>.

### *Key Educational Programs and Their Development*

STRA-U has 7 Master's programs (522 students), as well as a doctoral program in Pedagogics and Educational Sciences (25 postgraduate students).

The STRA-U strategy with respect to education programs encompasses two aims:

1. To place the existing programs at the center of STRA-U's four-fold mission:

Two full-time programs (in Educational Policy, <https://www.hse.ru/en/ma/edupolicy/> and Measurements, <https://www.hse.ru/en/ma/psyedu/>) prepare students for our PhD program or for positions of analytics. Both were created with the help of strategic partners: the World Bank, the Ministry of Education and Science, Stanford University, Boston College. These programs serve as a pipeline to the PhD program, and prepare a key pool of education analytics for the government. We envisage deep integration of research and education within these programs through project-based approach. Open access journal for students' publications will be created in 2017, and a business incubator will be established in 2018 to support students' ideas for innovations in education.

Two part-time programs train administrators for general education (<https://www.hse.ru/en/ma/eduman/>) and higher education (<https://www.hse.ru/en/ma/mannedu/>). Both attract a number of accomplished education management professionals. The objective for 2017-2018 is to turn the already significant alumni

network into a real agent of reform throughout Russia and into an ‘ambassador’ of the research and consultancy developed in STRA-U.

Three more programs are aimed at advanced training of in-service teachers in History (<https://www.hse.ru/en/ma/irin/>), Social Sciences (<https://www.hse.ru/en/ma/mps/>), and Language Arts (<https://www.hse.ru/en/ma/langart/>). In 2017, they will be connected to the newly created research center for teaching and learning in social sciences and humanities. Another program for in-service teachers of math will be created in 2018.

2. To attract a significant number of international students and top Russian students through offering new educational products:

- Offer the existing full-time programs in English (starting in 2017);

- Develop a new program in comparative education (taught fully in English) in partnership with three other universities in 2018; tentatively Beijing University, University of Wisconsin, UCL Institute of Education, National University of Educational Planning and Administration (India) and University of San Paulo, and international students will make up 75% of the student body;

- In 2019, we will change the language of instruction to English in our PhD program and recruit up to 1/3 of international students.

### *Key Research Projects and Their Development*

The Institute of Education and International Laboratory for Education Policy Analysis of HSE (the STRA-U key contributing units), both founded less than 5 years ago, have developed significant expertise in considering links between student achievement and cultural and social factors. Participation in major comparative studies has allowed us to identify major trends in the dynamics of educational systems, especially those of post-socialist countries (at national and regional levels).

STRA-U’s main assumptions:

- the nature of educational systems and their relation to the external context are reflected in several transitions: from emerging to developed economies, from autocratic to democratic societies, from industrial to postindustrial age, from elite to mass education. Russia and CIS, as well as BRIC countries are considered to be “natural laboratories” of such transitions;

- education and human development happens not only within educational institutes, but also in other arenas beyond traditional institutions. The interdisciplinary approach and up-to-date information technologies allow us to examine the learning and human development in complex ecosystems. Concentration of specialists in closely related research areas at HSE makes a multi-discipline approach possible;

- education transcends national borders; it is vital to study the education system as a network of global sub-systems impacting human and social development. STRA-U has developed unique networks with the leading global centers of studies of education; they collectively serve as a bridge between Russian and international research communities.

The mentioned issues are fundamental, but also have a practical impact. Consequently, each project presented below, includes elements of fundamental and applied research, as well as policy proposals.

STRA-U is engaged in the following types of projects:

#### **1. Major international comparative studies, such as:**

##### 1. Comparative analysis of the quality of higher education in the global economy of knowledge (BRIC countries)

The project is being done in partnership with the leading foreign universities, such as Stanford University School of Education; China Institute for Education Finance Research (CIEFR), Beijing University; National University of Educational Planning and Administration, India, Institute for Labour and Social Studies, Brazil. The project is led by Isak Froumin (Academic advisor of the HSE’s Institute of Education HSE) and Martin Carnoy

(Academic Supervisor of the International Laboratory for Education Policy Analysis, HSE and Professor of Stanford University).

At the initial phase, the first international comparative study of higher education has been conducted in Russia, India and China. The book with the project results was published in USA (Stanford University Press), Russia, Brazil, and is being prepared for publication in China.

The next step will involve a more advance analysis of education systems characteristics, related to the consequences of the increased mass access to higher education and to the expansion of extra-institutional ways of obtaining higher education, as well as the problem of a growing educational inequality in BRIC countries.

### 2. International Study on Student Experience in the Research University.

The project has been active since 2014 in partnership with University of California – Berkeley; University of Minnesota; International Graduate Insight Group Ltd (i-graduate). The project is managed by Igor Chirikov (Leading Research Fellow of the Institute of Education of HSE; Executive Director of the International Consortium “Student Experience in the Research University”); and John Aubrey Douglass (Senior Research Fellow of the Center for Studies in Higher Education (CSHE) at the University of California – Berkeley)).

This is the only project in the world where the educational environment of research universities is analyzed through large-scale collection of comparative data on student experience (more than 500.000 student questionnaires have been collected since 2011 in the leading research universities of USA, China, Japan, South Africa, and Europe). In 2016-2018, it will focus on the issues of students’ involvement in research and on their educational tracks. The Consortium plans to expand the project to dozens of universities of China, USA and Russia. The project uses Internet-based survey technologies for the purposes of project cost reduction, which allows for creation of a unique massive data-base.

### 3. Higher Education System Dynamics and Institutional Diversity in Post-Soviet Countries

The project started in 2013 with the support of the World Bank and in partnership with Ghent University, University College London, and other international partners. The project is managed by Jeroen Huisman (Professor of Ghent University); Anna Smolentseva (Vice-Chair of the Council for International Higher Education (CIHE)), Isak Froumin (Academic advisor of the Institute of Education).

The project goal is to identify education development patterns in post-soviet countries over 25 years of transitions. The experience of continuous transformation of 15 initially identical systems can be viewed as a natural quasi-experiment, allowing researchers to examine connections between education and social-economic changes. Initially the project was focused on higher education in the context of institutional diversity. 15 national research groups were created. At present time the final monograph is being prepared in the Palgrave publishing house.

At the second stage (2016) the project will focus on the patterns of higher education comprehensive development and its social function. Additionally, primary and secondary education will be studied as well, and for this purpose 15 research teams have been already organized in all former USSR countries.

At the third stage (2018) the project will expand to include teams from at least 25 countries of the Central and Eastern Europe, former USSR, and Southeast Asia.

### 4. Comparative research of the academic profession

The project is realized in partnership with the Boston College. The project is managed by Maria Yudkevich (Director of the Center for Institutional Studies of HSE) and Philip G. Altbach (Founding Director of the Center for International Higher Education in the Lynch School of Education, Boston College).

In 2012, during the first and second phases, the project focused on general issues of academic profession in comparative perspective, as well as the inbreeding phenomenon. Several books have been published in the reputable international publishing houses. A network of academic profession researchers was formed, uniting colleagues from 20 countries. The third

phase focuses on the career tracks of young scientists and lecturers. In the future, international comparative analysis will be conducted on specified categories of academic profession.

