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**Call Topics for International Cooperation
in Horizon 2020
EU and Argentina**

20.09.2019

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Excellent Science

Horizon 2020 Pillar:	Excellent Science
Programme:	Future and Emerging Technologies
Call Title:	FET Proactive – High Performance Computing
Call Identifier:	h2020-fethpc-2018-2020
Topic Title:	International Cooperation on HPC
Topic Identifier:	FETHPC-04-2020
Type of Action:	CSA Coordination and support action
Deadline(s):	22.04.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/fethpc-04-2020>

Specific Challenges: The aim is to develop a strategic partnership in HPC with **Latin America** enabling closer research cooperation in HPC.

Scope:

- Develop a roadmap for increased future research cooperation in HPC
- Identify key HPC application areas and hardware/system requirements per Latin-American country
- Identify relevant national, regional and international funding schemes of HPC in **Latin America**
- Organise meetings, thematic workshops and summer schools in areas of common interest
- Promote the exchange of best practices between the European and Latin-American HPC research communities
- Improve links between the European and Latin-American HPC research communities

The Commission considers that proposals requesting a contribution from the EU of up to EUR 0.50 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:

- Development of a realistic HPC research cooperation roadmap with clearly identified application areas, hardware/system requirements and funding schemes

- Improved international cooperation of EU and **Latin American** research and industrial communities on advanced HPC application development.
- Improved sharing of information and expertise to solve common societal problems with the use of advanced computing.

Cross-cutting Priorities: International cooperation

Horizon 2020 Pillar:	Industrial Leadership
Programme:	Leadership in enabling and industrial technologies (LEIT)
Call Title:	Competitive, low carbon and circular industries
Call Identifier:	h2020-low-carbon-circular-industries-2020
Topic Title:	ERA-NET on materials, supporting the circular economy and Sustainable Development Goals
Topic Identifier:	CE-NMBP-41-2020
Type of Action:	ERA-NET-Cofund ERA-NET Cofund
Deadline(s):	05.02.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/ce-nmbp-41-2020>

Specific Challenges: Maintaining Europe's position in research related to materials science and engineering requires concentrated action on common European research priorities in view of implementing joint initiatives.

The M-ERA.NET 2 network has successfully targeted the Low Carbon Energy Technologies addressed by the SET Plan. Now the scope should on one hand guarantee some continuation, and on the other hand become more ambitious and underline the commitment of the EU regarding the circular economy and Sustainable Development Goals.

The European Commission has adopted an ambitious new Circular Economy Package to help European businesses and consumers to make the transition to a stronger and more circular economy. Moreover, in 2016, the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development came into force. They aim to end poverty, protect the planet, ensure prosperity and tackle climate change. The EU is fully committed to be a frontrunner in implementing the 2030 Agenda and SDGs. Finally, the Commission launched the Battery Alliance initiative in 2017.

Materials research is a relevant field for addressing these overall challenges and for making substantial contributions to achieving the specific objectives.

Global challenges call for co-operation on a global scale to build capacity in science, technology and innovation (STI) at both national and international levels. A strategic and industrially relevant approach is needed that cover the entire research and innovation chain by pooling national research and innovation capacities, thereby mobilising European infrastructure networks as well as promoting education and training in materials research and innovation.

Scope: The proposed ERA-NET aims at coordinating the research efforts of the participating Member States, Associated States and Regions in the field of materials, continuing the activities started by M-ERA.NET, for materials research and innovation, especially targeting the circular economy and Sustainable Development Goals (such as Goal 7 – “Affordable and clean energy”, by enabling electromobility through sustainable energy storage technology or Goal 9 “Industrial innovation and infrastructure”, by enhancing scientific research and upgrading the technological capabilities of industrial sectors). Proposals should pool the necessary financial resources from participating national or regional research programmes by implementing a joint transnational call for proposals (resulting mainly in grants to third parties) with EU co-funding to fund multinational innovative research initiatives in this domain, including support to the large scale research initiative on future battery technologies launched under the H2020-LC-BAT-2019-2020 Call^[4].

Proposers are also requested to implement other joint activities and, additional joint calls without EU co-funding. The proposal should demonstrate that these additional joint calls exclude any overlaps with related on-going actions co-funded by the EU under NMBP.

Proposals should demonstrate the expected impact on national and transnational programmes as well as the leverage effect on European research and competitiveness, and should plan the development of key indicators for supporting this.

Participation of legal entities from **third countries**, and/or regions including those not automatically eligible for funding in accordance with General Annex A is encouraged in the joint call as well as in other joint activities including additional joint calls without EU co-funding. Participants from countries not listed in General Annex A are eligible for EU funding under this topic and may request a Union contribution (on the basis of the ERA-NET unit cost) only for the coordination costs of additional activities.

The Commission considers that proposals requesting a contribution from the EU of EUR 15 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. EUR 5 million of the requested contribution from the EU should be used as support to transnational projects, co-funded by the Commission, on future battery technologies, fostering synergy between European, national and regional initiatives and promoting broader partnerships between the European stakeholders in future battery technologies.

Expected Impact:

- synergies with international, national and regional programmes that support research and innovation;
- synergies but no overlap with the topics of Horizon 2020 and with related European Partnership initiatives and be open to adapt to future coming initiatives of Horizon Europe;
- leverage of national, regional and European funding;
- contribution to meeting Global Challenges through Better Governance: International Co-operation in Science, Technology and Innovation;

- relevant contribution to the SDGs, including sustainable battery based energy storage technology;
- relevant contribution towards a circular economy.

