



EU-Brazil cooperation in the framework of Horizon 2020

Selection of Calls of potential interest for Brazil for 2016 & 2017

Following the efforts made to approximate cooperation in the field of Research & Innovation between Brazil and the European Union, the Brazilian National Council of State Funding Agencies (CONFAP) has promoted and supported the adoption of Guidelines for the preparation of research proposals in collaboration with proposals submitted to Horizon 2020.

Researchers eligible for funding by the Brazilian Funding Agencies (FAPs) can use the normal modes of funding offered by each Funding Agency which adopted the Guidelines to support their participation in H2020 proposals. The Guidelines offer instructions to this end and can be found in the web sites of the single FAPs or in CONFAP's web site <http://confap.org.br/>.

Potential calls of interest for EU-Brazil cooperation are here selected and numerous other calls are available on the Horizon 2020 Participants Portal¹

Calls cover the timeframe of 2016 to 2017 and are divided following Horizon 2020's priorities: Excellent Science; Industrial Leadership; Societal Challenge, and the respective sub-programmes. More details can be found in the links indicated for each call.

For technical issues related to the contents of the calls and for networking support, please contact: horizonte2020confap@gmail.com

EXCELLENT SCIENCE				
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
MARIE-SKLODOWSKA-CURIE ACTIONS (MSCA)	MSCA-RISE-2016	The RISE scheme promotes international and inter-sector collaboration through research and innovation staff exchanges, and sharing of knowledge and ideas from research to market (and vice-versa) for the advancement of science and the development of innovation. The scheme fosters a shared culture of research and innovation that welcomes and	28 April 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/

¹ <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html>



<p>RESEARCH AND INNOVATION STAFF EXCHANGE (RISE)</p>		<p>rewards creativity and entrepreneurship and helps to turn creative ideas into innovative products, services or processes. Support is provided for the development of partnerships in the form of joint research and innovation activities between the participants. This is aimed at knowledge sharing via international as well as intersectoral mobility, based on secondments of research and innovation staff (exchanges). Exchanges, research and networking are the core activities and participants have to be mixed – Academic/non Academic (which includes private and governmental sector). Proposals can cover all research disciplines: "bottom-up" approach.</p>		<p>h2020/topics/2117-msca-rise-2016.html</p>
<p>MARIE-SKLODOWSKA-CURIE ACTIONS (MSCA)</p> <p>INDIVIDUAL FELLOWSHIPS (IF)</p>	<p>MSCA-IF-2016</p>	<p>The goal of Individual Fellowships is to enhance the creative and innovative potential of experienced researchers wishing to diversify their individual competence in terms of skill acquisition through advanced training, international and intersectoral mobility. Individual Fellowships provide opportunities to acquire and transfer new knowledge and to work on research in a European context (EU Member States and Associated Countries) or outside Europe. Researchers may be of any nationality. Fellowships are either European Fellowships or Global Fellowships. Proposals can cover all research disciplines: "bottom-up" approach.</p>	<p>14 September 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2226-msca-if-2016.html</p>
<p>EUROPEAN RESEARCH COUNCIL - ERC grants</p>	<p>ERC-PoC-2016</p>	<p>Provide attractive, long-term funding to support excellent investigators and their research teams to pursue ground-breaking, high-gain/ high-risk research. Research funded by the ERC is expected to lead to advances at the frontiers of knowledge. Principal Investigators from anywhere in the world can apply for an ERC grant. ERC grants are open to researchers of any nationality who may reside in any country in the world at the time</p>	<p>Proof of Concept: Cut-off dates: 16 February 2016 26 May 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/1116-erc-poc-2016.html</p>



		of the application. The ERC's frontier research grants operate on a 'bottom-up' basis without predetermined priorities. Several types of calls are planned under the ERC Grants: Proof of Concept; Starting Grant; Consolidator Grant; Advanced Grant.	04 October 2016	
RESEARCH INFRASTRUCTURES	INFRASUPP-01-2016 Policy and international cooperation measures for research infrastructures	The focus of the policy support measures is related to the effective investment and use of research infrastructures. International cooperation for research infrastructures is needed with a number of key third countries/regions seen as strategic for the development, exploitation and management of world-class research. Type of Action: Coordination and support action	30 March 2016	https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2076-infrasupp-01-2016.html
RESEARCH INFRASTRUCTURES	INFRASUPP-03-2016 Support to policies and international cooperation for e-infrastructures	Fostering targeted international co-operation is essential to promote e-infrastructure interoperation at global level allowing European communities to link with third countries , contribute to standardisation activities in international fora, to align strategic developments and share best practices. To optimise e-infrastructure investments in Europe it is essential to coordinate European, national and/or regional policies and programmes for e-infrastructures in order to develop complementarities and promote cooperation between e-infrastructures and related EU policies. Type of Action: Research and Innovation action, Coordination and support action	30 March 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2077-infrasupp-03-2016.html



