ARTIFICIAL INTELLIGENCE IN OTHER PILLARS HORIZON 2020

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AI in Horizon 2020 and beyond







Horizon 2020

Information and Communication Technologies in 2020



Content

- Channels for funding what is new?
 - AI in ICT
 - AI calls in other Other H2020 PIllars
 - Financial Support for Third parties (a.k.a. Cascade funding)
- Digital in the next MFF (2021 2027)
- National Contact Points
- ICT Proposers' Day Helsinki, Finland





H2020 budget per priority





Simplification?





-ICT AI in H2020 > LEIT-ICT

Excellent Science

Frontier Research (ERC)

Future and Emerging Technologies (FET) Al

Skills and career development (Marie Skłodowska-Curie)

Research Infrastructures



Industrial Leadership

Leadership in enabling and industrial technologies

ICT

Nanotech., Materials, Manuf. & Processing

Biotechnology

Space

Access to risk finance

Innovation in SMEs

Societal Challenges

Health, demographic change and wellbeing

Food security, sustainable agriculture, and the bio-based economy

Secure, clean and efficient energy

Smart, green and integrated transport

Climate action, resource efficiency, and raw materials

Inclusive, innovative and reflective societies

Secure societies

















2020 Work Programme Update

http://ec.europa.eu/research/participan ts/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leitict_en.pdf

Available for ICT, more coming soon ...





Guide to ICT-related activities in WP

- Comprehensive coverage of the three H2020 pillars
- Detailed list of calls and topics
- Available on H2020 website



A guide to ICT-related activities in WP2018-20

ICT in H2020 - an overview

ICT is present in many of the H2020 areas. This guide is designed to help potential proposers find ICT-related topics across the different parts of H2020 in work programme 2018-20.

Like in previous work programmes (2014-15 and 2016-17), actions supported through the last phase of Horizon 2020 will cover the full innovation chain, from basic research to market uptake:

- Advanced research to uncover radically new technological possibilities and ICT contributions to upstream research and innovation are addressed in the 'excellent science' part of the work programme, respectively under "future and emerging technologies" and European research Infrastructures" (leinfrastructures");
- Research and innovation activities on generic ICT technologies either driven by industrial roadmaps or through a bottom-up approach are addressed in the 'leadership in enabling and industrial technologies' (ILEIT) part of the work programme;
- Multi-disciplinary application-driven research and innovation leveraging ICT to tackle societal challenges are addressed in the different 'societal challenges'.

However, although the overall structure of this work programme is similar to previous ones, a few changes need to be taken into account:

- A new part is introduced to implement a pilot of the European Innovation Council (EIC), bringing together several innovation support schemes: the SME Instrument, the Fast Track to Innovation (FII), FIF Open, and Horizon Priess. Each addresses the needs of a particular community in the innovation ecosystem.
- Activities aiming at supporting innovative SMEs through the dedicated SME instrument are now all grouped together in a single fully bottom-up topic.
- As part of the EIC pilot, FET Open should provide a bold exploratory engine that shatters the frontiers of current thinking, and aims at combining high scientific ambition with concrete technological implications.
- While the concept of focus area has been strengthened further, the 'cross-cutting activities' part introduced in the previous work programme is now replaced by virtually linked calls.
- A smaller rumber of major actions which out across the programme boundaries are implemented as focus areas. Each of these aligns with major political or policy chrieves, and is endowed with a substantial budget to allow for work of sufficient scale, depth and breacht. The linking of topics from different parts of the work programme is achieved through aligning aspects of the implementation such as proposal submission deadlines and evaluation procedures, and also puriting in place measures to share information and create synergies between ongoing projects throughout the life-cycle (e.g. publicity, project monitoring). At the same time, the 'contributing' calls and topics remain within the structure and logic of their respective work, programme parts in Horizon 2020. Overall the expected effect is to get more from the same investment and half or firting measurement is needed.





AI in Excellent science





Excellent Science - ICT



- Future and Emerging Technologies (FET)
 - FET Open / EIC Pathfinder: fostering novel ideas
 - FET Proactive: nurturing emerging themes and communities
 - FET Flagships: pursuing grand interdisciplinary science and technology challenges





Excellent Science - ICT



- FETPROACT-09-2020: Neuromorphic computing technologies
- FETPROACT-EIC-05-2019: FET Proactive: emerging paradigms and communities
 - a. Human-Centric AI
 - b. Implantable autonomous devices and materials
 - c. Breakthrough zero-emissions energy generation for full decarbonization
- FETPROACT-EIC-08-2020 FET Proactive: Environmental Intelligence





