### COUNTRY PAGE FOR THE PARTICIPANT PORTAL: RUSSIAN FEDERATION

# 1. Short description of the available local programmes or funds that could provide support to Horizon 2020 participants

Horizon 2020 is fully open to participation of entities from across the world in all parts of the programme, and many topics are flagged as being specifically relevant for cooperation with partners outside Europe. Russian researchers, universities, research organisations and enterprises are able to team up with their European partners to participate in projects under Horizon 2020 and make the best use of Europe's excellent opportunities in research and innovation.

Russian researchers and organisations are encouraged to participate in all actions of Horizon 2020 as consortium members and take part in the proposal submission to the European Commission.

To support Russian participation in Horizon 2020 actions and in view of the fact that participants from Russia are no longer automatically funded by the EU, the Ministry of Education and Science of the Russian Federation publishes dedicated calls to offer funding support for Russian Horizon 2020 participants in accordance with its own call procedures (Russian Federal Programme (FTP) "R&D in Priority Areas of Development of the Russian S&T Complex 2014-2020"). Russian applicants to these calls will have to provide a document acknowledging their participation in the consortium of the joint Horizon 2020 proposal, submitted under the Horizon 2020 call.

The Ministry of Education and Science of the Russian Federation has established a functional mailbox <u>horizon2020@mon.gov.ru</u> to which the Russian scientific community may send enquiries about support available in Russia for participation in Horizon 2020.

In addition, the Russian Foundation for Assistance to Small Innovative Enterprises (FASIE) may be able to support the participation of small innovative Russian enterprises in Horizon 2020 projects on a case-by-case basis according to its own funding rules.

Enquiries concerning participation in Horizon 2020 may also be directed to the offices of the appointed Russian National Contact Points:

http://ec.europa.eu/research/participants/portal/desktop/en/support/national\_contact\_points.html

## 2. Current priorities / European Union Roadmap for EU-Russia S&T Cooperation

The Ministry of Education and Science of the Russian Federation will on a regular basis select Horizon 2020 topics and calls which are of priority interest for the Russian Federation. From the list of currently open Horizon 2020 calls, the Ministry of Education and Science has highlighted the following subjects of priority interest (status April 2015):

- 1. H2020-SFS-2015-1 Sustainable Food Security
- SFS-14b-2015: Authentication of food products H2020-SFS-2015-2 Sustainable Food Security
- SFS-07b-2015: Management and sustainable use of genetic resources
- SFS-18-2015: Small farms but global markets: the role of small and family farms in food and nutrition security
- 2. H2020-ISIB-2015-1 Innovative, sustainable and inclusive bioeconomy

- ISIB-02-2015: Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange
- > ISIB-12f-2015: Biomarkers for nutrition and health (ERA-NET-Cofund)

## 3. H2020-ISIB-2015-1 Innovative, sustainable and inclusive bioeconomy

- ISIB-02-2015: Closing the research and innovation divide: the crucial role of innovation support services and knowledge exchange
- > ISIB-12f-2015: Biomarkers for nutrition and health (ERA-NET-Cofund)

## 4. H2020-LEIT-BIO-2015-1 Biotechnology

- BIOTEC-2-2015: New bioinformatics approaches in service of biotechnology
- BIOTEC-6-2015: Metagenomics as innovation driver

## 5. H2020-NMP-PILOTS-2015 call for nanotechnologies, advanced materials and production

Horizon 2020: Industrial Leadership

- NMP-02-2015 integration of novel nano materials into existing production lines;
  H2020-NMP-2015-two-stage call for nanotechnologies, advanced materials and production
- > NMP-29-2015 increasing the capacity to perform nano-safety assessment

## 6. H2020-LCE-2015-2 Call for competitive low-carbon energy

- > LCE-12-2015 demonstrating advanced biofuel technologies
- LCE 11-2014/2015 developing next generation technologies for biofuels and sustainable alternative fuels
- > LCE 13-2015 partnering with Brazil on advanced biofuels
- > LCE 14-2014-2015 market uptake of existing and emerging sustainable bioenergy
- LCE 9-2015 large scale energy storage
- > LCE 21-2015 modeling and analysing the energy system, its transformation and impacts
- LCE 15 2014/2015 enabling decarbonisation of the fossil fuel-based power sector and energy intensive industry through CCS
- > LCE 17 2015 highly flexible and efficient fossil fuel power plants
- SIE 1 2014/2015 stimulating the innovation potential of SMEs for a low carbon and efficient energy system

## 7. H2020-SCC-2015 Smart cities and communities

- H2020-SCC 1 2014/2015 smart cities and Communities solutions integrating energy, transport, ICT sectors through lighthouse (large scale demonstration – first of the kind) projects
- SCC-3-2015 development of system standards for smart cities and communities solutions.

