

# Russia – Country Page

## 1. Available local programmes or funds that could provide support to Russian Horizon 2020 participants

Horizon 2020 is fully open to the 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 from outside Europe. Russian scientists, 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 to take part in the proposal submission to the European Commission.

### Russian Co-Funding Mechanisms for Research and Innovation Projects

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 [horizon2020@mon.gov.ru](mailto:horizon2020@mon.gov.ru) to which the Russian scientific community may send enquiries about support available in Russia for participation in Horizon 2020.

Depending on the nature of their proposed research, Russian participants of Horizon 2020 research and innovation projects are also encouraged to apply to the regular calls of the **Russian Foundation for Basic Research** ([www.rfbr.ru](http://www.rfbr.ru)), the **Russian Foundation for the Humanities** ([www.rfh.ru](http://www.rfh.ru)) and the **Russian Science Foundation** ([www.rscf.ru](http://www.rscf.ru)), which may be able to provide funding support in accordance with their own funding rules.

In addition, the **Russian Foundation for Assistance to Small Innovative Enterprises** ([www.fasie.ru](http://www.fasie.ru)) may be able to support the participation of small innovative Russian enterprises in Horizon 2020 projects on a case-by-case basis in accordance with 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](http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html)

## 2. Current priorities / EU roadmap for EU-Russia S&T Cooperation

From the [list of calls in the Horizon 2020 Work Programme 2016-2017](#), the Ministry of Education and Science of the Russian Federation highlight the following subjects of priority interest for the Russian Federation<sup>1</sup>.

### **CALL: FOR NANOTECHNOLOGIES, ADVANCED MATERIALS, BIOTECHNOLOGY AND PRODUCTION**

1. NMBP-02-2016 Advanced Materials for Power Electronics based on wide bandgap semiconductor devices technology
2. NMBP-03-2016 Innovative and sustainable materials solutions for the substitution of critical raw materials in the electric power system
3. NMBP-01-2016 Novel hybrid materials for heterogeneous catalysis
4. NMBP-26-2016 Analytical techniques and tools in support of nanomaterial risk assessment
5. NMBP-17-2016 Advanced materials solutions and architectures for high efficiency solar energy harvesting
6. NMBP-19-2017 Cost-effective materials for “power-to-chemical” technologies
7. NMBP-18-2016 Advanced materials enabling the integration of storage technologies in the electricity grid
8. NMBP-07-2017 Systems of materials characterisation for model, product and process optimization
9. NMBP-11-2016 ERA-NET on Nanomedicine
10. BIOTEC-01-2016: ERA-NET Cofund on Biotechnologies
11. BIOTEC-02-2016: Bioconversion of non-agricultural waste into biomolecules for industrial applications
12. BIOTEC-03-2016: Microbial chassis platforms with optimized metabolic pathways for industrial innovations through systems biology
13. BIOTEC-05-2017: Microbial platforms for CO<sub>2</sub>-reuse processes in the low-carbon economy
14. BIOTEC-06-2017: Optimisation of biocatalysis and downstream processing for the sustainable production of high value-added platform chemicals
15. BIOTEC-07-2017: New Plant Breeding Techniques (NPBT) in molecular farming: Multipurpose crops for industrial bioproducts

### **CALL - GREENING THE ECONOMY CLIMATE SERVICES**

16. SC5-01-2016-2017: Exploiting the added value of climate services ((IA1)
17. SC5-02-2017: Integrated European regional modelling and climate prediction system (RIA)
18. SC5-03-2016: Climate services market research (RIA)
19. SC5-04-2017: Towards a robust and comprehensive greenhouse gas verification system (RIA)
20. SC5-05-2016: A 1.5 million year look into the past for improving climate predictions (CSA)
21. SC5-08-2017: Large-scale demonstrators on nature-based solutions for hydrometeorological risk reduction (IA)

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<sup>1</sup> The priority list is not fully-complete and will be complemented by priority topics under calls from FET, ICT, Space, Energy, JTI, Art 185 projects, and MSCA. In the meantime, on questions regarding additional priority topics, please turn to the Department of Science and Technology of the Ministry of Education and Science of the Russian Federation.

22. SC5-10-2016: Multi-stakeholder dialogue platform to promote innovation with nature to address societal challenges (CSA)
23. SC5-11-2016: Supporting international cooperation activities on water (CSA)
24. SC5-16-2016-2017: Raw materials international co-operation (CSA)
25. SC5-18-2017: Novel in-situ observation systems (RIA)
26. SC5-28-2016: Transformations to sustainability (ERA-NET-Cofund)
27. SC5-20-2016: European data hub of the GEOSS information system

**CALL: SMART AND SUSTAINABLE CITIES' (ON SUSTAINABLE CITIES THROUGH NATUREBASED SOLUTIONS)**

28. SCC-03-2016: New governance, business, financing models and economic impact assessment tools for sustainable cities with nature-based solutions (urban re-naturing) (RIA)