Cross-cutting Priorities: ERA-NET

[1] http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-cc-activities_en.pdf

Societal Challenges

Horizon 2020 Pillar:	Societal Challenges
Programme:	Health, demographic change and wellbeing
Call Title:	Better Health and care, economic growth and sustainable health systems
Call Identifier:	h2020-sc1-bhc-2018-2020
Topic Title:	Global Alliance for Chronic Diseases (GACD) - Prevention and/or early diagnosis of cancer
Topic Identifier:	SC1-BHC-17-2020
Type of Action:	RIA Research and Innovation action
Deadline(s):	07.04.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/sc1-bhc-17-2020>

Specific Challenges: The **Global Alliance for Chronic Diseases**^[1] (GACD) call will focus on implementation research proposals for the prevention^[2] and/or early diagnosis of cancer in Low and Middle-Income Countries (LMIC) and/or in vulnerable populations^[3] in High- Income Countries (HIC)^[4].

The world is facing a critical healthcare problem due to ageing societies, unhealthy lifestyles, socio-economic inequalities, and a growing world population. Cancer is becoming one of the most important public health problems worldwide. In 2018, it is estimated that 181 million^[5] people have been diagnosed with cancer and 9.6 million have died from it. Predictions suggest that 30 million people will die from cancer each year by 2030, of which three-quarters in low- and middle-income countries (LMICs).

With an estimated 30-50% of avoidable cancers, it is a leading cause of premature death, reducing a country's productivity. Current cancer prevention and control do not fully reflect ethnic, cultural, environmental, socio-economic and resource differences. In particular, limited implementation research is conducted on cancers primarily found in LMICs and vulnerable populations in HIC. In order to achieve the United Nations' sustainable development goal 3.4^[6], implementation research and healthcare efforts are needed to prevent and control cancers in these countries and populations.

Scope: Proposals should focus on implementation research for the prevention and/or early diagnosis of cancer on in LMIC and/or in vulnerable populations in HIC. Proposals should build on interventions with promising or proven effectiveness (including cost-effectiveness) for the respective population groups under defined

contextual circumstances. For promising interventions, a limited validation period can be envisaged. However, the core of the research activities should focus on their implementation in real-life settings. The proposed interventions should be gender-responsive.

The aim should be to adapt and/or upscale the implementation of these intervention(s) in accessible, affordable and equitable ways in order to improve the prevention and early diagnosis of cancer in real-life settings. Interventions should meet conditions and requirements of the local health and social system context and address any other contextual factors identified as possible barriers.

Each proposal should:

Focus on implementation research addressing prevention, and/or early identification strategies derived from existing knowledge about effective and/or promising interventions.

For screening interventions, the pathway to referral for positive cases should be included.

Include a strategy to test the proposed model of intervention and to address the socioeconomic and contextual factors of relevance to the targeted region and community.

Lead to better understanding of key barriers and facilitators at local, national and international level that affect the prevention and/or early diagnosis of cancer.

Include health economics assessments as an integral part of the proposed research, including considerations of scalability and equity.

Propose a pathway to embed the intervention into local, regional or national health policy and practice, addressing:

A strategy to include policy makers and local authorities (possibly by being part of the consortium), as well as other relevant stakeholders such as community groups, patient groups, formal and informal carers and any other group, wherever relevant from the beginning of the project, which will contribute to the sustainability of the intervention, after the end of project.

Relevance of project outcomes/evidence for scaling up the intervention at local, national and international level and then scaled-up appropriateness with respect to the local social, cultural and economic context.

Research under GACD involves regular exchange of research findings and information across participating projects by means of cross-project working groups and annual joint meetings. Wherever feasible, projects should harmonise and standardise their data collection and exchange data. Applicants must budget for annual costs of having two team members participate in one annual face-to-face meeting of the Annual Scientific Meeting (location to vary annually). Applicants must budget their involvement in GACD working groups and other GACD wide activities, beyond their projects.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1 to 3 million would allow this specific challenge to be addressed

appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: The proposals should address one of or combinations of:

- Advance local, regional or national cancer prevention and/or early diagnostic health policies, alleviating the global burden of cancer;
- Establish the contextual effectiveness of cancer intervention(s), including at health systems level;
- Improve tailored and affordable prevention and/or early diagnosis;
- Provide evidence and recommendations to national programmes and policies focusing on prevention, screening, and/or early diagnosis;
- Inform health service providers, policy and decision makers on effective scaling up of cancer interventions at local, regional, and national levels, including affordability aspects for users and health providers;
- Reduce health inequalities and inequities, including due consideration of socio-economic, gender and age issues where relevant, in the prevention and/or early diagnosis of cancer at both local and global levels;
- Provide pathway to cancer care for the patients diagnosed with cancer;
- Maximise the use of existing relevant programmes and platforms (e.g. research, data, and delivery platforms);
- Contribute to the United Nations' Sustainable Development Goal 3.4.

Cross-cutting Priorities: International cooperation, Socio-economic science and humanities

[1] <http://www.gacd.org/>

[2] Tertiary prevention is excluded from the topic.

[3] Proposals should demonstrate the vulnerability of the targeted population in HIC.

[4] <https://databank.worldbank.org/data/download/site-content/CLASS.xls>

[5] GLOBOCAN and CONCORD-3

[6] <https://www.un.org/sustainabledevelopment/health/>

Horizon 2020 Pillar:	Societal Challenges
Programme:	Health, demographic change and wellbeing
Call Title:	Better Health and care, economic growth and sustainable health systems
Call Identifier:	h2020-sc1-bhc-2018-2020
Topic Title:	Actions in support of the International Consortium for Personalised Medicine
Topic Identifier:	SC1-HCO-01-2018-2019-2020
Type of Action:	CSA Coordination and support action
Deadline(s):	07.04.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/sc1-hco-01-2018-2019-2020>

Specific Challenges: Personalised Medicine is a very broad and multifaceted area where success relies on a well-functioning collaboration between several disciplines and different actors. While great advances have been made in some fields of medicine, in particular in stratification of cancer patients and in addressing rare diseases, most of today's healthcare protocols do not include personalised approaches apart from occasional division into broad age groups (children/adults/elderly), sex or ethnicity. Furthermore the prevention aspect of personalised medicine, i.e. identifying individuals prone to develop certain diseases, is largely isolated from treatment options. As is the case for a relatively nascent field there is a need for standardisation of approaches, including for sampling, data storage, interpretation and data exchange and also for clinical trials design and reimbursement models. European countries with their social model of healthcare along with (in several cases) centralised cost reimbursement, are ideally placed to lead the way for an integrated health management system. Many needs for coordination and support activities have been identified by ICPeMed^[1], an EU Member States led initiative which includes representatives from most EU countries along with several other European countries, Brazil and Canada. The EC currently supports ICPeMed with a grant to operate its secretariat until October 2020^[2]. Wider internationalisation of ICPeMed can be underpinned by coordinating networking activities with **third countries**.

