H2020 Proposal Building Workshop

Amsterdam, 22-23 October 2018

We will host a two-day proposal preparation workshop in Amsterdam on 22-23 October. The idea is to share the burden of consortium forming and proposal preparation and to work collaboratively across different calls.

We will address open and forthcoming calls of common interest, mainly under Science with and for Society (SwafS), Societal Challenge 6 and ICT but also other calls in which you are interested.

Agenda

Monday 22 October

11:00-12:00   Welcome & Introductions

12:00-13:00   Overview and Scene Setting

13:00-14:00   Lunch

14:00-18:00   Call Clustering & Parallel Working Groups (SC6 Calls)

19:30   Dinner *(location to be decided)*

Tuesday 23 October

09:30-10:00   Recap

10:00-13:00   Call Clustering & Parallel Working Groups (SWAFS Calls)

13:00-14:00   Lunch

14:00-17:00   Call Clustering & Parallel Working Groups (ICT and Other Calls)

17:00   Close

Register

Please use this link to register:
https://www.eventbrite.com/e/h2020-proposal-development-workshop-tickets-50587308000

Location

Spring House
De Ruijterkade 128
Amsterdam
https://www.google.co.uk/maps/place/Spring+House/@52.3780471,4.9042781,15z/data=!
4m5!3m4!1s0x0:0x912d3d25c30228aa!8m2!3d52.3775231!4d4.9071963?hl=en

Indicative list of organisations invited

- HKU University of the Arts Utrecht
- ENoLL European Network of Living Labs
- Vandejong
- T6
- Politecnico di Milano
- Eurokleis
- Université Catholique de Louvain
- CitiLab Barcelona
- ENTI-UB Escola de Noves Tecnologies Interactives Barcelona
- BEDA
- EBAN
- ERRIN
- University of Osnabruk
- HBKsaar Hochschule der Bildenden Künste Saar
- Luxembourg Institute of Science & Technology
- Kaunus University of Technology
- Università di Bologna
- UOC Universitat Oberta de Catalunya
- University of Florence DSI
- BWCon Stuttgart
- Laurea University Helsinki
- EU SchoolNet Brussels
- University of Bordeaux
- UAB Universitat Autònoma de Barcelona
- University of the Aegean
- KEA European Affairs, Brussels
- *and many more*

If you would like to invite other colleague organisations that you think would be interested, please do so directly and use the registration link:
https://www.eventbrite.com/e/h2020-proposal-development-workshop-tickets-50587308000

Open & Forthcoming Calls

The following list of calls is selected from:

- Societal Challenge 6
- Science with and for Society
- ICT

You are invited to indicate those calls in which you are most interested in the attached spreadsheet. Please also add other calls, for example from other Societal Challenges, that you consider interesting.

We will then cluster the responses and shape the discussions around the most relevant calls and interested organisations.

SC6 Calls

MIGRATION-01-2019 Understanding migration mobility patterns: elaborating mid and long-term migration scenarios

MIGRATION-06-2019 Addressing the challenge of migrant integration through ICT-enabled solutions

MIGRATION-03-2019 Social and economic effects of migration in Europe and integration policies

MIGRATION-07-2019 International protection of refugees in a comparative perspective

TRANSFORMATIONS-02-2019 Transformative impact of disruptive technologies in public services

TRANSFORMATIONS-03-2019 Innovative solutions for inclusive and sustainable urban environments

TRANSFORMATIONS-04-2019 Innovative approaches to urban and regional development through cultural tourism

TRANSFORMATIONS-07-2019 The impact of technological transformations on children and youth

TRANSFORMATIONS-08-2019 The societal value of culture and the impact of cultural policies in Europe

TRANSFORMATIONS-11-2019 Collaborative approaches to cultural heritage for social cohesion

TRANSFORMATIONS-13-2019 Using big data approaches in research and innovation policy making

TRANSFORMATIONS-16-2019 Social platform on the impact assessment and the quality of interventions in European historical environment and cultural heritage sites

TRANSFORMATIONS-17-2019 Societal challenges and the arts

GOVERNANCE-04-2019 Enhancing social rights and EU citizenship

GOVERNANCE-13-2019 Digitisation, Digital Single Market and European culture: new challenges for creativity, intellectual property rights and copyright

GOVERNANCE-17-2019 Democratic crisis? Resolving socio-economic and political challenges to reinvigorate democracies

GOVERNANCE-18-2019 Innovation in government - building an agile and citizen-centric public sector

SWAFS Calls

SWAFS-01-2019 Open schooling and collaboration on science education

SWAFS-05-2019 Grounding RRI practices in research and innovation funding and performing organisations

SWAFS-07-2019 EURAXESS TOP V

SWAFS-08-2019 Research innovation needs & skills training in PhD programmes

SWAFS-09-2019 Supporting research organisations to implement gender equality plans

SWAFS-11-2019 Scenarios for an award/certification system for gender equality in research organisations and universities in Europe

SWAFS-12-2019 The gender perspective of science, technology and innovation (STI) in dialogue with third countries

SWAFS-14-2019 Supporting the development of territorial Responsible Research and Innovation

SWAFS-15-2019 Exploring and supporting citizen science

SWAFS-16-2019 Ethics of Innovation: the challenge of new interaction modes

SWAFS-17-2019 Consolidating and expanding the knowledge base on citizen science

SWAFS-19-2019 Taking stock and re-examining the role of science communication

SWAFS-20-2019 Building the SwafS knowledge base

ICT Calls

ICT-25-2019 Interactive Technologies

ICT-33-2019 Startup Europe for Growth and Innovation Radar

Other Calls

SC5-14-2019 Visionary and integrated solutions to improve well-being and health in cities

DT-TDS-01-2019 Smart and healthy living at home

SC6 Calls

MIGRATION-01-2019 Understanding migration mobility patterns: elaborating mid and long-term migration scenarios

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-01-2019.html

RIA, 9m, 3m per project
14.03.2019

Specific Challenge:
Global migration is growing in scope, complexity and diversity, which requires better preparedness and responses. A deeper understanding of the drivers of migration and of their interrelation with people's propensity to migrate is needed as well as projections and scenarios that are essential for appropriate planning and effective policymaking.

Scope:
Patterns, motivations and modalities of migration should be explored, with a focus on new geographies and temporalities. This may include among others the changing nature of flows and factors such as international demand for and supply of labour, sector policies in countries of origin and destination, aging population in industrialised countries, demographic trends in countries of origin, migration propensity, transnational networks, the impact of corruption, shifting representations of Europe, temporary migration and return (both voluntary and forced) and forced movements linked to conflicts, environment-related threats, other relevant geopolitical factors, international development and regional policies, as well as livelihood opportunities (e.g. inequalities, income levels, poor job opportunities, working conditions, traditional gender roles). The movement of third country nationals among the various regions of the EU should also be analysed. Proposals should capture population estimates and synthesise solid data on gross international migration flows, including towards Europe, in order to identify emerging trends and anticipate future patterns. Proposals should address the gender dimension of international migration and large-scale movements of migrants, including minors unaccompanied and with their families. Proposals should also reappraise assumptions about migration and identify key uncertainties. The involvement of refugee and migrant scholars and scientists from relevant backgrounds and disciplines is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU in the order 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 action will enhance the knowledge base on migration-related flows, drivers, attitudes and behaviours in qualitative and quantitative terms. Scenarios and projections will inform evidence-based governance and regulatory frameworks at international and EU levels as well as relevant sector policies in EU Member States, e.g. social, health, education and labour market related policies and the impact on welfare policies and public social security systems. The action will also improve statistical data and methods in cooperation with national statistical institutes, relevant organisations and Eurostat.

MIGRATION-06-2019 Addressing the challenge of migrant integration through ICT-enabled solutions

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-migration-06-2018-2019.html
IA, 8m, 3-4m per project
14.03.2019

Specific Challenge:
The integration of migrants, including refugees, in many Member States of the European Union and Associated Countries remains a challenge for both public authorities and local communities. ICT-enabled solutions and toolkits for the implementation of inclusion policies by public administrations may facilitate the management of the integration of migrants, improve autonomy and inclusion and therefore the lives of migrants. Such tools may help alleviate the tasks of public administrations and local authorities. They may also analyse available data and provide migrants with information on and easy access to relevant public services specific to their needs or support policy-makers and public administration at all levels in planning and taking decisions on migration-related issues through data analytics and simulation tools. The specific cultural features, including possible gender differences, the skills and capacities of migrants to express their needs as well as the equity of access to ICT may be considered in this regard.

Scope:
An efficient management of migrant integration requires clear understanding of migrants' personal and family situation, including their legal status, origin, cultural background, skills, language skills, medical records, etc. Once such information is available to public authorities, it can improve societal outcomes to the benefit of both host countries and migrants:

1. the management of migrant integration can be facilitated, e.g. by matching their skills with those needed in the Member States and Associated Countries, by designing tailored training programmes or by creating specific decision support tools;

2. better and customised services can be delivered to match the needs of migrants;

3. more efficient integration strategies can be defined and implemented at local level for a sustainable inclusion of migrants and a fact-based public perception of migration.

Proposals should address at least one of the 3 points above, which should be piloted against a set of clearly defined goals. Processing of personal data of migrants must be conducted in accordance with EU applicable data protection legislation (Directive 95/46/EC which will be replaced as of 25 May 2018 by the GDPR) and existing regulation such as eIDAS[1]. Proposals should engage all actors and consider the potential for co-creation work with migrant in the design and delivery of services. In addition, proposals should demonstrate the reusability or scalability at European level and should develop strong and realistic business plans to ensure the long-term sustainability as well as take up of the results by the identified users. They should also engage multi-disciplinary and multi-sectoral teams to explore the complexity of this challenge, to identify the necessary changes, and the risks and barriers to their implementation, including cultural questions.

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 and 4 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:
New or enhanced ICT solutions and tools will facilitate the efforts of public administrations at EU, national and local levels to manage the integration of migrants. They will allow for developing and deploying the necessary processes and services in the view of the efficient identification and inclusion of migrants. They will also facilitate communication with migrants and their access to services such as community language teaching, education, training, employment, welfare and healthcare systems within the host communities.

MIGRATION-03-2019 Social and economic effects of migration in Europe and integration policies

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-03-2019.html
RIA, (m, 3m per project
14.03.19

Specific Challenge:
A greater understanding of the social and economic effects and impacts of migration in Europe is needed in order to obtain an objective overview of developments and to address misperceptions. In light of recent and current migratory flows, an assessment of integration policies and efforts is equally important for ensuring their effectiveness in promoting the integration and inclusion of migrants in host societies.

Scope:
Proposals should take stock of the long-term effects of migration at EU aggregate and cross-national level on economic growth and productivity, employment levels and wages, entrepreneurship, and fiscal and welfare impacts. They should analyse policies related to the integration of migrants, including refugees. Particular attention should be paid to gender and vulnerable groups such as unaccompanied children and stateless persons. Attention should be also paid to economic, human capital and cultural factors in relation to the integration outcomes of different groups of migrants and the social impact of segregation. Furthermore, proposals should analyse the local and interactional dimension of integration processes and their effects on the provision of local services, workplace conditions, productivity and innovation. They should comparatively examine integration policies (labour market, education, health, civil rights, social welfare, housing, family policies, etc.), and the role of transnational institutions and networks in shaping integration at a local scale. In addition, they should estimate the efficiency, effectiveness and social impact of such policies and highlight best practices and relevant benchmarks, building on the extensive knowledge that already exists in the EU[1]. Finally, an understanding of past and historical experiences of integrating migrant communities, and what these can tell us about current challenges, should also be assessed. Interdisciplinary research with combined insights from disciplines such as sociology, economics, history, anthropology, cultural studies and psychology among others is needed.