## 8. H2020-BG-2015-1 Blue growth: unlocking the potential of seas and oceans

 BG-16-2015 coordination action in support of the implementation of the joint programming initiative on healthy and productive seas and oceans

H2020-BG-2015-2 Blue growth: unlocking the potential of seas and oceans

- BG-01-2015: Improving the preservation and sustainable exploitation of Atlantic marine ecosystems
- > BG-02-2015: Forecasting and anticipating effects of climate change on fisheries and aquaculture
- > BG-07-2015: Response capacities to oil spills and marine pollutions

- 9. H2020-SC5-2015-one-stage Growing a low carbon, resource efficient economy with a sustainable supply of raw materials
- SC5-15-2015: Strengthening the European Research Area in the domain of Earth

## 10. H2020-WATER-2015-two-stage

- WATER-2b-2015: Integrated approaches to food security, low-carbon energy, sustainable water management and climate change mitigation:
- WATER-5c-2015: Development of water supply and sanitation technology, systems and tools, and/or methodologies

## 11. H2020-ICT-2015

- > ICT-04-2015: Customised and low power computing
- ICT-08-2015: Boosting public sector productivity and innovation through cloud computing services
- ICT-16-2015: Big data research
- > ICT-20-2015: Technologies for better human learning and teaching
- > ICT-24-2015: Robotics
- > ICT-25-2015: Generic micro- and nano-electronic technologies
- ▶ ICT-27-2015: Photonics KET
- > ICT-30-2015: Internet of Things and Platforms for Connected Smart Objects
- ICT-28-2015: Cross-cutting ICT KETs

## 12. Transport

- MG.1.2-2015 Enhancing resource efficiency of aviation
- MG.1.8-2014-2015. International cooperation in aeronautics with Japan
- MG.1.9-2015. International cooperation in aeronautics with Canada
- > MG.1.10-2015. International cooperation in aeronautics with China

## 13. Clean Sky

- JTI-CS2-2014-CFP01-LPA- 01-01 OPEN ROTOR Engine Mounting System
- > JTI-CS2-2014-CFP01-LPA- 01-02 Support to future CROR and UHBR propulsion system maturation
- JTI-CS2-2014-CFP01-LPA- 01-03 Development of advanced laser-beam welding technology for the manufacturing of structures for titanium HLFC structures.
- JTI-CS2-2014-CFP01-LPA- 02-01 Cost Reduction On Composite Structure Assembly Blind fastener inspection technology for quality control
- JTI-CS2-2014-CFP01-LPA- 02-02 Cost Reduction On Composite Structure Assembly Definition And Development Of An Inspection Tool To Characterize Inner Surface Hole Quality
- > JTI-CS2-2014-CFP01-LPA- 02-03 Rapid Assembly Of Bracket For Structure-System Integration
- JTI-CS2-2014-CFP01-LPA- 02-04 Automation in Final Aircraft Assembly Lines and Enabling Technologies
- > JTI-CS2-2014-CFP01-LPA- 02-05 Environmental Friendly Fire Suppression
- JTI-CS2-2014-CFP01-LPA- 02-06 Development of Thermoelastic Stress Analysis for the detection of stress hotspots during structural testing
- JTI-CS2-2014-CFP01-LPA- 03-01 Process and Methods for E2E Maintenance Architecture development and demonstrations and solutions for technology integration
- JTI-CS2-2014-CFP01-LPA- 03-02 Aircraft System Prognostic solutions integrated into an airline E2E maintenance operational context

