

ARTIFICIAL INTELLIGENCE IN OTHER PILLARS HORIZON 2020

Edina Németh – ICT, FET

Horizon 2020 Programme Committee Member (PC)
National Contact Point (NCP) – edina.nemeth@ist.hu

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) AI

Skills and career development (Marie Skłodowska-Curie)

Research Infrastructures AI

Industrial Leadership

Leadership in enabling
and industrial technologies

AI

ICT

Nanotech., Materials, Manuf. & Processing

Biotechnology

Space

Access to risk finance

Innovation in SMEs

AI

Societal Challenges

Health, demographic change and wellbeing AI

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

Secure, clean and efficient energy AI

Smart, green and integrated transport AI

Climate action, resource efficiency,
and raw materials AI

Inclusive, innovative and reflective societies AI

Secure societies AI

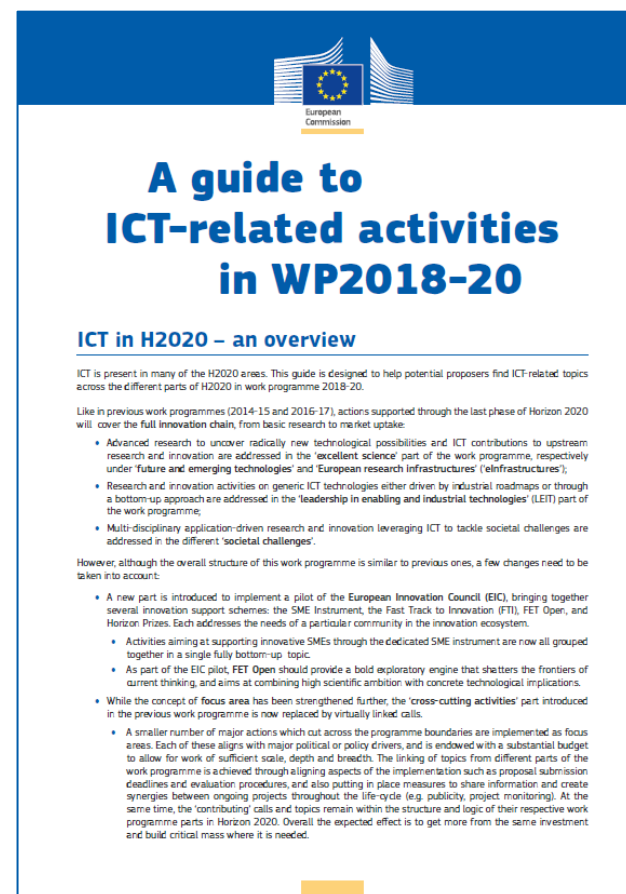
2020 Work Programme Update

http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-ict_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**



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: Large-scale demonstrations of innovative grid services through demand response, storage and small-scale (RES) generation**

SC4: Transport

- **MG-2-13-2020: Coordination and support for an integrated freight transport and logistics system**
- **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**

SC6: Inclusive, innovative and reflective societies



- **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 progress in digital accessibility and provide opportunities for exchange of best practice

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

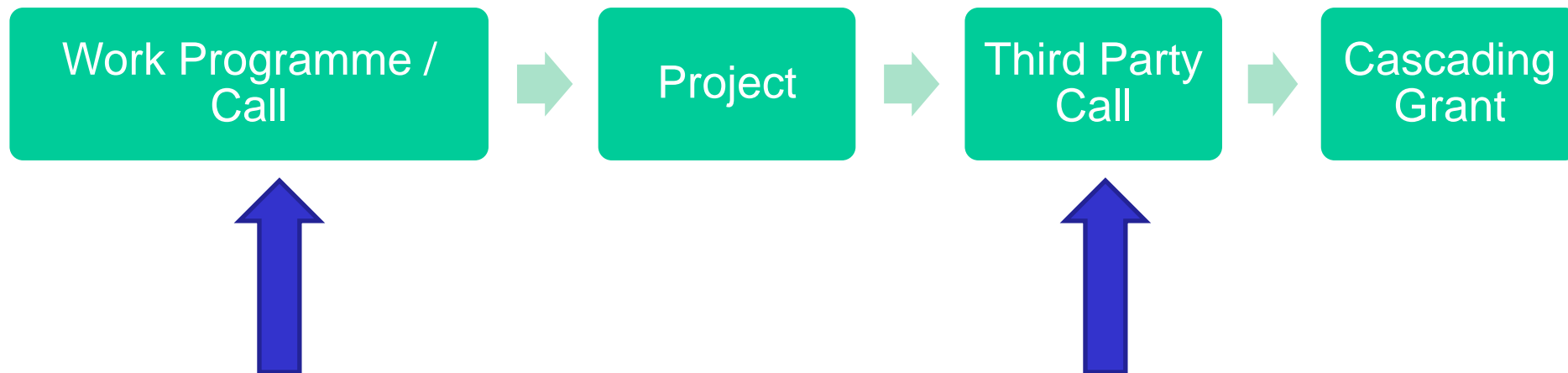
- **Horizon 2020 web site**
 - ✓ <http://ec.europa.eu/programmes/horizon2020>
- **Funding & Tenders portal**
 - ✓ <https://ec.europa.eu/info/funding-tenders/>
- **H2020 helpdesk, including FAQ**
 - ✓ <http://ec.europa.eu/research/index.cfm?pg=enquiries>
- **National Contact Points**
 - ✓ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/support/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: [@DSMeu](https://twitter.com/DSMeu) and [#ICTPropDay](https://twitter.com/ICTPropDay)



ICT NCP NETWORK

Your Worldwide ICT Support Network

Ideal-ist, a network of National Contact Points, helps companies and research organisations worldwide with the European Commission's research programme Horizon 2020.