The Commission considers that proposals requesting a contribution from the EU in the order 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 action will improve the knowledge base on the socio-economic effects of migration. It will provide solutions and recommendations for strengthening the effectiveness of policies targeting the integration of migrants. It will also contribute to building comprehensive strategies for integration across EU Member states, conducive to socially inclusive economic growth.

MIGRATION-07-2019 International protection of refugees in a comparative perspective

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/migration-07-2019.html
RIA, 9m, 3m per project
14.03.19

Specific Challenge:
While policy areas such as development or trade benefit from global governance structures, a global refugee governance regime is still in its infancy. The challenge is to safeguard international law standards on the treatment of asylum seekers and internally displaced persons, address imbalances in sharing responsibilities, and ensure the EU plays a key role globally while also aligning the reform of its common asylum system to feed into the emerging regime of global asylum governance.

Scope:
Proposals should examine the processes and content of the emerging international protection system, e.g. following the United Nations commitment for the adoption of a global asylum compact as well as its implementation in comparative perspective, with special focus on the EU's role and engagement. They should examine how sharing responsibilities, transferring skills and capabilities, can be organised as well as the compatibility of the emerging global asylum regime with international law, including international conventions on refugees and human rights. The EU arrangements with refugees' origin and transit countries should be assessed. Proposals should advise on the future development of asylum policies and their implementation both globally and within the EU, also addressing issues around both gender issues and equality. They should include comparative assessment of existing legal responses to protection needs and explore future options and their compatibility with international refugee law, with a view to also identifying durable solutions. Particular attention should be paid to the protection of vulnerable groups such as minors, unaccompanied or with their families, including from all forms of abuse and exploitation, and women and girls from gender-based violence and discrimination. International cooperation is encouraged, in particular with Canada, Brazil, South Africa and Jordan, as well as relevant international organisations. Furthermore, the involvement of refugee and migrant scientists and scholars from relevant disciplines is strongly encouraged.

The Commission considers that proposals requesting a contribution from the EU in the order 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 action will significantly advance the knowledge base on global migration and asylum governance by evaluating the process, discourses and outcomes of the planned compact on refugees. The action will assist European policymakers with identifying suitable strategies for engagement in the process leading to the implementation of the global refugee compact. They will also inform the EU's reform process of its common asylum system.

TRANSFORMATIONS-02-2019 Transformative impact of disruptive technologies in public services

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-02-2018-2019-2020.html
RIA, 7m, 3-4m per project
14.03.19

Specific Challenge:
The challenge is to assess the potential benefits and risks of using disruptive technologies in public administrations as well as the social impact, including the impact on public servants, of using them for government processes and governance (e.g. for registers, for archiving, for tax collection, for decision-making processes etc.). In addition, the political, socio-economic, legal and cultural implications of disruptive technologies and their acceptance are important not only for public administrations, but also for citizens.

Scope:
The use of disruptive technologies (such as block-chain, big data analytics, Internet of Things, virtual reality, augmented reality, artificial intelligence, algorithmic techniques, simulations and gamification) in public administrations, public goods, public governance, public engagement, public-private partnerships, public third sector partnerships and policy impact assessment is growing and can be very beneficial. Yet, the real potential impact of such technologies and the ways in which they can disrupt the existing landscape of public services and legal procedures and can replace present solutions and processes are largely unknown. As a result, deploying these disruptive technologies in public administration requires a thorough assessment of their potential impact, benefits and risks for the delivery of public goods. Proposals should pilot the technology and should engage multidisciplinary partners, stakeholders and users to examine how emerging technologies can impact the public sector (including the impact on public servants and the relation between public services and citizens) and explore in a wide-ranging fashion the issues surrounding the use of these technologies in the public sector.

Proposals should also lead to the development of business plans that would ensure the long-term sustainability of the services offered based on the used technology.

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 and 4 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 action will enable public authorities to develop pathways for the introduction of disruptive technologies while also addressing the societal challenges raised by such technologies. Based on a thorough understanding of users' needs, the action will enhance knowledge on digital democracy; develop new ways of providing public services, of ensuring public governance and of boosting public engagement with the help of disruptive technologies. It will also contribute to developing new practices, to optimising work processes and to integrating evidence-based decision-making processes in public services and in services such as health, education, social welfare and mobility.

TRANSFORMATIONS-03-2019 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
RIA, 6m, 3m per project
14.03.19

Specific Challenge:
The increasing percentage of people living in urban areas and the impact of digital technologies on public services make good governance, inclusive policies, smart planning and social and environmental sustainability ever more important for ensuring the quality of human life. Urban environments and agglomeration effects provide an ecosystem for economic growth and innovation. While the impact of the recent financial crisis on European urban areas is by no means uniform, it has led in many instances to rising socio-economic inequalities that are affecting social cohesion and resilience. The challenge is to identify the main drivers of inequalities in different urban and peri-urban contexts and to identify best practices and initiatives, including digital solutions and alternative participatory growth models, with potential for upscaling that can promote upward social mobility, social inclusion and cohesion, resilience and sustainable development.

Scope:
a) Coordination and Support Action[1] (2018)

The Urban Research Platform should bring together researchers, policy-makers and other experts on equitable, inclusive and sustainable urban development. It should map, assess, distil and communicate findings and recommendations from the many relevant projects on these issues funded under FP7 and H2020[2] and translate these into clear and applicable policy recommendations. It should facilitate knowledge sharing and connectivity between researchers, policy makers and practitioners.

The Commission considers that proposals requesting a contribution from the EU in the order 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.

b) Research and Innovation action (2019)

Proposals should assess the scale, dimensions and drivers of socio-economic inequalities in urban and peri-urban settings across different city typologies, across Europe and across demographic diversities, paying particular attention to gender differences. They should assess the effectiveness at local level of relevant policies, strategies, planning practices and other interventions aimed at promoting social inclusion, cohesion and resilience in urban environments, including new and participatory models of growth that foster sustainable and equitable prosperity. Findings should be communicated also in the form of clearly formulated policy recommendations.

The Commission considers that proposals requesting a contribution from the EU in the order 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:
By linking research, innovation and policy, the action will support urban strategies, policies and planning practices to promote equitable, inclusive and sustainable growth, including the uptake of new, participatory and alternative growth models. It will contribute to the advancement of the EU Urban Agenda and the Sustainable Development Goal dedicated to making cities inclusive, safe, resilient and sustainable. It will also inform the continuous development and implementation of Smart Specialisation[3] as well as the urban dimension of cohesion policy[4].

TRANSFORMATIONS-04-2019 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
RIA, 9m, 3m per project
14.03.19

Specific Challenge:
The various forms of cultural tourism in Europe are important drivers of growth, jobs and economic development of European regions and urban areas. They also contribute, by driving intercultural understanding and social development in Europe through discovering various types of cultural heritage, to the understanding of other peoples' identities and values. However, although cultural tourism by its nature invites cross border regional and local cooperation, its full innovation potential in this respect is not yet fully explored and exploited. The level of development of cultural tourism between certain regions and sites is still unbalanced, with deprived remote, peripheral or deindustrialised areas lagging behind whereas high demand areas being overexploited in an unsustainable manner. There is also a significant knowledge gap in terms of availability of both quantitative and qualitative data on the phenomenon of cultural heritage tourism and on understanding its contribution towards cultural Europeanisation and economic and social development in Europe.

Scope:
a) Research and Innovation action (2019)

Proposals should comparatively assess how the presence, development, decline or absence of cultural tourism has affected the development of European regions and urban areas. They

should investigate motives for cultural tourism and assess the effectiveness and sustainability of multilevel strategies, policies, trends and practices in attracting, managing and diversifying cultural tourism in Europe in view of identifying best practices that should be communicated to policymakers and practitioners. This should include considerations of specific strategies to promote cultural tourism at a regional, national and European level, including use of structural investment funds where appropriate. Minority cultures and regions as well as urban areas currently less attractive to cultural tourism should receive special attention. Historical perspectives, as well as comparison with lessons learned at international level on the emergence of particular forms of cultural tourism or reasons for cultural tourism in particular areas should also be investigated. Innovative methods and techniques, including statistical tools and indicators, for measuring and assessing various practices and impacts of cultural tourism should be developed and tested. Proposals should also deploy place-based and participatory approaches to investigate the relation between intra-European cultural tourism and Europeanisation and whether it impacts identities and belonging.

The Commission considers that proposals requesting a contribution from the EU in the order 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.

b) Innovation action (2020)

Expected Impact:
The action will improve policies and practices on cultural tourism at various levels. It will also provide strategic guidance at European level concerning the efficient use of European Structural Investment Funds. In addition, it will contribute to the establishment of partnerships between public and private stakeholders in this area. Creation of innovative quantitative/statistical as well as qualitative tools and methods will improve available data on and understanding of the impact of cultural tourism on European economic and social development and on cultural Europeanisation.

TRANSFORMATIONS-07-2019 The impact of technological transformations on children and youth

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-transformations-07-2019.html
RIA, 9m, 3m per project and CSA, 1.5m, 1 project
14.03.19

Specific Challenge:
The ICT are generally valued in terms of skill development, learning and future employability of young generations. Educational and training institutions are getting equipped with ICT tools and educators are trained for designing activities aimed at digital literacy and for making use of media for educational purposes. The time children and young people spend on ICT has been increasing in school, at home and for leisure. However, research on the impact of ICT on health, lifestyles, wellbeing, safety and security has identified potential threats. Moreover, the quantity and quality of digital media use vary accordingly to family backgrounds, with the risk of widening the educational divide between children from favoured and disadvantaged groups. The challenge is to develop a solid and independent multidisciplinary and longitudinal knowledge base in relation to the 0 to 18 years old age group that explains under which

conditions harmful versus beneficial effects occur so that effective social, educational, health and online safety policies, practices and market regulation can be developed.

Scope:
a) Research and Innovation action

Proposals should assess the online behaviour of children and young people as well as their use of digital content and devices by socio-economic, gender and age group, with attention to motivations for using ICT at home, for leisure and in schools or training institutions. Robust methodologies for measuring and explaining long-term impacts in areas such as skills and competencies (i.e. digital and media literacy, innovation and creativity, learning and socio-emotional competencies and more specific labour market relevant skills), wellbeing and (mental) health or other relevant aspects of brain development should be developed and tested across EU level. Methodologies should focus on understanding why and how some children and adolescents benefit from ICT use while others seem to be impacted negatively. Evidence-based models identifying and analysing at-risk groups can be developed. Proposals should take into account diversity as appropriate (age, cultural, social and economic background, gender etc.) and address the impact of ICT use on education inequalities. (Lack of) equity of access to ICT across social groups should also be considered. Children and young people should be active collaborators in the project.

The Commission considers that proposals requesting a contribution from the EU in the order 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.

b) Coordination and Support action[1]

This coordination and support action should aim at the establishment of a Pan-European platform to co-ordinate research activities in the EU Member States and Associated Countries with the purpose of developing a knowledge base, and filling current gaps, into how children and young people behave and interact online as well as the risks they may encounter while online. Proposals should pay particular attention to the vulnerability of children and young people in the digital environment and propose solutions for building online resilience, while also taking cultural and gender-related issues into account. Through the proposed platform, researchers across different countries, disciplines and approaches should share existing knowledge, fill research gaps, build capacity and work towards a consensual framework for future work. Based on the evidence base, policy recommendations should be developed on how to best protect and ensure positive online experiences for children and young people. In addition, emerging issues such as the rise of hate speech and radicalisation should be addressed.

The Commission considers that proposals requesting a contribution from the EU in the order 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:
Explanatory models will inform relevant stakeholders and practitioners on the long-term effects of ICT on child development and on practices that maximise risks (risk factors), minimise risks (resilience factors) and maximise benefits (enhancing factors). The action will contribute to

better regulation (e.g. labelling, evaluation of ICT educational tools, protection of online users) and to a safer and more beneficial use of digital technologies at home, for leisure and in educational settings by children and young people. It will formulate recommendations in support of national and European policies in the field. The action will enhance cooperation between schools and families (school-community partnership) in ensuring safe and productive ways of using ICTs. It will also improve statistical data, generate innovative quantitative and qualitative methods as needed, and expand the knowledge base on in-depth case studies.

