

Horizon 2020 – The Framework Programme for Research and Innovation

Horizon 2020 commenced in January 2014 as the new Framework Programme to implement the [Innovation Union](#) with research and innovation funds of €80 billion from 2014 – 2020. Horizon 2020 addresses all research and innovation funding that was previously provided through the Framework Programmes for Research and Technical Development (e.g. FP7), Competitiveness and Innovation Programme (CIP) and European Institute of Innovation and Technology.

Support proposed for Research and Innovation under Horizon 2020 includes:

- Strengthening research in Science
- Strengthening Industrial leadership in Innovation, including investment in key technologies, access to capital and support for SMEs
- Address Societal challenges, such as climate change, sustainable transport and mobility, affordable renewable energy, food security, ageing population

This Guide to Horizon 2020 provides an overview of Calls, themes and deadlines from 2018 Calls for Proposals within the **Marie Curie, eInfrastructures, Leadership in Enabling and Industrial Technologies** and each of the **Societal Challenges** (Health, Food Security and Agriculture, Energy, Transport, Climate action and resource efficiency, Inclusive and Reflective Societies, Secure Societies) Work Programmes. The individual Work Programmes for 2018 - 2020 for each thematic area were initially published on 27 October 2017, with the updated version for 2019 published on 24 July 2018. Please find links to these work programmes within the relevant sections in this Guide.

Horizon 2020 is fully open to International Cooperation. African research institutions can participate as part of International Consortia with partners from Europe to apply for funding as part of an international project addressing the challenges published in the Work Programme.

ICT is a horizontal activity that is included across a number of Work Programmes within LEIT and within Societal Challenges Work Programmes. Download [Guide to ICT-related Activities in 2018-2020 Work Programmes](#)

Please visit the [Horizon 2020 section within the Participants portal](#) to download the Proposers Guide and specific templates to prepare proposals for submission under Horizon 2020 2018 calls within specific Marie Curie, eInfrastructures, LEIT and Societal Challenges themes.

Innovation Union	http://ec.europa.eu/research/innovation-union/index_en.cfm
Guide to ICT-related Activities in H2020 2018-20 Work Programmes	http://www.ist-africa.org/home/files/H2020_Guide_ICTrelated-activities_WP2018-20.pdf
Horizon 2020 Calls – Participants Portal	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html
IST-Africa Guide to 2018 Calls within Horizon 2020	http://www.ist-africa.org/home/files/IST-Africa_Guide_2018Calls_Horizon2020.pdf
IST-Africa Guide to 2019 Calls within Horizon 2020	http://www.ist-africa.org/home/files/IST-Africa_Guide_2019Calls_Horizon2020.pdf

Table of Contents

Innovation Union.....	1
I. Excellent Science	3
Marie Curie	3
Research Infrastructures Work Programme	4
II. Leadership in Enabling and Industrial Technologies	5
Leadership in Enabling and Industrial Technologies 2019 Calls	5
III. Societal Challenges	7
Societal Challenge 1: Health Demographic Change and Wellbeing	8
Societal Challenge 2: Food security, sustainable agriculture, marine and maritime research, and the bio-economy	11
Societal Challenge 3: Secure, Clean and Efficient Energy	14
Societal Challenge 4: Smart, Green and Integrated Transport	17
Societal Challenge 5: Climate action, resource efficiency and raw materials	19
Societal Challenge 6: Inclusive, innovative and reflective societies	22
Societal Challenge 7: Secure Societies	24
Relevant Links	25

I. Excellent Science

With the aim of increasing excellence in science, it is envisaged that Horizon 2020 will support frontier research, collaborative research on [Future and Emerging Technologies](#) (FET), training and career development through [Marie Curie Actions](#) and [research infrastructures](#) (including eInfrastructures).

Future and Emerging Technologies (FET)	https://ec.europa.eu/programmes/horizon2020/en/h2020-section/future-and-emerging-technologies-fet-open
Marie Curie Actions	http://ec.europa.eu/research/mariecurieactions/
Research infrastructures (including eInfrastructures)	http://ec.europa.eu/research/infrastructures/index_en.cfm

Marie Curie

Marie Sklodowska-Curie Work Programme 2018 - 2020	http://www.ist-africa.org/home/files/h2020-wp1820-msca_en.pdf
Marie Sklodowska-Curie Innovative Training Networks (ITN)	
Single Stage Calls 2019 - Deadline 15 January 2019	
MSCA-ITN-2019 (MSCA-ITN-ETN, MSCA-ITN-EID, MSCA-ITN-EJD)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-itn-2019.html
Marie Sklodowska-Curie Research and Innovation Staff Exchange (RISE)	
Single Stage Calls 2019 - Deadline 2 April 2019	
MSCA-RISE-2019 (MSCA-RISE)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-rise-2018.htm
Individual Fellowships (IF)	
Single Stage Calls 2019 - Deadline 11 September 2019	
MSCA-IF-2019 (MSCA-IF-EF-CAR, MSCA-IF-EF-RI, MSCA-IF-EF-ST, MSCA-IF-EF-SE, MSCA-IF-GF)	
MSCA-COFUND-2019: Co-funding of regional, national and international programmes	
Single Stage Calls 2019 - Deadline 26 September 2019	
MSCA-COFUND-2019 (MSCA-COFUND-DP)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/msca-cofund-2019.html

