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# 1992-1993





HSE is a unique institution in the global history of higher education. It was able to demonstrate unprecedented progress and become one of the leaders in just 20 years of its existence, even though, at the time of its establishment, Russia's system of higher education was already quite welldeveloped.

Philip G. Altbach, Director of Center for International Higher Education, Boston College (2013)

2017



# **HSE ESTABLISHMENT**

Directive of the Government of the Russian Federation No. 917, dated November 27, 1992:

• I hereby order the establishment of a state educational institution bearing the official name Higher School of Economics in Moscow in order to train highly qualified economists, who will be capable of working in Russian academia, higher education, public service institutions and enterprises. This new institution shall rely on best global practices and cutting-edge research focused on the Russian economy, as well as form a modern academic and methodological base for economics education.

# **HSE MISSION**

HSE is:

- an environment to educate professionals with global competencies in economics, social sciences and humanities, mathematics, computer science and engineering;
- a centre for putting the results of basic and applied research into practice in relation to the modernization of Russia and public benefits development;
- a site for testing and dissemination of standards and best practices commonly accepted by advanced international research and education centres throughout the Russian academic community.

# **HSE KEY GOAL**

• Making Russia competitive on the global scale through the development and dissemination of models and technological approaches in economics, political and information science, and the humanities.



# HSE STAGES OF DEVELOPMENT

1333-2000	1999-	-2000
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Innovative university and expert centre focused on social and economic reforms

- Innovation-driven academic processes:
  - modular system, credits;
  - student and faculty ratings, formative evaluation of academic progress;
  - transition to matrix-based testing and assessment materials during admission campaigns to rule out any possible interference.
- Involving Russian scholars in global academic communities with a focus on economic research
- Initiating a number of social and economic reforms

1996–1998

Innovative university

- Training new economists and managers in line with standards set by contemporary world class academic programmes
- Launching double degree programmes in conjunction with leading European universities
- Teaching foreign languages to ensure students' proficiency in a professional context one out of every 5 faculty members delivers second language classes
- Launching and expanding initiatives to boost economic education at secondary schools in the majority of Russian regions, launching Olympiads in economics and entrepreneurship, and training over 1,000 instructors capable of teaching economics at secondary schools
- Establishing regional campuses as instructed by the Russian Government
- Setting up the Tenured Professor system



The making of HSE

Launching programmes to train managers and economists capable of working in a market economy



# 2009–2012

National Research University - expert centre of the Russian government

- The University's Strategic Development Programme up until 2020 is approved by the HSE team
- HSE is granted the status of 'National Research University'; launch of the National Research University Project
- HSE becomes an autonomous educational institution and sets up its Supervisory Council
- HSE establishes its International Advisory Committee headed by Eric Maskin, a Nobel Prize Winner in economics
- HSE continues to grow through its merger with MIEM and launch of new Master's programmes
- HSE launches the Innovation Infrastructure Development Project
- HSE starts a project aimed at boosting cooperation with high-tech engineering companies
- HSE starts inviting top foreign scholars to supervise its international research labs, and launches a project aimed at setting up new labs headed by leading foreign scholars
- HSE introduces international recruitment for academic staff



Leading university in economics and social sciences expert centre of the Russian government

- The University's Development Strategy up until 2010 is approved by the HSE team
- HSE expands range of faculties, Master's programmes and postdoctoral fields of study, including logistics and informatics (first of its kind in Russia)
- HSE becomes a leader in terms of development and adoption of university-level federal educational standards in social sciences, as well as supervises the activities of the Curriculum Development University Association in Economics and Management
- HSE becomes a winner of the Innovative Educational Programmes Competition
- HSE creates secondary school districts at all of its campuses
- HSE continues attracting best specialists and introduces a well-balanced system of remuneration and career growth aimed at ensuring high productivity in research and education
- HSE provides scientific support to the Strategy 2010 Initiative and other reforms in economics and social sector



## HSE STAGES OF DEVELOPMENT

2018–	Globally competitive research university	<ul> <li>HSE continues its development as a comprehensive university</li> <li>Concentration on key areas of research and education, whereby HSE can fully realize its competitive potential on a global scale</li> </ul>
	<ul> <li>Robust visibility in</li> </ul>	<ul> <li>Robust visibility in the Top-100 of global academic rankings by subject</li> </ul>
		<ul> <li>Digitalization of social sciences and humanities, transition to a digital university model</li> </ul>

• Engagement in global academic partnerships on equal terms with peer institutions

2013–2017

Research university integrated with the global academic community

- Launch of the 5-100 Project and initial results in global academic rankings
- Establishment of the HSE Board of Trustees
- Promotion of HSE educational and research projects on the global market
- Transition to large multidisciplinary faculties, all-university integration of research and education
- Establishment of HSE Lyceum integrated with the University, launch of the HSE Distributed Lyceum Project
- New governance model relying on functional decentralization and more intensive involvement of HSE academic staff
- Launch of the University Open to the City Project focused on the development of the Moscow Region
- A broad range of research and expert review projects carried out in the interests of the Russian Government, participation in the activities of expert committees, commissions, collegiate bodies under the Russian Government and the President of Russia, as well as federal executive authorities

# **B** HSE ROLE IN ATTAINING NATION-WIDE GOALS

# 1992 - 1999

- Training a new generation of economists and managers
- Maintaining qualitative research capacity in economics, management and social sciences
- Adapting best global practices in economics and social science to local needs and purposes
- Engagement of Russian scholars in global economic research communities
- Initiating various reforms and taking direct part in their development

# 2000 - 2012

- Introducing new curricula for educational programmes in economics and social sciences
- Providing academic and analytical support to key reforms in economics and social sector
- Innovative ideas for the Russian higher education system
- Ensuring global competitive capacity of HSE undergraduate and Master's programmes
- Attaining positions at the forefront of global academia in a number of research areas
- Providing scientific and analytical support to the development and implementation of key reforms in economics and the social sector

# 2013 - 2017

- Training analysts, managers, entrepreneurs and scholars for an innovation-driven economy
- Providing world class expert and consulting services to the Russian Government, society and businesses
- Attracting the best researchers from other countries
- Enhancing HSE role in global R&D processes
- Becoming an innovation centre for Russian science and education

# 2018 - ...

- Proposing solutions for current problems faced by Russia in terms of its social and economic development
- Serving as a centre for the development and commercialization of cutting-edge technologies
- Competing on equal terms with leading global expert and consulting centres
- Attaining global leadership in a number of R&D areas
- Taking part in setting the global R&D trends



HSE (Moscow campus)	vs other Russian universities:	Regional campuses	St. Petersburg	Nizhny Novgorod	Perm
Ranks among the Top-3	Admission to state-funded places	Number of students, persons	4,860	2,540	1,970
	at undergraduate programmes: 93.9 – average USE score (3 <sup>rd</sup> position), 879 Olympiad first-prize winners	Number of doctoral students, persons	50	20	-
	(1 <sup>st</sup> position), <b>12%</b> prize winners at the All-Russian Olympiad for School Students (263 students)	Average USE score for state- funded places, points	funded places, points(6th place in Russia)(Number of students admitted60	82.1 (20 <sup>th</sup> place in Russia)	83 (19 <sup>th</sup> place in Russia)
Biggest students enrollment to full-time Master's	(263 students) <b>3.1</b> thousand students	Number of students admitted based on their Olympiad results, persons	60	16	-
Programmes Ranks among the Top-3	11.4 thousand students	R&D revenue, mln roubles 70.	70.2	14.8	24.0
in terms of fee-paying students	terms of fee-paying	Average faculty remuneration at HSE campus vs standard national	189%	270%	287%
Ranks among the Top-3 by tuition fee rate	260 - 670 thousand roubles per year	average salary, %			
"he levest sumber of	174 amplexes	Publications indexed in Wo	S and Scopu	s – HSE regio	nal
The largest number of oreign staff under	174 employees	campuses (units) 2013			2016
employment agreements		St. Petersburg 32	32		179
Ranks among the Top-5 by R&D revenue	<b>2.7</b> billion roubles. (4 <sup>th</sup> position)			+ 460% -	
Ranks among the Top-3 in by number of positions	<b>23</b> subjects and faculties (3 <sup>rd</sup> position after MSU and SPBU)	Nizhny Novgorod	72	+ 70%	121 ▲
in global rankings (ARWU, THE, QS)		Perm <b>13</b>		53	
			L	+ 310% -	