Scope: Each action should focus on one of the following fields:

- **International aspect:** The action should focus on building links with **third countries** by analysing the potential and advantages of collaboration in personalised medicine (PM) with those countries, studying areas of interest for Europe in PM collaboration and promoting international standards in the field. In particular the uptake of personalised approaches in health systems and healthcare should be addressed, taking into account social, cultural, ethical and legal aspects, health economy issues and equitable healthcare. For the 2018 call, the project should focus on CELAC^[3] as a group of countries, and for the 2019 call on China. For the 2020 call, the project should focus on countries in Africa^[4], linking also into the EU-AU (African Union) policy dialogue and taking into account the new Africa-Europa Alliance for Sustainable investment and Jobs^[5]. Alignment with activities of the **Global Alliance for Chronic Diseases** (GACD) and The European and Developing Countries Clinical Trials Partnership (EDCTP) activities should be explored. Special attention should be given to prediction and prevention, and to promoting well-being for all at all ages. Furthermore, the project should seek to integrate local knowledge and practice. Data safety and privacy should be addressed in line with existing standards and legislation. The project should have a duration of at least four years and address sustainability beyond that to ensure longer term structuring effect. Due to the specific challenge of this topic, in addition to the minimum number of participants set out in the General Annexes, proposals shall include at least one participant based in the international partner region; Africa (2020 call).
- **Regional aspect:** The action should establish and support networking between regions and interregional cooperation in different European countries, in particular linking remote or sparsely populated regions with regions harbouring critical mass of medical and PM expertise while taking into account broader socio-economic and cultural aspects. The focus of the action can include aspects of genomic analysis, me-Health (mobile and electronic Health), telemedicine etc. but should aim at structuring PM application at regional level. Linkage to existing inter-regional projects (financed by INTERREG programmes) or interregional partnerships of Thematic Smart Specialisation Platforms will be actively encouraged. (2018 call).
- **Healthcare- and pharma-economic models for personalised medicine,** interlinking European public health approaches with medical practice and financing. The action should carry out studies in support of research in and development of new health- and pharma economic models for PM, including prevention, to capture value and to develop relevant health financing models. Analysing mid- and long-term impacts of innovative products designated for sub-sets of patient populations on the patients themselves and on public health systems. Assessing the benefits of personalised medicine development for citizens and their broader social environment while ensuring patient safety, access, equity, solidarity, data safety and financial sustainability of public health systems in the EU. The action should involve different relevant stakeholders and take into account work being carried out by other EU funded initiatives, such as EUnetHTA^[6]. SME participation is encouraged. Results of the studies and workshops should be actively disseminated to a wider

audience, including relevant authorities, professionals and the wider public. (2018 call).

- Standardisation for clinical study design. Establishment of innovative clinical trial design methodology for PM, including guidelines for research and reflection papers. The action should take into account sex/gender differences as well as the work done by relevant stakeholders and authorities such as EMA^[7] and the HMA network^[8], as well as the European legal framework^[9]. SME participation is encouraged. The results of the studies and workshops should be actively disseminated to a wider audience, including, industry, researchers and other professionals. (2019 call).
- ICPeMed secretariat: The project should continue the work done by the secretariat for ICPeMed, e.g. maintenance of existing services, organising the meetings of the ICPeMed Executive Committee, convening dedicated workshops and preparing and issuing updates of the ICPeMed Action Plan. Furthermore maintaining the network of policy makers and funders gathered in ICPeMed and expanding the membership to new interested and complementary partners as well as maintaining communication with all EC funded activities related to ICPeMed (2020 call).

For grants awarded under this topic for Coordination and Support Actions it is expected that results could contribute to European or international standards. Therefore, the respective option of Article 28.2 of the Model Grant Agreement will be applied.

The Commission considers that proposals requesting a contribution from the EU of between EUR 1.5 and 2 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: Contributing to the implementation and reach of the ICPeMed initiative; furthermore:

- International aspect: Integrating the country/group of countries into ICPeMed activities. Support wider adoption of standards developed in Europe. Support the EU-AU policy dialogues relevant to research and health (2020 call). Contribute towards the UN Sustainable Development Goal 3: Ensure healthy lives and promote well-being for all at all ages.
- Regional aspect: Strengthened links between European regions setting up or planning personalised medicine healthcare approaches. Aligning research funding with ongoing and foreseen investments e.g. from Structural Funds. Recommendations on best practice in implementing PM at regional level.
- Healthcare- and pharma-economic models: Increased understanding of personalised medicine perspectives on how to capture value, develop institutional support and design relevant payment models. Recommendations for faster translation from discovery to patients'/citizens' access. Contributing to understanding of trends and dynamics in the pharmaceutical markets in relation to increased emphasis of research and development efforts on PM. Suggestions on how savings through prevention can be included in payment and reward models and contribute to the sustainability of public health

systems in the EU. Improved knowledge and understanding among healthcare professionals and the wider public of potential benefits of PM approaches.