Research Infrastructures Work Programme

elinfrastructures 2018 – 2020 Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-infrastructures_en.pdf
Development and long-term sustainability of new pan-European research infrastructures (INFRADEV)	
Single stage calls 2019 - Deadline 29 January 2019	
INFRADEV-04-2019 (RIA) Fast track to the implementation of an ESFRI research infrastructure	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infradev-04-2019.html
Single stage calls 2019 - Deadline 20 March 2019	
INFRADEV-02-2019-2020 (CSA) Preparatory Phase of new ESFRI projects	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infradev-02-2019-2020.html
INFRADEV-03-2018-2019 (RIA) Individual support to ESFRI and other world-class research infrastructures	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infradev-03-2018-2019.html
Single stage calls 2019 - Deadline 12 November 2019	
INFRADEV-01-2019-2020 (RIA) Design Studies	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infradev-01-2019-2020.html
Implementing the European Open Science Cloud	
Single stage calls 2019 - Deadline 29 January 2018	
INFRAEOSC-02-2019 (RIA) Prototyping new innovative services	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infraeosc-02-2019.html
Single stage calls 2019 Deadline 20 March 2019	
INFRAEOSC-06-2019-2020 (RIA) Enhancing the EOSC portal and connecting thematic clouds	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infraeosc-06-2019-2020.html
Demonstrating the role of Research Infrastructures in the translation of Open Science into Open Innovation	
Single stage calls 2019 Deadline 20 March 2019	
INFRAINNOV-02-2019 (CSA) Network of research infrastructure Industrial Liaison and Contact Officers	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infrainnov-02-2019.html
Single stage calls 2019 Deadline 25 April 2019	
INFRAINNOV-01-2019 (RIA) Stimulate the innovation potential of SMEs	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infrainnov-01-2019.html
Support to policy and international cooperation (INFRASUPP)	
Single stage calls 2019 Deadline 20 March 2019	
INFRASUPP-01-2018-2019 (CSA,RIA) Policy and international cooperation measures for research infrastructures	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/infrasupp-01-2018-2019.html

II. Leadership in Enabling and Industrial Technologies

With the aim to make Europe a more attractive location for investment in research and innovation, it is envisaged that Horizon 2020 will build

- Leadership in enabling and industrial technologies with dedicated support for ICT, nanotechnologies, advanced materials, biotechnology, advanced manufacturing and processing, and space, while also providing support for cross-cutting actions to capture the accumulated benefits from combining several Key Enabling Technologies;
- Facilitate access to risk finance;
- Provide support for innovation in SMEs.

LEIT ICT Work Programme 2018 – 2020	http://www.ist-africa.org/home/files/h2020-wp1820-leit-ict_en.pdf
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ICT related challenges under the 2018 - 2020 Work Programme include Key-enabling Technologies (Micro-nano-electronics and photonics), Data Infrastructure, 5G and Next Generation Internet.

Leadership in Enabling and Industrial Technologies 2019 Calls

ICT 2019 - Information and Communications Technologies	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/calls/h2020-ict-2018-2020.html
Technologies for Digitising European Industry	
Single Stage Calls 2019 - Deadline 28 March 2019	
ICT-01-2019 (RIA, CSA) Computing technologies and engineering methods for cyber-physical systems of systems	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-01-2019.html
ICT-03-2018-2019 (IA) Photonics Manufacturing Pilot Lines for Photonic Components and Devices	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-03-2018-2019.html
ICT-05-2019 (RIA, IA, CSA) Application driven Photonics components	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-05-2019.html
ICT-06-2019 (RIA) Unconventional Nanoelectronics	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-06-2019.html
ICT-08-2019 (RIA) Security and resilience for collaborative manufacturing environments	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-08-2019.html
ICT-09-2019-2020 (CSA, RIA,IA) Robotics in Application Areas	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-09-2019-2020.html
ICT-10-2019-2020 (RIA) Robotics Core Technology	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-10-2019-2020.html
European Data Infrastructure: HPC, Big Data and Cloud technologies	
Single Stage Calls 2019 - Deadline 28 March 2019	
ICT-13-2018-2019 (IA) Supporting the emergence of data markets and the data economy	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-13-2018-2019.html
ICT-15-2019-2020 (CSA, RIA) Cloud Computing	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-15-2019-2020.html
ICT-20-2019-2020 (RIA) 5G Long Term Evolution	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-20-2019-2020.html

Single Stage Calls 2019 - Deadline 18 June 2019	
ICT-14-2020 (RIA) Co-designing Extreme Scale Demonstrators (EsD)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-14-2020.html
5G	
Single Stage Calls 2019 - Deadline 15 January 2019	
ICT-23-2019 (RIA) EU-Taiwan 5G collaboration	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-23-2019.html
Next Generation Internet (NGI)	
Single Stage Calls 2019 - Deadline 28 March 2019	
ICT-24-2018-2019 (RIA) Next Generation Internet - An Open Internet Initiative	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-24-2018-2019.html
ICT-30-2019-2020 (IA, CSA) An empowering, inclusive Next Generation Internet	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-30-2019-2020.html
ICT-31-2018-2019 (RIA) EU-US collaboration on NGI	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-31-2018-2019.html
Cross-cutting activities	
ICT-33-2019 (CSA, IA) Startup Europe for Growth and Innovation Radar	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-33-2019.html
ICT-34-2018-2019 (PCP) Pre-Commercial Procurement open	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-34-2018-2019.html
Digitising and transforming European industry and services: digital innovation hubs and platforms	
Support to Hubs	
Single Stage Calls 2019 - Deadline 2 April 2019	
DT-ICT-01-2019 (IA, CSA) Smart Anything Everywhere	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-01-2019.html
Platforms and Pilots	
DT-ICT-07-2018-2019 (CSA, IA) Digital Manufacturing Platforms for Connected Smart Factories	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-07-2018-2019.html
DT-ICT-11-2019 (IA) Big data solutions for energy	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-ict-11-2019.html
Cyber Security	
Single Stage Calls 2019 - Deadline 19 November 2019	
SU-ICT-02-2020 (RIA) Building blocks for resilience in evolving ICT systems	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ict-02-2020.html

III. Societal Challenges

As part of addressing the Europe 2020 strategy, funding will focus on the following challenges:

- Health, demographic change and wellbeing – Download [Work Programme](#)
- Food security, sustainable agriculture, marine and maritime research, and the bio-economy - Download [Work Programme](#)
- Secure, clean and efficient energy - Download [Work Programme](#)
- Smart, green and integrated transport - Download [Work Programme](#)
- Climate action, resource efficiency and raw materials - Download [Work Programme](#)
- Inclusive, innovative and reflective societies – Download [Work Programme](#)
- Secure Societies – Download [Work Programme](#)