**CALL: BLUE GROWTH – DEMONSTRATING AN OCEAN OF OPPORTUNITIES**

29. BG-4-2017: Multi-use of the oceans marine space, offshore and near-shore: Enabling technologies
30. BG-09-2016: An integrated Arctic observation system (RIA)
31. BG-10-2016: Impact of Arctic changes on the weather and climate of the Northern Hemisphere (RIA)
32. BG-11-2017: The effect of climate change on Arctic permafrost and its socio-economic impact, with a focus on coastal areas (RIA)
33. BG-1-2016: Large-scale algae biomass integrated biorefineries
34. BG-5-2016: ERANET COFUND on marine technologies
35. BG-9-2016: An integrated Arctic observing system
36. BG-10-2016: Impact of Arctic changes on the weather and climate of the Northern Hemisphere
37. BG-11-2017: Climate impacts on Arctic permafrost, with a focus on coastal areas, and its socio-economic impact

**CALL: COMPETITIVE LOW-CARBON ENERGY (ON APPLIED GEO-SCIENCES)**

38. LCE-26-2016: Cross-thematic ERA-NET on Applied Geosciences (ERA-NET Cofund)

**CALL: INNOVATIVE, SUSTAINABLE AND INCLUSIVE BIOECONOMY**

39. ISIB-04b-2015 - Improved forest management models

**CALL: SUPPORT TO POLICY AND INTERNATIONAL COOPERATION**

40. INFRASUPP-01-2016: Policy and international cooperation measures for research infrastructures
41. INFRASUPP-02-2017: Policy and international cooperation measures for research infrastructures

**CALL: SUSTAINABLE FOOD SECURITY – RESILIENT AND RESOURCE-EFFICIENT VALUE CHAINS**

42. SFS-01-2016: Solutions to multiple and combined stresses in crop production
43. SFS-02-2016: Teaming up for good: Exploiting the benefits of species diversity in cropping systems

44. SFS-03-2016: Testing and breeding for sustainability and resilience in crops
45. SFS-05-2017: Robotics Advances for Precision Farming
46. SFS-10-2017: Research and approaches for emerging diseases in plants and terrestrial livestock
47. SFS-12-2016: Support for international research on animal health
48. SFS-13-2017: Validation of diagnostic tools for animal and plant health
49. SFS-14-2016: Understanding host-pathogen-environment interactions
50. SFS-15-2016-2017: Breeding livestock for resilience and efficiency
51. SFS-17-2017: Innovations in plant protection
52. SFS-19-2016: ERA-NET Cofund: Public-Public Partnerships in the bioeconomy
53. SFS-21-2016/2017: Advancing basic biological knowledge and improving management tools for commercially important fish and other seafood species
54. SFS-22-2017: Smart fisheries technologies for an efficient, compliant and environmentally friendly fishing sector
55. SFS-26-2016: Legumes - Transition paths to sustainable legume-based farming systems and agri-feed and food chains
56. SFS-26-2016: Legumes - Transition paths to sustainable legume-based farming systems and agri-feed and food chains
57. SFS-31-2016: Farming for tomorrow: developing an enabling environment for resilient and sustainable agricultural systems
58. SFS-32-2017: Promoting and supporting eco-intensification of aquaculture production systems: inland (including fresh water), coastal zone and offshore
59. SFS-33-2016: Understanding food value chain and network dynamics
60. SFS-34-2017: Innovative agri-food chains: unlocking the potential for competitiveness and sustainability
61. SFS-35-2017: Innovative solutions for sustainable food packaging
62. SFS-37-2016: The impact of consumer practices in food safety: risks and mitigation strategies
63. SFS-40-2017: Sweeteners and sweetness enhancers
64. SFS-46-2017: Alternative production system to address anti-microbial drug usage, animal welfare and the impact on health

**CALL: BIO-BASED INNOVATION FOR SUSTAINABLE GOODS AND SERVICES - SUPPORTING THE DEVELOPMENT OF A EUROPEAN BIOECONOMY**

65. BB-1-2016: Sustainability schemes for the bio-based economy
66. BB-2-2017: Towards a methodology for the collection of statistical data on bio-based industries and bio-based products
67. BB-3-2017: Adaptive tree breeding strategies and tools for forest production systems resilient to climate change and natural disturbances
68. BB-4-2016: Intelligent solutions and tools in forest production systems, fostering sustainable supply of quality wood for the growing bioeconomy
69. BB-5-2017: Bio-based products: Mobilisation and mutual learning action plan
70. BB-6-2016: The regional dimension of Bio-based industries