- JTI-CS2-2014-CFP01-LPA- 03-03 Airline Maintenance Operations implementation of an E2E Maintenance Service Architecture and its enablers
- JTI-CS2-CFP01-REG
- JTI-CS2-2014-CFP01-REG- 02-01 Aerodynamic characterization of control devices for wing loads control and aircraft response characterization of a regional turboprop aircraft
- ➢ JTI-CS2-CFP01-FRC
- ➢ JTI-CS2-2014-CFP01-FRC- 02-01 Support to the aerodynamic and aeroelastic analysis of a trimmed, complete compound R/C and related issues.
- JTI-CS2-2014-CFP01-FRC- 02-02 Aerodynamic and functional design study of a full- fairing semiwatertight concept for an articulated rotor head
- JTI-CS2-2014-CFP01-FRC- 02-03 Support to the aerodynamic analysis and design of propellers of a compound helicopter
- JTI-CS2-2014-CFP01-FRC- 02-04 Tools development for aerodynamic optimization on engine air intake
- > JTI-CS2-2014-CFP01-FRC- 02-05 HVDC Starter/Generator
- > JTI-CS2-2014-CFP01-FRC- 02-06 High Voltage Network Battery
- > JTI-CS2-2014-CFP01-FRC- 02-07 Power Conversion
- > JTI-CS2-2014-CFP01-FRC- 02-08 HVDC Network management
- ➢ JTI-CS2-2014-CFP01-AIR
- JTI-CS2-2014-CFP01-AIR- 01-01 Aerodynamic and acoustic capabilities developments for close coupling, high bypass ratio turbofan Aircraft integration.
- JTI-CS2-2014-CFP01-AIR- 01-02 Advanced predictive models development and simulation capabilities for Engine design space exploration and performance optimization
- JTI-CS2-2014-CFP01-AIR- 01-03 CROR Engine debris Impact. Shielding design, manufacturing, simulation and Impact test preparation
- JTI-CS2-2014-CFP01-AIR- 01-04 Aero-acoustic experimental characterization of a CROR (Contra Rotating Open Rotor) engine WT model with core flow in propellers architecture.
- JTI-CS2-2014-CFP01-AIR- 01-05 Blade FEM impact simulations and sample manufacturing for CROR Aircraft
- JTI-CS2-2014-CFP01-AIR- 01-06 Design and demonstration of a laminar nacelle concept for business jet
- > JTI-CS2-2014-CFP01-AIR- 01-07 Eco Design for Airframe Re-use of Thermoplastics Composites
- JTI-CS2-2014-CFP01-AIR- 02-01 Flightworthy Flush & Lightweight doors for unpressurized Fast Rotorcraft
- > JTI-CS2-2014-CFP01-AIR- 02-02 Bird strike Erosion resistant and fast maintainable windshields
- JTI-CS2-2014-CFP01-AIR- 02-03 Curved stiffened panels in thermoplastics by preindustrial ISC process
- > JTI-CS2-2014-CFP01-AIR- 02-04 New enhanced acoustic damping composite material
- > JTI-CS2-2014-CFP01-AIR- 02-05 Structural bonded repair of monolithic composite airframe
- JTI-CS2-2014-CFP01-AIR- 02-06 Simulation tool development for a composite manufacturing process default prediction integrated into a quality control system
- JTI-CS2-2014-CFP01-AIR- 02-07 Design Against Distortion: Part distortion prediction, design for minimized distortion, metallic aerospace parts
- ➢ JTI-CS2-2014-CFP01-ENG
- ➢ JTI-CS2-2014-CFP01-ENG- 01-01

Engine Mounting System (EMS) for Ground Test Demo Development of an all-oxide Ceramic Matrix Composite

 JTI-CS2-2014-CFP01-ENG-02-01 (CMC) Engine Part

- JTI-CS2-2014-CFP01-ENG-03-01 **Behaviour**
- Characterisation of Thermo-mechanical Fatigue
- JTI-CS2-2014-CFP01-ENG-03-02 Advanced analytical tool for the understanding and the prediction of core noise for large civil aero engine with low emission core
- JTI-CS2-2014-CFP01-ENG- 03-03
- JTI-CS2-2014-CFP01-ENG- 03-04
- JTI-CS2-2014-CFP01-ENG-04-01 certified engine
- JTI-CS2-2014-CFP01-ENG-04-02
- JTI-CS2-2014-CPW01-ENG- 04-03
- JTI-CS2-2014-CFP01-ENG-04-04