- Standardisation for clinical study design: Contribute to standardisation of PM clinical trial design. Demonstrate feasibility and importance of PM approaches. Underpin accelerated market uptake. Improved knowledge and understanding among healthcare professionals, regulatory authorities and industry how best to adapt clinical trials designs to stratified patient populations.
- ICPeMed secretariat (2020 Call): Ensure continuity of the operations of ICPeMed beyond 2020. Increase the visibility of the consortium and ensure openness of the structure. Provide harmonised vision for the further development of personalised medicine. Contribute to the convergence of members' approaches to personalised medicine and further alignment of research efforts in the field.

Cross-cutting Priorities: Gender, International cooperation, Socio-economic science and humanities

[1] <http://icpermed.eu>

[2] H2020 Grant Agreement 731366

[3] Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Grenada, Guyana, Jamaica, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela

[4] African Union Member States

[5] <https://www.africa-eu-partnership.org/en/stay-informed/news/european-commission-unveils-new-africa-europe-alliance-sustainable-investment-and>

[6] European Network for Health Technology Assessment: <http://www.eunetha.eu/>

[7] European Medicines Agency: <https://www.ema.europa.eu>

[8] Heads of Medicines Agencies: <http://www.hma.eu/>

[9] Especially the clinical trials regulation (EU) No 536/2014 and the data protection regulation (EU) 2016/679

Horizon 2020 Pillar:	Societal Challenges
Programme:	Food security, sustainable agriculture and forestry, marine and maritime and inland water research
Call Title:	Blue Growth
Call Identifier:	h2020-bg-2018-2020
Topic Title:	The Future of Seas and Oceans Flagship Initiative
Topic Identifier:	BG-07-2019-2020
Type of Action:	IA-LS Innovation action Lump Sum
Deadline(s):	22.01.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/bg-07-2019-2020>

Specific Challenges: Our future is intimately linked to the future of the seas, oceans and coasts. The seas, oceans and coasts provide multiple ecosystem services and a wealth of resources, influence climate and provide many economic opportunities. To fully profit from the seas and oceans also in the future, we have to preserve those valuable resources and ensure that their exploitation is sustainable. Furthermore, without appropriate ocean observations for forecasting and for the protection of property and human activities, the global economy would lose hundreds of billions of euros annually. For this, we need to have the technologies for observations, integrated ocean observing systems, data management systems, and appropriate models and services. This action will contribute to make ocean observations and data management in European seas and the Atlantic Ocean fit for the future, in line with the G7 Future of the Oceans Initiative (Tsukuba Communiqué of the G7 Science Ministers^[1]). It will also support the Collaborative Research Action on Oceans of the **Belmont Forum**^[2] and the International Ocean Governance Communication^[3]. Similarly, ocean observation data must be available to effectively address local, national and global challenges such as the forecasting of ocean conditions and climate change, to take stock of biomass and biodiversity, to mitigate the impact of climate change and ocean acidification, to ensure food security and food safety (also in fresh water), and to contribute to the UN 2030 Sustainable Development Agenda, notably UN SDGs 2, 13, 14 and 15, and monitoring their targets for 2020 and 2025.

Scope: Proposals shall address the following sub-topic: technologies for observations (in 2020). Actions shall demonstrate integration, capacity and (scientific, economic

etc) potential. They shall complement and build on existing observation tools and systems such as EuroGOOS/EOOS, IOOS, GEO/GEOSS, COPERNICUS Marine Service or EMODnet, European research infrastructures such as Euro-Argo ERIC and EMSO ERIC as well as funded H2020 projects such as SeaDataCloud^[5]. The interdisciplinary and cross-sectorial nature of the proposal should also apply to training activities improving the professional skills and competencies of workers and supporting the creation of new jobs in the blue economy.

[C] 2020 - Technologies for observations

Proposals shall address

- i) the demonstration of new and innovative technologies to measure the Essential Ocean Variables (EOV) at all depths, and
- ii) sensors to measure variables for aquaculture, fisheries, micro and nanoplastics, and marine litter and micro-litter,
- iii) the demonstration of novel approaches to observe the ocean with multiple underwater, surface, and air vehicles (surface and air vehicles are optional, but underwater must always be included) with a view to realizing the digital ocean. Optional air vehicles could potentially, among others, contribute to the development of fully documented fisheries.

Sensors should measure in-situ biogeochemical and biological EOVs and may include new or emerging EOVs (possibly defined at OceanObs19^[20] or those needed for MSFD Descriptors) as well as technologies needed for “augmented” observatories (i.e. genome-enabled multidisciplinary observatories) to allow deeper investigation of marine biology and ecology and as sites to test the new technology. Demonstrations to advance deep sea oceanography, notably biological oceanography, by combinations of fleets of gliders, fixed stations, research vessels, etc. should reach TRL 6 or higher. Proposals may also cover the standards, protocols and communications needed for the observations, for open access to data, standards for data management and communication. Activities to transfer technologies from other sectors (for example combinations with data from satellites) will also be considered. The proposals shall also address issues such as low-power, miniaturisation, modularity, interoperability and low-cost. The proposals shall take agreed standards (for example Open Geospatial Consortium standards) into account. The development of new vehicles or other platforms are excluded from this call. Data collected (except data for testing) must be prepared in line with commonly agreed standards and be made available in a form suitable for EMODnet and clouds.

This topic is in support of the European Strategy for Plastics in a Circular Economy. Selected projects under this topic as well as projects selected under other topics in H2020 supporting the Plastics Strategy are strongly encouraged to participate in joint activities as appropriate. These joint activities could take the form of clustering of projects, participation in workshops, common exploitation and dissemination etc. The projects should describe how they will be complementary with already existing relevant national activities or other multilateral activities funded by the EU or funded jointly by several Member

States. The proposals are expected to demonstrate support to common coordination and dissemination activities. Therefore, the proposals should foresee a dedicated work package for this purpose and earmark appropriate resources. Further details of these coordination activities will be defined during the grant preparation phase with the Commission.

