



The Republic of Serbia

Ministry of Education, Science and Technological
Development

Research and Innovation Capacity of The Republic of Serbia

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State Secretary



Republic of Serbia

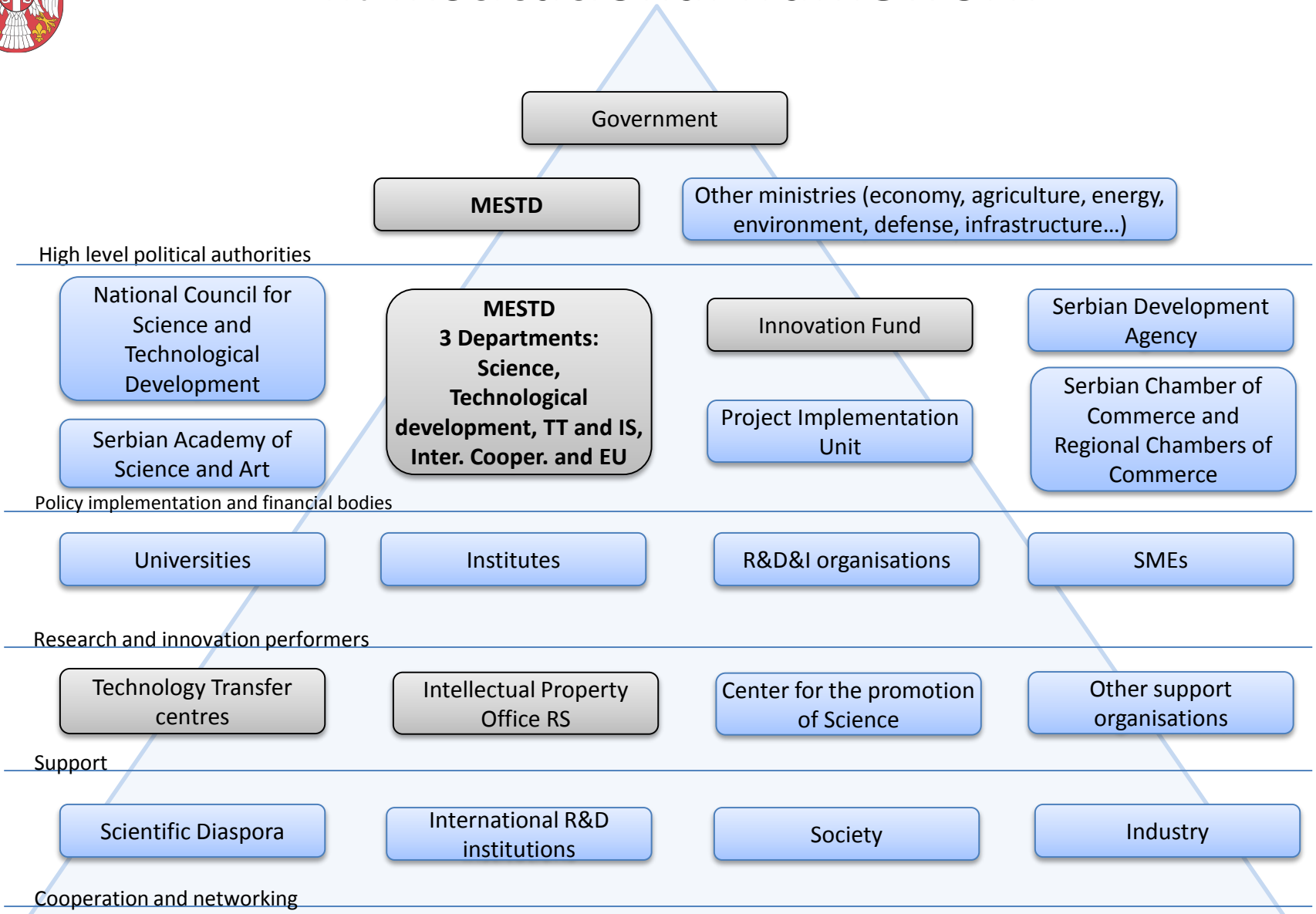


I . Legal Framework & Strategic Documents

- Law on Scientific Research Activity (*Official Gazette RS, No 110/2005, 50/2006-corr., 18/2010, and 112/2015*)
- Law on Innovation Activity (*Official Gazette RS, No 110/2005, 18/2010 and 55/2013*)
- Law on Serbian Academy of Science and Arts (*Official Gazette RS, No 18/2010*)
- **Strategy on Scientific and Technological Development of the Republic of Serbia for the period 2016-2020 - “RESEARCH FOR INNOVATION”** (*Official Gazette RS, No 25/2016*) 03-03-2016
- Action Plan for Strategy Implementation - *in progress*