ICT in Industrial leadership







Space



- DT-SPACE-01-EO-2018-2020: Copernicus market uptake
- LC-SPACE-18-EO-2020: Copernicus evolution: Research activities in support of the evolution of the Copernicus services
- SPACE-29-TEC-2020: Satellite communication technologies
- DT-SPACE-25-EO-2020: Big data technologies and Artificial Intelligence for Copernicus
- SPACE-27-TEC-2020: SRC Space robotics technologies





ICT in Societal challenges





Key principles for ICT R&I in the Societal Challenges



- Interoperability
- Re-use and economies of scale
- Breakthroughs leveraging the transformative power of ICT
- Preparation for market deployment
- Links to policy initiatives

WORK PROGRAMME UPDATE 2020:

https://ec.europa.eu/programmes/horizon2020/en/h2020-sections



SC1: Health, demographic change and wellbeing



- SC1-DTH-02-2020: Personalised early risk prediction, prevention and intervention based on Artificial Intelligence and Big Data technologies
- SC1-DTH-04-2020: International cooperation in smart living environments for ageing people
- SC1-DTH-06-2020: Accelerating the uptake of computer simulations for testing medicines and medical devices
- SC1-DTH-12-2020: Use of Real-World Data to advance research on the management of complex chronic conditions
- SC1-DTH-14-2020: Pre-commercial Procurement for Digital Health and Care Solutions

SC1: Health, demographic change and wellbeing



- SC1-HCC-06-2020: Coordination and Support to better data and secure cross-border digital infrastructures building on European capacities for genomics and personalised medicine
- SC1-HCC-07-2020: Support for European eHealth Interoperability roadmap for deployment
- SC1-HCC-08-2020: Scaling up innovation for active and healthy ageing
- SC1-HCC-09-2020: Supporting deployment of eHealth in low and lower middle income countries in Africa for better health outcomes





SC1: Health, demographic change and wellbeing



- DT-TDS-04-2020: AI for Genomics and Personalised Medicine
- DT-TDS-05-2020: AI for Health Imaging
- SC1-BHC-06-2020: Digital diagnostics developing tools for supporting clinical decisions by integrating various diagnostic data
- SC1-HCO-18-2020: Developing methodological approaches for improved clinical investigation and evaluation of high-risk medical devices





SC3: Energy



- LC-SC3-B4E-6-2020: Big data for buildings
- LC-SC3-ES-5-2018-2020: TSO DSO Consumer: Largescale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation





SC4: Transport





- MG-3-4-2020: Innovative electric network architectures and systems, optimising global energy, electrical power, data and communication for aviation
- T-ART-06-2020: Large-scale, cross-border demonstration of connected and highly automated driving functions for passenger cars
- MG-3-4-2020: Innovative electric network architectures and systems, optimising global energy, electrical power, data and communication for aviation



SC5: Climate, Environment



• LC-CLA-12-2020: Advancing climate services





SC6: Inclusive, innovative and reflective societies



- DT-GOVERNANCE-05-2018-2019-2020: New forms of delivering public goods and inclusive public services
- DT-GOVERNANCE-12-2019-2020: Pilot on using the European cloud infrastructures for public administrations
- DT-GOVERNANCE-22-2020: Citizen-centric public-services in local and regional administrations









- DT-TRANSFORMATIONS-02-2018-2019-2020 Transformative impact of disruptive technologies in public services
- DT-TRANSFORMATIONS-12-2018-2020 Curation of digital assets and advanced digitisation
- DT-TRANSFORMATIONS-20-2020 European Competence Centre for the preservation and conservation of Monuments and Site
- DT-TRANSFORMATIONS-21-2020 Mentoring scheme for schools: mainstreaming innovation by spreading the advanced ICT-based teaching practices to a wide circle of schools
- DT-TRANSFORMATIONS-23-2020 To set up a digital accessibility observatory as a forum to take stock of market and technological developments, monitor profiless in digital accessibility and provide opportunities for exchange of the provide opportunities opportunities of the provide opportunities of the provide opportun

SC7: Security



- SU-INFRA01-2018-2019-2020 Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe
- SU-AI01-2020 Developing a research roadmap regarding Artificial Intelligence in support of Law Enforcement
- SU-AI02-2020 Secure and resilient Artificial Intelligence technologies, tools and solutions in support of Law Enforcement and citizen protection, cybersecurity operations and prevention and protection against adversarial Artificial Intelligence
- SU-AI03-2020 Human factors, and ethical, societal, legal and organisational aspects of using Artificial Intelligence in support of Law Enforcement

SC7: Security



- SU-DS02-2020: Intelligent security and privacy management
- SU-DS03-2019-2020: Digital Security and privacy for citizens and Small and Medium Enterprises and Micro Enterprises
- SU-DS04-2018-2020: Cybersecurity in the Electrical Power and Energy System (EPES): an armour against cyber and privacy attacks and data breaches
- SU-ICT-02-2020: Building blocks for resilience in evolving ICT systems (In ICT Work Programme)