5. STRA-U is considered to be the chief Russian operator of major *international comparative studies, conducted by OECD*. TALIS (international study of teacher's profession), PIAAC (International study on adults' competence), ESP (educational and social progress), Creative and Critical Thinking study, as well as partner of the Center of Education Quality assessment of the Russian Academy of Education in conduction of PISA and TIMSS studies. Participation of STRA-U specialists in international networks for realization of these projects allows to achieve deep analysis of the studies' results, which is now conducted in partnership with USA, Brazil, Finland. Conduction of the following rounds of TALIS, PIAAC and ESP in 2017, 2018 and 2019 will help to reinforce the international positioning of STRA-U.

## **2. Longitudinal studies, based on big datasets**

The following projects are the comprehensive examples of the longitudinal studies conducted by STRA-U:

### 1. The longitudinal study of education and occupational trajectories.

The project is realized in partnership with Yale University (USA), Leibniz Institute for Educational Trajectories (Germany); European University Institute in Florence (Italy); Linnaeus University (Sweden); Department of Social Sciences, Masaryk University (Czech Republic); Mount Holyoke College (USA). The project is managed by Dmitry Kurakin (Director of the Center for Cultural Sociology and Anthropology of Education of HSE) and Hans-Peter Blossfeld (Prof. of Sociology European University Institute (project consultant)).

The project incorporates several cohort panels, including about 25 thousand respondents, formed on the basis of international studies of TIMSS and PISA, which defines its unique character. The instruments and longitude database are tailored for a wide range of research questions, including disclosure of mechanisms and models of education and profession selection; analysis of typical education-career tracks, factors and cultural institutions which influence these tracks; study of status quo and dynamics of education disparity.

In the future panel studies will be conducted biannually, a wider range of questions will be incorporated into the project, related to disclosure and analysis of economic, social, cultural and other factors influencing the education tracks of students on different levels of education, identifying the level of students' engagement in educational process, education outcomes, as well as the students' further life and labor trajectories.

2. Quality assessment of technical education in BRIC countries / ISHEL - International Study of Higher Education Learning in BRIC countries The project is being realized in partnership with the Stanford University; Educational Testing Service, USA; Tsinghua University, China. The project is managed by: Elena Kardanova (Director of the Center of Education Quality Monitoring of the Institute of Education, HSE National Research University); Prashant Loyalka - Leading Research Fellow in the International Laboratory for Education Policy Analysis, HSE National Research University, Professor of Stanford University).

The project aims to conduct an international comparative longitudinal study of educational achievement of engineering students in BRIC countries and USA, as well as to study individual and institutional factors influencing quality of engineering qualification in those countries. The project has started in 2014 with the development of unique international instruments and a pilot research on dozens of higher educational institutions in three countries. For the first time in the world practice, the project analyzed educational achievements of students who are receiving engineering education in higher educational institutions in core disciplines (mathematics, physics, informatics), as well as the students' critical thinking and mathematical literacy. The project analyses factors which influence the educational achievements of students getting engineering education in different countries (institutional characteristics of higher educational institutions, social-economic characteristics of students and lecturers characteristics).

### **3. Research projects on globally relevant education issues, conducted on the basis of data collected in Russia**

The key projects of this type conducted by STRA-U are the following:

#### 1. *Genesis and trends of inequality in general education in countries with transition economies.*

The project is realized in partnership with the University of Malaya. The project is managed by Sergey Kosaretsky (Director of the Center of Socioeconomic Development of School of the Institute of Education of the HSE), Viktor Bolotov (Academic Supervisor of the Center of Education Quality Monitoring of the Institute of Education, HSE National Research University), Martin Carnoy (Academic Supervisor of the International Laboratory for Education Policy Analysis, HSE National Research University, Professor of Stanford University) and Andrey Zakharov (Deputy Head of the HSE Institute of Education's International Laboratory for Education Policy Analysis of HSE).

The project is the first of its kind to aim at disclosing the patterns in genesis and reproduction of inequality in general education in different geographical, demographical and social-cultural situations in countries with transition economies which dismantled the socialistic institutions and tools aimed at overcoming inequality. During the first phase of the project the data on the scale and character of educational inequality in Russia was collected for the first time.

In 2016-2019 the project will focus on studying the patterns which define the trajectories of individual students within the educational system depending on their personal and family circumstances, structural mechanisms of inequality reproduction. It will also study the mechanisms which enable the schools to contribute to the reduction of social disparity by compensating the low cultural capital of the family and increasing the chances of children for upwards social mobility. The project is unique in scale of data collection and the research issues it covers.

#### 2. *Contemporary childhood, environments of education and development (Environments of Human Development).*

The project is to start in 2016 in partnership with the University of Tampere with the support of the Government of Moscow. The project is managed by Katerina Polivanova (Deputy Director, Center of Leadership Development in Education, HSE National Research University) and Jarkko Hautamäki (Emeritus Professor University of Helsinki, Center for Educational Assessment).

The research will focus on how human education and general development takes place in contemporary conditions, as well as on the role of different official and unofficial educational systems in that development. For the first time in Russia, data on unofficial education will be collected and analyzed in the research.

In future, the project will allow to study and describe the contemporary childhood and mechanisms of growing-up in current conditions; to disclose the connection between education and development, as well as family and environment contribution to the success of educational and professional trajectories. As of 2017 it is planned to broaden the scope of the project into an international comparative analysis of child development in the education eco-system.

#### 3. *Formation and Evaluation of the Skills of the XXI century*

The project will be started in 2016 in partnership with the World Bank and the Organization for Economic Co-operation and Development (OECD). The project is managed by Patrick Griffin (Chair of Education (Assessment) at the University of Melbourne), Elena Kardanova (Director of the Center of Education Quality Monitoring, HSE National Research University) and Ekaterina Orel (Research Fellow of the Center of Education Quality Monitoring, HSE National Research University).

Formation of "The Skills of XXI Century" (leadership, cooperation and team work, self-management of time and priorities) is considered to be the predominant task of the education



system. Employers prioritize these skills and value them more other than specific subject knowledge or skills. However, there are no unified instruments on the market for the evaluation of these highly demanded skills.

In the future the project will allow to develop XXI century skills evaluation instruments and offer these tools to higher educational institutions, so that they can be used for individual assessment of students and graduates of higher educational institutions, as well as education quality evaluation.

#### 4. Application of the social networks analysis and “learning analytics” for the development of new generation education technologies

The project is to be realized in partnership with the Columbia University. The project is managed by Alexander Sidorkin (Director of the Department of Educational Programs, HSE National Research University), Ryan S. Baker (Associate Professor of Cognitive Studies in Education in the Department of Human Development at Teachers College Columbia University).

The project is aimed at development of social networks analysis methods and tools, which will allow to revolutionize field studies in education by reducing the costs of data collection and analysis. This will allow to create predictive models of the possible risk zones in the education trajectories of the children and to provide teachers with recommendations in real-time. Similarly, application of learning analytics will allow to identify flexible education trajectories in real-time.

##### *Links between research studies and educational programs*

STRA-U all educational programs are closely integrated with the research activities owing to participation of all lecturers in the study projects of STRA-U, engagement of research fellows in lecturing activities, and students - in the process of collection, analysis and interpretation on real empirical data. Not less than 50% of students participate in realization of STRA-U projects.