**CALL: RURAL RENAISSANCE - FOSTERING INNOVATION AND BUSINESS OPPORTUNITIES**

71. RUR-13-2017: Building a future science and education system fit to deliver to practice

## **CALL: PERSONALISED MEDICINE**

72. SC1-PM-01-2016: Multi omics for personalised therapies addressing diseases of the immune system
73. SC1-PM-02-2017: New concepts in patient stratification
74. SC1-PM-03–2017: Diagnostic characterisation of rare diseases
75. SC1-PM-04–2016: Networking and optimising the use of population and patient cohorts at EU level
76. SC1-PM-05–2016: The European Human Biomonitoring Initiative
77. SC1-PM-06–2016: Vaccine development for malaria and/or neglected infectious diseases
78. SC1-PM-07–2017: Promoting mental health and well-being in the young
79. SC1-PM-08–2017: New therapies for rare diseases
80. SC1-PM-09–2016: New therapies for chronic diseases
81. SC1-PM-10–2017: Comparing the effectiveness of existing healthcare interventions in the adult population
82. SC1-PM-11–2016-2017: Clinical research on regenerative medicine
83. SC1-PM-12–2016: PCP - eHealth innovation in empowering the patient
84. SC1-PM-13–2016: PPI for deployment and scaling up of ICT solutions for active and healthy ageing
85. SC1-PM-14–2016: EU-Japan cooperation on Novel ICT Robotics based solutions for active and healthy ageing at home or in care facilities
86. SC1-PM-15-2017: Personalised coaching for well-being and care of people as they age
87. SC1-PM-16–2017: In-silico trials for developing and assessing biomedical products
88. SC1-PM-17–2017: Personalised computer models and in-silico systems for well-being
89. SC1-PM-18–2016: Big Data supporting Public Health policies
90. SC1-PM-19–2017: PPI for uptake of standards for the exchange of digitalised healthcare records
91. SC1-PM-20-2017: Development of new methods and measures for improved economic evaluation and efficiency measures in the health sector
92. SC1-PM-21-2016: Implementation research for scaling-up of evidence based innovations and good practice in Europe and low- and middle-income countries
93. SC1-HCO-01-2016: Valorisation of FP7 Health and H2020 SC1 research results
94. SC1-HCO-02-2016: Standardisation of pre-analytical and analytical procedures for in vitro diagnostics in personalised medicine
95. SC1-HCO-03–2017: Implementing the Strategic Research Agenda on Personalised Medicine
96. SC1-HCO-04–2016: Towards globalisation of the Joint Programming Initiative on Antimicrobial resistance
97. SC1-HCO-05–2016: Coordinating personalised medicine research
98. SC1-HCO-06–2016: Towards an ERA-NET for building sustainable and resilient health system models
99. SC1-HCO-07–2017: Global Alliance for Chronic Diseases (GACD)
100. SC1-HCO-08–2017: Actions to bridge the divide in European health research and innovation
101. SC1-HCO-09–2016: EU m-Health hub including evidence for the integration of mHealth in the healthcare systems
102. SC1-HCO-10–2016: Support for Europe’s leading Health ICT SMEs
103. SC1-HCO-11–2016: Coordinated action to support the recognition of Silver Economy opportunities arising from demographic change

- 104. SC1-HCO-12–2016: Digital health literacy
- 105. SC1-HCO-13-2016: Healthcare Workforce IT skills
- 106. SC1-HCO-14–2016: EU-US interoperability roadmap
- 107. SC1-HCO-15-2016: EU eHealth Interoperability conformity assessment
- 108. SC1-HCO-16-2016: Standardisation needs in the field of ICT for Active and Healthy Ageing

**CALL: HORIZON 2020 DEDICATED SME INSTRUMENT 2016-2017**

- 109. SMEInst-05-2016-2017 - Supporting innovative SMEs in the healthcare biotechnology sector
- 110. SMEInst-06-2016-2017 - Accelerating market introduction of ICT solutions for Health, Well-Being and Ageing Well

**CALL: UNDERSTANDING EUROPE - PROMOTING THE EUROPEAN PUBLIC AND CULTURAL SPACE**

- 111. H2020-SC6-CULT-COOP-2016-2017 - Virtual museums and social platform on European digital heritage, memory, identity and cultural interaction

**CALL: MOBILITY FOR GROWTH**

- 112. MG-1.1-2016 Reducing energy consumption and environmental impact of aviation
- 113. MG-1.4-2016-2017 Breakthrough innovation
- 114. MG-6.1-2016 Innovative concepts, systems and services toward 'mobility as a service
- 115. MG-1.5-2016-2017 Identification of gaps, barriers and needs in the aviation research
- 116. MG-3.1-2016 Addressing aviation safety challenges
- 117. MG-8.1-2016 Research, technology development and market trends for the European transport manufacturing industries
- 118. MG-1.2-2017 Reducing aviation noise
- 119. MG-1.3-2017 Maintaining industrial leadership in aeronautics
- 120. MG-1.4-2016-2017 Breakthrough innovation
- 121. MG-1.5-2016-2017 Identification of gaps, barriers and needs in the aviation research

**CALL: INDUSTRY 2020 IN THE CIRCULAR ECONOMY**

- 122. H2020-FOF-01-2016 Novel hybrid approaches for additive and subtractive manufacturing machines