Find out more

- Horizon 2020 web site
 - √ http://ec.europa.eu/programmes/horizon2020
- Funding & Tenders portal
 - ✓ https://ec.europa.eu/info/funding-tenders/
- **H2020 helpdesk**, including FAQ
 - ✓ http://ec.europa.eu/research/index.cfm?pg=enquiries
- National Contact Points
 - ✓ https://ec.europa.eu/info/fundingtenders/opportunities/portal/screen/support/ncp







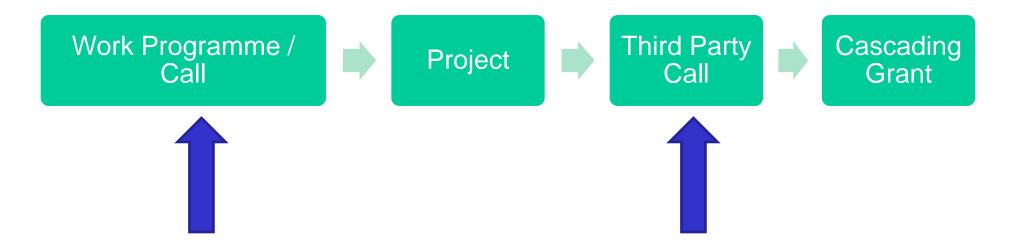
Channels for H2020 ICT Funding

- H2020 projects in LEIT (eg. Research and Innovation Actions, Innovation Actions, SME Instrument, FTI projects, Prizes)
- H2020 projects in Societal Challenges (same)
- H2020 projects in Excellent Science (eg. Marie Curie Projects, FET, EIC, Infrastructures)
- ECSEL JTI, AAL, ERA-NETs
- Calls for Third Parties / Expressions of Interest through large initiatives
 (eg. PPP projects, Large Scale Pilots, Smart Anything Everywhere, I4MS, IoT EU platforms, FET Flagships etc.)





Channels for H2020 ICT Funding Third Party Calls







ICT Proposers' Day 19-20 Sep 2019

Helsinki, Finland

INFORMATION
BROKERAGE
CONSORTIUM BUILDING
EXHIBITION



Web: https://ec.europa.eu/digital-single-

market/en/news/digital-excellence-forum-

ict-proposers-day-2019

Brokerage: https://ict2019.ideal-ist.eu/

Twitter: ODSMeu and #ICTPropDay

www.ideal-ist.eu



HOME ABOUT IDEAL-IST EVENTS NEWS ICT IN H2020 TOOLS ICT NCP NETWORK



Topic Tree



Partner Search



Toolbox



Pre-proposal Check





Proposal Check Event

What is a Proposal Check Event?

- Interested proposers
 bring/provide a good first draft of
 their proposal 1 month before call
 deadline
 - On site @ FPC event
 - Online four days before
- Receive qualified feedback from experienced evaluators & NCPs during the proposal check session.



Date: 24/07/2018 - 10:00 (All day)
IDEAL-IST PROPOSAL
CHECK EVENT FOR
DIGITAL AND
CYBERSECURITY CALLS
IN HORIZON 2020

Ideal-ist is holding a proposal check event for Digital Security and [...]



Topic Tree

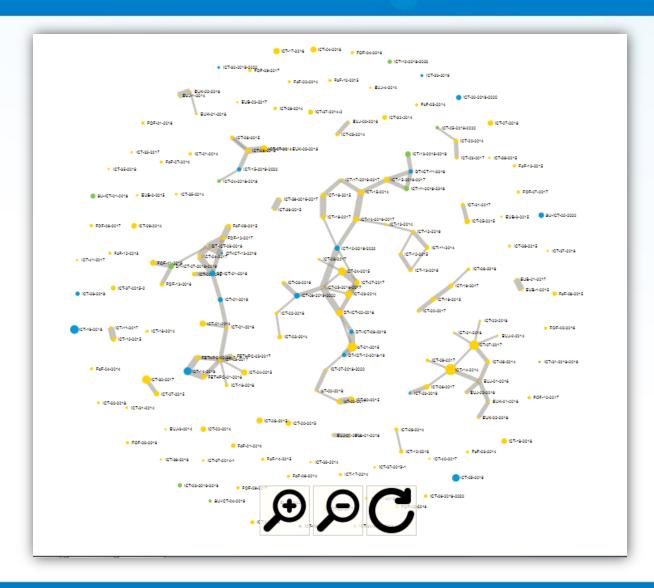
How are call topics linked?

How have these areas evolved over the years?

What is the new focus this year?



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Thank you for your attention!