##### *Promotion of the research results into the practice and global academic community*

Promotion of the reforms and new ideas in the sphere of education is an important activity of STRA-U. STRA-U holds the system of workshops and webinars which attract more than 20 thousand people yearly. STRA-U publishes the journal “Educational Studies” which has become the second Russian education journal by the impact-factor for the last five years. Currently “Educational Studies” is being considered to be indexed by the Scopus. STRA-U is a parent organization for publishing the journal “Russian Education and Society” indexed by Scopus. The creation of the journal “Education in Transforming World” is planned by the STRA-U and a number of the leading universities jointly.

STRA-U is a host of the well-known international conference in higher education research, which every year brings together world leading experts. In addition, with the support from the Agency for Strategic Initiatives STRA-U is the organizer of the “Innovations in Education Challenge”, representatives of the 16 countries participated in the challenge in 2015.

The HSE became the only research center from Russia included in the Global Inventory of Higher Education Research Centers in 2015 due to the activities of the STRA-U and its partner units.

##### *Key External Parties Who Benefit from STRA-U Activities*

1. Federal authorities of the Russian Federation (Government of the Russian Federation, Administration of the President of the Russian Federation, Ministry of Education and Science of the Russian Federation, Ministry of Agriculture of the Russian Federation, Ministry of Transport of the Russian Federation, Ministry of Economic Development of the Russian Federation, the State Duma of the Russian Federation and others).

2. International organizations (the World Bank, the Organization for Economic Co-operation and Development, etc.).

3. Regional authorities (Moscow, Moscow region, Republic of Tatarstan, Krasnoyarsk Region, Ulyanovsk Region, Yaroslavy Region, etc.).

4. Funds and development institutes (the Russian Venture Company, the Agency for Strategic Initiatives, the Fund “Skolkovo”, etc.).

5. Public organizations (the Civic Chamber of the Russian Federation, the Russian Union of Industrialists and Entrepreneurs, etc.).

6. Leading Russian and foreign universities (Stanford University, University of Hong Kong, Beijing University, University of California Berkeley, National Research Nuclear University MEPhI, Baltic Federal University, Ural Federal University, The National University of Science and Technology MISiS, Siberian State Aerospace University and others).

#### *STRA-U infrastructure*

The experimental platforms and the data acquisition systems constitute the infrastructural support for the social sciences and humanities. STRA-U has formed the consortium of schools-laboratories where the data about the specific schools is being collected and the conditions for the experimental works are created. Additionally, the consortium of partner universities has been formed by the STRA-U where the data about the higher education institutions and about the students is being collected regularly.

All the data collected during the implementation of the STRA-U projects is being consolidated into an integrated database which allows to get the information about the education systems from a variety of angles.

STRA-U apply and develop tools of obtaining specific types of data: longitudinal data (five panels are being conducted), the annual collection of the data on the CIS education systems through a partnership network, annual monitoring of the economics of education, atlas of the education in Russia, etc.

#### *Current STRA-U Personnel Composition*

Average number of academic personnel per year – 31, average age of academic personnel - 45 years, share of academic personnel holding an academic title - 77%, information on the key academic personnel is listed in sections Key research projects and their development, STRA-U’s structure and management system of this Project Fact-Sheet.

#### *Academic staff development:*

The lack of the mid-career research and teaching personnel is the key problem of the Russian academic market. Reasoning from this fact STRA-U holds a course for nurturing of the young generation of researchers. The following activities for the development of the STRA-U personnel are of special importance:

1. Attraction of the talented graduates to the graduate school and their involvement in the research projects.

2. Implementation of an internal competition for financing initiative research and education activities.

3. Hiring of postdocs for research groups, working on cutting-edge directions of education.

Instead of hiring the “international stars” STRA-U focuses on the involvement into the international research projects led by the world’s leading experts.

More detailed information about the academic personnel development is provided in section 2.5.

#### *STRA-U structure and management system*

STRA-U “Education and human development” refers to the second type of STRA-U of HSE. The information about the STRA-U structure, planned organizational changes, STRA-U level of autonomy, and the STRA-U governance bodies functions is provided in section 2.1, 2.2, and 2.6.

The STRA-U Steering Committee (Heads of the STRA-U key subdivisions):

1. Martin Carnoy (Academic Supervisor of the International Laboratory for Education Policy Analysis, HSE National Research University, Professor of Stanford University). <https://www.hse.ru/en/org/persons/27538693>.
2. Isak D. Froumin (Academic advisor of the Institute of Education, HSE National Research University). <https://www.hse.ru/en/org/persons/372992>.
3. Dmitry Kurakin (Director of the Center for Cultural Sociology and Anthropology of Education, HSE National Research University). <https://www.hse.ru/en/staff/kurakin>
4. Igor S. Chirikov (Academic Supervisor of the Center of Internal monitoring, HSE National Research University). <https://www.hse.ru/en/staff/chirikov>.
5. Yelena Y. Kardanova (Director of the Center of Education Quality Monitoring, HSE National Research University). <https://www.hse.ru/en/org/persons/17257426>.
6. Katerina Polivanova (Deputy Director, Center of Leadership Development in Education, HSE National Research University). <https://www.hse.ru/en/staff/kpolivanova>.
7. Alexander M. Sidorkin (Director of the Department of Educational Programs, HSE National Research University). <https://www.hse.ru/en/staff/sidorkin>.
8. Viktor A. Bolotov (Academic Supervisor of the Center of Education Quality Monitoring of the Institute of Education, HSE National Research University). <https://www.hse.ru/en/org/persons/7103789>.
9. Maria Yudkevich (HSE Vice Rector, Director of the Center for Institutional Studies, HSE). <https://www.hse.ru/en/staff/yudkevich>
10. Daniil Aleksandrov (Dean of the St. Petersburg School of Social Sciences and Humanities, HSE). <https://www.hse.ru/en/org/persons/4132356>
11. Vladimir Gimpelson (Director of the Center for Labour Market Studies, HSE). <https://www.hse.ru/en/org/persons/312277>

*International Advisory Committee of the STRA-U:*

1. Alma Harris (Director of the Institute of Educational Leadership at the University of Malaya; Visiting Professor, HSE Institute of Education). <https://www.hse.ru/en/org/persons/82153369>
2. Simon Marginson (Professor of International Higher Education, University College London). <https://www.ioe.ac.uk/staff/93516.html>
3. Rong Wang (Director of the China Institute for Educational Finance Research (CIEFR), Peking University). <http://www.wise-qatar.org/rong-wang>
4. Ulrich Teichler (professor at the International Center for Higher Education Research Kassel). <http://www.uni-kassel.de/einrichtungen/?id=37328&L=1>
5. Jarkko Hautamäki (Emeritus Professor University of Helsinki, Center for Educational Assessment). [https://www.researchgate.net/profile/Jarkko\\_Hautamaeki](https://www.researchgate.net/profile/Jarkko_Hautamaeki)
6. John Aubrey Douglass (Senior Research Fellow of the Center for Studies in Higher Education (CSHE) at the University of California – Berkeley). <http://www.cshe.berkeley.edu/john-aubrey-douglass>
7. David Berliner (Regents' Professor Emeritus and Research Professor, Arizona State University). <https://education.asu.edu/faculty/david-berliner>
8. Michael Feuer, (President of the National Academy of Education, USA; Dean of the Graduate School of Education and Human Development, The George Washington University). <http://gsehd.gwu.edu/faculty/michael-feuer>
9. Peter Maasen (Professor of the Department of Education, University of Oslo). <http://www.uv.uio.no/iped/english/people/aca/peterma/>

*Mission of the STRA-U:*

to become a center of excellence in education and human development, holding the reputation of the best center in its field in Russia and one of the best in Europe. STRA-U is a unique hybrid institution at the center of educational reforms in Russia. Its mission has four distinct, mutually reinforcing objectives:

- An internationally recognized research center with a strong reputation in transitional societies, higher education, education policy, and international comparative studies.
- The main think tank enabling the Russian Government to carry on education reforms through research-informed policy agenda.
- A significant player on the market of educational consulting, which provides the center with additional leverage to advance reforms and a sustainable source of funding.
- One of the leading graduate schools of education in the Eastern Europe and Eurasia that prepares the next generation of researchers, analysts and management practitioners – agents of reform.