# GLOBAL CHALLENGES AND PRIORITY ADJUSTMENTS

Attracting and training world class specialists	Competing for talented students	Building a global reputation
<ul> <li>International recruitment (11% of academic staff hold a PhD degree)</li> <li>International labs (33)</li> <li>Joint educational and research projects: 44 double degree programmes in conjunction with leading US, Europe and China universities; 12 large-scale research projects with strategic foreign partners</li> <li>A system ensuring smooth integration of foreign staff into HSE academic environment by providing special services, social programmes, clubs, etc.</li> <li>International management: 52% of administrators have appropriate English skills</li> </ul>	<ul> <li>In-demand multidisciplinary educational programmes (including programmes offered in English) (27)</li> <li>Promoting the HSE brand and products on the online education market : 94 courses hosted on national and international platforms</li> <li>HSE Lyceum and Distributed Lyceum (1,500 secondary students enrolled in HSE Lyceum and 2,090 students studying at 28 Moscow schools within the framework of the HSE Distributed Lyceum)</li> <li>Partner schools in most Russian regions (340)</li> <li>New markets (outside of CIS countries): Central and Eastern Europe, China, India and Latin America</li> <li>Instruments for attracting talented Russian and international students: regional and international HSE Olympiads (78 thousand Russian participants and 9.8 thousand international applicants), online admission application, early admission options, etc.</li> </ul>	<ul> <li>Research projects with a focus on the global agenda</li> <li>Enhance HSE position as a leading expert and analytical centre focused on issues faced by Russia and other transitional economies</li> <li>HSE academic staff publish papers in scientific journals indexed in Q1 and Q2 of WoS and Scopus</li> <li>HSE scientific journals are indexed in WoS and Scopus databases: 11 journals</li> <li>English preprints in all research areas published in specialized international databases: 16 preprint series</li> <li>International conferences where at least half of all speakers are from outside of Russia</li> </ul>



## TARGET INDICATORS: ATTAINING GLOBAL LEVELS



HSE is the only participant in the 5-100 Project confirming its leading position every year following the 5-100 International Council review.



# **GLOBAL RECOGNITION: SUBJECT RANKINGS - 2017**

Number of HSE positions in subject rankings							
2014 2015 2016 2017 QS QS QS, THE QS, THE, ARWU							
Total	1	6	11	23			
Тор 100	0	1	1	4			
Top 101-200	0	4	7	13			

Тор 101-150	
Business & Economics (101-125)	THE
Accounting & Finance (101-150)	QS
Political Science (101-150) New	ARWU
Mathematics (101-150) New	ARWU

Тор 200-400				
Economics (201-300) New	ARWU			
Arts & Humanities (299)	QS			
Education (201-250) New	QS			
Law (201-250) <sup>New</sup>	QS			
Computer Science & Information Systems (351-400)	QS			

## Top 100

Economics & Econometrics (51-100)	QS	
 Sociology (51-75) <sup>New</sup>	ARWU	•••
 Sociology (51-100)	QS	• •
Politics & International Studies (51-100)	QS	

Тор 151-200	
Social Sciences and Management (155)	QS
Social Sciences (176-200) New	THE
Business & Management Studies (151-200)	QS
Arts & Humanities (176-200) New	THE
Philosophy (151-200)	QS
History (151-200) <sup>New</sup>	QS
Linguistics (151-200) New	QS
Communication & Media Studies (151-200) New	QS
Mathematics (151-200)	QS
Mathematics (144) New	US News & World Report

## **Connectivity and Multidisciplinarity**



## Why is HSE continuing to expand its range of disciplines?

- Progress in research based on the fusion of multiple disciplines
- HSE is a project-based university, and comprehensive projects are its top priority
- Attracting effective research groups with international visibility, which is higher than the average visibility of HSE teams
- Developing an entrepreneurial culture and encouraging innovation through integration of computer science, social sciences and humanities

## **Development of interdisciplinary areas**

- Methods and technologies for Big Data processing and analysis
- Mathematical analysis of economic and social processes
- Economic and social policy
- Comprehensive humanities studies
- Cognitive neuroscience
- Urban studies and transport policy
- Forecasts of STI development
- Foresight

## Transition to the large faculty (megafaculty) model completed in 2015

Faculty of Economic Sciences	Faculty of Social Sciences	Faculty of World Economy and International Affairs	Faculty of Business and Management
Theoretical Economics Applied Economics Finance Mathematics Statistics and Data Analysis Economics and Finance in conjunction with LSE (ICEF)	Political Science Sociology Public and Municipal Administration Psychology Education Demography	World Economy International Relations Asian Studies	Business and Business Administration Business Informatics Logistics
Faculty of Humanities	Faculty of Communications, Media and Design	Faculty of Law	Vysokovsky Graduate School of Urbanism
Historical Sciences Cultural Studies Linguistics Philology Philosophy Foreign Languages	Media Integrated Communications Design	Practical Jurisprudence Law	Urban Development and Architecture
Faculty of Mathematics	Faculty of Computer Science	HSE Tikhonov Moscow Institute of Electronics and Mathematics	Faculty of Physics (2016)
Mathematics	Software Engineering Data Analysis and Artificial Intellect	Computer Engineering Electronic Engineering Applied Mathematics	Theoretical Physics

## From faculties to megafaculties

- Transition from 28 faculties and divisions (2013) to 12 megafaculties, which incorporate research institutes and labs (2015); transition from 158 smaller departments ('cathedras') to 50 departments and schools:
  - Integration of educational programmes of all levels, as well as basic and applied research and expert and analytical services;
  - Convergence of related sciences, boosting multidisciplinarity;
  - Decentralization of HSE governance system: allocation of at least 1/3 of the budget along with decision-making power directly to faculties;
  - HSE megafaculty KPIs: in 2017, 5 HSE megafaculties were granted special-purpose funding based on their performance:
    - for further development  $\sim$  50 mln roubles;
    - incentive payments ~ 25 mln roubles.

SCIENCE







## International Labs

- A network of international labs (33) covering all of HSE key research areas and focusing on the development of world class academic schools
- Partnerships with leading research centres and participation in international network-based projects
- Training young scholars to work as part of a global academic environment: in 2017, 260 students completed internships at one of the University's international labs
- Large-scale international research projects (12 projects) implemented in partnership with leading foreign universities

Ou	tcomes	
	2013	2017
Publications in Scopus journals with the highest citation indices	25%	45%
(Top-25%)	+ 80%	<b>_</b>
International labs	16	33
	+ 106%	<b>_</b>
Number of HSE journals indexed in WoS and Scopus	<b>1</b> └──────────────────────────────────	11 ▲

## **Quality Assurance for Basic Research Projects**

- Research productivity assessments for HSE academic staff
- Incentive payments: providing support for publications in academic journals with the highest citation indices (Q1 and Q2); no publications in low quality journals
- HSE scientific journals indexed in WoS and Scopus (11)
- Language support for publications
- HSE English preprint series (16) in international databases (over 1,000 preprints)
- International expert review of R&D projects (100% of research projects)

#### Next steps

- Solid international reputation: maintaining positions in Top-100 subject rankings in the most of HSE research areas
- Strategic research partnerships with foreign universities and network-based projects
- Providing support for interdisciplinary research projects (university grants, multidisciplinary seminars)
- More intensive integration of HSE students into the overall academic environment, application of research results in real academic processes



#### PUBLICATIONS indexed in WoS per year (units)

Total

per 100 academic staff members





**PUBLICATIONS indexed in Scopus per year (units)**Totalper 100 academic staff members







## CITATIONS per 100 academic staff members per year (units) WoS Scopus







**PUBLICATIONS** per year (units)

RSCI



Higher Attestation Commission list



	Research	Grants		Ou	tcomes		
<ul> <li>Individual Research Grant Competition</li> <li>Research and Study Group Competition: teacher-student research</li> </ul>					2013		2016
<ul> <li>Research and Study Group Competition: teacher-student research projects with active involvement of HSE students</li> <li>Academic Mobility Grant Competition</li> </ul>			Academic staff who submitted applications for academic bonuses, persons	<b>786</b>	+ 41%	1,104 	
	Academic Bon	uses System		Academic staff who were			
<ul> <li>Tier 1: for academic work – granted for 1 year</li> <li>Tier 2: for academic work and contributions to HSE academic reputation – granted for 1-2 years</li> <li>Tier 3: for publications in international peer-reviewed scientific</li> </ul>			awarded academic bonuses (including bonuses granted in the previous year for more than 1 year), persons	<b>849</b>	+ 46%	1,238 ▲	
<ul> <li>journals (indexed in Q1 or Q2) – granted for 1 or 2 years depending on the quartile</li> <li>Additional personal bonuses granted by the HSE Rector for contributions to the University's reputation</li> </ul>		Academic staff who were awarded bonuses for publications in Q1 and Q2 journals (Tier 3), persons	158 	+ 188%	455 		
Aca	ademic Fund Bu	dget, mln roub	les	Individual Research Grants	70		110
	+90%	901.7	966.1	awarded by HSE, units	<b>79</b>	+ 47%	116 
509.9	746.4			Teacher-Student Research Grants awarded by HSE, units	<b>26</b>	+ 8%	<b>28</b> ♠
2013	2014	2015	2016				



