Theme	Call	Title	Challenge	Expected Impact	Type	Timeline	Budget (per project)
ICT http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-ict_en.pdf	ICT-25-2018-2020	Interactive Technologies	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.	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.	CSA	31/10/17-->17/04/18	3 M
					RIA	26/07/18 --> 14/11/18	20 M (P: 2-4 M)
	ICT-26-2018-2020	Artificial Intelligence	The challenge is to fully exploit the potential of AI in the economy and society. Building notably on Europe's Scientific and Technology strengths in the field, the supported activities should reinforce industrial competitiveness across all sectors including for SMEs and nontech industries and help address societal challenges (e.g. ageing, transport). The focus is on R&I areas in AI where collaborative work at European level can make a difference amidst the fierce world-wide competition in the field. The ambition is therefore to make AI technologies and resources available to developers and innovators in all sectors and actively engage with a wide user community, including non-AI experts.	a) Building a sustainable AI-on-demand platform, becoming a reference, mobilising the entire European AI community, and ensuring a leading position for Europe in AI. b) Reinforcing European excellence and leading position worldwide in major research and application domains, especially through the research and innovation efforts to fill important technology gaps. c) Boosting technology transfer of AI, especially towards SMEs and non-technology sectors, and disseminating the economic benefits of AI to a large user base.	RIA	31/10/17-->17/04/18	20 M (P: 3 M)
	ICT-28-2018	Future Hyper-connected Sociality	Future social networks, media and platforms will become the way our societies operate for communication, exchange, business, creation, learning and knowledge acquisition. The challenge is to mobilise a positive vision as to the role that Social Media will increasingly play in all these areas, and to overcome today's critical issues about trust and governance through democratic reputation mechanisms, and user experience.	a) Increased trust and improved governance and value for Social Media and Media b) New federated Social Media platforms and innovative media data driven services c) Societal change towards digital literacy and citizen participation	IA	31/10/17-->17/04/18	10 M (P: a) 2,5 M + b) 5M)
					RIA	31/10/17-->17/04/18	10 M (P: 5 M)
					CSA	31/10/17-->17/04/18	1 M (P: 1M)
	ICT-29-2018	A multilingual Next Generation Internet	The activities under this topic will support technology-enabled multilingualism for an inclusive Digital Single Market. Every European should be able to access content and engage in written and spoken communication activities without language being a barrier. Content and services, such as those provided by public administrations, are not available in multiple languages. Linguistic fragmentation means that many citizens and businesses cannot fully engage in online activities and benefit from online content and services. The sheer volume of content, the diversity of content types and modalities as well as the diversity of languages in Europe makes the effective roll-out and provision of multilingual solutions challenging.	a) Provide European research and language technology industry with a better access to and usage of quality language resources and tools; b) Increase in the quality and coverage of multilingual solutions used by industrial players in sectors relevant to the emergence of the Digital Single Market; c) Increase in the uptake of language technologies in Europe in various sectors; d) Cost savings for private and public sector users of language technology solutions.	IA	31/10/17-->17/04/18	7M (P:7M)
					RIA	31/10/17-->17/04/18	18 M (P: 3M)
	ICT-30-2019-2020	An empowering, inclusive Next Generation Internet	Every citizen, from all walks of life, should be able to fully take part in the Digital Single Market. This means that the Next Generation Internet will have to empower users, including its most vulnerable or disabled one, to have access to the same digital learning opportunities, in forms that are accessible.	a) Increase in the overall uptake of technology for personalised and inclusive learning for all, regardless of their age, gender or other socioeconomic factors. b) Increase in the number of distributed learning solutions for children with special educational	IA	16/10/18 --> 28/03/19	7M (P: 7M)

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			learning opportunities, in forms that are accessible, perceivable and understandable by everybody.	solutions for children with special educational needs. c) Increase in the number of start-ups/SME's deploying personalised and inclusive learning solutions to the market.	CSA	16/10/18 --> 28/03/19	1M (P: 1M)