### 1.3 Performance indicator of Strategic Academic Units

<b>№</b>	<b>Indicator</b>	<b>2015 actual</b>	<b>2016 plan</b>	<b>2020 plan</b>
1.	Position in broad field (specific subject) rankings (ARWU, THE, QS) as university KPI for which the STRA-U is valuable (according to the “roadmap” of the relevant university)			
1.1.	QS «Social Sciences & Management» by faculty	161		51-100
1.2.	QS «Development Studies» by subject	51-100		51-100
1.3.	QS «Sociology» by subject	151-200		51-100
1.4.	QS «Education» by subject	-		51-100
2.	Number of publications in the Web of Science per one faculty member of the STRA-U	0,83	0,94	1,82
3.	Number of publications in Scopus per one faculty member of the STRA-U	1,27	1,56	2,48
4.	Average citation index per one faculty member of the STRA-U calculated on the basis of the total number of publications indexed by the Web of Science	0,54	0,81	2,26
5.	Average citation index per one faculty member of the STRA-U calculated on the basis of the total number of publications indexed by Scopus	0,76	1,14	2,61
6.	Percentage of international faculty in the STRA-U’s team including Russian citizens with PhDs from foreign universities	13,3%	13,3%	26,0%
7.	Percentage of international students enrolled in higher education degree programs provided by the STRA-U (including CIS students)	2,5%	3,5%	22,6%
8.	Average Unified State Examination (USE) grade for students enrolled in full-time federal funded Bachelor and Specialist-level programs delivered by the STRA-U	Master’s programs only		
9.	Percentage of the STRA-U’s income from non-budgetary (non-government) sources	58%	no less than 59%	no less than 60%

#### 1.4 Quantitative characteristics of the STRA-U's development

<b>№</b>	<b>Indicator</b>	<b>2015 actual</b>	<b>2016 plan</b>	<b>2020 plan</b>
1.	Number of higher education degree programs with international professional or public accreditation delivered by the STRA-U	0	0	0
2.	Number of higher education degree programs delivered by the STRA-U entirely in a foreign language	0	0	1
3.	Number of higher education dual degree programs delivered by the STRA-U	0	0	0
4.	Percentage of the STRA-U's students involved in R&D of this unit and enrolled in higher education degree programs provided by this unit, among the total number of students enrolled in the STRA-U's higher education degree programs	5,46%	6%	6%
5.	Percentage of the STRA-U's students enrolled in higher education degree programs among the total number of students enrolled in higher education degree programs of the relevant university	3%	3%	3%
5a.	Same for Bachelor-level programs (Specialist-level)	0%	0%	0%
5b.	Same for Master's programs	10%	9%	10%
5c.	Same for Ph.D. programs	4%	4%	4%
6.	Percentage of the STRA-U's faculty members who authored publications indexed by Scopus or the Web of Science among the total number of faculty of the STRA-U	63%	64%	70%
7.	Percentage of the STRA-U's employees among the total number of employees of the relevant university	2,9%	2,9%	2,9%
8.	Number of intellectual deliverables/intellectual products (IP) created by the STRA-U's employees	0,00	0,00	0,00
9.	Source-Normalized Impact per Paper (SNIP) of journals indexed in Scopus where the articles authored by the STRA-U's faculty members were published in the reporting year	0,470	0,62	1,20

## 1.5 Financial Model

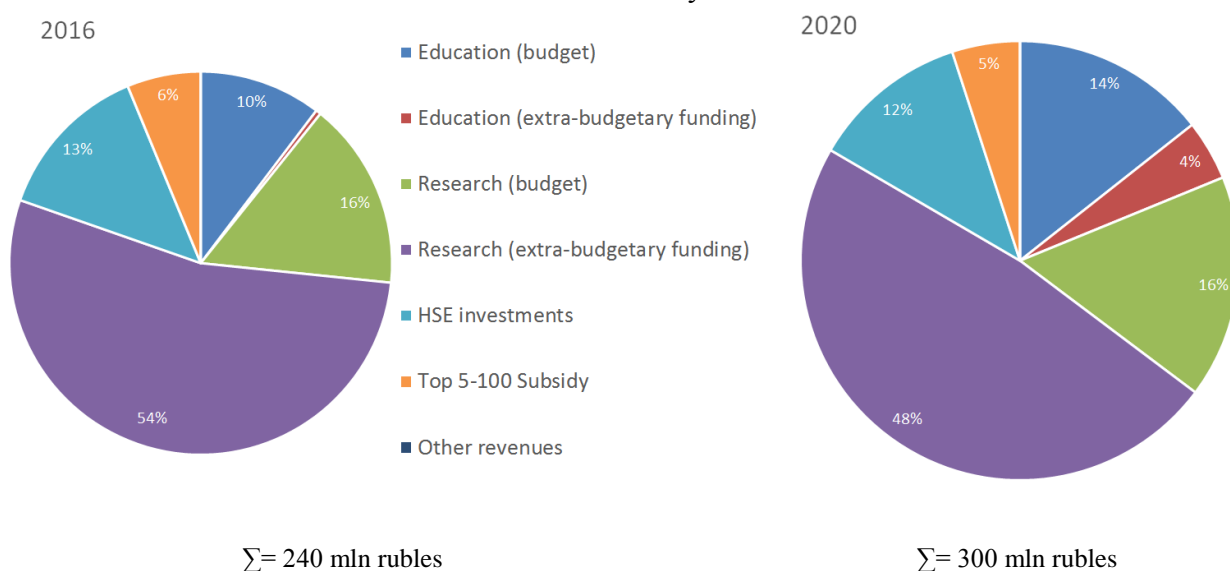
STRA-U budgets are managed by the university and heads of participating units; they are financed from the following three sources:

1. Government-funded education and research projects. STRA-U's contribution to the government projects is expected to be about 2 % for educational services and 6 % for research.

2. Funding from **external sources** (extra-budgetary revenues) derived from fee-based educational services, research and expert review projects in the interests of the government and corporate clients, donations and other special purpose contributions. The share of the STRA-U's extra-budgetary revenues is expected to be no less than 60 % in 2020. Funding from external sources is one of the KPIs of the STRA-U's units heads.

3. **HSE special purpose funds** provided to STRA-U units for development (academic development funds, centralized HSE programs such as the Academic Fund, the Fund of Educational Innovations, etc., acquisition of special research and laboratory equipment, inviting international academic personnel, etc., including funds of the subsidy under Global Competiveness Program).