Please note that this topic is part of the lump sum funding pilot scheme. Funding for grants awarded under this topic will take the form of lump sums as defined in Commission Decision C(2017)7151 of 27 October 2017. Details of the lump sum funding pilot scheme are published on the Funding and Tender Portal together with the specific Model Grant Agreement for Lump Sums applicable.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 9 million for sub-topic [C] would allow this specific challenge to be adequately addressed. Nonetheless, this does not preclude the submission and selection of proposals requesting other amounts.

Expected Impact: Contributing to the ongoing implementation of the Galway and Belém Statements and of EU policies such as the EU Bioeconomy Strategy, the Circular Economy Strategy, the European Open Science Cloud Initiative, the Blue Growth Strategy, the Common Fisheries Policy, the EU Maritime Spatial Planning Directive, the Marine Strategy Framework Directive, the International Ocean Governance Communication and the UN Sustainable Development Goals, activities will:

In the short-term:

- Support the implementation of the G7 Future of the Seas and Oceans initiative, the Paris Climate Agreement, the UN Decade of Ocean Science for Sustainable Development, and the needs of the Marine Strategy Framework Directive.
- Achieve at least TRL 6 for ocean observations' systems and tools (sub-topic B and C).
- Contribute to regularly measure 50% of biological and biogeochemical EOVs, including in the sea below 2000 m, and predict negative impacts of ocean acidification and other selected stressors to take timely preventive measures, notably to protect aquaculture resources (sub-topic B and C).
- Lay the foundations for and contribute to the sustainable management and protection of marine and coastal ecosystems to avoid significant adverse impacts (UN SDG 14).

In the medium-term:

- Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health (UN SDG 14).
- Improve forecasting of climate changes, weather and ocean conditions to protect human activities, in support of UN SDG 14 and other relevant goals, and of the objectives of related conventions (for example on biodiversity).

- Shorten the time span between research and innovation and foster economic value in the blue economy.
- Improve the professional skills and competences of those working and being trained to work within the blue economy and in the context of open data sharing.
- Contribute to policymaking in research, innovation and technology.
- Increase data sharing and increase integration of data.
- Contribute to determining the distribution and fate of marine litter and microplastics (sub-topic C).

Cross-cutting Priorities: Blue Growth, Open Science, International cooperation, Socio-economic science and humanities

[1] <http://www8.cao.go.jp/cstp/english/others/20160517communique.pdf>

[2] **Belmont Forum** <https://www.belmontforum.org/>

[3] (JOIN(2016) 49)

[5] This will also include mutual feedback processes with the Copernicus Programme and other relevant actions such as those undertaken by IOC/IODE or the Marine Environment Monitoring Service. See topic DT-SFS-27-2019 under this Work Programme's SC2 Sustainable Food Security Call. European Research and Innovation for Food and Nutrition Security, SWD(2016)319. <http://ec.europa.eu/transparency/regdoc/rep/10102/2016/EN/SWD-2016-319-F1-EN-MAIN.PDF>

[20] <https://www.oceanobs19.net/>

Horizon 2020 Pillar:	Societal Challenges
Programme:	Food security, sustainable agriculture and forestry, marine and maritime and inland water research
Call Title:	Rural Renaissance
Call Identifier:	h2020-rur-2018-2020
Topic Title:	Closing nutrient cycles
Topic Identifier:	CE-RUR-08-2018-2019-2020
Type of Action:	IA Innovation action
Deadline(s):	22.01.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/ce-rur-08-2018-2019-2020>

Specific Challenges: The EU depends strongly on external sources for the supply of key fertilisers used in agriculture. Resource depletion and an increasing global demand for mineral fertilisers may, in the long term, lead to price tensions with an impact on food security. Mineral-based fertilisation also poses significant environmental problems, linked e.g. to the amounts of fossil energy needed to produce and transport these fertilisers. At the same time, large amounts of minerals are being dispersed in the environment through a large variety of organic waste streams, resulting in soil, water and air pollution. Agri-food specialisation has led to regional imbalances: whilst in some regions a nutrient overabundance is causing severe environmental impacts (e.g. nitrate pollution), other are experiencing nutrient deficits. These contrasting effects may also be observed between locations within the same region.

Several technologies are being developed to recover and re-use nutrients from organic by-products and waste streams, but many are insufficiently mature and the characteristics of end-products do not always match end-user preferences. It is expected that the EU 'circular economy package' will boost the emergence and commercialisation of such new fertilisers, hence it is important to understand their agronomic and environmental performance in order to establish adequate policies, guidelines and application rules.

Scope: Proposals shall address inter-regional and intra-regional imbalances through effective nutrient recovery from by-products of the agri-food or forestry sectors, or from waste water and sewage sludge, and conversion into novel fertilisers.

Proposals should address only one of the following sub-topics:

C.[2020] Bio-based fertilisers from by-products of the agri-food, fisheries, aquaculture or forestry sectors (IA)

Projects shall demonstrate processes for recovery of mineral nutrients and production of novel fertilisers from by-products of the agri-food, fisheries, aquaculture or forestry sectors, excluding animal manure, water and sewage sludge (covered in scopes B and D). Proposals should demonstrate that the activities proposed go beyond past or ongoing research, without overlaps. Technologies that are currently under development should be further improved, and possibly integrated, to produce high quality end-products^[6]. Proposals shall address end product marketability, safety, sustainability including emissions of greenhouse gasses and pollutants, and compliance with relevant EU regulations. Their suitability and acceptability under the organic farming regulatory framework should also be analysed. An integrated assessment of the business model (economic, agronomic, social and environmental) shall be performed. The whole value chain shall be demonstrated to a near-commercial scale (TRL 6-7). Proposals shall fall under the concept of the 'multi-actor approach'^[5], including relevant actors such as agri-food industries, technology providers, research centres, end-users (farmers and farmer associations), or public administration.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 6 million for sub-topic A and D and EUR 8 million for sub-topics B and C would allow this specific challenge to be addressed appropriately. Nonetheless this does not preclude the submission and selection of proposals requesting other amounts. Proposals for sub-topics A, B and C should include a task to cluster with other projects financed under this topic, under topic SFS-39-2019 and - if possible - with other relevant projects in the field funded by Horizon 2020 (including under the BBI JU). For sub-topics B and C, participation of partners from **CELAC** countries^[9] is encouraged.