<p>FUTURE AND EMERGING TECHNOLOGIES (FET)</p>	<p>FETPROACT-01-2016</p> <p>FET Proactive: emerging themes and communities</p>	<p>Specific Challenge: To mature a number of novel areas and themes by working towards structuring emerging communities and supporting the design and development of transformative research themes. The main benefits of this structuring yet explorative approach are emerging novel areas that are not yet ready for inclusion in industry research roadmaps, and building up and structuring of new interdisciplinary research communities around them.</p> <p>Proposals should address research and innovation activities, aimed at jointly exploring directions and options to establish a solid baseline of knowledge and skills, and to foster the emergence of a broader innovation ecosystem for a new technology as well as a fertile ground for its future take-up (e.g., through public engagement processes when relevant, or through formal and informal education).</p> <p>Proposals should address a single of the specific subtopics within one of the following areas:</p> <p>Area 1: Future technologies for societal change</p> <p>Area 2: Biotech for better life</p> <p>Area 3: Disruptive information technologies</p> <p>Area 4: New technologies for energy and functional materials</p>	<p>12 April 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2217-fetproact-01-2016.html</p>
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		Type of Action: RIA Research and Innovation action		
FUTURE AND EMERGING TECHNOLOGIES (FET)	FETHPC-01-2016 Co-design of HPC systems and applications	Specific Challenge: achieve world-class extreme scale, power-efficient and highly resilient HPC (High Performance Computing) platforms through a strong co-design approach driven by ambitious applications and in close cooperation with the scientific disciplines and stakeholders concerned; achieve the full range of technological capabilities needed for delivering a broad spectrum of extreme scale HPC systems. The designs of these systems must respond to critical demands of energy efficiency, scale, resilience, programmability and support for various classes of applications including extreme-data applications.	27 September 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2218-fethpc-01-2016.html
		Type of Action: RIA Research and Innovation action		
FUTURE AND EMERGING TECHNOLOGIES (FET)	FETHPC-03-2017: Exascale HPC ecosystem development	Proposals should address a single of the two following subtopics: a) Coordination of the Exascale HPC strategy and International Collaboration: Proposals must include activities for promoting a joint community structuring and synchronisation; the further development and update of the Strategic Research Agenda for High Performance Computing as well as the application and applied mathematics exascale roadmaps; prepare the ground for targeted international research collaboration on specific aspects of the exascale challenges. b) Excellence in Exascale Computing Systems: The focus should be in boosting European HPC academic research excellence in future exascale-class computing cutting across all levels – hardware, architectures, programming, applications – and including specific actions to better	26 September 2017	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2219-fethpc-03-2017.html



		<p>structure the European academic HPC research, create stronger links with HPC providers and HPC users, attract venture capital, promote entrepreneurship and foster industry take-up</p> <p>Type of Action: CSA Coordination and support action</p>		
INDUSTRIAL LEADERSHIP				
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
<p>LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES (LEITs)</p> <p>INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)</p>	<p>ICT-13-2016</p> <p>Future Internet Experimentation - Building a European experimental Infrastructure</p>	<p>The validation of research results in large-scale, real life experimental infrastructures is essential for the design and deployment of products, applications and services on the Future Internet. Europe needs a Federated Experimental Infrastructure for Future Internet Research & Experimentation (FIRE+) available to experiments of any size, complexity, or networking technology. Experimenters need to run experiments under controlled and replicable conditions, according to specific requirements by accessing real or virtual equipment, services, systems and tools on demand, seamlessly and regardless of their geographical location.</p> <p>A dynamic and promising segment of experimenters, in particular small and medium-size developers and innovators cannot afford testbeds or even testing equipment of their own and need to be provided easy and affordable access to said capacities. Real-world prototyping and experimenting environments are needed in certain cases for innovation</p>	12 April 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5089-ict-13-2016.html



		<p>creation. In addition, Future Internet Research and Experimentation in Europe could benefit from similar initiatives around the world.</p> <p>Proposals should pursue the efforts of federation in a global context, in particular with US, Japan, Brazil and South Korea, with the aim of exchanging best practices, tools and methodologies.</p> <p>Type of Action: CSA Coordination and support action, RIA Research and Innovation action</p>		
<p>LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES (LEITs)</p> <p>INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)</p>	<p>EU-Brazil Joint Call</p> <p>EUB-01-2017</p> <p>Cloud Computing</p>	<p>Cloud computing is now an established global paradigm for the delivery of IT services in all sectors of the digital economy. However, further enhancements are still required in critical aspects of cloud computing, including enhanced security and privacy; trustworthy clouds; resource pooling; data management and traceability; virtualization; and hybrid systems. Support towards intercontinental experimentation on cloud infrastructures and services are necessary as well, especially in the context of EU-Brazil cooperation.</p> <p>Type of Action: RIA Research and Innovation action</p>	14 March 2017	https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2079-eub-01-2017.html
<p>LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES (LEITs)</p>	<p>EU-Brazil Joint Call</p> <p>EUB-02-2017</p> <p>IoT Pilots</p>	<p>In order to make use of the rich potential of the Internet of Things (IoT) in real-world scenarios, technologies and tools developed so far need to be demonstrated in controlled environments with the ultimate goal of validation. Given the specific nature of this Call, widely replicable pilots are targeted in view of solving specific societal challenges, in the context of EU-Brazil cooperation.</p>	14 March 2017	http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/2080-eub-02-2017.html