Planned STRA-U's structure and revenues dynamics:



The growth in the STRA-U's revenues in the period of up to 2020 will be achieved thanks to the increase in the number of students in fee-based programs and the development of new continuing education programs in such areas as contemporary tools and analysis of competences and skills assessment (in relation to students and adults), leadership in educational organizations, development of innovative educational programs, institutional research, and institutional academic environment. These programs are targeted at: territorial educational complexes of comprehensive secondary education, universities, large companies with well-developed infrastructure, such as Sberbank, Russian Railroads, Rostechnologii.

In the next 3-5 years, the revenues from mass online-courses are expected to grow consistently both on international platforms and in Russia – in line with the development of the National Open Education Platform. The STRA-U is planning to launch online courses in such fields as Education and Pedagogics, Sociology and Psychology.

The STRA-U revenues from research are expected to grow owing to the increased share of project work in the interests of the leading Russian and international companies (for example, Sberbank, HeadHunter, 1C, Yandex, Microsoft, Santander).

Scalable analytical “package-type” products for a wide range of consumers and mass target audience (for example, analytical constructors, instruments for assessing and forecasting professional and educational trajectories, technological maps for managers of educational organizations) are going to become a new source of the STRA-U sustainable income. Such products are developed on the basis of accumulated high-quality empirical data and available methodological instruments.

STRA-U will continue to actively participate in research grant programs of Russian funds, primarily in such fields as comprehensive human studies, sociology and economics of education, psychometrics. In case of improvements in the international market situation, the revenues from participation in international research grant programs are also expected to go up.

Total increase in the STRA-U’s revenues in 2020 versus 2016 will be no less than 25% (60 mln. rubles). As compared with the funds received by the STRA-U under Global Competitiveness Program, the anticipated growth of income will reach 400 %.

STRA-U’s expenditures include personnel salaries (68-72%) and other operating expenses (teaching and research process, academic mobility, acquisition of information, etc.).

General and administrative expenses are centrally managed by HSE. All facilities, dormitories, IT infrastructure and administrative services are provided by the university.

The STRA-U’s financial stability is achieved through the combination of revenues from all types of its operations and HSE investments – through centralized academic development instruments (programs and projects). HSE is ready to provide additional resources to the STRA-U by reallocating HSE’s centralized funds if necessary.



### 1.6 Schedule (Roadmap) for controlled changes

№	Objective	Year				
		2016	2017	2018	2019	2020
<b>1. Organizational changes</b>						
1.1.	STRA-U organizational structure has been established, including the team, management, collegiate and executive bodies	X				
1.2.	Project teams have been set up, and required information resources for their operation have been defined	X	X	X		
1.3	Office for International Publications Support has been established	X				
1.4	Centers for Data Analysis and Learning Analytics have been established		X			
1.5	Teaching and Learning Center has been established		X	X		
<b>2. Required changes and deliverables in education</b>						
2.1.	Designing and launching the Master's program in Comparative Education Policy		X	X	X	
2.2.	Introducing new common educational modules for various programs	X	X	X	X	X
2.3	Designing MOOCs in education and education policy, integrating them into program curriculum (twice a year)	X	X	X	X	X
2.4.	Establishing an Employers Council that will help to evaluate the programs content and student qualifications acquired in the course of studies	X	X			
2.5.	Designing and launching a program in Instructional Design, the first one in Russia. The program aims to help students with no pedagogical background acquire respective competencies required for teaching		X	X	X	
2.6.	Testing the model for smooth transition from Master's program to doctoral program	X	X	X	X	X
2.7.	Holding international summer schools in partnership with leading international universities (credits will be awarded)	X	X	X	X	X
<b>3. Changes and results of the research and technical activities</b>						
3.1.	Running integrated R&D projects	X	X			

3.2.	Engagement of postdocs in research projects implemented by the STRA-U		X	X	X	X
3.3.	Introducing mini-grants for replicating notable projects and engaging foreign scholars in the analysis of STRA-U data		X	X	X	X
3.4.	Supporting international internships for faculty and researchers	X	X	X	X	X
3.5.	Introducing internal competitions for funding research initiatives	X	X	X	X	X
<b>4. Promotion and efforts to strengthen STRA-U reputation on the national and international level</b>						
4.1.	Hosting annual international conferences in Moscow in partnership with leading foreign centers and international associations dedicated to STRA-U key topical areas (2 in 2016, 3 in 2017, 4 conferences each year in 2018-2020)	X	X	X	X	X
4.2.	Educational Studies journal has been registered in Scopus (registration has been confirmed)		X			
4.3.	Turning Russian Education and Society journal into original publications format			X		
4.4.	Establishing the STRA-U International Advisory Committee for regular evaluation of outcomes in research and education	X				
4.5.	Launching the international competition “Innovations in Education”	X	X			
4.6.	Establishing the STRA-U-based Russian branch of European Educational Research Association	X	X			
4.7.	Establishing an international society of deans of Faculties of Education (together with the Graduate School of Education of Peking University)		X			
<b>5. General changes and results, including at the University’s level</b>						
5.1.	Facilitating the HSE achievement of leading positions in the education and research at the regional and global level, evidenced by the promotion in global rankings	X	X	X	X	X
5.2.	Inviting experts from associated faculties and units to participate in STRA-U projects		X	X	X	X
5.3.	Reducing dependence on the state budget financing			X	X	X

## **2. TRANSFORMING THE UNIVERSITY BY ESTABLISHING THE BREAKTHROUGH AREAS ACROSS STRATEGIC ACADEMIC UNITS**

### **2.1 Organizational Transformation of the University**

HSE is in the process of systemic transformations, first launched by the university in 2010, and aims to create centers of excellence and to disseminate the experiences of these centers throughout the university.

In the first stage of transformation, the university established 10 international laboratories lead by the prominent foreign researchers. The development of international laboratories in economic, social, computer, and mathematical sciences has contributed to overcoming the long-term isolation of Russian social and economic sciences and enabled HSE to join the global network-based research market and strengthen the university's position as the center of advanced research in select areas of expertise. As a result of the university concentrating its resources on the development of those areas, the number of research publications in the international databases Web of Science and Scopus has grown five times over the last five years. Globally renowned scientists such as Nobel Laureate Eric Maskin, Fields Medal Winner Andrei Okounkov have joined the university. The number of international laboratories grew to 22 in 2015 and these research centers have enabled the university to integrate the new academic culture into more traditional forms through the creation of faculties and moving further to the next transformation stage.

The second stage in the transformation of the university's organizational model is the transition from highly specialized faculties and academic departments, designed with the primary purpose of teaching, to the model of mega-faculties, or large research and education units conducting research (including multidisciplinary research) and faculty training in broad areas of expertise: economic sciences, social sciences, business and management, humanities, computer and engineering sciences, mathematics, law, communications and design and urban studies. The integration process was completed in 2015 when 21 faculties and division networks were replaced with 10 mega-faculties. The former faculties and academic departments became departments and schools, and mega-faculties were merged with previously independent HSE research units to conduct basic and applied research and focus on expert analytical work and consulting. The new organizational model is currently finalizing its operating mechanisms.