TRANSFORMATIONS-08-2019 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
RIA, 9m, 3m per project
14.03.2019

Specific Challenge:
Culture has been an important element of public policy for social, cultural and political cohesion and inclusion throughout European history, and its potential could be significantly enhanced. Although it is often seen today from the angle of economic value added, culture generates additional societal value in terms of well-being and by promoting identity and belonging, inclusiveness, tolerance and cohesion. Culture is also a source of creativity and innovation. The challenge is to develop new perspectives and improved methodologies for capturing the wider societal value of culture, including but also beyond its economic impact. Improved cultural value measurements and case studies also need to be developed in support of effective and inclusive policies and institutional frameworks that offer a convincing vision for citizens to cope with current cultural and societal transformations. In order to contextualise the debate on the societal value of culture, part of the challenge is to comparatively study the visions that underlie cultural policies as held by policy-makers and as embedded in institutions responsible for designing and implementing these policies at European, national and local levels.

Scope:
Proposals should assess and develop appropriate methodologies and perform comparative qualitative, participative and statistical analyses at national and EU level to map the various forms of cultural engagement, assess the role of cultural participation as a source of wellbeing, and identify the benefits of cultural engagement across population segments. The historical role of culture in integrating and dividing Europe should be addressed with a view to learning more about the specific conditions in which cultural integration occurs. The nature and degree of the contributions stemming from cultural engagement to intercultural dialogue, cultural identity and community building should also be assessed. On the basis of innovative approaches and a representative geographic coverage of different parts of Europe, proposals should explain how cultural values are constructed in the age of social media, internet and television across different socio-economic groups. They should also investigate how urbanisation, spatial and social segregation, gender and rising diversity in European societies influence the formation of cultural values. In addition, proposals should assess the goals, strategies and effectiveness of cultural policies and institutions in evoking, transferring and maintaining cultural value, as well as addressing issues such as diversity and inclusion.

The Commission considers that proposals requesting a contribution from the EU in the order 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 action will provide new methodologies for capturing the societal value of culture in contemporary societies. It will improve statistical data and methods for capturing cultural impacts in cooperation, when appropriate, with national statistical institutes, relevant international organisations, networks, research infrastructures and Eurostat. It will also equip policymakers with effective tools for measuring, understanding and enhancing the impact of cultural policies. Participatory and co-creation approaches involving a wide range of stakeholders will contribute to innovative scientific and policy results.

TRANSFORMATIONS-11-2019 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
RIA, 12m, 3-4m per project
14.03.19

Specific Challenge:
While a key mission of the cultural heritage sector is to provide inclusive access, some socio-cultural groups are still not sufficiently integrated in cultural heritage experiences. The challenge is to improve the design of cultural experiences by enhancing participatory and collaborative approaches and by fostering mutual cultural understanding and resilient strategies.

Scope:
Proposals should develop strategies for fostering collaborative and participative approaches to cultural encounters via communication channels such as social media platforms, participatory approaches, art and co-designed activities. Proposals should consider both tangible and intangible heritage, researching new applications and tools that allow for a more inclusive approach such as digital tagging of objects or co-authoring of societal and place-based memories. The active involvement and engagement with, different groups or communities such as migrants and other communities at risk of exclusion should be promoted. Proposals should design options for these social groups to review or shape both contemporary and historical content, contribute new material or customise and personalise cultural heritage and digital humanities content in a meaningful and effective way. Collaborative tools and applications should help the cultural tourism sectors and cultural heritage institutions, NGOs, community organisations etc. in Europe and beyond to enhance the analysis and understanding of cultures and communities.

The Commission considers that proposals requesting a contribution from the EU of between EUR 3 and 4 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 action will contribute to fostering cultural diversity and social cohesion and to the recognition of multiple identities and voices. It will also have a positive impact on cultural institutions by attracting contributions from and boosting involvement of new audiences. In addition, the action will provide disciplines such as computing, design and the social science and humanities with new research tools.

TRANSFORMATIONS-13-2019 Using big data approaches in research and innovation policy making

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-13-2019.html
RIA, 1m, 1 project
14.03.19

Specific Challenge:
To exploit the potential of big data approaches for research and innovation policy making by providing more timely and in depth information on the performance of the research and innovation system and its links to productivity growth.

Scope:
Many of the advanced economies have, since the crisis, been faced with a productivity paradox: while the pace of innovation continues to accelerate, productivity growth has come to a quasi-standstill. The reasons for this have been the subject of intense debate over the past years and evidence increasingly points to the importance of the links between productivity growth and research and innovation. Seminal work by the OECD[1] has pointed to the importance of technology diffusion in this respect, which could also be linked to the changing nature of the innovation process itself, which is going through profound changes, with notably digitalisation leading to increasing complexity, stronger networking effects and a growing importance of winner takes all characteristics.

If research and innovation policy making is to adapt to this rapidly changing environment in an evidence based manner, it needs solid and timely data to support its decisions and it is becoming increasingly clear that official statistics, if relying on traditional sources, cannot continue to provide a full picture of all the dynamics of today's research and innovation systems. However, in today's increasingly digitalised world, alternative sources of data have being emerging exponentially, generated by the use of information and communication technologies and their diffusion through the web. This includes, for instance, information contained in company websites, social media posts, but also increasingly databases being made available by e.g. governments. Such data sources, commonly known as big data, have the advantage of being widely available in a timely manner, have the potential of being able to cover a variety of aspects of research and innovation performance, allow to provide information at a more granular level and examine in a better way social interactions, all of which is not possible through the indicators currently provided by official statistics.

Proposals should aim at exploiting the potential of big data to produce information on research and innovation activity, performance, output and/or impact which has the potential to be available in real time, focusing notably on research and innovation investments in the private sector, public-private cooperation and technology diffusion between private actors. Proposals should also take into account aspects of data accuracy and data security.

The Commission considers that proposals requesting a contribution from the EU in the order of EUR 1 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 outcomes of the Research and Innovation Actions are expected to provide research and innovation policy making with more timely and diverse data on research and innovation activity, performance, output and/or impact.

TRANSFORMATIONS-16-2019 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
CSA, 1.5m, 1 project
14.03.19

Specific Challenge:
The way cultural heritage is preserved and enhanced is a major factor defining Europe's identity and its place in the world. Jobs are created by the conservation, management and promotion of cultural heritage and these activities contribute to sustainable growth and social cohesion. High quality interventions in cultural heritage and cultural landscapes contribute to local communities' well-being and to the development of sustainable cultural tourism. On the other hand, examples of low-quality interventions in the historical environment and cultural heritage sites give rise to complaints from experts and citizens. Low-quality interventions may even damage irreplaceable historical elements, their environment and related intangible heritage, identities and social practices. Cases where EU funds (e.g. structural funds) are used for such low-quality interventions may have a negative impact on citizens' perception of the actions supported by the EU. The European Parliament has urged the Commission to "include in the guidelines governing the next generation of structural funds for cultural heritage a compulsory quality control system".[1] A factor hampering the positive outcomes of interventions and the effectiveness of the EU support actions is the lack of a common understanding of the requirements for the quality of restoration and also of all other interventions in the historical environment and cultural heritage sites at European level. Lack of shared standards for the holistic impact assessment – regulated by the Environmental Impact Assessment and the Strategic Environmental Assessment Directives – of these interventions also plays its role in this area.

Scope:
The platform should bring together the research communities, heritage professionals, public and private actors and policy makers at local, regional, national and international levels concerned with the impact assessment and quality of interventions in historical environment and cultural heritage sites in Europe. Tangible and intangible heritage, cultural landscapes and seascapes, heritage memory preservation, cultural identities of groups, communities and minorities, legislation, guidelines and codes of ethics and governance should be considered. The platform should map existing and emerging problems, practices and policy gaps relating to the impact assessment and the quality of interventions in historical environment and cultural

heritage sites in Europe. It should overview past and ongoing research and collect, compare, analyse and promote best practices from Europe and beyond, thus becoming a major reference for transnational and interdisciplinary networking in this policy area. Education and awareness raising programmes for specialised communities and the public in general should be considered.

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

Expected Impact:
The action will facilitate the uptake and dissemination of best practices, thereby contributing to the development of strategic and integrated European and international policies and interventions. It will contribute to the coordination of a variety of stakeholders and will develop toolkits and recommendations for them. The platform will formulate recommendations and an action plan for future European action aiming towards harmonised impact assessment and intervention quality standards. It will also build a consensus on future needs and will support the EU in developing an innovative and focused research agenda on cultural heritage and on the quality of interventions in historical environment and cultural heritage sites in Europe.

TRANSFORMATIONS-17-2019 Societal challenges and the arts
http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/transformations-17-2019.html
RIA, 9m, 3m per project
14.03.2019

Specific Challenge:
The arts[1] can shed new light on the past, hold up a mirror to contemporary life and initiate new perspectives for the future. They have the power to move us, educate us and question accepted narratives. They can also foster an exchange in which people encounter points of view radically different from their own. In the process, the arts can inspire personal belonging and mutual understanding. They can also foster civic engagement and social change, mobilising a variety of actors around a common agenda. As such, the arts can complement scientific and policy approaches.

While art has value in and of itself, the arts have also engaged directly with societal challenges such as inequalities, migration, climate and environmental change, social justice, conflict and violence. However, there is substantial fragmentation as artists and arts organisations sharing common concerns often do not interact or network across artistic genres or geographic locations. Better multidisciplinary methods for capturing, assessing and harnessing the societal impact of the arts are still needed. In addition, the potential of the arts and of artistic research to generate alternative or unconventional solutions to current and emerging societal challenges remains largely untapped.

Scope:

Proposals should identify and study artistic productions that have generated new thinking, engagement and possibly action in relation to contemporary societal challenges as experienced in Europe. In doing so, they should capture and analyse motivations, philosophies, modes of engagement and impact from a comparative, geographically balanced and multidisciplinary perspective. They should identify and analyse projects and actions that have succeeded in mobilising members of our societies for a common cause, including sections of society which might otherwise remain remote from such initiatives, and identify their success factors as a basis for recommendations to policy makers. Particular attention should be paid to artistic productions, including participatory ones, which give voice to marginalised or disengaged groups and individuals. Community penetration and mechanisms of diffusion, including the role of digital technologies for providing access to the arts, should be studied as should barriers to engagement. The relationship between art and democracy and between art and individual or community resilience should be addressed. Proposals should also consider the role of local, regional and national identities and traditions, of global and European intellectual trends, and of social movements in shaping artistic representations. Historical analysis and other relevant approaches from the social sciences and humanities could be used as relevant. Artistic entrepreneurship as well as links to the cultural and creative industries could also be addressed. Where relevant, the impact of EU, national, regional or local policies and funding on the arts could be considered.

Proposals should develop multidisciplinary and comprehensive methods for capturing and assessing the impacts of arts on individuals, communities and policymaking. They should also identify and test solutions to boost the role and reach of the arts as a vehicle for individual, social and political change. This should include guidelines for how artists, organisations and scholars may help to solve societal challenges, for instance through influencing priority setting and through integrating the perspective of the arts in social, political and research agendas. To this end, opportunities for common reflection should be developed to connect actors and stakeholders such as practitioners, curators, researchers, representatives of the civil society and policy makers. Practice-based research and outputs in the form of artistic production (e.g. exhibitions, performances, performing and visual arts, digital media, community arts) are encouraged.

The Commission considers that proposals requesting a contribution from the EU in the order 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 action will promote innovative approaches to societal challenges that take into account artistic perspectives. It will formulate and test innovative art-based practices aimed at mutual understanding, dialogue and civic participation, thereby enhancing social inclusion. The action will also contribute to the further integration of the arts in the policies and strategic goals of the EU.