<p>INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)</p>		<p>The joint call would support three pilots each addressing a distinct area among the following areas of interest for EU-Brazil collaboration:</p> <ul style="list-style-type: none"> • Environmental monitoring • Utilities: smart water management • Utilities: energy management at home and in buildings⁵² • Smart assisted living and wellbeing • Smart manufacturing: customisation <p style="text-align: center;">Type of Action: RIA Research and Innovation action</p>		
<p>LEADERSHIP IN ENABLING AND INDUSTRIAL TECHNOLOGIES (LEITs)</p> <p>SPACE</p>	<p>COMPET-5-2017:</p> <p>Space Weather</p>	<p>Exploratory work studying space weather with a view to enhancing the understanding of space weather and its impact. Proposals can cover the full range of space weather phenomena from the solar cycle, flares and coronal mass ejections to the effects of the solar wind in the near-earth environment and the evolution in between. There is scope for cooperation with international partners with relevant expertise (entities from third countries could benefit from EU funding under this topic). This activity shall address space weather and its effects, impacts and mitigation techniques with application to aerospace and ground systems.</p> <p style="text-align: center;">Type of Action: RIA Research and Innovation action</p>	<p>01 March 2017</p>	<p>http://ec.europa.eu/research/participants/portal4/desktop/en/opportunities/h2020/topics/2242-compet-5-2017.html</p>
SOCIETAL CHALLENGES				
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
HEALTH, DEMOGRAPHIC	SC1-PM-01-2016	The scope of this topic is to integrate and use high quality genome, epigenome, proteome, metabolome, microbiome data produced by large scale international initiatives with innovative imaging, functional,	13 April 2016	http://ec.europa.eu/research/participants/portal/desktop/en/op



<p>CHANGE, AND WELL-BEING</p> <p>UNDERSTANDING HEALTH, WELL-BEING AND DISEASE</p>	<p>Multi omics for personalised therapies addressing diseases of the immune system</p>	<p>structural and lifestyle/environmental data, and combine these with disease-oriented functional analysis to contribute to the understanding of health and disease with the final objective of selecting relevant biomarkers for clinical validation that will lead to the development of new targeted therapies for diseases of the immune system. Proposals must build on data from IHEC and, as appropriate, on data from other international initiatives. Proposals should address relevant ethical implications, take into account sex and gender differences and include a section on research data management. International cooperation is requested. Proposals addressing rare diseases of the immune system are not in scope of this action.</p> <p style="text-align: center;">Type of Action: RIA Research and Innovation action</p>		<p>portunities/h2020/topics/3055-sc1-pm-01-2016.html</p>
<p>HEALTH, DEMOGRAPHIC CHANGE, AND WELL-BEING</p> <p>UNDERSTANDING HEALTH, WELL-BEING AND DISEASE</p>	<p>SC1-PM-03-2017</p> <p>Diagnostic characterisation of rare diseases</p>	<p>Rare diseases are diseases which affect not more than 5 per 10 000 persons in the European Union. It is estimated that rare diseases encompass between 6 000 and 8 000 different entities which affect altogether more than 30 million people in the EU. However, patient populations for individual rare diseases are small and dispersed, which makes international collaboration crucial. Despite the recent advances in understanding the molecular pathogenesis of these diseases, today many rare diseases still lack means of molecular diagnosis. An accurate molecular diagnosis is an essential starting point for the understanding of mechanisms leading to diseases as well as for adequate patient management and family counselling and it paves the way for therapy development.</p>	<p>11 April 2017</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/3067-sc1-pm-03-2017.html</p>



		<p>The aim of this research should be to apply genomics and/or other –omics and/or other high-throughput approaches for the molecular characterisation of rare diseases in view of developing molecular diagnoses for a large number of undiagnosed rare diseases. Undiagnosed rare diseases may range from a group of unnamed disorders with common characteristics to a phenotypically well described disease or group of diseases with an unknown molecular basis.</p> <p>The proposal should enable and foster scientific exchange between stakeholders from countries and regions with different practices and strategies of rare disease diagnostics.</p> <p style="text-align: center;">Type of Action: RIA Research and Innovation action</p>		
<p>HEALTH, DEMOGRAPHIC CHANGE, AND WELL-BEING</p> <p>PREVENTING DISEASE</p>	<p>SC1-PM-06-2016</p> <p>Vaccine development for malaria and/or neglected infectious diseases</p>	<p>Proposals will have to address bottlenecks in the discovery, preclinical and early clinical development of new vaccine candidates (antigens/adjuvants) for malaria and/or neglected infectious diseases. Filoviral diseases are specifically excluded from this topic.</p> <p>Depending on the maturity of the research landscape for each disease, proposals may range from large research platforms developing multiple vaccine candidates and/or vaccines for multiple diseases, to proposals specifically focused on one disease.</p> <p style="text-align: center;">Type of Action: RIA Research and Innovation action</p>	13 April 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/3052-sc1-pm-06-2016.html
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
FOOD SECURITY, SUSTAINABLE	SFS-9 - 2016	Proposals will set out a comprehensive package of research and innovation actions to improve the prevention, early detection and	17 February 2016	http://ec.europa.eu/research/participants/



<p>AGRICULTRE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p> <p>SUSTAINABLE FOOD SECURITY (SFS)</p>	<p>Spotlight on critical outbreak of pests: the case of Xylella fastidiosa</p>	<p>control of X. fastidiosa in hosts and vectors. They shall increase knowledge on the biology of the pathogen and vector(s), on host/vector/pathogen interaction and epidemiology. Prevention measures should consider the introduction and spread of X. fastidiosa within and from outside the EU. Activities will support the development of region-specific risk assessment and eradication plans. Proposals should fall under the concept of the 'multi-actor approach, ensuring solid collaboration between research, plant health authorities and farming sector. International collaboration is highly encouraged with partners from Third Countries affected by the pest in particular to capitalise on existing knowledge.</p> <p>Type of Action: RIA - Research & Innovation Action</p>		<p>portal/desktop/en/opportunities/h2020/topics/6071-sfs-09-2016.html</p>
<p>FOOD SECURITY, SUSTAINABLE AGRICULTRE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p> <p>SUSTAINABLE FOOD SECURITY (SFS)</p>	<p>SFS-11 - 2016</p> <p>Challenges for disease management: Perennial crops in the tropics and sub-tropics</p>	<p>The work proposed will develop integrated approaches to the management of important pests and diseases of perennial tropical and sub-tropical crops. Activities will address gaps in our knowledge on the disease cycle including climatic and cultural factors that influence the cycle and changes in farming practices. They will develop more effective and sustainable management options which are based on a holistic view of agro-ecosystems and a better understanding of the bearing that climatic changes may have on plant diseases and their management. They should propose novel solutions to improve forecasting, monitoring and information on biotic threats. Proposals should fall under the concept of the 'multi-actor approach based on genuine collaborations between producers (including small farmers), researchers, advisory services and the commercial sector.</p>	<p>17 February 2016</p> <p>2nd Stage Deadline: 13 September 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5138-sfs-11-2016.html</p>