## SYSTEM FOR MONITORING AND ASSESSING RESEARCH PRODUCTIVITY (RPA)





### **Trends in Development**

- From selected projects in economic policy to a large centre of research ٠ and expert analysis - one of the top institutions in Russia and Eastern Europe
- Diversifying projects: raising the share of income coming from research projects commissioned by companies and reducing reliance on projects initiated by Russian ministries and other authorities

### **Research Work Organization**

- Ongoing specialized teams headed by respected scholars
- · Partnerships with leading academic institutions, universities and consulting firms
- Mechanisms for integrating research and educational processes
- Professional administrative support

## 1997

5

small research institutes

large research 31 institutes

2016



59

joint departments with leading research centres and companies

Indicators			
	1997	2016	
Clients	5	226	
Projects	76	353	
Funding for applied R&D projects, mln roubles	10.6	1,563	
Including funding provided by state authorities, mln roubles	10.6	913	
Including funding provided by Russian and international organizations, mln roubles	0	650	



#### **Applied Research**

- Strategies for the economic and social development of Russia, its economic sectors, regions and local authorities
- Economics of science, technology and innovation
- Forecasts of science and technology development
- Digital economy
- Foresight
- 15 monitoring studies in key areas of economic and social development
- Since 2013 participation in 13 federal targeted programmes and 7 state programmes of the Russian Federation
- Strategic partnerships with major Russian companies: Gazprom, Sberbank, Rosatom, Roscosmos, Rosgeologia, Rosneft, Rosnano, Aeroflot, Russian Helicopters, Novatek, Russian Railways, Metalloinvest, Rostelecom, Transneft, Gazprom Neft, etc.
- Unique databases with statistical and sociological data: 2,767 databases, around 40,000 users

## **Research Management System**

- HSE Expert Research Committee is responsible for coordinating research projects
- Daily monitoring of R&D project competitions
- Providing organizational support for HSE units' participation in competitions/tenders and project work
- Quality assurance: all research reports are checked for borrowed text (the R&D Antiplagiat system)

	Outcomes	
	2013	2016
Total R&D projects (Moscow), bln roubles	<b>2.544</b>	2.729 
Income from R&D projects commissioned by Russian companies, %	<b>28%</b>	<b>40%</b>

# HSE ranks among the Top-4 Russian universities in terms of the revenue of its R&D projects

#### Next steps

- Diversifying markets for applied research: economics and politics in the social sector, employment and occupational studies, economics of mineral resources, strategic planning and management at the regional and corporate level
- Expanding research of sector-specific development
- Research projects focused on innovative spatial development: clusters, advanced development zones, industrial parks and 'Naukograds' ('science cities')
- Research projects focused on the further development of cooperation in the framework of the Eurasian Economic Union, Silk Road Economic Belt, BRICS, etc.



### Key Research Areas

- Macroeconomic analysis and forecasts
- Educational studies, policy and related instruments
- Studies in science, technology and innovation, design and evaluation of STI policy
- Foresight
- Studies in competitive capacity, sectoral markets and strategies
- Studies in labour market, professions and competencies
- Demography and migration policy
- Social policy, health care economics, social benefits and culture
- Public administration, e-government
- Regulation of natural monopolies, housing and communal services
- Transport economics, transport policy and transport modelling
- Regional economics, cluster politics and development of regional strategies
- Urban studies
- Foreign trade and trade policy

## **Point of Growth**

• R&D projects in cognitive science, IT, digitalization, Big Data analytics, the 'Internet of Things' and microelectronics

## Breakthrough Research: Science, Technology and Innovation

## Measurement in STI systems:

- Statistical measurements for emerging technologies (nano- and biotechnologies, information and communication technologies, photonics), science-intensive services (design and engineering) and innovations
- Studies of smart services market
- Monitoring studies in economics of education
- Studies of innovative behaviour of economic actors
- Analysis of STI skills and competencies

## Foresight for sustainable economic growth:

- Forecasts of development of science and technology at the national, sector-specific and corporate level
- Development of technology roadmaps for industry sectors and companies
- Monitoring studies in global technological trends
- Intellectual analysis for Big Data: identifying breakthrough technologies and potential markets

## Design and evaluation of STI policy:

- New approaches to STI policy evaluation
- Modelling the behaviour of innovative actors and innovation-oriented markets
- Development and analysis of innovation strategies for regions, clusters and companies



## FACULTY OF ECONOMIC SCIENCES

- Analysis of decision-making processes for further development of economics, state and society
- Macroeconomic analysis
- Stochastic analysis and its applications
- Studies in microstructure and macroeconomic aspects of financial markets
- Labour economics
- Institutional economics
- Economics of education

## **Key Partners and Clients**

- Ministry of Economic Development of the Russian Federation
- Ministry of Finance of the Russian Federation
- Ministry of Energy of the Russian Federation
- Ministry of Health and Social Development of the Russian Federation
- Accounts Chamber of the Russian Federation
- Central Bank of the Russian Federation
- Russian Federal State Statistics Service
- Chamber of Commerce and Industry of the Russian Federation
- Russian Union of Industrialists and Entrepreneurs
- London School of Economics (UK)
- Pantheon-Sorbonne University (France)

## FACULTY OF SOCIAL SCIENCES

- Management in modern social and political development
- Sociology of markets and entrepreneurship
- New factors in the global influence of states and patterns of social and political destabilization in the contemporary world
- Governance systems and mechanisms for decision-making with respect to transitional institutions
- Psychophysiological mechanisms of cognitive processes
- Interactions between government and civil society
- Optimization of administrative and managerial processes

## **Key Partners and Clients**

- Chamber of Commerce and Industry of the Russian Federation
- Ministry of Economic Development of the Russian Federation
- Ministry of Labour and Social Protection of the Russian Federation
- Ministry of Health and Social Development of the Russian Federation
- Federal Service for Labour and Employment of the Russian Federation
- Retail Companies Association (ACORT)
- Regional and municipal authorities
- Yale University, George Mason University (USA)
- Free University of Berlin, Centre for East European and International Studies (Germany)



## TOP PRIORITY RESEARCH AT HSE FACULTIES

## FACULTY of World Economy and International Affairs

- Integration studies: Eurasian integration and the Greater Eurasia Partnership, international cooperation for the development of the Far East, international trade
- Regional studies: Russia's 'Pivot to the East', Asia, Europe, the Arctic region, Ibero-American studies, Russian-American relations
- Geo-economics: unilateral sanctions, boosting development, megaregional commercial relations
- New structural factors affecting international relations and the world economy: climate change, water and food shortage
- Military and political studies

#### FACULTY OF BUSINESS AND MANAGEMENT

- Business models: conceptual frameworks, resources, processes of cooperation, innovations and related outcomes, digital transformation of enterprises and business
- 'Contemporary Marketing Practices' international research project
- Studies of strategies and internal organization of Russian enterprises as part of multinational corporations
- International research project focused on comparative studies of human resource management, CRANET (40 member states)
- Corporate knowledge management

#### **Key Partners and Clients**

- Eurasian Economic Commission
- Eurasian Development Bank
- Harvard University, University of Stanford (USA)
- International Institute of Strategic Studies
- Center for Strategic and International Studies
- East China Normal University (China)
- National University of Singapore (Singapore)
- Japan Institute of International Affairs (Japan)

#### **Key Partners and Clients**

- Ministry of Energy of the Russian Federation
- ROSSETI
- Enel Russia
- RusHydro
- University of Georgia (USA)
- Maastricht University (Netherlands)
- Aarhus University (Denmark)



## **FACULTY OF HUMANITIES**

- Scientific rationality: contemporary development strategies
- Digital humanities
- History of WWII
- Language technologies in the era of digital revolution
- Language arts vs society: language, text and communication
- Language theory, and Russian as a foreign language
- Computer linguistics, computer lexicology and lexicography
- Neurolinguistics

## **Key Partners and Clients**

- Humboldt University of Berlin (Germany)
- University of Maryland (USA)
- University of Tübingen (Germany)
- University of Bern (Switzerland)
- INALCO
- University Paris IV (France)
- Seoul National University (South Korea)
- Stockholm University (Sweden)
- The Hebrew University of Jerusalem (Israel)

