







INFO EDITION NO.1 2016

National Contact Point for Research Infrastructures (RIs) in Russia The National University of S&T MISIS

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http://рнф.рф/en

I. Russian Science Foundation (RNF). The main objectives

The Russian Science Foundation (RSF) was launched in November 2013. RSF proves a more flexible and effective funding tool in comparison with other institutions that finance science in Russia. RSF's mission is to identify the most promising scientific projects and highly efficient and result driven

scientists, as well as to actively engage the country's young researchers in science.

Its support of research relies on the principle of competition and RSF organizes a variety of funding competitions to appeal to the following research areas:

Basic and applied research projects initiated by scientific departments, organizations and universities.
Here, the Foundation reviews projects carried out by small teams set up for that purpose.

- Support to research institutions and universities. In this area of operation, RSF seeks out programs led by research institutions and geared towards ground-breaking research. Each program must include a number of large-scale projects with a significant scientific, economic and social impact.

Establishment of up-to-date laboratories and departments in research institutions and universities. To make this happen, the Foundation reviews projects submitted by long-established or newly-created labs.
Promotion of international scientific and technological collaboration. RSF invites projects carried out by international teams working together to solve a particular problem.



http://рнф.рф/en

I. Russian Science Foundation (RNF). The first results

Following just 1 year of operation the Foundation's achievements are already impressive:

– RSF processed 110,000 funding applications from researchers in Russia and abroad.

 – 1120 projects and programs, 383 research institutions and universities from 51 regions in Russia were awarded funds by RSF.

– 161 established labs engaged in the world-class research were supported by RSF.

 - 38 new labs tackling the highly relevant problems with a societal and economic impact were established with RSF's financial support.

- 16 000 scientists from Russia and abroad are engaged in the RSF-funded projects,

RSF is open to collaborations and works to extend its international cooperation. The Foundation engages over 200 foreign scientists, with more than 1000 experts from 46 counties participating in proposal reviews.

In June, 2015 the Foundation oversaw the launch of the first joint competition together with DFG, the German Research Foundation.



I. Russian Science Foundation (RNF). International calls in 2016

RSF and the Ministry of S&T of Taiwan announced the first joint call of proposals on 09.11.2015 with deadline on March 15, 2016. The results were announced before July 1, 2016.

submitted their proposals. Best projects selected throu**90 international research groups from Russia and Taiwan** gh the review process by RSF and MOST were supported by the expert community in both countries.

6 winners will get funding to implement research projects in chemistry, biology, medicine, humanities and engineering sciences.

The size of a grant from the Russian side will be from 4 to 6 million rubles annually. The project is designed for 3 years, the implementation will start in August this year.

Detailed information about the joint call and the list of winners are available in the "Calls of Proposals":

http://рнф.рф/en/proposals-en

The next joint RSF-MOST call will be launched in 2017.

II. National Technology Initiative (NTI)

National Technological Initiative (NTI) is a long-term program for the development of new markets based on high technologies. Its implementation is expected to ensure that Russian companies will be the global leaders in such industries by 2035.

The uniqueness and novelty of the NTI lies in application of the "market-pull" approach. In contrast to existing programs the NTI focuses on markets that are either not non-existent in Russia or not sufficiently developed, and that are formed on the basis of the new techno-economic paradigm. The following stakeholders take part in the development of NTI: the Ministry of Education and Sciences of the Russian Federation, the Ministry of Industry and Trade of the Russian Federation, the Russian Academy of Sciences, the Development Institute, the Expert Council at the RF Government, the leading universities, various technology platforms, and businesses.

The Agency for Strategic Initiatives (ASI) shapes the NTI implementation strategy, while the Russian Venture Company (RVC) performs organizational, analytical, and methodological support of works groups engaged in the process.

More details: http://www.rusventure.ru/en/press-service/news/detail.php?ID=59225

II. National Technology Initiative (NTI). Roadmaps

The implementation of the four 'roadmaps' of NTI (AeroNet, AvtoNet, MariNet, NeuroNet) is planned in 2016, up to 10 billion RUB has been allocated for these purposes from the budget.

- **AeroNet roadmap** will ensure that pilotless aviation systems are widely used in agriculture, cargo transportation, and during search and rescue operations.
- **AvtoNet roadmap** includes long-haul ground transportation using robotized road corridors, transportations along close-end and restricted areas (industrial and mining companies, areas of severe climatic conditions, etc.), setting up emergency and rescue operations.
- At the core of the **MariNet roadmap** are the three interconnected segments of maritime industry: digital navigation, innovative shipbuilding including the design and development of pilotless sea vessels, and exploration of ample oceanic resources.
- Implementation of **NeuroNet** may become the next stage for developing the Internet, the participants of which (man-to-man or man-to-machine) will be communicating via neuro-interfaces.
- By 2018, it is planned to establish 10 centers for developing neurotechnologies with the support of the leading universities. Within the framework of NeuroNet it is planned to build brain-line computers for neurotechnologies in order to treat diseases like Alzheimer's and Parkinson's.
- In addition to the four NTI roadmaps, there are several more markets in the pipeline including personal medicine, robotized food market, development of 'smart' energy grids, and personal security systems.