		Type of Action: RIA - Research & Innovation Action		
<p>FOOD SECURITY, SUSTAINABLE AGRICULTURE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p> <p>SUSTAINABLE FOOD SECURITY (SFS)</p>	<p>SFS-6 - 2016</p> <p>Weeding - strategies, tools and technologies for sustainable weed management</p>	<p>Proposals should set out innovative and effective strategies for improving weed management in different arable and horticulture (i.e. vegetable and fruit including perennial crop) systems. They will develop and validate novel strategies, machinery, tools and technologies for weed management that meet the demand for more environmentally sustainable approaches. Proposals should fall under the concept of the 'multi-actor approach to ensure effective collaborations between stakeholders e.g. from farming, research and industry (incl. machine industry). In line with the objectives of the EU's strategy for international cooperation in R&I, proposals are encouraged that draw on good examples from outside Europe and involve relevant third country participants.</p>	<p>17 February 2016</p> <p>2nd Stage Deadline: 13 September 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5142-sfs-06-2016.html</p>
		Type of Action: RIA - Research & Innovation Action		
<p>FOOD SECURITY, SUSTAINABLE AGRICULTURE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p>	<p>SFS-2 - 2016</p> <p>Teaming up for good: Exploiting the benefits of species diversity in cropping systems</p>	<p>Activities will help to unravel the mechanisms underlying beneficial plant interactions in cropping systems and lead to a better understanding of the dynamics between plants and their biotic and abiotic environments. Proposals will turn this knowledge into practical applications for breeding and crop management taking into account the corresponding changes in agronomic and breeding practices. Activities should fall under the concept of the 'multi-actor approach'[[See definition of the 'multi-actor approach' in the introduction to this Work Programme part.]] and ensure that appropriate account is taken of scientific, farming, agronomic and breeding expertise throughout the work with due attention to</p>	<p>17 February 2016</p> <p>2nd Stage Deadline: 13 September 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5146-sfs-02-2016.html</p>



<p>SUSTAINABLE FOOD SECURITY (SFS)</p>		<p>participatory and demonstration activities: All types of crop production and farming systems (e.g. arable farming, horticulture, grassland, fruit trees, agro-forestry), and diverse pedo-climatic conditions in Europe can be covered. Work proposed shall benefit both conventional and organic agriculture. International cooperation is encouraged wherever it adds value to achieving the objectives of the proposed work.</p> <p style="text-align: center;">Type of Action: RIA - Research & Innovation Action</p>		
<p>FOOD SECURITY, SUSTAINABLE AGRICULTURE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p> <p>SUSTAINABLE FOOD SECURITY (SFS)</p>	<p>SFS-12- 2016</p> <p>Support for international research on animal health</p>	<p>This global initiative will consolidate and deepen international research cooperation in the area of animal health, in particular infectious animal diseases, including zoonoses and parasites, and related issues such as anti-microbial resistance. It will build on existing activities of the STAR-IDAZ global network of research programme owners and funding organisations by bringing together researchers and organisations investing in animal disease research (funding bodies) in order to achieve specific targets relating to the prevention and control of priority animal diseases and zoonoses and related issues such as anti-microbial resistance.</p> <p>The action will lead to the setting up of a scientific secretariat to provide organisational support for the achievement of the goals of the global infectious diseases of animals and zoonoses consortium (STAR-IDAZ) in close cooperation with the European Commission, and research-funding agencies in Member States and the third countries involved. It will involve assisting the consortium executive committee, establishing and running working groups on priority diseases and issues, and organising research gap analysis meetings. It will support information exchange among</p>	<p>17 February 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/6073-sfs-12-2016.html</p>



		<p>members of the participating organisations at all levels. It will communicate progress on consortium research, including collecting and disseminating pertinent information and results to the researchers funded by the consortium member.</p> <p style="text-align: center;">Type of Action: CSA – Coordination and Support Action</p>		
<p>FOOD SECURITY, SUSTAINABLE AGRICULTURE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p> <p>SUSTAINABLE FOOD SECURITY (SFS)</p>	<p>SFS-10- 2017</p> <p>Research and approaches for emerging diseases in plants and terrestrial livestock</p>	<p>Proposals will contribute to understanding the drivers of disease emergence and to finding adequate responses to emerging diseases in plants (work on <i>Xylella fastidiosa</i> is excluded under this call topic) and newly emerging diseases in terrestrial animals. They will target one or more of the pests and diseases threatening EU agriculture/forestry (regulated or non-regulated, invasive or native) and causing significant economic losses. The choice of target species should consider the potential threat in terms of development and spread as well as potential impact on agricultural production, public health, or trade.</p> <p>International cooperation with countries affected or threatened by the same pest(s)/disease(s) is encouraged. Proposals should fall under the concept of the 'multi-actor approach and be based on the active participation of stakeholders from research, plant/animal health authorities and the farming and business sectors. Partners from non-EU regions particularly affected by the targeted pests and disease(s) should also be involved.</p> <p style="text-align: center;">Type of Action: RIA - Research & Innovation Action</p>	<p>14 February 2017</p> <p>2nd Stage Deadline: 13 September 2017</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/6057-sfs-10-2017.html</p>
<p>FOOD SECURITY, SUSTAINABLE</p>	<p>BG-09 - 2016</p>	<p>An integrated Arctic observation system should close critical gaps with innovative solutions, as well as improve the integration and inter-</p>	<p>17 February 2016</p>	<p>http://ec.europa.eu/research/participants/</p>