**CALL: INTEGRATING AND OPENING RESEARCH INFRASTRUCTURES OF EUROPEAN INTEREST**

- 123. INFRAIA-1-2014-2015 - Integrating and opening existing national and regional research infrastructures of European interest
- 124. INFRAIA-02-2017 Integrating Activities for Starting Communities

**CALL: ENERGY EFFICIENCY**

- 125. EE 1 – 2017 Waste heat recovery from urban facilities and re-use to increase energy efficiency of district or individual heating and cooling systems
- 126. EE 2 – 2017 Improving the performance of inefficient district heating networks
- 127. EE 4 – 2016 New heating and cooling solutions using low grade sources of thermal energy

## **CALL: COMPETITIVE LOW-CARBON ENERGY**

- 128. LCE 1 – 2016/2017 Next generation innovative technologies enabling smart grids, storage and energy system integration with increasing share of renewables: distribution network
- 129. LCE 2 – 2016 Demonstration of smart grid, storage and system integration technologies with increasing share of renewables: distribution system
- 130. LCE 6 -2017 New knowledge and technologies
- 131. LCE 7 -2016 /2017 Developing the next generation technologies of renewable electricity and heating/cooling
- 132. LCE 8 – 2016/2017 Development of next generation biofuel technologies
- 133. LCE 10 – 2017 Reducing the cost of PV electricity
- 134. LCE 12 – 2017 Near-to-market solutions for the use of solar heat in industrial processes
- 135. LCE 17 – 2017 Easier to install and more efficient geothermal systems for retrofitting buildings
- 136. LCE 18 – 2017 EGS in different geological conditions
- 137. LCE 19 – 2016/2017 Demonstration of the most promising advanced biofuel pathways
- 138. LCE 27 – 2017 Measuring, monitoring and controlling the risks of CCS, EGS and unconventional hydrocarbons in the subsurface
- 139. LCE 28 – 2017 Highly flexible and efficient fossil fuel power plants
- 140. LCE 30 – 2017 Geological storage pilots

## **CALL: CLEAN SKY 2**

- 141. JTI-CS2-2016-CFP03-AIR-01-15: Functional top coat for natural laminar flow
- 142. JTI-CS2-2016-CFP03-AIR-01-16: Design Guide Lines and Simulation Methods for Additive Manufactured Titanium Components
- 143. JTI-CS2-2016-CFP03-AIR-01-17: Orbital Drilling of small (<10mm diameter) holes, standardly spaced with aluminium material in the stack
- 144. JTI-CS2-2016-CFP03-AIR-01-18: Research and development of a compact drilling and fastening unit suitable for a range of standard 2 piece fasteners
- 145. JTI-CS2-2016-CFP03-AIR-01-19: Hybrid Aircraft Seating Requirement Specification and Design - HAIRD
- 146. JTI-CS2-2016-CFP03-AIR-02-17: Flexible Test Rig of Aircraft Control Surfaces powered by EMAs
- 147. JTI-CS2-2016-CFP03-AIR-02-18: Prototype Tooling for subcomponents manufacturing for wing winglet
- 148. JTI-CS2-2016-CFP03-AIR-02-19: Prototype Tooling for Sub-Assembly, Final Assembly and Transport of the Morphing Winglet and Multifunctional Outer Flaps of the next generation optimized wing box
- 149. JTI-CS2-2016-CFP03-AIR-02-20: Low cost Fused Filament Fabrication of high performance thermoplastics for structural applications
- 150. JTI-CS2-2016-CFP03-AIR-02-21: Innovative Tooling Design and Manufacturing for Thermoplastic Stringers and High Integration
- 151. JTI-CS2-2016-CFP03-AIR-02-22: Adaptive multifunctional innovative Test Rigs for both structural test of multidimensional and multishape panels and structural tests on Tail unit
- 152. JTI-CS2-2016-CFP03-AIR-02-23: Automation of hand lay-up manufacturing process for composite stiffeners
- 153. JTI-CS2-2016-CFP03-AIR-02-24: Tests for leakage identification on Aircraft fluid mechanical installations