II. Institutional framework





Research Performers

The scientific research system of the Republic of Serbia comprises the following institutions:

- Accredited scientific research organisations
 - Faculties which operate exclusively under the Universities
 - Scientific institutes and Research & Development institutes
 - Centers of Excellence
- Serbian Academy of Science and Arts - SASA
- Matica Srpska



Innovation Performers

Innovation activities performance organisations are:

- Development - production centres
- Research - development centres
- Innovation centres
- Organisations for infrastructural support to innovation activity Science-Technology Parks (STP) and Business-Technology Incubators (BTI)



Accredited /registered scientific research institutions

January 2018

Scientific Institutes/ Research-Development Institutes	Higher Education Institutions	Centres of Excellence
63	119	16

Registered innovative organisations

January 2018

Innovation Centres	Research and Development Centres	Development and Production Centres	Support Organisations STP, BTI
7	20	47	11



Results Achieved - Innovation Activity

Technology Transfer Offices

- 1) TT Facility within Innovation Fund
- 2) TTO within the University of Belgrade
- 3) Three units of knowledge transfer established at the University of Novi Sad: Innovation centre, Technology Transfer centre and Novi Sad Incubation centre as the first phase of the Science Technology Park
- 4) TTO as an organisational unit of the University of Kragujevac
- 5) TTO as an organisational unit of the University of Nis



Recent Research Policy Developments

Financed research programmes of general interest to the Republic (The Law of Scientific and Research Activities)

- MESTD is responsible for implementation of:
 - Programme supporting Basic Research for the Research Cycle 2011-2017 (BR)
 - Programme supporting in the Field of Technological Development for the Research Cycle 2011-2017 (TD)
 - Programme Co-Founding of Integrated and Interdisciplinary Research for the Research Cycle 2011-2017 (III)