GOVERNANCE-04-2019 Enhancing social rights and EU citizenship

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/governance-04-2019.html

RIA, 9m, 3m per project
14.03.19

Specific Challenge:
Boosting social rights can help address divergence in social trends among Member States and reduce the risk of socio-economic shocks. At the same time, social rights are essential for the full realisation of EU citizenship and reaching the EU's targets in reducing poverty and social exclusion. By mitigating social risks and by assisting people with transitions and vulnerabilities, social rights can boost trust to public governance. The challenge is to integrate the social dimension into European policies and to connect it with European citizenship going beyond the traditional focus on mobile citizens to look also at those who are "immobile".

Scope:
Proposals should examine how European citizens have been exercising social rights (e.g. to social protection, housing, health, education, access to labour markets, working conditions, including health and safety at work, mobility) in the wake of the economic crisis. The role of the Member States in protecting social rights should be considered as well as the situation of underrepresented and vulnerable groups, including gender aspects. Proposals should analyse how the EU supports citizens' access to social rights and policy levers to foster upward social convergence in the design of employment policies and social protection systems. They should equally establish the relationship between social policy instruments in Member States and outcomes in terms of social inclusion and fairness and should identify policy priorities. Furthermore, they should assess EU social indicators such as the at-risk-of-poverty rate, material deprivation and quasi-joblessness, thereby aiming to strengthen the statistical base. Developments concerning the European Pillar of Social Rights should be studied, including how they can contribute to the exercise of social rights and to social cohesion. The European Pillar of Social Rights brings forward key social rights of citizens structured around three categories: equal opportunities and access to the labour market, fair working conditions, and social protection and inclusion. The merits or pitfalls of a potential harmonisation in social policy among Member States should be investigated. Proposals should also explore conceptualisations and possible content of social citizenship and may consider citizens' own perceptions and understandings of the social dimension of citizenship. Furthermore, attention should be given to the complex links between the exercise of social rights of European citizens and developments in terms of economic growth, inequality trends and social well-being. Studies should also include a historical and comparative dimension when examining the interplay between these factors in European countries.

The Commission considers that proposals requesting a contribution from the EU in the order 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 action will contribute to advancing the state of the art and normative content of EU social citizenship. It will also contribute to the implementation of the European Pillar of Social Rights. It will put forward recommendations on the exercise of EU social rights as an integral part of EU citizenship and on upward convergence. It will also contribute to constructing narratives of European citizenship.

GOVERNANCE-13-2019 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
RIA, 9m, 3m per project
14.03.19

Specific Challenge:
The consequences of digitisation and of the implementation of the Digital Single Market on cultural diversity, on access to culture and on the creation of cultural value need to be better monitored and understood, also through joint efforts by researchers, practitioners and policy-makers. Beyond the issue of portability of cultural content, coping strategies related to legislation on intellectual property rights (IPR) and copyright at European and national levels are at the heart of current creative practices and business opportunities in the cultural and creative sectors and, as such, deserve in-depth scrutiny. Innovative solutions for measuring the impact of digitisation and of the digital market on culture are also needed. In addition, an important knowledge gap exists when it comes to the adaptive or alternative strategies of different cultural institutions and of various creative and artistic communities.

Scope:
Proposals should assess the impact of digitisation on access to European cultural goods and services. Proposals should also consider whether increasing digitisation of cultural works may have contributed towards the democratisation of cultural creativity and influenced the formation of social identities in the EU, and whether IPR and copyright may have helped or hindered this process. They should provide a comparative cross-national mapping of differences in the governance and implementation of processes for IPR and copyright harmonisation and for the improvement of digital access to culture. With the aim to provide contextualised new evidence, proposals should deploy participatory research approaches targeted to specific creative and cultural sectors, interest groups, and creative and artistic communities and networks. They should also develop innovative solutions to address practices and bottlenecks jeopardising IPR and copyright protection on the one hand and erecting barriers for creative practices or culture-based business or employment opportunities on the other hand. Copyright and IPR protection and pricing policies should be assessed with a view to maximising access and stimulating creativity, creative (re)use and production. Proposals should evaluate the importance of the Digital Single Market for the for-profit, non-profit and mixed cultural and creative activities in Europe.

The Commission considers that proposals requesting a contribution from the EU in the order 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:
By providing qualitative and quantitative analysis and by proposing solutions, business models and policy recommendations, the action will contribute to a better understanding of regulation and fairer accessibility of digitised cultural goods and services. It will also advise on appropriate levels of harmonisation of copyright and IPR, thereby contributing to the development and deepening of the Digital Single Market.

GOVERNANCE-17-2019 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
RIA, 1.5m, 1 project
14.03.19

Specific Challenge:
Almost three decades after the *End of History* essay and debates democracy faces significant challenges. Political developments have been marked by the rise of political forces and discourses promoting populism and nationalism and questioning liberalism. These are often couched in a language of anti-elitism and anti-cosmopolitanism as they seek to profit from citizens' frustration at their socio-economic situation and political shortcomings of democracies. Social, cultural, economic, technological and political challenges related to the legitimacy, accountability, transparency, levels of engagement and effectiveness of democracies need to be addressed normatively and empirically with a view to averting a fundamental crisis in democratic standards.

Scope:
The coordination and support action should bring together the relevant research community with representatives of civil society, as well as socio-economic and policy stakeholders (at European, national and sub-national levels). Proposals should adopt a holistic approach and ensure broad geographic coverage. The network should consider the altering capacity of parties, parliaments and executives to represent citizens. At the same time, it should address changes in voting behaviour such as growing abstention, increasing volatility and preference for extreme political discourses and their potential to sap the foundations of democracy. The role of referenda, also in relation to traditional and social media, should be part of the reflection. Moreover, the network should deliberate to what extent higher levels of distrust towards elected bodies and institutions and the political class could be signalling a more deep rooted shift towards a popular preference for outcomes over political participation and rights. Consideration should be given to political processes that may lead to a weakening of the institutions and laws that guarantee checks and balances, civil liberties, human rights and the rule of law. Different democratic traditions and pathways and how they affect policy responses should also be examined. A historical perspective should be adopted in tracing the political and sociological roots of current populist movements and parties.

Attention should be given to the role of supranational institutions and the ways in which they affect democracies. The role of identities, including European identity, for democratic governance could also be considered. Gender aspects should be taken into account. Moreover, the interaction between corporations and democratic institutions, including various forms of lobbying, needs to be better understood normatively and empirically. Additionally, the ways high levels of inequality impact political engagement and disenfranchisement should be part of the reflection and policy answers. Lastly, attention should be paid to the opportunities for participation and openness generated by new technologies and how these could connect to citizens' movements.

Proposals should adopt a forward-looking perspective. The network should organise dialogues over the long-term dynamics of modern democracies. These dynamics should be examined against the backdrop of technological transformations and their impact on transparency, participation, the media and accountability. Moreover, developments should be considered in relation to the need for greater social and ecologic sustainability. Proposals should equally build on democratic theory and innovation in order to enhance participation and engagement and where appropriate go beyond traditional notions of representative democracy. The network should also synthesise and evaluate the research conducted under the ERA-NET "Renegotiating democratic governance in times of disruptions" (H2020-SC6-GOVERNANCE-14-2018).

The Commission considers that proposals requesting a contribution from the EU 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 network will take stock of research findings and promote wide trans- and interdisciplinary dialogues with a view to re-invigorating, modernising and enhancing democracies. The narratives, discourses and scientifically robust recommendations generated will enhance public policy debates and decision making on democracy. The network will equally propose new research agendas.

GOVERNANCE-18-2019 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
RIA, 1.5m 1 project
14.03.19

Specific Challenge:
Given the weight and importance of the public sector in driving economic growth and competitiveness, tightening government budgets, increasing expectations of greater citizen participation in the design and delivery of public services and societal challenges that require new solutions, there is an urgent need to promote innovation and experimentation in the public sector. The purpose is to improve continuously the development of public policy, as well as the efficiency and delivery of public programs and services, and to enhance thereby the creation of public value.

Scope:
Governments are currently facing accelerating technological and social changes. The complexity and interdependence of today's 'wicked problems' require radically new approaches to public policy, regulation and service delivery. There is increased pressure on governments to work differently and more efficiently, to engage more with citizens and to transform their operations to harness the opportunities afforded by digital technologies and to adapt faster to emerging challenges. Driving systemic change requires change-makers and champions of innovation within the public sector, as government is the best placed to scale up meaningful solutions. This will require sweeping changes of mind-set and modus operandi in public authorities. As the role of the state evolves, governments must become proactive problem solvers and close

collaborators with a wide variety of stakeholders throughout the innovation ecosystem to co-create new solutions.

A growing number of governments are strongly committed to improving their policies, programmes and services. Shifting to a user-centric focus that puts the citizen at the centre, public actors increasingly recognise the need for inclusive and sustainable responses to societal challenges. Most government innovation projects, however, stay small and never scale up to the point where they can make a difference within government administrations in the long run. Innovation is not yet considered a strategic function of government, or the core business of public administrators. There is therefore a need to support governments' internal innovation efforts through an exchange of experiences and by concrete practical support based on their needs, in order to move from sporadic innovations to systemic transformations.

Based on the achievements and work of the Observatory of Public Sector Innovation managed by the OECD, governments would benefit from further knowledge sharing in an international context, collaboration and support in the practical application of new knowledge in areas of specific interest (e.g. system thinking and systemic transformations, experimentation, co-creation with the ecosystem, stakeholder engagement, dealing with complexity; matrix organizations; organizational culture development; innovation skills development; organizational frameworks conducive to innovation, innovation in regulation, etc.) in real life contexts. Building on this experience, the activity should focus on the following:

- Developing and piloting practice-led reflections and learning programmes to support governments in their role as change agents (e.g. skills, mindset, organizational culture, hackathons, boot camps for public leaders and administrators);
- Fostering an international conversation, allowing for exchange of experiences and peer learning between governments, including intensifying collaboration among public innovation practitioners (including workshops, developing common projects for incubation in real life contexts) in order to support the development of innovators in government.
- Developing a new public sector innovation theory (instead of existing attempts using the business innovation logic) that will support better measurement of public sector innovation in an internationally comparative manner.

The Commission considers that proposals requesting a contribution from the EU 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. Demonstration of applicants' own investment to complement the available Commission contribution would be an asset.

Expected Impact:
The action will deliver learning programmes, (inter-governmental) collaborative projects and a growing body of practical experiences and knowledge, which will support the development of a 21st century model of innovative governance and government. The action will also contribute to embedding innovation as the new normal in government operations and to building inclusive and sustainable innovation communities in the public sector.

SWAFS Calls

SWAFS-01-2019 Open schooling and collaboration on science education

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-01-2018-2019.html
CSA, 3m total, 1.5m per project
Two stage, 02.04.19 and 07.11.19

Specific Challenge:
At the moment, Europe faces a shortfall in science-knowledgeable people at all levels of society. This is a good time to expand opportunities for science learning, in formal, non-formal and informal settings[1]. Evidence shows that European citizens, young and old, appreciate the importance of science and want to be more informed, and that citizens want more science education. Over 40% believe science and technological innovation can have a positive impact on the environment, health and medical care, and basic infrastructure in the future[2]. Therefore, collaboration between formal, non-formal and informal science education providers, enterprises and civil society should be enhanced to ensure relevant and meaningful engagement of all societal actors with science and increase the uptake of science studies, citizen science initiatives and science-based careers, employability and competitiveness.

Scope:
The proposed action targets the creation of new partnerships in local communities to foster improved science education for all citizens. This action aims to support a range of activities based on collaboration between formal, non-formal and informal science education providers, enterprises and civil society in order to integrate the concept of open schooling, including all educational levels, in science education.