Expected Impact: Proposals are expected to provide the technologies needed to develop a new generation of commercial, sustainable and safe fertilisers based on organic by-products, and the scientific knowledge needed to frame their use. This will help to:

- replace non-renewable mineral fertilisers, hence reducing external dependence and risks related to depletion (sub-topics A, B, C and D);
- balance nutrient concentrations between or within regions, thus increasing resource efficiency (sub-topics A, B and C);
- reduce the environmental impacts linked to the dispersion of nutrients present in waste flows, to the emissions of greenhouse gases, or to the production of fossil-based fertilisers (sub-topics A, B, C and D);
- develop new business models creating value from agri-food, fisheries, aquaculture or forestry by-products (sub-topics B and C) and from water sector and the industrial sector subject to waste water treatment, including desalination or demineralisation plants (sub-topic D).

In the long term, this should contribute to a thriving, sustainable and circular bio-economy, the development of new business models that are synergic with other

economic sectors, and therefore to the creation of wealth and quality jobs in rural areas.

Cross-cutting Priorities: Blue Growth, RRI, Socio-economic science and humanities

[5] See definition of the 'multi-actor approach' in the introduction to this Work Programme part.

[6] These can be mineral-type (i.e. with low organic matter content), or advanced organic fertilisers (e.g. through improved composting processes).

[8] Water desalination or demineralisation plants may include, for example, plants treating wastewater in food or pulp & paper industries.

[9] Community of **Latin American** and Caribbean States

Horizon 2020 Pillar:	Societal Challenges
Programme:	Food security, sustainable agriculture and forestry, marine and maritime and inland water research
Call Title:	Sustainable Food Security
Call Identifier:	h2020-sfs-2018-2020
Topic Title:	Healthy terrestrial livestock microbial ecosystems for sustainable production
Topic Identifier:	SFS-02-2020
Type of Action:	RIA Research and Innovation action
Deadline(s):	22.01.2020, 08.09.2020 (two-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/sfs-02-2020>

Specific Challenges: Research is increasingly paying attention to the importance of interactions between the animal host and microbiota and their effects on the production efficiency, and the health and welfare of animals. These interactions are highly dynamic and influenced not only by genetics, but also by external factors such as environment, nutrition/feeding and management. Recent developments in omics science and technologies have opened new avenues for understanding not only the biology and genetics of animals, but also the ecosystems in which they function and those which they harbour, i.e. microbiomes. This is particularly relevant for micro-organisms that are currently non-culturable. Research on the interplay between the animals and their microbial ecosystems is needed to contribute to the improvement of sustainable livestock production.

Scope: Activities shall address relevant microbial ecosystems of terrestrial livestock, and their effects on the production, health and welfare of animals. They should look in a balanced way at the characterisation of microbial ecosystems (including microbial communities and microbe-derived metabolites), assessing variability within and between breeds in relation to variability of production systems and diet; at microbial behaviour (e.g. interactions between microbiota, evolution with age of animals, transmission); at microbial functions and interactions with host, environment and management practices, including feeding where relevant; and at possible ways in which those ecosystems can be managed, including socio-economic aspects, in order to reduce environmental impact, improve production and its quality, and/or health in particular during challenging periods

such as early life, weaning or after disturbances. Activities will include the incorporation of data on microbial ecosystems in the models used to analyse phenotypic variability and to perform genetic evaluations. The activities shall address either ruminants, or monogastrics. Gut microbiome of pigs or poultry can be addressed only in so far as the activities are complementary to those in related projects selected under LC-SFS-03-2018. Proposals may cover one or more species and one or more microbial ecosystem.

Research on anti-microbial resistance can be included as long as it is not the main objective of the project (see topic SFS-12-2018/2019). Research on single animal pathogens is not the focus of the topic. The projects are encouraged to interact as appropriate with relevant collaborative projects in Europe as appropriate and with international initiatives such as the rumen microbial genomics network of the **Global Research Alliance on Agricultural Greenhouse Gases**^[1].

The Commission considers that proposals requesting a contribution from the EU of up to EUR 10 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. Funding will allow support for at least one project relating to ruminants and one to monogastrics.

Expected Impact: Funded activities will contribute to deciphering the characteristics and functions of the livestock microbial ecosystems and understand the ways in which they influence production, health and/or welfare of animals. They will provide standardised methodologies for further application in livestock production to the greatest extent possible, including socio-economic aspects.

In the short- to medium term, the application of the knowledge and solutions developed will, as appropriate:

- enable inclusion of data on microbial ecosystems in the models used to analyse phenotypic variability and to perform genetic evaluations;
- improve resource use and environmental impact of terrestrial livestock production;
- improve robustness and health of terrestrial livestock, in relation to productive functions;
- reinforce collaborations with initiatives in related domains to promote coherence and applicability of research on microbial ecosystems.

In the longer term, the funded activities will contribute to more resilient production systems.

Delegation Exception Footnote: This topic is part of a microbiome cluster. For complementary activities see also SC2 topics SFS-01-2018/19/20, SFS-03-2018 and BG-06-2018 on Marine Microbiomes as SC1 topic SC1-BHC-03-2018

Cross-cutting Priorities: International cooperation

^[1] <https://globalresearchalliance.org/research/livestock/networks/rumen-microbial-genomics-network>

Horizon 2020 Pillar:	Societal Challenges
Programme:	Smart, green and integrated transport
Call Title:	Building a low-carbon, climate resilient future: Green Vehicles
Call Identifier:	h2020-lc-gv-2018-2019-2020
Topic Title:	Setting up a common European research and innovation strategy for the future of road transport
Topic Identifier:	LC-GV-09-2020
Type of Action:	CSA Coordination and support action
Deadline(s):	21.04.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-gv-09-2020>

Specific Challenges: The objective of this topic is to define R&D roadmaps for a sustainable and efficient road transport system in Europe. It calls for a Coordination and Support Action to support ERTRAC (the European Technology Platform for Road Transport), future Partnerships relevant to road transport in Horizon Europe and the European Commission in defining the research needs for their upcoming research and innovation programmes, and by then helping to achieve the targets set at EU and global level (EU Transport White Paper, COP21 for decarbonisation, etc.).