## **Key Partners and Clients**

- Federal Communications Agency (ROSSVYAZ)
- Ministry of Telecom and Mass Communications of the Russian Federation
- Goltsblat BLP
- Media Holding "Khabar" (Kazakhstan)
- RBC
- Russian Association for Electronic Communications (RAEC)
- University Paris XIII (France)
- Royal Institute of Technology (Sweden)
- University of Southampton (UK)
- Aalto University (Finland)
- Design School Kolding (Denmark)

## FACULTY OF COMMUNICATIONS, MEDIA AND DESIGN

- Media management, cultural and creative industry studies
- Digital economy and online content, new aesthetic forms and expressive means of screen and digital arts
- Culture of media consumption
- Political economy of media (power relations, ideology and media markets)
- Social media: political and social transformations
- Media globalization and international communications
- Comparative studies of media systems
- Sociocultural, economic and political context of the arts and design



Algebraic geometry

Representation theory

Mathematical physics

Dynamic systems

Mathematical logics

• Theory of numbers

Topology

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**FACULTY OF MATHEMATICS** 

## Key Partners and Clients

- Independent University of Moscow
- Skolkovo Institute of Science and Technology
- Steklov Mathematical Institute of Russian Academy of Sciences
- Kharkevich Institute for Information Transmission Problems of RAS
- Lebedev Physical Institute of Russian Academy of Sciences
- Centre of Teaching Excellence
- Massachusetts Institute of Technology, State University of New York at Stony Brook (USA)
- École Normale Superieure Paris, École Polytechnique, University of Nantes (France)
- Leiden University (Netherlands)
- University of Luxembourg (Luxembourg)
- Kyoto University, University of Tokyo (Japan)

## HSE Tikhonov Moscow Institute of Electronics and Mathematics

- Modeling and designing devices, circuits, as well as micro and nanoelectronic systems
- 'Internet of Things', wireless sensor networks
- Computer-aided design systems
- Modeling physical and mechanical systems and processes
- Information security

## **Key Partners and Clients**

- Russian Space Systems
- Rocket and Space Corporation Energia
- VNIIEM Corporation
- Lavochkin Science and Production Association
- TSNIIMASH
- Huawei



## FACULTY OF COMPUTER SCIENCE

- Data analysis and intelligence systems
- Machine learning and related applications
- Bayesian deep learning methods
- Theoretical informatics
- Distributed systems
- Process-oriented information systems
- System and software engineering
- System programming
- Bioinformatics and medical informatics

## FACULTY OF PHYSICS

- Condensed matter physics
- Superconductivity and superfluidity
- · Physics of low-dimensional and mesoscopic systems
- Nonlinear dynamics and turbulence
- Physics of quantum calculations
- Astrophysics and cosmology
- Physics of coherent electronic systems
- Physics of nonlinear phenomena in condensed environments
- Physical material science

#### **Key Partners and Clients**

- Yandex
- Sberbank
- Samsung
- Schlumberger

#### **RAS Joint Departments**

- Condensed Matter Physics at the Institute of Solid State Physics (ISSP RAS)
- Physics of Low Temperatures at the P.L. Kapitza Institute for Physical Problems
- Theoretical Physics at the Landau Institute for Theoretical Physics
- Space Physics at the Space Research Institute
- Quantum Light Theory and Nanophotonics at the Institute for Spectroscopy
- Quantum Technology at the Prokhorov General Physics Institute



## TOP PRIORITY RESEARCH AT HSE FACULTIES

## FACULTY OF LAW

- Efficiency of statutory regulations and law enforcement practices, legal analytics
- Intellectual property rights and data protection law in the digital era
- Systematization of Russian legislation, codification of international private law
- Problems of political competition and balance within the system of government authority
- Economic criminal law: its prospects in Europe and Russia; public finance and financial control

#### **Key Partners and Clients**

- Government of the Russian Federation
- Ministry of Industry and Trade of the Russian Federation
- Eurasian Economic Commission
- Federal Antimonopoly Service of the Russian Federation
- Federal Centre for Educational Legislation
- 'Saveliev, Batanov & Partners' Legal Firm
- Center for IT & IP Law (KU Leuven), Netherlands
- Consultant Plus, and Guarant legal directories

## VYSOKOVSKY GRADUATE SCHOOL OF URBANISM

- Spatial data analysis
- Site development strategies and concepts
- Urban field studies
- Cities and technologies
- Settlement of local municipal conflicts

## **Key Partners and Clients**

- Strelka KB
- Moscow Committee for Architecture and Urban Planning
- Moscow Urban Forum
- LLC Imeretinskaya Riviera
- Housing Mortgage Lending Agency



## HSE ST. PETERSBURG

- City, location, international, regional and urban development
- Problems of diversity, comparative social and cultural studies
- Digital research in social sciences and humanities or digital society
- Sustainable business development in the global economy
- Economics, management and health care policies

## **Key Partners and Clients**

- Saint Petersburg City Administration, Leningradskaya Oblast Administration
- Russian Teacher Programme, Yeltsin Centre, UNICEF, Saint Petersburg Red Cross International Cooperation Centre, Anna Akhmatova Museum in the Fountain House (St. Petersburg)
- ROSGEO, GAZPROM Geological Exploration (GEOLOGORAZVEDKA), "Malakhit" Machine Building Agency, St. Petersburg
- University of Michigan (USA)
- Aarhus University (Denmark)

## **Key Partners and Clients**

- Ministry of Culture of the Russian Federation
- Rosbank, Gazprom, Kommersant, Lukoil
- NMGK Group, Nizhny Novgorod Machine Building Plant, SIBUR
- Volgo-Vyatka office of the Contemporary Arts Center

## **Key Partners and Clients**

- Permsky Krai Government
- Rostelecom, ER-Telecom Holding, Perm Suburban Transport Service Company
- University of Essex, University of Durham (UK)
- University of Vigo, University of Valladolid (Spain)
- University of Maryland (USA)

## HSE NIZHNY NOVGOROD

- Analysis, audit and design of innovative institutional financial structures and processes
- Designing organisational and management structures on the basis of Lean-management principles
- Business processes and management models, based on advanced engineering methods and software tools (BPMN, ArchiMate, DEMO, etc.)
- Data mining

## HSE PERM

- Economics of intangible assets
- Empirical analysis of markets and companies
- Studying different forms and mechanisms of public-private partnership



### **Key Research Directions**

- Multifaceted problems relating to Russia's social and economic development
- Macroeconomics and finance
- Labour market
- Demography, migration policy
- Social policy, economics of social sector:
  - education, healthcare, culture.
- STI policy, development institutions
- Economic and social statistics
- Federal contracts system
- Improvements in public administration:
  - administrative reform;
  - e-government;
  - anti-corruption initiatives;
  - regulatory impact assessments.
- Natural monopolies, efficient energy use, housing and related services
- Transportation policy
- Investment climate, interactions between businesses and the government
- Foreign trade

## Format

HSE experts actively participate in the following bodies on an ongoing basis:

- Presidium of the Economic Council under the President of the Russian Federation;
- Working group responsible for monitoring the May presidential decrees;
- Expert Council under the Government of the Russian Federation;
- Government Commission for the Coordination of the Open Government;
- Public councils of federal executive authorities;
- Committees, councils and other collegiate organizations under the President and Government of the Russian Federation and federal executive authorities.

## Next steps

- Expanding the range of expert analysis services provided to the Presidential Administration, Government of the Russian Federation and federal executive authorities
- Diversifying research projects with a particular focus on issues related to social and economic modernization
- Promoting cooperation with expert organizations working with transitional economies, including BRICS countries

## **EXPERT COUNCIL UNDER THE GOVERNMENT OF THE RUSSIAN FEDERATION**





## AREAS OF TRANSFORMATION

- Proposing solutions for the development of human capital, explaining its need for priority funding
- Contributing to the modernization of Russian education, introducing clear and transparent principles for selecting applicants based on their results in the Unified State Examination and student competitions
- Introducing normative per capita financing in social sector institutions
- Transition to effective contracts in the social sector and civil service
- Introducing administrative regulations
- Development of electronic public services
- Proposing reforms for agencies charged with control and supervision functions based on a risk-oriented approach
- Introducing principles of transparency and public integrity mechanisms in public administration

## OUTCOMES

- Laying the foundations for the solid long-term competitive position of the Russian economy, thereby ensuring social stability and meeting the most important needs of Russian citizens
- Building social elevators, increasing the number of quality students, fighting corruption
- Ensuring the quality and efficiency of socially significant services, promoting competition in social sector
- Mitigating decline in terms of staff qualifications in the social sector, anti-corruption impact
- Optimizing the structure of government agencies and how civil servants are managed
- Ensuring accessibility and high quality of public services and minimizing the time of their provision
- Reducing expenses of Russian businesses, ensuring safety in production and manufacturing, fighting corruption
- Introducing innovative technologies in public administration with a view to a transition to a dramatically new level of client experience and overall efficiency