"Open schooling" where schools, in cooperation with other stakeholders, become an agent of community well-being shall be promoted; families should be encouraged to become real partners in school life and activities; professionals from enterprises and civil and wider society should actively be involved in bringing real-life projects to the classroom. Relevant policy makers should also be involved, to encourage policy buy-in and the mainstreaming of good practices and insights into policies, and hence sustainability and impact beyond the lifetime of funding. Partnerships that foster expertise, networking, sharing and applying science and technology research findings across different enterprises (e.g. start-ups, SMEs, larger corporations) should be promoted. Gender, socio-economic and geographical differences should be considered.

The Commission considers that proposals requesting a contribution from the EU of the order of € 1.50 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:
It is expected that in the short term the development of partnerships between schools, local communities, Civil Society Organisations, universities and industry should contribute to a more

scientifically interested and literate society and students with a better awareness of and interest in scientific careers. In the medium term the activities should provide citizens and future researchers with the tools and skills to make informed decisions and choices and in the long-term this action should contribute towards the ERA objectives of increasing the numbers of scientists and researchers in Europe.

SWAFS-05-2019 Grounding RRI practices in research and innovation funding and performing organisations

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-05-2018-2019.html
CSA, 6m 1.5m per project
02.04.19

Specific Challenge:
Institutional changes are required to respond to the increased interactions between R&I stakeholders in society. Through institutional changes, research funding and performing organisations become more "porous" and accept inputs from citizens and organisations that used to be considered outsiders to the world of R&I. Examples include citizen science, extended peer review in funding agencies, co-creation of public policies, agenda setting in research and innovation programmes, co-production of research and innovation content, and co-evaluation of proposals, activities or other R&I funding decisions.

Good practices are widespread in Europe in terms of:

1. Citizens' and citizens' associations engagement in science;
2. Formal and informal science education;
3. Gender equality in science;
4. Research ethics and integrity;
5. Open access to research results.

The good practices in these five fields are much more easily, efficiently and sustainably implemented when the organisations funding, performing or associated to R&I have adapted significantly their governance frameworks to open up through a process of institutional change.

Scope:
Consortia are expected to implement institutional changes in at least one but preferably all five fields listed above as part of an integrated approach. All scientific disciplines are covered. Consortia members should aim to ensure that the institutional changes are sustainable beyond the lifetime of the project funding.

The action is addressed at organisations funding or performing activities in the field of R&I as one of their significant objectives or activities. All parts of the "quadruple helix" model, which sees close co-operation between industry, government, universities and society (e.g. citizens and Civil Society Organisations) in R&I, are addressed – and it is encouraged that consortia ensure truly engaged roles for all organisation types. Consortia should be composed of organisations that already have some experience of processes of institutional change and beginners, so as to encourage mutual learning. In addition, priority should be given to the development of new partnerships.

The Commission considers that proposals requesting a contribution from the EU in the order of €1.50 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:
Results should contribute to a greater involvement of all stakeholders in R&I, and a better and more sustainable engagement with citizens and society as a whole. Consortia are expected to contribute to one or more of the MoRRI indicators, in particular GOV2 & GOV3[1], and to the Sustainable Development Goals (for instance goals 4, 5, 9, 12, 16 or 17)[2]. Consortia are expected to evaluate their activities and provide evidence of societal, democratic, economic and scientific impacts of institutional changes. The expected number of institutional changes, including their quality and sustainability in partner organisations, will be taken into account in evaluation. As such, it is expected that the topic will support a significant number of impactful and sustainable institutional changes in partner organisations.

SWAFS-07-2019 EURAXESS TOP V

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-07-2019.html
CSA 3m, 1 project
02.04.2019

Specific Challenge:
EURAXESS aims at helping researchers and entrepreneurs to advance their career in Europe and thus make research and innovation more attractive, both for researchers in Europe who are facing career decisions and for those who are currently outside Europe and might consider relocating to Europe to develop their careers. From mainly mobility support, the EURAXESS network shall become the reference tool also for career development of researchers in public or private institutions.

Scope:
The objective of the action is to further intensify the services provided by the EURAXESS Service Centres by expanding their mandate of taking care of the early career development of researchers and entrepreneurs in Europe with particular focus on female Higher Education Institution students and researchers. The services of the EURAXESS network will reach out to mobile and non-mobile researchers and entrepreneurs with the aim of contributing to European policy developments in this area on opening new career trajectories in industry, thus including start-ups. This action will support activities of the EURAXESS Service Network represented by Bridgehead Organisations to address strategic issues related to support services of the network. The further diversification of career development and/or support for dual careers centres will be expanded over a wider geographical range of the network, support to researchers and young entrepreneurs for start-ups in SMEs and industry and concepts for better integration of researchers into the culture of the host country and to the culture of a business environment, as well as mentoring programmes for researchers.

Other services for researchers will be proposed: for instance, national EURAXESS websites will provide information on start-up schemes and skills for researchers in the respective country and relate to policy information as provided on the European EURAXESS portal about EU research policies for researchers and EU schemes developing more career opportunities. This includes

issues related to a Global and a European Research Area and Responsible Research and Innovation. Activities such as the deepening of existing services through trainings, seminars, networking and updating of national EURAXESS portals will also be part of this action.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 3.00 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:
Better take up of career development guidance and the collaboration with start-ups and SME will open new career options for researchers and accelerate knowledge transfer to industry and fast take up of research results.

Increased job and funding opportunities on the EURAXESS Jobs portal and personalised assistance to researchers will accelerate the career development of young researchers, in particular female researchers. In the medium term, the action will produce efficiency gains and reduce transaction costs by creating a better match of existing talent and R&I needs and capacity in European research institutions and businesses. It will contribute directly to the Horizon 2020 objective of cross-national and international circulation of researchers; it will increase the number of researchers who have access to research infrastructures through Union support and the number of excellent researchers overall. It will contribute to meeting ERA objectives on gender equality. Over time, the action will contribute directly towards European targets on R&DI intensity and percentage of researchers in the active population, and to boost European research and innovation competitiveness.

By increasing the service level of the whole EURAXESS Services Network, the benefit for the research community will be long-lasting and far-reaching.

SWAFS-08-2019 Research innovation needs & skills training in PhD programmes

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-08-2019.html
CSA, 2m, 0.75 per project
02.04.2019

Specific Challenge:
Within the New Skills Agenda (adopted in June 2016)[1] and in the Modernisation Agenda (adopted in May 2017)[2] specifications on innovative employment-oriented curricula recommendations are described. The Open Science Agenda incorporates activities which makes it crucial for Higher Education Institutions to integrate new or existing skills courses into PhD programmes and to train data stewards. Especially the formal integration of skills courses developed with and by non-academic actors and provided in non-academic surroundings into curricula, will be a specific challenge.

Scope:
A broad package of skills-related training, integration and intelligence for researchers and scientists in all career stages will need to be developed. Preferably pilots will be organised by (or

in cooperation with) experienced projects which already received EU funding or are currently funded under Erasmus+, Horizon2020, ITN, MSCA. In all cases, partners should be able to demonstrate proof of concept and initial impact of the PhD training and reasoning for improving and formally integrating skills training. Initial postgraduate tracking exercises have to be integrated in the proposal, to demonstrate ability to trace postgraduates during employment (including sex-disaggregated data). Counselling initiatives of PhD candidates and PhD graduates into focussed careers in and outside academia should be provided.

The Commission considers that proposals requesting a contribution from the EU between EUR 0.75 million and 1.00 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:
Impact is expected on post-graduate candidates and early stage researchers, careers, in closing the skills gap between research employment in academia and beyond academia. Expected impact also on the improvement of the innovation potential of future PhD candidates, by joint design of skills training courses and curricula of consortium partners into modernised PhD programmes. Expected impact on the joint collaboration between academia and stakeholders in the regions (hubs) by improving skills intelligence, skills visibility and comparability for better career choices; learning about future skills needs and employment potential of scientists of all (interdisciplinary) fields. Expected impact on the interdisciplinary and international mobility of researchers working under Open Science in line with the

SWAFS-09-2019 Supporting research organisations to implement gender equality plans

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-09-2018-2019.html
CSA, 9m 2.5-3m per project
02.04.2019

Specific Challenge:
Gender equality is a key priority set with the Member States and Associated countries in the European Research Area. Research funding and performing organisations and universities are invited to implement institutional change through Gender Equality Plans (GEPs). The Council conclusions of 1/12/2015[1] acknowledged the contribution of gender equality to the quality of research and innovation. It reaffirmed the need for sustainable cultural and institutional change along the three following objectives:

1. Removing barriers to the recruitment, retention and career progression of female researchers;

2. Addressing gender imbalances in decision making processes;

3. Integrating the gender dimension in research and innovation content[2].

The GEAR tool developed by the European Commission and EIGE[3] regrouped the state of the art knowledge and practices on institutional change and provided a step-by-step guide on how to set up and implement GEPs.

Scope:
The action should focus on implementing Gender Equality Plans (GEPs) in research organisations and universities, as "drivers" for systemic institutional changes. The GEPs should be developed using a coherent approach, referring to the GEAR tool step-by-step guide. The proposed GEPs structure will include at least the following:

• Conduct assessment / audit of procedures and practices with relevant data to identify gender bias at organisation level;

• Implement effective actions to be developed over time, according to the identified bias;

• Set targets and monitor progress via indicators at organisation level.

The proposals will explain the planned GEPs in the context of existing national provisions and national action plans (legislation, specific incentives, etc.) relating to gender equality in research and innovation. The proposal should also explain previous steps taken by the organisation for gender equality.

The proposal will provide proof of long term commitment in the implementation of GEPs from their highest management level. The role of middle management and relevant departments of the partner organisations in the implementation of the GEPs shall be described.

The proposals will include a methodology for impartially evaluating the progress made on the impact the gender equality plans had on structural change throughout the duration of the project. A specific work package(s) and deliverable(s) should be introduced in the proposal for this purpose.

Special emphasis will be placed on the sustainability of the GEPs to be implemented and on project follow-up initiatives.

The allocation of resources within the consortium will focus on the implementation of GEPs in the partner organisations. These partner organisations must be at a starting/initial stage in the setting-up and implementation of gender equality plans. It is recommended that the proposals should allocate the majority of funding to setting-up and implementing GEPS. The proposal will explain the role of partners not implementing GEPs and their specific contribution in line with the text and requirements of the topic.

Participation of professional associations in the consortium is recommended.

Project duration of at least 48 months is recommended.

The Commission considers that proposals requesting a contribution from the EU between EUR 2.50 million and 3.00 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 proposed action will contribute to increasing the number of research organisations and higher education establishments implementing gender equality plans. The individual implemented GEPs should be shared on the GEAR tool[4].

The expected impacts are:

- Increase in the participation of women in research and innovation and improvement of their careers prospects;

- Improvement of gender balance in decision-making bodies in research organisations;

- Inclusion, where relevant, of the gender dimension in research content and increase in the quality and societal relevance of produced knowledge, technologies and innovations.

In the medium to long term, the implementation of Gender Equality Plans will contribute to the achievement of the ERA.

SWAFS-11-2019 Scenarios for an award/certification system for gender equality in research organisations and universities in Europe

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-11-2019.html
RIA, 1.5m 1 project
02.04.2019

Specific Challenge:
Through the implementation of Gender Equality Plans (GEPs) in the last years in research organisations and universities a substantial knowledge base and a wide set of practices were established which is accessible in particular in the Gender Equality in Academia and Research - GEAR tool[1].

Gender Equality Plans are now common in some Member States and Associated Countries, but in others they are in their infancy. The implementation of the Plans as a key instrument for gender equality in the European Research Area and the institutional change they entail in research organisations and universities need to be further promoted and evaluated.