The university merger of interrelated fields of expertise encourages the development of promising research areas at the intersection of sciences and ensures the principle of crossdisciplinary interaction in research and teaching. This contributes to the rapid development of the mega-faculties' educational programs built into the framework of new fast-growing areas of expertise that are implemented by research scientists, key employers, international experts; students become involved in real scientific research projects while still in the training. Such integration is provided by research units, departments and schools within the mega-faculties.

The conversion ensures an integrated approach to mega-faculties-based management and the development of all areas of the university's expertise, including higher education and continuing education, basic and applied research, innovation, expert analytical work and consulting. International laboratories still act as the drivers of research, set standards for other research teams and play an important role in graduate and postgraduate education. Regular evaluation of laboratories' performances by internationally recognized experts constitutes the basis for decision-making on the laboratories' existence. Mega-faculty management is based on the principles of academic self-governance, which is implemented at all levels of decision making.

In 2015, the right to managing independently financial resources and the responsibility for achieving planned results (KPIs for the mega-faculties' deans are set) were delegated to the mega-faculties. This significantly simplified the decision-making process, allowed more specific considerations on account of individual disciplines and enhanced their development. Currently, almost 50% of resources from the university-wide academic development fund (scholarships for

academic mobility of faculty members, researchers and students, conferences, etc.) are managed by the mega-faculties. The mega-faculties' academic development funds are competitively distributed in accordance with the decision of mega-faculties' governing bodies, composed of researchers and instructors. The mega-faculties' academic and financial autonomy will be further increased; resources will be managed and decisions made based on KPIs.

The university is currently in the third stage of its transformation: HSE continues to improve the mega-faculties and establish better conditions for their development through the individual research and education units under these new interdisciplinary centers of excellence. The centers use the mega-faculties' infrastructure, human and other resources and have become growth points for promising areas where the university intends to enter the global market. Successes have been achieved in some subject areas as evidenced by high quality publications in the leading journals (See sections below).

## **2.2 Strategic Academic Units**

The mega-faculties and research units (including international laboratories) are used to establish large areas of expertise with interdisciplinary connections: Strategic Academic Units (STRA-U). There are two types of STRA-U – international consortia and centers of excellence, which are currently being formed based on the following criteria:

- 1) Research must be consistent with the global research agenda and international research networks;
- 2) Research must be relevant to Russia's geopolitical interests and/or sectoral priorities;
- 3) STRA-U must serve as expert analytical centers for the development of public policy in the economic and social sectors, education, science and technology forecasting and state-building; each STRA-U should make a significant contribution to the development of Russian economy;
- 4) Educational programs are implemented at various levels (undergraduate, specialist, graduate and post-graduate programs).

The first type of STRA-U includes major consortia that address the university's existing core areas. They are recognized internationally (reflected in their international rankings), and have a high capacity for further dynamic development. These consortia are formed from one or more mega-faculties and academic units of the university, which implement educational programs at all levels and their research has been integrated or is capable of being integrated into the global research agenda:

- Economics and Management (QS Economics & Econometrics – 151-200, QS Development Studies – 51-100, QS Social Science & Management – 161<sup>1</sup>);
- Challenges for Social Development (QS Development Studies – 51-100; QS Sociology – 151-200; QS Social Sciences & Management – 161);
- Mathematics, Computer Science and Information Technology: scalable mathematical methods (QS Mathematics и QS Computer Science & Information Systems – 400+, ranks 6th in Russia);
- Humanities Consortium “Humanus” (QS Philosophy – 151-200, QS Arts & Humanities – 289).

The second type of STRA-U includes centers of excellence: individual structural units that have been created as new growth points in relatively narrow and promising interdisciplinary areas of research and education and are integrated into the global research agenda and implement

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<sup>1</sup> HSE position in QS World University Rankings 2015 (by subject and by industry) are given in brackets. This position has been secured thanks to the contribution of the respective STRA-U.

Master's and doctoral educational programs. In the long run, these units are capable of growing into new research and educational areas:

- Foresight and Science, Technology and Innovation Studies (QS Development Studies – 51-100; QS Social Sciences & Management – 161);
- Cognitive Neuroscience: from Computational Models to Neurotechnology (QS Economics & Econometrics – 151-200; QS Social Science & Management – 161);
- Education and Human Development in changing world (QS Sociology – 151-200; QS Social Science & Management – 161);
- Urban and Transportation policy: guiding urban transformation from industrial to digital age (QS Development Studies – 51-100; QS Social Sciences & Management – 161).

Not included in STRA-U's are key HSE faculties such as World Economy and International Affairs, Law, and Communications, Media and Design, as well as the Department of Foreign Languages, because these units are currently focused mainly on the Russian market.

#### *Strategic Academic Unit Management*

Each Strategic Academic Unit is managed by:

- the research adviser, a leading scholar in the STRA-U area, well known by the international academic community, whose main functions are to establish the STRA-U research and education agenda and strategies, help enhance STRA-U leadership within the international academic community and engage STRA-U leading experts in relevant fields;
- the leader, a famous academic and experienced research and/or education administrator whose main functions are to ensure achievement of STRA-U goals, coordinate research and education communication among the divisions within STRA-U and make personnel and financial decisions.

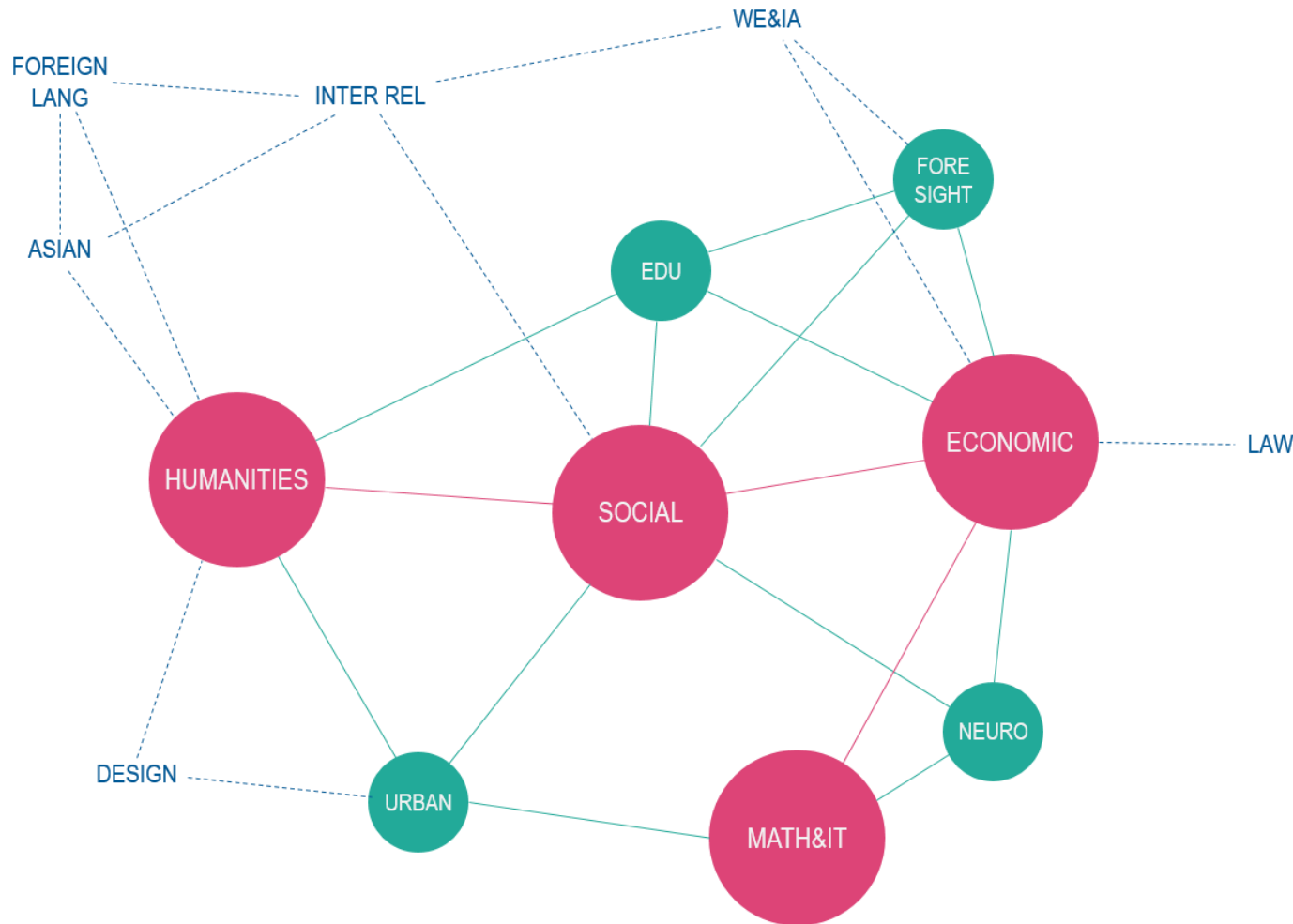
STRA-U is managed by the Management Board, which makes programmatic and resource decisions on each of the STRA-U's tasks delivery and ensures monitoring of STRA-U's tasks delivery.