Health, Demographic Change and Wellbeing Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-health_en.pdf
Food Security, Sustainable Agriculture, Marine and Maritime Research, and the Bio-Economy Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-food_en.pdf
Secure, Clean and Efficient Energy Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-energy_en.pdf
Smart, Green and Integrated Transport Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-transport_en.pdf
Climate Action, Resource Efficiency and Raw Materials Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-climate_en.pdf
Inclusive, Innovative and Reflective Societies Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-societies_en.pdf
Secure Societies Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-security_en.pdf

Societal Challenge 1: Health Demographic Change and Wellbeing

Health, Demographic Change and Wellbeing Work Programme

http://www.ist-africa.org/home/files/h2020-wp1820-health_en.pdf

Opportunities for international cooperation include:

- SC1-BHC-19-2019: Implementation research for maternal and child health - Research and Innovation action, deadlines: First Stage: **02 October 2018**; Second Stage: 16 April 2019

Societal Challenge 1: Health Demographic Change and Wellbeing	
Two stage calls 2019 - Stage 1 Deadline: 2 October 2018, Stage 2 Deadline: 16 April 2019	
Infectious diseases and improving global health	
SC1-BHC-14-2019 (RIA) Stratified host-directed approaches to improve prevention, treatment and/or cure of infectious diseases	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-13-2019.html
SC1-BHC-19-2019 (RIA) Implementation research for maternal and child health	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-19-2019.html
Single stage calls 2019 - Deadline 16 April 2019	
SC1-BHC-13-2019 (RIA) Mining big data for early detection of infectious disease threats driven by climate change and other factors	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-13-2019.html
SC1-HCO-15-2019 (CSA) Support for the functioning of the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-hco-15-2019.html
SC1-BHC-32-2019 (RIA) Towards a next generation influenza vaccine to protect citizens worldwide – an EU-India collaboration	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-32-2019.html
Personalised Medicine	
Two stage calls 2019 - Stage 1 Deadline: 2 October 2018, Stage 2 Deadline: 16 April 2019	
SC1-BHC-01-2019 (RIA) Understanding causative mechanisms in co- and multimorbidities combining mental and non-mental disorders	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-01-2019.html
SC1-BHC-02-2019 (RIA) Systems approaches for the discovery of combinatorial therapies for complex disorders	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-02-2019.html
SC1-BHC-30-2019 (RIA) Towards risk-based screening strategies for non-communicable diseases	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-30-2019.html

Single stage calls 2019 - Deadline 16 April 2019	
SC1-BHC-31-2019 (RIA) Pilot actions to build the foundations of a human cell atlas	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-31-2019.html
SC1-HCO-01-2018-2019-2020 (CSA) Actions in support of the International Consortium for Personalised Medicine	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-hco-01-2018-2019-2020.html
Innovative health and care industry	
Single stage calls 2019 - Deadline 16 April 2019	
SC1-BHC-07-2019 (RIA) Regenerative medicine: from new insights to new applications	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-07-2019.html
SC1-BHC-10-2019 (PCP) Innovation Procurement: Next generation sequencing (NGS) for routine diagnosis	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-10-2019.html
Infectious diseases and improving global health	
Two stage calls 2019 - Stage 1 Deadline: 2 October 2018, Stage 2 Deadline: 16 April 2019	
SC1-BHC-14-2019 (RIA) Stratified host-directed approaches to improve prevention, treatment and/or cure of infectious diseases	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-14-2019.html
SC1-BHC-19-2019 (RIA) Implementation research for maternal and child health	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-19-2019.html
Single stage calls 2019 - Deadline 16 April 2019	
SC1-BHC-13-2019 (RIA) Mining big data for early detection of infectious disease threats driven by climate change and other factors	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-13-2019.html
SC1-HCO-15-2019 (CSA) Support for the functioning of the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-hco-15-2019.html
SC1-BHC-32-2019 (RIA) Towards a next generation influenza vaccine to protect citizens worldwide – an EU-India collaboration	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-32-2019.html
Innovative health and care systems - Integration of care	
Two stage calls 2019 - Stage 1 Deadline: 2 October 2018, Stage 2 Deadline: 16 April 2019	
SC1-BHC-22-2019 (RIA) Mental health in the workplace	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-22-2019.html
SC1-BHC-25-2019 (IA) Demonstration pilots for implementation of personalised medicine in healthcare	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-25-2019.html
Decoding the role of the environment, including climate change, for health and well-being	
Single stage calls 2019 - Deadline 16 April 2019	
SC1-BHC-28-2019 (RIA) The Human Exposome Project: a toolbox for assessing and addressing the impact of environment on health	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-bhc-28-2019.html

Digital transformation in Health and Care	
Single stage calls 2019 - Deadline 24 April 2019	
SC1-DTH-01-2019 (RIA) Big data and Artificial Intelligence for monitoring health status and quality of life after the cancer treatment	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-01-2019.html
SC1-DTH-05-2019 (PPI) Large scale implementation of digital innovation for health and care in an ageing society	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-05-2019.html
SC1-DTH-09-2019 (IA) Scaling up the univocal Identification of Medicinal Products	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-09-2019.html
SC1-DTH-11-2019 (IA) Large Scale pilots of personalised & outcome based integrated care	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-dth-11-2019.html
SC1-HCC-02-2019 (CSA) Support for the large scale uptake of open service platforms in the Active and Healthy Ageing domain	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc1-hcc-02-2019.html

Societal Challenge 2: Food security, sustainable agriculture, marine and maritime research, and the bio-economy

Food Security, Sustainable Agriculture, Marine and Maritime Research, and the Bio-Economy Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-food_en.pdf
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This Work Programme will leverage research and innovation to address five challenges:

- Climate change and resilience on land and sea.
- Making the transition towards a circular bioeconomy
- Fostering functional ecosystems, sustainable food systems, healthy lifestyles
- Boosting major innovations on land and sea – new products, value chains and markets.
- Developing smart, connected territories and value chains in rural and coastal areas.