JINR is an international intergovernmental scientific research organization established in March 1956 by eleven founding States. It is situated in Russia, Moscow district, Dubna.

The main fields of JINR's activity are theoretical and experimental studies in elementary particle physics, nuclear physics, and condensed matter physics. The research policy of JINR is determined by the Scientific Council, which consists of eminent scientists from the Member States as well as famous researchers from China, France, Germany, Greece, India, Italy, Switzerland, the USA, and the European Centre for Nuclear Research (CERN).

At present, JINR has **18 Member States**: Armenia, Azerbaijan, Belarus, Bulgaria, Cuba, the Czech Republic, Georgia, Kazakhstan, Democratic People's Republic of Korea, Moldova, Mongolia, Poland, Romania, the Russian Federation, the Slovak Republic, Ukraine, Uzbekistan and Vietnam.

Agreements are signed on the governmental level with Egypt, Germany, Hungary, Italy, Serbia and the Republic of South Africa.

There are **7** Laboratories at JINR, by the scope of scientific activities each being compatible with a large research institution. JINR's staff totals about 5000 people, including more than 1200 scientists, 2000 engineers and technicians. One of the main aspects of JINR's activity is **its extensive international scientific and technical cooperation**: it collaborates with nearly 700 research centers and universities in 64 countries of the world. Only in Russia - the largest JINR partner - the cooperation is conducted with 150 research centers, universities, industrial enterprises and firms from 43 Russian cities.

IV. NICA – Mega Science project in Russia

The Order № 783-p of the Government of the RF "On signing the Agreement between the Government of the Russian Federation and the international intergovernmental scientific research organization Joint Institute for Nuclear Research on the establishment and operation of the Complex of Superconducting Rings for Heavy Ion Colliding Beams NICA" was signed on 27 April 2016:

http://www.jinr.ru/posts/agreement-on-mega-project-nica-was-signed/

The European Strategy Forum on Research Infrastructures (ESFRI) launched the new Roadmap 2016 at its conference in Amsterdam on 10 March 2016. A discussion at the conference was focused on strategic road-mapping, long-term sustainability and the socio-economic impact of research infrastructures.

ESFRI identifies research facilities of pan-European importance that are necessary to strengthen scientific excellence and competitiveness in the EU. The ESFRI Roadmaps reflect the long-term needs of the European research community. The EU strives for high-quality research facilities that are accessible to all top researchers to enable the scientific world to realize its full potential.

The 2016 Roadmap highlights the strong socio-economic impact of research infrastructures as well as their potential to generate innovation through collaboration with industrial partners.

It was noted in the 2016 Roadmap: "The study of the hadron-QGP phase transition and the investigation of the properties of strongly interacting baryonic matter will be extended to the lower energy range by the CBM fixed-target experiment at the ESFRI Landmark FAIR and the colliding-beams experiment at NICA in Dubna."

V. CREMLIN project under Horizon 2020

A new EU project **CREMLIN** under the management of DESY has the aim to improve and strengthen the relations and networks between European and Russian research infrastructures both at a scientific level and at a research policy level. The CREMLIN consortium comprises 19 European and Russian research infrastructures: 6 Russian RIs where the Russian Mega science projects are hosted or planned and 13 European RIs that are maintaining close scientific collaboration links to these six Russian partner organizations.

The inaugural event of this cooperative project entitled CREMLIN (Connecting Russian and European Measures for Large-scale Research Infrastructures) was taken place in Moscow in October 2015. Russia is already participating in European research facilities such as the European XFEL, FAIR, ESRF or LHC experiments. CREMLIN is meant to encourage European scientists to get involved in new large-scale Russian projects, too, such as the planned ion collider NICA in Dubna, the research reactor PIK in Gatchina, outside St. Petersburg, and the Super Tau Charm Factory STC in Novosibirsk. "CREMLIN is meant to build bridges between Europe and Russia, and open up Russian facilities more for European and international users too," says Martin Sandhop, who is coordinating the project at DESY. More information about CREMLIN project is presented in the Web site, which was launched in January 2016: https://www.cremlin.eu/

VI. The FTP R&D in Priority Fields of the S&T Complex of Russia. General Information.

The most relevant Russian national funding program for R&D open to cooperation with the EU is the Federal Targeted Program (FTP) R&D in Priority Fields of the S&T Complex of Russia/ This program is managed by the Ministry of Education and Science of Russian Federation. In the previous FTP (2007-2013) EU organizations have taken part in 153 funded projects. Organizations from Germany, UK, Italy, France and Switzerland had the highest participation rates. FTP (2014-2020) is the key program for funding R&D and innovation activities in Russia and at the same time the main instrument of funding Russian organizations intended to Horizon 2020. In focus of FTP are 6 thematic priorities: Life sciences; Nanosystems; Rational use of natural resources; Energy; ICT; Transport and space systems.