Some STRA-U's have already established International Expert Committees and others will establish them by the end of 2016. International Expert Committees will conduct external evaluations of STRA-U research and educational activities and provide recommendations regarding STRA-U development strategy. They will also promote international partnerships and the integration of STRA-U researchers in international research networks.

The university's management practices have been tested within the mega-faculties model and have proved to be viable and effective. They will also be used in the next stage of the university development within STRA-U's framework (see more details in respective sections of each STRA-U fact-sheet).

The scheme of interaction between STRA-U's and other units that haven't been integrated as a STRA-U yet is defined in the following figure.

# STRATEGIC UNITS INTERACTIONS



**StraU's of I type  
CONSORTIUMS**

- >ECONOMIC< ECONOMICS AND MANAGEMENT >
- >SOCIAL< CHALLENGES FOR SOCIAL DEVELOPMENT >
- >MATH&IT< MATHEMATICS, COMPUTER SCIENCE AND INFORMATION >
- >HUMANITIES< SCHOOLS AND INSTITUTES CONSORTIUM «HUMANUS» >

**StraU's of II type  
CENTERS OF EXCELLENCE**

- >FORESIGHT< FORESIGHT AND SCIENCE, TECHNOLOGY AND INNOVATION STUDIES >
- >NEURO< COGNITIVE NEUROSCIENCE: FROM COMPUTATIONAL MODELS TO NEUROTECHNOLOGY >
- >EDU< EDUCATION AND HUMAN DEVELOPMENT >
- >URBAN< URBAN AND TRANSPORTATION POLICY: GUIDING URBAN >

**OTHER UNITS**

### **2.3 Research and innovation activities**

*Research and science project areas are described in detail in each STRA-U Fact-sheet.*

HSE strategy for basic research sets rigorous requirements for research quality, and personnel incentives are aimed at facilitating research in the most cutting-edge areas and topical fields. This has caused a significant growth in the number of quality publications. Articles by HSE faculty and researchers are published in top international journals, including Review of Economics and Statistics, Acta Mathematica, Journal of Personality and Social Psychology, The Lancet, IEEE Transactions on Pattern Analysis and Machine Intelligence, Nature Genetics, Journal of Political Economy, Physical Review Letters, American Economic Review, Behavioral and Brain Sciences, Journal of Materials Processing Technology, Annals of Statistics, Communications in Mathematical Physics.

The university has robust research and innovation cooperation with major Russian and foreign companies and organizations which are not only customers of research and consulting projects but also partners in implementation of customized educational programs of mainstream and continuing education. The demand for the university's research is evidenced by steady growth in R&D total revenues, which is currently almost 40%. HSE has partnership relations with such major companies as Gazprom, Rosatom, Rosneft, Novatek, Gazprom Neft, Alrosa, Norilsk Nickel, Aeroflot, Rosgeologiya, Nissan, Sibur, Gazprombank, Lukoil, Transneft, Yandex and others. HSE is constantly expanding the network of joint departments (currently - 40) established in cooperation with leading research and science centers, global consulting companies, ICT companies, analytical centers, and others.

The university's innovative activities are designed to provide diverse forms of communication with project teams which include undergraduate, graduate and post-graduate students, professors and research scientists. Those activities range from annual competitions of business plans for innovative projects to supporting the start-ups at various stages of maturity. A prominent place in the Russian innovation ecosystem is taken by the HSE's Business Incubator which provides coaching and advisory services to student teams; the Innovation Center which provides organizational support to the spin-off companies, and Prototyping Center that provides an experimental platform for technological projects and boasts state-of-the-art equipment.

According to UBi Global rating, in 2015, HSE Business Incubator ranked 14 among global university business incubators (sole university business incubator in Russia to rank in global Top-25).

### **2.4 New organizational model for the education process**

Establishing mega-faculties through the merger of academic units has enabled the implementation of a university-wide organizational and management model for the education process on the basis of "academic adviser - academic council - student office". In spite of a wide variety of programs, the quality of the education process and outcomes is ensured by general principles incorporated in the unique educational standards aimed at a higher level of complexity.

The implementation of undergraduate programs is based on a model that provides for:

- a limited number of courses (no more than five) to be studied by a student in any given semester, at least half of which are electives;
- a fixed part of the program within which a student works on projects and research papers primarily in actual research departments at the university;
- select clusters of courses (minors) available to all students (20 ECTS in two years);
- independent assessment of students' knowledge of the English language at the end of the second year through the process of international exams, and mandatory study of at least two major courses in English;
- mandatory preliminary thesis defense in English.

The implementation of graduate programs is based on the following model:

- no more than 12 courses to be studied by students over two years;
- two professional “core” disciplines (the second disciplines is to be selected by the academic program management and by the students themselves);
- research and independent work must constitute at least 70% of the load;
- opportunity for first-year students to select courses from the general pool of disciplines with broad humanities, social science and economic focus (MagoLego).

HSE’s educational programs are focused on the international market: the share of foreign students is currently 7.5%; 18% of disciplines are taught in English; 15 programs in the current academical year and 20 programs in the new academic year will be fully focused on English-speaking students; 43 (29%) educational programs are implemented in partnership with leading foreign (41) and Russian universities (2). HSE is actively involved in the work of universities’ consortium representing massive on-line courses on Coursera international platform: in 2015, over half a million students from 195 countries, representing 5% of all Coursera students, signed up for 36 HSE’s online courses taught in Russian and English.

## **2.5 Development of Academic Personnel**

Academic personnel development within the new STRA-U framework will be provided by the instruments of academic development and through competitive procedures established in HSE in recent years and described in detail in the Roadmap of the Program for Enhancing HSE Competitiveness of the second stage.