A promising option which is implemented in some countries, could be gender equality award schemes for R&I organisations. Some awarding schemes are also used as drivers for competition in attracting students and researchers and/ or as prerequisite to access funding.

Scope:
The action will consist of a feasibility study of a European award/certification system for gender equality in research organisations, including universities. Several options should be investigated.

Based on the experiences of existing schemes and outcomes of previous research and initiatives (e.g. Horizon 2020 projects such as GEDII, and EFFORTI, FP7 ERA-Net Gender-NET[2]) , the action will:

- Conduct an in-depth qualitative and quantitative assessment of existing national award/ certification schemes for gender equality in research organisations and universities. Particular attention will be given to the national context in terms of legislation, policy and research funding

environment to understand the intended and non-intended impacts of each evaluated award scheme.

- Provide a clear framework for at least 3 different options of a European award/certification scheme encompassing the three objectives for gender equality in the ERA, i.e. gender equality scientific careers, gender balance in decision-making positions and in the integration of the gender dimension in R&I content. The options should take into account the possible synergies and linkages with the current Human Resources Strategy for Researchers (HRS4R).

A project duration of maximum 24 months is recommended.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 1.50 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:
Strengthen the incentives for research organisations and universities to set up Gender Equality Plans. Make progress on gender equality along the three objectives set in the European Research Area, i.e. in scientific careers, in decision-making and in the integration of the gender dimension in R&I content.

SWAFS-12-2019 The gender perspective of science, technology and innovation (STI) in dialogue with third countries

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-12-2019.html
RIA, 2m 1 project
02.04.2019

Specific Challenge:
In its Conclusions of 1 December 2015 on advancing gender equality in the European Research Area, the Council invited the Commission and the Member States to consider including, among others, a gender perspective in dialogues with third countries in the area of science, technology and innovation (STI).

The EU Member States and many countries outside the European Union are facing similar challenges in terms of gender equality in STI: gender-related biases are leading to horizontal (disparities among different scientific disciplines) and vertical (low levels of women representation on top positions) segregation. The perception of and support for gender equality varies significantly across cultures. Cultural and institutional barriers turn women away from STI and affect their careers. Also the take up of the gender dimension in research and innovation content[1] is still limited. The EU has developed a strategy for gender equality along three objectives relating to equality in careers, gender balance in decision-making and the integration of the gender dimension in R&I content.

The Commission has pledged reinforced cooperation with third countries under one of the three goals set by the current Commissioner, i.e. *Open to the World*. There is increasing interest from third countries to cooperate with the EU in the field of STI and encourage the mobility of researchers. It is therefore important to develop common solutions for common challenges regarding gender inequalities in STI.

Scope:
The project will investigate how gender equality matters are taken into consideration at different levels of international cooperation in the area of science, technology and innovation between the EU and a selected set of third countries, along three objectives, i.e. equality in scientific careers, gender balance in decision making, and the integration of the gender dimension in R&I content. The project will build on the work done by the ERA-related groups in charge of gender equality and international cooperation as well as EU funded projects. It will provide a mapping and a subsequent analysis of how gender equality is taken into account and promoted:

1. in the formal bilateral and multilateral agreements in the STI area between the EU Member States and Associated Countries on one side and the selected third countries on the other side;

2. in the bilateral and multilateral STI implementation activities, including access to grants and the evaluation process;

3. in the dissemination and promotion of the results of international dialogues and cooperation.

The project will also formulate recommendations to enhance the integration of gender equality objectives at the various stages mentioned above.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 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:
Improve awareness and implementation of gender equality objectives in the bilateral and multilateral activities between EU Member States and third countries in the area of STI. Contribute to removing potential barriers to the equal treatment of women and men scientists and to integrate the gender dimension in R&I content in international dialogues and cooperation.

SWAFS-14-2019 Supporting the development of territorial Responsible Research and Innovation

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-14-2018-2019.html
CSA, 9.5m, 2m per project
02.04.2019

Specific Challenge:
The Responsible Research and Innovation (RRI) approach supported by the European Commission since 2011 aims to encourage societal actors to work together during the whole research and innovation (R&I) process to better align R&I and its outcomes with the values,

needs and expectations of society. Experience shows that strategies and practices based on RRI can open up R&I to all relevant actors, and improve co-operation between science and society, fostering the recruitment of new talent, and pairing scientific excellence with social awareness and responsibility.

Territories have a specific advantage to address the complexity of the challenges set by the interplay between science and society. Indeed local actors have an intimate knowledge of the physical territorial setting, and local ecology, i.e. the status quo of the complex relationships between cultural, social, economic and political actors, of the local dynamics, history, expectations and requirements as well as specific concerns.

During the last century, local and regional development policies have slowly, unevenly, but surely, integrated dimensions related to science, technology, and innovation (STI). For example, the European Commission supported regional technology plans in the 1990s and regional innovation strategies during the 2000s. Since 2010 the Commission has encouraged regions to develop smart specialisation strategies, based on comprehensive stakeholder involvement, to identify specific fields of industrial and research strengths with a potential for competitive advantages for the region[1]. A more comprehensive approach involving citizens and communities is likely to result in positive impacts on STI and local and regional development.

Territories can work towards the establishment of self-sustaining R&I ecosystems that are characterised by a high degree of openness, democratic accountability, and responsiveness to need by taking action to promote all parts of RRI (i.e. gender equality, science education, open access/open data, public engagement, and ethics). This requires them to bring relevant R&I actors together, for instance citizens and civil society organisations (CSOs), universities, research institutions, formal and informal education institutions (including primary and secondary schools), governments and public authorities (including regional and local administrations and science policy institutions), businesses (including industry, the service sector and social entrepreneurs) and science mediators. New R&I working methods within and between organisations, including novel and transparent governance relations, would promote greater sustainability and inclusiveness at local, national, EU and global levels.

Scope:
For the present topic, 'territory' should be understood broadly. Territories may be defined by any particular area characterised by certain geographical features, or any area with shared cultural, environmental or economic ties.

Consortia should focus activities in more than one territory in Europe (and possibly also in Third Countries), with a view to developing and promoting shared learning and diffusion of governance innovations. Local and regional authorities should be active partners of the consortia, in particular those institutions or parts of institutions responsible for research and innovation. The RRI approach should be integrated in regional development policies, e.g. spatial planning, land use planning, coastal planning, urban development and urban structuring activities (list not exhaustive). Consortia should make strong efforts to ensure the involvement of all kind of citizens, irrespective of their age, gender, ethnicity and socio-economic background.

Consortia should lay out a sequence of actions that open up and transform the R&I ecosystem and governance systems so that they are more open and inclusive.

Consortia will:

- Map their current territorial R&I ecosystem, taking into account and complementing existing mapping exercises such as the Smart Specialisation Platform[2], the European Cluster Observatory[3], and the Regional Innovation Scoreboard[4],

- Reflect on how the system could be more open and inclusive, and

- Consider their place within larger societal, geographical, economic and environmental framework.

- Consequently, proposals should develop concrete actions within individual beneficiaries' organisations (e.g. agenda setting and institutional changes in the fields of gender, ethics, public engagement, science education and open access) and in the territorial context (e.g. local and regional governance relations and decision-making processes).

Changes should be sustainable (i.e. last beyond the lifetime of funding), for instance through the introduction of new forms of decision making, development of business plans or co-operation agreements, and institutional changes in participating organisations.

The actions should avoid duplicating the analytical and data collection activities of the Smart Specialisation Platform. Previous project findings and good practices should be considered as and when appropriate. Projects such as ONLINE-S3[5] and SEiSMIC[6] could be useful in this regard. The ONLINE-S3 project aims to assist national and regional authorities in the EU to elaborate and revise their smart specialisation agendas, in terms of policies and strategy, whereas the SEiSMiC project helps tackle Europe's biggest urban problems by engaging citizens, identifying social innovation needs, and contributing to future urban policies and research strategies.

The Commission considers that proposals requesting a contribution from the EU of the order of € 2.00 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:
Consortia are expected to elaborate and implement a more open, transparent and democratic R&I system in their defined territories. Consortia are expected to evaluate their activities and provide evidence of societal, democratic, environmental, economic and scientific impacts. Involvement in the project should have a measurable transformative and opening effect on organisations involved, which should be sustainable beyond the lifetime of funding. Consortia are expected to contribute to one or more of the MoRRI indicators (for instance GE1, SLSE1, SLSE4, PE1, PE2, PE5, PE7, PE8, E1, OA6, GOV2)[7], and to the Sustainable Development Goals[8] (for instance goals 4, 5, 9, 11, 12, 13, 16 or 17).

SWAFS-15-2019 Exploring and supporting citizen science

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-15-2018-2019.html
RIA, 10m, 2m per project
02.04.2019

Specific Challenge:

Citizen science is blooming across all scientific disciplines and the humanities. It can potentially bring a wide variety of benefits to researchers, citizens, policy makers and society across the research and innovation cycle, e.g; it can accelerate and sometimes even make possible the production of new scientific knowledge; it can help policy makers monitor implementation and compliance with regulations; it can increase public awareness about science and feeling of ownership of policies; and it can enable faster and evidence-informed reactions to events and better territorial coverage.

At the same time there are difficulties setting up citizen science initiatives – in terms of choosing the optimum methodologies; in terms of quality assurance and validation of the outcomes; in terms of linking the various governance levels, from local to global; in terms of ensuring balanced participation of citizens (e.g. regardless of background, gender and age); in terms of integrity of methods and data; in terms of recognising the work of citizens participating in citizen science initiatives; in terms of managing large numbers of volunteers for many months or even years (and keeping them motivated and responding to their questions).

Furthermore, questions remain unanswered about the potentials of citizen science for society e.g: what is the potential number of citizen scientists and who are they? What are the costs and benefits of citizen science (e.g. in terms of scientific excellence and the economy)? What relationship can and does citizen science have to informal and formal science education? Are there limits to citizen science, and if so what are they?

For the present topic citizen science should be understood broadly, covering a range of different levels of participation, from raising public knowledge of science, encouraging citizens to participate in the scientific process by observing, gathering and processing data, right up to setting scientific agenda and co-designing and implementing science-related policies. It could also involve publication of results and teaching science.

Scope:
There are the two sub-topics:

A, Coordination and Support Action - CSA (1 project in 2018): This will provide support to citizen science at the European level. It will also create a mutual learning space where citizen science projects/participants can exchange experiences and successful strategies. It will raise awareness of citizen science among the general public, provide co-ordination support between citizen science initiatives (in particular those funded by SwafS but also working in a spirit of co-operation with established networks of citizen scientists), identify training needs with a view to developing and implementing training to help citizen scientists, and support communication between citizen science and science journalists/science media. It will also identify good practices that incentivise career scientists to engage with citizen science activities.

B, Research and Innovation Actions - RIA (multiple projects in 2018-2019): This will support hands-on citizen science activities. Proposals may focus on one particular area of scientific enquiry or tackle several, though transdisciplinary approaches should be favoured. The intended activities should be clearly defined and result in the development of new knowledge, new technologies, or new means of using existing technological or social innovations better. Activities can explore how citizen science develops scientific skills and competences, act as a tool for informal and formal science education of young people and adults, counter perceived anti-intellectual attitudes in society, raise the scientific literacy of European citizens, and promote

social inclusion and employability. Gender, geographical and socio-economic factors should be taken into account so as to ensure activities are open to people from all backgrounds. Effort should be made to evaluate the impacts on society, democracy, the economy, science itself, and the individual citizen scientists involved in the activities. Lines of communication should be established with other relevant SwafS projects in order to share evaluation data and data arising from the citizen science in the spirit of open science.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged.