## INNOVATIVE ENTREPRENEURSHIP

HSE Business Incubator	Managemen
Student business project competitions	Expert review potential of Ra
'Zhelezny Predprinimatel' (Iron Entrepreneur) Championship	HSE Fund for Innovative En
Integration Days Workshops by successful entrepreneurs	Efforts aimed commercializa outcomes, col to HSE acade

## nt of Innovations

v of the commercial &D projects

r Supporting ntrepreneurship

at the ation of research onsultations offered emic staff

## **HSE Business Incubator.** Centre for Innovation **HSE FabLab** HSE {Pro} and HSE {Good} programmes Hackathons of hardware and fintech start-ups International start-up competitions (Startup Sauna, SeedStars World) Student projects at companies

Consulting and training for residents

Consultations and mentoring
Fundraising
Business model elaboration
Building business teams
Promoting companies and taking part in field-specific fairs

Student involvement

Stimulating innovation in the work of academic staff

Support for start-up projects

Development of innovative companies

In 2016,

8,967 students took a course in innovative entrepreneurship

215 projects passed expert review 424 registered items of intellectual property

480 startup teams were offered consultations

13 companies work with HSE 29 million roubles - annual turnover



2017 2018 2019 2020

## **CULTURE OF ENTREPRENEURSHIP AND INNOVATION**

2017 2018 2019 2020

Entrepreneurship Education	Supporting Entrepreneurship	Innovation Activities	Goals
<ul> <li>New model for instilling entrepreneurship competencies</li> <li>Entrepreneurship modules offered under degree programmes</li> <li>Enhancing the entrepreneurship competencies of HSE" academic staff</li> </ul>	<ul> <li>Open centre for entrepreneurship and innovation</li> <li>A system for stimulating entrepreneurship</li> <li>Wide range of HSE {inc} / HSE {acc} events</li> <li>Infrastructure, partnerships, environment, etc.</li> </ul>	<ul> <li>Audits of intellectual property</li> <li>Mapping expert competencies</li> <li>Marketing of applied research projects</li> <li>Commercialization of R&amp;D outcomes</li> </ul>	<ul> <li>Points of growth for new markets and business activities</li> <li>Securing leading positions in global entrepreneurship and innovation research</li> <li><b>Objectives</b> <ul> <li>Entrepreneurship will be a baseline competency and cultural feature</li> <li>Lifelong learning in action</li> <li>Support for entrepreneurship and creative research and tech projects</li> </ul> </li> </ul>
Undergraduate programmes featuring entrepreneurship modules	Projects involved in HSE entrepreneurship competitions	Start-ups with HSE's involvement	<ul> <li>HSE students will have "added value" after graduation</li> <li>Results for 2018</li> </ul>
60% 30% 10%	600 500 300 300		<ul> <li>100 business mentors working at HSE</li> <li>600 students taking minors in entrepreneurship</li> <li>15% of degree programmes feature entrepreneurship modules</li> <li>10% of academic staff have improved their entrepreneurship qualifications</li> </ul>

2017 2018 2019 2020

- Entrepreneurship events: 10 000 participants, 400 projects
- 7 start-ups in HSE's innovation portfolio

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EDUCATION



**Bachelor's** 

Master's

Moscow	St. Petersburg	Nizhny Novgorod	Perm
<b>46</b> programmes	<b>11</b>	<b>9</b>	<b>6</b>
	programmes	programmes	programmes
<b>18,065</b>	<b>4,190</b>	<b>1,984</b> students	<b>1,710</b>
students	students		students
121	15	<b>11</b>	<b>6</b>
programmes	programmes	programmes	programmes
<b>6,691</b> students	668	556	259
	students	students	students


#### **HSE Educational Standards**

- Interdisciplinary competencies in related fields
- International standards for English proficiency
- Research seminars included in the curriculum of all programmes from the first year of study
- Bachelor's and Specialist programmes feature project work as a special component

#### **Individual Educational Tracks**

- Major/Minor model for undergraduate programmes: Major key courses in a relevant field of study; Minor – a block comprised of 4 additional courses (over 30 Minors are available)
- MAGOLEGO model for Master's programmes: 45 electives available
- Open elective courses: 50 elective courses in addition to compulsory credits earned on educational programmes
- Online courses incorporated with degree programmes: 350 online courses are included in the curriculum, 84% of such online courses are offered by other universities

Outcomes				
	2013	2017		
English-taught courses (Moscow)	10%	21.5%		
	+ 11	5%		
Research and project components (Moscow)	10%	20%		
	+ 10	0%		

- HSE alumni are in high demand among major world-class companies (according to *Future Today*: two HSE faculties rank among Top-3; and 6 HSE faculties are listed in Top-30 of the rating)
- Alumni continue studies at the best universities around the world (~8% of alumni study abroad)

#### Next Steps

- Introducing courses in Data Culture, entrepreneurship, and Soft Skills development in all academic programmes
- Independent assessment of competencies and key skills acquired by students and alumni
- Interdisciplinary student projects: projects and research as the basis for educational track development
- Digital environment, allowing students to acquire additional competencies: opportunity to obtain a Light Degree, and access to teaching and learning materials at any time



Data Culture	Digitalization of Social Sciences and Humanities	Infrastructure and Business Processes	Goal
<ul> <li>Integrated with the curricula of all undergraduate programmes</li> <li>Educational elements tailored</li> </ul>	<ul> <li>Unified centre for conducting applied research in social sciences and economics</li> </ul>	<ul> <li>Single online platform for degree programmes and continuing education</li> </ul>	<ul> <li>Securing leading positions in digitalization of social sciences, humanities, education and administrative services</li> </ul>
<ul><li>for specific fields of study</li><li>Pace-setting teams of academic staff working in specific fields</li></ul>	<ul> <li>Educational research using Big Data</li> </ul>	<ul> <li>"One-stop shop" for administrative services (no hardcopy paperwork involved)</li> </ul>	Objectives
of study	<ul> <li>Digital archives of data arrays in the humanities</li> <li>Research projects in Digital Media</li> </ul>	<ul> <li>All-in-one technological platform for data exchange</li> </ul>	<ul> <li>Data Culture as a baseline competency at HSE</li> <li>Developing a digital platform for education, research and administrative processes</li> </ul>
Undergraduate programmes featuring courses on Data Culture	Academic staff with improved data processing skills	Academic staff using HSE online platform for data exchance	Outcomes 2018
100% 60% 10%	75% 50% 10%	3000 2000 250	<ul> <li>30% of undergraduate programmes now feature courses on Data Culture</li> <li>At least 50% of academic staff have improved their data processing skills</li> <li>1,000 workplaces offering instant access to HSE services and information resources</li> <li>Financial and HR services no longer</li> </ul>
2017 2018 2019 2020	2017 2018 2019 2020	2017 2018 2019 2020	require hardcopy paperwork



**Research and Teaching Labs** 

Project-based Learning Labs

## STUDENT INVOLVEMENT IN RESEARCH AND PROJECT WORK

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Research and Project Components of the Study Process	Οι	utcomes
<ul> <li>Students acquire basic research skills while taking part in research and project seminars, project work and writing term papers</li> <li>Over 1/3 of students upgrade their basic research skills through taking part in seminars and conferences held by HSE's subdivisions, student research search search statement is seminary and conferences held by HSE's subdivisions.</li> </ul>	Students taking part in HSE research projects (Moscow)	2013       2016         18%       23%        +
<ul> <li>organizations and debating clubs</li> <li>Every year 400-500 students acquire advanced research skills through taking part in research and project-based laboratories, as well as international laboratories</li> </ul>	Students who have published academic papers (Moscow)	<b>18% 26%</b>
<ul> <li>59 joint departments with leading companies and research centres train 6,230 HSE students</li> <li>HSE Projects Fair – projects and vacancies for students: 581 student project; project work is a part of the curricula for 3,189 students.</li> </ul>	Teaching assistants (Moscow), persons	570 1,630 + 185%
Research and Project-based Laboratories	Research assistants (Moscow), persons	<b>350 430</b> ↓ + 23%
Research and Study Groups 28	Ne	ext Steps

- Launching new research and project-based laboratories, as well as engaging more students in their work
- Establishing Student Development Programme (Student Research Club): Academic Writing, expert review, presentation of research outcomes, instruction, consulting, etc.
- Annual Student Research Festival
- "I am a Teacher" programme: mini-courses delivered by students to peers and school students



### DIVERSIFICATION OF STUDENT EXPERIENCE AT HSE

#### **Student Field Trips**

- A full-scale programme of student field trips "Rediscovering Russia" (2017):
- Overcoming the gap between theory and real living conditions in Russia;
- Student field trips offer useful intellectual services for the regions;
- Field trip format: 10-15 students visiting Russian regions under the supervision of 2 faculty members;
- 38 field trips in 2017: around 500 students and 84 faculty members;
- 22 regions, 73 cities, towns and settlements;
- Voronezhskaya Oblast is the target region for 2017: a series of student projects, commissioned by the regional administration.