Opportunities for international cooperation include:

- SFS-12-2019: A vaccine against African swine fever - Innovation Action - deadline **23 January 2019**
- SFS-35-2019-2020: Sustainable Intensification in Africa - Research and Innovation Action - deadlines: First Stage: **23 Jan 2019**; Second stage 04 Sept 2019. Sub-topic A: proposals shall include at least five participants from specific region of Africa (as defined by the African Union) and a minimum of eight participants from Africa / Sub-topic B: proposals shall include at least eight participants from Africa. Due to logistics the laboratory for soil sample analysis should be located on the African continent.

Societal Challenge 2: Food security, sustainable agriculture, marine and maritime research, and the bio-economy	http://ec.europa.eu/programmes/horizon2020/en/h2020-section/food-security-sustainable-agriculture-and-forestry-marine-maritime-and-inland-water
Sustainable Food Security	
From functional ecosystems to healthy food	
Two stage calls 2019 - Stage 1 Deadline: 23 January 2019, Stage 2 Deadline: 4 September 2019	
SFS-01-2018-2019-2020 (RIA) Biodiversity in action: across farmland and the value chain	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-01-2018-2019-2020.html
SFS-04-2019-2020 (RIA) Integrated health approaches and alternatives to pesticide use	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-04-2019-2020.html
SFS-05-2018-2019-2020 (RIA) New and emerging risks to plant health	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-05-2018-2019-2020.html
Single stage calls 2019 - Deadline 23 January 2019	
SFS-08-2018-2019 (IA) Improving animal welfare	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-08-2018-2019.html
SFS-11-2018-2019 (IA) Anti-microbials and animal production	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-11-2018-2019.html
SFS-12-2019 (IA) A vaccine against African swine fever	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-12-2019.html

LC-SFS-17-2019 (IA) Alternative proteins for food and feed	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-17-2019.html
Environment and climate-smart food production and consumption	
Two stage calls 2019 - Stage 1 Deadline: 23 January 2019, Stage 2 Deadline: 4 September 2019	
LC-SFS-19-2018-2019 (RIA) Climate-smart and resilient farming	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-19-2018-2019.html
SFS-23-2019 (RIA) Integrated water management in small agricultural catchments	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-23-2019.html
Single stage calls 2019 - Deadline 23 January 2019	
LC-SFS-20-2019 (COFUND-EJP) European Joint Programme on agricultural soil management	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-20-2019.html
CE-SFS-24-2019 (IA) Innovative and citizen-driven food system approaches in cities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sfs-24-2019.html
Building capacities	
Two stage calls 2019 - Stage 1 Deadline: 23 January 2019, Stage 2 Deadline: 4 September 2019	
SFS-28-2018-2019-2020 (RIA) Genetic resources and pre-breeding communities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-28-2018-2019-2020.html
SFS-30-2018-2019-2020 (RIA) Agri-Aqua Labs	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-30-2018-2019-2020.html
Single stage calls 2019 - Deadline 23 January 2019	
DT-SFS-26-2019 (IA) Food Cloud demonstrators	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-sfs-26-2019.html
SFS-31-2019 (ERA-NET-Cofund) ERANETs in agri-food	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-31-2019.html
Targeted international cooperation	
Two stage calls 2019 - Stage 1 Deadline: 23 January 2019, Stage 2 Deadline: 4 September 2019	
LC-SFS-34-2019 (RIA) Food Systems Africa	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sfs-34-2019.html
SFS-35-2019-2020 (RIA) Sustainable Intensification in Africa	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-35-2019-2020.html
SFS-37-2019 (RIA) Integrated approaches to food safety controls across the food chain	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sfs-37-2019.html
Single stage calls 2019 - Deadline 23 January 2019	
CE-SFS-39-2019 (IA) High-quality organic fertilisers from biogas digestate	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sfs-39-2019.html
Blue Growth	
Two stage calls 2019 - Stage 1 Deadline: 23 January 2019, Stage 2 Deadline: 4 September 2019	
BG-08-2018-2019 (RIA) All Atlantic Ocean Research Alliance Flagship	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-08-2018-2019.html
Single stage calls 2019 - Deadline 23 January 2019	
DT-BG-04-2018-2019 (IA) Sustainable European aquaculture 4.0: nutrition and breeding	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-bg-04-2018-2019.html
BG-05-2019 (IA) Multi-use of the marine space, offshore and	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-05-2019.html

near-shore: pilot demonstrators	
CE-BG-06-2019 (IA) Sustainable solutions for bio-based plastics on land and sea	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-bg-06-2019.html
BG-07-2019-2020 (IA) The Future of Seas and Oceans Flagship Initiative	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/bg-07-2019-2020.html
LC-BG-09-2019 (CSA) Coordination of marine and maritime research and innovation in the Black Sea	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-bg-09-2019.html
Rural Renaissance	
From farm to society: understanding dynamics and modernising policies	
Two stage calls 2019 - Stage 1 Deadline: 23 January 2019, Stage 2 Deadline: 4 September 2019	
RUR-01-2018-2019 (RIA) Building modern rural policies on long-term visions and societal engagement	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-01-2018-2019.html
RUR-04-2018-2019 (RIA) Analytical tools and models to support policies related to agriculture and food	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-04-2018-2019.html
Single stage calls 2019 - Deadline 23 January 2019	
RUR-01-2018-2019 (CSA) Building modern rural policies on long-term visions and societal engagement	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-01-2018-2019.html
Organising sustainable food and non-food value chains under changing conditions	
Single stage calls 2019 - Deadline 23 January 2019	
CE-RUR-08-2018-2019-2020 (IA) Closing nutrient cycles	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-rur-08-2018-2019-2020.html
CE-RUR-10-2019 (IA) Circular bio-based business models for rural communities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-rur-10-2019.html
LC-RUR-11-2019-2020 (IA) Sustainable wood value chains	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-rur-11-2019-2020.html
RUR-18-2019 (CSA) Support to the BIOEAST initiative: boosting knowledge and innovationbased bioeconomies	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-18-2019.html
Boosting innovation and enhancing the human and social capital in rural areas	
Single stage calls 2019 - Deadline 23 January 2019	
RUR-15-2018-2019-2020 (CSA) Thematic networks compiling knowledge ready for practice	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-15-2018-2019-2020.html
RUR-16-2019 (CSA) Fuelling the potential of advisors for innovation	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-16-2019.html
RUR-17-2019 (CSA) Reinforcing the EU agricultural knowledge base	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/rur-17-2019.html

Societal Challenge 3: Secure, Clean and Efficient Energy

Secure, Clean and Efficient Energy Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-energy_en.pdf
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This work programme is focused on four focal areas: Building a low-carbon, climate resilient future; Connecting economic and environmental gains - the Circular Economy; Digitising and transforming European industry and services and Boosting the effectiveness of the Security Union.