VHBR Engine - Advanced bearing technology

- Crack growth threshold analysis in TiAl alloys
- Power Density improvement demonstrated on a
  - High Performance Turbocharger
  - Alternative Architecture Engine research
- JTI-CS2-2014-CFP01-SYS
- **Engine Installation Optimization**
- JTI-CS2-2014-CFP01-SYS- 02-01 Smart Integrated Wing Life extended hydrostatic & lubricated systems
- JTI-CS2-2014-CFP01-SYS- 02-02 Modular, scalable, multi-function, high power density power controller for electric taxi
- JTI-CS2-2014-CFP01-SYS- 02-03 Robust package for harsh environment and optimization of electrical characteristic of rectifier bridge using high current diode
- JTI-CS2-2014-CFP01-SYS- 02-04 Smart Oil pressure sensors for oil cooled starter/generator
- JTI-CS2-2014-CFP01-SYS- 02-05 Instrumented bearing for oil cooled starter/generator
- > JTI-CS2-2014-CFP01-SYS- 02-06 Evaluate mechanical and fatigue capabilities for diode die in harsh environment
- JTI-CS2-2014-CFP01-SYS- 02-07 Development of MODELICA libraries for ECS and thermal management architectures
- JTI-CS2-2014-CFP01-SYS- 02-08 Embedded sensors technology for air quality measurement

## 14. Space

- H2020-GALILEO-GSA-2014-2015 Applications in Satellite Navigation Galileo
- H2020-EO-2015 Earth Observation
- H2020-PROTEC-2015 Protection of European assets in and from Space
- H2020-COMPET-2015 Competitiveness of the European Space Sector
- H2020-SME-SPACE-2014-2015 SME Instrument

#### EU priorities for future cooperation with Russia are outlined the roadmaps: in http://ec.europa.eu/research/iscp/pdf/policy/annex roadmaps sep-2014.pdf

#### Brochures or other local communication materials aiming at to support participation in Horizon 3. 2020

A dedicated Russian-language information brochure about Horizon 2020 has been published and is available on the website of the Science and Technology Section of the Delegation of the European Union to the Russian Federation:

http://eeas.europa.eu/delegations/russia/eu russia/fields cooperation/science technology/index en.h tm

## 4. Webpage of the Delegation of the European Union to the Russian Federation and functional mailbox which can be addressed in specific questions

- Delegation of the European Union to the Russian Federation: <u>www.EUinRussia.ru</u>
- Science and Technology Section of the Delegation of the European Union to the Russian Federation: <u>http://eeas.europa.eu/delegations/russia/eu\_russia/fields\_cooperation/science\_technology/index\_en.htm</u>
- Questions may be addressed to:
  - Science & Technology section: <u>delegation-russia-science@eeas.europa.eu</u>
  - o Ministry of Education & Science of the Russian Federation: horizon2020@mon.gov.ru

## 5. List and availability of local National Contact Points including for the European Research Council and Marie Skłodowska-Curie actions

The Ministry of Education and Science of the Russian Federation has selected organizations to represent Russian National Contact Points (NCPs) within the European Framework Programme for Research and Innovations «Horizon 2020». Please note that the NCP status is given to a legal entity, each of which is represented by 1 or several persons.

#### National NCP coordinator

Organisation name: Ministry of Education and Science of the Russian Federation Mrs Tatiana Victorovna SHASHKOVA Tel: +7-495 530 67 92

1. Aeronautics / Smart, green and integrated transport

Organisation name: TsAGI - N.E. Zhukovsky Central Aerohydrodynamic Institue <u>http://ncp.tsagi.ru</u> Mr Evgeni Vladimorovich ANDREEV Tel: +7-495 556 31 62 Mrs Anna Alexandrovna RYZHOVA Tel: +7-495 556 41 18

2. Food security, sustainable agriculture, marine and maritime research and the bio-economy'; & 'Biotechnology' Organisation name: A.N.Bach Institute of Biochemistry, Russian Academy Science

Address: Leninsky Prospect, 33, 119071, Moscow, Russian Federation

#### http://bio-economy.ru/

Prof. Vladimir Olegovich POPOV Tel: +7-495 954 44 74 Mrs Irina Valerievna SHAROVA Tel: +7-495 954 44 74

#### 3. Nanotechnology, materials and new industry technologies

Organisation name: National Research Centre 'Kurchatov Institute' Address: Poschad Academica Kurchatova 1, 123182, Moscow, Russian Federation Dr. Artem Alexandrovich BALYAKIN - Russian Federation Tel: +7-499 196 7469 Mr Andrey Sergeevich MALYSHEV Tel: +7-499 196 6640