#### **Student Clubs**

Unique culture of student clubs and organizations (125 clubs in 2017):

- Effective environment for student self-study and soft skills development;
- Platforms for HSE student community crystallization;
- Channels for accumulating student social capital;
- Multifaceted support of student initiatives and organizations (e.g., administrative, communicative and financial);
- Serious involvement of students in volunteer and charity initiatives (over 30%);
- Solid and independent student self-government.

#### Next steps

- 100 annual field trips planned by 2020
- Preparing intellectual and multimedia products based on the trips' outcomes
- Systematic arrangement of materials based on field trips' outcomes, creating regional profiles

#### Next steps

- Supporting students projects via HSE crowdfunding platform ('Vysh-coins') for developing project management skills
- 200 student clubs and organizations planned by 2019
- Forming competitive spatial areas for students ('Full Day University')



#### **English-taught Programmes**

- 2 English-taught undergraduate programmes in Economics and International Relations under a partnership agreement with the University of London
- 25 English-taught Master's programmes

#### Joint Programmes with International Universities

- 44 double degree programmes delivered in conjunction with leading universities in Europe, North America and China
- 4,200 HSE students are currently enrolled in double degree programmes (No. 1 in Russia)
- 5 joint programmes with international universities, which provide students with certificates upon graduation

#### Short-term Programmes for International Students

- Specialized short-term programmes, including the Summer University, Semester in Moscow, Math in Moscow
- Over 200 students enrolled in 2016

#### Independent Examination in English

- HSE undergrads take an independent examination in English during their second year of study
- Average scores earned by students in 2016 (out of 100 points):
  - Moscow 62.6:
  - St. Petersburg 62.2;
  - Nizhny Novgorod 56.6;
  - Perm 57.8.

0	utcomes		
	2013		2017
International students	630		2,650
(all campuses), persons		+ 320%	
Share of international	3.6%		8.9%
students (Moscow)		+ 147%	
Outgoing international student	620		748
mobility (Moscow), persons		+ 21%	
Incoming international student	375		804
mobility (Moscow), persons		+ 114%	

#### **Next steps**

- Expanding the range of the English-taught programmes and short-term programmes
- Increasing the number of HSE students and international students taking part in academic mobility programmes, forming integrated educational tracks with partner universities around the world



### MANAGEMENT OF ACADEMIC PROGRAMMES



#### Academic Management =

Academic Supervisor + Academic Council of the Programme

Administrative Management = Programme Office responsible for:

- quality of administration processes;
- operational support for the programme;
- support for the programme's students;
- monitoring of programme performance;
- technical aspects of marketing initiatives.

#### **New Model**

- Each programme is an independent product aimed at its own target audience and requiring its own positioning and promotion
- Academic programmes are at the centre of the HSE governance system, as they are designed in line with the job market's requirements, including the academic labour market
- Students are admitted and enrolled in academic programmes managed by a relevant mega-faculty
- Programmes are implemented by faculty and researchers from various HSE subdivisions

#### Outcomes

- Competitive academic environment
- Dramatically new services for students
- Mechanisms for monitoring programme economics and quality assurance, as well as meeting student demand, have been established through an effective division of managerial functions into academic and administrative processes



#### **Coursera Platform**

- HSE ranks among the Top-10 universities by the number of courses hosted on Coursera
- 61 courses, including 26 courses in English
- Over 1 million learners from almost 200 countries
- About 70% are international learners
- Top countries in terms of total sign-ups: Ukraine, Belarus, Germany, USA, France, the Netherlands, the UK and Spain

#### **National Open Education Platform**

- NOEP was set up in 2015 by 8 leading Russian universities (7 of them participate in the 5-100 Project): HSE, ITMO, MSU, MISIS, MIPT, SPB POLYTECH, TPU and UrFU
- Offers courses aimed at Russian and international target audiences
- Over 700,000 learners from 18 countries have registered for 231 NOEP courses
- 33 courses are offered by HSE

	Outcomes	
	2013	2017
HSE courses hosted on international platforms, units	<b>14</b>	<b>94</b> + 571%
Course sign-ups, units	340,000	<b>1,220,000</b>

- Enhancement of HSE international reputation
- The share of international students has increased by 2.5 times since 2013.

#### Next steps

- Boosting the total number of online courses and securing stronger positions on the online education market
- New formats for online courses: MicroMasters, specializations, Career Tracks, etc.
- Integration of HSE courses in academic programmes of its Russian partner universities
- Enhancing HSE brand recognition at a global level through online courses delivered by leading faculty



#### DOCTORAL PROGRAMMES

- 17 fields of study (61 programmes) in Moscow, 5 fields of study (10 programmes) in St. Petersburg, 2 fields of study (3 programmes) in Nizhny Novgorod
- 14 doctoral schools; Doctoral School in Physics has been launched
- 782 doctoral students
- 390 academic supervisors

#### FULL-TIME DOCTORAL PROGRAMME

- Launched in 2010 a total of 7 student admission campaigns; currently involves 13 doctoral schools
- Features enhanced educational component, work at HSE research subdivisions, research internships at international universities, participation of international scholars in annual expert reviews of student performance
- 121 doctoral students are currently enrolled (15% of total doctoral students)

#### **DOCTORAL STUDENTS Employed at HSE**

#### (Moscow)



- Research subdivisions
   Research laboratories
- International laboratories
- Administrative staff
- Faculty



**Doctoral Students** 

- A full-time doctoral programme refers to a special programme, which includes a required educational component, and is similar to contemporary international postgraduate programmes (e.g., PhD programmes offered by US universities)
- A doctoral school is a community comprised of doctoral students and academic supervisors of departments, research centres, laboratories and HSE regional campuses in one field of study

#### Next steps

- Further development of full-time doctoral programmes in line with the PhD model
- Introducing the University's own academic degrees

# ALUMNI





69,900 specialists working in business, public sector and academia





#### **Employment and Salaries**

• **93%** of graduates usually find jobs within 6 months upon graduation (according to *Alumni Monitoring 2016*)

# Average salary of a 2015 Master's graduate, as of the start of 2016, roubles

Finance and Credit	116 000
Economics	104 000
Software Engineering	87 000
Electronic Engineering	86 000
Asian and African Studies	86 000
Business Informatics	81 000
Applied Mathematics and Informatics	79 000
Public and Municipal Administration	79 000
Psychology	78 000
Management	77 000
Political Science	76 000
History	74 000
Electronics and Nanoelectronics	72 000

According to the Employment Monitoring of the Ministry of Education and Science of the Russian Federation and the Russian Pension Fund

#### Employers of HSE Alumni





### **COOPERATION BETWEEN HSE AND ITS ALUMNI**

HSE serves as a platform for continuing cooperation and professional education of its alumni

- Serious involvement of alumni in the implementation of the University's academic programmes: over 150 master-classes are delivered every year; HSE graduates join academic councils of a greater part of educational programmes
- Joint research projects with alumni employed at the leading global universities: HSE Alumni Academic Fellowship
- Alumni become loyal employers for the University as they are interested in recruiting HSE students and new graduates (50% of companies taking part in HSE's career fairs follows the recommendations of HSE alumni now working in their management)
- Targeted communication with HSE alumni based on a breakdown by professional areas first Alumni Clubs by professional interests have been established

#### Prominent Alumni Endowment Fund

- Established in December 2016
- This is the first academic endowment fund established and replenished through mass fundraising by committed alumni (instead of large contributions provided by major businesses)
- The fund's council is comprised exclusively of HSE alumni
- The fund organizes fundraising campaigns to finance some of HSE initiatives and projects

#### **Next Steps**

- Build a platform for strong industrial communities established by HSE alumni, within the University's framework
- Promote a mentoring system for students, with the support
- of HSE alumni
- Expand alumni involvement in the expert review of educational standards and programmes

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# CONTINUING PROFESSIONAL EDUCATION





650 programmes across the entire range of fields at HSE



206,000 professionals took part in CPE programmes offered by HSE



#### **Continuing Professional Education**

- 13 faculties, 19 CPE subdivisions, 6 research institutes and centres implement CPE programmes in all fields of study offered at HSE
- 13 MBA, 3 Executive Master, 3 EMBA, DBA
- 12 programmes delivered jointly with international partners, including 11 double certification programmes
- Launching a project focused on forming additional professional skills of Bachelor's students (Bachelor+)
- Launching LMS Moodle for developing e-learning programmes