The Commission considers that proposals requesting a contribution from the EU in the order of € 2.00 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:
A. Coordination and Support Action: Strengthened networks, co-ordination and communication among citizen science projects (particularly, but not limited, to those funded by SwafS). Availability of tools, guidelines, or other materials useful to actors inexperienced in organising and supporting citizen science initiatives. Increased awareness amongst the general public of citizen science. Delivery of training to citizen scientists (or potential science practitioners) and resultant increased skills, competences, and scientific excellence. Consortia should choose a basket of indicators to measure the impact of their work against. In particular, consortia are expected to contribute to one or more of the MoRRI indicators (for instance PE1 to PE10) and to the Sustainable Development Goals[1].

B. Research and Innovation Actions: Development of new knowledge and innovations by citizen scientists. Availability of evaluation data concerning the societal, democratic and economic costs and benefits of citizen science. Consortia should choose a basket of indicators to measure the impact of their work against. In particular, consortia are expected to contribute to one or more of the MoRRI indicators (for instance PE1 to PE10) and to the Sustainable Development Goals[2]

SWAFS-16-2019 Ethics of Innovation: the challenge of new interaction modes
https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-16-2019.html
CSA
02.04.2019

Specific Challenge:
Innovation, from idea to product, and including social innovation[1], is a main driver for change, a pillar of EU growth and globally for socio-economic development. It addresses key challenges in fields such as the environment and health and improving the quality of life and well-being of citizens.

Over the past years, the modes of interaction between the different stakeholders have evolved significantly. Active participation of citizens in science and innovation has gained prominence. At the same time, new IT tools have profoundly impacted the way in which researchers work and interact. These developments are promising and have numerous advantages. At the same time, however, these new modes of innovation also raise ethical and regulatory considerations,

including concerns regarding the protection of participating citizens, their potential exploitation, the collection of big data and related privacy considerations, as well as intellectual property issues.

Scope:
In order to maximise the social benefits derived from innovation, the action will assess the ethical, regulatory and governance issues potentially arising in this context. The action should identify what the distinctive elements of innovation ethics would be in this dynamic context.

The role of citizen participation in innovation (including social innovation[2]) must be analysed in order to maximise the effectiveness of this participation for all stakeholders, taking into account possible gender differences. Best practices for an active involvement of citizens and relevant stakeholders in the innovation processes should be identified. The design and use of IT tools should also be considered in order to optimise stakeholder participation.

In addition, the existing legal environment applicable to citizen participation in research and innovation should be identified, mapped and analysed. Potential regulatory and legal gaps (concerning for example IP rights and ownership of data) should be described and concrete proposals should be presented to address the highlighted gaps.

The analytical work should not be limited to the legal aspects, but also cover current practices (in the EU and beyond) with a view to discussing their ethics and values dimensions and taking into account the lessons learned so as to be able to identify best practices. In doing so, business ethics practices should also be considered.

The action must propose an ethics framework, based on accepted principles[3], which aim to ensure that innovation remains a process which responds to citizens' needs and values, improves access and avoids a technological divide. Such a framework should focus on the elaboration and implementation of publicly funded research and innovation programmes, as well as public–private partnerships. It should be developed, validated and translated into a set of practical guidelines that enable the effective handling of the identified ethical and regulatory issues.

Such a framework and guidelines must be compatible with and aim to complement the new European code of conduct for research integrity[4] and include, where applicable, measures for benefit sharing. This process necessitates the active involvement of relevant stakeholders to ensure an effective take-up. The effectiveness of the guidelines should be assessed and tested, notably via workshops and focus groups (such science cafes, etc.) involving citizens, industry, researchers and policy makers. In addition, the resulting guidelines should be applied in real-life pilots with quantifiable results. Piloting needs to be carried out in a representative set of Member States in order to test different cultural/socio-political context.

The action should involve innovation agencies and/or research and innovation funding organisations, which are called to apply the results of the project into their internal procedures.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 3.00 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:
Overall, this action will enable more effective handling of the ethical dimension of innovation, in particular regarding the new modes of interaction and participation. It will offer a practical and operative tool for all stakeholders confronted with the challenges related to co-design[5] and to new (IT-based) interaction modes. It will practically support the work of a) the designers and funders of research and innovation policies/programmes, b) the ethics committees tasked with evaluating and monitoring innovative programmes and projects, and c) the research integrity bodies responsible for promoting research integrity and research quality. The implementation of the guidelines in pilots are expected to increase their uptake and overall the impact of the action.

SWAFS-17-2019 Consolidating and expanding the knowledge base on citizen science

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-17-2019.html
RIA, 2.5m 1 project
02.04.2019

Specific Challenge:
Grassroots initiatives related to citizen science are blooming across the world. Citizen science has the potential to bring a wide variety of benefits to researchers, citizens, policy makers and society and across research and innovation (R&I) cycles. It can make science more socially relevant, accelerate and enable production of new scientific knowledge, help policy makers monitor regulatory implementation and compliance, increase public awareness about science and ownership of policy making, and increase prevalence of evidence-based policy making.

The growth of citizen science brings with it a need to understand its breadth and consequences. How is citizen science conducted, who is involved and in what way(s), and what effect(s) does it have on R&I systems, scientists and the citizens involved? What are the different incentives and disincentives for career scientists to get involved in citizen science? What are the enablers and the barriers of citizen science, what are good practices, and what are its limits? It is also important to identify the democratic, societal, economic and scientific benefits of citizen science. Moreover, the deep and profound implications on science as a discipline, a profession and as a practice, and also on science's relationship with and for society, need to be considered.

Scope:
This topic will deepen scientific knowledge on citizen science. It will work very closely with and examine and synthesise data arising from existing citizen science projects (in particular, but not limited to, those funded by SWAFS) to better understand participation patterns in citizen science, the types of activities conducted, the transformative potentials of participating in citizen science, challenges faced by citizen scientists, enablers and barriers to participating in citizen science (e.g. in terms of socio-economic status, gender, age, and in terms of R&I policies), and a strengthened knowledge base on its benefits. It will place developments in global and European historical contexts, and develop understanding about the implications of citizen

science on science itself, and on science's relationship with and for society. It will involve stakeholders from local to European levels, from all parts of the quadruple helix, and taking into account gender, geographical and socio-economic differences, to develop policy messages that work towards an enabling R&I policy environment for citizen science and maximisation of the benefits of citizen science.

In line with the strategy for EU international cooperation in research and innovation (COM(2012)497), international cooperation is encouraged.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 2.5 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:
Consortia should aim to consolidate and expand the scientific and policy knowledge base about citizen science. They should identify key incentives, disincentives, barriers and enablers to involvement of citizens and scientists. They should document, synthesise, and present evidence about the societal, democratic, economic and scientific benefits (and potential caveats) of citizen science. They should aim to impact on R&I policies by developing implementable policy recommendations and targeting them at key stakeholders. They should aim to indirectly work towards MoRRI indicators[1] (e.g. SLSE4, PE1, PE2, PE3, PE5, PE6, PE7, PE8, PE9, PE10, OA6) and identified and appropriate Sustainable Development Goals[2].

SWAFS-19-2019 Taking stock and re-examining the role of science communication

https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-19-2018-2019.html
RIA, 3.5m, 1.2m per project
02.04.2019

Specific Challenge:
Science and innovation are undergoing deep and fundamental changes, in particular thanks to digitalisation (e.g. social media and citizen science). Science communication, which is a discipline, an activity conducted by scientists and other R&I stakeholders, and a career path followed by journalists, informs citizens about science and innovation, opens up R&I to society, and empowers citizens to participate in activities and debate.

Two concurrent developments lead to the growing need to ensure the quality and reliability of science communication: firstly, dwindling resources in science journalism lead to reduced critical assessment and reporting of science[1]; secondly, the rapid diffusion of open access publications and science-related news through social media increase opportunities for all citizens and civil society groups to reach large audiences about science-related issues but sometimes without the editorial oversight and fact-checking established in the traditional media.

Scope:
This topic aims to better understand how results from research and scientific methodologies are communicated and perceived by citizens (taking into account age, gender, and socio-economic status), develop improved ways to measure and assess science communication, and identify good practices and policy guidelines to increase the accuracy of (and therefore trust in) science

communication. It will increase knowledge about science communication at international, EU and member state levels. It will propose innovative ways to open up science and innovation broadly to society by improving the quality and effectiveness of interactions between scientists and other R&I stakeholders, the media and the public. It will examine the teaching of science communication within scientific disciplines and as a dedicated academic discipline. It will also give attention to existing incentive (and disincentive) structures for scientists and other R&I stakeholders to engage in science communication, for instance in terms of career and scientific reputation. Applicants are welcome to propose other innovative ideas in relation to the above specific challenge.

To address this specific challenge, proposals will include a multi-disciplinary team able to explore well defined communication strategies (journalists, science communicators, scientists and other R&I stakeholders, educators, enterprises, economists, civil society/citizens, legal experts, etc.). Specificities related to gender, culture, territorial context and the environment should also be considered.

The Commission considers that proposals requesting a contribution from the EU of the order of EUR 1.2 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:
Dissemination of the results should increase the communication of science in terms of quantity and quality, favour the opening of R&I, and the up-take of RRI. It should eventually improve the quality and effectiveness of interactions between scientists, general media and the public.

SWAFS-20-2019 Building the SwafS knowledge base
https://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/swafs-20-2018-2019.html
RIA, 6m, 1m per project
2 stage 02.04.19 and 07.11.19,

Specific Challenge:
Understanding the evolution of science and society will help proactive and anticipatory policy making. This includes examining how societal actors, including young people, behave, understand, react to and interact with science and scientific developments, and their motives for engaging in science-related activities. It encompasses investigating science communication and science advocacy in the digital world, and how science and technology studies and different disciplines (e.g. behavioural sciences, communication studies, gender studies, linguistics, and social anthropology) – and multi/transdisciplinary approaches – can help explain interactions between science and society. This includes a focus on blind spots of research and innovation in relation to people's needs and concerns and in any of the areas or dimensions covered by RRI. Moreover, consideration could be given to rewarding achievement in RRI in its various dimensions to signal the organisations that are more RRI aware (answering questions such as how such a reward could work and based on which criteria). Another area is implications of deep changes in science and innovation and their interactions with society and the economy, such as the transition to open science and open innovation, and resultant changes in the relationships between science and society.

Scope:
The present topic is completely bottom-up. Research and innovation actions are invited, using the above specific challenge to help stimulate ideas about where research is most needed.

The Commission considers that proposals requesting a contribution from the EU of the order of € 1 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:
Consortia should choose a basket of indicators to measure the impact of their work against. In particular, consortia are expected to contribute to one or more of the MoRRI indicators[1] and/or to the Sustainable Development Goals[2]. R&I outcomes should help build effective cooperation between science and society, foster the recruitment of new talent for science, and pair scientific excellence with social awareness and responsibility. Scientific and other types of publication should be foreseen.

ICT Calls

ICT-25-2019 Interactive Technologies

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-25-2018-2020.html
RIA, 20m, 2-4m per project
14.11.19

Specific Challenge:
Interactive technologies such as Augmented (AR) and Virtual Reality (VR) are set to transform the ways in which people communicate, interact and share information on the internet and beyond. This will directly impact a larger number of European industries ranging from the cultural and creative industries, manufacturing, robotic and healthcare to education, entertainment and media, enabling new business opportunities. The challenge is to forge a competitive and sustainable ecosystem of European technology providers in interactive technologies.

Scope:
The scope includes: 1/ support a pan-European coordination effort to strengthen the collaboration among the constituency; 2/ increase the European innovation capacity through the development of new authoring tools and the access to a broader community;

b) Future interaction (RIA)

To strengthen European research and industrial capacities the research and innovation actions should focus either on:

- Better exploiting opportunities offered by **multi-user interactions**, researching and developing technologies augmenting human interaction in groups within both professional and private contexts.

- Or developing future interactive systems offering **higher quality experiences**, for instance through systems which are mobile, support additional senses, have higher accuracy or incorporate bio or environmental sensors.