International cooperation with developing and emerging economies should also be developed in order to increase efficient mobility for all, reduce local (air and noise) and CO2 emissions, and tackle health and safety issues, and increase attractiveness and competitiveness in particular in urban areas.

Scope: Proposals should take a comprehensive approach ranging from components up to system integration, and include enabling technologies where relevant. Both passenger mobility and freight transport should be addressed and covering urban mobility as well as inter-urban and long-distance transport. They should address all the following aspects:

- Updating of research agendas and roadmaps developed by the European Technology Platform ERTRAC (European Road Transport Research Advisory Council) and supporting the definition of research priorities of future Horizon Europe Partnerships relevant to road transport, covering all transport research fields.
- Facilitating cooperation between cities in Europe, Asia, **Latin America** and Africa. Actively support policy and knowledge exchange and establish a peer-

to-peer exchange and capacity building programme that takes advantage of the results of a large number of relevant cities. Cooperation between EU and international projects on urban mobility. Develop implementation concepts for sustainable mobility including shared private vehicles (e.g. light-duty vehicles and 2-, and 3-wheelers), logistics (e.g. e-Trucks, cargo bikes), public transport systems (e.g. Bus Rapid Transit Systems, buses, soft modes) and new mobility services.

- Liaise with international financing institutions to foster the take-up and implementation of the concepts developed, support the European Commission in international discussions and specialised sectorial Fora related to Mobility for All, Climate Change and the New Urban Agenda. Track global progress on urban electric mobility and support UN activities, such as the Urban Electric Mobility Initiative (UEMI).

The implementation requires close collaboration with the leading European stakeholders in transport research, including vehicles manufacturers, supply industry, and research and engineering organisations, as well as strong links with other relevant European initiatives and associations. In line with the strategy for EU international cooperation in research and innovation, international cooperation is encouraged with key emerging countries, in particular with Asia, **Latin America** and Africa.

The Commission considers that proposals requesting a contribution from the EU of between EUR 0.8 to 1 million each would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: This action will bring together the leading European stakeholders in road transport research to develop roadmaps and support international cooperation. It will contribute to a further harmonisation of research and innovation, and therefore contribute to the European Research Area, in particular also in the view of innovation, as well as to the European strategies for a future transport system.

Proposals are expected to contribute to:

- The objective of the European Union for climate action and sustainable development.
- The objectives set by the Paris Agreement (COP21) and the New Urban Agenda.
- The fulfilment of post 2020 emission targets in road transport (at least 30% by 2030 compared to 2021)
- The EU's long-term goal of moving close to zero fatalities and serious injuries by 2050 ("Vision Zero")
- UN's Sustainable Development Goals 11 "Sustainable cities and communities" (with particular attention to 11.2) and 13 "Climate Action"
- Strengthening the collaboration of the European Union with Asia, **Latin America** and Africa.

Horizon 2020 Pillar:	Societal Challenges
Programme:	Climate action, environment, resource efficiency and raw materials
Call Title:	Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement
Call Identifier:	h2020-lc-cla-2018-2019-2020
Topic Title:	Coordination of European Polar research
Topic Identifier:	LC-CLA-21-2020
Type of Action:	CSA Coordination and support action
Deadline(s):	13.02.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-cla-21-2020>

Specific Challenges: The EU is a major investor and player in Polar research. The EU also supports the development and the international access to research infrastructures (terrestrial research stations, remote and in-situ observing systems, research aircrafts and vessels, etc.) throughout the Polar Regions, with relevant international scientific cooperation activities with non-EU countries. Previous actions proved to be instrumental in providing the needed support and the high degree of coordination within the European landscape and beyond.

Scope: Proposals should provide a platform to co-develop the strategies to advance and further coordinate the European Polar Research action and its contribution to the policy-making processes. This should include the prioritisation of research areas during transdisciplinary workshops, strategies for capacity building related to meaningful stakeholder involvement, allocation of seed money for the preparation of pre-studies and interaction with national funding agencies on ways of building synergies and optimising the use of resources. Proposals should cooperate with the relevant services of the European Commission and provide evidence-based policy advice. A special focus should be placed on supporting the implementation of sustained observation systems in the Arctic and Antarctic by setting up a European coordination office and by identifying measures to sustain it beyond the termination of the project. The office should also coordinate and support the contributions of the EU and the Associated Countries to International Arctic Science Committee (IASC), Sustaining Arctic Observing Networks (SAON), Scientific Committee on Antarctic Research (SCAR) and Southern Ocean Observing System (SOOS). Proposals should coordinate the EU

Arctic Research Cluster ensuring a good cooperation between the projects in areas such as communication, dissemination, and stakeholder engagement. Proposals should build upon the previous action funded under Horizon 2020 and avoid duplications or overlaps.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: The project results are expected to contribute to:

- substantially advance Polar research cooperation in Europe by creating a Polar European Research Area;
- a more synergetic use of European resources;
- the policy advice at regional, national and EU level and to the support of the EU's international commitments with respect to the Arctic Council, the Montreal protocol, the UNFCCC and others related to polar sciences, such as the Antarctic Treaty System (ATS);
- improved cooperation of international polar research programmes and create the basis for the development of future large-scale joint international polar initiatives;
- the support of international scientific cooperation initiatives of the European Commission such as the G7 Future of the Seas and Oceans initiative, Galway Statement, the Belém Statement and of the Administrative Arrangement on marine research between the European Commission and **Argentina**.