	ICT-32-2018	STARTS – The Arts stimulating innovation	The ever-increasing role of technology in our daily life offers huge potential for added value for our society. Artists can help unleash this potential. They can help shape a better relation of technology and humans and stimulate human-centred innovation through their transversal competencies and unconventional thinking. The challenge of the S+T+ARTS=STARTS program – innovation at the nexus of Science, Technology and the Arts - is to better address innovation in industry and society by engaging artists in European R&I projects to explore unconventional art-inspired solutions to industrial/societal problems.	a) The demonstration of value-added to industry and society in having artists contribute to the development of radically new products, services and processes. b) Signalling effect for future uptake of art-driven solutions to concrete industrial and societal challenges and art-driven user-centred products and services. c) Efficient working models how art-technology collaboration can contribute to innovative processes in research, industry and society d) Burgeoning STARTS ecosystem involving industry, technology, research, end-users, societal stakeholders, and the Art world that reconciles and unites the goals and thinking of industry and technology with that of the Art world.	CSA	31/10/17-->17/04/18	1 M (P: 1 M)
					RIA	31/10/17-->17/04/18	8 M (P: 4M)
Societal Challenges: Europe in a changing world - Inclusive, innovative and reflective societies http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-societies_en.pdf	TRANSFORMATIONS-03-2018-2019	Innovative solutions for inclusive and sustainable urban environments	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.	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 as well as the urban dimension of cohesion policy.	CSA	07/11/17 --> 13/03/18	1.5 M
					RIA	06/11/18 --> 14/03/19	6 M (P: 3 M)
	TRANSFORMATIONS-04-2019-2020	Innovative approaches to urban and regional development through cultural tourism	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.	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.	RIA	06/11/18 --> 14/03/19	9 M (P: 3 M)

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	TRANSFORMATIONS-05-2018	Cities as a platform for citizen-driven innovation	Public institutions in Europe are increasingly challenged to find new ways to provide public value in an open, transparent way. In a growing number of small andlarge cities across Europe, citizens are engaged and mobilised to demonstrate their ability in creating innovative solutions for important social issues. The challenge is to capture the creativity of these local solutions and their potential opportunities, both from a social and a market perspective, including the potential for sustaining diverse and alternative economies, slow economies among them.	The action will enhance scaling-up and expand opportunities for innovations created by citizens across Europe. It will provide a wider European scale to innovative practices based on experimentation, particularly testing and engaging in local cocreation, in living labs, in designing city experimental areas bringing new opportunities to light. It will provide policy-relevant solutions to local governments on how to enable citizendriven innovation to develop and strengthen common welfare. It will allow for a smoother sharing of best practices between European urban areas, thus also enhancing community building, and move beyond traditional innovation processes that often exclude the end-user perspective, and thereby contribute to sustainable growth and employment.	CSA	07/11/17 --> 13/03/18	1 M
	TRANSFORMATIONS-06-2018	Inclusive and sustainable growth through cultural and creative industries and the arts	The development of cultural and creative industries (CCIs) is vital for a vibrant economy and as a means of revitalising EU regions. The CCIs employ 7.5% of the EU's workforce and add around EUR 500 billion to GDP. CCIs also contribute significantly to youth employment and were remarkably resilient in the context of the economic crisis. However, they still do not benefit from the support of a comprehensive sectorial policy scheme in most Member States and Associated Countries or at the EU level.	The action will formulate recommendations in support of regional, national and European policies in the field of cultural and creative industries. It will inform, mobilise and connect relevant sectorial and policy stakeholders and increase awareness of the economic and societal issues at stake. It will also improve statistical data and quantitative and qualitative methods in cooperation, when appropriate, with national statistical institutes, relevant international organisations, networks, research infrastructures and Eurostat with a view of enabling short, medium and long term tracking of national and EU performance in CCIs.	RIA	07/11/17 --> 13/03/18	7.5 M (P: 3 M)