[READ MORE](#)



Topic Tree



Partner Search



Toolbox



Pre-proposal Check



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)

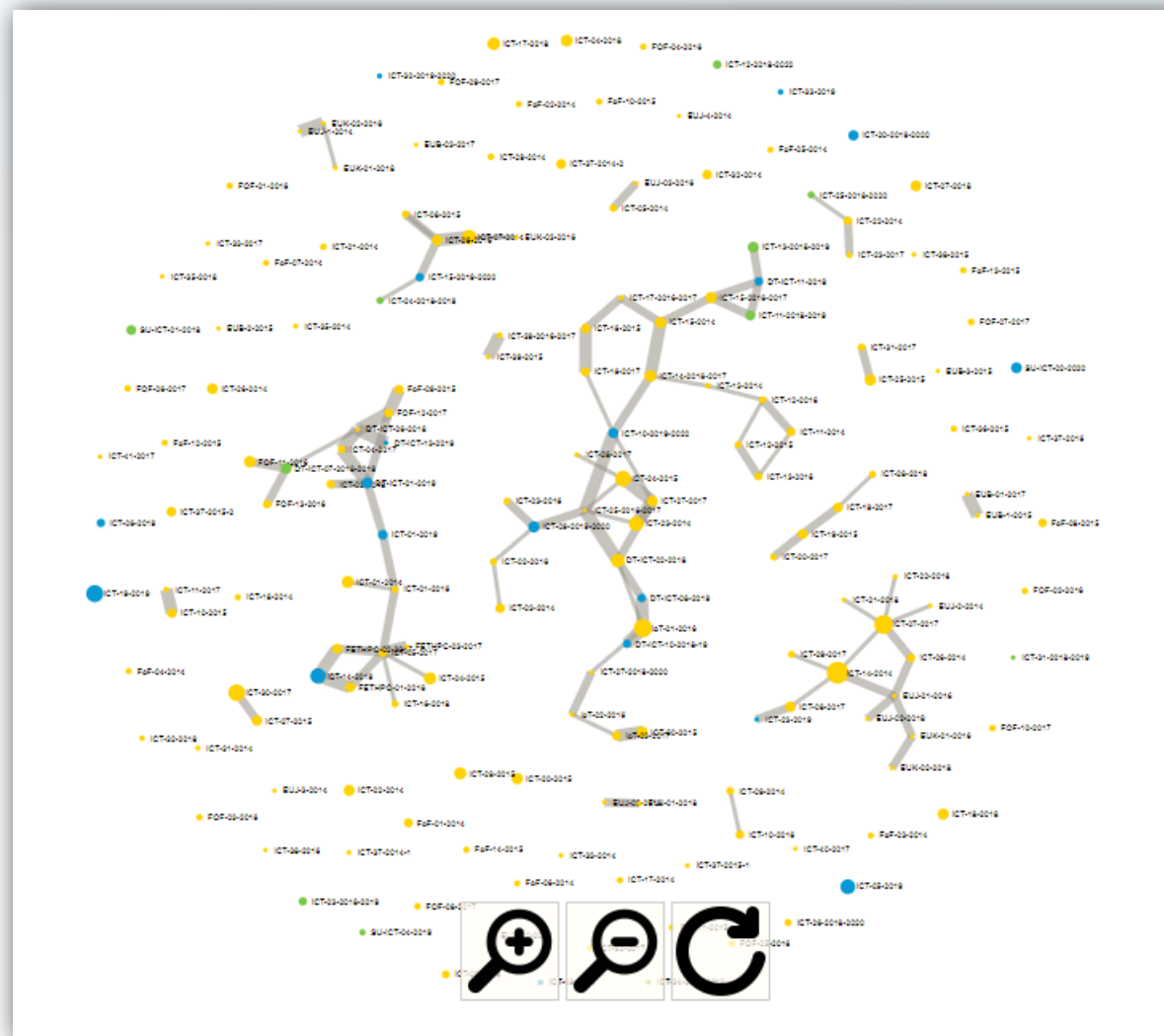
IDEAL-IST PROPOSAL
CHECK EVENT FOR
DIGITAL AND
CYBERSECURITY CALLS
IN HORIZON 2020

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

How are call topics linked?

How have these areas evolved over the years?

What is the new focus this year?



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 645216



HORIZON 2020

**Thank you
for your attention!**