Cross-cutting Priorities: Blue Growth

Horizon 2020 Pillar:	Societal Challenges
Programme:	Climate action, environment, resource efficiency and raw materials
Call Title:	Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement
Call Identifier:	h2020-lc-cla-2018-2019-2020
Topic Title:	Enhancing the Belmont Forum Collaborative Research Action on Climate, Environment and Health
Topic Identifier:	LC-CLA-22-2020
Type of Action:	CSA Coordination and support action
Deadline(s):	13.02.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-cla-22-2020>

Specific Challenges: The EU is a major investor and player in both climate change and health research. The EU also supports global research and innovation collaboration, including that done by the **Belmont Forum** - a partnership of funding organisations, international science councils, and consortia committed to the advancement of interdisciplinary and transdisciplinary science. Bringing together climate change and health research has been a particular challenge in Europe that requires coordination and support. Previous similar actions proved to be instrumental in providing the necessary support and the high degree of coordination within the European landscape and beyond.

Scope: Actions should develop and provide support mechanisms to advance and further boost the global added value of the **Belmont Forum's** Collaborative Research Action (CRA) on Climate, Environment and Health and its inputs to the relevant EU policy-making processes. This should include the promotion and prioritisation of research and innovation areas during transdisciplinary conferences, meetings and workshops, capacity building related to relevant stakeholder involvement, cross-fertilisation activities amongst **Belmont Forum**, EU- funded and relevant nationally funded projects, synthesis of their results, with a particular focus on policy making, such as knowledge based policy briefs, dissemination, communication and outreach.

Cooperation with relevant existing projects under Societal Challenge 1 and 5 of Horizon 2020, including relevant ongoing Coordination and Support Actions, is encouraged.

Actions should also provide support to a knowledge management platform of EU funded research and innovation on the linkages between health and climate, support the **Belmont Forum** Members, partners and secretariat, in relation to this CRA and support the organisation of an international conference on climate change and health.

Cooperation with the relevant services, expert groups and mechanisms of the European Commission will be required to provide evidence-based policy advice, and report on the CRA results and synthesis of their findings. Actions should also build upon EU research and innovation framework programmes and avoid duplication and overlaps.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 3 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: The project results are expected to:

- contribute to policy advice on climate change and health at international and EU level and supporting the EU's international commitments with respect to the Paris Agreement, UNFCCC and others related to climate change and health sciences;
- bolstering a network of projects funded under the CRA call with relevant EU-funded projects addressing climate, environment and health;
- better flow of information and knowledge dissemination on climate change, environment and health to low and medium income countries;
- raising global awareness of climate impacts on human, plant and animal health.

Horizon 2020 Pillar:	Societal Challenges
Programme:	Climate action, environment, resource efficiency and raw materials
Call Title:	Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement
Call Identifier:	h2020-lc-cla-2018-2019-2020
Topic Title:	Towards a comprehensive European mountain research strategy
Topic Identifier:	LC-CLA-23-2020
Type of Action:	CSA Coordination and support action
Deadline(s):	13.02.2020 (single-stage)

Participant Portal Weblink:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-cla-23-2020>

Specific Challenges: European mountain regions play a central role for the well-being of many highly populated European regions for instance for water and energy supply, weather regimes, recreation and tourism. European mountain regions are home to a high degree of biodiversity, including many endemic species that occur nowhere else. However, mountain regions are expected to react far more sensitively to global change than other parts of the world. Therefore, research on sustainability of these regions is important not only for the population living there and the many tourists visiting them (e.g. 150 Millions/year for the Alps) but for a significant part of Europe's population. European countries operate excellent research infrastructures in mountain regions and are leading in many fields concerning climate, ecosystems, life in extreme environments, pollution monitoring and other aspects. Making the most efficient use of these resources and the latest scientific developments for addressing the abovementioned challenges, while contributing to climate change mitigation efforts targeted at this specific ecosystem, requires a high degree of coordination within Europe and beyond. Hence, a prominent challenge for this topic is to support and coordinate research and innovation to advance the understanding of current changes in mountain areas derived from climate changes, the synergies with other human-related forcing, the prediction of potential changes in these regions, and to foster observations for a sound monitoring of the regions.

Scope: The action should coordinate and support mountain regions research in Europe and develop a comprehensive European Mountain Research Strategy building on existing European activities. This strategy should aim to support the development of services necessary for the adaptation to climate change and the improvement and extension of observations, in particular in-situ ones, for the monitoring of the mountain regions. In line with Responsible Research and Innovation (RRI), citizens, civil society organisations and other relevant stakeholders should be involved in the co-design of the research strategy. This initiative strives for enhanced coordination with international research organisations and programmes related to mountain regions research (e.g. WMO, ESA, GEO, NEMOR and JPI 'Climate') as well as with relevant operational services including Copernicus. This action should support the implementation of the EU Strategy for the Alpine Region – EUSALP (<https://www.alpine-region.eu/>) and the GEO global Network for Observation and information in Mountain Environment – GEO-GNOME (http://earthobservations.org/geoss_wp.php), and take advantage of other regional and thematic networks initiatives that are being developed in Europe.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged, in particular with countries such as Canada, China, India, Russia, United States, and **Latin American** countries.

The Commission considers that proposals requesting a contribution from the EU in the range of EUR 1.5 million would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact: The project results are expected to contribute to:

- substantially raising the scale and ambition of inter-disciplinary mountain regions research policy in Europe;
- improved coherent and efficient use of European resources for mountain research;
- significant extension of the Copernicus and EuroGEOSS services and products to the mountain regions;
- step change in the domain of open data access, quality control and interoperability for mountain region monitoring and adapting to climate change.

Cross-cutting Priorities: International cooperation