154. JTI-CS2-2016-CFP03-AIR-02-25: Development and demonstration of materials and manufacturing process for high structural damping composite beams for civil rotor and airframe applications
155. JTI-CS2-2016-CFP03-AIR-02-26: Development of innovative automated fiber placement machine for composite fuselage manufacturing with high performance hybrid materials.
156. JTI-CS2-2016-CFP03-AIR-02-27: Development, fabrication, verification and delivery of innovative and flexible system for automated drilling and fastener insertion on fuselage barrel.
157. JTI-CS2-2016-CFP03-AIR-02-28: Development of equipment for composite recycling process of uncured material
158. JTI-CS2-2016-CFP03-ENG-01-05: Optimisation of sensor and associated data acquisition system for blade behaviour
159. JTI-CS2-2016-CFP03-ENG-01-06: Very high loaded planet bearings enabling technologies
160. JTI-CS2-2016-CFP03-ENG-01-07: Advanced mechatronics devices for electrical management system of Turboprop
161. JTI-CS2-2016-CFP03-ENG-01-08: Advanced Bearings for Turboprop engine
162. JTI-CS2-2016-CFP03-ENG-01-09: Integrated air-oil cooling system
163. JTI-CS2-2016-CFP03-ENG-02-04: Automated full faced measurement of complex geometries
164. JTI-CS2-2016-CFP03-ENG-03-09: Orbiting Journal Bearing Rig
165. JTI-CS2-2016-CFP03-ENG-03-10: Innovations in Titanium investment casting of lightweight structural components for aero engines
166. JTI-CS2-2016-CFP03-ENG-03-11: Aerodynamic rigs for VHBR IP Turbine
167. JTI-CS2-2016-CFP03-ENG-03-12: Development of intelligent oil system enablers for large VHBR engine oil lubrication and heat management systems
168. JTI-CS2-2016-CFP04-ENG-01-10 High speed turbine performance improvement through cascade tests
169. JTI-CS2-2016-CFP04-ENG-01-11.2 VBV actuators (LHS & RHS) for Ground Test Demo. 2 VSV booster actuators (LHS & RHS) for Ground Test Demo
170. JTI-CS2-2016-CFP04-ENG-01-12 Development of the investment casting process and weldability for high temperature capable superalloys
171. JTI-CS2-2016-CFP04-ENG-01-13 High load gear and bearings materials
172. JTI-CS2-2016-CFP04-ENG-01-14 Experimental & Numerical analysis dedicated to FOD Management for Turboprop Air intake
173. CS2-2016-CFP04-ENG-02-05 Substitution of Chromium(VI)-based substances for corrosion protection of Aluminum- and Magnesium alloys
174. JTI-CS2-2016-CFP04-ENG-03-13 Small-Scale Spin Test for Hoop-Burst Overspeed Assessment
175. JTI-CS2-2016-CFP04-ENG-03-14 Fuel injector coking
176. JTI-CS2-2016-CFP04-ENG-04-06 Engine Control System
177. JTI-CS2-2016-CFP03-FRC-01-02: Development and demonstration of materials and manufacturing process for high power density homokinetic drive joints for civil rotor applications
178. JTI-CS2-2016-CFP03-FRC-01-07: Next generation smart active inceptors for a civil tiltrotor
179. JTI-CS2-2016-CFP03-FRC-01-08: High Speed HVDC Generator/Motor
180. JTI-CS2-2016-CFP03-FRC-01-09: Power Distribution
181. JTI-CS2-2016-CFP03-FRC-01-10: Next Generation Fuel Storage System
182. JTI-CS2-2016-CFP03-FRC-02-09: Light weight, impact resistant, canopy for fast compound rotorcraft
183. JTI-CS2-2016-CFP03-FRC-02-11: Design and realization of equipped engine compartments for a fast compound rotorcraft

184. JTI-CS2-2016-CFP03-FRC-02-15: Advanced Health Monitoring System for next generation materials
185. JTI-CS2-2016-CFP03-LPA-01-12: High cycle fatigue prediction methodology for fiber reinforced laminates for aircraft structures in CROR environment – development and validation
186. JTI-CS2-2016-CFP03-LPA-01-13: Manufacturing of prototype elements for hybridation of titanium and epoxy resin - Characterisation of the Titanium TiCP40 - CFRP adhesive joint
187. JTI-CS2-2016-CFP03-LPA-01-14: Automated injection RTM system process based in innovative sensor technologies in a low cost smart manufacturing tooling prototype and any tooling involved in the manufacture or the validation of the structure
188. JTI-CS2-2016-CFP03-LPA-01-15: High Fidelity time-accurate CFD Simulations
189. JTI-CS2-2016-CFP03-LPA-01-16: Aerodynamic Isolated and Installed Methods for UHBR Adaptable Area Nozzles
190. JTI-CS2-2016-CFP03-LPA-01-17: Windtunnel test for flow control at the engine/pylon with a representative aircraft configuration under fully realistic flow conditions
191. JTI-CS2-2016-CFP03-LPA-02-11: Structural energy storage and power generation functionalities in multifunctional composite structures
192. JTI-CS2-2016-CFP03-LPA-02-12: Development of System Components for automated Cabin and Cargo Installation
193. JTI-CS2-2016-CFP03-LPA-02-13: Design for Automated Installation of Linings and Hatracks in Cabin and Cargo
194. JTI-CS2-2016-CFP03-LPA-02-14: Assembly Planning and Simulation of an Aircraft Final Assembly Line (FAL)
195. JTI-CS2-2016-CFP03-LPA-03-07: Secured and performant wireless connection based on light (LiFi) for EFB, headset and other pilot connected devices
196. JTI-CS2-2016-CFP03-REG-01-02: Green Turboprop configuration - Natural Laminar Flow adaptive wing concept aerodynamic experimental validation (WTT2)
197. JTI-CS2-2016-CFP03-REG-01-03: Aileron Actuation Subsystem using EMAs
198. JTI-CS2-2016-CFP03-REG-01-04: Development and delivery of a flexible assembly system based on reverse engineering, tolerance analysis and Determinant Assembly Approach of wing box
199. JTI-CS2-2016-CFP03-SYS-01-02: Mems Accelerometer– Maturity Assessment And Improvement
200. JTI-CS2-2016-CFP03-SYS-02-14: Development of electromechanical actuators and electronic control units for flight control systems
201. JTI-CS2-2016-CFP03-SYS-02-15: Smart oil pressure sensors for all oil cooled starter/generator
202. JTI-CS2-2016-CFP03-SYS-02-16: Optimization two phases cooling solution using micro pump brick
203. JTI-CS2-2016-CFP03-SYS-02-17: innovative pump architecture for cooling electrical machine
204. JTI-CS2-2016-CFP03-SYS-02-18: Eco Design: Injection of thermoplastic reinforced with long fibers (carbon, glass, Kevlar...) for scroll reinforcement
205. JTI-CS2-2016-CFP03-SYS-02-19: Eco Design: Composite functionalization: thermal and electrical conductivity
206. JTI-CS2-2016-CFP03-SYS-02-20: Eco Design: Screening and development of optimized materials (wires, resins and varnishes) for high temperature coils
207. JTI-CS2-2016-CFP03-SYS-02-21: Model-Based identification and assessment of aircraft electrical and thermal loads architecture management functions
208. JTI-CS2-2016-CFP03-SYS-03-04: Low Power De-Icing System suitable for Small Aircrafts