#### **HSE Continuing Professional Education Programmes**

Moscow	St. Petersburg	Nizhny Novgorod	Perm
1 DBA 2 Executive MBA 12 MBA 2 Master in 80 Professional Retraining 357 CPD	8 Professional Retraining 42 CPD 1 Master in	1 MBA 7 Professional Retraining 52 CPD	15 Professional Retraining 70 CPD

Outcomes				
CPE students, persons	2013 36,572 - 31.5%	2017 25,025		
Total income, billion roubles	<b>0.870</b> + 4%	0.905		
Programme present value per student, roubles	<b>24,000</b> + 50%	36,000		

#### **Other CPE Programmes Proposals**

- E-learning HSE service for promoting educational products and marketing; collaboration with national project teams to support the development of entrepreneurship culture and innovation (Business Environment); new formats of e-learning programmes
- **Students** transformation of the Bachelor+ project into the HSE+ project for students at all levels, involving a larger range of participants (e.g., research institutes, joint departments, business partners, certification authorities, etc.) in the development and implementation of CPE programmes
- Administration and faculty of other universities development and implementation of the 'Best University Practices' project
- **Corporate clients** development and implementation of comprehensive interdisciplinary staff training programmes



Areas of Training at HSE Moscow	Graduates (2016), persons
Economics	4,729
Public and Municipal Administration	3,317
Management	2,018
Teacher training	1,064
Statistics	785
Industrial and Civil Engineering	773
Philology	329
Design	326
Business Informatics	285
Mathematics	170

Areas of Training at HSE Moscow	Graduates (2016), persons
Psychology	149
Software Engineering	123
Law	97
Sociology	90
Media Communications	22
Ecology	17
Asian Studies	11
History	11
IT	7
History of Arts	6

# ATTRACTING TALENTED STUDENTS



HSE Lyceum	Ou	tcomes		
<ul> <li>Established in 2013</li> </ul>		2013		2017
<ul> <li>Field-specific classes for 10th and 11th grade students in 8 fields of study</li> </ul>	HSE Lyceum alumni admitted to the University, persons	38		395
<ul> <li>1,500 students – one of the largest high schools in Russia</li> </ul>			+ 939%	
Tuition-free studies			+ 93970	
<ul> <li>Over 150 HSE faculty members are teachers of HSE Lyceum</li> </ul>	Distributed Lyceum and Partner Schools Alumni admitted to HSE,	298		1,436
<ul> <li>Individual curriculum: students may choose up to 50% of courses at their own discretion</li> </ul>	persons		+ 382%	
<ul> <li>Research and project work, with a tutor's assistance</li> </ul>	HSE Lyceum, 2017:			
<ul> <li>Opportunities to take part in classes offered by HSE faculties</li> </ul>	<ul> <li>1st place in the rating of high schools in Moscow</li> </ul>			
Opportunities to take part in classes offered by FISE laculities	<ul> <li>5th place in the rating of high schools in Russia</li> </ul>			

#### **Distributed Lyceum and Partner Schools**

- 137 groups at 28 Moscow schools under the Distributed Lyceum network
- 2.090 students

- 340 partner schools in 43 regions across Russia
- HSE Pre-University a network-based programme for developing school students' project and research competencies

#### • 2nd place among schools in Russia with a concentration in social sciences and humanities • 4th place among schools in Russia with a concentration in philology

• 1st place among social and economic schools in Russia

• 1st place by number of winners in the final round of the All-Russian Secondary School Student Competition for Moscow schools: 10 first-prize winners and 29 prize winners in 10 subjects.

#### Next steps

- HSE Lyceum classes in other regions of the Russian Federation
- Network-based programmes focused on developing project and research competencies of students attending partner schools



#### All-Russian Secondary School Student Competition

- 263 winners were admitted to HSE (1st place in Russia)
- HSE hosts the regional round in 3 (Economics, Law, and English) out of 24 subjects and the final round of the competition in economics
- 2,695 participants in the regional round, 252 participants in the final round hosted by HSE

#### "Vysshaya Proba" Competition for Secondary School Students

- 17 subjects: general and pre-professional
- 76,000 participants from 84 regions across Russia, as well as from 30 other countries
- 550 winners were admitted to HSE, 179 to MSU, 75 to MGIMO, 75 to MIPT, and 65 to SPBU

#### **University Student Competition**

- 74 subjects
- 5,000 participants, 26 locations in Russia, 11 CIS countries and Baltic states, as well as countries of the Eastern Europe
- 700 winners were admitted to HSE

#### International Youth Competition

- 6,700 participants from CIS countries and Baltic states, as well as countries of Central and Eastern Europe
- 110 winners were admitted to HSE

Outcomes			
	2013		2017
Participants in HSE competitions, persons	33,000		88,000
		+ 167%	
Applicants enrolled as per the competitions' results (Moscow)	<b>952</b>	- 5%	905 
Applicants enrolled as per the All- Russian Competition's results (Moscow)	<b>126</b>	+ 108%	263 
Score academic performance ratio of enrolled international and domestic students at HSE programmes	<b>77%</b>	+ 25%	96% 

HSE is the leader by number of students enrolled on the basis of student competitions and the All-Russian Secondary School Student Competition

#### Next Steps

- Expanding the range of subjects offered at the competitions
- Attracting international students through international competitions



#### **Pre-University Programmes**

- 'Grade 9' Programme preparation for studies at HSE Lyceum: 442 learners
- Preparatory Department for Foreign Citizens, and preparatory programmes for applicants to Master's programmes
- Preparation for the Unified State Examination, Final State Certification, competitions in various HSE fields of study, 'Erudit' Club
- Internet school
- Preparation for Cambridge English Proficiency test
- 'Family and Age Psychology' programme for parents





2015/16

2016/17

Learners Enrolled in HSE Pre-University Programmes

- Grades 10-11
- Grades 7-9

2013/14

Cambridge English Proficiency test

2014/15

- Family and Age Psychology' for parents
- Preparatory Department for Foreign Citizens

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# HUMAN RESOURCES



## **RECRUITMENT: COMPETITIVE ACADEMIC ENVIRONMENT**

ent	0	Outcomes			
I-time		2013		2017	
Ξ	Academic staff with published papers in journals indexed in WoS and Scopus (Moscow)	<b>28%</b>	+ 111%	<b>59%</b>	
on in	Academic staff with PhDs (Moscow)	<b>5%</b>	+ 128%	11,4% 	
w s per	Average faculty salary (Moscow), '000 RUB	97	+ 34%	<b>130</b>	

#### **Next Steps**

- Recruiting more senior part-time professors and candidates to the Postdoctoral Researcher programme; providing successful postdocs with an opportunity to take on tenure-track positions
- Faculty professional support: Teaching Excellence Initiative
- Gradual increase of fixed salaries while retaining the system of academic incentives to stimulate effective performance among academic staff

# International Standards for Academic Staff Recruitment

- Competitive international recruitment of PhD holders to full-time positions (up to 30 persons annually), and a postdoctoral researcher programme (up to 40 persons annually)
- Open competition for faculty vacancies: up to 30% non-HSE candidates, maximum 10 persons per position
- Single contract for faculty members: compulsory participation in research, teaching and public/administrative work

#### **Staff Development Programmes**

- Young Faculty Development Programme: new lecturers, new researchers and future professors (in total, over 130 persons per year)
- Administrative Staff Development Programme: enhancing academic self-government standards, shaping the culture of project work (116 persons took part in the programme)

#### Academic Merit Pay

- 'Best Teacher' academic merit pay awards were granted to 442 HSE faculty members
- Basic academic pay awards were granted to 350 faculty members



57%

40%

30

## **RECRUITMENT: FACULTY RECRUITMENT THROUGH OPEN COMPETITIONS**

	Competitive Faculty Recruitment		Outcomes	
Before 2013	Faculty recruitment as a formal procedure that results in the conclusion of long-term contracts	Wint	er Competition 2013	Winter Competition 2017
2013	Introduction of clear criteria for assessment and internal selection of candidates; establishment of field-specific HR committees; launch of contracts with a heightened teaching load; boosting the share of short-term contracts	Total applications submitted for competition, units	<b>304</b> + 37	<b>417</b>
2014	Transition to open calls for faculty applications involving non-HSE candidates; bringing competition procedures in line with international recruitment practices	By non-HSE candidates	0%	25%
2015	Expert review of 1-3 research papers presented by candidates; in person/Skype interviews with non-HSE candidates; open lectures and seminars; using information technologies to conduct competitions	Appointed to academic staff positions based on competition results, persons	<b>234</b> + 11	<b>259</b> %
2016	HSE candidates are expected to submit a report on their	Next Steps		
	performance under the contract in order to take part in a new open call for vacancies	<ul> <li>Increasing the basic red</li> </ul>	uirements to publica	tions
Assessn	nent of Faculty Performance by Subdivision Heads	Transition to tutor positi		
Summer Competition 2017: subdivision heads assessed faculty performance under their contracts		<ul><li>Attracting and retaining young faculty</li><li>Groups of faculty with special work terms and conditions</li></ul>		
Exceeded e	expectations 💻 Met expectations 🗧 Failed			