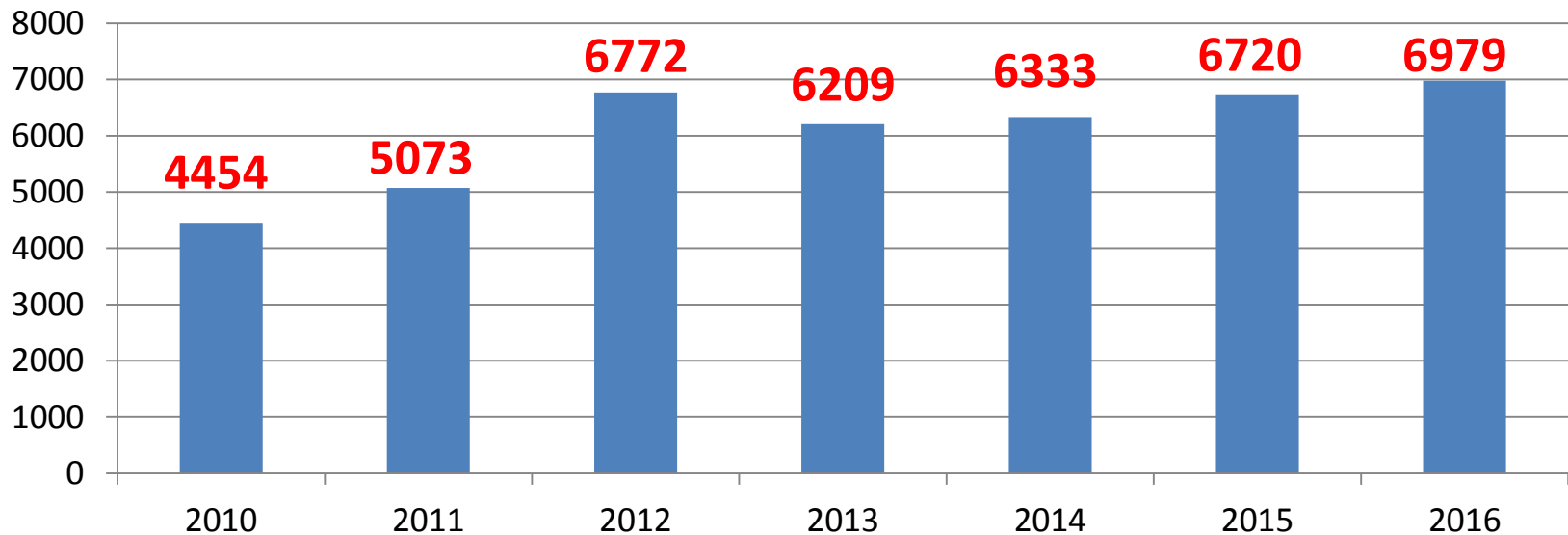
The amounts received per project

Research programmes: BRP, TDP, IIP (2011-2017)						Innovation projects (2011-2017)		
Number of projects		Success rate	Total amount received per project x 1000 EUR (2011-2017)			Number of projects	Success rate	Total amount per project x 1000 EUR
			min	average	max			average
BRP	394	87.5%	120	490	1.600	448	44.7%	20
TDP	273		90	530	2.400			
IIP	109		275	1.188	8.800			

~11500 researches involved in current R&D projects



In recent years, the Republic of Serbia has improved its scientific research potential, which is illustrated by the fact that **the Republic of Serbia**, in the **total world production of scientific works**, accounts for 0.3% and is ranked **46th** on the list of over 140 countries (SCImago Journal&Country Rank), and **the University of Belgrade** is ranked on "Shanghai List" of the world's best universities **between 200th and 300th** position.



Number of scientific papers - Web of Science



INNOVATION FUND

- Founded by the Law on innovation activity to provide financing support for innovation
- Operational since 2011
- Working under the supervision of Government of Serbia and Ministry of Education, Science and Technological Development (MESTD)
- Cooperating with international financial institutions, organizations, donors and the private sector



Innovation Fund Programms

	TARGET GROUP
MINI GRANTS PROGRAM	micro or small sized company, incorporated for no longer than three years at the time of application
MATCHING GRANTS PROGRAM	micro, small and medium enterprises
COLLABORATIVE GRANT SCHEME PROGRAM	SME and academic R&D
TECHNOLOGY TRANSFER FACILITY	academic R&D



THE FIRST SCIENCE TECHNOLOGY PARK IN SERBIA



Founded in June, 2015 in **partnership of the Government of Republic of Serbia** (on behalf of Government: Ministry of Education, Science and Technology Development), **City of Belgrade and University of Belgrade** with the aim to create the innovation ecosystem for accelerated technology development of Serbia by connecting business to science and encouraging commercialization of innovation.

→ Innovation → Competitiveness →
Technology Development





RESULTS



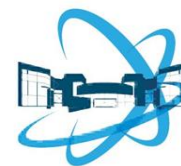
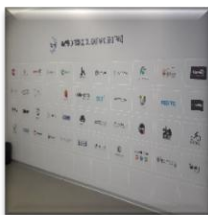
56 COMPANY
MEMBERS

400 + EMPLOYEES



10 MILLION EUR
REVENUE

4 BUSINESS
SUPPORT
PROGRAMS



IT, Internet of Things, Smart Cities,
Robotics and Mechatronics, Agriculture
and Food, Energy Efficiency, AI



Higher Education in Serbia





Facts and figures

- **125 Faculties in Serbia** out of which 86 are public
- **17 accredited Universities in Serbia** out of which 7 are public and 10 are private
- Around **240.000 students**
- **Two types of HEIs** - universities and colleges of applied studies
- **1.553** study programmes accredited during the first accreditation cycle
- **National Commission for Accreditation and Quality Control** is a member of **ENQA** and **EQAR**
- **Accommodation:** 17.184 places in student centers (866 from vulnerable social groups)
- **Food:** 44.733 students (3 meals per day) + 4.418 students (1 meal per day)



Facts and figures

7 accredited State Universities (+ University of Defence)

University of Belgrade	31 Faculties + 11 Institutes
University of Novi Sad	14 Faculties + 2 Institutes
University of Arts in Belgrade	4 Faculties
University of Kragujevac	12 Faculties
University of Niš	13 Faculties
University of Priština	10 Faculties
State University of Novi Pazar	10 Departments (Integrated University)

10 accredited Private Universities

5 accredited Higher school for academic studies

65 Higher school for applied studies (16 Private, 49 State)



Serbia

H2020 Summary Statistics

Signed grant agreements with at least one participant in the selection	Participations in the selection	All participations in grant agreements	EU financial contribution to all participations in the selection (EUR)
145	210	2121	54.804.229

(30/09/2017, eCORDA)

¹ A proposal is considered to be evaluated if it has reached all stages of evaluation. Ineligible, duplicated, withdrawn or inadmissible are not evaluated.

² Total requested grant money in Mio Euros of Mainlisted Applicants.