209. JTI-CS2-2016-CFP03-SYS-03-05: Eco Design: High efficient non-structural landing gear parts based on advanced carbon fiber material systems and highly automated production technologies for helicopter and aircrafts.

210. JTI-CS2-2016-CFP03-SYS-03-06: Eco Design : Electrocoating process for Cr6-free surface treatment of aluminium parts

211. JTI-CS2-2016-CFP04-SYS-01-03 Very high brightness & compact full color display for next generation eyes-out cockpit products

212. JTI-CS2-2016-CFP04-SYS-02-22 Validation tests of electromechanical actuators and its dedicated control units at TRL 6 level

213. JTI-CS2-2016-CFP04-SYS-02-23 ECO-design based techniques and machinery for improved racking and distribution boxes manufacturing

214. JTI-CS2-2016-CFP04-SYS-02-24 Electrical simulation model identification method and tool

215. JTI-CS2-2016-CFP04-SYS-02-25 Innovative cooling system for embedded power electronics

216. JTI-CS2-2016-CFP04-SYS-02-26 Multivariable control approach for electrical air conditioning pack

217. JTI-CS2-2016-CFP04-SYS-02-27 Alternative recirculation filter for better cabin air quality

218. JTI-CS2-2016-CFP04-SYS-02-28 Analysis, validation and parametric studies of design and operating parameters for modern cabin ventilation concepts related to future aircraft energy management systems

219. JTI-CS2-2016-CFP04-SYS-03-07 An innovative Electrical Power Distribution System (EPDS) for Small Aircraft

220. JTI-CS2-2016-CFP04-SYS-03-08 Electromechanical actuation for landing gear

221. JTI-CS2-2016-CFP04-LPA-01-18 New Acoustic Signal Processing Methods

222. JTI-CS2-2016-CFP04-LPA-01-19 High fidelity Large Eddy Simulation using reduced model for engine broadband noise prediction

223. JTI-CS2-2016-CFP04-LPA-01-20 Hybrid machining for high removal rates and surface integrity applicable for safety critical super alloy parts

224. JTI-CS2-2016-CFP04-LPA-01-21 Design for High AN<sup>2</sup> (Disk and Blade attached)

225. JTI-CS2-2016-CFP04-LPA-01-22 RIGHT (Rig instrumentation, test support & data analysis of High Speed Power Turbine)

226. JTI-CS2-2016-CFP04-LPA-01-23 Low Cost, Smart Tooling for Composites

227. JTI-CS2-2016-CFP04-LPA-01-24 High throughput micro drilling (HTMD) system

228. JTI-CS2-2016-CFP04-LPA-01-25 Smart amplifier and a control box for fluidic actuators

229. JTI-CS2-2016-CFP04-LPA-01-26 Design, Build and Test Innovative Actuation Concepts for Separation Flow Control

230. JTI-CS2-2016-CFP04-LPA-01-27 Development of scaled models for Synthetic Jet Actuators based on Aerodynamic Characterization in CFD, Ground and Wind Tunnel Testing

231. JTI-CS2-2016-CFP04-LPA-01-28 Divergent Aircraft Configurations

232. JTI-CS2-2016-CFP04-LPA-02-15 Development of a Multi-scale method to predict large aircraft component failure taking into consideration Manufacturing Uncertainties for Predictive Virtual Simulations