## HR DEVELOPMENT: CONTINUING PROFESSIONAL DEVELOPMENT

Key Areas of Continuing Professional Development		Outcomes
<ul> <li>Developing special skills and competencies, including reliance on the expertise of international specialists (50% of funding for CPD programmes were allocated to faculties)</li> </ul>	Faculty members who took	2013
<ul> <li>International research internships resulting in the publication of academic papers and development of new academic programmes</li> </ul>	part in CPD programmes (Moscow)	38%
<ul> <li>Developing academic writing skills in English (through HSE Academic Writing Centre )</li> </ul>	Staff members who took	+ 37%
<ul> <li>Ongoing multi-level English language programmes for all categories of staff employed at HSE, including its regional campuses</li> </ul>	part in CPD programmes and internships, persons	<b>2,538</b> + 114%
<ul> <li>A set of CPD programmes designed for staff of the HSE Office of</li> </ul>		
Degree Programmes		Next steps

- Developing new special (narrow-field) and interdisciplinary CPD programmes for faculty members
- Significant expansion of different forms of individual (targeted) staff development programmes
- Developing new CPD programmes in contemporary machine learning methods and data analysis (Data Culture)

2017

**52%** 

5,420



Structure of Academic Staff Average Salary, % (Moscow)		Average Salary of HSE Academic Staff / Average Salary by Region							
			2013	2016					
Lecture (Senior Lecture)	47 <mark>6 16 5 8 </mark> 3 15	Moscow, '000 RUB	97 / 56	130 / 69					
			+ 349	%					
Associate Professor	1 48 5 23 9 5 9	St. Petersburg, '000 RUB	<b>53 / 37</b>	82 / 49					
Professor Research Professor		Nizhny Novgorod, '000 RUB	46 / 24	71 / 27					
Professor, Research Professor, Dean	45 <mark>4</mark> 27 17 3 <mark>4</mark>		+ 540	%					
		Perm, '000 RUB	62 / 25	80 / 30					
Fixed salary			+ 290	%					
Faculty's funds			Next Steps						
<ul> <li>Academic bonuses, R&amp;D grants and incentives</li> <li>Incentives for additional courses and CPE</li> <li>Academic merit pay granted to the best faculty</li> <li>Take-off grants and special-purpose scholarships</li> </ul>		<ul> <li>Gradual increase of fixed salaries while retaining the system of academic incentives to stimulate effective performance among academic staff</li> </ul>							
					Administrative work, annual l	bonus payments			

# SOCIAL MISSION



#### **Professional Development of School Teachers**

- 7 Master's programmes for secondary school teachers, as well as school and university administrative staff
- 46 CPD courses for school teachers
- Project seminars, webinars and trainings for teachers and educators

#### **Educational Standards**

- Providing methodological support for application of professional standards and updating federal educational standards on the basis of the Presidential National Council for Professional Qualifications (650 federal ES have been updated)
- Testing the model for independent expert assessment of student knowledge (in economics and law)

#### Providing Support to Russian Universities

- · Providing expert support to Russian academic institutions
- Annual international conference for higher education researchers
- Weekly open seminar 'Research and Development in Education'

#### Membership in Associations of Russian Universities

- Global Universities (21 universities)
- National Platform of Open Education (8 universities)
- Association of Leading Universities in Economics and Management (19 universities)

Outcomes				
	2013		2017	
School teachers and school and university administrators, who took part in CPD programmes offered by HSE, persons	<b>620</b>	+ 698%	<b>4,950</b>	
Audience of HSE educational events, persons	<b>50,000</b>	+ 60%	80,000	

#### **Social and Cultural Projects**

- "Open University" project:
  - open lectures delivered by HSE scholars in Moscow museums;
  - cultural, educational and charity events;
  - promotion of research achievements using digital environment;
  - initiatives aimed at improving the city environment.
- Free consultations for Moscow residents on social and legal issues
- Discussions on relevant social, political and economic matters bringing together representatives of civil society, Russian authorities, business, research and expert community

# FINANCE AND INFRASTRUCTURE

## **REVENUES (EXCLUDING CAPITAL INVESTMENTS)**

#### Total, bln roubles



State assignment subsidies (bln roubles)



Income breakdown (2016) (%)



Subsidies for other purposes\* (bln roubles)



Income generating activities (bln roubles)



Special-purpose programmes\*\* (bln roubles)



\*\* Russian Academic Excellence Project (5-100), grants for establishing international laboratories

65

\* Subsidies for scholarships, capital repairs, faculty literature, and Presidential grants





#### R&D\* (bln roubles)



Continuing Professional Education (bln roubles)



# Targeted, non-repayable and other contributions (bln roubles)



Pre-University training\*\* (bln roubles)



Higher Education (bln roubles) + 40%



\*Excluding targeted contributions and programmes, as well as grants provided by RFBR and RFH

\*\*Including HSE Lyceum revenues





#### PREMISES (thousand sq.m)



DEFICIT OF DORMITORY PLACES



#### PREMISES, CAMPUSES / (2016) (%)



**NUMBER OF RESIDENTS** by accommodation type (persons)





NUMBER OF RESIDENTS by campuses / accommodation type (total persons / %)



NUMBER OF DORMITORIES



**RESIDENTIAL AREA** in dormitories per person (sq.m / person)





#### **Capital Construction**

**6** dormitories with a total of **6,500** places have been built Average value of 1 sq.m — **83,000** roubles Average value of 1 sq. m in Moscow — **125,000** roubles

#### Capital Repairs

Capital repairs completed in **46** HSE buildings

Capital repairs average value per sq. m — **36,000** roubles

Capital repairs average value per sq. m in Moscow — **42,500** roubles

### Academic Staff Workplace Equipment

### Academic Staff Personal Workplaces/ Rooms

Moscow	St. Petersburg	N. Novgorod	Perm
2,251 /	213 /	239 /	148 /
426	51	7	13

#### Academic Staff With Personal Workplaces, % (Moscow)





#### **IT Infrastructure**

- E-Library (one of the largest libraries among European universities: 47 international platforms offering publications, journals and statistical resources)
- HSE corporate website (the leader among Russian university websites by daily visits 110,000 visits per day)
- Research and education portals "Economics. Education. Management" and IQ.hse.ru
- Licensed empirical research databases and HSE Unified Economic and Sociological Archive (2,767 databases, 40,000 users)
- Mass open online courses presented by HSE lectures on online international and Russian platforms (94)
- Moodle-based distance learning system
- Integrated online support systems for academic processes: LMS, ASAV, RUZ, online application submission (over 30,000 active LMS users)
- 'Antiplagiat' system used for checking research papers for borrowed materials
- Administrative support systems: finance and HR, planning and paperwork administration, Business Process Management (BPM)

# Wireless Internet access points, units



LMS: active users, thousand

2013 2014 2015 2016

SDOU: users/persons

2014

2015

2016

2013

persons

19.5

# Corporate e-mail: e-mail addresses, thousand units



# Academic Process Management System, users/persons



Accounting and HR Management System, users/persons



# PRIORITIES FOR STRATEGIC DEVELOPMENT



### HSE TOP PRIORITIES FOR FUTURE DEVELOPMENT

- Advancement of physics, mathematics, computer sciences and engineering at HSE and transition to comprehensive university model
- Concentration of resources on top priority development areas to help move HSE in Top-100 Subject rankings
- Digitalization of socio-economic sciences and humanities, development of interdisciplinary areas associated with Big Data analysis
- Further introduction of entrepreneurship culture and innovation into all curricula – exploring synergies between computer sciences, engineering, social sciences and humanities
- Transition to a digital university model

- Diversification of prospective student recruitment from different regions:
  - Russia: competitions, partner schools, lyceum classes in the majority of Russian regions
  - CIS, Baltics States, Eastern and Central Europe: competitions, advertising campaigns at HSE resource centres
  - Asia and Latin America: promoting English-taught
     programmes
  - Europe and North America: attracting students from partner universities to take part in short-term programmes and integrated tracks

## HSE IN ACADEMIC RANKINGS BY SUBJECT - QS, THE, ARWU: 2020



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