Societal Challenge 3: Secure, Clean and Efficient Energy		http://ec.europa.eu/programmes/horizon2020/en/h2020-section/secure-clean-and-efficient-energy
Global leadership in renewables		
Two stage calls 2019 - Stage 1 Deadline: 16 October 2018, Stage 2 Deadline: 25 April 2019		
LC-SC3-RES-1-2019-2020(RIA) Developing the next generation of renewable energy technologies		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-1-2019-2020.html
LC-SC3-RES-14-2019 (RIA) Optimising manufacturing and system operation		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-14-2019.html
Single stage calls 2019 - Deadline 27 August 2019		
LC-SC3-RES-29-2019 (RIA) Converting Sunlight to storable chemical energy		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-29-2019.html
LC-SC3-RES-7-2019 (RIA) Solar Energy in Industrial Processes		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-7-2019.html
LC-SC3-RES-16-2019 (RIA) Development of solutions based on renewable sources that provide flexibility to the energy system		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-16-2019.html
LC-SC3-RES-23-2019 (RIA) Development of next generation biofuel and alternative renewable fuel technologies for aviation and shipping		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-res-23-2019.html
Joint Actions		
Single stage calls 2019 - Deadline 27 August 2019		
LC-SC3-JA-2-2018-2019 (CSA) Support to the realisation of the Implementation Plans of the SET Plan		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ja-2-2018-2019.html
LC-SC3-JA-3-2019 (PCP) European Pre-Commercial Procurement Programme for Wave Energy Research &Development		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ja-3-2019.html
Smart citizen-centred energy system		
Single stage calls 2019 - Deadline 5 February 2019		
LC-SC3-ES-1-2019 (IA) Flexibility and retail market options for the distribution grid		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-1-2019.html

LC-SC3-ES-2-2019 (IA) Solutions for increased regional cross-border cooperation in the transmission grid	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-2-2019.html
LC-SC3-ES-6-2019 (RIA) Research on advanced tools and technological development	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-6-2019.html
LC-SC3-ES-8-2019 (CSA) European Islands Facility - Unlock financing for energy transitions and supporting islands to develop investment concepts	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-8-2019.html
Single stage calls 2019 - Deadline 27 August 2019	
LC-SC3-ES-9-2019 (ERA-NETCofund) ERA-NET Co-Fund Enhanced cooperation in Digitalisation of Energy Systems and Networks	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-es-9-2019.html
Smart Cities and Communities	
Single stage calls 2019 - Deadline 5 February 2019	
LC-SC3-SCC-1-2018-2019-2020(IA) Smart Cities and Communities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-scc-1-2018-2019-2020.html
Cross-cutting issues	
Single stage calls 2019 - Deadline 27 August 2019	
LC-SC3-CC-1-2018-2019-2020(RIA) Social Sciences and Humanities (SSH) aspects of the Clean-Energy Transition	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-cc-1-2018-2019-2020.html
LC-SC3-CC-3-2019(CSA) Support for the opening of low-carbon energy research databases in Europe	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-cc-3-2019.html
Secure, clean and efficient energy	
Energy efficiency	
Single stage calls 2019 - Deadline 3 September 2019	
LC-SC3-EE-1-2018-2019-2020 (IA) Decarbonisation of the EU building stock: innovative approaches and affordable solutions changing the market for buildings renovation	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-1-2018-2019-2020.html
LC-SC3-EE-2-2018-2019 (CSA) Integrated home renovation services	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-2-2018-2019.html
LC-SC3-EE-3-2019-2020 (CSA) Stimulating demand for sustainable energy skills in the construction sector	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-3-2019-2020.html
LC-SC3-EE-4-2019-2020 (IA) Upgrading smartness of existing buildings through innovations for legacy equipment	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-4-2019-2020.html
LC-SC3-EE-5-2018-2019-2020 (IA) Next-generation of Energy Performance Assessment and Certification	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-5-2018-2019-2020.html
LC-SC3-EE-6-2018-2019-2020(CSA) Business case for industrial waste heat/cold recovery	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-6-2018-2019-2020.html
LC-SC3-EE-8-2018-2019 (CSA) Capacity building programmes to support implementation of energy audits	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-8-2018-2019.html

LC-SC3-EE-9-2018-2019 (CSA) Innovative financing for energy efficiency investments	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-9-2018-2019.html
LC-SC3-EE-10-2018-2019-2020(CSA) Mainstreaming energy efficiency finance	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-10-2018-2019-2020.html
LC-SC3-EE-11-2018-2019-2020(CSA) Aggregation - Project Development Assistance	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-11-2018-2019-2020.html
LC-SC3-EE-13-2018-2019-2020(IA) Enabling next-generation of smart energy services valorising energy efficiency and flexibility at demand-side as energy resource	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-13-2018-2019-2020.html
LC-SC3-EE-14-2018-2019-2020(RIA) Socio-economic research conceptualising and modelling energy efficiency and energy demand	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-14-2018-2019-2020.html
LC-SC3-EE-16-2018-2019-2020(CSA) Supporting public authorities to implement the Energy Union	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-16-2018-2019-2020.html
LC-SC3-EE-18-2019 (CSA) Bioclimatic approaches for improving energy performance in buildings in Africa and Europe	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-18-2019.html
Single stage calls 2019 - Deadline 5 September 2019	
LC-SC3-EE-17-2019 (CSA) European City Facility - European cities as key innovation hubs to unlock finance for energy efficiency	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ee-17-2019.html
Smart and clean energy for consumers	
Single stage calls 2019 - Deadline 3 September 2019	
LC-SC3-EC-1-2018-2019-2020(CSA) The role of consumers in changing the market through informed decision and collective actions	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ec-1-2018-2019-2020.html
LC-SC3-EC-2-2018-2019-2020(CSA) Mitigating household energy poverty	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-ec-2-2018-2019-2020.html
Enabling near-zero CO2 emissions from fossil fuel power plants and carbon intensive industries	
Single stage calls 2019 - Deadline 27 August 2019	
LC-SC3-NZE-4-2019 (IA) Integrated solutions for flexible operation of fossil fuel power plants through power-to-X-to-power and/or energy storage	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-nze-4-2019.html
LC-SC3-NZE-5-2019-2020 (IA) Low carbon industrial production using CCUS	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-sc3-nze-5-2019-2020.html