The main instrument for attracting international experts is the international recruitment strategy, which has been in place at HSE since 2010. The ruble devaluation has significantly restricted Russian universities’ capacity to compete as employers in the global academic market; therefore, specialist recruitment on the international market in 2016 will change: most cited scientists in high demand by strategic academic units will be selected through the international recruitment procedure. Foreign researchers will be engaged in scientific projects under short-term contracts and remote work contracts. Particular emphasis will be placed on engaging talented young scientists in international research projects through the postdoctoral research fellow program, which will be enhanced starting from 2016.

Mandatory engagement of faculty members in research and involvement of researchers in the educational process is guaranteed by the single contract with academic personnel implemented by HSE in 2015. Faculty members’ teaching load is alleviated by teaching assistants, who are selected from among the best students and thus get a chance to start their academic career. Personnel rotation and academic faculty selection is performed through creating competitive academic environment - an open competition for academic faculty positions is held annually and attracts many external candidates. The competition procedure involves the multi-stage selection of candidates: evaluation of research, professional level, interviews, and open lectures. The selection is carried out by expert subject committees, mega-faculties’ personnel, and the personnel committee of the HSE Academic Council. The open procedure and similar evaluation criteria for HSE professors and external candidates provide conditions for the selection of the best specialists to be employed by the university on a full-time basis. They meet the university’s requirements focused on the global market: HSE academic faculty was renewed approximately by one third in 2013.

The merit-based personnel selection system is supported by a wide range of incentives that provide for professional development and the opportunity to select the optimum academic path for each faculty member. The instruments include stipends for publications at the international level, contributions to the university’s reputation, teaching courses in English, development of new teaching methods and training courses, individual and collective research and academic mobility scholarships, international partnership development scholarships, comprehensive professional development program which includes internships and PhD



education at foreign universities and academic English courses at Academic Writing Center. All of these procedures are carried out on a competitive basis.

HSE strives to create an English language-driven professional environment and to ensure the smooth integration of international students, faculty members and researchers into the university academic life. HSE has established special administrative units that provide guidance to international students and academic personnel in all aspects of the HSE experience (including medical insurance, social support, etc.). The university has created English language information resources and hires program coordinators with fluent English. In the coming years, the number of administrative personnel with English proficiency will be increased, and international faculty members will receive comprehensive information about what is occurring during their employment at HSE.

HSE's target personnel development model suggests that by 2020 at least 60% of academic personnel will be scientists (included in the global academic networks), about 20% will be the leaders of the Russian professional market, and the remaining 20% will be engaged only in teaching (mostly teaching foreign languages). It is also planned that 90% of full-time HSE faculty members will be able to teach and conduct research in foreign languages.

## **2.6 Financial sustainability and resource allocation for the establishment and development of Strategic Academic Units**

Resources for the Program of Enhancing Competitiveness and the university's financial sustainability in general are secured primarily through revenue from core activities (all types of educational services, research and expert and consulting activities). In aggregate, HSE revenues in 2016<sup>2</sup> will exceed 14 billion rubles (\$190M), which is higher than the revenue in 2012 by 44%. The university earns about 40% of the funds or 6 billion rubles per year (\$80M) in the open market: in terms of extra-budgetary revenue, HSE is among top three Russian universities. Global Competiveness Program program funding constitutes only 6.5% to the university's revenue.

In the years leading up to 2020, HSE will increase its overall revenue by 31% compared to 2015, mainly through extra-budgetary income, of which 70% will come from for-profit educational services, and 20% from applied R&D and consulting services. Overall, by the end of the period the share of extra-budgetary income will increase to up to 44%.

Resources for the implementation of the HSE Roadmap will be gathered by combining centralized incentive mechanisms and increasing the financial autonomy of the units. HSE makes target investments of more than a quarter of its income into the university's development projects. The share of funds managed at the level of research and educational units and their consortia is, on average, more than 50%.

The university's financial model is actually replicated within STRA-Us: the units' financial sustainability is achieved through a combination of revenues from all types of activities and diversification of sources of their financing. The tasks of resource allocation to the units within STRA-Us are reflected both in their budget structure, and in the KPI system of their leaders (see Section 2.1).

Key risks for the financial sustainability of the university and its units in the period of up to 2020 are mostly related to negative economic conditions:

1) the devaluation of the ruble caused a significant reduction in the competitiveness of Russian universities as employers in the international academic labor market; paying competitive salaries becomes increasingly difficult, especially when trying to maintain fair balance between Russian and foreign academics;

2) the devaluation has also resulted in the significant increase of other university costs that depend on currency exchange rates, such as international academic mobility, access to foreign sources of information, purchase of equipment, etc.

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<sup>2</sup> Excluding state capital investments

3) reduction of Federal Budget expenditures for 2015-2017 significantly restricts the university's income growth potential, both in education and in research.

The key measures taken by HSE to address those risks are:

- cutting operational and administrative costs (in 2016, operational costs were cut by 15%, administrative personnel costs were cut by 10%, etc.);
- reducing full-time employment of foreign personnel in favor of short-term and remote contracts, without compromising the requirements related to cooperation with Russian personnel and publication activity levels;
- stricter internal requirements related to the efficient utilization of resources: allocation of funds for research projects that foster academic personnel allowances; implementation of economic standards for educational programs and personnel schedule and workload; and introducing indicators for attracting external resources into managers' KPI systems;
- reducing (and closing) administrative and research units and educational programs that do not meet academic criteria of productive efficiency (in particular, in 2014-2015, the Master's programs portfolio was optimised, and a number of academic departments were reorganized).

Information on HSE-Moscow total revenues and expenses in 2015-2020 are given in the table below (mln rubles):

	mln rubles		
(excluding state capital investments)	2015	2016	2020
<b>REVENUES</b>	13150	13880	16197
<b>Educational services</b>	<b>7 127</b>	<b>8 228</b>	<b>10 375</b>
State assignment for educational services	4 703	5 352	6 176
Fee-based educational services – Higher education	1 331	1 652	2 311
Fee-based educational services – Continuing education	632	695	1 240
Pre-university education	168	301	386
Subsidy for the scholarship fund	293	228	262
<b>Research and Development</b>	<b>2 577</b>	<b>2 568</b>	<b>3 000</b>
State assignment for research	888	862	1 000
Applied research and development	1 690	1 705	2 000
<b>Other revenues</b> (special purpose subsidies, donations, other revenues)	<b>817</b>	<b>1 102</b>	<b>1 016</b>
<b>Funding under 5-100 Program</b> (special purpose subsidy)	<b>930</b>	<b>930</b>	<b>930</b>
<b>EXPENSES</b>	12 099	12 903	15 304
<b>Program and project expenses</b>	<b>3 109</b>	<b>3 364</b>	<b>3 969</b>
<b>Current operating expenses</b>	<b>7 961</b>	<b>7 920</b>	<b>9 960</b>
<b>Special purpose expenses</b> (scholarships, major repairs, taxes)	<b>1 029</b>	<b>1 293</b>	<b>961</b>
<b>Reserves</b>	<b>283</b>	<b>325</b>	<b>414</b>
<b>BALANCE (end of period)</b>	<b>1 052</b>	<b>977</b>	<b>893</b>