The Commission considers that proposals requesting a contribution from the EU of between EUR 2 and 4 million would allow this area to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Expected Impact:
a) Establish a sustainable competitive ecosystem of European technology and solution providers for interactive technologies.

b) Strengthening European research and industrial capacities to develop future interactive devices.

ICT-33-2019 Startup Europe for Growth and Innovation Radar

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/ict-33-2019.html
CSA and IA, 10m
28.03.19

Specific Challenge:
The challenge is to scale up innovative businesses across the EU, detect high potential innovations and support innovators in going to market. Actions under this heading reinforce the Startup Europe and Innovation Radar initiatives and link to the activities of the European Innovation Council in a complementary way by targeting exclusively ICT innovators that are not supported by the EIC.

Scope:
Actions should help startups and scale-ups achieve market success and mature the innovation excellence of high potential innovators. Actions should support the creation of new jobs and high growth businesses and support their growth on a pan-European and international level. Innovators identified, promoted and supported by the Innovation Radar are expected to enrich and benefit from the Startup Europe ecosystem[1][2][3]. Projects should demonstrate sustainability of proposed actions beyond the life of the project. Where appropriate, the projects should seek synergies with ESIF funds or ESIF supported actions in order to improve the synergies between H2020 and ESIF.

a. Innovation actions

Connecting local deep-tech startup ecosystems and supporting cross-border activities: among the 4-5 startups ecosystems connected by each project, at least half of them will be located in less developed ecosystems. Actively connect them to the **Startup Europe one-stop-shop** and involve the Digital Innovation Hubs to support individual ecosystems. Cross-border activities will include: connecting deep-tech entrepreneurs with e.g. potential investors, business partners, accessing skills and services helping startups soft land in new markets. Particular focus will be placed on stimulating partnerships between scaleups and corporates with a view to

procurement. Special attention will be placed to support digital startups and scaleups wherever situated in Europe, to access public procurement opportunities across borders.

b. Coordination and support actions

- Provide targeted and tailored go-to-market support to SMEs, startups, scaleups, spinoffs and market-oriented researchers, who are supported by EU funded ICT projects[4] and are delivering market-creating innovations that have scale-up potential.
- Insight and intelligence from the Innovation Radar is to be used to detect EU-funded innovators who face the biggest market opportunities (enhancement of Innovation Radar data by merging with relevant third party data sources is welcomed).
- Support for innovators is expected to include mentoring, coaching, investor readiness training, coaching on how to bid for public procurement sales opportunities, connecting innovators with potential customers, business partners and investors (Business Angels, Venture Capital, Crowdfunding and other relevant forms of financing).

Expected Impact:
Proposals should address the following and provide appropriate metrics for measuring success with respect to a defined baseline:

a. Innovation actions

- Increased connectedness among members of deep-tech startup ecosystems and their companies (startups and scaleups) and to the larger European business ecosystem seeking maximum synergies
- Increased access to customers, private and public, better access to qualified employees, access to the right combination of finance and prospects for scaling up across border;
- Stimulate European investments in deep-tech digital sectors through increasing the number of cross-border investments; demonstrate sustainability of proposed actions beyond the life of the project.

b. Coordination and Support actions

- Increase the number of digital technology based spin-offs, startups and scale-ups or successfully transferred technology from EU funded projects;
- Enable innovative ICT based companies or technology to reach investment maturity and market introduction readiness, and/or winning for the first time public procurement contracts across the EU.

Other Calls

SC5-14-2019 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
IA, 43m, 10m per project
19.02.19 and 04.09.19

Specific Challenge:
It is estimated that by 2050 up to 70% of the world's population will be living in urban areas. Urbanisation affects human health and well-being through factors such as exposure to pollutants, including noise, disasters, stressors and diseases, urban density, lack of physical activity, degraded ecosystems and erosion of natural capital, which can be exacerbated by climate change. As acknowledge by the Habitat III New Urban Agenda, public spaces play a crucial role in urban interaction and systemic urban innovation and they need to be designed and managed sustainably and equitably to ensure that the way citizens produce, consume, commute and interact within the urban fabric has a positive impact on their health and quality of life, enhances resilience to disasters and climate change and reduces the environmental footprint of the cities. The systemic integration of social, cultural, digital and nature-based innovation in the design, development and governance of public space has a tremendous potential to transform these spaces into diverse, accessible, safe, inclusive and high quality green areas that increase well-being and health and deliver a fair and equitable distribution of the associated benefits.

Scope:
Actions should deliver visionary and integrated solutions (e.g. therapy gardens, urban living rooms, creative streets, city farms) at the intersection of social, cultural, digital and nature-based innovation to increase citizens' health and well-being in cities[1]. These solutions should address social, cultural, economic and environmental determinants of health and well-being and support urban communities in reducing their exposure to climate-related risks, pollution (including noise), environmental stress and social tensions, including the negative effects of gentrification. Actions should also demonstrate how the integration of these solutions into innovative land-use management, urban design and planning could reduce health-related environmental burdens in socially deprived neighbourhoods, foster equitable access for all to public spaces, enhance their quality and use and promote sustainable urban mobility patterns.

Actions should test new transition management approaches, governance models, legal frameworks and financing mechanisms to re-design public spaces and urban commons and assess their contribution to improving health and well-being. They should promote multi-stakeholder initiatives, citizens' engagement, co-creation and co-ownership of public spaces. Optimal and cost-effective use of behavioural games, networks of sensors, GIS-mapping, big data, observational programmes such as Copernicus and GEOSS, and citizens' observatories should be made as appropriate to enable the integration and visualisation of data for more effective monitoring of the transition towards healthier and happier cities.

The involvement of social sciences and humanities disciplines such as psychology, behavioural science, economics, law, anthropology, sociology, architecture, or design studies, is considered essential to enhance social learning and promote the role of social and cultural innovation in transforming public spaces, with particular attention devoted to gender dynamics and diversity. To enhance the impact and promote upscaling and replication of these solutions, projects should engage in substantial networking and training actions to disseminate their experience, knowledge and deployment practices to other cities beyond the consortium. To enhance impact cooperation and synergies with the activities undertaken within the Global Covenant of Mayors for Climate and Energy initiative and its regional components[2] (supported by the EC) should be sought where appropriate.

Actions should envisage clustering activities with other relevant selected projects[3] for cross-projects co-operation, consultations and joint activities on cross-cutting issues and share of results as well as participating in joint meetings and communication events. To this end proposals should foresee a dedicated work package and/or task, and earmark the appropriate resources accordingly.

Funded projects are expected to establish long-term sustainable data platforms securing open, consistent data about the impacts of the deployed approaches and ensure interoperability with other relevant data infrastructures for effective communication, public consultation, exchange of practices, and sharing of experiences.

Proposals should pay attention to the special call conditions for this topic. In grants awarded under this topic, costs for construction and installation of "infrastructure-targeted" interventions shall not constitute more than 20% of the total eligible costs. Beneficiaries' own resources and/or mobilisation and leverage of additional investments beyond Horizon 2020, whether private or public, should make up the remaining investment costs and should secure economic and financial sustainability for the execution of the project.

The Commission considers that proposals requesting a contribution from the EU in the range of 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.

Expected Impact:
The project results are expected to contribute to:
- high quality, multifunctional, public spaces able to integrate digital, social, cultural and nature-based innovation to enhance health and well-being, while ensuring 'the right to the city' as specified in the Habitat III New Urban Agenda;
- European cities being world ambassadors of sustainable lifestyles, providing universal access to greener, safe, inclusive and accessible public spaces, also accounting for the gender dimension;
- participatory approaches in re-designing and transforming public spaces to increase health and well-being in cities through innovative public-private-people partnerships (PPPPs);
- more comprehensive assessment of the sustainability and resilience of cities through the development of health and well-being indicators;
- establishing innovative monitoring systems to measure effects (both positive and negative) and capture the multiple co-benefits created by nature-based solutions in terms of health and well-being.

DT-TDS-01-2019 Smart and healthy living at home

http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/dt-tds-01-2019.html

IA, 60m, 15-20m per project

14.11.19

Specific Challenge:

Citizens in a rapidly ageing European population are at greater risk of cognitive impairment, frailty and multiple chronic health conditions with considerable negative consequences for their independence, quality of life and for the sustainability of health and care systems. The challenge is to foster large-scale deployment of integrated digital solutions which will bring improved quality of life to citizens while demonstrating significant efficiency gains in health and care delivery across Europe.

Scope:

A mix of advanced ICT ranging from biophotonics to robotics, from artificial intelligence to big data and from IoT to smart wearables can address these challenges. A platform for smart living at home should integrate these technologies in an intelligent manner.

The pilots should build on open platforms, standardised ontologies, APIs and results from IoT-based smart living environments, service robotics and smart wearable & portable systems and clearly go beyond current state of the art in terms of scale, the capabilities for personalisation, adaptation, and user acceptance.

Pilots in the selected areas should clearly cover the supply and demand sides. For further expanding with other users, developers of additional applications, replication of the pilot through new sites, and complementary assessment of the acceptability of the use cases where appropriate, the actions in this topic may involve financial support to third parties as outlined in the chapeau 'Platforms and Pilots'.

A clear methodology and impact indicators for socio-economic impact assessment from using the platform should be included, where possible using the MAFEIP[1] framework. The number of users involved and duration of pilot services should be sufficient to ensure significance in impact analysis, with a minimum of 4 pilot sites in 4 countries.

The proposed pilots should also demonstrate feasibility of integration with other relevant application domains such as energy, transport, or smart cities, including interoperability, along with data security and integrity, and models for data sharing and valorisation are to be developed in order to create incentives for data aggregation across different platforms and application areas. Regulatory aspects and legal aspects of data ownership should be addressed. Relevant ethics and gender issues should be taken into account.

Proposals should address one of the two following areas:

Intelligent and personalised digital solutions for sustaining and extending healthy and independent living
The objective is to develop and deploy innovative and user-led digital solutions capable of supporting and extending healthy and independent living for older individuals who are facing permanently or temporarily reduced functionality and capabilities.
Innovative ways for ensuring user-friendly and accessible interface design and new intuitive ways of citizen interaction and trust creation are needed. Special emphasis should be given to viable concepts that ensure security and privacy by design, data protection, safety, security and trust in the resulting system and service delivery inside and outside the home.

Personalised early risk detection and intervention
The objective is to develop and deploy innovative and user-led solutions building on big data for personalised risk detection, advanced health monitoring and early interventions for people facing increased health and social risks. Proposals should design and demonstrate innovative personalised treatments and therapies based on early detection and risk avoidance. Because of the personal and sensitive nature of health data, special attention needs to be paid to trust, privacy and data protection.

For this topic, the four activities and impact criteria described in the chapeau 'Platforms and Pilots' have to be applied. Pilot projects are expected to contribute to the consolidation and coherence work that will be implemented by the CSA supporting the activities defined under "DT-ICT-13-2019: Digital Platforms/Pilots Horizontal Activities". This requires that they contribute to clustering their results of horizontal nature (interoperability approach, standards, security and privacy approaches, business validation and sustainability, methodologies, metrics, etc.).
The Commission considers that proposals requesting a contribution from the EU between 15 and 20 EUR million for Innovation Actions would allow the areas to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts. At least one proposal should be funded for each of the above-mentioned areas

Expected Impact:
Emergence of European-led platform for smart and healthy and independent living at home;
Increased competitiveness of the European ICT industry in the domain, through enhanced interoperability, best practices for viable business and financing models and scalable markets;
Demonstrate links and build synergies with Member States' and regional initiatives in this area;
Improved and evidence-based efficiency of health and care systems with demonstrated added-value of underlying technologies;
Improved quality of life and health status for involved users and carers, with demonstrated added-value of underlying technologies;
User accepted, validated innovative solutions addressing accessibility, privacy, security, vulnerability, liability, and trust in connected data spaces.