Societal Challenge 4: Smart, Green and Integrated Transport

Smart, Green and Integrated Transport Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-transport_en.pdf
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This work programme is structured in four broad lines of activities aiming at:

- a) Resource efficient transport that respects the environment;
- b) Better mobility, less congestion, more safety and security;
- c) Global leadership for the European transport industry; and
- d) Socio-economic and behavioural research and forward-looking activities for policy making.

These activities are addressed in this Work Programme by three Calls for proposals:

1. Mobility for Growth
2. Digitising and transforming European industry and services: Automated Road Transport
3. Building a low-carbon, climate resilient future: Green Vehicles

Societal Challenge 4: Smart, green and integrated transport http://ec.europa.eu/programmes/horizon2020/en/h2020-section/smart-green-and-integrated-transport	
Building a Low-Carbon, Climate Resilient Future: Low-Carbon And Sustainable Transport	
Two stage calls 2019 - Stage 1 Deadline: 16 January 2019, Stage 2 Deadline: 12 September 2019	
LC-MG-1-5-2019 (RIA) Advancements in aerodynamics and innovative propulsion systems for quieter and greener aircrafts	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-5-2019.html
LC-MG-1-8-2019 (IA,RIA) Retrofit Solutions and Next Generation Propulsion for Waterborne Transport	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-8-2019.html
LC-MG-1-9-2019 (RIA) Upgrading transport infrastructure in order to monitor noise and emissions	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-9-2019.html
LC-MG-1-10-2019 (RIA) Logistics solutions that deal with requirements of the 'on demand economy' and for shared-connected and low-emission logistics operations	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-10-2019.html
Single stage calls 2019 - Deadline 25 April 2019	
LC-MG-1-6-2019 (RIA) Aviation operations impact on climate change (InCo flagship)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-6-2019.html
LC-MG-1-11-2019 (CSA) Structuring R&I towards zero emission waterborne transport	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-11-2019.html
LC-MG-1-7-2019 (RIA) Future propulsion and integration: towards a hybrid/electric aircraft (InCo flagship)	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-mg-1-7-2019.html

Safe, Integrated and Resilient Transport Systems	
Two stage calls 2019 - Stage 1 Deadline: 16 January 2019, Stage 2 Deadline: 12 September 2019	
MG-2-6-2019 (RIA) Moving freight by Water: Sustainable Infrastructure and Innovative Vessels	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-6-2019.html
MG-2-7-2019 (RIA) Safety in an evolving road mobility environment	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-7-2019.html
MG-2-8-2019 (RIA) Innovative applications of drones for ensuring safety in transport	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-8-2019.html
MG-2-9-2019 (RIA) InCo Flagship on Integrated multimodal, low-emission freight transport systems and logistics	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-2-9-2019.html
Accounting for the People	
Single stage calls 2019 - Deadline 16 January 2019	
MG-4-4-2018-2019 (CSA) Support for dissemination events in the field of Transport Research	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-4-4-2018-2019.html
Single stage calls 2019 - Deadline 25 April 2019	
MG-4-5-2019 (RIA) An inclusive digitally interconnected transport system meeting citizens' needs	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-4-5-2019.html
MG-4-6-2019 (ERA-NET-Cofund) Supporting Joint Actions on sustainable urban accessibility and connectivity	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-4-6-2019.html
Blue Growth	
Single stage calls 2019 - Deadline 25 April 2019	
MG-BG-02-2019 (RIA) Ship emission control scenarios, marine environmental impact and mitigation	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/mg-bg-02-2019.html
Digitising and Transforming European Industry and Services: Automated Road Transport	
Single stage calls 2019 - Deadline 25 April 2019	
DT-ART-03-2019 (RIA) Human centred design for the new driver role in highly automated vehicles	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-art-03-2019.html
DT-ART-04-2019 (IA) Developing and testing shared, connected and cooperative automated vehicle fleets in urban areas for the mobility of all	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-art-04-2019.html
Building a low-carbon, climate resilient future: Green Vehicles	
Single stage calls 2019 - Deadline 25 April 2019	
LC-GV-03-2019 (IA) User centric charging infrastructure	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-gv-03-2019.html
LC-GV-04-2019 (IA) Low-emissions propulsion for long-distance trucks and coaches	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-gv-04-2019.html
LC-GV-05-2019 (IA) InCo flagship on "Urban mobility and sustainable electrification in large urban areas in developing and emerging economies"	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-gv-05-2019.html

Societal Challenge 5: Climate action, resource efficiency and raw materials

Climate Action, Resource Efficiency and Raw Materials Work Programme http://www.ist-africa.org/home/files/h2020-wp1820-climate_en.pdf

This work programme is focused on six priorities:

- Climate action in support of the Paris Agreement
- Circular economy
- Raw materials
- Water for our environment, economy and society
- Innovating cities for sustainability and resilience
- Protecting and leveraging the value of our natural and cultural assets (which includes Earth observation, nature-based solutions, disaster risk reduction and natural capital accounting, and heritage alive).