#### 4. Information & communication technologies (ICT)

Organisation name: ARENA - National Association of Research and Educational e-Infrastructures Address: Vavilov Street 40, 119333, Moscow, Russian Federation

#### http://www.e-arena.ru

Dr. Marat Ramilevich BIKTIMIROV Tel: +7-499-1352598 Mr Vladimir Leonidovich GLEBSKY Tel: +7-499 135 2598

## 5. Energy (Non-nuclear) / Secure, clean and efficient energy

Organisation name: MPEI - National Research University 'Moscow Power Engineering Institute' Address: Krasnokazarmennaya str., 14, 111250, Moscow, Russian Federation <u>http://www.fp7-energy.ru</u> Mr Nikolay Dmitrievich ROGALEV Tel: +7-495 362 72 01 Ms. Elena Nikolaevna CHISTYAKOVA Tel: +7-916 799 54 66 Mr. Andrey Sergeevich KUZMINOV Tel: +7-495 363 77 96

#### 6. Health / Health, demographic change and wellbeing

Organisation name: Lomonosov Moscow State University Address: Lomonosovsky prospect, 31, bldg 5, 117192, Moscow, Russian Federation Tel: +7-495 932 8814+7-495-932-9904 <u>http://fp7-health.ru</u> Prof. Vsevolod Arsenyevich TKACHUK Tel: +7-495 932 8814+7-495-932-9904 Mrs Elena Vladimirovna TARASOVA Tel: +7-495 932 9904

## 7. Environment including climate change / Climate action, resource efficiency and raw materials

Organisation name: Puschchino State Institute of Natural Sciences

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### http://ncp-eco.ru/

Mr Mikhail Borisovich VAINSHTEIN Tel: +7-4967 73 26 77 Mrs Anna Andriyanovna VETROVA Tel: +7-910 940 6287 Mr Sergey Lvovich SOKOLOV Tel: +7-916 390 8958 Mr Vadim Ivanovich SHAROV Tel: +7-985 160 1921

#### 8. European Research Infrastructures

Organisation name: MISIS - National University of Science & Technology Address: Leninsky prospect, 4, 119049, Moscow, Russian Federation <u>http://fp7-infra.ru</u> Prof. Evgeny Alekshandrovich LEVASHOV Tel: +7-495 638 45 00 Dr. Marine Karapetovna MELKONYAN Tel: +7-495 638 4629

## 9. SMEs

Organisation name: FASIE - Foundation for Assistance to Small Innovative Enterprises Address: Kurchatov str., 47, 249038, Obninsk, Russian Federation <u>http://www.fasie.ru</u> <u>http://www.ncp-fp7-sme.ru</u> Mrs Olga Georgievna LEVCHENKO +7 (495) 231-3851

10. Science with and for Society / Inclusive, innovative and reflective societies

Organisation name: Research University - Higher School of Economics Address: Myasnitskaya, 20, 101000, Moscow, Russian Federation <u>http://www.hse.ru</u> Prof. Leonid Markovich GOKHBERG Tel: +7-4956212873<u>Mrs Liliana Nikolaevna PROSKURYAKOVA</u> <u>Tel: +7-495-772-95-90. ext. 12495</u> <u>Elena Gennad'evna NASYBULINA</u> <u>Tel: +7-495-772-95-90. ext. 11540</u>-------**11. European Research Council** 

Organisation name: Organisation name: National Research University - St. Petersburg State Polytechnic University Address: Universitetskaya nab. 5, 199034, St. Petersburg, Russian Federation http://www.spbrc.nw.ru Dr. Sergey Vasilyevich KOZYREV Tel: +7-812-5349513 Prof. Vladimir Anatolyevich YEROKHIN Tel: +7-812-5962831

St. Petersburg Academic University – Science & Education Nano-Technology Centre of the Russian Academy of Science Mr Mikhail Vladimirovich DUBINA - Russian Federation Tel: +7-812 534 5850

Lomonosov Moscow State University Svetlana Vladimirovna MAMAKINA (+7-495) 939-1250

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12. Marie Skłodowska-Curie actions on skills, training and career development
 Organisation name: National Research University - Higher School of Economics
 Address: Myasnitskaya, 20, 101000, Moscow, Russian Federation
 <a href="http://www.hse.ru">http://www.hse.ru</a>
 <a href="http://fp7.hse.ru/mobility/">http://fp7.hse.ru/mobility/</a>
 Prof. Leonid Markovich GOKHBERG

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