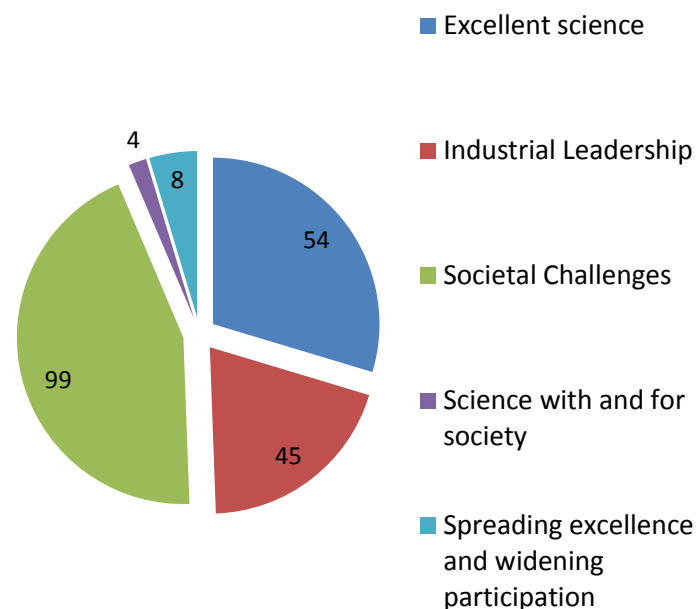


Serbia

H2020 All pillars

	Number of mainlisted proposals	EU financial contribution to the participations in the selection
Excellent science	54	7.646.041
Industrial Leadership	45	12.957.195
Societal Challenges	99	20.044.924
Science with and for society	4	308.160
Spreading excellence and widening participation	8	13.847.909
	210	54.804.229

Number of mainlisted proposals



(30/09/2017, eCORDA)



WEAKNESSES

- A lack of clear and consistent political orientation towards innovations.
- The innovation system is not essentially directed towards the business sector. The ties between research community and economy are weak.
- Small and medium-sized enterprises which should be leaders in economic development, do not have the capacity for strategic planning, realization of development projects with research teams, adequate research equipment. They are mainly focused on short-term objectives and constant struggle to survive.
- Generally speaking, when it comes to human potential, the economy of the Republic of Serbia has rather poor resources for the development of research and innovations (due to the long transition period).
- There are obvious shortcomings in the management of public research institutions, both universities and institutes.



- Customarily, research teams perform long-term research in cycles of 4-8 years, so the flexibility and adaptability to cooperate with SMEs is practically non-existent. During that time, market and technologies are rapidly changing.
- A major lack of trust in all the spheres to do with innovation and research policy (lack of transparency, betrayed expectations, absence of feedback information).
- Unfavourable macroeconomic trends which are the consequence of financial and commercial crisis.
- Advancement in the process of reforming which is slower than expected in almost all the areas. We have been in the process of transition for almost 25 years.
- Inertia, as the consequence of resistance to any possible change. The Law on Innovation Activity was passed as long as 13 years ago (2005).
- Weakness in implementing strategies and policies.



HOW TO MOVE ON ?

- Raising the level of innovation policy to the Government level – an inter-sectoral council has been formed on the RS Government level.
- Strengthening of the political support, responsibility, continuity and coordination.
- Regardless of the magnitude of financial investment in science (relative to GDP), there certainly is a way to spend those means more wisely.
- Innovations should be a part of sectoral policies (information technologies, agriculture, energetic, transportation, ...). Innovation is a pre-condition for economic competitiveness.
- Preserving the scientific and research potential that we have (especially in human resources), with simultaneous development of new resources, since there is neither advance nor prosperity without them.
- Greater international openness and orientation.



- Increase in the contribution of public research to social and economic development. Researchers should be enabled to carry out research even outside of the academic area.
- Establishing clear and defined relations between financing from structure funds and financing from national sources.
- When it comes to technological development projects, the measurement units for success in science are necessarily the financial means that a science institution procures from commerce.
- The point of engagement in science must not only be publishing papers in journals and conferences. Increasing the visibility of scientific community and their work.



- Quantity as opposed to quality assessment. Competence cannot be quantified by simple multiplying papers.
- Who is supposed to propose project topics – project managers or the state? (50-50%?)
- When it comes to financing science, the cooperation among different ministries must be enhanced.
- Project/institutional financing (could this possibly be a false dilemma?!).
- Each public institute should have their own mission, which has been lost during the past few decades!



Ministry of Education, Science and Technological Development

Law on Scientific Research Activity

Law on Innovation Activity

Public call for 1000 new excellent young researchers!!!

Action Plan for Strategy on STD Implementation

Thank You for Your attention!