233. JTI-CS2-2016-CFP04-LPA-03-08 Active Cockpit Simulator/Ground Station Facility and Test Environment enhancement

234. JTI-CS2-2016-CFP04-REG-01-05 Green Turboprop - High lift configuration integrating adaptive wing concept - Low Speed experimental validation

235. JTI-CS2-2016-CFP04-REG-01-06 High Fidelity Integrated Non-Linear MBS Modelling of Morphing Wing

236. JTI-CS2-2016-CFP04-REG-01-07 Innovative alloy development for structural part fabrication with Additive Manufacturing Technology

237. JTI-CS2-2016-CFP04-REG-01-08 Advanced Energy Storage and Regeneration System for Enhanced Electrical Energy Management
238. JTI-CS2-2016-CFP04-REG-02-03 Electrohydraulic integration of an hybrid surface actuation systems
239. JTI-CS2-2016-CFP04-FRC-01-11 Hydrophobic Windscreen Protection for Next Generation Civil Tilt Rotor
240. JTI-CS2-2016-CFP04-FRC-01-12 Flight critical wireless slip ring for a civil tiltrotor
241. JTI-CS2-2016-CFP04-FRC-02-16 Bird strike - Erosion resistant and fast maintainable windshields
242. JTI-CS2-2016-CFP04-FRC-02-17 Flight management system providing noise abatement flight procedures for compound rotorcraft
243. JTI-CS2-2016-CFP04-FRC-02-18 Full Fairing for Main Rotor Head or the LifeRCraft demonstrator
244. JTI-CS2-2016-CFP04-AIR-01-20 Development of a highly instrumented, modular fan module for aerodynamic and acoustic wind tunnel testing
245. JTI-CS2-2016-CFP04-AIR-01-21 Integrated Automated Test Bench Control System with Certifiable Test Documentation Functionality
246. JTI-CS2-2016-CFP04-AIR-01-22 Laminated and panoramic Cabin Windows for Business Jet applications
247. JTI-CS2-2016-CFP04-AIR-01-23 Novel manufacture of low weight skin without chemical milling
248. JTI-CS2-2016-CFP04-AIR-01-24 Multi-functional cabin rest area
249. JTI-CS2-2016-CFP04-AIR-02-28 Development of methods for deriving optimized shapes of morphing structures considering both aerodynamic performances and specific mechanical morphing boundary conditions
250. JTI-CS2-2016-CFP04-AIR-02-29 Development and Manufacturing of Prototype metallic parts
251. JTI-CS2-2016-CFP04-AIR-02-30 Development and manufacturing of innovative stamping dies for aluminium ribs Hot Stamping
252. JTI-CS2-2016-CFP04-AIR-02-31 Numerical methodologies and related tools for effect of defect prediction in manufacturing
253. JTI-CS2-2016-CFP04-AIR-02-32 Testing matrix optimization by interaction between numerical modelling and innovative non-contact measurement technology
254. JTI-CS2-2016-CFP04-AIR-02-33 Developing innovative joining concepts and their manufacturing methodologies
255. JTI-CS2-2016-CFP04-AIR-02-34 Hardware demonstrator development and deployment on Future Industrial Human Machine Interface (HMI) and Connected factory technologies
256. JTI-CS2-2016-CFP04-AIR-02-35 Development and deployment of new procedures and PLM Tools for A/C Ground Functional testing with Eco-design criteria
257. JTI-CS2-2016-CFP04-AIR-02-36 Development of prototype system based on Laser UT technology for high speed contactless no-couplant inspection of hybrid and thick composite structures
258. JTI-CS2-2016-CFP04-AIR-02-37 Quilted Stratum Processes (QSP) for low cost and eco thermoplastic manufacturing of complex composite parts

## **EARTH OBSERVATION**

259. EO-1-2016 Downstream applications
260. EO-2-2016 Downstream services for public authorities
261. EO-3-2016 Augmented Copernicus Services through Heterogeneous Data Assimilation

## **COMPETITIVENESS OF EUROPEAN SPACE SECTOR: TECHNOLOGY AND SCIENCE**

262. COMPET-4-2016 Inspection Sensor Suite
263. COMPET-1-2016 Technologies for European non-dependence and competitiveness

- 264. COMPET-2-2016 Maturing satellite communication technologies
- 265. COMPET-3-2016-a SRC - In-Space electrical propulsion and station keeping - Incremental Technologies
- 266. COMPET-4-2016 SRC - Space Robotics Technologies
- 267. COMPET-5-2016 Scientific Instrumentation
- 268. COMPET-4-2017 Scientific data exploitation
- 269. COMPET-5-2017 Space Weather

## **INFORMATION AND COMMUNICATION TECHNOLOGIES**

270. ICT-6-2016 Systems analysis and technology infusion study of new paradigms in cloud computing and their evolution

## **268. FUTURE AND EMERGING TECHNOLOGIES**

## **69. EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY (COST)**

For examples of the Russian national call documentation, rules and requirements of the FTP "R&D in Priority Areas of Development of the Russian S&T Complex 2014-2020", please refer to: [http://www.fcpir.ru/participation\\_in\\_program/contests/list\\_of\\_contests/1\\_published/2016-14-588-0002/](http://www.fcpir.ru/participation_in_program/contests/list_of_contests/1_published/2016-14-588-0002/)

A list of Russian research infrastructures (large-scale research facilities) which have expressed interest in cooperation with European scientific communities and which may be of particular interest to European researchers and scientists is available here: [Russian research infrastructures and facilities](#).

