Future Collaborations
An analysis of upcoming H2020 project calls

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Ongoing and future H2020 topics

Example of calls on cybersecurity in Industry 4.0 (open in Sept. 2019)

Call no.	Title	Expected TRL
SU-DS04-2018-2020	**Cybersecurity in the Electrical Power and Energy System (EPES) : an armour against cyber and privacy attacks and data breaches**	7
ICT-09-2019-2020	**Robotics in Application Areas** (Confidentiality and cybersecurity issues incl. Security-by-design and data integrity)	<4
ICT-10-2019-2020	**Robotics Core Technology**	-
ICT-38-2020	**Artificial Intelligence for Manufacturing**	-
ICT-39-2020	**Digital advances for local/urban manufacturing**	-

Calls in 2019

- 2 calls identified for collaboration (DL: Aug. 2019)
- SU-DRS02-2018-2019-2020
  - « Technologies for first responders »
  - RIA / TRL=4-6 / budget: 28M€ (7M€ per project)

- SU-INFRA01-2018-2019-2020
  - « Prevention, detection, response and mitigation of combined physical and cyber threats to critical infrastructure in Europe »
  - IA / TRL=7 / budget: 22M€ (7-8 M€ per project)

SU-DRS02-2018-2019-2020

- Subtopics:
  - [2018] Victim-detection technologies,
  - [2019] Innovation for rapid and accurate pathogens detection
  - [2020] Methods and guidelines for pre-hospital life support and triage
  - [2018-2019-2020] Open
- Objectives: first responders should benefit from
  - Novel tools, technologies, guidelines and methods aimed at facilitating their operations
  - New knowledge about field-validation of different tools, technologies and approaches involving first responders in (real-life) scenarios

SU-DRS02-2018-2019-2020

- Open topic tackles other technologies that may be used by first responders: smart wearables and lightweight energy sources, situational awareness and risk mitigation, UAV and robots, drones, IoT, AR and VR, systems communication solutions, risk anticipation and early warning, mitigation, physical response or counteracting technologies
- Eligibility: 5 first responders' orgs from 5 EU or AC countries
- Participation of JP and KR research centres encouraged on open topic
  - http://www.jst.go.jp/sicp/announce_eujoint_04_Genera

SU-INFRA01-2018-2019-2020

- Proposals should
  - address interdependence of physical and cyber threats and incidents; cascading risks;
  - Demonstrate accuracy of risk assessment using real-life scenarios;
  - Develop real-time, evidence-based security management;
  - Provide scenarios and recommendations for policy planning, civil society engagement and investment

  Topic will continue in 2020.

SU-INFRA01-2018-2019-2020

- Proposals should avoid tackling or overlapping with already funded project topics:
  - [2016-2017] water systems, energy value chain, ports infrastructure, communications infrastructure, health services, financial services
  - [2018] gas networks, airports, sensitive industrial sites and plants
- Suggestions for 2019: oil rigs, offshore platforms, railways, urban multimodal nodes, space systems, e-commerce, postal infrastructure, etc.
- International collaboration encouraged with research partners in the context of the International Forum to Advance First Responder Innovation (incl. JP)

MSCA RISE

- Marie Skłodowska-Curie Actions – Research and Innovation Staff Exchange
- R&I action with explicit functional secondments between partners
  - Advance researchers' careers and develop their skills
  - Enhance cooperation and transfer of knowledge
  - Increase international/intersectoral mobility of researchers in EU
- Consortia can comprise intersectoral partners (academic/non-academic) or international partners (EU/MS and Third Countries outside Europe (TC))

MSCA RISE

- Secondments are staff dispatched to other partners

		"HOSTING" (Receiving seconded staff members)		
		Academic organisation in **MS/AC** (1)	Non-academic organisation in **MS/AC** (2)	Organisation in **TC**
"SENDING" (seconding staff members _from_ organisation)	Academic organisation in **MS/AC** (1)	✖	✔	✔
	Non-academic organisation in **MS/AC** (2)	✔	✖	✔
	Organisation in **TC***	✔	✔	✖

Warning: Japan is not automatically eligible as TC

MSCA RISE

- Typical RISE actions is as follows:
  - Duration is 48 months at most
  - 6 to 10 participants from academic sector, non-academic sector (in part., SMEs), from MS/AC or TC (at least three orgs, from 3 different countries)
  - All participants contribute directly to the implementation of joint R&I project by:
    - Seconding eligible staff members
    - Hosting eligible staff members
  - Efforts between 200 and 400 PMs (max=540)
  - Joint activities include trainings, workshops, conferences to share knowledge and acquire skills

MSCA RISE

- Secondments
  - Involve early-stage researchers (Ph.D candidate or less than 4 years experience), experienced researchers (has Ph.D or more than 4 years experience) or administrative/management staff
  - Are established between sectors or between an EU/MS country and a TC country
  - Last from 1 month to 12 (12 is the maximum total duration of all secondments for a given staff)
  - Implement R&I activities of the project
  - Cost 4600€ per PM

MSCA RISE

- Proposed topics:
  - IoT security
    - Application to health or medical systems
    - May bootstrap from existing proposals (VARIoT led by NASK) or collaborations (IMT/JAIST)
    - Cover a broad scope of topics: cryptography, embedded security, software security, communications security, certification, data mining for monitoring and forensics, etc.
    - May be linked to current EU priorities (IoT as a 5G vertical) in terms of cybersecurity
    - Clearly identified common topic of EUNITY

Next call deadline: April 2020

Erasmus Mundus Joint Master Degrees

- Program to design and operate a joint master degree between two or more partners (EU/MS and TC) – either based on existing degrees or for a special EMJMD
- First experimental call for EMJMD with Japan to award 3 proposals in 2019
- Scope is broad so cybersecurity degree could be proposed – also good EUNITY output
- IMT/TSP is joining Institut Polytechnique de Paris and is designing a Master degree in Cybersecurity, looking for a JP partner to launch such program

Changes in Horizon Europe

- Starts in 2021
- New priorities include cybersecurity, AI, 5G, as well as energy
- Beware: increase in dual funding
  - European Defence Organization to partially fund projects, in part. related to cyberdefence
- Work programme still under development
- PPPs will terminate in 2020 (incl. cPPP)
  - New legislation will be proposed
  - Existing PPPs are transitioning

Stay tuned !

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