<p>AGRICULTRE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p> <p>BLUE GROWTH (BG)</p>	<p>An integrated Arctic observation system</p>	<p>operability of existing observation systems, also in view of data assimilation into models. The activity shall be based on co-operation between the existing European and international infrastructures (in-situ and remote including space-based) and the modelling communities, with the active participation of relevant stakeholder groups. In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), the action should contribute to implementing the Transatlantic Ocean Research Alliance, the Sustaining Arctic Observation Networks (SAON) and the Cold Region Initiative of the Group on Earth Observation (GEO).</p> <p>In particular, strong coordination with the on-going Horizon 2020 project which aims to develop an Integrated Atlantic Ocean Observation System [[AlantOS,www.atlantos-h2020.eu/]] should be sought and with the relevant ESFRI research infrastructures. The activity shall support and promote the integrated use of Arctic land, ocean, ice and atmosphere <i>in-situ</i> and space-based observations from Europe, the USA, Canada and other international partners.</p> <p style="text-align: center;">Type of Action: CSA – Coordination and Support Action</p>		<p>portal/desktop/en/opportunities/h2020/topics/5122-bg-09-2016.html</p>
<p>FOOD SECURITY, SUSTAINABLE AGRICULTRE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER</p>	<p>BG-10- 2016 Impact of Arctic changes on the weather and climate of the Northern Hemisphere</p>	<p>Proposals should develop innovative approaches to improving the descriptions and modelling of the mechanisms, processes and feedback affecting Arctic climate change and its impacts on the weather and climate of the Northern Hemisphere, to further develop state-of-the-art climate models and predictions. Model performance should be assessed, and their ability to represent the links between polar and lower latitudes should be evaluated through coordinated model experiments.</p>	<p>17 February 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5123-bg-10-2016.html</p>



<p>RESEARCH AND THE BIOECONOMY</p> <p>BLUE GROWTH (BG)</p>		<p>In line with the strategy for EU international cooperation in research and innovation[[COM(2012)497]], actions should contribute to implementing the Transatlantic Ocean Research Alliance. Due to the specific challenge of this topic, in addition to the minimum number of participants set out in the General Annexes, proposals should benefit from the inclusion of partners from the USA and from Canada. International cooperation with partners from other Arctic and non-Arctic third countries is also strongly encouraged.</p> <p>Type of Action: RIA Research and Innovation Action</p>		
<p>FOOD SECURITY, SUSTAINABLE AGRICULTURE AND FORESTRY, MARINE AND MARITIME AND INLAND WATER RESEARCH AND THE BIOECONOMY</p> <p>BLUE GROWTH (BG)</p>	<p>BG-11 - 2017</p> <p>The effect of climate change on Arctic permafrost and its socio-economic impact, with a focus on coastal areas</p>	<p>Actions should assess the impact of permafrost thawing on Arctic (natural and human) coastal systems and its effect on the availability/accessibility of resources, the stability of infrastructure, the growth of potential new economic activities, as well as on pollution and health. The research should employ a holistic and trans-disciplinary approach and in co-operation with stakeholders. It should consider the needs of and the impacts on indigenous populations, local communities and economic actors operating in this vulnerable region in the sustainable development context. Actions should address key processes of environmental change and develop appropriate adaptation and mitigation responses with an emphasis on permafrost at the interface between land and water.</p> <p>In line with the strategy for EU international cooperation in research and innovation[[COM(2012)497]], actions will contribute to implementing the Transatlantic Ocean Research Alliance. Due to the specific challenge</p>	<p>14 February 2017</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/5126-bg-11-2017.html</p>



		<p>of this topic, in addition to the minimum number of participants set out in the General Annexes, proposals should benefit from the inclusion of partners from the USA and from Canada. International cooperation with partners from other Arctic and non-Arctic third countries is also strongly encouraged.</p> <p>Type of Action: RIA Research and Innovation Action</p>		
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
<p>SECURE, CLEAN AND EFFICIENT ENERGY</p> <p>FOSTERING INTERNATIONAL COOPERATION IN THE AREA OF RENEWABLE ENERGY</p>	<p>LCE-22-2016</p> <p>International Cooperation with Brazil on advanced lignocellulosic biofuels</p>	<p>The coordinated call aims at exploiting synergies between Brazil and Europe in terms of scientific expertise and resources in topics related to advanced biofuels by implementing coordinated projects.</p> <p>One of the following sub-challenges should be addressed by the proposals:</p> <ol style="list-style-type: none"> a. Gasification of bagasse to syngas and advanced liquid fuel production, including biofuels for aviation. b. Applied research to biomass production logistics and applied research for feedstock diversification for advanced biofuels. c. Development of new fermentation and separation technologies for advanced liquid biofuels and applied research to increase the energy efficiency of advanced biofuel processes. <p>Type of Action: RIA Research and Innovation Action</p>	08 September 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2150-lce-22-2016.html



SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
SMART, GREEN AND INTEGRATED TRANSPORT AVIATION	MG-1.2-2017 Reducing aviation noise	<p>Actions should address the development of new technologies and methodologies to enable 24/7 operations, including new methods for assessing, monitoring and managing the impact of aviation noise. They should also support the coordination of national and EU research activities related to aviation noise and consider possibilities for international cooperation.</p> <p style="text-align: center;">Type of Action: RIA Research and Innovation Action</p>	26 January 2017 2nd stage Deadline: 19 October 2017	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2116-mg-1.2-2017.html
SMART, GREEN AND INTEGRATED TRANSPORT SAFETY	MG-3.2-2017 Protection of all road users in crashes	<p>The continued introduction of active safety systems has the potential to reduce accidents. Nevertheless, the risk of collision and particular crash situations will still remain. An approach will be needed that will ensure improved crash safety in those circumstances. A number of societal trends add to this challenge such as the ageing population, an increase in the number of powered and non-powered two-wheelers and the introduction of green, light, sub-compact cars. An important step forward will be to develop fully integrated safety systems and deploy them so that they provide better protection for all road users.</p> <p>In line with the strategy for EU international cooperation in research and innovation[[COM(2012)497]], international cooperation is encouraged, in particular with industrialised countries (i.e. US, Japan, Canada, Australia) and emerging economies (primarily China, India, Brazil). Proposals should foresee twinning with entities participating in projects funded by US DOT[[United States Departement of Transportation</p>	26 January 2017 2nd stage Deadline: 19 October 2017	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2109-mg-3.2-2017.html



		(http://www.dot.gov/ .)]] to exchange knowledge and experience and exploit synergies.		
Type of Action: RIA Research and Innovation Action				
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
<p>CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS</p> <p>NATURE-BASED SOLUTIONS FOR TERRITORIAL RESILIENCE</p>	<p>SCC-04-2016</p> <p>Sustainable urbanisation</p>	<p>In a globalised world, cities all over the world are facing broadly similar challenges. Finding solutions and defining optimal pathways towards sustainable urbanisation receives high priority in the Research and Innovation (R&I) policy of the majority of the countries worldwide.</p> <p>In this context, aligning R&I agendas to underpin sustainable urbanisation and implementing them through international collaboration will promote synergies, and thus an optimal use of the available expertise, capacity and resources, avoid duplication and ensure robust outcomes of global relevance. The opening of JPI Urban Europe to third country partners is increasingly finding interest among its members and among third countries. The Belmont Forum provides an excellent platform for international collaboration in the area of sustainable urbanisation.</p> <p>Proposals should pool the necessary financial resources from the participating national (or regional) research programmes with a view to implementing a joint call for proposals resulting in grants to third parties with EU co-funding in this area. Proposers are encouraged to include other joint activities including additional joint calls without EU co-funding. Actions should build on the international strategy of the JPI Urban Europe</p>	<p>08 March 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/4083-scc-04-2016.html</p>



		<p>and launch in collaboration with the Belmont Forum at least one international call on sustainable urbanisation.</p> <p>Participation of legal entities from international partner countries and/or regions, in particular with countries participating in the Belmont Forum, is encouraged in the joint call as well as in other joint activities including additional joint calls without EU co-funding. Participants from countries which are not automatically eligible for funding may nonetheless request a Union contribution (on the basis of the ERA-NET unit cost) for the co-ordination costs of additional activities.</p> <p>Actions are expected to lead to:</p> <ul style="list-style-type: none">the alignment of research and innovation agendas in the area of sustainable urbanisation and co-ordinated streamlining of the implementation of the respective calls;enhanced excellence and global relevance of research and innovation activities on sustainable urbanisation and increased visibility at international level;strong and lasting alliance with the funding agencies of key international partners for research and innovation actions on sustainable urbanisation (e.g China, Japan, Brazil, Mexico, USA etc.);linking of possible European and international demonstration actions on re-naturing cities to induce a wider, worldwide application of nature-based solutions.		
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		Types of action: ERA-NET-Cofund ERA-NET Cofund		
<p>CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS</p> <p>WATER</p>	<p>SC5-11-2016</p> <p>Supporting international cooperation activities on water</p>	<p>Proposals should aim to create a framework and permanent dialogue to encourage the opening in a structured and strategic manner of the Water JPI to international cooperation with key international water research and innovation programmes and funding and investment institutions. Proposals should also investigate activities to align with and support the post-2015 sustainable development agenda, in particular the Sustainable Development Goal on water and its impact on other goals, such as nutrition, education, health, etc. Flagship actions for possible joint funding between the members of the JPI Water, international cooperation partners and international programmes of strategic importance for the EU should be identified and prepared for.</p>	<p>08 March 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2213-sc5-11-2016.html</p>
<p>CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS</p> <p>SUPPORT TO POLICY AND PREPARING FOR INNOVATION PROCUREMENT</p>	<p>SC5-28-2016</p> <p>Transformations to sustainability</p>	<p>Climate change, environmental degradation and resource pressures have created unprecedented situations for societies worldwide. Today's urgent challenges of global environmental change will require not only scientific advances and technological adjustments but also deep and enduring social change. A comprehensive new approach to research and action on global environmental change and sustainability is needed that promotes solutions that are at the same time ecologically sound, economically viable and socially just.</p> <p>Proposals should pool the necessary financial resources from the participating national regional, or international research programmes with a view to implementing a joint call for proposals resulting in grants to third parties with EU co-funding in this area. Proposers are encouraged to</p>	<p>08 March 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2204-sc5-28-2016.html</p>