	DT-TRANSFORMATIONS-07-2019	The impact of technological transformations on children and youth	The challenge is to develop a solid and independent multidisciplinary and longitudinal knowledge base 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.	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.	CSA	06/11/18 --> 14/03/19	1.5 M
					RIA	06/11/18 --> 14/03/19	9 M (P: 3 M)

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	TRANSFORMATIONS-08-2019	The societal value of culture and the impact of cultural policies in Europe	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.	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.	RIA	06/11/18 --> 14/03/19	9 M (P: 3 M)
	SU-TRANSFORMATIONS-09-2018	Social platform on endangered cultural heritage and on illicit trafficking of cultural goods	Initiatives to protect endangered cultural heritage and to stop their illicit trade are multiplying, with international bodies, the EU, national governments and other institutions developing useful, though mainly uncoordinated, initiatives. The challenge is to take stock of ongoing initiatives, promote mutual learning and coordination, and identify knowledge and intervention gaps.	The action will facilitate the uptake and dissemination of research and best practices, thereby contributing to the development of strategic and integrated European and international policies and interventions. It will develop toolkits and recommendations for a variety of stakeholders. It will also build a consensus on future needs and support the EU in developing an innovative and focused research agenda on endangered cultural heritage.	CSA	07/11/17 --> 13/03/18	P: 1.5 M
	DT-TRANSFORMATIONS-11-2019	Collaborative approaches to cultural heritage for social cohesion	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.	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.	RIA	06/11/18 --> 14/03/19	12 M (P: 3 - 4 M)
	DT-TRANSFORMATIONS-12-2018-2020	Curation of digital assets and advanced digitisation	Digitisation still focuses mainly on capturing the visual appearance of objects, collections or sites. It is also often centralised and static, with an expert performing digitisation and archiving and with digitised cultural resources rarely updated and consolidated. With heritage being both tangible and intangible, the challenge is to design solutions for generating a comprehensive picture of the studied assets, capturing and recreating not only visual and structural information, but also stories and experiences together with their cultural, historical and social context and their evolution over time.	New technologies and methods will help to present cultural heritage in a comprehensive and attractive way, thereby supporting the promotion and understanding of Europe's cultural heritage. Proposals will also demonstrate how improved preservation of objects, collections and sites will enhance cultural history and cultural tourism. The economic, social, research and cultural impact for content-owning creative industries and cultural institutions will include gains from use and re-use of digital assets. Proposals will also show how they will enhance re-use of digital assets.	IA	07/11/17 --> 13/03/18	10 M (P: 4 - 5 M)
Science with and for Society http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-swfs_en.pdf	SwafS-01-2018-2019	Open schooling and collaboration on science education	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. 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.	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.	CSA	05/12/17-->10/04/18 (First Stage) 13/12/18 (Second Stage) 11/12/18-->02/04/19 (First Stage) 07/11/19 (Second Stage)	3 M (P: 1.5 M)

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	SwafS-17-2019	Consolidating and expanding the knowledge base on citizen science	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. 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?	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 indicators60 (e.g. SLSE4, PE1, PE2, PE3, PE5, PE6, PE7, PE8, PE9, PE10, OA6) and identified and appropriate Sustainable Development Goals.	RIA	11/12/18-->02/04/19	2.5 M (P: 2.5 M)
	SwafS-19-2018-2019	Taking stock and re-examining the role of science communication	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 science66; 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.	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.	RIA	05/12/17-->10/04/18 11/12/18-->02/04/19	3.5 M (P: 1.2 M)
	SwafS-20-2018-2019	Building the SwafS knowledge base	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.	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 and/or to the Sustainable Development Goals. 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.	RIA	05/12/17-->10/04/18 (First Stage) 13/12/18 (Second Stage) 11/12/18-->02/04/19 (First Stage) 07/11/19 (Second Stage)	6 M (P: 1 M)