Societal Challenge 5: Climate action, resource efficiency and raw materials		http://ec.europa.eu/programmes/horizon2020/en/h2020-section/climate-action-environment-resource-efficiency-and-raw-materials
Building a low carbon, climate resilient future		
Decarbonisation		
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019		
LC-CLA-02-2019 (RIA) Negative emissions and land-use based mitigation assessment	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-02-2019.html	
Climate Adaptation, impacts and services		
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019		
LC-CLA-05-2019 (RIA) Human dynamics of climate change	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-05-2019.html	
Inter-relationships between climate change, biodiversity and ecosystem services		
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019		
LC-CLA-06-2019 (RIA) Inter-relationships between climate change, biodiversity and ecosystem services	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-06-2019.html	
Single stage calls 2019 - Deadline 19 February 2019		
LC-CLA-09-2019 (ERA-NET-Cofund) Cofund action on biodiversity and climate change: Impacts, feedbacks, and nature-based solutions for climate change adaptation and mitigation	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-09-2019.html	
The Cryosphere		
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019		
LC-CLA-07-2019 (RIA) The changing cryosphere: uncertainties, risks and opportunities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-07-2019.html	

Single stage calls 2019 - Deadline 19 February 2019	
LC-CLA-07-2019 (CSA) The changing cryosphere: uncertainties, risks and opportunities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/lc-cla-07-2019.html
Greening the economy in line with Sustainable Development Goals	
Connecting economic and environmental gains - the circular economy	
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019	
CE-SC5-04-2019 (IA) Building a water-smart economy and society	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sc5-04-2019.html
Raw materials	
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019	
CE-SC5-07-2018-2019-2020 (IA) Raw materials innovation for the circular economy: sustainable processing, reuse, recycling and recovery schemes	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sc5-07-2018-2019-2020.html
SC5-09-2018-2019 (RIA) New solutions for the sustainable production of raw materials	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-09-2018-2019.html
SC5-10-2019-2020 (IA) Raw materials innovation actions: exploration and Earth observation in support of sustainable mining	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-10-2019-2020.html
Single stage calls 2019 - Deadline 19 February 2019	
CE-SC5-08-2018-2019-2020 (CSA) Raw materials policy support actions for the circular economy	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ce-sc5-08-2018-2019-2020.html
Innovating cities for sustainability and resilience	
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019	
SC5-13-2018-2019 (RIA) Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-13-2018-2019.html
SC5-14-2019 (IA) Visionary and integrated solutions to improve well-being and health in cities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-14-2019.html
Protecting and leveraging the value of our natural and cultural assets: Earth observation	
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019	
SC5-16-2019 (IA) Development of commercial activities and services through the use of GEOSS and Copernicus data	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-16-2019.html
Single stage calls 2019 - Deadline 19 February 2019	
SC5-16-2019 (CSA) Development of commercial activities and services through the use of GEOSS and Copernicus data	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-16-2019.html

Protecting and leveraging the value of our natural and cultural assets: Nature-based solutions, disaster risk reduction and natural capital accounting	
Single stage calls 2019 - Deadline 4 September 2019	
SC5-23-2019 (CSA) Multi-stakeholder dialogue platform to promote nature-based solutions to societal challenges: follow-up project	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-23-2019.html
Protecting and leveraging the value of our natural and cultural assets: Heritage alive	
Two stage calls 2019 - Stage 1 Deadline: 19 February 2019, Stage 2 Deadline: 4 September 2019	
SC5-20-2019 (IA) Transforming historic urban areas and/or cultural landscapes into hubs of entrepreneurship and social and cultural integration	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-20-2019.html
Specific support and implementation aspects	
Single stage calls 2019 - Deadline 19 February 2019	
SC5-21-2019-2020 (ERA-NETCofund) Cofund action for climate action, environment, resource efficiency and raw materials	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-21-2019-2020.html
SC5-22-2019 (CSA) Assessing and fostering the impacts of Research and Innovation Actions (RIA) and Innovation Actions (IA) granted by Societal Challenge 5 in 2014-2015	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/sc5-22-2019.html

Societal Challenge 6: Inclusive, innovative and reflective societies

Inclusive, Innovative and Reflective Societies Work Programme http://www.ist-africa.org/home/files/h2020-wp1820-societies_en.pdf

The three SC6 calls for proposals on migration, transformations and governance encourage multidisciplinary, cross-national, comparative and participatory approaches.

Societal Challenge 6: Inclusive, innovative and reflective societies <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/europe-changing-world-inclusive-innovative-and-reflective-societies>

Migration

Single stage calls 2019 - Deadline 14 March 2019

MIGRATION-01-2019 (RIA) Understanding migration mobility patterns: elaborating mid and long-term migration scenarios	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-01-2019.html
MIGRATION-03-2019 (RIA) Social and economic effects of migration in Europe and integration policies	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-03-2019.html
DT-MIGRATION-06-2018-2019 (IA) Addressing the challenge of migrant integration through ICT-enabled solutions	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-migration-06-2018-2019.html
MIGRATION-07-2019 (RIA) International protection of refugees in a comparative perspective	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-07-2019.html

Socioeconomic and Cultural Transformations in the context of the Fourth Industrial Revolution

Single stage calls 2019 - Deadline 14 March 2019

DT-TRANSFORMATIONS-02-2018-2019-2020(RIA) Transformative impact of disruptive technologies in public services	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-02-2018-2019-2020.html
TRANSFORMATIONS-03-2018-2019 (RIA) Innovative solutions for inclusive and sustainable urban environments	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-03-2018-2019.html
TRANSFORMATIONS-04-2019-2020 (RIA) Innovative approaches to urban and regional development through cultural tourism	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-04-2019-2020.html
DT-TRANSFORMATIONS-07-2019 (CSA, RIA) The impact of technological transformations on children and youth	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-07-2019.html
TRANSFORMATIONS-08-2019 (RIA) The societal value of culture and the impact of cultural policies in Europe	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-08-2019.html
DT-TRANSFORMATIONS-11-2019 (RIA) Collaborative approaches to cultural heritage for social cohesion	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-11-2019.html