EU priorities for future cooperation with Russia are outlined in the roadmap: [http://ec.europa.eu/research/iscp/pdf/policy/annex\\_roadmaps\\_sep-2014.pdf](http://ec.europa.eu/research/iscp/pdf/policy/annex_roadmaps_sep-2014.pdf)

## **3. Brochures or other local communication materials aiming at to support Russian participation in Horizon 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 (see "Horizon 2020 Info Kit, including a practical guide for researchers from Russia (in Russian) zip"):  
[http://eeas.europa.eu/delegations/russia/documents/eu\\_russia/fields\\_of\\_cooperation/h2020\\_info\\_kit\(en\).zip](http://eeas.europa.eu/delegations/russia/documents/eu_russia/fields_of_cooperation/h2020_info_kit(en).zip)

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

Delegation of the European Union to the Russian Federation: [www.EUinRussia.ru](http://www.EUinRussia.ru)

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.htm](http://eeas.europa.eu/delegations/russia/eu_russia/fields_cooperation/science_technology/index_en.htm)

Questions may be addressed to:

- Science & Technology section: [delegation-russia-science@eeas.europa.eu](mailto:delegation-russia-science@eeas.europa.eu)
- Ministry of Education & Science of the Russian Federation: [horizon2020@mon.gov.ru](mailto: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.

The list of National Contact Points can be found at the Participant Portal, by country, thematic areas and/or function, here:

[http://ec.europa.eu/research/participants/portal/desktop/en/support/national\\_contact\\_points.html](http://ec.europa.eu/research/participants/portal/desktop/en/support/national_contact_points.html)

##### **National NCP coordinator**

Organisation name: Ministry of Education and Science of the Russian Federation  
Ms Tatiana Viktorovna SHASHKOVA, Tel: +7 495 530 67 92

##### **1. Aeronautics / Smart, green and integrated transport**

Organisation name: TsAGI - N.E. Zhukovsky Central Aerohydrodynamic Institute  
<http://ncp.tsagi.ru>

Mr Evgeni Vladimirovich ANDREEV, Tel: +7 495 556 31 62

Ms 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 Sciences  
Address: Leninsky Prospect, 33, 119071, Moscow, Russian Federation  
<http://bio-economy.ru/>

Prof. Vladimir Olegovich POPOV, Tel: +7 495 954 44 74

Ms Irina Valerievna SHAROVA, Tel: +7 495 954 44 74

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

Organisation name: National Research Centre 'Kurchatov Institute'  
Address: Ploschad Akademika 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  
<http://www.fp7-energy.ru>

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: Lomonosovskiy prospect, 31, bldg 5, 117192, Moscow, Russian Federation  
Tel: +7-495 932 8814+7-495-932-9904  
<http://fp7-health.ru>

Prof. Vsevolod Arsenyevich TKACHUK, Tel: +7 495 932 8814, +7 495 932 9904

Ms 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  
<http://ncp-eco.ru/>

Mr Mikhail Borisovich VAINSHTEIN, Tel: +7 4967 73 26 77

Ms 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  
<http://fp7-infra.ru>

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  
<http://www.fasie.ru>

<http://www.ncp-fp7-sme.ru>

Ms Olga Georgievna LEVCHENKO, +7 495 231-3851

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

Organisation name: National Research University - Higher School of Economics  
Address: Myasnitskaya, 20, 101000, Moscow, Russian Federation  
<http://www.hse.ru>

<http://fp.hse.ru/>

Prof. Leonid Markovich GOKHBERG, Tel: +7 495 621 28 73

Ms Liliana Nikolaevna PROSKURYAKOVA, Tel: +7 495 772 95 90 ext. 12495

Ms Elena Gennad'evna NASYBULINA, Tel: +7 495 772 95 90 ext. 11540

### **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: +7 812 534 95 13

Prof. Vladimir Anatolyevich YEROKHIN, Tel: +7 812 596 28 31

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

### **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

<http://www.hse.ru>

<http://fp.hse.ru/>

Prof. Leonid Markovich GOKHBERG, Tel: +7 495 621 28 73

Dr Anna Gennadievna PIKALOVA, Tel: +7 495 628 32 54

Ms Elena Gennad'evna NASYBULINA, Tel: +7 495 772 95 90 ext. 11540