		<p>include other joint activities including additional joint calls without EU co-funding.</p> <p>Participation of legal entities from international partner countries and/or regions, including from Belmont Forum members, is encouraged in the joint call as well as in other joint activities including additional joint calls without EU co-funding. Participants from countries which are not automatically eligible for funding may nonetheless request a Union contribution (on the basis of the ERA-NET unit cost) for the co-ordination costs of additional activities.</p> <p>In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), actions will contribute to implementing multilateral activities such as the Belmont Forum and Future Earth initiatives to address cultural, economic, institutional and political barriers and opportunities and identify which sustainable development pathways linking economic prosperity with social justice and a healthy biosphere are actionable in different contexts.</p> <p>Types of action: ERA-NET-Cofund ERA-NET Cofund</p>		
<p>CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS</p>	<p>SC5-21 – 2016/2017</p> <p>Cultural heritage as a driver for</p>	<p>Cultural heritage (both tangible and intangible) can be used as a driver for the sustainable growth of urban and rural areas, as a factor of production and competitiveness and a means for introducing socially and environmentally innovative solutions. The overall challenge is to go far beyond simple conservation, restoration, physical rehabilitation or repurposing of a site and to demonstrate heritage potential as a powerful</p>	<p>08 March 2016</p> <p>2nd Stage Deadline: 06</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2199-sc5-21-2016-2017.html</p>



<p>CULTURAL HERITAGE FOR SUSTAINABLE GROWTH</p>	<p>sustainable growth</p>	<p>economic, social and environmental catalyst for regeneration, sustainable development, economic growth and improvement of people’s well-being and living environments.</p> <p>Proposals should address one of the following:</p> <p>a) Heritage-led urban regeneration (2016) b) Heritage-led rural regeneration (2017)</p> <p>For both, actions should develop and deploy via large-scale demonstration projects novel heritage-led systemic approaches and solutions for sustainable growth. In order to pave the way for their rapid replication and up-scaling, a 'Role models' and 'Replicators' approach should be implemented.</p> <p>The 'Role models' are urban or rural landscapes which have demonstrably and successfully pursued a heritage-led regeneration.</p> <p>The 'Replicators' are urban or rural landscapes that will be assisted/mentored by 'Role models' and committed to their heritage-led regeneration within the duration of the project, replicating the heritage-led regeneration 'blueprints' of the 'Role models', properly contextualised to fit their particular contexts.</p> <p>In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), participation of 'Role models' from non-EU countries is encouraged, since this would further enrich the evidence base of successfully implemented heritage-led regenerations and would thus enhance the replication and impact potential of such activities in non-EU regions (e.g. Latin America) and countries.</p> <p>Types of action: IA Innovation Action</p>	<p>September 2016</p>	
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<p>CLIMATE ACTION, ENVIRONMENT, RESOURCE EFFICIENCY AND RAW MATERIALS</p> <p>RAW MATERIALS</p>	<p>SC5-16 - 2016 Raw materials international co- operation</p>	<p>Proposals should address one of the following:</p> <p>a) Demand-supply forecast and raw materials flows at global level (2016): Proposals should develop a common methodology to mineral raw materials flows at global level which could be agreed and used at international level. As a pilot case, focus should be on critical raw materials and in particular the ones used in low-carbon technologies.</p> <p>In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international co-operation is required with the US and Japan in the field of Materials Flow Analysis. Where appropriate, synergies with the relevant EU Member States initiatives are to be explored and fostered.</p> <p>b) Advancing the idea of a World Forum on Raw Materials (2016): With a view to contributing to the fair and unrestricted access to raw materials worldwide. The objective is to develop an EU-based platform of international key experts and stakeholders that would advance the idea of a World Forum on Raw Materials and enhance the international cooperation among G20 Member countries as well as the other third countries active in the mining and other raw materials sectors.</p> <p>In line with the strategy for EU international co-operation in research and innovation (COM(2012)497), international co-operation is required.</p> <p>c) International network of raw materials training centres (2017): Proposals should create a self-sustainable long-term lasting international network of training centres for professionals. The</p>	<p>08 March 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2203-sc5-16-2016-2017.html</p>
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		<p>proposals should involve educational and research institutions in the EU and the leading counterparts in third countries, based on specific country expertise in the primary and secondary raw materials sectors. The network should map skills and knowledge in the EU and the third countries, identify key knowledge gaps and emerging needs, develop roadmap for improving skills and knowledge, as well as establish common training programmes in the raw materials sectors.</p> <p>In line with the EU's strategy for international co-operation in research and innovation (COM(2012)497), international collaboration is required.</p> <p>Type of Action: CSA Coordination and support action</p>		
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
<p>EUROPE IN A CHANGING WORLD – INCLUSIVE, INNOVATIVE AND REFLECTIVE SOCIETIES</p> <p>ENGAGING TOGETHER GLOBALLY</p>	<p>ENG-GLOBALLY-01-2017</p> <p>Strengthening Europe's position in the global context: science diplomacy and intercultural relations</p>	<p>Europe is faced with numerous challenges that are increasingly global in nature and that have become of more immediate importance: peace and stability, migration, climate change, resource efficiency, health pandemics, etc. In many cases, responding to these challenges requires science-based evidence to inform decisions and joint international efforts that often include also scientific and technological cooperation. This is where science and diplomacy can join forces to form a 'soft power' tool in external policy – science diplomacy.</p> <p>A main challenge is how to best link scientific expertise and cooperation with diplomacy and political influence to tackle major global challenges, promote knowledge and improve international relations.</p>	02 February 2017	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2305-eng-globally-01-2017.html