In frame of the FTP 2014-2020 all activities in the area of international research cooperation are incorporated in a special block No. 2, which consists of two sections:

- Section 2.1 "Research in the framework of international multilateral and bilateral cooperation" focuses on bilateral and multilateral cooperation with foreign countries except the EU and EU MS.

- Section 2.2 "Support for research in the context of cooperation with EU countries" is directed to the cooperation with the EU and EU MS.

Total federal budget for the section 2.2 is ~ 6.18 billion rubles (ca. \in 85 million) for 2014-2020.

VII-1. The international calls in the frame of the Federal Targeted Program (FTP) R&D in Priority Fields of the S&T Complex of Russia in 2016

Section 2.1

 Russia – China Call for Joint Research Projects
Open date: 4 April 2016
Deadline for proposal submission: 10 May 2016.
Call documentation is available: http://fcpir.ru/participation_in_program/contests/list_of_contests/6_competitionfinished/2016-14-585-0004/

Number of submitted proposals: 104 (84) Number of successful proposals: 6

 2. BRICS STI Framework Program: Coordinated call for BRICS multilateral projects –Pilot call 2016
Open date: 26 May 2016
Deadline for proposal submission: 25th August 2016
Call documentation is available: http://www.dst.gov.in/sites/default/files/Final%20BRICS%20STI%20CALL%202016.pdf
Number of submitted proposals: 70

The results will be known by 9 January 2017

VII-2. The international calls in the frame of the Federal Targeted Program (FTP) R&D in Priority Fields of the S&T Complex of Russia in 2016

Section 2.2

- 1. Joint call Russia Sweden and/or Finland, and/or Norway and/or Great Britain
- Open date: 4 April 2016
- Deadline for proposal submission: **10 May 2016.**
- Call documentation is available:

http://fcpir.ru/participation_in_program/contests/list_of_contests/6_competitionfinished/2016-14-588-0004/ Number of submitted proposals: 69 (56) Number of successful proposals: 5

2. Sumforest Call for 'Sustainable Forests for the Society of the Future' under the FP7 funded ERA-NET project

- Open date: 19 May 2016
- Deadline for proposal submission: 20 June 2016
- **Call documentation is available:**

http://fcpir.ru/participation_in_program/contests/list_of_contests/5_evaluation/2017-14-588-0006/

- Number of submitted proposals: 10
- The results will be known by 10 October 2016

VII-3. The international calls in the frame of the Federal Targeted Program (FTP) **R&D** in Priority Fields of the S&T Complex of Russia in 2016 Section 2.2 3. Joint call Russia – France Open date: 26 May 2016 Deadline for proposal submission: **30 June 2016.** Call documentation and proposals are only in Russian language: http://fcpir.ru/participation_in_program/contests/list_of_contests/5_evaluation/2017-14-588-0004/ Number of submitted proposals: 33 (25) The results of evaluation will be known by 11 November 2016 4. Joint call Russia – Germany Open date: 26 May 2016 Deadline for proposal submission: 27 June 2016 Call documentation and proposals are available: http://fcpir.ru/participation_in_program/contests/list_of_contests/5_evaluation/2016-14-588-0005/ Number of submitted proposals: 15 (13) The results of Evaluation will be known by 7 November 2016

VII-4. The international calls in the frame of the Federal Targeted Program (FTP) R&D in Priority Fields of the S&T Complex of Russia in 2016

Section 2.2

5. Joint call Russia – Germany in the field of marine and polar research

Open date: 26 May 2016

Deadline for proposal submission: 01 August 2016

Call documentation is available:

http://fcpir.ru/participation_in_program/contests/list_of_contests/5_evaluation/2017-14-588-0005/

Number of submitted proposals: 6

6. Joint calls with Horizon 2020 including ERA-NET RUS PLUS initiative

Open date: 28 June 2016

Deadline for proposal submission: 14 October 2016.

Call documentation is available:

http://fcpir.ru/participation_in_program/contests/list_of_contests/1_published/2017-14-588-0001/

7. Joint call Russia – Germany in the field of industrial biotechnology/bio-economy

Open date: 25 August 2016

Deadline for proposal submission: 14 October 2016.

Call documentation and proposals are only in Russian language:

http://fcpir.ru/participation in program/contests/list of contests/1 published/2017-14-588-0003/

VI. International Events in R&I in Russia in 2016

I. The International conference "Synchrotron and Free electron laser Radiation: generation and application" (SFR-2016), Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia, July 4-8, 2016: http://indico.inp.nsk.su/event/3

II. The 33-rd World Conference on Science Parks IASP, Moscow, 19-22 September 2016: https://www.iasp2016moscow.com/

III. Startup Village - the largest startup conference for technology entrepreneurs in Russia and the CIS, Moscow, Skolkovo, 2 - 3 June 2016: <u>https://startupvillage.ru/</u>

- IV. Open innovation, Forum, Moscow, 22-29 October 2016: <u>http://forinnovations.ru/en/</u>
- V. 2-nd International scientific conference "Science of the future", Kazan, September 20—23: http://sf-conf.com/

VI. International Conference on new educational technologies #EdCrunch, Moscow, MISIS, 12-14 September 2016: <u>http://edcrunch.ru/en/</u>











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