TRANSFORMATIONS-13-2019 (RIA) Using big data approaches in research and innovation policy making	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-13-2019.html
TRANSFORMATIONS-16-2019 (CSA) Social platform on the impact assessment and the quality of interventions in European historical environment and cultural heritage sites	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-16-2019.html
TRANSFORMATIONS-17-2019 (RIA) Societal challenges and the arts	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-17-2019.html
Governance for the Future	
Single stage calls 2019 - Deadline 14 March 2019	
GOVERNANCE-01-2019 (RIA) Trust in governance	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-01-2019.html
GOVERNANCE-02-2018-2019 (CSA) Past, present and future of differentiation in European governance	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-02-2018-2019.html
GOVERNANCE-04-2019 (RIA) Enhancing social rights and EU citizenship	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-04-2019.html
DT-GOVERNANCE-05-2018-2019-2020 (RIA) New forms of delivering public goods and inclusive public services	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-governance-05-2018-2019-2020.html
SU-GOVERNANCE-10-2019 (RIA) Drivers and contexts of violent extremism in the broader MENA region and the Balkans	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-governance-10-2019.html
DT-GOVERNANCE-12-2019-2020 (IA) Pilot on using the European cloud infrastructure for public administrations	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-governance-12-2019-2020.html
DT-GOVERNANCE-13-2019 (RIA) Digitisation, Digital Single Market and European culture: new challenges for creativity, intellectual property rights and copyright	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-governance-13-2019.html
GOVERNANCE-16-2019 (CSA) Reversing Inequalities	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-16-2019.html
GOVERNANCE-17-2019 (CSA) Democratic crisis? Resolving socio-economic and political challenges to reinvigorate democracies	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-17-2019.html
GOVERNANCE-18-2019 (CSA) Innovation in government - building an agile and citizen-centric public sector	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-18-2019.html
GOVERNANCE-19-2019 (CSA) A European Social Catalyst Fund to scale up high performing social innovations in the provision of social services	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-19-2019.html

Societal Challenge 7: Secure Societies

Secure Societies Work Programme	http://www.ist-africa.org/home/files/h2020-wp1820-security_en.pdf
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All actions under this work programme contribute to the Focus Area 'Boosting the effectiveness of the Security Union'.

Societal Challenge 7: Secure Societies		http://ec.europa.eu/programmes/horizon2020/en/h2020-section/secure-societies-%E2%80%93-protecting-freedom-and-security-europe-and-its-citizens
Protecting the infrastructure of Europe and the people in the European smart cities		
Single stage calls 2019 - Deadline 22 August 2019		
SU-INFRA01-2018-2019-2020 (IA) Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-infra01-2018-2019-2020.html
SU-INFRA02-2019 (IA) Security for smart and safe cities, including for public spaces		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-infra02-2019.html
Security		
Disaster-Resilient Societies		
Single stage calls 2019 - Deadline 22 August 2019		
SU-DRS01-2018-2019-2020 (RIA) Human factors, and social, societal, and organisational aspects for disaster-resilient societies		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs01-2018-2019-2020.html
SU-DRS02-2018-2019-2020 (RIA) Technologies for first responders		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs02-2018-2019-2020.html
SU-DRS03-2018-2019-2020 (IA) Pre-normative research and demonstration for disasterresilient societies		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs03-2018-2019-2020.html
SU-DRS04-2019-2020 (RIA) Chemical, biological, radiological and nuclear (CBRN) cluster		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs04-2019-2020.html
SU-DRS05-2019 (IA) Demonstration of novel concepts for the management of pandemic crises		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-drs05-2019.html
Fight against Crime and Terrorism		
Single stage calls 2019 - Deadline 22 August 2019		
SU-FCT01-2018-2019-2020 (RIA) Human factors, and social, societal, and organisational aspects to solve issues in fighting against crime and terrorism		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct01-2018-2019-2020.html
SU-FCT02-2018-2019-2020 (RIA) Technologies to enhance the fight against crime and terrorism		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct02-2018-2019-2020.html
SU-FCT03-2018-2019-2020 (IA) Information and data stream management to fight against (cyber)crime and terrorism		http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-fct03-2018-2019-2020.html

Border and External Security	
Single stage calls 2019 - Deadline 22 August 2019	
SU-BES01-2018-2019-2020 (RIA) Human factors, and social, societal, and organisational aspects of border and external security	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes01-2018-2019-2020.html
SU-BES02-2018-2019-2020 (RIA) Technologies to enhance border and external security	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes02-2018-2019-2020.html
SU-BES03-2018-2019-2020 (IA) Demonstration of applied solutions to enhance border and external security	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-bes03-2018-2019-2020.html
General Matters	
Single stage calls 2019 - Deadline 22 August 2019	
SU-GM01-2018-2019-2020 (CSA) Pan-European networks of practitioners and other actors in the field of security	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-gm01-2018-2019-2020.html
SU-GM03-2018-2019-2020 (PCP) Pre-commercial procurements of innovative solutions to enhance security	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-gm03-2018-2019-2020.html
Digital Security	
SU-DS02-2020: Management of cyber-attacks and other risks	
Single stage calls 2019 - Deadline 22 August 2019	
SU-DS03-2019-2020 (IA) Digital Security and privacy for citizens and Small and Medium Enterprises and Micro Enterprises	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ds03-2019-2020.html
SU-DS05-2018-2019 (RIA, IA) Digital security, privacy, data protection and accountability in critical sectors	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/su-ds05-2018-2019.html

Relevant Links

Please visit the **Horizon 2020** section within the Participants portal to download the Proposers Guide and specific templates to prepare proposals for submission under calls open in 2018 - 2019 within specific Societal Challenges and LEIT themes:

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

Relevant Links to get more information	
Horizon 2020 Official site	http://ec.europa.eu/programmes/horizon2020/
Horizon 2020 Calls on Participants Portal	http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/index.html
Frequently Asked Questions on Horizon 2020	http://ec.europa.eu/programmes/horizon2020/en/faq
Call for Experts for Horizon 2020 Advisory Groups	http://ec.europa.eu/research/horizon2020/index_en.cfm?pg=h2020-experts
International Cooperation in Research and Innovation, Communication COM (2012) 497 Sept 2012	http://www.ist-africa.org/home/files/InternationalCooperation_ResearchInnovation_Com_2012_497_Sept2012.pdf
Innovation Union Europe 2020 Initiative	http://ec.europa.eu/research/innovation-union/index_en.cfm