		<p>The research to address this challenge should in particular focus on the following key dimensions. It is expected to either comprehensively address one of these dimensions or to combine two or three of them. The research may also cover other issues relevant for addressing the specific challenge.</p> <p>1) Using science in the context of European diplomacy 2) European culture, values and reflections of Europe's colonial past in contemporary European societies 3) Global trends of secularisation and religious radicalisation and the role of Europe</p> <p>Type of Action: RIA Research and Innovation Action</p>		
<p>EUROPE IN A CHANGING WORLD – INCLUSIVE, INNOVATIVE AND REFLECTIVE SOCIETIES</p> <p>ENGAGING TOGETHER GLOBALLY</p>	<p>ENG-GLOBALLY-09-2016</p> <p>Centres/Networks of European research and innovation</p>	<p>The specific challenge is to create a network of centres in the world's most dynamic and innovative countries and regions that will connect and support European researchers and entrepreneurs globally, in order to strengthen the position of Europe as a world leader in science, technology and innovation.</p> <p>Scope of the call is to establish new centres, or networks of centres, building where possible on existing European science, technology and innovation structures located in international partner countries and regions in order to ensure economies of scale while avoiding unnecessary duplication.</p> <p>Each proposal shall target one country and region that is an established or emerging science, technology or innovation leader; proposals addressing all or part of Brazil, China and the USA are strongly encouraged without excluding other countries with similar characteristics.</p>	14 April 2016	<p>https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2310-eng-globally-09-2016.html</p>



		Type of Action: CSA Coordination and support action		
SUB-PROGRAMME	TOPIC	RESUME	DEADLINE	LINK
SCIENCE WITH AND FOR SOCIETY	SwafS-01-2016 Participatory research and innovation via Science Shops	<p>The Science Shop model of participatory research and innovation has been successful in bringing students, researchers and civil society together towards tackling real issues at the local and regional levels. Aside from positively impacting on the co-creation of solutions to real world problems, the process of engaging with society has strengthened both the research process and its outcomes, thereby contributing to research excellence and acceptability of innovation outcomes.</p> <p>This topic will provide support to universities, and other research performers, to establish or strengthen science shops throughout Europe, and beyond. Science shops will serve to demonstrate how students and researchers can assist communities tackle real life problems or explore opportunities for sustainable futures.</p> <p>In line with the strategy for EU international cooperation in research and innovation (COM(2012) 497), international cooperation is encouraged.</p> <p style="text-align: center;">Type of Action: RIA Research and Innovation Action</p>	30 August 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2258-swafs-01-2016.html
SCIENCE WITH AND FOR SOCIETY	SwafS-16-2016 Mapping the Ethics and	<p>The area of Research Ethics and Integrity is fast evolving. In the EU and internationally, new legislation, codes and good practices are constantly being developed. In this complex environment, researchers cannot easily</p>	30 August 2016	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/to



	<p>Research Integrity Normative Framework</p>	<p>identify and be aware of the rules to be followed. This also constitutes a challenge for the ethics/integrity experts.</p> <p>The action aims at providing a dynamic mapping of the ethics/integrity normative framework which applies to scientific research conducted by European research teams, in the EU and beyond. The work undertaken shall primarily aim at supporting the work of researchers and ethics/integrity review committees.</p> <p>In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged.</p> <p style="text-align: center;">Type of Action: CSA Coordination and support action</p>		<p>pics/2251-swafs-16-2016.html</p>
<p>SCIENCE WITH AND FOR SOCIETY</p>	<p>SwafS-18-2016</p> <p>The Ethics of technologies with high socio-economic impact and Human Rights relevance</p>	<p>While the work shall integrate the broad ethical perspectives of the emerging technologies, especially those with potentially high social and economic impact, the focus shall be on (a) genomics, in particular genetic testing and screening, genetic patents, genetic databanks and pharmacogenomics and (b) human enhancement, including a categorisation of human enhancement practices on the basis of social, medical and technical criteria and (c) human-machine interactions including the creation of intelligent environments. All the concerned technologies raise several interrelated ethical issues for which there is not yet a clear and stable framework at EU and international level.</p> <p>In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged.</p> <p style="text-align: center;">Type of Action: CSA Coordination and support action</p>	<p>30 August 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/to pics/2256-swafs-18-2016.html</p>



<p>SCIENCE WITH AND FOR SOCIETY</p>	<p>SwafS-23-2017</p> <p>Responsible Research and Innovation (RRI) in support of sustainability and governance, taking account of the international context</p>	<p>The action will examine how science and technology development are embedded in the growing sustainability governance and better regulation discourses at all levels (Global to local), and further RRI uptake in the search for solutions. It will showcase examples of good practice in the governance of research and innovation in Europe and beyond, and explore ways in which RRI can further strengthen the role of research and innovation for capacity building and governance for sustainability. It will make an effective and timely contribution to the implementation of the Rio Principle 10, as well as Rio principles generally. The topic must consider all aspects of RRI including research and innovation governance, access to information, public engagement, ethics, science education and gender. This topic is open to international cooperation and should be alignment with European and global advances in this area.</p> <p>Type of Action: CSA Coordination and support action</p>	<p>30 August 2016</p>	<p>http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2269-swafs-23-2017.html</p>
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